

RECLAMATION

Managing Water in the West

FUNDING OPPORTUNITY ANNOUNCEMENT NO. 08-SF-40-2663

PROGRAM NAME

Water Conservation Field Services Program

Fiscal Year 2008



**U.S. Department of the Interior
Bureau of Reclamation**

January 2008

OVERVIEW

See Section No.

Federal Agency Name:	Department of the Interior, Bureau of Reclamation, Upper Colorado Region, Salt Lake City, UT
Funding Opportunity Title:	Water Conservation Field Services Program
Announcement Type:	Initial Announcement
Funding Opportunity Number:	08-SF-40-2663
Catalog of Federal Domestic Assistance (CFDA) Number:	15.530
Application Due Date:	<i>February 22, 2008, 3:00 p.m. MST</i>
Eligible Applicants:	Irrigation and/or water districts; communities; state, Tribal, or local water agencies; water related non-profit organizations; or educational institutions that support, and/or have a definable connection to or with a Reclamation Project and are located within the boundaries of Reclamation's Upper Colorado Region.
Applicant Cost Share:	
Federal Funding Amount:	<i>Up to \$50,000 for implementation activity per award, \$25,000 or less for all other activities per award</i>
Estimated number of agreements to be awarded:	6-20
Total amount of funding available for award:	<i>\$400,000</i>

PROPOSAL CHECKLIST

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

√	What to Submit	Required Content	REQUIRED FORM OR FORMAT	WHEN TO SUBMIT
	TECHNICAL PROPOSAL:	See Sec. IV.C	See below and Section XI	02/22/08
	• Cover Page	See Sec. IV.C.2.1	Form SF 424 form available at grants.gov	02/22/08
	• Assurances	See Sec. IV.C.2.7	Form SF 424B or SF 424D, as applicable, available at Grants.gov	02/22/08
	• Title Page	See Sec. IV.C.2.8	See suggested format at Section XI	02/22/08
	• Table of Contents	See Sec. IV.C.2.9	See suggested format at Section XI	02/22/08
	• Executive Summary	See Sec. IV.C.2.10	See suggested format at Section XI	02/22/08
	• Background Data	See Sec. IV.C.2.11	No specific form or format	02/22/08
	• Project Description	See Sec. IV.C.2.13	No specific form or format	02/22/08
	• Regulatory Compliance	See Sec. V.A.1		02/22/08
	• Funding Plan	See Sec. IV.D	See suggested format at Section XI	02/22/08
	• Official Resolution	See Sec. IV.D.1	See suggested format at Section XI	02/22/08
	PROJECT BUDGET PROPOSAL:	See Sec. IV.E	See below and Section XI	02/22/08
	• Budget Proposal	See Sec. IV.E.2	See suggested format at Section XI	02/22/08
	• Budget Narrative	See Sec. IV.E.2.1-IV.F.2.10	See suggested format at Section XI	02/22/08
	• Indirect Rate Agreement or Computation Basis	See Sec. IV.E.2.9	See suggested format at Section XI	02/22/08
	• Budget Form		Form SF 424A or SF 424C, as applicable, available at http://www.whitehouse.gov/omb/grants/grants_forms.html	02/22/08
INSERT ANY ADDITIONAL REQUIRED SUBMISSIONS BASED ON THE FUNDING OPPORTUNITY REQUIREMENTS (EXAMPLES BELOW)				
	• Project Reports & Previous Studies	See Sec. IV.F	See suggested format at Section XI	02/22/08
	• Construction Plan	See Sec. IV.G	See suggested format at Section XI	02/22/08
	• Need for Project & Community Involvement	See Sec. IV.H	See suggested format at Section XI	02/22/08
	• WUE Improvements & Other Benefits	See Sec. IV.I	See suggested format at Section XI	02/22/08
	• Project Benefits Sheet	See Sec. IV.C.2.5	Form attached; See Attachment A, suggested format at Section XI	02/22/08
Submit an <u>original</u> and <u>three</u> copies of all of the above documents				

SECTION I – FUNDING OPPORTUNITY DESCRIPTION

I.A. PROGRAM DESCRIPTION

I.A.1 BACKGROUND

The Bureau of Reclamation's Upper Colorado Region is requesting proposals for the Water Conservation Field Service Program (WCFSP). Many, if not most, of the Bureau of Reclamation projects in the Upper Colorado Region have been in operation for several decades and are still using practices and procedures that represent state-of-the-art technology at the time the project was constructed. Much can be done to advance these projects to 2000's technology with the accompanying increase in water use efficiency. Likewise, per capita urban water use in various locations within the Upper Colorado Region is among the highest in the nation

Reclamation has financial assistance available in the form of grants and cooperative agreements for water conservation activities. Applications are now being accepted from those entities wishing to receive financial assistance from the Water Conservation Field Services Program.

The mission 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.

I.A.2 PROGRAM OBJECTIVE

The program objective is to improve water use efficiency, encourage water management planning by water purveyors, promote basic technical understanding of water management and conservation practices by water users, and basic understanding of water use issues by the public.

I.A.3 OBJECTIVE OF REQUEST FOR PROPOSALS

Reclamation is especially interested in supporting activities that promote the preparation of written water management and conservation plans; **implement activities identified in written water management plans**; demonstrate water management technologies and practices that are new or unfamiliar to local water users; and promote improved understanding of good water use practices and principles. All of these activities are intended to assist water users in minimizing waste and improving water use efficiency.

I.B. ELIGIBLE PROJECTS

Reclamation is providing financial assistance for a variety of cooperative activities, demonstration programs and pilot projects to promote and implement improved water management and conservation. To be eligible for financial assistance, a proposed activity must have a defined relationship to one, or more (i.e., project features and facilities, project service area, or water systems or water supplies affected by a specific Reclamation project.), specific Reclamation water project. In addition, the proposed activity should be within the Upper Colorado Region's jurisdictional area (see the attached map). Activities to be considered for financial assistance should address one of the following, listed in order of funding preference:

I.B.1 TYPES OF PROJECTS

1. Help water purveyors develop written water management and conservation plans that are

modeled after plans described in *Achieving Efficient Water Management: A Guidebook for Preparing Agricultural Water Conservation Plans, Second Edition (Guidebook)*. The proposed activity should address one or more of the planning tasks discussed in the Guidebook. The proposal should describe why the applicant needs financial assistance to help prepare a written plan. It should also describe what Federal or State regulations require the preparation of a plan, what tasks will be accomplished during the activity, when and to whom the plan will be submitted, and how Federal funds will be used to prepare the plan;

2. Implement more efficient water management measures with special emphasis on the "fundamental" water management practices (i.e., measuring and billing for water delivered, eliminating pricing disincentives, and training key stakeholders) as part of its written water management and conservation program (This is a "starter" program and is not intended for extensive distribution system rehabilitation or on-farm modernization). The proposal should indicate that the proposed activity is included in the organization's written water management and conservation plan, when and to whom the plan was submitted, and describe the proposed activity. It should tell why the activity is important to the organization and how the organization intends to monitor the effectiveness of the implemented activity. Since Federal funds will probably not cover full implementation of the activity, the proposal should explain how the organization intends to achieve full implementation of the activity. The proposal should also explain how Federal funds will be used to implement the activity;

3. Increase technical understanding of unfamiliar water management and conservation principles and practices that have not been previously used locally. The proposed activity should not only "publicly" demonstrate a new or unfamiliar practice; it should contain a process for informing interested individuals and organizations about the outcome of the demonstration. The proposal should describe what principle or practice is to be demonstrated. The proposal should explain why the demonstration is necessary and what the intended outcome of the demonstration is. The proposal should contain a process for informing the public about the outcome of the demonstration. It should also explain how Federal funds will be used for the demonstration activity; or

4. Improve a segment of the public's understanding of good water management principles through training and research programs. The proposal should state what water management concept or principle is the focus of the training or research activity and why it is important. It should discuss how the message or findings will be disseminated, the size of the target audience, and the composition of the target audience. The proposal should explain how Federal funds will be used for the training or research activity.

I.C. PROGRAM AUTHORITY

The WCFSP does not have specific authority to provide financial assistance and must rely on other existing authorities. Financial assistance for planning is provided under authority of Sec. 210(b) of the Reclamation Reform Act of 1982, as amended in conjunction with the Energy and Water Development Appropriation Act, 2008. Nearly all other WCFSP financial assistance is provided through a Secretarial Delegation of Authority, Fish and Wildlife Coordination Act. In order to use this authority, a proposed activity must contribute to "...the improvement of fish and wildlife habitat associated with water systems or water supplies affected by Reclamation Projects." Typically, the activity could improve the stream flow, improve the water quality by reducing contaminated return flows, reduce withdrawals from a reservoir leaving more water for the fishery, etc. Eligible recipients under this authority include irrigation and/or water districts or entities; communities; state, local, or Tribal water agencies; water-related non-profit organizations; or universities.

A few activities may conform to requirements of the Energy and Water Development Appropriations Act that have been established for Water 2025 projects. Eligible recipients are limited to irrigation districts, water districts and states. Funds can be provided for up to 50 percent of the cost of planning, designing, and constructing improvements that will conserve water, increase water use efficiency, or enhance water management through measurement or automation, at existing water supply projects. Funds can also be provided to universities or non-profit research institutions to fund water use efficiency research.

Reclamation will determine which authority is applicable to each proposal.

SECTION II -- AWARD INFORMATION

II.A. TOTAL PROJECT FUNDING

It is anticipated that between 6 and 20 agreements will be awarded, depending on the total amount of funding requested for successful proposals. The total amount of funding for all grants or cooperative agreements awarded as a result of this request for proposals is approximately \$400,000. Additional funds might become available during the fiscal year.

II.B. PROJECT FUNDING LIMITATIONS

To facilitate the broad and effective use of limited Federal funds, Reclamation's share of any one proposed activity shall not be more than \$50,000 for implementation activity per award, \$25,000 or less for all other activities per award. However, Reclamation retains the right to exceed that amount on a case-by-case basis. Reclamation desires to fund as many activities as possible so additional credit will be given to proposals requesting less than the maximum amount.

II.C. RECLAMATION RESPONSIBILITIES

Substantial involvement between Reclamation and the Recipient during the performance of this activity will be determined on a case-by-case basis. In the event of substantial Reclamation involvement, Reclamation will provide the following:

II.C.1 Reclamation shall collaborate and participate with the Recipient in the management of the activity and closely oversee the Recipient's activities to ensure that the program objectives are being achieved.

II.C.2 This oversight shall include review, input, and approval at key interim stages of the activity as identified in the Recipient's proposal.

II.D. AWARD DATE

It is anticipated that awards will be made after February 22, 2008, with an anticipated activity start date on or after that date.

SECTION III -- ELIGIBILITY INFORMATION

III.A. ELIGIBLE APPLICANTS

Eligible applicants may include irrigation and/or water districts or entities, communities, state or local water agencies, water-related non-profit organizations, or educational institutions proposing to conduct water conservation activities within the boundaries of Reclamation's Upper Colorado Region, specifically, western Colorado, southeast Idaho, New Mexico, southwest Texas, Utah, northeast Arizona, and southwestern Wyoming (See attached map.). Applicants should refer to Section IV of this document for further information regarding requirements for information to support eligibility for award of an agreement under this program.

III.B. COST SHARE REQUIREMENTS AND GUIDELINES

Applicant's cost sharing is not required except when funding is provided under authority of, Energy and Water Development Appropriations Act, (Water 2025 authority). However, applicant cost sharing will be given greater consideration in the ranking process for proposed activities. Cost sharing may be made through cash or in-kind contributions from the applicant, or third party partners.

If cost sharing would be provided, the applicant's proposal shall include a funding plan that describes how the non-Reclamation share of the costs will be obtained. Reclamation will make a determination of financial capability based on the funding plan submitted (see Section IV.B.2.8).

All cost sharing must be in accordance with the criteria set forth in OMB Circular A-102 or A-110, as applicable. During the activity, indirect costs which are incurred and will not be recovered may be included as part of your cost-share. In-kind contributions will be counted in-lieu of cash.

Activity costs such as design, construction plans, and compliance that have been incurred prior to date of award of the activity but after the date the appropriation authority was signed may be submitted for consideration as an allowable portion of the recipient's cost share for the activity. Reclamation will review the proposed pre-award costs to determine if they are allowable in accordance with the authorizing legislation and applicable cost principles.

III.C. LENGTH OF PROJECT

Completion of a grant or cooperative agreement and receipt of final billing to Reclamation will not go beyond 24 months from date of the award.

III.D. OTHER REQUIREMENTS

Applicants shall adhere to Federal, state, 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.

SECTION IV -- APPLICATION AND PROPOSAL 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 a proposal.

