

# RECLAMATION

*Managing Water in the West*

Funding Opportunity Announcement No. R16-FOA-DO-011

## **WaterSMART: Water Reclamation Research under the Title XVI Water Reclamation and Reuse Program for Fiscal Year 2016**



U.S. Department of the Interior  
Bureau of Reclamation  
Policy and Administration  
Denver, Colorado

February 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.

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Water Reclamation Research under the  
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Denver, Colorado**

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## Synopsis

<b>Federal Agency Name:</b>	U.S. Department of the Interior, Bureau of Reclamation (Reclamation), Policy and Administration
<b>Funding Opportunity Title:</b>	WaterSMART: Water Recycling and Reuse Research under the Title XVI Water Reclamation and Reuse Program for Fiscal Year (FY) 2016
<b>Announcement Type:</b>	Funding Opportunity Announcement (FOA)
<b>Funding Opportunity Number:</b>	R16-FOA-DO-003
<b>Catalog of Federal Domestic Assistance (CFDA) Number:</b>	15.504
<b>Dates:</b> (See FOA Sec. IV.B)	Application due date: April 20, 2016 4:00 p.m. Mountain Daylight Time (MDT)
<b>Eligible Applicants:</b> (See FOA Sec. III.A)	State, regional, or local authorities; Indian tribes or tribal organizations; or other entities such as a water district, wastewater district, or rural water district. Applicants must be located in the western United States or United States Territories as identified in the Reclamation Act of June 17, 1902, as amended or Hawaii
<b>Recipient Cost Share:</b> (See FOA Sec. III.D)	75 percent or more of total study costs.
<b>Federal Funding Amount:</b> (See FOA Sec. II.B)	Funding Group I: Up to \$75,000 per agreement for a research study up to 18 months.  Funding Group II: Up to \$150,000 per agreement for a research study up to 24 months.  Funding Group III: Up to \$300,000 in Federal funds for a research study that can be completed within 36 months.
<b>Estimated Number of Agreements to be Awarded:</b> (See FOA Sec. II.B)	Funding Group I: It is expected that a majority of awards will be made for studies in Funding Group I.  Funding Groups II and III: It is expected that a smaller number of awards will be made for studies in Funding Groups II and III.
<b>Estimated Amount of Funding Available for Award:</b> (See FOA Sec. II.A)	The President's fiscal year (FY) 2016 budget includes \$23.365 million for the Title XVI Program. It is estimated that up to \$2,000,000 total will be available for all awards under this FOA. Applications submitted under this FOA also may be considered if other funding becomes available for the Title XVI Program in FY 2016 or thereafter. For updated funding information, please refer to <a href="http://www.usbr.gov/WaterSMART/Title">http://www.usbr.gov/WaterSMART/Title</a> .

## Application Checklist

The following table contains a summary of the information that you are required to submit with a Title XVI Water Reclamation and Reuse application.

√	What to Submit	Required Content and Form or Format	When to Submit
	Cover page	Form SF 424, available at <a href="http://apply07.grants.gov/apply/FormLinks?family=15">http://apply07.grants.gov/apply/FormLinks?family=15</a> Page 17	1
	Assurances	Form SF 424B or SF 424D, as applicable, available at <a href="http://apply07.grants.gov/apply/FormLinks?family=15">http://apply07.grants.gov/apply/FormLinks?family=15</a> Page 17	1
	Title page	Page 17	1
	Table of contents	Page 17	1
	Technical proposal:	Pages 17–18	1
	• Executive summary	Page 18	1
	• Technical research study description	Page 18	1
	• Evaluation criteria	Pages 18, 29 - 33	1
	Environmental compliance	Pages 18-19	
	Required permits and approvals	Page 20	
	Research study budget proposal:	Pages 20 - 27	1
	• Budget form	Form SF 424A, available at <a href="http://apply07.grants.gov/apply/FormLinks?family=15">http://apply07.grants.gov/apply/FormLinks?family=15</a>	1
	• Funding <b>Plan</b>	Page 20 - 22	1
	• Budget <b>Proposal</b>	Page 22 - 23	1
	• Budget <b>narrative</b>	Page 23 - 27	1

<sup>1</sup> Submit materials with your application by April 20, 2016.

## Acronyms and Abbreviations

ALC	Agency Location Code
ARC	Application Review Committee
ASAP	Automated Standard Application for Payments
CFDA	Catalog of Federal Domestic Assistance
CFR	Code of Federal Regulations
CWA	Clean Water Act
DUNS	Data Universal Number System
ESA	Endangered Species Act
FAPIS	Federal Awardee Performance and Integrity Information System
FAQs	frequently asked questions
FOA	Funding Opportunity Announcement
FY	fiscal year
GO	Grants Officer
Interior	U.S. Department of the Interior
MDT	Mountain Daylight Time
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
Reclamation	Bureau of Reclamation
SAM	System for Award Management
Title XVI	Bureau of Reclamation's Title XVI Water Reclamation and Reuse program
U.S.C.	United States Code
WaterSMART	<i>Sustain and Manage America's Resources for Tomorrow</i>





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## Section I. Funding Opportunity Description

### I.A. WaterSMART: Water Recycling and Reuse Research under the Title XVI Water Reclamation and Reuse Program

The U.S. Department of the Interior's (Interior) WaterSMART (*Sustain and Manage America's Resources for Tomorrow*) program establishes a framework to provide Federal leadership and assistance on the efficient use of water, integrating water and energy policies to support the sustainable use of all natural resources, and coordinating the water conservation activities of various Interior bureaus and offices. Through the program, Interior is working to achieve a sustainable water strategy to meet the Nation's water needs.

The Bureau of Reclamation's (Reclamation) Title XVI Water Reclamation and Reuse program (Title XVI Program) is an important part of WaterSMART. For purposes of the Title XVI Program, a water reuse project is a project that reclaims and reuses municipal, industrial, domestic, or agricultural wastewater and naturally impaired groundwater and/or surface waters. Reclaimed water can be used for a variety of purposes such as environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, power generation, or recreation. Water reuse is an essential tool in stretching the limited water supplies in the Western United States.

