

RECLAMATION

Managing Water in the West

Funding Opportunity Announcement No. BOR-MP-17-F001

Bay-Delta Restoration Program: CALFED Water Use Efficiency Grants



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Sacramento, California

December 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:	U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region
Funding Opportunity Title:	Bay-Delta Restoration Program: CALFED Water Use Efficiency Grants, California Bay-Delta Constituents
Announcement Type:	Funding Opportunity Announcement (FOA)
Funding Opportunity Number:	BOR-MP-17-F001
Catalog of Federal Domestic Assistance (CFDA) Number:	15.507
Dates: (See FOA Sec. IV.B)	Application due date: February 28, 2017, 1:00 p.m. PST
Eligible Applicants: (See FOA Sec. III.A)	States, Indian tribes, irrigation districts, water districts, or other organizations with water or power delivery authority located in the western United States or United States Territories as identified in the Reclamation Act of June 17, 1902, as amended
Recipient Cost Share: (See FOA Sec. III.E)	50 percent or more of project costs
Federal Funding Amount: (See FOA Sec. II.B)	Up to \$750,000 per agreement for a project up to 2 years
Estimated Number of Agreements to be Awarded: (See FOA Sec. II.B)	Approximately 3-10, depending on requested funding amounts for selected projects and final Fiscal Year (FY) 2017 appropriations.
Estimated Amount of Funding Available for Award: (See FOA Sec II.A)	The President's FY 2017 budget includes a request for \$3 million in CALFED Grant funding, through Bay-Delta Restoration Program. Reclamation will determine the amount of funding available for award for this CALFED Grant FOA once final FY 2017 appropriations have been made. Any awards are subject to a determination by Reclamation that FY 2017 appropriations are available and that awards can be made consistent with all program requirements. Applications submitted under this FOA may also be considered if other funding becomes available in FY 2017 or subsequently.

Application Checklist

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

√	What to submit	Form or format	When to submit
	Cover page	Form SF 424, Page 19	*
	Assurances	Form SF 424B or SF 424D, as applicable Page 19	*
	Title page	Page 19	*
	Table of contents	Page 20	*
	Technical proposal:		*
	• Executive summary	Page 20	
	• Background data	Page 20	*
	• Technical project description	Page 21	*
	• Consistency with State or Local Water Plan	Page 21	
	• Bay-Delta Demonstrated Results	Page 22	
	• Need for the Project and Community Involvement	Page 23	
	• Evaluation criteria	Page 23	
	Performance measures	Page 24	*
	Environmental compliance	Page 24	*
	Required permits and approvals	Page 26	*
	Official Resolution	Page 26	**
	ASAP Verification	Page 27	*
	SAM Verification	Page 27	*
	Disclosure of Lobbying Activities	Page 27	*
	Project Budget	Page 27	*
	Funding Plan and Commitment letters	Page 27	**
	Budget proposal:		
	• Budget Table	Page 29	*
	• Budget narrative	Page 30	*
	• Budget form	Page 36 Form SF 424A or SF 424C, as applicable	*

* Submit materials with your application by February 28, 2017, 1:00pm PST.

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

Acronyms and Abbreviations

ALC	Agency Location Code
AMI	advanced metering infrastructure
AMR	automatic meter reading
ARC	Application Review Committee
ASAP	Automated Standard Application for Payments
CFDA	Catalog of Federal Domestic Assistance
CFR	Code of Federal Regulations
CE	Categorical Exclusion
CEC	Categorical Exclusion Checklist
CPA	certified public accountant
CWA	Clean Water Act
Department	U.S. Department of the Interior
DUNS	Data Universal Number System
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ET	evapotranspiration
FAPIS	Federal Awardee Performance and Integrity Information System
FAQ	Frequently Asked Question
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FOA	Funding Opportunity Announcement
FONSI	Finding of No Significant Impact
FY	fiscal year
GIS	Geographical Information System
GO	Grants Officer
LOPP	Lease of Power Privilege
MST	Mountain Standard Time
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
O&M	operation and maintenance
OMB	Office of Management and Budget
Reclamation	Bureau of Reclamation
ROD	Record of Decision
SCADA	Supervisory Control and Data Acquisition
SAM	System for Awards Management
SOR	System Optimization Review
SHPO	State Historic Preservation Officer
USFWS	U.S. Fish and Wildlife Service

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Section I: Funding Opportunity Description

I.A Water Use Efficiency Grants

Reclamation is a participating agency in the Bay-Delta Restoration Program. The CALFED Bay-Delta Program Final Programmatic EIS/EIR was released July 21, 2000, and the Record of Decision (ROD) was published August 28, 2000. As described in these documents, the Bay-Delta Restoration Program includes strategies to address ecosystem health, water supply reliability and water quality. Water use efficiency is a critical element in the successful implementation of the Bay-Delta Restoration Program.

Reclamation is posting a Funding Opportunity Announcement (FOA) for cost share funding for water use efficiency and conservation activities. **To be eligible for financial assistance, a proposed activity must have a defined relationship to the California Bay-Delta.**

Reclamation has authority to provide financial assistance to entities with water or power delivery authority, including water districts and irrigation districts. Applicants with water or power delivery authority may seek funding under this FOA.

I.B Objective of Funding Opportunity Announcement

The objective of this FOA is to invite States, Indian tribes, irrigation districts, water districts, and other organizations with water or power delivery authority to leverage their money and resources by cost sharing with the Bureau of Reclamation (Reclamation) on projects emphasizing water use efficiency and conservation activities that result in benefits for the California-Bay Delta. For FY17, if the applicant has already committed to accomplish the project as part of another agreement, then the project will not be eligible for funding under this FOA. Projects will be selected through a competitive process that will focus on achieving the outcomes identified in this FOA.

This FOA does not support research to reduce the cost of desalination through membrane process research and development studies, thermal process research and development studies, and non-traditional/alternative desalination process research and studies; and water recycling and reuse studies. For more information regarding these programs within Reclamation, visit the Water Treatment and Engineering and Research Group website at www.usbr.gov/pmts/water/desalination/index.html. New funding opportunities under these programs will be announced at www.grants.gov.

I.C Program Authority

This FOA is issued under the authority of Section 9504(a) of the Secure Water Act, Subtitle F of Title IX of the Omnibus Public Land Management Act of 2009, Public Law 111-11 (42 United States Code 10364).

Section II: Award Information

II.A Total Project Funding

Up to \$3.0 million is estimated to be available for award under this FOA through Bay-Delta Restoration Program funding. Bay-Delta Restoration Program funding is limited to projects within the CALFED Solution Area. For the geographic extent of the CALFED Solution Area please refer to the map available at www.usbr.gov/mp/watershare/grants/index.html.

II.B Project Funding Limitations

Multiple applications for funding may be submitted for consideration by each applicant, *however, no more than \$750,000 per project, and \$1.5M per recipient, will be awarded under this FOA.*

The Federal share (i.e., Reclamation's share in addition to any other sources of Federal funding) of any one proposed project shall not exceed 50 percent of the total project costs. Generally, the non-Federal share of project costs must be expended at the same or greater rate as the federal share of project costs. It is expected that funds will be awarded no later than September 15, 2017, contingent on appropriations.

II.C Reclamation Responsibilities

Project awards will be made through grants or cooperative agreements as applicable to each project. If a cooperative agreement is awarded, the recipient should expect Reclamation to have substantial involvement in the project. Substantial involvement by Reclamation may include:

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

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 David T. White, Program Coordinator, at dwhite@usbr.gov.

II.D Award Date

Reclamation expects to contact potential award recipients and unsuccessful applicants in May 2017, or slightly later if necessary, based on the enactment of FY 2017 appropriations. Within one to four months after that date, financial assistance agreements will be awarded to applicants that successfully pass all pre-award reviews and clearances.

Section III: Eligibility Information

III.A Eligible Applicants

Under P.L. 111-11, Section 9504, an eligible applicant is a State, Indian tribe, irrigation district, water district, or other organization with water or power delivery authority.

Applicants must be located in the CALFED solution area. For the geographic extent of the CALFED Solution Area please refer to the map available at www.usbr.gov/mp/watershare/grants/index.html.

Those not eligible include the following types of entities:

- Federal governmental entities
- Institutions of higher education
- Individuals

III.B Eligible Projects

Projects should seek to conserve and use water more efficiently, protect endangered and threatened species, and result in quantifiable and sustained water savings or improved water management.

The Bay-Delta Restoration Program: CALFED Water Use Efficiency Grants (Program) will fund feasible urban and agricultural projects that improve ecosystem health, including protection of endangered and threatened species, water supply reliability or water quality of the California Bay-Delta through water use efficiency and conservation that result in quantifiable and sustained water savings or improved water management.

Grants or cooperative agreements for improvement projects to conserve irrigation water will only be provided if the eligible applicant agrees not to (1) use any associated water savings to increase the total irrigated acreage of the eligible applicant; and/or (2) otherwise increase the consumptive use of water in the operation of the eligible applicant.

Proposals may include any type of implementation, demonstration, or pilot water use efficiency or conservation projects that have benefits to the California Bay-Delta. Projects that only consist of research or feasibility studies, planning or education will not be funded.

Priority will be given to projects that can be completed within 24 months of the date of award.

Examples of previously funded projects and a successful project application can be found at www.usbr.gov/mp/watershare/about.html.

Applications may include any one, or a combination, of the types of projects below. In general, if an applicant is seeking funding for multiple projects and those projects are interrelated or closely related, they should be combined in one application. Conversely, if the projects can be completed independently and are easily separated or phased, they should be applied for separately.

Applicants may submit multiple project proposals; however, no more than \$750,000 will be awarded per proposal, and no more than \$1.5M per recipient.

Note: During Third-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 projects to ensure that multiple Task Areas are represented among the projects selected for funding.