If you are unable to access this information electronically, you may request paper copies of any of the documents referenced in this request for proposals by contacting:

By mail: Bureau of Reclamation
Upper Colorado Regional Office
Acquisition Division
Attn: Linda Daniel (UC-830)
125 South State Street, Room 6103
Salt Lake City, UT 84138-1147

E-mail: ldaniel@uc.usbr.gov

Fax: 801-524-3857

IV.B. INSTRUCTIONS FOR SUBMISSION OF PROJECT PROPOSAL

Each applicant shall submit a proposal in accordance with the instructions contained in this section. Each proposal shall consist of the following elements: (1) Technical Proposal; (2) Funding Plan; (3) Budget Proposal; (4) Activity Schedule; (5) Supplemental Questions and (6) Project Benefits Sheet.

IV.C. TECHNICAL PROPOSAL INSTRUCTIONS

IV.C.1 Proposal Format and Length

Each applicant shall submit a proposal in accordance with the instructions contained in this section. **Do not include** a cover letter or company literature/brochure with your proposal. All pertinent information must be included in your Technical and Activity Budget Proposals in accordance with the formats described in this section.

Technical proposals shall be limited to **five (5)** 8-1/2 inch X 11 inch pages, excluding any required forms stated in these instructions, **single-spaced** on one side of the page. The font used shall be easily readable and shall be between 10 and 12 points. Proposals will be prescreened for compliance to the 5-page limit. The cover sheet (Standard Form 424) and Assurances (Standard Form 424B or D, as applicable) will not be counted in the 5-page limit. All pages shall be consecutively numbered, including pages with tables and exhibits.

Applicants shall submit an original and one copy of all proposal documents.

IV.C.2 TECHNICAL PROPOSAL CONTENT

IV.C.2.1 Cover Page

The cover page shall consist of a fully completed SF 424 - Application for Federal Assistance. This form must be signed by a person legally authorized to commit your organization to performance of the activity. This form is available at <http://www.whitehouse.gov/omb/grants/sf424.pdf>

IV.C.2.2 Activity Identification

Beginning on a new page, provide a brief, informative, and descriptive title for the proposed work. Include names and address of organization, and name and address, email address, telephone and facsimile numbers of the activity manager.

IV.C.2.3 Scope of Work

Describe in detail the work to be carried out. Break the proposed work, including reporting, into major tasks. Discuss the approach to accomplish the proposed work. This discussion shall be in sufficient detail to permit a comprehensive evaluation of the proposal.

Describe water conservation measures to be taken pursuant to the proposed action. Information should be included that describes the degree of consultation, coordination and/or cooperation with or among the parties that are involved in this proposal. Please highlight innovative elements of the activity.

IV.C.2.4 Available Funding Authorities

Provide information to establish your eligibility within the following authorities to receive WCFSP funding (see Sec. I.C Activity Authority for more details): within one of the following authorities.

- Describe how the activity will help you prepare a water conservation plan for your organization or to implement a water management practice identified in your existing water management and conservation plan; or
- Describe how this proposed activity contributes to the improvement of fish and wildlife habitat associated with water systems or water supplies affected by Reclamation Projects. Identify the improvement to fish and wildlife habitat, the specific water supply or water system affected by a Reclamation project(s), and the associated Reclamation Project(s); or
- Indicate that you are an irrigation or water district willing to contribute at least 50 percent of the cost of a water system improvement, e.g., canal lining, automation, enhanced water measurement, etc; or
- **For activities authorized under the Water and Energy Management and Development Appropriation Act, indicate that you are an education or non-profit research organization engaged in research to improve water use efficiency. Describe how your research will improve water use efficiency.**

IV.C.2.5 Anticipated Water Management Benefits

Reclamation is required to report on potential water management benefits resulting from its financial assistance. Each application should identify as many of the water management benefits shown below

that may apply to the proposed activity. The proposal should describe how the activity would achieve the benefit(s) and provide numerical estimates, where possible. The potential water management benefits will be considered during the selection process:

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 Energy Cost	_____ \$/Year
Reduces Waste Treatment Cost	_____ \$/Year
Improves Crop Yield	_____ Percent/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 (Yrs)*
Reduces Drainage Induced Erosion	_____ Tons/year
Improves Water Quality	_____ %Reduction of _____
Enhances Aquatic/Riparian Habitat	_____ Acres
Endangered Species	_____ Yes/No

*Estimate of how often the improvement will occur (i.e. 1 = each year, 2 = 1 in 2 years etc.)

Note: The above are estimates of the benefits to be provided by your proposed activity. At the conclusion of your activity, you will be required to prepare a final report that documents actual benefits achieved by the activity.

IV.C.2.6 Supplemental Questions

Please briefly answer all of the following questions **in the section that applies** to your proposed activity.

Water Management/Conservation Plan Development Activity

1. Why do you need financial assistance from Reclamation to complete the activity?
2. How does your organization intend to use and implement the completed plan?
3. What portion of the plan will be completed by the proposed activity?
4. What steps will be followed in the development of the plan?
5. How will the public and outside participants be involved in the planning process?
6. What resources in addition to Reclamation's financial assistance will be used in the planning process?

Water Management/Conservation Measure Implementation Activity

1. Why do you need financial assistance from Reclamation to complete the activity?
2. Is the proposed activity included as a component of a written water management/conservation plan and has the plan been formally submitted to a federal, state, or local agency? If the proposed activity is contained in a formal plan, what specific goal and objective in the plan is the proposed activity intended to accomplish?
3. How will this activity promote good water management and efficient water use?
4. How does your organization plan to achieve full implementation of the proposed activity?
5. How does your organization intend to evaluate the effectiveness of the completed activity?

Water Management/Conservation Measures or Technology Demonstration Activity

1. Why do you need financial assistance from Reclamation to complete the activity?
2. Why is this demonstration needed?
3. What is the intended outcome of the demonstration?
4. How will the effectiveness of the demonstration be assessed?
5. How do you intent to inform interested individuals and organizations about the outcome of the demonstration?

Water Management/Conservation Training or Research Activity

1. Why do you need financial assistance from Reclamation to complete the activity?
2. What is the need for this training/research activity with relation to good water management and efficient use of water?
3. How do you intend to disseminate your message or findings?
4. What is your target audience?
5. Can you measure the impact of your message upon good water management and efficient use of water?

IV.C.2.7 Assurances

Include with your proposal a completed and signed SF 424B – Assurances – Non-Construction Programs or an SF 424D – Assurances – Construction Programs. This form must be signed by a person legally authorized to commit your organization to performance of the activity. These forms are available at http://www.whitehouse.gov/omb/grants/grants_forms.html .

IV.C.2.8 Title Page

IV.C.2.9 Table of Contents

IV.C.2.10 Executive Summary

IV.C.2.11 Background Data

Include location (state, county, and direction from nearest town) and other appropriate information necessary to establish the need for the activity. Also in this section, identify and define the relationship of this activity to a Reclamation water project(s).

IV.C.2.12 Other Pertinent Program or Proposal Requirements

IV.C.2.13 Project Description

IV.C.2.14 Environmental and Regulatory Compliance.

IV.D. FUNDING PLAN AND LETTER OF COMMITMENT INSTRUCTIONS

IV.D.1 OFFICIAL RESOLUTION INSTRUCTIONS

All proposals shall include an official resolution adopted by the applicant's Board of Directors, governing body, or for Western States, an authorized official to commit the applicant to the financial and legal obligations associated with the receipt of the financial assistance under the Water Conservation Field Services Program (WCFSP).

IV.E. BUDGET PROPOSAL INSTRUCTIONS

IV.E.1 General Requirements

Include a budget with the estimated costs to conduct the proposed activity. The budget should include the sources and values of in-kind contributions of goods and services as well as funds provided to complete the activity (i.e. include the total cost of the activity, and not just the requested funds).

IV.E.2 Budget Proposal Format

There is no specific budget format required. The activity budget should include sufficient detailed information to enable us to evaluate the reasonableness of the budgeted amount. Listed below are additional instructions for some budget categories frequently encountered. Not all proposals will have costs in each category. The classification of costs into the various categories is not essential. These categories are provided simply as a means to provide instructions regarding the type of information to submit with the budget. If the activity budget includes expenses in these categories, follow the instructions provided. If the activity budget includes expenses in "Other" category, provide information that describes how the budget amount was estimated, what assumptions it is based upon, etc. **In all cases, sufficient information must be provided to allow a determination that the budget is fair and reasonable for the proposed activity. If sufficient information is not provided with the proposal, the requestor will be contacted to obtain the necessary information prior to any award.**

IV.E. 2.1 Salaries and Wages and Qualifications of the Applicant/ Cooperators—

Salaries and Wages

Identify the personnel, by title, who will conduct the proposed activity. For all identified positions, indicate the salaries and wages, estimated hours or percent of time in conducting the activity, and the rate of compensation proposed.

IV.E.2.2 Fringe Benefits

Indicate the rate or amount estimated for fringe benefits, and the items that are included in this category.

IV.E.2.3 Travel

Include the purpose of the trip, destination, number traveling, length of stay, and all travel costs, including air fare, per diem, lodging, and miscellaneous travel expenses. For local travel, include the number of miles and rate per mile.

IV.E.2.4 Equipment

Identify the type of equipment to be used, hourly rate (but include the wages for the operator, if any, in the Salaries and Wages category), and estimated number of hours.

IV.E.2.5 Supplies

Itemize material and supplies by major category and purpose, such as office, research, or construction. When possible, identify the unit price and quantity.

IV.E.2.6 Contractual

Identify all work that will be accomplished by subrecipients or consultants. For each subrecipient or consultant, include budgets in the same detail as that budget submitted for the recipient. If a subrecipient or consultant is proposed and approved at the time of award, no other approvals are necessary. Any changes or additions to the approved plan will require a request for approval.

IV.E.2.7 Environmental and Regulatory Compliance Costs**IV.E. 2.8 Other**

Any other expense not included in the categories above, shall be listed in this category, along with a description of the item and for what it will be utilized. Provide the basis for the estimated cost, assumptions used in the estimate, etc. **Profit** – No profit or fee will be allowed.

IV.E. 2.9 Indirect Cost**IV.E. 2.10 Total Cost**

Indicate the total amount of the budget, including Federal and non-Federal amounts.

IV.E. 2.11 Budget Information**IV.F. Project Reports and Previous Studies****IV.G. Construction Inspection**

IV.H. Need for Project and Community Involvement

IV.I. Project Improvements and Benefits

IV.I.1 Other Improvements

IV.I.2 Other Project Benefits

IV.J. ACTIVITY SCHEDULE INSTRUCTIONS

The proposal should include a schedule for completing the activity. The schedule should show the anticipated start and completion dates for the activity. Likewise, there should be estimated start and completion dates for the major tasks necessary to complete the activity.

IV.K. DATE FOR RECEIPT OF PROPOSALS

Proposals will be accepted until 3:00 p.m., Mountain Standard Time, on February 22, 2008. Proposals received after this date and time will not be considered for award.

IV.L. PROPOSAL DELIVERY INSTRUCTIONS

Proposals shall be addressed as follows (**facsimile transmissions of proposals will not be accepted**):

REQUEST PAPER COPIES OF DOCUMENTS FROM	DIRECT QUESTIONS TO	PROPOSAL DELIVERY ADDRESSES	
		BY POSTAL SERVICE	BY EXPRESS SERVICE
Bureau of Reclamation Attn: Ms. Linda Daniel Mail Code: UC-830 125 South State St., Room 6103 Salt Lake City, UT 84138-1147 E-mail: ldaniel@uc.usbr.gov Fax: (801) 524-3857	Bureau of Reclamation Attn: Ms. Linda Daniel Mail Code: UC-830 125 South State St., Room 6103 Salt Lake City, UT 84138-1147 E-mail: ldaniel@uc.usbr.gov Fax: (801) 524-3857	Bureau of Reclamation Attn: Ms. Linda Daniel Mail Code: UC-830 125 South State St., Room 6103 Salt Lake City, UT 84138-1147	Bureau of Reclamation Attn: Ms. Linda Daniel Mail Code: UC-830 125 South State St., Room 6103 Salt Lake City, UT 84138-1147 (801) 524-3741

IV.M. PROPOSAL SUBMISSION CHECKLIST**IV.N. SAMPLE FORMATS**

See suggested formats at Section XI

SECTION V -- APPLICATION REVIEW INFORMATION**V.A. REVIEW AND SELECTION PROCESS**

All applications will be evaluated and selected on a competitive basis. During the evaluation process, all applications will be given a score based upon the overall merit of the proposals. The proposals with the highest scores will be selected first for funding. The exact number to be funded will depend upon available funds. Reclamation shall consider each activity for funding based on its objectives, plan of work, responses to questions asked in the FOA, coordination with other agencies and organizations, and environmental impacts.

Cost sharing for this activity is recommended, but not required except when funding is provided under authority of Energy and Water development Appropriations Act. The amount of cost sharing and number of non-Federal partners will be considered in the evaluation process. The cost share may include cash, materials, supplies, use of facilities, direct labor costs, and contract costs with third parties paid by the recipient. In the evaluation process, credit will not be given for funding from other federal programs.