Water reclamation and reuse research helps states, tribes, and local communities tackle water supply challenges. Title XVI research supports the implementation of water reclamation and reuse projects under development to supplement urban and irrigation water supplies through water reuse, thereby improving efficiency, providing flexibility during water shortages, and diversifying the water supply. Water reclamation and reuse projects provide growing communities with new sources of clean water while promoting water and energy efficiency and environmental stewardship. Water reclamation and reuse projects are an important part of the Department's implementation of the President's June 2013 Climate Action Plan and the November 1, 2013, Executive Order, *Preparing the United States for the Impacts of Climate Change*. Research for water reuse through Title XVI increases water management flexibility, making our water supply more resilient and thereby helping to prepare for the impacts of climate change.

For further information on the WaterSMART Program and Title XVI, see <http://www.usbr.gov/WaterSMART/>.

## **I.B. Objective of Funding Opportunity Announcement**

Under Title XVI of Public Law 102-575 (Title XVI), Reclamation works to identify and investigate opportunities to reclaim and reuse wastewater and naturally impaired ground and surface water in the 17 Western States and Hawaii. Title XVI also provides authority for Reclamation to provide up to 25 percent of the total cost of water recycling and reuse research studies. The objective of this Funding Opportunity Announcement (FOA) is to invite research sponsors to request cost-shared funding to address water supply challenges by establishing or expanding water reuse markets, improving existing water reuse facilities, and streamlining the implementation of state of the art technology for new facilities.

For the purposes of this FOA, state of the art is defined as the latest and most advanced technologies or processes currently available in the industry for deployment and implementation. State of the art technology does not include innovative technologies or processes that are currently under development through pilot or demonstration research efforts.

This funding opportunity is an important aspect of the Reclamation WaterSMART Program's support of the White House Water Innovation Strategy to address Water Resource Challenges and Opportunities for Water Technology Innovation

<[https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/Water\\_Resource\\_Challenges\\_and\\_Technology\\_Innovation\\_12\\_14.pdf](https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/Water_Resource_Challenges_and_Technology_Innovation_12_14.pdf)>.

## **I.C. Program Authority**

This FOA is issued under the authority of Title XVI of Public Law 102-575, as amended (43 United States Code [U.S.C.] 390h through 390h-39).

## **I.D. Frequently Asked Questions**

A list of frequently asked questions (FAQ) about WaterSMART and this FOA can be found online at <<http://www.usbr.gov/WaterSMART/Title>>. The list of FAQs will be updated periodically during the application period.

## Section II. Award Information

### II.A. Total Funding

The President's fiscal year (FY) 2016 budget includes \$23.365 million for the Title XVI program. It is estimated that up to \$2,000,000 will be available for development of new water reuse research studies under this FOA. Applications submitted under this FOA also may be considered if other funding becomes available in FY 2016 or thereafter. For updated funding information, please refer to <<http://www.usbr.gov/WaterSMART/Title>>.

### II.B. Research Study Funding Limitations

The Federal share of a Title XVI research study (i.e., Reclamation's share plus any other sources of Federal funding), including any funding provided as a result of this FOA, shall not exceed 25 percent of the total Title XVI research study cost. Generally, the non-Federal share of research study costs must be expended at the same or greater rate as the federal share of research study costs. Applicants are invited to submit proposals under any of the three Funding Groups provided below:

**Funding Group I:** Up to \$75,000 in Federal funds provided through this FOA will be available for desktop research to develop science and decision-support tools to assist communities in decision-making related to implementing or expanding water reclamation projects.

- In general, studies funded under Funding Group I should be completed within 18 months of award (see Section III.C. "Length of Studies" for additional information). It is expected that funds will be awarded no later than September 30, 2016.
- It is expected that the majority of awards will be made for studies in Funding Group I compared to studies in Funding Groups II and III (described below).

**Funding Group II:** Up to \$150,000 in Federal funds provided through this FOA will be available for research focused on improvements to existing facilities that could be implemented at the research study sponsors location, but also include broad benefits for the industry.

- Studies selected under Funding Group II will be funded for a research study period of up to two years (see Section III.C. "Length of Studies" for additional information). It is expected that all funds will be awarded no later than September 30, 2016.

- It is expected that a smaller number of awards will be made for studies in Funding Group II compared to Funding Group I.

**Funding Group III:** Up to \$300,000 in Federal funds provided through this FOA will be available for research studies focus on state of the art technology verification at a new proposed location or community that will also result in broader benefits for the industry.

- Studies selected under Funding Group III will be funded for a research study period of up to three years (see Section III.C. “Length of Research Studies” for additional information). It is expected that all funds will be awarded no later than September 30, 2016.
- It is expected that only a small number of awards will be made for research studies in Funding Group III.

## II.C. Reclamation Responsibilities

Awards will be made through grants or cooperative agreements as applicable to each Title XVI research study. If a cooperative agreement is awarded, the recipient should expect Reclamation to have substantial involvement in the research study. Substantial involvement by Reclamation may include the following:

- **Collaboration and participation** with the recipient in the management of the research study and close oversight of the recipient’s activities to ensure that the program objectives are being achieved
- **Oversight** that may include review, input, and approval at key interim stages of the research study

At the request of the recipient, Reclamation can provide technical assistance after award of the financial assistance agreement. If you receive Reclamation’s assistance, you must account for such costs in your budget. To discuss assistance available and these costs, contact your local Reclamation office, which can be identified at < <http://www.usbr.gov/main/offices.html> >.

## II.D. Award Date

Reclamation expects to contact potential award recipients and unsuccessful applicants in July 2016. Within 1 to 3 months after that date, financial assistance agreements will be awarded to applicants that successfully complete all pre-award reviews and clearances.



## Section III. Eligibility Information

### III.A. Eligible Applicants

Eligible applicants include State, regional, or local authorities; Indian tribes or tribal organizations; or other entities such as a water districts, wastewater districts, or rural water districts. Applicants must be located in the western United States or United States Territories as identified in the Reclamation Act of June 17, 1902, amended or Hawaii. Research institutions, such as universities and non-profit research organizations, as well as private industry and individuals are not eligible under this FOA, but are encouraged to partner with eligible entities to improve the deployment of state of the art technologies.

