

RECLAMATION

Managing Water in the West

Funding Opportunity Announcement No. BOR-DO-17-F012

WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2017



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

November 2016

Mission Statements

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

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Cover photo: The Milk River Project – Drop chutes on St. Mary diversion system.
Photo courtesy of the Bureau of Reclamation.

Synopsis

| | |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Federal Agency Name: | Department of the Interior, Bureau of Reclamation, Policy and Administration |
| Funding Opportunity Title: | WaterSMART: Water and Energy Efficiency Grants for fiscal year (FY) 2017 |
| Announcement Type: | Funding Opportunity Announcement (FOA) |
| Funding Opportunity Number: | BOR-DO-17-F012 |
| Catalog of Federal Domestic Assistance (CFDA) Number: | 15.507 |
| Dates: (See FOA Sec. D.4) | Application due date: Wednesday January 18, 2017, 4:00 p.m. Mountain Standard Time |
| Eligible Applicants: (See FOA Sec. C.1) | States, Indian tribes, irrigation districts, water districts, or other organizations with water or power delivery authority located in the Western United States or United States Territories as identified in the Reclamation Act of June 17, 1902, as amended |
| Recipient Cost Share: (See FOA Sec. C.2) | 50 percent or more of project costs |
| Federal Funding Amount: (See FOA Sec. B.1) | Funding Group I: Up to \$300,000 per agreement Funding Group II: Up to \$1,000,000 per agreement |
| Estimated Number of Agreements to be Awarded: (See FOA Sec. B.2) | Funding Group I: It is expected that more awards will be made for projects in Funding Group I than Funding Group II. Funding Group II: It is expected that only a small number of awards will be made for projects in Funding Group II. |
| Estimated Amount of Funding Available for Award: (See FOA Sec. B.1) | The President's FY 2017 budget includes a request for \$23.4 million for WaterSMART Grants, including approximately \$16 million for this FOA. Reclamation will determine the amount of funding available for award for this WaterSMART Grants FOA once final FY 2017 appropriations have been made. Please note that approximately \$1.8 million of FY 2017 WaterSMART Grants funding, if available, will be allocated for additional phases of projects selected through previous FOAs. Any awards are subject to a determination by Reclamation that FY 2017 appropriations are available. |

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Application Checklist

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

| ✓ | What to submit | Required content | Form or format | When to submit |
|---|-------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| | Mandatory Federal Forms: Application for Federal Financial Assistance Budget form Assurances | See Sec. D.2.2.1 | SF-424, SF-424A, SF-424B, SF-424C, and SF-424D forms may be obtained at http://apply07.grants.gov/apply/FormLinks?family=15 | * |
| | Title page | See Sec. D.2.2.2 | Page 19 | * |
| | Table of contents | See Sec. D.2.2.3 | Page 19 | * |
| | Technical proposal: | | | * |
| | Executive summary | See Sec. D.2.2.4 | Page 19 | * |
| | Background data | See Sec. D.2.2.4 | Page 19 | * |
| | Project description | See Sec. D.2.2.4 | Page 20 | * |
| | Evaluation criteria | See Sec. E.1 | Pages 49 to 63 | * |
| | Performance measures | See Sec. D.2.2.5 | Pages 20 to 34 | * |
| | Environmental and cultural resources compliance | See Sec. D.2.2.6 | Page 34 | * |
| | Letters of support | See Sec. D.2.2.7 | Page 35 | * |
| | Required permits or approvals | See Sec. D.2.2.8 | Page 35 | * |
| | Official Resolutions | See Sec. D.2.2.9 | Page 36 | ** |
| | Project Budget: | See Sec. D.2.2.10 | Pages 36 to 43 | * |
| | Funding plan and letters of commitment | See Sec. D.2.2.10 | Page 37 | * |
| | Budget proposal | See Sec. D.2.2.10 | Page 38 | * |
| | Budget narrative | See Sec. D.2.2.10 | Page 40 | * |
| | Unique Entity Identifier and System for Award Management | See Sec. D.3 | Page 43 | *** |

* Submit materials with your application prior to Wednesday January 18, 2017, 4:00 p.m.