V.A.1. Evaluation Process

Available funding for financial assistance is generally limited and will not cover all anticipated applications. Reclamation uses a formal process to identify the proposals to be funded. The process will evaluate and rank each proposal on its ability to meet Reclamation's program goals and objectives.

All applications will undergo an initial screening process. Incomplete applications or those applications that are clearly not in support of the local Water Conservation Field Service Program's goals and objectives will be eliminated from further consideration as will applications not having a connection to a Reclamation project. Applications will also be screened to determine if the proposed activity is eligible for funding under one of the available funding authorities.

The process of evaluating the remaining proposals involves considering how well each proposal activity satisfies its respective evaluation criteria elements (shown below). For each criteria element, the proposal will receive points, up to the maximum shown, depending upon how well the proposal is judged to meet the criteria element. The evaluation score is the sum of the points assigned for each of the criteria elements. All proposals will then be ranked from the highest score to the lowest score. Proposals receiving the highest scores will be the first to be considered for funding. The exact number of proposals selected will depend upon available funds. Should additional funds become available, the next lower-ranked proposals would be considered for funding. Selections may be modified slightly to accommodate critical Reclamation concerns.

Reclamation is required to address environmental compliance for all financial assistance provided by the WCFSP. Environmental compliance for most WCFSP supported activities can be accomplished with a Categorical Exclusion Checklist (CEC). If evaluators believe the proposed activity would require more extensive compliance measures, points would be deducted from the score because of the added cost to Reclamation. Ultimately, though, Reclamation has the prerogative to disqualify any proposal if it believes the environmental compliance costs would be too high.

➤ V.A.2. EVALUATION CRITERIA

Proposals will be evaluated using one of the following sets of criteria based upon the type of the proposed activity. Numbers in parenthesis are the maximum number of points that can be assigned for each criteria. Normally, the maximum number of points will not be assigned. The maximum number of points available for each of the four activity types reflects the relative importance of the activity types to achieving the goals of the **WCFSP**. The evaluation criteria are:

1. Plan Development Activity
 - a. Applicant's need for Reclamation assistance (60)
 - b. Intended outcome and use for the plan (60)
 - c. Portion of the plan completed by the proposed activity (55)
 - d. Steps involved in proposed planning process (50)
 - e. Participants/Public to be included in planning process (50)
 - f. Outside resources to be used in the planning process (50)
 - g. A budget that shows all expenses and sources of income and support (50)
 - h. A schedule showing the anticipated beginning and end of the activity as well as the beginning and end of the major tasks associated with the activity (50)
 - i. Connection with Reclamation project. For example, strong =(50), moderate =(25), weak = (5), no = (0). (50)
 - j. Level of environmental compliance required. For example, CEC=30, EA=15, EIS=0 (30)
 - k. Satisfies other critical obligations. For example, ESA, Water Quality, Fish & Wildlife, Indian Trust Assets, etc. (50)

2. Implementation Activity

- a. Applicants need for Reclamation assistance. (60)
- b. Relevance of activity to applicant's written water management plan (60)
- c. Ability to promote good water management and efficient use. (55)
- d. Applicant's plan to achieve full implementation of the practice (50)
- e. Process to evaluate effectiveness of completed activity. (30)
- f. Amount of cost-sharing and/or number of additional partners. (30)
- g. Relevance to Reclamation's Water Conservation Field Services Program. (30)
- h. A budget that shows all expenses and sources of income and support (50)
- i. A schedule showing the anticipated beginning and end of the activity as well as the beginning and end of the major tasks associated with the activity (50)
- j. Level of environmental compliance required. For example, CEC = 30, EA = 15, EIS = 0 (30)

3. Demonstration Activity

- a. Applicant's need for Reclamation assistance. (60)
- b. Need for demonstration activity. (50)
- c. Thoroughness of applicant's process to demonstrate technique or practice. (40)
- d. Process for evaluating activity's effectiveness. (30)
- e. Process for disseminating demonstration outcome. (30)
- f. Amount of cost-sharing and/or number of additional partners. (30)
- g. Relevance to Reclamation's Water Conservation Field Services Program. (30)
- h. A budget that shows all expenses and sources of income and support (50)
- i. A schedule showing the anticipated beginning and end of the activity as well as the beginning and end of the major tasks associated with the activity (50)
- j. Level of environmental compliance required. For example, CEC = 30, EA = 15, EIS = 0 (30)

4. Training/Research Activity

- a. Applicant's need for Reclamation Assistance. (35)
- b. Need for training/research activity as related to good water management and efficient water use. (35)
- c. Applicant's process for delivering message or findings. (35)
- d. Composition and size of target audience (20)
- e. Ability to measure impact of message upon good water management and efficient use of water. (20)
- f. Amount of cost-sharing and/or number of additional partners. (20)
- g. Relevance to Reclamation's Water Conservation Field Services Program. (20)
- h. A budget that shows all expenses and sources of income and support (35)
- i. A schedule showing the anticipated beginning and end of the activity as well as the beginning and end of the major tasks associated with the activity (35)
- j. Credit for requests below maximum amount. For example, \$25,000 = 0, \$20,000 = 5, \$15,000 = 10, \$10,000 = 15, \$5,000 = 20. (25)
- k. Level of environmental compliance required. For example, CEC = 30, EA = 15, EIS = 0 (20)

If a sponsor wants an education activity to be considered as an implantation activity, then it must be a recommendation of a Reclamation water district or associations accepted Water Management Plan.

V.A.3. OTHER FACTORS

Prior to award of an assistance agreement, the Grant and Cooperative Agreement Officer (GCAO) will consider several factors in the selection process which are important, but not quantified, such as:

Only **one** activity is included in the proposal. You may submit several proposals.

Proposals should be submitted by organizations having water-related interests. Proposals submitted by private landowners will not be evaluated or returned.

Proposals to conduct studies to determine system efficiencies, conduct basin-wide planning, or make extensive distribution system or irrigation facility rehabilitation will not be evaluated or returned.

Proposals submitted from within Reclamation will not be evaluated or returned.

Proposals lacking a budget and/or an activity schedule will not be evaluated or returned.

Proposals requesting less than \$2,000 or over \$50,000 in Federal assistance may not be evaluated or returned. If the proposal requests more than \$50,000, what is the minimum amount that would be acceptable?

V.A.4. REVIEW AND SELECTION PROCESS

The Government reserves the right to reject any and all proposals which do not meet the requirements of this solicitation and which are determined to be outside the scope of the WCFSP. Awards will be made to the responsible applicants submitting proposals which conform to the solicitation and are most advantageous to the Government considering the factors and any significant subfactors listed above.

The evaluation process will be comprised of three levels as follows:

First Level Screening

All proposals will be screened to insure that:

- The proposal meets the requirements of the solicitation package, including submission of technical and budget proposals that are prepared in accordance with the instructions stated in Sections IV.B and IV.C of this document;
- The applicant meets the eligibility requirements stated in Section III of this document;
- All required information has been provided; and
- The activity meets necessary requirements for providing financial assistance.

A proposal must pass all first level screening criteria in order for it to be forwarded for further consideration at the Second Level Evaluation phase.

Second Level Evaluation (Technical Review)

The technical evaluation will compare the proposals with the evaluation criteria shown above and will assign points to each of the evaluation factors based upon how well the proposal satisfies each factor. A total score will be determined and the proposals ranked by total score.

Third Level of Evaluation (Managerial Review)

Management will conduct a final review to prioritize activities based on availability of funds and to ensure WCFSP objectives are being met by the proposed activities.

V.A.5. (ENTER AS MANY FACTORS AS NECESSARY) ie. past performance, experience, etc.

SECTION VI -- AWARD ADMINISTRATION INFORMATION

VI.A. AWARD NOTICES

Successful applicants will receive by mail a notice of award and Cooperative Agreement document, signed by a Grant and Cooperative Agreement Officer, notifying the applicant of activity award and activity starting date.

VI.B. AWARD DOCUMENT

If your organization is awarded an agreement as a result of this request for proposals, the applicable portions of Sections II, III, and VIII of this document will be included in the resulting agreement.

VI.C. REPORTING REQUIREMENTS AND DISTRIBUTION

If your organization is awarded an agreement as a result of this request for proposals, you will be required to submit the following types of reports during the term of the agreement.

VI.C.1 Financial Reports

- (a) SF-269 or SF-269a, Financial Status Report
- (b) SF-272, Report of Federal Cash Transactions

VI.C.2 Program Performance Reports

- (a) Interim Reports
- (b) Annual Reports
- (c) Final Report

VI.C.3 Significant Developments Reports

SECTION VII -- AGENCY CONTACTS

There will be no pre-proposal conference. Organizations or individuals interested in submitting proposals in response to this solicitation may direct questions to Reclamation in writing. Questions may be submitted to the attention of Linda Daniel, Grant Specialist;

By mail:

Bureau of Reclamation
Attn: Linda Daniel
Mail Code: UC-830
125 South State Street, Room 6103
Salt Lake City, UT 84138-1147

By FAX:

(801) 524-3857

By E-mail:

ldaniel@uc.usbr.gov

SECTION VIII -- OTHER INFORMATION

If you are awarded a Cooperative Agreement/Grant as a result of this Request for Proposal, the following General Provisions and Special Provisions will be included in your agreement.

VIII.A. GENERAL PROVISIONS

VIII.A.1 Regulations and Guidance

The regulations at 2 CFR Part 215 and 43 CFR, Part 12, Subparts A, C, and E, are hereby incorporated by reference as though set forth in full text. The following Office of Management and Budget (OMB) Circulars, as applicable, and as implemented by 43 CFR Part 12, are also incorporated by reference and made a part of this agreement. Failure of a recipient to comply with any applicable regulation or circular may be the basis for withholding payments for proper charges made by the recipient and/or for termination of support. Copies of OMB Circulars are available at http://www.whitehouse.gov/omb/grants/grants_circulars.html. The implementation of the circulars at 2 CFR Part 215 and 43 CFR Part 12 is available at <http://www.gpoaccess.gov/ecfr/>.

VIII.A.1.1 COLLEGES AND UNIVERSITIES that are recipients or subrecipients shall use the following:

Circular A-21, revised May 10, 2004, "Cost Principles for Educational Institutions"

Circular A-110, as amended September 30, 1999, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations" (Codification by Department of Interior, 43 CFR 12, Subpart F)

Circular A-133, revised June 27, 2003, "Audits of States, Local Governments, and Non-Profit Organizations"

VIII.A.1.2 STATE, LOCAL AND TRIBAL GOVERNMENTS that are recipients or subrecipients shall use the following:

Circular A-87, as amended May 10, 2004, "Cost Principles for State, Local, and Indian Tribal Governments"

Circular A-102, as amended August 29, 1997, "Grants and Cooperative Agreements with State and Local Governments" (Grants Management Common Rule, Codification by Department of Interior, 43 CFR 12, Subpart C)

Circular A-133, revised June 27, 2003, "Audits of States, Local Governments, and Non-Profit Organizations"

VIII.A.1.3 NONPROFIT ORGANIZATIONS that are recipients or subrecipients shall use the following:

Circular A-110, as amended September 30, 1999, "Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations" (Codification by Department of Interior, 43 CFR 12, Subpart F)

Circular A-122, revised May 10, 2004, "Cost Principles for Non-Profit Organizations"

Circular A-133, revised June 27, 2003, "Audits of States, Local Governments, and Non-Profit Organizations"

VIII.A.1.4 ORGANIZATIONS OTHER THAN THOSE INDICATED ABOVE that are recipients or subrecipients shall use the basic principles of OMB Circular A-110 (Codification by Department of Interior, 43 CFR 12, Subpart F), and cost principles shall be in accordance with 48 CFR Subpart 31.2, titled "Contracts with Commercial Organizations," which is available at <http://www.gpoaccess.gov/ecfr/> .

VIII.A.1.5 Additionally, please reference 43 CFR 12.77 for further regulations that cover the award and administration of subawards by State governments.

VIII.A.2 Debarment and Suspension

The Department of the Interior regulations at 2 CFR 180 - Governmentwide Debarment and Suspension (Nonprocurement), which adopt the common rule for the government-wide system of debarment and suspension for nonprocurement activities, are hereby incorporated by reference and made a part of this agreement. By entering into this grant or cooperative agreement with the Bureau of Reclamation, the recipient agrees to comply with 43 CFR 42, Subpart C, and agrees to include a similar term or condition in all lower-tier covered transactions. These regulations are available at <http://www.gpoaccess.gov/ecfr/> .