Title XVI Projects specifically authorized for funding under Title XVI of Public Law 102-575, as amended (43 U.S.C. 390h through 390h-39), which have not reached their Federal funding ceiling are also eligible for funding under this FOA. To date, 53 projects have been specifically authorized under Title XVI and 2 other projects have been undertaken through the general authority of section 1605(a) of Public Law 102-575. Under this FOA, research related to an authorized project is eligible, but funding for the planning, design, and/or permanent construction of those specifically authorized projects is not eligible.

### III.B. Eligible Studies

Proposals for water reclamation and reuse research that help states, tribes, and local communities tackle water supply challenges by establishing or expanding water reuse markets, improving existing water reuse facilities, and streamlining the implementation of new facilities are eligible for funding under this FOA. Eligible research studies must focus on supporting water reclamation and reuse of non-traditional water supplies, including but not limited to municipal, industrial, domestic, or agricultural wastewater, as well as naturally impaired ground or surface waters, including stormwater, seawater, or brackish water. Reclaimed water can be used for a variety of purposes, such as environmental restoration, fish and wildlife, ground water recharge, municipal, domestic, industrial, agricultural, power generation, or recreation.

Funding Groups I, II and III, below, describe types of research studies eligible for funding under this FOA. Applications may include any one, or combination, of the types of research studies described in Funding Group I, II, or III. In general, if you are seeking funding for multiple research studies (for example, a Funding Group I research study and a Funding Group III research study) and the research studies are interrelated or closely related, they should be combined into one Funding Group application. In this case specifications of the higher funding group would apply.

*Note: During Fourth-Level Evaluation (Managerial Review, see Section V.B.4) Reclamation will review the results of the Second-Level Evaluation (Technical Review, see Section V.B.2) and may prioritize studies to ensure that multiple Task Areas are represented among the studies selected for funding.*

### **III.B.1. Funding Group I – Planning Related Research to Streamline Approval of Water Reclamation Projects or Expand Water Reclamation Markets**

Research in this funding group should support and streamline approval, implementation, and expansion of water reuse projects in a specific region. Research studies should focus on desktop research to develop science and decision-support tools to assist communities in decision-making related to implementing or expanding water reclamation projects. Research studies include, but are not limited to:

- Research studies focused on creating or identifying innovative pathways to fast-track the implementation of water reclamation projects in times of drought.
- Research to create state or regional guidance to streamline the navigating of institutional obstacles such as navigating the multijurisdictional regulatory framework for permitting new facilities.
- Research to evaluate the institutional barriers to expand or modify an existing water recycling facility for new water use applications such as indirect or direct potable reuse.
- Research to develop or expand water markets at a specific location through project implementation frameworks that outline best practices to address social acceptance, environmental mitigation, or marketing structures for water reclamation projects.
- Research to evaluate a state or regional recycled water market, which may include valuing the economic, social, and environmental benefits of water reuse to promote facility implementation.

### **III.B.2. Funding Group II –Research for State of the Art Improvements or Optimization of Existing Water Reclamation Facilities**

Planning related research or field testing in this funding group should focus on state of the art solutions to optimize water reuse facility efficiencies, such as reducing treatment costs, improving energy efficiency, integrating renewable energy components, or improving water quality at existing facilities. Research studies should focus on improvements to existing facilities that could be implemented at the research study sponsor's location, but also includes broad

benefits as case studies for the industry. Research studies include, but are not limited to:

- Planning related research to optimize or integrate renewable energy based on historic operations to reduce a facility's emissions and overall carbon footprint.
- Planning related research to identify opportunities to promote widespread adoption of efficient treatment technologies in an existing water reclamation facility to stretch supplies generated for agriculture use.
- Planning related research on integration of existing or new state of the art technology at an existing facility to improve treated water quality to expand the use of reclaimed water for new market applications, such as indirect or direct potable reuse.
- Field research to identify and enact wider adoption of existing or new state of the art technologies at a specific location that improve efficiency, reduce cost, enhance drought resiliency, or counteract the impacts of climate change.
- Field research to evaluate technology implementation options to improve the energy efficiency of existing water reclamation facilities, such as integration of energy recovery devices, energy generation, and optimization of pumping rates or times to conserve energy and lower operating costs.
- Field research to evaluate implementation of existing or new state of the art treatment technologies or nutrient recovery techniques that are not widely deployed to improve water quality of discharge into environmental systems at an existing facility.
- State of the art technology verification at an existing facility to increase treatment capacity or improve effluent quality to expand recycled water use for new applications.

### **III.B.3. Funding Group III – Field Research to Deploy State of the Art Technologies and Adopt Best Practices for New Water Reuse Facilities**

Research in this funding group should focus on deploying state of the art technologies at new locations. Research studies should focus on technology verification at a new proposed location or community. **Technologies eligible for deployment under this funding group must provide sufficient documentation to prove the technology has been successfully demonstrated for use in the proposed research application.** Research studies include, but are not limited to:

- Field research to validate the technical merit of a state of the art technology, identified as viable through a feasibility investigation or demonstrated in a pilot study, in a new location to assist in streamlining the planning, design, and permanent construction of new water reclamation facilities.
- Field research to determine the physical and economic viability or suitability of a new technology that will reduce total cost, energy input, or carbon emissions at a full scale facility.
- Field research to deploy technologies at a new location for a particular water user including agricultural, municipalities, and industry.
- Field research to evaluate how a new technology may reduce environmental impact of a water reclamation facility.

Other research studies that are similar to those listed above may be submitted for consideration and will be allowed to the extent they are consistent with program authorization and goals.

Funding for lab-scale studies, piloting, or demonstration research focused on new advanced water treatment technology development, such as studies currently proposed or funded under Reclamation's Desalination and Water Purification Research Program is not available under this FOA. Additionally, funding for an activity considered operations, maintenance, or replacement as well as construction of permanent research facilities is not eligible. OM&R is described as system improvements that replace or repair existing infrastructure or function without providing increased efficiency or effectiveness of water distribution over the expected life of the improvement. Separate funding opportunities are available in the Title XVI Program for development of new water reclamation or reuse feasibility studies and planning, design, or permanent construction of authorized Title XVI projects.