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

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

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Acronyms and Abbreviations

| | |
|-------------|--------------------------------------------------------------|
| AMR | automatic meter reading |
| ARC | Application Review Committee |
| ASAP | Automated Standard Application for Payments |
| CE | Categorical Exclusion |
| CEC | Categorical Exclusion Checklist |
| CFDA | Catalog of Federal Domestic Assistance |
| CFR | Code of Federal Regulations |
| CPA | certified public accountant |
| CWA | Clean Water Act |
| CWMP | Cooperative Watershed Management Program |
| DUNS | Data Universal Number System |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| ESA | Endangered Species Act |
| ET | evapotranspiration |
| FAPIIS | Federal Awardee Performance and Integrity Information System |
| FAQ | Frequently Asked Question |
| FEMA | Federal Emergency Management Agency |
| FERC | Federal Energy Regulatory Commission |
| FOA | Funding Opportunity Announcement |
| FONSI | Finding of No Significant Impact |
| FY | fiscal year |
| GIS | Geographical Information System |
| Interior | U.S. Department of the Interior |
| LOPP | Lease of Power Privilege |
| MST | Mountain Standard Time |
| NEPA | National Environmental Policy Act |
| NHPA | National Historic Preservation Act |
| NOAA | National Oceanic and Atmospheric Administration |
| NRCS | Natural Resources Conservation Service |
| OM&R | operations, maintenance, and replacement |
| P.L. | Public Law |
| PVC | polyvinyl chloride |
| Reclamation | Bureau of Reclamation |
| ROD | Record of Decision |
| SAM | System for Awards Management |
| SCADA | Supervisory Control and Data Acquisition |
| SOR | System Optimization Review |
| U.S. | United States |
| USACE | U.S. Army Corps of Engineers |
| USC | United States Code |
| USFWS | U.S. Fish and Wildlife Service |
| WaterSMART | Sustain and Manage America's Resources for Tomorrow |

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Section A: Funding Opportunity Description

A.1. Program Information

The Nation faces an increasing set of water resource challenges. Aging infrastructure, rapid population growth, depletion of groundwater resources, impaired water quality associated with particular land uses and land covers, water needed for human and environmental uses, and climate variability and change all play a role in determining the amount of fresh water available at any given place and time. Water shortages and water-use conflicts have become more commonplace in many areas of the United States (U.S), even in normal water years. As competition for water resources grows—for crop irrigation, growing cities and communities, energy production, and the environment—the need for information and tools to aid water resource managers also grows. Water issues and challenges are increasing across the Nation, but particularly in the West, due to prolonged drought.

These water issues are exacerbating the challenges facing traditional water management approaches which by themselves no longer meet today's needs. The U.S. Department of the Interior's (Interior) WaterSMART (Sustain and Manage America's Resources for Tomorrow) Program establishes a framework to provide Federal leadership and assistance for using water efficiently, integrating water and energy policies to support the sustainable use of all natural resources, and coordinating the water conservation activities of various Interior bureaus and offices. Through the program, Interior is working to achieve a sustainable water strategy to meet the Nation's water needs.

Through WaterSMART Grants, the Bureau of Reclamation (Reclamation) provides financial assistance to water managers for projects that seek to conserve and use water more efficiently, increase the use of renewable energy and improve energy efficiency, benefit threatened and endangered species, investigate and develop water marketing strategies, prevent any water-related crisis, or otherwise contribute to water supply sustainability in the Western United States.

Over the last five years, available WaterSMART Grants funding has been focused on one category: Water and Energy Efficiency Grants. Reclamation is making three separate WaterSMART Grants funding opportunities available for 2017, including two new funding categories: Small-Scale Water Efficiency Projects and Water Marketing Grants. These new Funding Opportunity Announcements (FOA) are intended to complement the projects carried out each year as Water and Energy Efficiency Grants.

- **Water and Energy Efficiency Grants** focus on projects that result in quantifiable and sustained water savings, including canal lining and piping projects, irrigation flow measurement, canal automation, installation of residential and commercial water meters, and other similar projects. This grant category also supports projects that increase renewable energy use and improve energy efficiency, as well as projects that address endangered species issues and otherwise support broader water sustainability benefits.