VIII.A.3 Drug-Free Workplace

The Department of the Interior regulations at 43 CFR 43-Governmentwide Requirements for Drug-Free Workplace (Financial Assistance), which adopt the portion of the Drug-Free Workplace Act of 1988 (41 U.S.C. 701 et seq, as amended) applicable to grants and cooperative agreements, are hereby incorporated by reference and made a part of this agreement. By entering into this grant or cooperative agreement with the Bureau of Reclamation, the recipient agrees to comply with 43 CFR 43, Subpart B, if the recipient is not an individual, or with 43 CFR 43, Subpart C, if the recipient is an individual. These regulations are available at <http://www.gpoaccess.gov/ecfr/>.

VIII.A.4 Assurances and Certifications Incorporated by Reference

VIII.A.4.1. The provisions of the Assurances, SF 424B or SF 424D as applicable, executed by the Recipient in connection with this agreement shall apply with full force and effect to this agreement as if fully set forth in these General Provisions. Such Assurances include, but are not limited to, the promise to comply with all applicable Federal statutes and orders relating to nondiscrimination in employment, assistance, and housing; the Hatch Act; Federal wage and hour laws and regulations and work place safety standards; Federal environmental laws and regulations and the Endangered Species Act; and Federal protection of rivers and waterways and historic and archeological preservation.

VIII.A.4.2 When required by 43 CFR 18-New Restrictions on Lobbying, recipients shall complete a Certification Regarding Lobbying form. This certification is incorporated by reference and made a part of this agreement. These regulations are available at <http://www.gpoaccess.gov/ecfr/>.

VIII.A.5 Covenant Against Contingent Fees

The recipient warrants that no person or agency has been employed or retained to solicit or secure this agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide offices established and maintained by the recipient for the purpose of securing agreements or business. For breach or violation of this warranty, the Government shall have the right to annul this agreement without liability or, in its discretion, to deduct from the agreement amount, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

VIII.A.6 Contracting with Small and Minority Firms, and Women's Business Enterprises

It is a national policy to award a fair share of contracts to small and minority business firms. The Department of the Interior is strongly committed to the objectives of this policy and encourages all recipients of its grants and cooperative agreements to take affirmative steps to ensure such fairness.

VIII.A.6.1 The grantee and subgrantee shall take all necessary affirmative steps to assure that minority firms, and women's business enterprises are used when possible.

VIII.A.6.2 Affirmative steps shall include:

VIII.A.6.2.1 Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

VIII.A.6.2.2 Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

VIII.A.6.2.3 Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;

VIII.A.6.2.4 Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises;

VIII.A.6.2.5 Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce as appropriate, and

VIII.A.6.2.6 Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in A.6.2.1 through A.6.2.5, above.

VIII.A.7 Notice Regarding Buy American Act

In accordance with the annual Energy and Water Development Appropriations Act, please be advised that it is and has been the sense of Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available in this Act should be American-made. This provision shall remain in effect unless revoked by a future specific act of Congress.

VIII.A.8 Resolving Disagreements

When entering into a cooperative agreement with a recipient, Reclamation commits itself to working with the recipient in a harmonious manner to achieve the objectives of the project successfully. When disagreements arise between the parties, they must be resolved according to the procedures discussed below:

VIII.A.8.1 Reclamation shall attempt first to resolve disagreements with the recipient through informal discussion among the Grants and Cooperative Agreements Officer (GCAO), the Program Officer, and the recipient's Project Director.

VIII.A.8.2 If the disagreement cannot be resolved through informal discussion between these parties, the GCAO and the Program Officer shall document the nature of the disagreement and bring it to the attention of the Grant Office Manager.

VIII.A.8.3 After reviewing the facts of the disagreement, as presented by the Grants and Program Offices, the Grant Officer Manager will arrange a formal meeting. If agreement still cannot be reached, the parties will collectively decide on any varied approaches which might be used to resolve the disagreement. The parties shall be responsible for their individual expenses related to any approach utilized to resolve the disagreement. If attempts at resolving the disagreement fail, the Chief, Acquisition and Assistance Management Division, or the Regional Director, whichever is applicable, shall make a decision which shall be final and conclusive.

VIII.A.8.4 Nothing herein shall be construed to delay or limit Reclamation's right to take immediate and appropriate action, as set forth at 2 CFR Subpart 215.62 or 43 CFR Subpart 12.83, as applicable, in the event of material noncompliance by the recipient, and no attempts at informal resolution shall be necessary.

Any post award issue will be open for resolution in accordance with the above procedures, with the exception of disagreements regarding continuation of the agreement (termination must be in accordance with 2 CFR 215 or 43 CFR 12 as applicable), or other matters specifically addressed by the agreement itself.

VIII.A.9 Lobbying Restrictions

In accordance with the annual Energy and Water Development Appropriations Act, please be advised that it is and has been the sense of Congress that none of the funds appropriated by this Act may be used in any way, directly or indirectly, to influence Congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This provision shall remain in effect unless revoked by a future specific act of Congress.

VIII.A.10 Electronic Funds Transfer (EFT)

In accordance with the Debt Collection Improvement Act of 1996, 31 CFR 208, effective January 2, 1999, all Federal payments to recipients must be made by EFT unless a waiver has been granted in accordance with 31 CFR 208.4. Upon award of a financial assistance agreement, Reclamation will provide the recipient with further instructions for implementation of EFT payments or a certification form to request exemption from EFT.

VIII.A.11 Endorsement of Commercial Products and Services

In accordance with 43 CFR 12.2(d), this provision applies to grants and cooperative agreements whose principal purpose is a partnership where the recipient contributes resources to promote agency programs, publicize agency activities, assists in fund-raising, or provides assistance to the agency. If the agreement is awarded to a recipient, other than a State government, a local government, or a federally-recognized Indian tribal government, and the agreement authorizes joint dissemination of information and promotion of activities being supported, the following provision shall be made a term and condition of the award:

Recipient shall not publicize or otherwise circulate, promotional material (such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies governmental, Departmental, bureau, or government employee endorsement of a product, service or position which the recipient represents. No release of information relating to this award may state or imply that the Government approves of the recipient's work products, or considers the recipient's work product to be superior to other products or services.

All information submitted for publication or other public releases of information regarding this project shall carry the following disclaimer:

"The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Government."

Recipient must obtain prior Government approval for any public information releases concerning this award which refer to the Department of the Interior or any bureau or employee (by name or title). The specific text, layout photographs, etc., of the proposed release must be submitted with the request for approval.

A recipient further agrees to include this provision in a subaward to any subrecipient, except for a subaward to a State government, a local government, or to a federally-recognized Indian tribal government.

VIII.B. SPECIAL PROVISIONS

VIII.B.1 GRANT AND COOPERATIVE AGREEMENT OFFICER'S REPRESENTATIVE (GCAOR) (Reclamation 08/03)

The GCAOR for this agreement will be:

Bureau of Reclamation
 Attn: (To be completed at time of award)
 Address:
 Telephone:

The GCAOR is authorized to act only on technical matters during the term of this Agreement. The GCAOR and the Recipient's Project Manager shall work closely to ensure that all requirements of the Agreement are being met. The GCAOR's responsibilities include, but are not limited to, the following:

- (a) Assist the Recipient concerning the accomplishment of the tasks described in the Agreement;

- (b) Provide information to the Recipient which assists in the interpretation of the tasks; and
- (c) Review, and where required, approve reports and information to be delivered to the Government.

Technical assistance must be within the general scope of the Agreement. The GCAOR does not have the authority to and may not issue any technical assistance which:

- (a) Constitutes an assignment of additional work outside the general scope of the Agreement;
- (b) In any manner causes an increase or decrease in the total estimated cost or the time required for performance; or
- (c) Changes any of the expressed terms, conditions, or specifications.

VIII.B.2 PAYMENT POLICY (Reclamation 11/03)

Acceptance of a financial assistance agreement from Reclamation creates a legal responsibility on the part of the recipient organization to use the funds and property provided in accordance with the terms and conditions of the agreement. Reclamation has a reversionary interest in the unused balance of funding and in any funds improperly applied.

Payments to recipients are made in accordance with the basic standards and methods stated in the payment regulations at 2 CFR 215.22 or 43 CFR 12.61, as applicable to this agreement. These requirements are intended to minimize the time elapsing between the transfer of funds from the Federal government and the disbursement of these funds by the recipient.

Payment will be made in advance or by reimbursement as follows:

- (1) Advance Payment** -- Recipients shall be paid in advance provided (1) they maintain or demonstrate the willingness and ability to maintain procedures to minimize the time elapsing between the transfer of funds and their disbursement by the recipient, (2) they comply with reporting requirements for timely submission of financial status reports, and (3) they impose these same standards on sub-recipients.

Advances to recipients shall be limited to the minimum amounts needed and shall be timed to be in accordance with the actual, immediate cash requirements of the recipient in carrying out the purpose of the agreement. The timing and amount of cash advances shall be as close as administratively feasible (generally no more than 3 days) to actual disbursements for direct program costs and the proportionate share of allowable indirect costs.

- (2) Reimbursement** -- Reimbursement shall be the preferred method of payment when a recipient (1) does not meet the requirements for advance payment stated above; (2) does not have financial management systems that meet the standards in 2 CFR 215.21 or 43 CFR 12.60, as applicable; or (3) has been converted to payment restrictions for non-

compliance with the terms and conditions of the agreement. Reimbursement is also the preferred method of payment for agreements involving construction.

VIII.B.3 PAYMENT METHOD (Reclamation 11/03)

Electronic Funds Transfer -- Payments under this agreement will be made to recipients by electronic funds transfer (EFT) unless the recipient qualifies for exemption from this payment method. Reclamation utilizes the Automated Clearinghouse (ACH) Vendor Express payment system for EFT. Whether funds are paid in advance or as a reimbursement, the actual payment will be made through Vendor Express. Vendor Express allows the Government to transfer funds to a recipient's financial institution along with explanatory information regarding the payment.

Enrollment -- Upon award, recipients will receive a copy of the SF-3881, ACH Vendor/Miscellaneous Payment Enrollment Form. This form is required to implement the Vendor Express system and to notify Reclamation of any change or corrections to financial institution information.

Requesting Payments -- Requests for advance or reimbursement may be made by the following methods:

(1) SF-270, Request for Advance or Reimbursement -- On a monthly basis, recipients may submit an original and two copies of a properly certified SF-270 form to the address identified in Block # 6, page 1, of the agreement. For advance payments, this form may be submitted on a monthly basis, at least two weeks prior to the date on which funds are required, and on the basis of expected disbursements for the succeeding month and the amount of Federal funds already on hand. Requests for reimbursement may be submitted on a monthly basis, or more frequently if authorized by the GCAO. Requested funds are delivered to the recipient via ACH Vendor Express. This form is available on the Internet at http://www.whitehouse.gov/omb/grants/grants_forms.html.

(2) SF-271, Outlay Report and Request for Reimbursement for Construction Programs -- The SF-271 shall be used for construction agreements paid by the reimbursement method, letter of credit, electronic funds transfer, or Treasury check advance, except where the advance is based on periodic requests from the recipient, in which case the SF-270 shall be used. This request may be submitted on a quarterly basis, but no less frequently than on an annual basis. Recipients may submit an original and two copies of a properly certified SF-271 form to the address identified in Block #6, page 1, of the agreement. This form is available on the Internet at http://www.whitehouse.gov/omb/grants/grants_forms.html

(3) Automated Standard Application for Payments (ASAP) -- Recipients may utilize the Department of Treasury ASAP payment system to request advances or reimbursements. ASAP is a recipient-initiated payment and information system designed to provide a single point of contact for the request and delivery of Federal funds. Once a request is made through ASAP, funds are provided to the recipient either through ACH or Fedwire. Further information regarding ASAP may be obtained from the ASAP website at <http://www.fms.treas.gov/asap>. Upon award, you will be provided with information regarding enrollment in the ASAP system.

VIII.B.4 REPORTING REQUIREMENTS AND DISTRIBUTION (Reclamation 11/03)

Failure to comply with the reporting requirements contained in this agreement may be considered a material non-compliance with the terms and conditions of the award. Non-compliance may result in withholding of payments pending receipt of required reports, denying both the use of funds and matching credit for all or part of the cost of the activity or action not in compliance, whole or partial suspension or termination of the agreement, recovery of funds paid under the agreement, withholding of future awards, or other legal remedies.

(1) Financial Reports -- All financial reports shall be signed by an Authorized Certifying Official for the recipient's organization. The following forms are available at http://www.whitehouse.gov/omb/grants/grants_forms.html.

(a) SF-269 or SF-269a, Financial Status Report - This form is utilized to report total expenditures for the reporting period. The SF-269 must be used if the recipient is accountable for the use of program income; otherwise, the SF-269a may be used.

An original and two copies of this form shall be submitted quarterly within 30 days following the end of each reporting period.

A final SF-269 or SF-269a shall be submitted within 90 days following completion of the agreement.