### **III.C. Length of Research Studies**

The length of time to complete a research study is determined by the Funding Group for which the research study is proposed. The funding groups and respective research study timeframes are listed below:

- Funding Group I studies should be completed within 18 months of award,
- Funding Group II studies should be completed within 24 months of award, and
- Funding Group III studies should be completed within 36 months of award.

## III.D. Cost-Sharing Requirement

Applicants must be willing to cost share 75 percent or more of the total Title XVI research study 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.

Reclamation will not execute a financial assistance agreement or make funds available for a Title XVI research grant until non-Federal funding is 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.

### III.D.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 <<http://www.ecfr.gov>>.

### III.D.2. In-Kind Contributions

In-kind contributions constitute the value of noncash contributions that benefit a federally assisted research study. 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 research study. 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 procurement contract, or any other award of Federal funds may not be relied on to satisfy the cost-share requirement for Title XVI research studies. Applicants should refer to 2 CFR 200.434 for regulations regarding the valuation of in-kind donations and contributions, available at <<http://www.ecfr.gov>>.

### III.D.3. Pre-Award Costs

Research study pre-award costs that have been incurred prior to the date of award but after July 1, 2015, may be submitted for consideration as an allowable portion of the recipient's cost share for the research study. **In no case will pre-award costs incurred prior to July 1, 2015, be considered for cost-share purposes.**

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.

### III.D.4. Indirect Costs

Indirect costs that will be incurred during the development of a research study, which otherwise will not be recovered, may be included as part of the applicant's research study budget. Indirect costs are those:

- Incurred for a common or joint purpose benefiting more than one cost objective
- Not readily assignable to any one cost objective

If the applicant has never received a Federal negotiated indirect cost rate, proposals may elect to include a *de minimis* rate of up to 10 percent of modified total direct costs. Otherwise, if the applicant proposes indirect costs in the budget, then the applicant must either supply a copy of a current federally negotiated indirect cost rate agreement or obtain an agreement within one year of the award. For further information on indirect costs and modified total direct costs, refer to 2 CFR Part 200 available at <<http://www.ecfr.gov>>.

### III.E. Environmental Compliance

All research study activities 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, the Clean Water Act (CWA), the Endangered Species Act (ESA), the 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 for ensuring that findings under NEPA and consultations, as appropriate, will support Reclamation's decision on whether to fund a research study. Environmental compliance costs are considered study costs.

***Under no circumstances may an applicant begin any ground-disturbing research study activities (including grading, clearing, and other preliminary activities) before environmental compliance is complete and Reclamation explicitly authorizes work to proceed. This pertains to all components of the proposed activities, including those that are part of the applicant's non-Federal cost share. Reclamation will provide a successful applicant with information once environmental compliance is complete. An applicant that proceeds before***

*environmental compliance is complete may risk forfeiting Reclamation funding under this FOA.*

### **III.F. Reporting Requirements**

Recipients are required to report on the status of their research study on a regular basis. Failure to comply with reporting requirements may result in the recipient being removed from consideration for funding under future funding opportunities. See Section VI.D—Reporting Requirements and Distribution for information on types and frequency of reports required.

### **III.G. Other Requirements**

#### **III.G.1. Laws, Permits, and Approvals**

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

#### **III.G.2. System of Award Management (SAM) and Automated Standard Application for Payments (ASAP) Registration**

All applicants must be registered in SAM prior to receiving Federal funding under this FOA. Instructions for registration for SAM are at <<https://www.sam.gov/portal/public/SAM>>. All applicants must maintain an active SAM registration with current information at all times during the time they have an active Federal award or an application under consideration.

All applicants must also be registered with and process all payments through the Department of Treasury 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 recipients have 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: <<http://www.usbr.gov/mso/aamd/asap.html>>. *Note that if your organization is currently enrolled in the ASAP system with an agency other than Reclamation, you must enroll specifically with Reclamation to be eligible for award.*

### **III.G.3 Federal Awardee Performance and Integrity Information System (FAPIS)**

Reclamation, prior to making a Federal award with a total Federal estimated amount greater than the simplified acquisition threshold (currently \$150,000.00), is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIS) (see 41 U.S.C. 2313). The 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 FAPIS. Reclamation will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, 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 §200.205, Federal awarding agency review of risk posed by applicants.



## Section IV. Application and Submission Information

### IV.A. Address to Request Application Package

This document contains all the 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 Management Branch  
Attn: Mike Dieterich  
Mail Code: 84-27852  
P.O. Box 25007  
Denver, CO 80225

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

**By telephone:** 303-445-2484

### IV.B. Application Submission

#### IV.B.1 Submission Date and Time

Application submission date deadline:

- April 20, 2016, 4:00 p.m. Mountain Daylight Time (MDT)

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 to Reclamation for funding may be subjected to a Freedom of Information Act request (5 U.S.C. § 552, as amended by Public Law No. 110-175) and, as a result, may be made publicly available. Following awards of funding, Reclamation will post all successful applications on the Reclamation website after any redactions determined necessary by Reclamation, in consultation with the recipient.*

## **IV.B.2 Application Delivery Instructions**

Applications may be submitted electronically through <<http://www.grants.gov>>, or hardcopies may be submitted as follows. 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  
Acquisition Operations Branch  
Attn: Mike Dieterich  
Mail Code: 84-27852  
P.O. Box 25007  
Denver, CO 80225

### **By express delivery:**

Bureau of Reclamation  
Attn: Mike Dieterich  
Mail Code: 84-27852  
Denver Federal Center, Bldg. 67, Rm. 152  
6<sup>th</sup> Avenue and Kipling Street  
Denver, CO 80225

### **By courier services:**

Bureau of Reclamation  
Attn: Mike Dieterich  
Denver Federal Center, Bldg. 56, Rm. 1000  
6th Avenue and Kipling Street  
Denver, CO 80225

## **IV.C. Instructions for Submission of Research Study Application**

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

### **IV.C.1 Applications Submitted by Mail, Express Delivery/mail Services, or Courier Services**

- Applicants shall submit one copy of all application documents for hardcopy submissions.
- Only binder clip submitted documents.