III.B.1 Task A – Water Conservation

Projects that result in quantifiable and sustained water savings or improved water management include, but are not limited to:

- **Canal Lining/Piping:** Projects that line or pipe canals, resulting in conserved water. Projects include, but are not limited to:
 - Installing new proven lining materials or technology
 - Converting open canals to pipeline
 - Constructing conveyance improvements, turnouts, pipelines, or intertie systems
- **Municipal Metering:** Projects that install meters, resulting in measureable water savings. Projects include, but are not limited to:
 - Installing water service meters
 - Installing distribution systems meters associated with production and/or leakage quantification
- **Irrigation Flow Measurement:** Projects that improve measurement accuracy and result in reduced spills and over-deliveries to irrigators. Projects include, but are not limited to:
 - Installing weirs, flumes, ramps, etc. in open channels
 - Installing meters in pressurized pipes

- **SCADA and Automation:** Projects that install supervisory control and data acquisition (SCADA) and/or automation components that provide water savings when irrigation delivery system operational efficiency is improved to reduce spills, over-deliveries, and seepage. Projects include, but are not limited to:
 - Installing SCADA components that allow for remote monitoring of irrigation delivery system conditions (flow rates, water elevations, controls devices openings, etc.)
 - Installing automation components that allow for remote operation of delivery system control features (gates, valves, turnouts, etc.)
- **Groundwater Recharge:** Projects that provide savings when surface water storage evaporation is reduced and/or surface runoff is intercepted for recharge. Projects include, but are not limited to:
 - Installing recharge ponds
 - Installing surface runoff interception systems
 - Removing impervious surfaces
- **Small-scale Water Recycling and Water Reuse:** Small-scale projects that reclaim and reuse wastewaters or naturally impaired groundwater and surface water. Congressionally authorized projects under Title XVI program are not eligible. The Title XVI program is described in Section III.C.2. Water reuse and recycling projects eligible under this FOA include, but are not limited to:
 - Implementing small-scale improvements to an existing water recycling facility
 - Small-scale projects that develop and supplement urban and irrigation water supplies through water reuse
- **Landscape Irrigation Measures:** Projects that provide water savings by reducing outdoor water usage. These measures include turf removal, Smart irrigation controllers (weather or soil-moisture based) and high-efficiency nozzles (sprinkler heads). These measures are typically promoted by water entities through rebates or direct-install programs. Projects include, but are not limited to:
 - Removing turf
 - Installing Smart irrigation controllers
 - Installing high-efficiency nozzles (e.g., sprinkler heads)
- **High-Efficiency Indoor Appliances and Fixtures:** Projects that promote installation of high-efficiency indoor appliance and fixtures to provide

water savings for municipal water entities where there is significant potential for replacing existing non-efficient indoor appliances and fixtures. This is typically promoted by water entities through rebates or direct-install programs. Projects include, but are not limited to:

- o Installing high-efficiency clothes washers, dishwashers, faucets, etc.

III.C Ineligible Projects

Projects that are not eligible for funding under this FOA include those not specifically described in Section III.B. Examples of ineligible projects include, but are not limited to, the following:

III.C.1 Operations, Maintenance, and Replacement (OM&R)

Projects that are considered normal OM&R are 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. Examples of ineligible OM&R projects include:

- Replacing malfunctioning components of an existing facility with the same components
- Improving an existing facility to operate as originally designed
- Performing an activity on a recurring basis, even if that period is extended (e.g., 10-year interval)
- Sealing expansion joints of concrete lining because the original sealer or the water stops have failed
- Replacing broken meters with new meters of the same type
- Replacing leaky pipes with new pipes of the same type

Applicants that have questions regarding OM&R are encouraged to contact David T. White, Program Coordinator, at 916-978-5208 for further information.

III.C.2 Title XVI Water Recycling and Reuse

Title XVI is Reclamation's water recycling and reuse program, focused on identifying and investigating opportunities to reclaim and reuse wastewaters and naturally impaired ground and surface water. In general, this FOA is not intended for water recycling and reuse projects, however, small-scale improvements that relate to an existing water recycling facility (that is not an authorized Title XVI project) may be considered eligible for funding.

Any projects or project elements that are part of a congressionally authorized Title XVI project of Public Law 102-575, as amended (43 United States Code 390h et seq.), are not eligible for funding under this FOA. In addition, if a project sponsor is likely to seek funding for the activity through the Title XVI Program in the future (e.g., seeking congressional funding for the project or preparing a Title XVI feasibility study that describes the activity as part of a proposed Title XVI project) that activity should be pursued under the Title XVI Program instead of this FOA. Applicants may contact David T. White, Program Coordinator, at 916-978-5208 for further information.

For additional information on the Title XVI Program, please visit:
<www.usbr.gov/CALFED/title>.

III.D Length of Projects

There is a preference for projects that can be completed by December 31, 2019, however, applications for projects requiring more than 2 years will be considered if the applicant can demonstrate that there will be measureable on-the-ground accomplishments each year. The completion timeline only applies to tasks outlined in the scope of the executed financial assistance agreement.

III.E Cost-Sharing Requirement

Applicants 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. Reclamation will not make funds available for financial assistance under this program until the recipient has secured the necessary 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. Funding commitment letters must be submitted in accordance with Section IV.C. Instructions for Submission of Project Application and contain the

information stated at Section IV.D.9. Project Budget, subsection “Funding Plan and Letters of Commitment.”

III.E.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 <www.ecfr.gov>.

III.E.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 proposed 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 procurement contract, or any other award of Federal funds, may not be relied on to satisfy the cost-share requirement for financial assistance under this program. Applicants should refer to 2 CFR 200.434 for regulations regarding the valuation of in-kind donations and contributions, available at <www.ecfr.gov>.

III.E.3 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 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. Direct costs for the preparation of the application and support documentation are not allowable under this FOA and subsequent awards.

III.E.4 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. 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 www.ecfr.gov.

III.F Environmental and Cultural Resources Compliance

All projects being considered for award funding will require compliance with the National Environmental Policy Act (NEPA) before any ground-disturbing activity may begin. Compliance with all applicable state, Federal and local environmental, cultural, and paleontological resource protection laws and regulations is also required. These may include, but are not limited to, the Clean Water Act (CWA), the Endangered Species Act (ESA), National Historic Preservation Act (NHPA), consultation with potentially affected tribes, and consultation with the State Historic Preservation Officer (SHPO).

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 part of an applicant's cost share. These costs will be considered in the ranking of applications.

Under no circumstances may an applicant begin any ground-disturbing activities (including 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, including any necessary determinations solely within Reclamation's purview. An applicant that proceeds before environmental and cultural resources compliance is complete may risk forfeiting Reclamation funding under this FOA.

III.G Requirements for Agricultural Operations Under Public Law 111-11, Section 9504(a)(3)(B)

In accordance with Section 9504(a)(3)(B) of Public Law 111-11, grants and cooperative agreements under this authority will not be awarded for an improvement to conserve irrigation water unless the applicant agrees to both of the following conditions:

- Not to use any associated water savings to increase the total irrigated acreage of the eligible applicant
- Not to otherwise increase the consumptive use of water in the operation of the eligible applicant, as determined pursuant to the law of the State in which the operation of the eligible applicant is located

III.H Other Requirements

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

III.H.1 Title to Improvements [Public Law 111-11, Section 9504(a)(3)(D)]

If the activities funded through an agreement awarded under this FOA result in a modification to a federally owned facility, or any portion thereof, the Federal government shall continue to hold title to the facility and the improvements thereto.

III.H.2 Operation and Maintenance (O&M) Costs Under Public Law 111-11, Section 9504(a)(3)(E)(iv)

The non-Federal share of the costs for O&M of any infrastructure improvement funded through an agreement awarded under this FOA shall be 100 percent.

III.H.3 Liability Under Public Law 111-11, Section 9504(a)(3)(F)

Except as provided under chapter 171 of Title 28, United States Code (commonly known as the “Federal Tort Claims Act”), the United States shall not be liable for monetary damages of any kind for any injury arising out of an act, omission, or occurrence that arises in relation to any facility created or improved through an agreement awarded under this FOA, the title of which is not held by the United States.

Tort Claims Act

Nothing in this section increases the liability of the United States beyond that provided in “Federal Tort Claims Act.”

III.H.4 System for Awards Management and Automated Standard Application for Payments Registration

All applicants must be registered in the System for Awards Management (SAM) prior to award under this FOA. Instructions for registering for SAM are located at <www.sam.gov/portal/public/SAM>. All applicants must maintain an active SAM registration with current information at all times while they have an active Federal award or an application under consideration.

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.

III.H.5 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). Applicants, at their 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 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
Mid-Pacific Region / MP-3829
Attn: Ms. Leanne Henderson
2800 Cottage Way
Sacramento CA 95825

By email: lhenderson@usbr.gov

IV.B Application Submission

IV.B.1 Submission Date and Time

Application submission date deadline:

- February 28, 2017, 1:00 p.m. PST

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 CALFED Grant funding may be subjected to a Freedom of Information Act request (5 United States Code § 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 as needed.

IV.B.2 Application Delivery Instructions

Applications may be submitted electronically through <www.grants.gov> or hard copies may be submitted to the following address. Under no circumstances will applications received through any other method (such as email or fax) be considered eligible for award.

By USPS mail, courier, or express delivery mail services:	Bureau of Reclamation Mid-Pacific Region / MP-3829 Attn: Ms. Leanne Henderson 2800 Cottage Way Sacramento CA 95825
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IV.C Instructions for Submission of Project Application

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

IV.C.1 Applications Submitted by Courier or Express Delivery/Mail Services

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

- Applicants shall submit one original hard copy of the application and attachments for submission.
- Only binder clip documents submitted.
- Hard copy applications may be submitted by mail or express methods to the addresses listed in Section IV.B.2., above.
- In addition to hard copy documents, please submit a copy of your application on a CD in Microsoft Office as well as .pdf format. File attachments of spreadsheet in Excel format shall also be provided, if applicable.
- 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 <www.grants.gov>. Reclamation encourages applicants to submit their applications for funding electronically through <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:

<www.grants.gov/applicants/apply_for_grants.jsp>

- Please note that submission of an application electronically requires prior registration through Grants.gov, which may take 7 to 21 days. Please see registration instructions at <www.grants.gov/applicants/apply_for_grants.jsp>.
- Applicants have sometimes 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 Section IV.B.1. Application Submission Date and Time, above. 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 75 **consecutively numbered** pages. If an application exceeds 75 pages, only the first 75 pages will be

evaluated. The font shall be at least 12 points in size and easily readable. Page size shall be 8½ x 11 inches including maps and charts. The technical proposal and evaluation criteria section shall be limited to a maximum of **30** pages. The SF-424 forms are not considered in the total page count.

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

IV.C.4 Application Content

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

- SF-424 Application for Federal Assistance
- SF-424 Assurances (B or D Form, as applicable to the project)
- Title page
- Table of contents
- Technical proposal and evaluation criteria (limited to 30 pages)
 - Executive summary
 - Background data
 - Technical project description
 - Evaluation criteria
 - Conservation Benefits
 - Water Benefits in Relation to Bay-Delta Supply
 - Environmental Benefits
 - Technical/Scientific Merit
 - Cost Effective Budget and Project Costs
 - Performance Measures and Project Monitoring
 - Ability to Implement the Proposed Project
 - Water Management Plan
 - Performance measures
- Environmental and cultural resources compliance determination plan
- Required permits or approvals
- Letters of project support
- Official resolution
- Verification of ASAP account

- Verification SAM account
- Disclosure of Lobbying Activities (SF-LLL)
- Project budget
 - o Funding plan and letters of commitment
Budget proposal
 - o Budget narrative
 - o Budget Form SF-424A or SF-424C as applicable to project

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

IV.D.1 Required Forms

The application must include the following standard Federal forms.