(b) SF-272, Report of Federal Cash Transactions -- This report shall be submitted by recipients that draw down cash advances by means of electronic funds transfer or Treasury check. Recipients shall identify in the "Remarks" section the amount of cash advances received in excess of 3 days prior to disbursement and explain actions taken to reduce excess balances.

An original and two copies of this form shall be submitted on a quarterly basis within 15 days following the end of the reporting period.

(2) Program Performance Reports

(a) Interim Reports -- Recipients shall submit an original and two copies of program performance reports on a quarterly basis within 30 days following the end of each reporting period. Program performance reports shall contain the following:

(i) A comparison of actual accomplishments with the goals and objectives established for the reporting period;

(ii) Where project output can be quantified, a computation of the cost per unit of output;

(iii) When appropriate, reasons why goals and objectives were not met; and

(iv) Other pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.

(b) Annual Reports - An original and two copies of an annual program performance report shall be submitted within 90 days following the end of each year of the agreement. Copies of this report may be required to be included with any application for continuing support of the agreement.

(c) Final Report - An original and two copies of the final program performance report shall be submitted no later than 90 days following the expiration or termination of the agreement.

(3) Significant Developments

During the term of the agreement, the recipient must immediately notify the GCAO if any of the following conditions become known:

(a) Problems, delays or adverse conditions which will materially impair their ability to meet the objectives of the agreement;

(b) Favorable developments which enable the recipient to meet time schedules and objectives sooner than or at less cost than projected or to produce more beneficial results than originally planned.

This notification is to include information on the actions taken or contemplated to resolve problems, delays, or adverse conditions, and any assistance needed from Reclamation to help resolve the problem.

(4) Report Distribution

Copies of reports shall be distributed as follows:

TYPE OF AGREEMENT	ADMIN POC (Block 6, Page 1)	GCAOR (Block 8, Page 1)
Financial Reports	1	2
Performance Reports	1	2
Significant Developments	1	2

VIII.B.5 MODIFICATIONS (Reclamation 02/07)

Any changes to this agreement shall be made by means of a written modification. Reclamation may make changes to the agreement by means of a unilateral modification to deal with administrative matters, such as changes in address, no-cost time extensions, the addition of previously agreed upon funding, or deobligation of excess funds at the end of the agreement. Additionally, a unilateral modification may be utilized by Reclamation if it should become necessary to suspend or terminate the agreement in accordance with 2 CFR 215.61 or 43 CFR 12.83, as applicable.

All other changes shall be made by means of a bilateral modification to the agreement. No oral statement made by any person, or written statement by any person other than the GCAO, shall be allowed in any manner or degree to modify or otherwise effect the terms of the Agreement.

All requests for modification of the Agreement shall be made in writing, provide a full description of the reason for the request, and be sent to the attention of the GCAO. Any request for project extension shall be made at least 45 days prior to the expiration date of the agreement or the expiration date of any extension period that may have been previously granted. Any determination to extend the period of performance or to provide follow-on funding for continuation of a project is solely at the discretion of Reclamation.

VIII.B.6 RECIPIENT'S PROJECT MANAGER (Reclamation 08/03)

The Recipient's Project Manager for this Agreement shall be (To be completed at time of award).

VIII.B.7 FUNDS AVAILABLE FOR PAYMENT (Reclamation 08/03)

The Government's obligation under this Agreement is contingent upon the availability of appropriated funds from which payment for Agreement purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the GCAO for this Agreement, and until the Recipient receives notice of such availability, to be confirmed in writing to the Recipient by the GCAO.

Pursuant to the Act of Congress of June 17, 1902 (32 Stat. 388), and acts amendatory thereof or supplementary thereto, all commonly known as Reclamation Law, funds for payment under the first year of this agreement are included in the current fiscal year Energy and Water Development Appropriation Act. Funding for any optional year of the agreement is contingent upon subsequent Congressional funding.

VIII.B.8 REIMBURSABLE COSTS AND LIMITATIONS (Reclamation 08/03)

VIII.B.8.1 The Recipient shall provide all personnel, services, facilities, equipment, materials and supplies, and perform all travel which may be necessary and appropriate for the proper performance of this Agreement. Costs so incurred will be paid for as provided herein. Reclamation's obligation to provide funding to the Recipient for costs incurred in these connections shall be limited to the Recipient's direct and indirect costs associated with this Agreement. All such direct and indirect costs must be determined to be allowable under the regulations contained in 48 CFR Subpart 31.2 or an OMB Cost Principle Circular, as applicable, which are incorporated herein through the General Provisions of this agreement.

VIII.B.8.2 The recipient shall not incur costs or obligate funds for any purpose pertaining to operation of the program or activities beyond the expiration date stated in the agreement. The only costs which are authorized for a period of up to 90 days following the award expiration date are those strictly associated with closeout activities for preparation of the final report.

VIII.B.8.3 Reclamation shall not be obligated to provide funding to the Recipient and the Recipient shall not be obligated to continue performance under the Agreement or to incur costs in excess of the costs set forth in the annual project budget unless the GCAO has furnished the Recipient a modification to increase the available funding for the Agreement.

VIII.B.9 BUDGET REVISIONS (Reclamation 02/07)

The Recipient shall follow the requirements at 2 CFR 215.25 or 43 CFR 12.70(c), as applicable, when making revisions to budget and program plans. Additionally, approval shall be requested for transfers of amounts budgeted for indirect costs to absorb increases in direct costs, or vice versa.

VIII.B.10 PROCUREMENT STANDARDS (Reclamation 02/07)

When utilizing Federal funds for the procurement of supplies and other expendable property, equipment, real property, and other services under this agreement, the Recipient shall utilize the Procurement Standards set forth at 2 CFR 215.40 -215.48 or 43 CFR 12.76, as applicable. The Recipient may be required to submit evidence that its procurement procedures are in compliance with the standards stated therein. Additional guidance for contracting with small and minority firms, and women's business enterprises is included in the General Provisions section of this agreement.

VIII.B.11 PROPERTY STANDARDS (Reclamation 02/07)

All property, equipment and supplies acquired by the Recipient with Federal funds shall be subject to usage, management, and disposal in accordance with the Property Standards at 2 CFR 215.30 – 215.37 or 43 CFR 12.72 - 12.73, as applicable.

VIII.B.12 INSPECTION (Reclamation 08/03)

Reclamation has the right to inspect and evaluate the work performed or being performed under this agreement, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If Reclamation performs inspection or evaluation on the premises of the Recipient or a sub-recipient, the Recipient shall furnish and shall require sub-recipients to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

VIII.B.13 AUDIT (Reclamation 02/07)

Recipients are responsible for obtaining audits in accordance with the Single Audit Act Amendments of 1996 (31 U.S.C. 7501-7507) and revised OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations." Audits shall be made by an independent auditor in accordance with generally accepted government auditing standards covering financial audits. Additional audit requirements applicable to this agreement are found at 2 CFR 215.26 or 43 CFR 12.66, as applicable. General guidance on the single audit process is included in a pamphlet titled, "Highlights of the Single Audit Process" which is available on the internet at <http://www.dot.gov/ost/m60/grant/sincontact.htm>. Additional information on single audits is available from the Federal Audit Clearinghouse at <http://harvester.census.gov/sac/>.

VIII.B.14 ENFORCEMENT (Reclamation 02/07)

In accordance with 2 CFR 215.62 or 43 CFR 12.83, as applicable, if the recipient materially fails to comply with any term of this agreement, whether stated in a Federal statute or regulation, an assurance, in a State plan or application, a notice of award, or elsewhere, Reclamation may take one or more of the following actions as appropriate:

VIII.B.14.1 Temporarily withhold cash payments pending correction of the deficiency by the recipient or sub-recipient or more severe enforcement action by the awarding agency;

VIII.B.14.2 Disallow (deny both use of funds and any matching credit for) all or part of the cost of the activity or action not in compliance;

VIII.B.14.3 Wholly or partly suspend or terminate the current award for the recipient's or sub-recipient's program;

VIII.B.14.4 Withhold further awards for the program; or

VIII.B.14.5 Take other remedies that may be legally available.

VIII.B.15 TERMINATION (Reclamation 02/07)

In accordance with 2 CFR 215.61 or 43 CFR 12.84, as applicable, and except as provided for in the Enforcement Provision, above, this agreement may be terminated in whole or part only as follows:

VIII.B.15.1 By the awarding agency with the consent of the recipient or sub-recipient in which case the two parties shall agree upon the termination conditions, including the effective date and in the case of partial termination, the portion to be terminated, or

VIII.B.15.2 By the recipient or sub-recipient upon written notification to Reclamation, setting forth the reasons for such termination, the effective date, and in the case of partial termination, the portion to be terminated. However, if, in the case of a partial termination, the awarding agency determines that the remaining portion of the award will not accomplish the purposes for which the award was made, the awarding agency may terminate the award in its entirety under either the Enforcement Provision or paragraph 1 of this Provision.

VIII.B.16 COPYRIGHTS (Reclamation 02/07)

VIII.B.16.1 For recipients subject to the administrative standards set forth in OMB Circular A-110, the following copyright provision, as implemented by 2 CFR 215.36 (c), shall apply:

“The recipient may copyright any work that is subject to copyright and was developed, or for which ownership was purchased, under an award. The Federal awarding agency(ies) reserves a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so.”

VIII.B.16.2 For recipients subject to the administrative standards set forth in OMB Circular A-102 and the Grants Management Common Rule, the following copyright provision, as implemented by 43 CFR 12.74, shall apply:

“The Federal awarding agency reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes:

(a) The copyright in any work developed under a grant, subgrant, or contract under a grant or subgrant; and

(b) Any rights of copyright to which a grantee, subgrantee or a contractor purchases ownership with grant support.”

VIII.B.17 RIGHTS TO DATA (Reclamation 02/07)

For recipients subject to the administrative standards set forth in OMB Circular A-110, the following provision, as implemented by 2 CFR 215.36(c), shall apply:

“The Federal Government has the right to:

(1) Obtain, reproduce, publish or otherwise use the data first produced under an award; and

(2) Authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.”

VIII.B.18 DUN AND BRADSTREET (D&B) DATA UNIVERSAL NUMBERING SYSTEM (DUNS) REQUIREMENT (Reclamation 07/04)

Effective October 1, 2003, applicants for Federal grants or cooperative agreements must provide a D&B DUNS number with their application. This number is to be included in Block 5 of your SF-424 Application for Federal Assistance (Rev.9-2003), or in Block 6 of previous versions of the SF-424.

If you do not have a DUNS number, one may be obtained at no cost by calling the dedicated toll-free DUNS Number Request Line at 1-866-705-5711, or by going to the DUNS

Government Contractor and Grantee website at <https://eupdate.dnb.com/requestoptions/government/ccrreg/> .

Individuals who would personally receive a grant or cooperative agreement award from the Federal government, apart from any business or non-profit organization they operate, are exempt from the requirement to provide a DUNS number with their application. Reclamation must, however, have a DUNS number for payment processing purposes, and will therefore obtain a DUNS number for any individual who is awarded a grant or cooperative agreement.

IX RECIPIENT/SUBRECIPIENT PERSONNEL SECURITY AND SUITABILITY REQUIREMENTS (Reclamation 06/06)

Performance of this grant/cooperative agreement requires recipient/subrecipient personnel to have a Federal government-issued personal identification card before being allowed unsupervised access to a DOI [facility and/or information system].

_____ [to be completed by bureau/office, e.g., designated grants/cooperative agreement administrator] will be the sponsoring official, and will make the arrangements for personal identify verification and card issuance.

At least two weeks before start of grant/cooperative agreement performance, the recipient will identify all recipient and subrecipient personnel who will require [physical and/or logical] access for performance of work under this grant/cooperative agreement. The recipient and subrecipient must make their personnel available at the place and time specified by the _____ [title to be completed by the bureau/office] in order to initiate screening and background investigations. The following forms, or their equivalent, may be used to initiate the credentialing process:

- OPM Standard Form 85 or 85P
- OF 306
- Fingerprint card (local procedures may require the fingerprinting to be done at a police station; in this case, any charges are to be borne by the recipient or subrecipient, as applicable)
- Release to Obtain Credit Information
- PIV card application (web-based)

Recipient and subrecipient employees are required to give, and to authorize others to give, full, frank, and truthful answers to relevant and material questions needed to reach a suitability determination. Refusal or failure to furnish or authorize provision of information may constitute grounds for denial or revocation of credentials. Government personnel may contact the recipient or subrecipient personnel being screened or investigated in person, by telephone or in writing, and the recipient agrees to make them available for such contact.

Alternatively, if an individual has already been credentialed by another agency through OPM, and that credential has not yet expired, further clearance may not be necessary. Provide the sponsoring office with documentation that supports the individual's status.