- Hardcopy applications may be submitted by mail, express mail/delivery or courier methods to the addresses listed in Section IV.B.2, above.
- 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, and 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.

#### **IV.C.2 Applications Submitted Electronically**

If the applicant chooses to submit an electronic application, it must be submitted through Grants.gov at <<http://www.grants.gov>>. Reclamation encourages applicants to submit their applications for funding electronically through <[http://www.grants.gov/applicants/apply\\_for\\_grants.jsp](http://www.grants.gov/applicants/apply_for_grants.jsp)>. Applicant resource documents and a full set of instructions for registering with 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 may take 7 to 21 days. Please see registration instructions at <<http://www.grants.gov/applicants/apply-for-grants.html>>.
- Applicants sometimes 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 deadline date and time stated in Section IV.B.1, above. Applications received after this date and time due to weather or express delivery or courier performance will not be considered for award. Late applications will not be accepted unless it is determined that the delay was caused by Federal government mishandling or by a problem with the Grants.gov application system.***

### IV.C.3 Application Format and Length

The total application package shall be no more than **40 consecutively numbered**, single-sided pages. If an application exceeds 40 pages, only the first 40 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. Large-scale charts, maps, and drawings that cannot be reproduced on an office copier will be discarded and not considered in the review of the proposal. The technical proposal section shall be limited to a maximum of **20** pages.

Applications will be prescreened for compliance to the page number limitations.

### IV.D. Application Content

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

- Mandatory Federal Forms
  - SF-424 - Application for Federal Assistance
  - SF-424A or C - Budget Information (as applicable to the research study activities)
  - SF-424B or D Assurances , (as applicable to the research study activities)  
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
  - Technical research study description
  - Evaluation criteria
- Environmental compliance
- Required permits and approvals
- Research study budget proposal
  - Budget proposal
  - Budget narrative

## IV.D.1 Mandatory Federal Forms

### *Application for Federal Assistance*

A fully completed SF-424 form must be signed by a person legally authorized to commit the applicant to performance of the research study. **Failure to submit a properly signed SF-424 form may result in the elimination of the application from further consideration.**

### *Budget Form*

In addition to the above-described budget information, the applicant must complete an SF-424A, Budget Information—Non-construction Programs. This form is available at <<http://apply07.grants.gov/apply/FormLinks?family=15>>.

### *Assurances*

A SF-424B—Assurances—Nonconstruction Programs, signed by a person legally authorized to commit the applicant to performance of the research study shall be included. **Failure to submit a properly signed SF-424B form may result in the elimination of the application from further consideration.**

## IV.D.2 Title Page

Provide a brief, informative, and descriptive title for the proposed work that indicates the nature of the proposed research study. Include the name and address of the applicant, and the name and address, e-mail address, telephone, and fax numbers of the research study manager. If the research study is related to work previously funded by Reclamation, indicate the financial assistance agreement number.

## IV.D.3 Table of Contents

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

## IV.D.4 Technical Proposal and Evaluation Criteria

**The technical proposal and evaluation criteria (20 pages maximum) includes: (1) the executive summary, (2) technical study description, and (3) evaluation criteria.**

### ***Executive Summary***

The executive summary should include:

- The date, applicant name, city, county, and State
- A one paragraph summary of the proposal.
- State the length of time and estimated completion date for the proposed research study.

### ***Technical Research Study Description***

The technical study description should describe the research study in detail. This description shall have sufficient detail to permit a comprehensive evaluation of the proposal. The technical proposal should describe the research measures or methodologies proposed to help states, tribes, and local communities tackle water supply challenges by establishing or expanding water reuse markets, improving existing water reuse facilities, and streamlining the implementation of new facilities. The technical proposal should describe research methods and/or state of the art technologies that will be investigated as part of the research study. A thorough description of past research should include information regarding why the proposed method or technology is more appropriate for the intended use than other available methods as well as other methods considered.

### ***Evaluation Criteria***

**(See Section V – Application Review Information for additional details, including a detailed description of each criterion and points associated with each.)**

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

***It is suggested that applicants copy and paste the evaluation criteria in Section V – Application Review Information, into their applications to ensure that all necessary information is adequately addressed***

### **IV.D.5 Environmental Compliance**

To allow Reclamation to assess the probable environmental impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the requirements of NEPA, ESA, and NHPA. Please answer the following questions to the best of your knowledge. If any question is not applicable to the research study activities, or if necessary environmental compliance has been completed, please explain.

If you have any questions, please contact your regional or area Reclamation office (see <<http://www.usbr.gov/main/offices.html>> with questions regarding environmental compliance issues.

1. Will the research study activities impact the surrounding environment (i.e., soil [dust], air, water [quality and quantity], animal habitat, etc.)?
  - Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the research study area.
  - Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.
2. Are you aware of any species listed, or proposed to be listed as a Federal endangered or threatened species, or designated Critical Habitat in the research study area? If so, how would they be affected by activities associated with the proposed research study activities?
3. Are there wetlands or other surface waters inside the research study boundaries that potentially fall under Federal Clean Water Act jurisdiction as “waters of the United States?” If so, please describe and estimate any impacts the research study activities may have.
4. Are there any known archeological sites in the research study activities area? If so, please describe and estimate any impacts the research study may have.
5. Will the proposed research study activities have a disproportionately high and adverse effect on low income or minority populations? If so, please describe and estimate any impacts the research study may have.
6. Will the research study activities limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands? If so, please describe and estimate any impacts the research study activities may have.
7. Will the research study activities contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area? If so, please describe and estimate any impacts the research study activities may have.