SF-424 Application For Federal Assistance

This fully completed form must be signed by a person legally authorized to commit the applicant to performance of the project. **Failure to submit a properly signed SF-424 may result in the elimination of the application from further consideration.** < <http://www.grants.gov/web/grants/forms/sf-424-family.html#sortby=1> >

SF-424 Assurances

A SF-424B – Assurances – Non-Construction Programs or an SF-424D – Assurances – Construction Programs, signed by a person legally authorized to commit the applicant to performance of the project shall be included. Questions regarding whether to use SF-424B or SF-424D should be referred to Ms. Leanne Henderson at lhenderson@usbr.gov. **Failure to submit a properly signed SF-424B or SF-424D may result in the elimination of the application from further consideration.** < <http://www.grants.gov/web/grants/forms/sf-424-family.html#sortby=1> >

IV.D.2 Title Page

Provide a brief, informative, and descriptive title for the proposed work that indicates the nature of the project. Include the FOA number, name and address of the applicant, and the name and address, e-mail address, telephone, and facsimile numbers of the project manager.

IV.D.3 Table of Contents

List all major sections of the technical proposal.

IV.D.4 Technical Proposal and Evaluation Criteria

The technical proposal and evaluation criteria (30 pages maximum) includes: (1) the executive summary, (2) background data, (3) technical project description, (4) evaluation criteria and (5) performance measures. To ensure accurate and complete scoring of your application, your proposal should address each subcriterion in the order presented here.

IV.D.4.1 Executive Summary

The executive summary should include:

- The date, applicant name, city, county, and state
- The name of the proposed project
- A one paragraph project summary that specifies the work proposed, including how project funds will be used to accomplish specific project activities and briefly identifies how the proposed project contributes to accomplishing the goals of this FOA (see Section III.B. Eligible Projects)
- The Bay-Delta Restoration Fund Program Goal(s) for which the proposed project is consistent and contributes toward accomplishing.
- List the following amounts, in acre-feet:
 - The average annual water supply
 - The estimated amount of water saved after the project is completed
 - The estimated amount of water better managed after the project is completed
- State the length of time and estimated completion date for the project
- Whether or not the project is located on a Federal facility

IV.D.4.2 Background Data

Provide a map of the area showing the geographic location of the proposed project. The map should easily identify the project area and major geographic features including roads, streams, reservoirs, towns, canals, laterals, and irrigated lands.

As applicable, describe the source of water supply, the water rights involved, current water uses (e.g., agricultural, municipal, domestic, or industrial), the number of water users served, and the current and projected water demand. Also, identify potential shortfalls in water supply. If water is primarily used for irrigation, describe major crops and total acres served.

In addition, describe the applicant's water delivery system as appropriate. For agricultural systems, please include the miles of canals, miles of laterals, and existing irrigation improvements (e.g., type, miles, and acres). For municipal systems, please include the number of connections and/or number of water users served and any other relevant information describing the system.

Describe the applicant's relationship to the California Bay-Delta and quantify the average amount of the applicant's water supply received from the Delta over the last five years. Discuss the applicant's ability to manage or influence the District's runoff to the Bay-Delta, including diversions or exports. Discuss how benefits from this project will directly enhance the Bay-Delta, e.g., conserved water results in a decrease in Delta diversions.

Identify any past working relationships with Reclamation. This should include the date(s), description of prior relationships with Reclamation, agreement number(s), and a description of the project(s).

Describe any other relevant background information.

IV.D.4.3 Technical Project Description

Describe the work, in detail, including specific activities that will be accomplished as a result of this project. This description shall have sufficient detail to permit a comprehensive evaluation of the proposal.

Provide an estimated project schedule demonstrating the stages and duration of the proposed work, including major milestones and dates. Discuss any deviations from the proposed October 1, 2017, start date and 27-month project duration.

Briefly describe and summarize any engineering plans, designs, and analyses prepared in connection with the proposed project.

IV.D.4.4 Consistency with State or Local Water Plan

State whether or not the proposed project is consistent with the state or local water plan. If yes, identify the applicable plan(s). If no, state why the proposed project should be considered for funding under this FOA.

If the applicant is an agricultural district, state whether the applicant has a water management plan (WMP) endorsed by AWMC or approved by Reclamation. Please provide the year of the last plan and annual update.

If the applicant is an urban district, state whether the applicant has a WMP approved by CUWCC or Reclamation. Please provide the year of the last plan and annual update.

State whether or not the proposed project contributes to a Best Management Practice (BMP) identified in the applicant's WMP.

IV.D.4.5 Bay-Delta Demonstrated Results

Explain how this project will benefit the California Bay-Delta and achieve specific Bay-Delta Restoration Fund objectives for ecosystem restoration, water supply reliability, and water quality.

Describe the degree to which the proposed project increases conservation and/or efficiency overall, and the degree to which it increases conservation and/or efficiency with regard to any individual facilities (e.g., headgate or canal), and the life expectancy of the project. In your response, please include the following information in acre feet:

- (a) For proposals that conserve water, the yearly amount of water conserved and the fate of the conserved water (i.e., remains in stream, used for other purposes, etc.).
- (b) For projects involving improvements to individual facilities (e.g., a head gate, canal or ditch), state the average annual water supply that runs through the effected facility and the estimated water savings or quantities that will be better managed or managed differently, as a result of facility improvement.
- (c) For proposals that improve water management through measurement, automation, or irrigation management, etc., state the yearly amount of water expected to be better managed.

Provide the following information regarding project benefits:

- (a) Identify all direct project benefits to the Bay-Delta (e.g., amount of water conserved, water quality, improvement of instream flows, etc.); indicate the number of years such benefits will continue (e.g., the life of any physical improvements, and/or the term of any contractual arrangements); and whether such benefits will occur year-round, or only during certain months of the year (if so, state which months of the year).

(b) Identify any indirect benefits such as increased carryover storage, increased irrigation season during drought, improved reliability of water supply. If the time period that such benefits will continue is different from the time period indicated above in response to (a), please explain.

(c) Discuss other benefits from the proposed project which are not included above. Any expected benefits that cannot be quantified should be described in a detailed narrative.

(d) Provide documentation and support for how estimates of direct project benefits and any indirect project benefits were made (i.e., calculations, measurements, and references).

(e) Identify the percentage of the applicant's water supply that originates from the Bay-Delta watershed.

IV.D.4.6 Need for the Project and Community Involvement

Explain the need for the proposed project. Include:

- (a) The urgency of the project;
- (b) The negative consequences or potential impacts if not implemented;
- (c) Other information relevant to the need of the proposed project.

Describe any public outreach that the applicant has provided to the groups or individuals that may be affected by the project. Include how other local agencies might be involved in the project, third party impacts, and any opposition to the proposed project.

IV.D.4.7 Evaluation Criteria

The evaluation criteria portion of your application should thoroughly address each criterion and subcriterion 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 and subcriteria in Section V. into their applications to ensure that all necessary information is adequately addressed.

IV.D.5 Performance Measures

All CALFED Grant applicants are required to propose a detailed method (or “performance measure”) of quantifying the actual benefits of their project once it is completed. Actual benefits are defined as water actually conserved, marketed, or better managed, as a direct result of the project. Quantifying project benefits is an important means to determine the relative effectiveness of various water management efforts, as well as the overall effectiveness of CALFED Grants. For projects that are funded under this FOA, recipients must include a project water savings analysis with the final project report.

IV.D.6 Environmental and Cultural Resources Compliance

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the NEPA, ESA, and NHPA requirements. Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. If you cannot answer the question because you have yet to conduct the necessary research, please include a schedule showing when such research and the subsequent analysis will occur. Additional information about environmental compliance is provided in Section IV.D.4. Project Budget under the discussion of “Environmental and Regulatory Compliance Costs,” and in Section VIII.B. Overview of Environmental and Cultural Resources Compliance Requirements.

If you have any questions, please contact your regional or area Reclamation office (see <<http://www.usbr.gov/main/offices.html>>) with questions regarding ESA compliance issues. You may contact David T. White, Program Coordinator, at 916-978-5208 for further information.

- 1) Will the project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project 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 threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project? For a listing of endangered or threatened species in your area, please visit <http://www.fws.gov/endangered/> or contact your Regional or Area Office of Reclamation.

- 3) Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as “waters of the United States?” If so, please describe and estimate any impacts the project may have.
- 4) When was the water delivery system constructed?
- 5) Will the project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.
- 6) Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.
- 7) Are there any known archeological sites in the proposed project area?
- 8) Will the project have a disproportionately high and adverse effect on low income or minority populations?
- 9) Will the project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?
- 10) Does the proposed budget include a line item for environmental compliance analysis costs? If so, what is that amount? If not, why not?

Note: 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.

Under no circumstances may an applicant begin any ground-disturbing activities (including staging, grading, clearing, and other preliminary activities) on a project before environmental 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 environmental compliance is complete. An applicant that proceeds before environmental compliance is complete may risk forfeiting Reclamation funding under this FOA.

IV.D.7 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. This includes land easements, Caltrans permits, Pacific Gas and Electric Company (PG&E) permits, CWA permits, CAA permits, ESA consultations, NHPA consultations, etc.

Note: Improvements to Federal facilities that are implemented through any project awarded funding through this FOA must comply with additional requirements. The Federal government will continue to hold title to the Federal facility and any improvement that is integral to the existing operations of that facility. Please see Section III.H.1. Reclamation may also require additional reviews and approvals prior to award to ensure that any necessary easements, land use authorizations, or special permits can be approved consistent with the requirements of 43 Code of Federal Regulations (CFR) §429, and that the development will not impact or impair project operations or efficiency.

IV.D.8 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 CALFED Grant financial assistance, verifying:

- The identity of the official with legal authority to enter into 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
- That the applicant will work with Reclamation to meet established deadlines for entering into a cooperative agreement

Submittal of an official resolution meeting the requirements set forth above is preferred at the time of application submittal. If the applicant is unable to submit the official resolution by the application deadline because of the timing of board meetings or other justifiable reasons, the official resolution shall be submitted no later than **10 calendar days** after the pre-award meeting is held. The pre-award meeting will be scheduled between Reclamation and the applicant no later than 10 days after the award notices are sent out to prospective applicants.