During performance of the grant/cooperative agreement, the recipient will keep the _____-[title to be completed by the bureau/office] apprised of changes in personnel to ensure that performance is not delayed by compliance with

credentialing processes. Cards that have been lost, damaged, or stolen must be reported to the _____ [title to be completed by the bureau/office] and Issuing Office within 24 hours. Replacement will be at the recipient's expense. If reissuance of expired credentials is needed, it will be coordinated through the _____ [title to be completed by the bureau/office].

At the end of grant/cooperative agreement's performance, or when a recipient/subrecipient employee is no longer working under this grant/cooperative agreement, the recipient will ensure that all identification cards are returned to the _____ [title to be completed by the bureau/office].

Before starting work under this agreement, a National Agency Check (NAC) will be conducted to verify the identity of the individual applying for clearance. Upon successful completion of the NAC process, an identification card will be issued and access granted.

Simultaneously, a NAC with Inquiries (NACI) will be initiated to determine the individual's suitability for the position. If the NACI adjudication is favorable, nothing more needs to be done. If the adjudication is unfavorable, the credentials will be revoked. In the event of a disagreement between the recipient and the Government concerning the suitability of an individual to perform work under this grant/cooperative agreement, DOI shall have the right of final determination.

This requirement must be incorporated into any sub-grants/cooperative agreements that require subrecipient personnel to have unsupervised access to a Federally controlled facility for more than 180 calendar days or unsupervised access to a Federally controlled Level 3 or 4 information system.

X GRANTS.GOV APPLY: ELECTRONIC APPLICATION SUBMISSION AND RECEIPT PROCEDURES (Reclamation 06/06)

This provision provides information on the application submission and receipt instructions for applications submitted through Grants.gov Apply. Please read the following instructions carefully and completely.

PLEASE NOTE THAT YOU MUST REGISTER WITH GRANTS.GOV PRIOR TO SUBMITTING AN APPLICATION THROUGH THE GRANTS.GOV WEBSITE AND ***THE REGISTRATION PROCESS MAY TAKE FROM 7 TO 21 DAYS.***

1. Electronic Delivery. Reclamation is participating in the Grants.gov Initiative that provides the Grant Community with a single site to find and apply for grant funding opportunities. Reclamation encourages applicants to submit their applications electronically through <http://www.grants.gov/Apply>.

2. The following describes what to expect when applying on line using Grants.gov/Apply:

a. Instructions. On the site, you will find step-by-step instructions which enable you to apply electronically for Reclamation funds. The Grants.gov/Apply feature includes a simple, unified application process that makes it possible for applicants to apply for grants

online.

Before applying, you will need to complete the Grants.gov registration process. The information applicants need to register can be found at <http://www.grants.gov/GetStarted>. The site also contains registration checklists to help you walk through the process (column on the left side of the Get Started page). Reclamation recommends that you download the checklists and prepare the information requested before beginning the registration process. Reviewing and assembling required information before beginning the registration process will make the process quicker and will save time.

b. DUNS Requirement. All applicants applying for funding, including renewal funding, must have a Dun and Bradstreet Universal Data Numbering System (DUNS) number. The DUNS number must be included in the data entry field labeled “Organizational Duns” on the form SF-424. Instructions for obtaining a DUNS number can be found at the following website: <http://www.grants.gov/GetStarted>.

c. Central Contractor Registry and Credential Provider Registration. In addition to having a DUNS number, applicants applying electronically through Grants.gov must register with the Federal Central Contractor Registry and with a Credential Provider. The <http://www.grants.gov> website at <http://www.grants.gov/GetStarted> provides step-by-step instructions for registering in the Central Contractor Registry and for registering with a credential provider. All applicants filing electronically must register with the Central Contractor Registry and receive credentials from the Grants.gov credential provider in order to apply on line. Failure to register with the Central Contractor Registry and credential provider will result in your application being rejected by the Grants.gov portal.

The registration process is a separate process from submitting an application. **Applicants are, therefore, encouraged to register early.** The registration process can take approximately two weeks to be completed. Therefore, registration should be done in sufficient time to ensure it does not impact your ability to meet required submission deadlines. You will be able to submit your application online anytime after you receive your e-authentication credentials.

d. Electronic Signature. Applications submitted through Grants.gov constitute submission as electronically signed applications. The registration and e-authentication process establishes the Authorized Organization Representative (AOR). When you submit the application through Grants.gov, the name of your authorized organization representative on file will be inserted into the signature line of the application. **Applicants must register the individual who is able to make legally binding commitments for the applicant organization as the Authorized Organization Representative.**

3. Instructions on how to submit an electronic application to Reclamation via Grants.gov/Apply:

Grants.gov has a full set of instructions on how to apply for funds on its website at <http://www.grants.gov/CompleteApplication>. The following provides simple guidance on what you will find on the Grants.gov/Apply site. Applicants are encouraged to read through the page entitled, “Complete Application Package” before getting started. Grants.gov allows applicants to download the application package, instructions and forms that are incorporated

in the instructions, and work off line. In addition to forms that are part of the application instructions, there will be a series of electronic forms that are provided utilizing a PureEdge reader. **In addition, Grants.gov continues to have issues with their Adobe (continue to utilize PureEdge) until they have this fixed.**

a. PureEdge Reader. The PureEdge Reader is available free for download from the Grants.gov/Get Started site. The PureEdge Reader allows applicants to read the electronic files in a form format so that they will look like any other Standard or Reclamation form. The PureEdge forms have content sensitive help. To use this feature you will need to click on the icon at the top of the page that features an arrow with a question mark. This engages the content sensitive help for each field you will need to complete on the electronic form. The PureEdge forms can be downloaded and saved on your hard drive, network drive(s), or CDs. Macintosh Users will need to use the Virtual PC emulator software, which allows PC software to run on Macintosh platforms.

b. Mandatory Fields on PureEdge Forms. In the PureEdge forms you will note fields that will appear with a yellow background color on the data fields to be completed. These fields are mandatory fields and they **must** be completed to successfully submit your application.

c. Completion of SF-424 Fields First. The PureEdge forms are designed to fill in common required fields such as the applicant name and address, DUNS number, etc., on all PureEdge electronic forms. **To trigger this feature, an applicant must complete the SF-424 information first.** Once it is completed the information will transfer to the other forms.

d. Customer Support. The Grants.gov website provides customer support via (800) 518-GRANTS (this is a toll-free number) or through e-mail at support@grants.gov. The customer support center is open from 7:00 a.m. to 9:00 p.m. Eastern time, Monday through Friday, except Federal holidays, to address Grants.gov technology issues. For technical assistance on program related questions, contact the number listed in the Program Section of the program you are applying for.

4. Timely Receipt Requirements and Proof of Timely Submission.

Electronic Submission. All applications must be received by <http://www.grants.gov/Apply> by **(insert time) Eastern time** on the due date listed in the funding announcement. Proof of timely submission is automatically recorded by Grants.gov. An electronic time stamp is generated within the system when the application is successfully received by Grants.gov. The applicant will receive an acknowledgement of receipt and a tracking number from Grants.gov with the successful transmission of their application. Applicants should print this receipt and save it, along with facsimile receipts for information provided by facsimile, as proof of timely submission.

When Reclamation successfully retrieves the application from Grants.gov, Grants.gov will provide an electronic acknowledgment of receipt to the e-mail address of the AOR. Proof of Timely submission shall be the date and time that Grants.gov receives your application. Applications received by Grants.gov, after the established due date for the program will be considered late and will not be considered for funding by Reclamation.

Reclamation suggests that applicants submit their applications during the operating hours of the Grants.gov Support Desk, so that if there are questions concerning transmission, operators will be available to walk you through the process. Submitting your application during the Support Desk hours will also ensure that you have sufficient time for the application to complete its transmission prior to the application deadline. Applicants using dial-up connections should be aware that transmission should take some time before Grants.gov receives it.

Grants.gov will provide either an error or a successfully received transmission message. The Grants.gov Support desk reports that some applicants abort the transmission because they think that nothing is occurring during the transmission process. Please be patient and give the system time to process the application. Uploading and transmitting many files, particularly electronic forms with associated XML schemas, will take some time to be processed.

SECTION XI -- FORMS and SUGGESTED FORMATS

This section contains suggested forms and formats that are intended to assist your organization in the preparation of a proposal that will meet the proposal submission requirements stated in this Request for Proposal.

XI.1 Cover Page -- SF-424 Application for Financial Assistance form

XI.2 SF-424B, Assurances - Nonconstruction Programs, or SF-424D, Assurances – Construction Programs form

XI.3 Title Page

XI.4 Table of Contents

XI.5 Executive Summary

XI.6 Technical Proposal

XI.7 Funding Plan

XI.8 Official Resolution

XI.9 Budget Proposal

XI.10 Budget Narrative

XI.11 Budget Form – SF 424A, Budget Information – Nonconstruction Programs, or SF 424C, Budget Information - Construction Programs

XI.12 Project Reports and Previous Studies

XI.13 Construction Inspection Plan

XI.14 Need for Project and Community Involvement

XI.15 Program and Other Benefits

COVER PAGE (See FOA Section _____)

Include an SF 424 Application for Financial Assistance

ASSURANCES FORM (See FOA Section _____)

Include an SF 424B, Assurances – Non-construction Programs, or SF 424D, Assurances – Construction Programs form

TITLE PAGE (See FOA Section _____)

PROGRAM TITLE

PROJECT NAME

PROJECT LOCATION

Applicant Name

Applicant Address

Date

TABLE OF CONTENTS (See FOA Section _____)

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Official Resolution

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Budget Form

Project Reports and Previous Studies.

Construction Inspection Plan.

Need for Project and Community Involvement.

Water Use Efficiency and Other Benefits.

Project Benefits Sheet.

Part I -- EXECUTIVE SUMMARY (See FOA Section _____)	
<i>(Please limit Executive Summary responses to a maximum of six pages)</i>	
A. General Project Information	
A.1	Date: Applicant Name: City, County, State:
A.2	Project Name:
A.3	2006 Funding Request Summary [Use * to denote an in-kind contribution]

		FUNDING SOURCE	FUNDING AMOUNT
		Non-Federal Entities:	
		Non-Federal Subtotal:	
		Reclamation Funding:	
		TOTAL PROJECT FUNDING:	
A.4	An Official Resolution has been approved by the Applicant's governing board and a copy has been included as a part of the proposal. Yes ____		
A.5	Project summary:		
A.6	Contact for Further Information: Name: Title: Telephone: E-mail:		
B. Summary of Project Criteria. Provide a brief narrative for each of the following elements that apply to your proposed project (please review the evaluation criteria, located in Section V of this document, in preparing your responses).			
B.1	Briefly describe how the project contributes to targeted benefits. Explain how this project will benefit the _____.		
B.1.1			
B.1.2	Describe the degree to which the proposal _____ (a) (b) (c) (d)		
B.1.3			
B.2	Demonstrated Results		
B.2.1	Provide the following information regarding project benefits: (a) Identify all direct project benefits (b) Identify any indirect benefits (c) Provide documentation and support (d) Describe how actual project benefits will be verified and documented once the project is completed:		
B.3	Project Financing and Cost-Sharing		
B.3.1	Provide the following information demonstrating that the applicant has the financial ability to pay for estimated construction costs and any increase in operation and maintenance costs associated with the project:		

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	<p>(a) Is a funding plan identifying all sources of non-Reclamation funding included in the proposal? Yes ___</p> <p>(b) Describe any documentation supporting the funding plan that demonstrates that the cost-share funds are available (operating budget or excerpts from a financial analysis or report):</p> <p>(c) Provide an estimate of any change in operation and maintenance costs (increase or decrease) as a result of the proposed work:</p> <p>(d) Are letters of commitment from all cost sharing partners included with the proposal? Yes ___ If not, explain why?</p>
B.3.2	Does the budget identify direct, indirect, environmental and contingency costs? Yes ___ No ___. If not, explain why.
B.3.3	Is 50% or more non-Federal funding provided? Yes ___ No ___ If more than 50%, state the percentage of non-Federal funding provided: ___%
B.4	Relevance to WCFSP
B.4.1	<p>Please describe how your proposal demonstrates WCFSP objectives and include the following information in your response:</p> <p>(a) General description of how your proposal is relevant to WCFSP objectives.</p> <p>(b) Describe who will benefit from proposed work and how.</p>

Part II -- TECHNICAL PROPOSAL	
A	Background Data (Include the following information about the applicant. (See FOA Section _____))
A.1	Location (state, county, and direction from nearest town):
A.2	Applicant's average annual water supply (in acre feet):
A.3	Describe water use (i.e. municipal, irrigation, urban, etc.):
A.4	If water is primarily used for urban, state total population served. If water is primarily used for agriculture, state the total acres served:
A.5	Describe any other relevant background information:
B	Consistency with State or Local Water Plan (See FOA Section _____)
B.1	<p>State whether the proposed project is consistent with the state or local water plan. Yes ___ No ___</p> <p>If yes, identify the applicable plan:</p> <p>If no, state why the project should be considered:</p>
C	Project Description (See FOA Section IV.C.2.8)
C.1	Describe in detail the work and approach to be used to carry out the proposed work. This description shall be in sufficient detail to permit a comprehensive evaluation of the proposal.
C.2	Provide an estimated project schedule demonstrating the stages and duration of the proposed work, including major milestones and dates.
C.3	Discuss any deviations from the proposed November 30, 2006, start date and 24-month project duration.