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

#### IV.D.6 Required Permits or Approvals

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

#### IV.D.7 Official Resolution

Include an official resolution adopted by the applicant's board of directors or governing body, or for State government entities, an official authorized to commit the applicant to the financial and legal obligations associated with receipt of Federal financial assistance, verifying:

- The identity of the official with legal authority to enter into an agreement
- The board of directors, governing body, or appropriate official who has reviewed and supports the application submitted
- The capability of the applicant to provide the amount of funding and/or in-kind contributions specified in the funding plan
- The applicant will work with Reclamation to meet established deadlines for entering into a cooperative agreement

**An official resolution meeting the requirements set forth above is mandatory.** If you are unable to submit the official resolution by the application deadline because of the timing of board meetings or other justifiable reasons, the official resolution may be submitted up to 30 days after the application deadline.

#### IV.D.8 Research Study Budget

The research study budget includes: (1) Funding Plan and Letters of Commitment, (2) Budget Proposal, and (3) Budget Narrative.

##### ***Funding Plan and Letters of Commitment***

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

Research study 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**. Letters of commitment shall identify the following elements:

- (1) The amount of funding commitment
- (2) The date the funds will be available to the applicant
- (3) Any time constraints on the availability of funds
- (4) Any other contingencies associated with the funding commitment



Commitment letters from third party funding sources should be submitted with your 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 a Title XVI research study 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 research study costs, as follows:

- (1) 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).
- (2) Describe any in-kind costs incurred before the anticipated research study start date that you seek to include as research study costs. Include:
- (3) What research study expenses have been incurred
  - (a) How they benefitted the research study
  - (b) The amount of the expense
  - (c) The date of cost incurrence
- (4) Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.
- (5) Describe any funding requested or received from other Federal partners. Note: other sources of Federal funding may not be counted towards your 75 percent cost share unless otherwise allowed by statute.
- (6) Describe any pending funding requests that have not yet been approved, and explain how the research study will be affected if such funding is denied.

Please include the following chart (table 1) to summarize your non-Federal and other Federal funding sources. Denote in-kind contributions with an asterisk (\*). Please ensure that the total Federal funding (Reclamation and all other Federal sources) does not exceed 25 percent of the total estimated research study cost.

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

Funding sources	Funding amount
<b>Non-Federal entities</b>	
<i>Non-Federal subtotal:</i>	
<b>Other Federal entities</b>	
<i>Other Federal subtotal:</i>	
<b>Requested Reclamation funding:</b>	
<i>Total research study funding:</i>	

***Budget Proposal***

The research study budget shall include detailed information on the categories listed below and must clearly identify all research study costs. Unit costs shall be provided for all budget items including the cost of work to be provided by subrecipients, consultants and/or contractors. Additionally, applicants shall include a narrative description of the items included in the research study budget, including the value of in-kind contributions of goods and services provided to complete the proposed research study. It is strongly advised that applicants use the budget proposal format shown below on tables 2 and 3 or a similar format that provides this information. If selected for award, successful applicants must submit detailed supporting documentation for all budgeted costs.

**Table 2.—Funding Sources**

Funding sources	Percent of total research study cost	Total cost by source
Recipient funding		\$ -
Reclamation funding		\$ -
Other Federal funding		\$ -
<b>Totals</b>	<b>0%</b>	<b>\$ -</b>

**Table 3.—Sample Budget Proposal Format**

Budget item description	Computation		Quantity type (hours/days)	Total cost
	\$/Unit	Quantity		
<b>Salaries and wages</b>				
Employee 1				\$ -
Employee 2				\$ -
<b>Fringe benefits</b>				
Full-time employees				\$ -
Part-time employees				\$ -
<b>Travel</b>				
Trip 1				\$ -
Trip 2				\$ -
<b>Equipment</b>				
Item A				\$ -
Item B				\$ -
<b>Supplies/materials</b>				
Item A				\$ -
Item B				\$ -
<b>Contractual/construction</b>				
Contractor A				\$ -
Contractor B				\$ -
<b>Other</b>				
Reporting				\$ -
<b>Total direct costs</b>				\$ -
Indirect costs - ___%				
<b>Total study costs</b>				\$ -

This is only a sample budget proposal format. You may use this format or submit the information in a different format which provides a detailed break-down of costs and need justification for budgets presented in the SF-424A.

Contracts should be broken out into specific line items. You may attach a separate, detailed budget for each contract to adequately address all contractor budget items.

### **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 proposed research study activities. The types of information to 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 [www.ecfr.gov](http://www.ecfr.gov).

### **Salaries and Wages**

Indicate the principal investigator 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

proposed. 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, shall be allocated to specific tasks as outlined in the recipient's technical research study description. Labor rates and proposed hours shall be displayed for each task.

Include estimated hours for compliance with reporting requirements, including final research study report. Please see Section VI.D.2. Program Performance Reports 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***

Identify the costs included in this category and indicate rates/amounts for each, 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***

Include purpose of trip, 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. For local travel, include mileage and rate of compensation.

### ***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 research study. If equipment currently owned by the applicant is proposed for use under the proposed research study, 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 (FEMA), and other data bases should not 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 (e.g., 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 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 and/or contractors were determined to be fair and reasonable.

### ***Environmental and Regulatory Compliance Costs***

Applicants must include a line item in their 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 Title XVI research study activities, including costs associated with any required documentation of environmental compliance, analyses, permits, or approvals. Applicable Federal environmental laws could include NEPA, ESA, NHPA, and the CWA, and other regulations depending on the research study. Such costs may include, but are not limited to:

- The cost incurred by Reclamation to determine the level of environmental compliance required for the research study
- 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 research study, including Reclamation’s cost to review environmental compliance documentation. However, the minimum amount budgeted for environmental compliance should be equal to at least 1 to 2 percent of the total research study costs. If the amount budgeted is less than 1 to 2 percent of the total research study costs, you must include a compelling explanation of why less than 1 to 2 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 Title XVI research study, if appropriate.

*Applicants are strongly encouraged to contact your regional or area Reclamation office with questions regarding Environmental and Regulatory compliance costs. You may also contact Amanda Erath Title XVI Program Coordinator, at 303-445-2766 or [aerath@usbr.gov](mailto:aerath@usbr.gov), for further information.*

### **Other Expenses**

Any other expenses not included in the above categories shall be listed in this category, along with a description of the item and why it is necessary for the research study. Profit and fees are not allowable.