Automated System Application for Payment Registration

All applicants must maintain an active Automated System Application for Payment (ASAP) registration with current information at all times while they have an active Federal award or an application under consideration. Please provide verification of an open and active ASAP account. A screen shot of your ASAP account will suffice as verification.

System of Award Management Registration

All applicants must maintain an active System of Award Management (SAM) registration with current information at all times while they have an active Federal award or an application under consideration. Please provide verification of an open and active SAM account. A screen shot of your account will suffice as verification.

Disclosure of Lobbying Activities (SF-LLL)

Please complete and sign Standard Form LLL (SF-LLL) the “Disclosure of Lobbying Activities” form. < <http://www.grants.gov/web/grants/forms/sf-424-family.html#sortby=1> >

IV.D.9 Project Budget

Funding Plan and Letters of Commitment

Describe how the non-Reclamation 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**. 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 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 a CALFED Grants project until the recipient has secured the non-Federal cost-share. Reclamation will execute a financial assistance agreement once 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.

The funding plan must include all project costs, including:

- 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 project start date that you seek to include as project costs. Include:
 - a. What project expenses have been incurred
 - b. How they benefitted the project
 - c. The amount of the expense
 - d. The date of cost incurrence
- 3) Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.
- 4) Describe any funding requested or received from other Federal partners.
Note: Other sources of Federal funding may not be counted towards your 50 percent cost share unless otherwise allowed by statute.
- 5) 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 your non-Federal and other Federal funding sources. Denote in-kind contributions with an asterisk (*). Please ensure that the total Federal funding (i.e., Reclamation and all other Federal sources) does not exceed 50 percent of the total estimated project cost.

Table 1. Summary of non-Federal and Federal funding sources

Funding sources	Percent of project cost	Funding amount
Non-Federal entities		
<i>Non-Federal subtotal:</i>		
Other Federal entities		
<i>Other Federal subtotal:</i>		
Requested Reclamation funding:		
<i>Total project funding:</i>		

Budget Proposal General Requirements

Include a project budget table that estimates all costs (not just costs to be borne by Reclamation). Include the value of in-kind contributions of goods and services and sources of funds provided to complete the project. The budget table must clearly delineate between Reclamation and applicant contributions.

Budget Table Format

The project budget table shall include detailed information on the categories listed below and must clearly identify all project costs. Unit costs shall be provided for all budget items including the cost of work to be provided by contractors. Additionally, applicants shall include a narrative description of the items included in the project budget, including the value of in-kind contributions of goods and services provided to complete the proposed project. 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. Sample budget proposal format

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

The table above is only a sample budget table format. We highly suggest you use this format, but you may submit the information in a different format which provides a detailed break-down of costs and justification for budgets presented in the SF-424A.

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

Budget Narrative

Submission of a budget narrative is mandatory under this FOA. An award will not be made to any applicant who fails to fully disclose this information.

The purpose of the budget narrative is to provide a discussion of, or explanation for, the cost items included in the budget proposal, the basis

for each cost, and why the costs are deemed allowable, allocable and reasonable in accordance with 2 CFR 200.

The types of cost information to provide in the budget narrative are listed in the following subsections. Include the value of in-kind contributions of goods and services, and sources of funds provided to complete the proposed project. Provide supporting documentation as indicated for each item of cost.

Note: All successful applications will undergo a rigorous cost-price analysis and multi-level review prior to award of federal funding. The budget narrative's cost items will be used for this analysis. If the grant application does not contain the appropriate amount of detail and supporting documentation, the award process will be delayed, and may be cancelled.

1. 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 proposed. (i.e., number of hours, days, weeks, percentage of a year, etc.)

The labor rates should identify the direct labor rate separate from the fringe rate or fringe cost for each category – no fully burdened rates will be allowed for applicant personnel.

Supporting documentation for the budgeted rates shall be submitted with the application (i.e., payroll records, or company rate sheets. Redact any Personally Identifiable Information (PII) other than employee name, rate of pay and job classification).

Provide a certification on company letterhead that rates provided are actual salaries currently paid to listed employees

Clearly identify any proposed salary increases, the effective date, and provide explanation to the basis of the increase.

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.

2. Fringe Benefits

Indicate rates/amounts, what costs are included in this category, and the basis of the rate computations.

Fringe costs should typically include payroll taxes such as FICA, unemployment, and workers compensation, but can also include retirement, health Insurance, and annual, sick, and holiday leave.

Fringe does not include federal income taxes, employee portion FICA, or other such costs.

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 cost item. Provide documentation for the fringe and overhead rates proposed and submit the supporting documents with your proposed budget and narrative.

3. Travel

Include purpose of trip, destination, number of personnel traveling, length of stay and all travel costs including airfare, per diem, lodging, airfare, and miscellaneous travel expenses.

Include the basis for rates used, i.e. GSA 2017 Per Diem Rates.

For local travel, include estimated mileage and rate of compensation, i.e. \$0.54 per mile per GSA 2016 standard mileage rates (GSA 2017 Rates have not yet been published as of the date of this FOA, but shall be used when available).

Submit supporting documents with your proposed budget and narrative (i.e., invoices, receipts, travel vouchers, etc. Redact any PII other than employee name).

4. 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 (FEMA), and other data bases should not be used.)

Submit supporting documentation with your proposed budget and narrative.

5. 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 project invoice, engineering estimates, or other methodology).

Submit supporting documentation with your proposed budget and narrative.

6. Contractual and Construction

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 applicable, use the same cost categories for each subcontractor/consultant as listed in this budget narrative (Salaries and Wages [fully burdened are allowed], Travel, Equipment, Materials and Supplies, Other).

Identify how the budgeted costs for subcontractors were determined to be fair and reasonable IAW 2 CFR 200, Subpart E, Cost Principles.

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.

Submit supporting documentation with your proposed budget and narrative:

- Quotes and/or past invoices to support individual items of cost

- Bid matrix and copies of bids to support competed contracts (for current proposed contracts or as support for past contract comparisons)
- Print outs from Estimating Manuals/Software for Engineer Estimates, Models, etc.

7. 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 or the recipient in complying with environmental regulations applicable to a grant or cooperative agreement, 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 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
- The cost incurred by Reclamation to review any environmental compliance documents prepared by a consultant
- The cost incurred by Reclamation, the recipient, or a consultant to prepare any necessary environmental compliance documents or reports
- 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. The minimum amount budgeted for environmental compliance should be equal to at least 1 to 2 percent of the total project costs. If the amount budgeted is less than 1 to 2 percent of the total project costs, you must include a compelling explanation of why less than 1 to 2 percent was budgeted.

Reclamation advises each applicant to coordinate with Reclamation’s environmental compliance staff prior to preparing environmental compliance analyses or documents. 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. 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.

8. Other

Reporting: Recipients are required to report on the status of their project 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. Include a line item for reporting costs (including final project and evaluation costs), with estimated hours for compliance with reporting requirements, including final project and evaluation.

Other: Any other expenses not included in the above categories shall be listed in this category, along with a description of the item and what it will be used for. No profit or fee will be allowed.

Please see Section VI.E for information on types and frequency of reports required.

9. Indirect Costs

Show the proposed rate, cost pool base, and proposed amount for allowable indirect costs based on the applicable cost principles in 2 CFR 200, Subpart E. It is not allowable to 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 Part 200 available at www.ecfr.gov.

If you do not have a federally approved indirect cost rate agreement and/or are 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>>.

10. Total Costs

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

Budget Form

In addition to the above-described budget information, the applicant must complete an SF-424A, Budget Information—Nonconstruction Programs, or an SF-424C, Budget Information—Construction Programs.

< <http://www.grants.gov/web/grants/forms/sf-424-family.html#sortBy=1> >

IV.E Funding Restrictions

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

IV.F Process Timeline & Dates

Table 3. Application / Award Process Timeline

ACTION	DATE
FOA APPLICATIONS DUE	FEBRUARY 28, 2017, 1:00p.m. PST
ANNOUNCEMENT AND NOTICES OF AWARD CONSIDERATION SENT	MAY – JUNE 2017
PRE-AWARD MEETINGS HELD (BOR & RECIPIENT)	NOT LATER THAN 7-10 DAYS AFTER AWARD CONSIDERATION LETTERS SENT
FINAL SUPPORTING DOCUMENTATION DUE	NOT LATER THAN 10 DAYS AFTER PRE-AWARD MEETING IS HELD
PREPARATION OF AGREEMENTS	JUNE – SEP 2017
AGREEMENT AWARD	MID SEPTEMBER 2017

Table 4. Application Document Due Dates

DOCUMENT NAME/TYPE	<u>FINAL</u> DUE WITH APPLICATION SUBMITTAL:	<u>DRAFT</u> DUE WITH APPLICATION SUBMITTAL:	FINAL DUE NLT 10 DAYS AFTER PRE-AWARD MEETING
FULL APPLICATION	X		
SF-424 (Application for Federal Assistance)		X (SIGNED)	X (FINAL)
SF-424 A or C (Budget Form)		X	X (FINAL)
SF-424 B or D (Assurances)	X		
OFFICIAL RESOLUTION		X (DRAFT)	X (FINAL)
ASAP VERIFICATION	X		
SAM VERIFICATION	X		
SF-LLL (LOBBYING FORM)	X		
BUDGET TABLE		X (DRAFT)	X (FINAL)
BUDGET NARRATIVE		X (DRAFT)	X (FINAL)
SUPPORTING BUDGET DOCUMENTATION			X (FINAL)

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 and subcriteria in the order presented to assist in the complete and accurate evaluation of your proposal. It is suggested that applicants copy and paste this information directly into their applications). **Applications will be evaluated against the evaluation criteria which comprise 100 points of the total evaluation weight.** Projects may be prioritized to ensure balance among the program Task Areas and to ensure that the projects address the goals of the CALFED program.

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.

V.A.1 Evaluation Criterion A: Quantifiable Water Savings

The evaluation criteria portion of your application should thoroughly address each criterion and sub-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 and sub-criteria in into their applications to ensure that all necessary information is adequately addressed.

Table 5. Evaluation Categories and Point Distribution	
Category	Possible Points
1. Water Savings	25
2. Water Benefits in Relation to Delta Supply	15
3. Environmental Benefits	15
4. Annual Cost Basis	10
5. Performance Measures and Project Monitoring	5
6. Ability to Implement the Proposed Project	15
7. Water Management Plan	5
8. Complete Application	10
Total	100

The Technical Proposal should thoroughly address, in the order presented below, each of the following categories.

1. Water Savings (25 points maximum)

Please calculate the lifetime and annual project water savings based upon the life of the proposed project as related to the percentage of the applicant's water supply that impacts the Bay-Delta. Multiply the project's water savings by the percent of Bay-Delta water supply

impacted by the applicant's overall actions. For implementation projects that better manage water, attribute only 10% of benefits to conservation (i.e., multiply benefit by 0.1 in calculation).