NARRATIVE

C.4	Briefly describe any engineering plans, designs and analyses prepared in connection with the proposed work and include as an Appendix of the proposal:
C.5	Describe water use efficiency measures to be taken pursuant to the proposed action.
C.6	Describe the performance measures that will be used to monitor water savings.
D	Environmental and Regulatory Compliance Please answer the following questions to the best of your knowledge. If any question is not applicable to your project, please explain why. If you have any questions, please contact your local Reclamation office. (See FOA Section _____)
D.1	Will the proposed work impact the surrounding environment (i.e. soil (dust), air, water (quality and quantity), animal habitat, etc.)? If so, please explain the impacts and any steps that could be taken to minimize the impacts.
D.2	Are you aware of any endangered or threatened species in the project area?
D.3	Are there wetlands in the project area? If so, please estimate how many acres of wetlands there are, and any impact the proposed work will have on the wetlands.
D.4	If your project will affect individual features of a conveyance system (e.g., headgates, canals or flumes), state when those features were constructed and describe any extensive alterations or modifications to those features, including when such alterations or modifications took place.
D.5	Are any buildings, structures, or features in your district listed or eligible for listing on the National Register of Historic Places? Your local Reclamation office can assist you in answering this question.
D.6	Are there any known archeological sites in the proposed project area?
D.7	State whether any permits or approvals are required, and explain the applicant's plan for obtaining such permits or approvals.
D.8	State whether a line item for environmental compliance costs has been included in the budget. Yes ___ No ___ If no, please explain why.

Part III – Funding Plan (See FOA Section _____)	
A	Describe how the Applicant will make cost share contributions, including a description of monetary and in-kind contributions, and identification of the source funds contributed by the applicant (e.g., reserve account, tax revenue and/or assessments):
B	Describe any in-kind costs incurred between _____, and the anticipated project start date of _____, that the applicant seeks to include as project costs:
C	If project funding is being provided by funding partners, not including the applicant,

	<p>or Reclamation, please provide the following information:</p> <p>(a) Identify the funding partners and state the amount of funding to be provided by each:</p> <p>(b) Specify whether the required letters of commitment are attached to the proposal:</p>
D	<p>Describe any other Federal funding requested or received for the proposed work. Note, Federal funding may not be counted towards the applicant's 50% cost share requirement.</p>
E	<p>Describe any other pending funding requests for the proposed work that have not yet been approved, and explain how the project will be affected if such funding is denied.</p>

Part IV (See FOA Section _____)

RESOLUTION NO. 2008 - _____

APPLICANT'S NAME: _____

WHEREAS,

WHEREAS,

NOW THEREFORE, BE IT RESOLVED that the [Board of Directors, or appropriate governing body] agrees and authorizes that:

(Please address the following items in your narrative)

1. The Board or governing body has reviewed and supports the proposal submitted;
2. The applicant is capable of providing the amount of funding and/or in-kind contributions, specified in the funding plan; and
3. If selected for a CALFED Water Use Efficiency Grant agreement, the applicant will work with Reclamation to meet established deadlines.

DATED: _____

Authorized Signature(s)

Title

ATTEST:

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SAMPLE BUDGET PROPOSAL FORMAT (See FOA Section V.F.)

Applicant:

THE TABLES ARE FORMATTED WITH FORMULAS: FILL IN THE SHADED AREAS ONLY

BY DOUBLE CLICKING INSIDE THE CHART.

Please prepare the budget for each task. Insert additional lines as necessary.

Project Costs (Budget) in Dollars

Category	Project Costs	Applicant Share	Federal Share Grant	Non-Federal Share Grant	Life of investment (years)	Capital Recovery Factor (Table 1, next page)	Annualized Costs
(I)	\$ (II)	\$ (III)	\$ (IV)	\$ (V)	(VI)	(VII)	\$ (VIII)
(a) Administration							
Salaries, wages							
Employee 1	\$0	\$0	\$0	\$0	0	0.0000	\$0
Employee 2	\$0	\$0	\$0	\$0	0	0.0000	\$0
Employee 3	\$0	\$0	\$0	\$0	0	0.0000	\$0
Fringe benefits							
Full Time Employees	\$0	\$0	\$0	\$0	0	0.0000	\$0
Part Time Employees	\$0	\$0	\$0	\$0	0	0.0000	\$0
Supplies	\$0	\$0	\$0	\$0	0	0.0000	\$0
Equipment							
Item A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Item B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Item C	\$0	\$0	\$0	\$0	0	0.0000	\$0
Consulting services	\$0	\$0	\$0	\$0	0	0.0000	\$0
Travel							
Trip 1	\$0	\$0	\$0	\$0	0	0.0000	\$0
Trip 2	\$0	\$0	\$0	\$0	0	0.0000	\$0
Other	\$0	\$0	\$0	\$0	0	0.0000	\$0
(b) Planning/Design/Engineering							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
Equipment							
Purchases/Rentals/Rebates/Vouchers							
Task A	\$0	\$0	\$0	\$0	10	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	10	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	10	0.0000	\$0
(d) Materials/Installation/Implementation							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
(e) Implementation Verification							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
(f) Project Legal/License Fees							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
(g) Structures							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
(h) Land Purchase/Easement							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
(i) Environmental Compliance/Mitigation/Enhancement							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
(j) Construction							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
(k) Other (Specify)	\$0	\$0	\$0	\$0	0	0.0000	\$0
(l) Monitoring and Assessment							
Task A	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task B	\$0	\$0	\$0	\$0	0	0.0000	\$0
Task C	\$0	\$0	\$0	\$0	0	0.0000	\$0
(m) Report Preparation	\$0	\$0	\$0	\$0	0	0.0000	\$0
(n) TOTAL	\$0	\$0	\$0	\$0			\$0
(o) Cost Share -Percentage		\$0	\$0	\$0			

** List all other funding sources (past or present) for this project

SAMPLE

Table 1: Capital Recovery Table (1)

Life of Project (in years)	Capital Recovery Factor
1	1.0600
2	0.5454
3	0.3741
4	0.2886
5	0.2374
6	0.2034
7	0.1791
8	0.1610
9	0.1470
10	0.1359
11	0.1268
12	0.1193
13	0.1130
14	0.1076
15	0.1030
16	0.0990
17	0.0954
18	0.0924
19	0.0896
20	0.0872
21	0.0850
22	0.0830
23	0.0813
24	0.0797
25	0.0782
26	0.0769
27	0.0757
28	0.0746
29	0.0736
30	0.0726
31	0.0718
32	0.0710
33	0.0703
34	0.0696
35	0.0690
36	0.0684
37	0.0679
38	0.0674
39	0.0669
40	0.0665
41	0.0661
42	0.0657
43	0.0653
44	0.0650
45	0.0647
46	0.0644
47	0.0641
48	0.0639
49	0.0637
50	0.0634

S
A
M
P
L
E

(1) Based on 6% discount rate.

BUDGET NARRATIVE (See FOA Section's _____)

Applicants shall include a Budget Narrative with the application. The Budget Narrative provides a discussion of or explanation for items included in the Budget Proposal. Listed below are some examples of the types of information that would be included in a Narrative:

Salaries/Wages and Qualifications– Discuss type of personnel needed for the project, their qualifications (include a resume(s) of the project manager(s) not exceed two pages), and the rationale for the number of hours proposed for various personnel. Identify and describe the role of any external cooperators that will be used for this project.

Fringe Benefits – Discuss type of benefits and how they apply to various categories of personnel. Indicate whether your organization has a Federally-approved benefit agreement.

Travel – Discuss the types of trips that are needed and the purpose, the number of personnel traveling, and travel arrangements.

Equipment – Discuss why certain types of equipment are needed for the project. If equipment purchase is recommended, discuss why the equipment cannot be leased or rented for the term of the project.

Supplies – Discuss the major types of supplies that are to be purchased and why they are needed for the project.

Contractual/Construction – Discuss any contracts or subagreements that will be awarded and why they are needed for the project. Discuss contractor qualifications and how the contractor will be selected (competitive bid compliance). Discuss major categories of construction activities/expenses.

Environmental and Regulatory Compliance Costs – Discuss what costs have been included, why they are needed, and how the costs were determined.

Other Costs – Discuss other miscellaneous items needed for the project.

Indirect Costs – Discuss whether you have a Federally-approved Indirect Cost Rate Agreement or the basis for determination of any proposed indirect rate that has not been previously approved by the Federal Government.

Total Costs – Discuss the total amount of project costs, including the Federal and non-Federal cost share amounts.

BUDGET FORM (See Section _____)

Include either an SF 424A, Budget Information – Nonconstruction Programs, or an SF 424C, Budget Information - Construction Programs form.

Project Reports and Previous Studies (Section _____.)

Provide copies of all reports and studies prepared for the proposed project. If a feasibility study has not been completed, explain how the project's feasibility was determined.

Construction Inspection Plan (Section _____)

Outline a detailed construction inspection plan describing who will inspect the site and project before, during, and after construction, and when inspections will be made .

Need for Project and Community Involvement (Section _____)

Need for the Project – Discuss the need and importance of the project. Discuss current systems and supplies, and describe the expected impacts within the agency's service area if the proposed project is not constructed.

Outreach, Community Involvement, Support, Opposition – Discuss a plan for public outreach to the groups or individuals that may be affected by the project. Include supporting documentation. Include how other local agencies whose jurisdiction or water service area is adjacent to the project location may be involved in the project. Discuss any opposition to the proposed project. Identify any parties in opposition and briefly discuss the situation.

PROGRAM Improvements and Other Benefits (Section _____)

Program Improvements – Discuss how the proposed project will result in improved water use efficiency (WUE benefits). Include the nature of the improvement, the methodology used to estimate the WUE benefits, the amount of benefit (acre feet or other applicable units), the location and timing benefits, the beneficiary(s), etc.

Other Project Benefits – Discuss other benefits and accomplishments from the proposed project not included above. Any expected project accomplishments that cannot be assigned a numerical value, either in dollars or in specific physical quantities, should be described as completely as possible.

Discuss how proposed benefits will help achieve specific CALFED objectives for ecosystem restoration, water supply reliability, and water quality that apply to the project area.

Fill in chart below.

Applicant:

THE TABLES ARE FORMATTED WITH FORMULAS: FILL IN THE SHADED AREAS ONLY BY DOUBLE CLICKING IN CELL.

Project Annual Physical Benefits (Quantitative and Qualitative Description of Benefits)

	Qualitative Description - Required of all applicants ¹				Quantitative Benefits - where data are available ²
	Description of physical benefits (in-stream flow and timing, water quantity and water quality) for:	Time pattern and Location of Benefit	Project Life: Duration of Benefits	State Why Project Bay Delta benefit is Direct ³ Indirect ⁴ or Both	Quantified Benefits (in-stream flow and timing, water quantity and water quality)
Bay Delta					0
Local				Not applicable.	

¹ The qualitative benefits should be provided in a narrative description. Use additional sheet.

² Direct benefits are project outcomes that contribute to a CALFED objective within the Bay-Delta system during the life of the project.

³ Indirect benefits are project outcomes that help to reduce dependency on the Bay-Delta system. Indirect benefits may be realized over time.

⁴ The project benefits that can be quantified (i.e. volume of water saved or mass of constituents reduced) should be provided.

Attachment A- Project Benefits Sheet

Reclamation is required to report on potential water management benefits resulting from its financial assistance. Each application should identify as many of the water management benefits shown below that may apply to the proposed activity. The proposal should describe how the activity would achieve the benefit(s) and provide numerical estimates, where possible. The potential water management benefits will be considered during the selection process:

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 Energy Cost	_____\$/Year
Reduces Waste Treatment Cost	_____\$/Year
Improves Crop Yield	_____Percent/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 (Yrs)*
Reduces Drainage Induced Erosion	_____Tons/year
Improves Water Quality	_____ %Reduction of _____
Enhances Aquatic/Riparian Habitat	_____Acres
Endangered Species	_____Yes/No

*Estimate of how often the improvement will occur (i.e. 1 = each year, 2 = 1 in 2 years etc.)

Note: The above are estimates of the benefits to be provided by your proposed activity. At the conclusion of your activity, you will be required to prepare a final report that documents actual benefits achieved by the activity.

**THE
FOLLOWING
PAGES ARE
PROJECT
SPECIFIC.
THEY ARE
INCLUDED
ONLY AS
SAMPLES.**

Attachment B- Draft Performance Measures

This Draft is subject to change. Please visit <http://www.usbr.gov/mp/watershare/> for updates before submitting your application.