### **Indirect Costs**

Show the proposed rate, cost base, and proposed amount for allowable indirect costs based on the applicable cost principles in 2 CFR Subpart E. 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 shall 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.

If the applicant has never received a Federal negotiated indirect cost rate, the budget may include a *de minimis* rate of 10 percent of modified total direct costs. For further information on modified total direct costs, refer to 2 CFR §200.68 available at [www.ecfr.gov](http://www.ecfr.gov).

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

***Total Costs***

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

***Funding Restrictions***

See Section III.D.3. “Pre-Award Costs” for restrictions on incurrence and allowability of pre-award costs.





## Section V. Application Review Information

### V.A Technical Proposal: Evaluation Criteria

The evaluation criteria portion of your application should thoroughly address each of the following criteria in the order presented to assist in the complete and accurate evaluation of your proposal. Applications will be evaluated against the evaluation criteria (listed below), which comprise 100 points of the total evaluation weight. Please note that research studies may be prioritized to ensure balance among the Funding Groups and to ensure that the research studies address the goals of the Title XVI program.

#### V.A.1 Evaluation Criterion 1: Statement of Problems and Needs (10 Points)

Points will be awarded based on the presence of watershed-based water resource management problems and needs for which water reclamation and reuse may provide a solution.

- (1) If the proposed research study aims to address the needs of a specific applicant or locale, describe in detail the water resource management problems and needs in the local area and explain how water reclamation and reuse may address those problems and needs.
- (2) Identify the water supply imbalance that the research study will address for the area of responsibility of the applicant. Additional consideration will be given to proposals that explain how water supply imbalances in the area may be impacted by climate change, and/or if the research study will attempt to address projected climate change impacts in the area.
- (3) If the proposed research study aims to address broader needs of the industry in terms of technology or practices, describe these needs as they occur on a watershed, regional, and/or national scale.

#### V.A.2 Evaluation Criterion 2: Water Reclamation and Reuse Opportunities (15 Points)

Points will be awarded based on the extent to which the proposal demonstrates that the research study will explore opportunities for water reclamation and reuse within and outside the research study area.

- (1) Describe the source(s) of water that will be investigated for potential reclamation, including impaired surface or ground waters.

- (2) Describe how the research study will help to eliminate obstacles for using reclaimed water as a supply within and/or outside the area of responsibility of the applicant.
- (3) Describe how the research study will expand a water market and promote implementation of new uses or expand existing uses for reclaimed water (e.g., environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, power generation, and recreation).
- (4) Describe how the research study will help establish or expand a water market to use reclaimed water outside your specific locale, including providing regional or West-wide benefits.

### **V.A.3 Evaluation Criterion 3: Description of Potential Alternatives (15 Points)**

Points will be awarded based on the extent to which the proposal demonstrates that the research study will evaluate water supply alternatives or technology implementation options that support water reclamation and reuse of non-traditional water supplies.

- (1) Describe objectives of the proposed research study and how the proposed research is innovative in advancing water reclamation knowledge and/or practices relative to existing knowledge and/or standard practices. References and literature citations should be provided, as applicable.
- (2) If applicable, describe alternative water reclamation measures or technologies that will be investigated as part of the research study.
- (3) Describe any collaborators involved with the research and their respective roles.
- (4) Please describe the credentials, experience, and past performance of the research team. Alternatively, describe the process and criteria that will be used to select an appropriate, experienced research team.

### **V.A.4 Evaluation Criterion 4: Stretching Water Supplies (15 Points)**

Points will be awarded based on the extent to which the proposal demonstrates that the research study will address activities that will help to secure and stretch water supplies.

- (1) At your specific locale and/or on a regional or West-wide scale, if applicable, describe how the research study could promote the establishment or expansion of a market for water reclamation and reuse that will reduce, postpone, or eliminate the development of new or expanded water supplies.
- (2) Describe how the research study could or will streamline the implementation of a project that will reduce or eliminate the use of

existing diversions from natural watercourses or withdrawals from aquifers and improve available supplies during droughts.

- (3) Describe how the research study could or will streamline the implementation of a project that will reduce the demand on existing Federal water supply facilities.

#### **V.A.5 Evaluation Criterion 5: Environment and Water Quality (15 Points)**

Points will be awarded based on the extent to which the proposal demonstrates that the research study will address the potential or provide results that improve surface, ground water, or effluent discharge quality; restore or enhance habitat for nonlisted species; or provide water or critical habitat for federally listed threatened or endangered species.

- (1) Describe the potential for the research study to identify methods or produce results that improve the quality of surface or groundwater, including description of any specific issues that will be investigated or information that will be developed as part of the research study.
- (2) Describe the potential for the research study to identify methods or produce results that improve flow conditions in a natural stream channel that benefit the environment, including a description of any specific issues that will be investigated or information that will be developed as part of the research study.
- (3) Describe the potential for the research study to identify methods or produce results that provide water or habitat for non-listed, sensitive, or federally-listed threatened or endangered species, including description of any specific issues that will be investigated or information that will be developed as part of the research study.

#### **V.A.6 Evaluation Criterion 6: Legal and Institutional Requirements (10 Points)**

Points will be awarded based on the extent to which the proposal demonstrates that the research study will address legal or institutional requirements or barriers to implementing a project, including water rights issues and any unresolved issues associated with implementation of a water reclamation and reuse project.

- (1) For planning related research, describe how the research study will to identify methods or produce results that help to eliminate obstacles for using reclaimed water as a supply in the research study area.
- (2) For field research studies focused on state of the art technology deployment describe the readiness to proceed in terms of.
  - a. The type and level of preliminary research investigations that have been completed.

- b. The type and level of preliminary research plans or testing designs that have completed.
- c. Uncertainties that could affect the timing of research completion associated with environmental compliance, permitting, etc. as applicable to the research study?
- d. How will the testing of new state of the art technology aid in produce results that help address institutional requirements to implement a project?

#### **V.A.7 Evaluation Criterion 7: Renewable Energy and Energy Efficiency (10 points)**

Points will be awarded based on the extent to which the proposal demonstrates that the research study will evaluate methods to incorporate the use of renewable energy or will otherwise address energy efficiency aspects of the water reclamation and reuse project being investigated.