Example 1a: A subcontractor (i.e., retailer) of a primary contractor (i.e., wholesaler) submits a proposal for a project that will, over the life of the project, save 20,000 AF, and annually save 1,000 AF of water. The subcontractor receives 65% of their water supplies from the contractor (i.e., the other 35% is from groundwater, recycled water, etc.). The contractor receives 80% of their water from sources that flow into the Bay-Delta (e.g., the American, Feather, Sacramento, or San Joaquin Rivers).

The subcontractor would calculate their total water savings thusly:

$$20,000 \text{ AF} \times 0.65 = 13,000 \text{ AF}$$

$$13,000 \text{ AF} \times 0.80 = 10,400 \text{ AF}$$

Therefore, the subcontractor's total water savings that impacts the Bay-Delta is 10,400 AF.

The subcontractor would calculate their annual water savings thusly:

$$1,000 \text{ AFY} \times 0.65 = 650 \text{ AFY}$$

$$650 \text{ AFY} \times 0.80 = 520 \text{ AFY}$$

Therefore, the subcontractor's annual water savings that impacts the Bay-Delta is 520 AFY.

Example 1b: A contractor submits a proposal for a project that will, over the life of the project, save 12,000 AF, and annually save 600 AF of water. The contractor receives 80% of their water from sources that flow into the Bay-Delta (e.g., the American, Feather, Sacramento, or San Joaquin Rivers).

The contractor would calculate their total water savings thusly:

$$12,000 \text{ AF} \times 0.80 = 9,600 \text{ AF}$$

Therefore, the contractor's total water savings that impacts the Bay-Delta is 9,600 AF.

The contractor would calculate their annual water savings thusly:

$$600 \text{ AFY} \times 0.80 = 480 \text{ AFY}$$

Therefore, the contractor's annual water savings that impacts the Bay-Delta is 480 AFY.

2. Water Benefits in Relation to Delta Supply (15 points maximum)

Using the annual water savings number from Criterion 1, please calculate and state the percentage of Delta water supply that will be conserved by the project. For implementation projects that better manage water, attribute only 10% of benefits to conservation (i.e., multiply benefit by 0.1 in calculation).

Example 2a (Based upon the same application in Example 1a, above): The subcontractor's annual water savings is 520 AFY, and the subcontractor's total annual supply from sources that flow into the Delta is 10,000 AFY.

The subcontractor would calculate their annual water benefits in relation to their Delta supply thusly:

$$(520 \text{ AFY} / 10,000 \text{ AFY}) \times 100 = 5.2\%$$

Example 2b (Based upon the same application in Example 2b, above): The contractor's annual water savings is 480 AFY, and the contractor's total annual supply from sources that flow into the Delta is 75,000 AFY.

The contractor would calculate their annual water benefits in relation to their Delta supply thusly:

$$(480 \text{ AFY} / 75,000 \text{ AFY}) \times 100 = 0.64\%$$

3. Environmental Benefits (15 points maximum).

Using qualitative and quantitative data about the proposed project, please address the following:

- Contribution towards one or more of the CALFED objectives: improving flows in the Bay-Delta, reducing irrecoverable water losses, attaining water quality benefits or attaining ecosystem benefits.
- Describe measurable benefits.
- Identify the direct benefits of the proposed work, including estimated acre-feet of water conserved or better managed, and any indirect benefits. Provide support for how estimates of the benefits were made (e.g., calculations, measurements and references).
- Identify the estimated period of time during which direct and indirect benefits will be derived (i.e., life of the project in number of years and whether benefits would occur year-round).
- Describe any long-term direct Bay-Delta benefits.
- Describe any State-wide (i.e., not local) benefits.
- Complete and include the following Project Benefit Table:

Table 5. Project Benefits

Benefit	Calculated Amount
Reduce Leaks and Seepage	Acre-Feet/Year
Reduces System Spills	Acre-Feet/Year
Makes More Water Available for Crop Use	Acre-Feet/Year
Reduces Diversions	Acre-Feet/Year
Reduces Operation Costs	\$/Year
Reduces Waste Treatment Cost	\$/Year
Improves Crop Yield	%/Year
Reduces On-Farm Costs	\$/Year
Reduces Per Capita Use	Gals/Capita/Day
Provides Technical Training	# of People
Provides Water Conservation Education	# of People
Improves Water Supply Reliability	Frequency (Years)
Reduces Drainage Induced Erosion	Tons/year

Improves Water Quality	% Reduction of
Enhances Aquatic/Riparian Habitat	Acres
Endangered Species	Yes/No
Optimizes In-Stream Flow Temperatures	Degrees/Day

4. Annual Cost Basis (up to 10 points)

Please calculate the “annual cost basis” for the proposed project: Take the capital costs and operating costs and amortize them over the life expectancy for the proposed project.

5. Performance Measures and Project Monitoring (up to 5 points)

Please expound upon the performance measures and project monitoring plan that will capture, verify, and document the actual benefits of the project once it is implemented.

6. Ability to Implement the Proposed Project (up to 15 points)

Please address the level of difficulty of implementing the proposed project, based upon the following:

- If collaboration is necessary, the level of collaboration among multiple entities.
- Whether the professional and technical qualifications of the applicant’s staff and resources are commensurate with the proposed project.
- If necessary, whether any letters of support are included.
- The applicant has existing (or details how it will develop new) partnerships necessary for the project’s short and long term success and sustainability.
- Whether the applicant has demonstrated good standing with past project performance on other Reclamation financial assistance agreements and contracts.
- The extent of initial and final design.
- Any anticipated technical or logistical difficulties.
- A schedule that tracks design, CEQA/NEPA/NHPA/SHPO compliance, permitting, and construction.
- A detailed budget

7. Water Management Plan (up to 5 points)

Please state whether or not the applicant is required to complete, or is exempt from completing, a water management plan (WMP). If there is a requirement, please demonstrate the applicant’s level of compliance by addressing the following:

- Applicants (and co- or sub-applicants) maintain current water management plans or regional water management plans and updates with Reclamation, California Department of Water Resources, California Urban Water Conservation Council or Agricultural Water Management Council, as appropriate. WMPs must include BMP or EWMP goals, targets, and accomplishments.
 - BMPs can be found at:
www.usbr.gov/mp/watershare/
www.cuwcc.org/mou/exhibit-1-bmp-definitions-schedules-requirements.aspx
 - EWMPs can be found at
www.agwatercouncil.org/images/stories/pdfs/ewmps.pdf.
- The proposal complies with the BMPs or EWMPs as prescribed by the State and

Federal guidelines.

8. Complete Application (up to 10 points)

Reclamation will evaluate the completeness of the application package based upon the detailed instructions contained within this FOA.

V.B Review and Selection Process

Reclamation reserves the right to reject any and all applications which do not meet the requirements of this FOA or which are outside the scope of CALFED Grants. Awards will be made for projects most advantageous to the Government. Award selection may be made to maintain balance among the program tasks listed in Section III.B. Eligible Projects. The evaluation process will be comprised of the steps described in the following subsections.

V.B.1 Initial Screening

All applications will be screened to ensure that they meet the following criteria:

- The application meets the 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 and a form SF-424B, Assurances—Non-Construction Programs, or SF-424D, Assurances—Construction Programs.
- The application includes an official resolution, adopted by the applicant's board of directors, governing body, or appropriate authorized official.
- At least 50 percent of the cost of the project 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 CALFED Grant project 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 applicant meets the eligibility requirements stated in this document.
- The application meets the description of eligible projects in Section III.B. Eligible Projects (Tasks A-D) and is within the scope of CALFED Grants.

- The project can be completed by December 31, 2019.

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 this section. An ARC, made up of experts in relevant disciplines selected from across Reclamation, will score submissions based on the evaluation criteria noted in Section V.A. Technical Proposal: Evaluation Criteria.

During the 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 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, and conduct a preliminary budget review and evaluate the applicant's ability to meet cost-share as required.

V.B.4 Managerial Review

Proposed projects will be prioritized to ensure the total amount of all awards do not exceed available funding levels, that all projects meet the scope, priorities, and requirements of CALFED, and that multiple project types are represented.

V.C 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 which are important, but not quantified, such as:

- Pre-award clearances, determinations, reviews, and approval
- Allowability, allocability and reasonableness of proposed costs
- Financial strength and stability of the organization
- 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 (OMB) circulars.

If the results of all pre-award reviews, clearances, and approvals are satisfactory, a funding award will be made once the agreement is finalized (approximately one to three months from date of initial selection). If the results of pre-award reviews and clearances are unsatisfactory, consideration of funding for the project 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 proposed project and other relevant information (e.g., expected water savings) 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 will post all successful applications on the Reclamation website after any redactions determined necessary by Reclamation, in consultation with the recipient.

VI.D Water Savings Validation

Reclamation will conduct water savings validation efforts on a number of awarded CALFED Water Use Efficiency Grants, including before and after tests, to assess the overall accuracy of water savings estimates. Through these efforts, Reclamation will collect data that can be used to determine ways to improve the information requested in future FOAs related to water savings estimates, leading to more precise estimates in the future. Tasks related to validation will take place after a financial assistance agreement has been entered into and the results will not impact a recipient's funding under the current agreement.

VI.E 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.

VI.E.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. The Final Financial Report is a culmination of all previous Financial Reports.

VI.E.2 Program Performance Reports

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

- Semi-annual reports, including, but not limited to, the following information:
 - A comparison of actual accomplishments to the milestones established by the financial assistance agreement for the period
 - The reasons why established milestones were not met, if applicable
 - The status of milestones from the previous reporting period that were not met, if applicable
 - Whether the project is on schedule and within the original cost estimate
 - Any additional pertinent information or issues related to the status of the project.
- Final report, including, but not limited to, the following information:
 - Whether the project objectives and goals were met
 - Discussion of the amount of water conserved, if applicable, including information and/or calculations supporting that amount
 - How the project demonstrates collaboration, if applicable

Please note that final reports are public documents and will be made available on Reclamation's website.

VI.F Award Term and Condition for Recipient Integrity and Performance Matters

If the total value of the recipient's active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of a financial assistance agreement issued under this FOA,

then the recipient during that period of time must maintain the information reported to SAM that is made available in FAPIIS about civil, criminal, or administrative proceedings described in paragraph 2 of this award term and condition. This is a statutory requirement under Section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by Section 3010 of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available.