Applicants are encouraged to propose alternative performance measures which may be preferable to those identified below. Reclamation understands that baseline information may not be available and that other estimation methods will need to be employed in some cases. For these cases and alternative verification methods, please provide supporting information to substantiate the efficacy of proposed measures.

Canal Lining or Piping

Canal lining or piping projects are implemented to decrease canal seepage. For a complete description of the following measurement method visit:

<http://www.agwatercouncil.org/WMP/Canal%20Lining%20Protocols1.pdf>

Pre-project measurement of potential savings:

To calculate potential savings, physical measurements of seepage losses occurring prior and subsequent to piping or lining are necessary. Two testing procedures can be used as follows:

- Ponding Tests: Conduct ponding tests along canal reaches proposed for lining or piping.
- Inflow/Outflow testing: Measure water flowing in and out of the canal reach, taking evaporation into consideration.

Post-project monitoring and/ or verification methods for tracking canal lining or piping performance may include the following:

- Using tests listed above, compare pre- and post-project test results to calculate water savings. For inflow and outflow testing, remember to take evaporation into consideration.
- Measure water flowing in and out of the lined or piped canal reach, taking evaporation into consideration. Use pre- and post-project tests to calculate water savings.
- If ponding or inflow/outflow test cannot be performed, benefits can be calculated by comparing estimated historic seepage and evaporation rates for the lateral length post-project seepage and evaporation.
- Results can be verified using a ratio of historic diversion-delivery rates. Also include a comparison of historical canal efficiencies and current canal efficiencies. For example, if an irrigation district needed 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 77% inefficiency. If after lining or piping the canal, the irrigation district only needed to divert 4 acre feet of water to deliver the 2 acre feet; this would be a 27% improvement in efficiency.
- Record reduction in water purchases by shareholders and compare to historical water purchases.

Measuring Devices

Good water management requires accurate water measurement. Potential benefits derived from measurement include:

1. Quantification of system losses between measurement locations
2. Billing customers for the amount of water used
3. Facilitation of accurate and equitable distribution of water within a district
4. Implementation of future system improvements such as remote flow monitoring and canal operation automation

Installation of measuring devices may include but are not limited to the following:

1. Flow meters
2. Weirs
3. Flumes
4. Meter gates

Pre-project measurement of potential savings:

Pre-project estimated savings are difficult to measure; however, one can collect historical data on water use and store the data in a database.

Post-project suggested monitoring and/ or verification methods for tracking measuring device performance may include the following:

- Compare post-project water measurement (deliveries or consumption) data to historical water uses.
- Compare pre- and post-project consumptive use by crop via remote sensing information.
- Survey users to determine utility of the devices for decision making.
- Document rate structure changes such as volumetric or tiered water pricing due to use of measurement devices (assumes non-metered to metered district) so that water users are billed for actual water use instead of at a flat rate.

New Technologies for Improved Water Management

A. System Management: SCADA

Proposals may involve the installation or expansion of a Supervisory Control and Data Acquisition (SCADA) system that monitors flows in a district or in a basin including 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. Section B below addresses system management related to spillage reduction.

Suggested methods for verifying water savings and other benefits resulting from the use of SCADA systems:

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

- Track and record the diversions to individual districts and ditch companies of district laterals and compare to pre-project diversions. This would show results of improved management if yearly fluctuations in weather are accounted for.
- Report delivery improvements- i.e. changes in rate, duration or frequency that are available to end users because of SCADA.
- 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 due to fluctuating water levels in canals.

B. Spillage Reduction Projects

Proposal may be aimed at spillage reduction from canals which focus on prevention and capture/reuse. Prevention requires improvements to the distribution and management of delivery systems such as system automation. Interception requires directing the spillage to drains, canals, or re-regulation reservoirs for reuse. For a complete description of spillage reduction methods visit:

<http://www.agwatercouncil.org/WMP/Spillage%20Reduction%20Protocols.pdf>

Pre-project measurement of potential savings:

To calculate potential savings, the following formula can be applied:

Estimated savings = (Spillage)_{w/o project} – (Spillage)_{w/project}

Post-project suggested methods for quantifying spillage reduction:

- Establish baseline data by measuring existing spillage.
- Measure flows with rated devices pre- and post-project to account for temporal variations. Calculate water savings (or losses) by using above formula.
- Track changes in the amount of water diverted before and after project implementation (project to long term).
- Use historical data compare spills from district/project boundaries against post-project spills.
- Document how the reduction in spillage was used; i.e., 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 that are anticipated from the SCADA.

C. 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:

1. Pump stations with constant flow rates
2. Variable speed pump stations without SCADA controls
3. Variable pump stations with SCADA controls
4. Storage reservoirs with pump stations and constant flow rates
5. Storage reservoirs with variable speed pump stations and SCADA controls

For a complete description of drainage reuse methods visit:
<http://www.agwatercouncil.org/WMP/Drainage%20Reuse%20Protocols.pdf>

Pre-project measurement of potential savings:

To calculate potential savings, the following formula can be applied:

$$\text{Estimated Savings} = (\text{Drainage}_{w/o \text{ project}} - \text{Drainage}_{w/project}) + (\text{Spillage}_{w/o \text{ project}} - \text{Spillage}_{w/project})$$

A rated measuring device must be positioned to measure drain water losses. A minimum of one year history of pre-project measurements is desirable for future comparison to post-project water usage although drainage volumes can vary substantially between wet and dry years. Therefore, some estimate of drainage over multiple years may be necessary.

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

- Take readings from measuring devices positioned to measure drain water loss. A system analysis can be done with the following equation: $\text{Drainage}_{w/project} = (1 - \% \text{Reuse}) * \text{Drainage}_{w/o \text{ project}}$
- Measure and record water deliveries to field, tailwater volumes entering reservoirs and tailwater volumes recycled to fields. Compare reductions in post-project operations to previous history.
- Estimate any benefits to farmers, such as improved flexibility in water management, reduction in shortages of supply to tailenders, etc. These benefits may or may not be quantifiable.

D. ET Controllers

An ET controller automatically adjusts the amount of water applied to landscape based on weather conditions. The "smart" ET controller receives radio, pager or internet signals with evapo-transpiration information, to replace only the moisture your landscape has lost to heat, humidity and wind. Other controllers use historical data to adjust the watering program. For a complete description of the following method visit: <http://www.agwatercouncil.org/WMP/On-farm%20Protocols.pdf>

Pre-project measurement of potential savings:

To calculate potential savings, the following formula can be applied:

$$\text{Estimated Savings} = N [(\text{Average amount of landscape water applied per participant})_{w/o \text{ ET Controller}} - (\text{Average amount of landscape water applied per participant})_{w/ \text{ ET Controller}}]$$

N = number of participants

Domestic (interior) water usage: In many cases landscape water use and domestic water use are measured together. In these cases, domestic water use can be estimated and then subtracted from the total water use to estimate landscape water use using one of the following methods:

1. Domestic water use can be estimated based on the number of persons in the household and type of plumbing (low-flow or not).
2. Domestic usage can also be estimated using the assumption that landscape water is negligible during certain parts of the year, and therefore,
 $\text{Domestic Usage} = (\text{Average Use per Capita})_{\text{determined non-irrigation season}}$

Once the domestic usage value is obtained, landscape water applied can be calculated using the following formula:

(Landscape water applied) _{w/o ET Controllers} = Total water use - Domestic Water

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

- Compare meter readings prior to ET controller installation and post-installation.
- Compare actual water applied pre-installation of ET controllers to calculated water needs based on local weather station data (CIMIS).
- Compare actual water applied to estimated water application if only using sprinkler controller on a set timer application.

E. On-Farm System Improvements

On-farm system improvements increase the efficiency of the irrigation system. These systems reduce water losses, such as deep percolation and unrecoverable tailwater. Irrigation system improvements may include:

1. Converting to more efficient irrigation systems based on crops, soil, terrain and weather conditions.
2. Upgrading current systems (i.e. shifting sprinkler nozzle size)
3. Improving irrigation scheduling , management or delivery methods

For a complete description of the following measurement method visit:
<http://www.agwatercouncil.org/WMP/On-farm%20Protocols.pdf>

Pre-project measurement of potential savings:

Documentation of water savings based on delivered water is complicated by the fact that crops are rotated from year to year, and weather patterns and water availabilities also change. However, if this procedure is used to calculate potential savings, the following formula can be applied:

Estimated Savings = [(On-farm delivery)/(Crop ET of irrigation water) _{w/o project}] – [(On-farm delivery)/(Crop ET of irrigation water)] _{w/ project}

Post-project suggested monitoring and/ or verification methods for tracking on-farm improvement performance may include the following:

- Monitor delivery to affected fields and calculate water savings using delivery records and formula above.
- Measure pre- and post-project changes in power use resulting from system improvements, increased efficiencies and/or changes in irrigation scheduling.
- Compare volume of water applied with the volume and quality of surface runoff generated from historical data.
- Due to yearly and crop differences, yield and water savings may be difficult to document over a 1 year study period. Therefore, one can document the Distribution Uniformity (DU) of the original system and compare it to the new system DU.

Water Banks and Water Markets

A. Water Marketing (Transfers)

Water Marketing is the temporary or long-term transfer of the right to use water from one user to another, by sale, lease or other form of exchange, as allowed under State laws. Water Marketing is a method of moving water supplies to areas of greatest financial value and can be a useful mechanism to increase the beneficial use of existing water supplies. Depending

on the state laws, there are various methods in which a seller can make water available for transfer. Examples are as follows:

1. Groundwater substitution is one method in which a seller uses their groundwater resources in-lieu of receiving surface water. This frees up the surface water for transfer.
2. Another method which may be used in some states is crop idling or shifting in which sellers agree to idle fields or shift from higher to lower water using crops. The seller is then able to transfer water based on the difference in crop consumption that is realized from the idling or shifting.

To identify other methods that can be used by a seller to transfer water, consult state law.

Post-project suggested methods for verifying the amount of water transferred and other benefits associated with the transfer:

Groundwater substitution transfers:

- Track monthly diversions, by year and type of use (Agriculture, Municipal, Environmental, etc.), before and after project implementation for both the buyer and seller of the marketed water.
- For all wells utilized in the transfer, track monthly groundwater pumping, by year and type of use, before and after project implementation for seller. This should be done with inline flow meters.
- Provide a map indicating location of groundwater wells and all features of the underlying aquifer to ensure that the groundwater is not impacting stream flows
- Compare pre- and post-project groundwater pumping costs, including capital and operation and maintenance costs (O & M).
- Compare pre- and post-project District O & M costs.

Crop shifting or idling transfers:

- Compare cropping records, by year and crop type, before and after project implementation for seller of the marketed water.
- Provide a field monitoring procedure to verify that fields remain fallow.
- Utilize remote sensing technology to verify fallowed fields, and crop water consumption and uniformity of crop water consumption on seller's fields.
- Track monthly diversions, by year and type of use and/or crop, before and after project implementation for both the buyer and seller of the marketed water.

Other Transfers:

- Compare pre-water market stream water quality measurements with measurements during the water market period. This may include pre/post changes in water temperature during critical months, pathogens, bacteria count, etc.
- Compare pre-water market stream flow measurements with stream flow measurements during the water market period.
- Compare pre- and post water market effects in terms of the length of the irrigation season. Determine whether or not water marketing helped extend the irrigation season.
- Measure the benefits resulting from the application of the transferred water. For example, state how many acres were irrigated that could not otherwise have been irrigated or whether the transfer had environmental benefits, such as providing flows for

endangered fish or aquatic species, urban and industrial use or maintaining wetland areas.

- Document local economic impacts of transfer.
- Document pre- and post- water balances that are associated with the seller's transfer where the differences were used or stored. The water balance should include all water supplies, uses and losses associated which identifies the water that is made available for transfers.

B. Groundwater Banking (Conjunctive Use)

Some districts are implementing programs regarding ground water banking to control water quality and quantity. Program elements may address:

1. Active accounting of water supply and monitoring of water quality.
2. Rules regulating ground water deposits and withdrawals including production limits.
3. Creation or expansion of recharge and/or recharge capabilities.
4. Provide pricing incentives for users to utilize conjunctive use of water supplies.
5. Securing reliable surface water supply.

Post-project suggested monitoring and/ or verification methods for tracking groundwater banking performance may include the following:

- Measure and record pre- and post-project recharge and/or pumping volumes (amount, duration and timing) into a central database.
- Measure and record pre- and post-project changes (amount, duration and timing) in affected stream flows or changes in spring discharge related to ground water banking.
- Establish a baseline with historical data from existing wells, such as pumping volumes and depth to ground water elevations.
- Determine changes in net groundwater use through a water table-specific yield method coupled with a detailed sub-basin hydrologic balance.