- (1) For research studies that include evaluation or incorporation of renewable energy, please describe the proposed or existing renewable energy system and the research objectives proposed to evaluate the integration of renewable energy into the research study area or project.
- (2) For research studies focused on improving energy efficiency, describe the full scale plant energy requirements, if applicable, proposed efficiency improvements, and reduced carbon footprint. Provide calculations and describe assumptions and methodology.
- (3) Please quantify the energy savings that are expected to be identified in the research study through renewable energy or improved facility efficiencies. Include support for how energy savings were calculated.

#### **V.A.8 Evaluation Criterion 8: Watershed Perspective (10 points)**

Points will be awarded based on the extent to which the proposal demonstrates that the research study will promote and apply a regional or watershed perspective to water resource management.

- (1) Describe whether or the extent to which the research study is based off of recommendations from an existing plan that is sponsored or otherwise recommends research needs on a regional or national scale.
- (2) Explain any additional benefits of, or specific need for, the proposed research study within the sponsors watershed, regional area, and nationally.
- (3) Describe how the research objectives will benefit other locations and the technical, economic, or institutional questions that will be answered by the research study.

- (4) Explain how the research study includes or promotes and encourages collaboration among parties. Identify if there is widespread support for the research study.

## **V.B Review and Selection Process**

The Government reserves the right to reject any and all applications that do not meet the requirements of this FOA or are outside the scope of the Title XVI Program. Awards will be made for studies most advantageous to the Government. The evaluation process will be comprised of three steps described in the following subsections.

### **V.B.1 Initial Screening**

All applications will be screened to ensure that:

- The application meets the requirements of the FOA package identified in Section IV.D., including submission of the technical proposal, funding plan, and related forms.
- The application contains a properly executed SF-424—Application for Financial Assistance and form SF-424B—Assurances—Non-Construction Programs or SF-424D—Assurances—Construction Programs, as applicable to the proposed research study.
- The application contains a 424B—Assurances—Non-Construction Programs or SF-424D—Assurances—Construction Programs, as applicable to the proposed research study.
- The applicant meets the eligibility requirements stated in this document.
- The application includes an official resolution, adopted by the applicant’s board of directors, governing body, or appropriate authorized official.
- At least 75 percent of the cost of the research study will be paid for with non-Federal funding. 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 a research study until the recipient has secured the 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 (Section III.D—Cost-Sharing Requirements).
- The proposed research study meets the description of eligible research studies in Section III.B – Eligible Studies and is within the scope of the Title XVI Program.

**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.

### **V.B.2 Application Review Committee (ARC) Review**

Evaluation criteria will comprise 100 points of the total evaluation weight as stated in Section V.A – Technical Proposal Evaluation Criteria. Applications will be scored against the evaluation criteria by an ARC, made up of experts in relevant disciplines selected from across Reclamation. During ARC review, Reclamation may contact applicants to request clarifications to the information provided, if necessary.

### **V.B.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 research study 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 studies.

### **V.B.4 Managerial Review**

Management will prioritize Title XVI research studies to ensure the total amount of all awards does not exceed available funding levels and to ensure that the research studies meet the scope and priorities of the WaterSMART Program and Title XVI. Positive or negative past performance by the applicant and any partners in previous working relationships with Reclamation may be considered.

### **V.B.5 Pre-Award Clearances and Approvals**

After completion of the Managerial Review, Reclamation will notify applicants whose proposals have been selected for award consideration and will forward their applications to the appropriate Reclamation regional or area office for completion of environmental compliance.

The local Reclamation office will also complete a business evaluation and determination of responsibility. During these evaluations, the Grants Officer (GO) will also consider several factors that are important, but not quantified, such as:

- Pre-award clearances, determinations, reviews, and approvals

- Allowability and allocability of proposed costs
- 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 2 CFR Part 200.

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





## Section VI. Award Administration Information

### VI.A Award Notices

Successful applicants will receive, by electronic or regular mail, a notice of award.

### VI.B Award Document

If the applicant is awarded a financial assistance agreement as a result of this FOA, the research study activities and other relevant information from the application will be referenced in the agreement. The agreement document must be signed by a Reclamation GO before it becomes effective.

### VI.C Releasing Applications

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

### VI.D 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 types of reports during the term of the agreement.

#### VI.D.1 Financial Reports

Form SF-425 – Federal Financial Report must be submitted on at least a semiannual basis and with the final program performance report.

#### VI.D.2 Program Performance Reports

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

- Interim reports submitted on at least a semi-annual basis
  - 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 research study is on schedule and within the original cost estimate
- Any additional pertinent information or issues related to the status of the research study
- Final report (please note final reports are public documents and will be made available on Reclamation's Web site).
  - The Final Report shall include, but not be limited to:
    - A narrative summary of all work performed under the agreement;
    - A description of the research process or methodology used to establish or expand a water reuse market, improve existing water reuse facilities, or streamline the implementation of state of the art technology for new facilities;
    - Presentation and interpretation of test data, results, conclusions, and lessons learned;
    - Document the broader benefits of the research as a case study for the industry to help streamline future water reclamation projects, optimize existing facility efficiencies, or broaden the deployment of state of the art technology.
  - More detailed Final Report requirements may be specified if an agreement is awarded.
- If mitigation is required to lessen environmental impacts, the applicant may, at Reclamation's discretion, be required to report on progress and completion of these commitments. Reclamation will coordinate with the applicant to establish reporting requirements and intervals accordingly.

## Section VII. 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 Reclamation in writing*. Questions may be submitted to the attention of Mike Dieterich, Grants Management Specialist, as follows:

**By mail:**

Bureau of Reclamation  
Financial Assistance Management Branch  
Attn: Mike Dieterich  
Mail Code: 84-27852  
P.O. Box 25007  
Denver, CO 80225

**By overnight delivery:**

Bureau of Reclamation  
Attn: Mike Dieterich  
Mail Code: 84-27852  
Denver Federal Center, Bldg. 67, Rm. 152  
6<sup>th</sup> Avenue and Kipling Street  
Denver, CO 80225

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

**By phone:** 303-445-2484