VI.F.1 Proceedings Which Must Be Reported

Submit the information required about each proceeding that:

- a. Is in connection with the award or performance of a grant, cooperative agreement, or procurement contract from the Federal Government;
- b. Reached its final disposition during the most recent five year period; and
- c. Is one of the following:
 - (1) A criminal proceeding that resulted in a conviction, as defined in paragraph 5 of this award term and condition;
 - (2) A civil proceeding that resulted in a finding of fault and liability and payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more;
 - (3) An administrative proceeding, as defined in paragraph 5. of this award term and condition, that resulted in a finding of fault and liability and your payment of either a monetary fine or penalty of \$5,000 or more or reimbursement, restitution, or damages in excess of \$100,000; or
 - (4) Any other criminal, civil, or administrative proceeding if:
 - (i) It could have led to an outcome described in the above paragraphs 2.c.(1), (2), or (3) of this award term and condition;
 - (ii) It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and
 - (iii) The requirement in this award term and condition to disclose information about the proceeding does not conflict with applicable laws and regulations.

VI.F.2 Reporting Procedures

Enter the information that SAM requires about each proceeding described in paragraph 2 of this award term and condition in the SAM Entity Management area. You do not need to submit the information a second time under assistance awards that you received if you already provided the information through SAM because you were required to do so under Federal procurement contracts that you were awarded.

VI.F.3 Reporting Frequency

During any period of time when you are subject to the requirement in paragraph 1 of this award term and condition, you must report proceedings information through SAM for the most recent five-year period, either to report new information about any proceeding(s) that you have not reported previously or affirm that there is no new information to report. Recipients that have Federal contract, grant, and cooperative agreement awards with a cumulative total value greater than \$10,000,000 must disclose semiannually any information about the criminal, civil, and administrative proceedings.

VI.F.4 Definitions

For purposes of this award term and condition:

- a. Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative proceedings, Civilian Board of Contract Appeals proceedings, and Armed Services Board of Contract Appeals proceedings). This includes proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include audits, site visits, corrective plans, or inspection of deliverables.
- b. Conviction, for purposes of this award term and condition, means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of nolo contendere.
- c. Total value of currently active grants, cooperative agreements, and procurement contracts includes—
 - (1) Only the Federal share of the funding under any Federal award with a recipient cost share or match; and
 - (2) The value of all expected funding increments under a Federal award and options, even if not yet exercised.

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 Leanne Henderson, Grants Management Specialist, as follows:

By mail: Bureau of Reclamation
Mid-Pacific Region / MP-3829
Attn: Ms. Leanne Henderson
2800 Cottage Way
Sacramento CA 95825

By email: lhenderson@usbr.gov

Section VIII: Other Information

VIII.A FY2017 CALFED Water Use Efficiency Grants: Performance Measures

All CALFED Grant applicants are required to propose a method (or “performance measure”) of quantifying the actual benefits of their project once it is completed. Actual benefits are defined as water actually conserved, marketed, or better managed, as a direct result of the project. A provision will be included in all assistance agreements with CALFED Grant recipients describing the performance measure and requiring the recipient to quantify the actual project benefits in their final report to Reclamation upon completion of the project. Quantifying project benefits is an important means to determine the relative effectiveness of various water management efforts, as well as the overall effectiveness of CALFED Grants.

The following information is intended to provide applicants with examples of some acceptable performance measures that may be used to estimate pre-project benefits and to verify post-project benefits upon completion. **However, the following is not intended to be an exclusive list of acceptable performance measures. Applicants are encouraged to propose alternatives to the measures listed below if another measure is more effective for the particular project.** Reclamation understands that, in some cases, baseline information may not be available, and that methods other than those suggested below may need to be employed. If an alternative performance measure is suggested, the applicant must provide information supporting the effectiveness of the proposed measure as applied to the proposed project.

VIII.A.1 Performance Measure No. A: Projects with Quantifiable Water Savings

The performance measures included below are examples that may be helpful in estimating pre-project benefits and to verify post-project water savings for projects that are expected to result in quantifiable and sustained water savings or improved water management.

Performance Measure No. A.1: Canal Lining/Piping

Canal lining or piping projects are implemented to decrease canal seepage and evaporation.

The following information may be helpful in estimating the pre-project benefits and to verify the post-project benefits of canal lining and piping:

Pre-project estimations of baseline data:

To calculate potential water savings, physical measurements of seepage losses are necessary. Two testing procedures which can be used are listed below:

- **Ponding tests:** Conduct ponding tests along canal reaches proposed for lining or piping. At least two tests, one early and one late season, are suggested since seepage rates vary significantly during the irrigation season. Multiple years of data are also suggested.
- **Inflow/outflow testing:** Measure water flowing in and out of the canal reach. At least two tests, one early and one late season, are suggested since seepage rates vary significantly during the irrigation season. Multiple years of data are also suggested.

If ponding or inflow/outflow tests cannot be performed, document the estimated historical seepage and evaporation rates for the canal reach based on soils/geology conditions, flow rates, weather information, and historical knowledge. A discussion should be included on why ponding or inflow/outflow tests cannot be performed.

Post-project methods for quantifying the benefits of canal lining or piping projects:

- Using tests listed above, compare pre-project and post-project test results to calculate water savings. For canal lining projects, evaporation should be calculated based on weather data and then subtracted from the total loss measured by testing.
- If ponding or inflow/outflow tests cannot be performed, benefits can be calculated by comparing the estimated historical seepage and evaporation rates for the canal reach to the post project seepage and evaporation (documentation of proposed method of measuring or estimating post-project seepage and evaporation should be provided).
- Results can be verified using a ratio of historical diversion-delivery rates if adequate data exists. This type of verification should also include a comparison of historical canal efficiencies and current canal efficiencies. For example, if an irrigation district needs to divert 6 acre-feet of water to deliver 2 acre-feet of water to a field through an unlined or unpiped canal, this would be a 33-percent efficiency ($[100\% - (2 \text{ acre-feet} / 6 \text{ acre-feet} * 100)] = 66\%$ efficiency). If after lining or piping the canal, the irrigation district only needs to divert 4 acre-feet of water to deliver the 2 acre-feet;

efficiency would improve by 16 percent ($[100\% - (2 \text{ acre-feet} / 4 \text{ acre-feet} * 100)] = 50\%$ efficiency).

- Record reduction in water purchases by shareholders and compare to historical water purchases. Using this method would require consideration and explanation of other potential reasons for decreased water purchases.

For more information regarding canal seepage monitoring and verification, visit www.usbr.gov/pmts/hydraulics_lab/pubs/wmm.

Performance Measure No. A.2: Measuring Devices

Good water management requires accurate and timely water measurement at appropriate locations throughout a conveyance system. This includes irrigation delivery systems and municipal distribution systems.

Measuring Devices: a. Municipal Metering

For projects that install or replace existing municipal meters, the applicant should consider the following:

- Whether the project includes new meters where none existed previously or replaces existing meters.
- Whether the project includes individual water user meters, main line meters, or both.
- If the project replaces existing meters with new meters, whether new technologies (automatic meter reading (AMR) or advanced metering infrastructure (AMI) meters) will be employed.
- If main line meters are included, whether system leak detection may be improved.

Include a description of both pre and post-project rate structuring.

The following information about municipal meter installation and replacement may be helpful in estimating the pre-project benefits and to verify post-project benefits:

- Municipal water delivery meters are typically installed for each water user as well as at locations to measure production and/or supply and storage. Accurate measurement allows for demands assessment, customer billing, diagnostic testing, locating and quantifying leakage, and other management needs.
- Significant water savings can be achieved when meters are installed where none existed previously. In the case of individual water user metering,

most customers use significantly less water when billed at a usage rate; and especially so when a tiered rate is applied (i.e., higher rates for higher use). Installing new meters within the distribution system can also result in savings through improved leak detection/correction. Replacing existing meters can also result in water savings when new technologies are employed. For example, AMR and AMI devices provide real time measurement to the operator and, in some cases, to the customer as well. This allows for improved management by the operator, more conscientious use by the customer, and improved leakage detection by both.

- Quantifying savings associated with meter installation and/or replacement requires analysis of pre- and post-installation measurements from existing meters at strategic locations within the system. If the installing meters will result in conserved water, please provide support for this determination (including, but not limited to, studies and previous projects). A logical scheme should be developed that compares before and after installation flow quantities and that accounts for leakage and other considerations. The site-specific water savings verification plan should be as detailed as possible and clearly state all assumptions and the relative level of accuracy expected. In addition, please provide details underlying any assumptions being made in support of water savings estimates (e.g., residential users will reduce use once a more advanced billing structure is imposed).

Measuring Devices: b. Irrigation Metering

Installing measuring devices may include, but is not limited to, the following:

- Flow meters (current or acoustic)
- Weirs
- Flumes
- Meter gates
- Submerged orifices

Potential benefits from improved irrigation delivery system measurement include:

- Quantification of system losses between measurement locations
- Quantification of wasteway (spill) flows

- Accurate billing of customers for the actual amount of water delivered
- Facilitation of accurate and equitable distribution of water within a district

Allow for implementation of future system improvements such as seepage reduction, remote flow monitoring, and canal operation automation projects

The following performance measures may be helpful in estimating the pre-project benefits and to verify the post-project benefits of improved irrigation delivery system measurement:

Pre-project estimations of baseline data:

- Pre-project flows are difficult to estimate without a measuring device in place. However, the applicant may be able to use data from measurement devices located elsewhere in the delivery system (if available). Otherwise, the applicant may have to rely on other historical data and/or estimates based on soils/geology, flow data, and weather data.

Post-project methods for quantifying the benefits of projects to install measuring devices:

- Compare post-project water measurement (deliveries or consumption) data to pre-project water uses
- Compare pre-project and post-project consumptive use by crop via remote-sensing information—taking into account cropping patterns, irrigation methods, crop rotations, climatic variables, etc.
- Survey users to determine utility of the devices for decision making
- Document the benefits of any rate structure changes made possible by the installation of measuring devices (e.g., if districts that convert from nonmetered to metered are able to convert from billing water users at a flat rate to billing for actual water use using a volumetric or tiered water pricing structure)

Performance Measure No. A.3: SCADA and Geographic Information Systems (GIS)

Proposals may involve the installing or expanding a SCADA or combined SCADA/GIS system that monitors flows in an individual district or in a basin that includes several districts. SCADA systems provide water managers with real-time data on the flow and volume of water at key points along a water delivery system.

Access to such data allows water managers to make accurate and timely deliveries of water, reducing over-deliveries and spillage at the end of the canal. SCADA/GIS systems can provide water users with real time delivery data to promote improved on-farm efficiencies.

For projects that install or expand a SCADA and/or GIS system, the applicant should consider the following:

- How SCADA or SCADA/GIS implementation will differ from pre-project operations in terms of how improved data availability will be incorporated into daily operational decisions.
- How the SCADA or SCADA/GIS systems will be maintained once implemented. Discuss balance of in-house expertise anticipated vs. reliance on third party service provider(s).
- The projected opportunities for improved operational efficiencies that could be realized through implementation of a SCADA or SCADA/GIS system (e.g., improved delivery equity, improved response to unanticipated events, reduced administrative spillage, and enhanced productivity of human resources).
- The response process for SCADA or SCADA/GIS failures/outages.

The following performance measures may be helpful in estimating the pre-project benefits and to verify post-project benefits of installing a SCADA or SCADA/GIS system:

Pre-project estimations of baseline data:

- Collect data on diversions and deliveries to water users, making estimates if necessary
- Document employee pre-project time spent on ditch/canal monitoring and water control

Post-project methods for quantifying benefits of SCADA or SCADA/GIS system projects:

- Calculate amount of increased carryover storage in associated reservoirs. This is a long-term measure which will be more meaningful over a period of years.

- Track and record the diversions to water users and compare to pre-project diversions. This would show results of improved management if yearly fluctuations in weather are accounted for.
- Report delivery improvements (e.g., changes in supply, duration, or frequency that are available to end users because of SCADA/GIS).
- Document other benefits such as less mileage by operators on dusty roads (which saves time and influences air quality) and less damage to canal banks.

Performance Measure No. A.4: Automation

Proposals may include system automaton projects aimed at *preventing* spillage from canals, or drainage capture/reuse projects focused on *intercepting* spills and redirecting them to drains, canals, or reregulation reservoirs for reuse.

For projects that automate a system, the applicant should consider the following:

- The rationale of long-term automation plans (e.g., system-wide project vs. incremental implementation)
- Whether automation at given sites will result in heightened operational issues in other parts of the system (e.g., passing of supply/demand mismatches downstream)
- How automation technologies will be maintained (e.g., discuss balance of in-house expertise anticipated vs. reliance on third party service provider[s])
- The anticipated net benefits of implementing an automation project

The following performance measures may be helpful in estimating the pre-project benefits and to verify post-project benefits of automating a system:

Pre-project estimations of baseline data:

- Establish baseline data by measuring existing spillage or document historical spillage. A rated measuring device should be positioned to measure spillage losses. To account for temporal variations, a minimum of a one-year history of pre-project measurements is desirable for future comparison to post-project water usage. Spillage volumes can vary substantially between wet and dry years; therefore, some multi-year estimates of spillage may be necessary.

- Track pre-project water diversions using district or State diversion records.

Post-project methods for quantifying benefits of spillage reduction projects:

- Using rated devices, measure post-project flows. Gather enough data to account for seasonal and temporal variations. Using baseline and post-project data, calculate savings using the following calculation:

$$\text{Savings} = (\text{Spillage without project}) - (\text{Spillage with project}).$$

- Track post-project changes in the amount of water diverted and compare to pre-project diversion data.
- Compare estimated historical spills from district/project boundaries to post-project spills.
- Document how the additional water resulting from the reduction in spillage was used (e.g., water retained in the river to support riparian habitat, transferred for another use, or used to meet normal water demands in times of drought).
- Report specific volume changes to spills, diversions, or deliveries due to system automation.

For more information regarding canal seepage monitoring and verification, visit www.agwatercouncil.org/images/stories/monitoring_and_verification_canal_seepage.pdf

Performance Measure No. A.5: Groundwater Recharge (Conjunctive Use)

Some districts are implementing groundwater banking to control water quantity and quality issues.

For projects that implement groundwater recharge, the applicant should consider the following:

- Rules regulating groundwater deposits and withdrawals including production limits
- The aquifer being recharged and source of recharge water
- The availability and timing of surface water for recharge to the groundwater

- Recoverability of recharged water (e.g., how much can be recovered, where it can be recovered, who can recover it, who benefits from the recharged waters)
- The energy usage involved in the recharge and recovery of recharged water
- Pricing incentives for users to use conjunctive use of water supplies
- The cost to treat the recovered water and the cost to operate/maintain the facility

The following performance measures may be helpful in estimating the pre-project benefits and to verify the post-project benefits of groundwater recharge:

Pre-project estimations of baseline data:

- Establish a baseline with historical data from existing wells, including pumping volumes (i.e., amount, duration, and timing) and depth to groundwater elevations
- Document streamflows and spring discharges

Post-project methods for quantifying the benefits of groundwater banking projects:

- Compare pre-project and post-project recharge and/or pumping volumes
- Compare pre-project and post-project evaporation of surface water used for recharge
- Compare pre-project and post-project changes (i.e., amount, duration, and timing) in affected streamflows or in spring discharge related to groundwater banking
- Compare pre-project and post-project depth to groundwater elevations
- Determine changes in net groundwater use through a water table-specific yield method coupled with a detailed sub-basin hydrologic balance

Performance Measure No. A.6: Irrigation Drainage Reuse Projects

Drain water reuse can be a district level or regional conservation effort that consists of recovering residual irrigation water from drains and returning it to the water supply system for delivery to users.

Several types of projects can focus on drainage and reuse, including:

- Pump stations with constant flow rates
- Variable speed pump stations without SCADA controls
- Variable pump stations with SCADA controls
- Storage reservoirs with pump stations and constant flow rate
- Storage reservoirs with variable speed pump stations and SCADA controls

The following performance measures may be helpful in estimating the pre-project benefits and to verify the post-project benefits of drainage reuse projects:

Pre-project estimations of baseline data:

- A rated measuring device should be positioned to measure drain water losses
- To account for temporal variations, a minimum of a one-year history of pre-project measurements is desirable for future comparison to post-project water usage
- Drainage volumes can vary substantially between wet and dry years; therefore, some multi-year measurements of drain water losses may be necessary

Post-project methods for quantifying benefits of drainage reuse projects:

- Using rated devices, measure post-project flows.
- Gather enough data to account for seasonal and temporal variations.
- Using baseline data and post-project data, calculate savings using the following calculation:

$$\text{Savings} = ([\text{Drainage without project}] - [\text{Drainage with project}]) + ([\text{Spillage without project}] - [\text{Spillage with project}])$$

- Take readings from measuring devices positioned to measure drain water loss. A system analysis can be done with the following calculation:

$$\frac{\text{Drainage with project}}{\text{Drainage without project}} = (1 - \% \text{Reuse})^*$$

- Measure and record post-project water deliveries to fields, tailwater volumes entering reservoirs and tailwater volumes recycled to fields. Compare these data to historical data.
- Survey farmers and estimate any benefits to farmers, such as improved flexibility in water management, reduction in shortages of supply to tailenders, etc. If it is not possible to quantify these benefits in acre-feet, a narrative explanation is acceptable.

For more information regarding drainage reuse monitoring and verification, see www.usbr.gov/pmts/hydraulics_lab/pubs/wmm/.

Performance Measure No. A.7: Landscape Irrigation Measures

Municipal water providers can promote savings in outdoor water use by encouraging turf removal and installation of Smart irrigation controllers and high-efficiency irrigation nozzles (sprinkler heads). This is typically accomplished through rebate or direct installation programs.

Landscape Irrigation Measures: a. Turf Removal

For turf removal projects, the applicant should consider the total estimated quantity of turf to be removed and the estimated historical annual average quantity of water applied per unit area of turf. The product of these provides the estimated water savings.

Pre-project estimations of baseline data:

The historical average amount of water applied for turf irrigation should be estimated based on actual water consumption data or weather-based theoretical irrigation requirement estimates. Potential methods include the following:

- **Dedicated meter data.** Municipal water delivery entities often have users where dedicated irrigation meters exist (e.g., parks, home owners associations, and golf courses). If so, metered water use can be divided by the irrigated area to calculate the average annual irrigation rate per unit

area of turf. The greater the number of years of data used, the better the averages should be with regard to varying weather conditions. Also, when using this information, consider that parks and golf courses irrigation is typically more efficient relative to residential irrigation, so the actual turf removal savings for all types of users would be expected to be higher than for the average for these.

- **Winter/summer use data.** In the absence of dedicated irrigation meter data and where irrigation ceases during winter months, summer versus winter use data can be compared to estimate irrigation use. This can be analyzed for a sample of users and combined with an estimate of the total area irrigated. An average turf irrigation rate can be calculated.
- **Theoretical irrigation requirement.** In areas where winter irrigation occurs and dedicated irrigation meter data are not available, weather data can be used to estimate theoretical irrigation demand. These calculations consider reference evapotranspiration (ET) values from local weather stations, a crop coefficient for the type of grass, and an assumed average irrigation efficiency rate.
- **Assumed domestic use rate.** An alternative method for calculating theoretical irrigation demand subtracts the assumed domestic (indoor) water use rates from total use. Domestic water use can be estimated based on household size and an assumed per person indoor usage rate. The age of the community and existence of high-efficiency appliances and fixtures should be considered in the per person domestic use rate.

Post-project methods for quantifying benefits of drainage reuse projects:

- Site audits should be performed to measure the amount of turf removed at each location.
- Preliminary estimated water savings for each site should be calculated as the product of the annual average turf irrigation application rate estimate established pre-project and the area of turf removed.
- Before and after water consumption data for each site should be evaluated using at least one-year of post project data. Weather conditions for the pre- and post-project data evaluation periods should be considered and adjustments should be made if conditions were significantly different for the pre- and post-periods. The theoretical net irrigation requirement that can be calculated from local weather station data is the best measure to use for this. The annual or irrigation season net irrigation requirement is calculated as the difference in the total ET for the period and the total

effective precipitation for the period.

- The project total savings should be calculated by summing the individual site savings.

Landscape Irrigation Measures: b. Smart Irrigation Controllers

A Smart irrigation controller automatically adjusts the amount of water applied to landscaped areas based on weather or soil moisture conditions. Weather based controllers receive weather information from either onsite sensors or from remote weather stations via radio, pager or Internet signals. Soil moisture based controllers receive soil moisture information from one or more onsite sensors. With Smart controllers, watering is limited to replacing only the moisture that the landscape lost due to ET since the last irrigation.

The following performance measures may be helpful in estimating the pre-project benefits and to verify the post-project benefits of installing Smart controllers:

Pre-project estimations of baseline data:

The historical average annual amount of water applied for landscape irrigation for each project site should be estimated based on actual water consumption data or weather-based theoretical irrigation requirement estimates. Suggested methods include the following:

- Site audits should be conducted at each location within the project to measure landscape area and estimate the irrigation system's efficiency. Site audit-based recommendations for system efficiency improvement are strongly recommended.
- Unless a dedicated irrigation meter exists, the historical average annual landscape irrigation rate per unit area should be estimated using one of methods discussed under turf removal (e.g., dedicated meter data, winter/summer use data, theoretical irrigation requirement, or assumed domestic use rate).
- The total annual average water irrigation amount for each site should be calculated as the product of the landscape area and annual average application rate, and these should be summed for the project total.
- A preliminary water savings estimate can be calculated by applying an average water use reduction factor for the Smart controller being installed (as reported by the manufacturer and/or from published water savings study findings).

Post-project suggested methods for quantifying benefits of ET controllers:

Total project water savings can be estimated as the difference in annual pre- and post-project total metered water use or the difference in estimated annual outdoor water use. For the latter, irrigation use should be calculated at each site based on pre- and post-project meter data using the methods described under turf removal. Regardless of whether total metered usage or estimated outdoor use is used, weather conditions during the data periods should be considered (as also discussed under turf removal).

- Compare annual meter reading totals or estimated outdoor use prior to ET controller installation and post installation for each site and sum all for project total.
- If results are required earlier, the calculations can also be performed on a monthly time-step.

Landscape Irrigation Measures: c. High-Efficiency Nozzles

High-efficiency landscape irrigation nozzles (sprinkler heads) apply water more uniformly and at a lower rate relative to conventional pop-up type nozzles. This reduces runoff and improves the overall efficiency of the irrigation system to yield water savings.

Pre-project estimations of baseline data

Total irrigation water use for the project should be estimated using the same methods described above for turf removal and Smart controllers. Then a preliminary water savings estimates can be calculated using manufacturer data on reduced application rates relative to typical pop-up type nozzles.

Post-project suggested methods for quantifying benefits of ET controllers:

Site audits should be conducted to verify correct installation and water savings can be verified using the same methods as described above for Smart controllers (i.e., pre-project minus post-project total use or irrigation use from meter data). Site audits should include evaluation of irrigation system operations to verify adjustments have been made to compensate for the new nozzles.

VIII.A.3 Performance Measure No. B: Projects that Benefit Endangered Species and/or Critical Habitat

For projects that benefit federally listed species (threatened or endangered), federally recognized candidate species, or designated critical habitat that are affected by a Reclamation facility, the applicant should consider the following:

- The methodology used for determining the recovery rate of the threatened and/or candidate species
- How their projects will address designated critical habitats, including acres covered, species present, and how the water savings or transfers are expected to benefit the habitat(s)
- Unavoidable negative impacts to endangered, threatened, or candidate species and/or the critical habitat(s)

VIII.B Overview of Environmental and Cultural Resources Compliance Requirements

Under no circumstances may an applicant begin any ground-disturbing activities (including 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.

Before approving expenditures for the implementation of a CALFED Grant project, Reclamation is required to comply with applicable environmental laws. Such compliance requires the participation and cooperation of both Reclamation and CALFED Grant recipients. This information is intended to inform applicants about the environmental compliance process associated with CALFED Grant projects and to summarize the requirements of certain Federal environmental laws.

Reclamation addresses environmental compliance issues for CALFED Grant applications as 1) an initial review and 2) a more detailed review of projects initially recommended for award. First, as part of the initial recommendation process, Reclamation evaluates the appropriateness of the amount budgeted for environmental compliance. Reclamation also examines the proposal to determine whether any significant environmental issues are involved in the project. Second, once a proposal has been initially recommended for funding, Reclamation

undertakes a more detailed examination of environmental issues associated with the proposed project to comply with applicable law.

VIII.B.1 Review within the Application Evaluation Process

In the evaluation and selection process, Reclamation performs an initial review of the CALFED Grant applications for potential environmental issues. At this stage, Reclamation's review is focused on whether:

- The applicant has budgeted appropriately for environmental compliance
- Any significant environmental issues (i.e., issues that would make the project infeasible) are apparent

Applicants for CALFED Grant funding must include a line item in their budget estimating the cost of environmental compliance for their project. The amount budgeted should be based on the actual expected environmental compliance costs, but should be equal to at least 1 to 2 percent of the total project costs. If less than 1 to 2 percent is budgeted, you must provide justification. Applications will be scored based on whether the amount budgeted appears reasonable.

Environmental compliance costs that are included in your budget proposal are considered project costs and may be cost shared by the recipient and Reclamation. Any actual costs above the amount that you budgeted for must generally be paid for solely by you. If too much is budgeted for environmental compliance, any remaining funding may generally be reallocated to cover other project costs.

Environmental compliance costs have varied greatly for past projects. A minimal number of projects have incurred environmental compliance costs over the 1 to 2 percent budgeted amount. In each of those cases, the overage has been the result of issues involving historic properties, the presence of endangered species, or other compliance concerns requiring a more lengthy assessment of specific issues.

In addition to budgeting for environmental costs, the FOA requests that applicants for CALFED Grant project funding answer a series of questions about the potential environmental impacts of their proposed project. In general, applications will not be scored lower in this first step of the environmental review based on the significance of the environmental issues involved. Rather, the information about environmental impacts is used by Reclamation primarily to determine if the you have budgeted appropriately. However, in some extreme cases, a proposal may be

eliminated from further consideration at this stage if the magnitude of the environmental issues would make the project infeasible.

VIII.B.2 Review of Initially Recommended Projects

If a proposal is initially recommended for funding, a detailed analysis will be performed to determine the actual environmental impacts of the project, to agree on any mitigation measures needed, and to document environmental compliance. The recipient will then work with Reclamation to provide the information necessary for Reclamation to complete the environmental compliance work.

All awards will be made contingent on completion of environmental compliance, and the assistance agreement will describe how compliance will be carried out and how it will be paid for. CALFED Grant funding may not be applied to construction or implementation of the project itself unless and until this second level of environmental analysis is completed to comply with all applicable environmental laws.

VIII.B.3 Overview of Relevant Environmental Laws

Following is a brief overview of NEPA, NHPA, and ESA. While these statutes are not the only environmental laws that may apply to CALFED Grant projects, they are the Federal laws that most frequently do apply. Compliance with all applicable environmental laws will be initiated by Reclamation concurrently, immediately following the initial recommendation of a CALFED Grant award. The descriptions below are intended to provide applicants with information about the environmental compliance issues that may apply to proposed projects and to help budget appropriately for the associated compliance costs.

National Environmental Policy Act (NEPA)

NEPA requires Federal agencies such as Reclamation to evaluate—during the decision-making process—the potential environmental effects of a proposed action and any reasonable mitigation measures. Before Reclamation can make a decision to fund a CALFED Grant project, Reclamation must comply with NEPA. Compliance with NEPA can be accomplished in several ways, depending upon the degree and significance of environmental impacts associated with the proposal:

- Compliance with NEPA might require preparation of an **Environmental Assessment/Finding of No Significant Impact (EA/FONSI)**. Generally, where there are not believed to be any significant impacts associated with

the proposed action, an EA will be required. The EA is used to determine whether any potentially significant effects exist and to discuss potential mitigation for any potentially significant impacts. If no potentially significant effects are identified, or those identified can be mitigated, the EA process ends with the preparation of a FONSI. The EA/FONSI process can take weeks or even months to complete. Consultation with other agencies and public notification are part of the EA process.

- The most detailed form of NEPA compliance, where a proposed project has potentially significant environmental effects that cannot be mitigated or a substantial controversy exists regarding the use of the resource, may require preparing an **Environmental Impact Statement (EIS)** and a **Record of Decision (ROD)**. An EIS can take months or years to complete, the process includes considerable public involvement, including mandatory public reviews of draft documents, and the costs can be substantially greater than other types of analyses. It is not anticipated that projects proposed under this program will require completion of an EIS.

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

Reclamation has the sole discretion to determine what level of environmental NEPA compliance is required. If another Federal agency is involved, Reclamation will coordinate to determine the appropriate level of compliance. You are encouraged to contact your regional or area Reclamation office. See <http://www.usbr.gov/main/offices.html> with questions regarding NEPA compliance issues. Applicants may contact David T. White, Program Coordinator, at 916-978-5208 for further information.

National Historic Preservation Act (NHPA)

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

If a proposal is selected for initial award, CALFED Grant recipients will work with Reclamation to complete the Section 106 process. Compliance can be

accomplished in several ways—depending on how complex the issues are—including:

- If Reclamation determines that the project does *not* have the potential to cause effects to historic properties, then Reclamation will document its findings and the Section 106 process will be concluded. This can take anywhere from a couple of days to one month.
- If Reclamation determines that the proposed project *could* have effects on historic properties, a multi-step process, involving consultation with the State Historic Preservation Officer and other entities, will follow. Depending on the nature of the project and impacts to cultural resources, consultation can be complex and time consuming. The process includes a determination as to whether additional information is necessary; evaluation of the significance of identified cultural resources; assessment of the effect of the project on historic properties; and, if the project would have an adverse effect, evaluation of alternatives or modifications to avoid, minimize, or mitigate the effects. A Memorandum of Agreement is then used to record and implement any necessary measures. At a minimum, completion of the multi-step Section 106 process takes about two months.

Among the types of historic properties that might be affected by CALFED Grants are **historic irrigation systems** and **archaeological sites**. An irrigation system or a component of an irrigation system (e.g., a canal or headgate) is more likely to qualify as historic if it is more than 50 years old, if it is the oldest (or an early) system/component in the surrounding area, and if the system/component has not been significantly altered or modernized. In general, CALFED Grant projects that involve ground disturbance, or the alteration of existing older structures, are more likely to have the potential to affect cultural resources. However, the level of cultural resources compliance required, and the associated cost, depends on a case-by-case review of the circumstances presented by each proposal.

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

Endangered Species Act (ESA)

Pursuant to Section 7 of the ESA, each Federal agency is required to consult with the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service to ensure any action it

authorizes, funds, or carries out is not likely to *jeopardize the continued existence of any endangered or threatened species or destroy or adversely modify any designated critical habitat.*

Before Reclamation can approve funding for the implementation of a CALFED Grant project, it is required to comply with Section 7 of the ESA.

The steps necessary for ESA compliance vary, depending on the presence of endangered or threatened species and the effects of the project. A general overview of the possible course of ESA compliance is:

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

ESA compliance is often conducted parallel to the NEPA compliance process and, as in the case of categorical exclusion checklists, documented simultaneously. The best source of information concerning the compliance with the ESA in a particular project area is the local Reclamation environmental staff, who can be helpful in determining the presence of listed species and possible effects that would require consultation with the USFWS or NOAA Fisheries Service. You are encouraged to contact your regional or area Reclamation office (see <<http://www.usbr.gov/main/offices.html>>) with questions regarding ESA compliance issues. Applicants may contact David T. White, Program Coordinator, at 916-978-5208 for further information.