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- **Small-Scale Water Efficiency Projects** support small-scale water management projects (up to \$75,000 in Federal funding for each project) that have been identified through previous planning efforts. Reclamation has developed a streamlined selection and review process to reflect the small-scale nature of these projects.
- **Water Marketing Grants** provide meaningful support for entities exploring actions that can be taken to develop or facilitate water marketing. Under this funding opportunity, which is expected to be available in February 2017, applicants will be invited to conduct planning activities to develop a water marketing strategy to establish or expand water markets or water marketing transactions.

This FOA provides funding for Water and Energy Efficiency Grant projects that result in quantifiable and sustained water savings, increase renewable energy use and improve energy efficiency, and support broader water sustainability benefits.

A list of Frequently Asked Questions (FAQ) about WaterSMART and this FOA can be found online at www.usbr.gov/WaterSMART/weeg/faq.html. The list of FAQs will be updated periodically during the application period. For further information on WaterSMART Grants, please see www.usbr.gov/watersmart/grants.html. For further information on the WaterSMART Program, please see www.usbr.gov/WaterSMART.

A.2. Objective of this Funding Opportunity Announcement

The objective of this FOA is to invite states, Indian tribes, irrigation districts, water districts, and other organizations with water or power delivery authority to leverage their money and resources by cost sharing with Reclamation on projects that seek to conserve and use water more efficiently, increase the use of renewable energy and improve energy efficiency, benefit endangered and threatened species, otherwise support water sustainability benefits, or carry out other activities to address climate-related impacts on water or prevent any water-related crisis or conflict.

Water conservation and efficiency are crucial to most Western States' plans to ensure that water is available to meet demands into the future. WaterSMART Grants are an important part of Interior's implementation of the President's June 2013 Climate Action Plan and the November 1, 2013, Executive Order, *Preparing the United States for the Impacts of Climate Change*. Through near-term improvements, projects carried out as WaterSMART Grants can increase water management flexibility, making our water supply more resilient and thereby helping to prepare for the impacts of climate change.

Through this FOA, Reclamation also makes funding available for water management improvements that complement other ongoing efforts to address water supply sustainability. For example, through the WaterSMART Basin Study Program,

Reclamation is working with state and local partners, as well as other stakeholders, to comprehensively evaluate the ability to meet future water demands within a river basin. The Basin Studies allow Reclamation and its partners to evaluate potential impacts of climate change to water resources within a particular river basin, and to identify adaptation strategies (i.e., strategies to mitigate the impacts of water shortages resulting from climate change, drought, increased demands, or other causes) to address those impacts. This FOA provides an opportunity for partners who have completed a Basin Study to apply for cost-shared funding to implement Basin Study adaptation strategies that meet the eligibility and other requirements of this FOA.

This FOA complements Reclamation's Drought Response Program by providing funding for water conservation and efficiency projects, many of which result in significant water savings that can help stretch water supplies impacted by drought. Under the Drought Response Program, Reclamation provides funding for other types of projects that increase flexibility and improve water management to build resilience to drought. See www.usbr.gov/drought for more information on Drought Response Program funding opportunities.

In addition, funding is available through this FOA for water delivery system improvements that will enable farmers to make additional on-farm improvements in the future, including improvements that may be eligible for Natural Resources Conservation Service (NRCS) funding.

A.3. Statutory Authority

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

A.4. Other Related Funding Opportunities

A separate WaterSMART Grants FOA for **Small-Scale Water Efficiency Projects**, No. BOR-DO-17-F011, will be posted on Grants.gov (www.grants.gov) concurrently with this FOA. The Small-Scale Water Efficiency Projects FOA provides cost-shared financial assistance for small-scale water management projects (up to \$75,000 in Federal funding for each project) that have been identified through previous planning efforts.

Through WaterSMART Grants, Reclamation also provides **Water Marketing** grants which provide meaningful support for entities exploring actions that can be taken to develop or facilitate water marketing.

In addition, Reclamation provides funding for on-the-ground water management projects through several other programs. Through the **Drought Response Program**, Reclamation provides funding to help build resilience to drought. Through **Drought Contingency Planning** (FOA No. BOR-DO-17-F009), Reclamation supports the development of drought contingency plans with participation from a diverse set of stakeholders and consideration of climate change. Reclamation also supports building long-term resilience to drought by funding **Drought Resiliency Projects** (FOA No. BOR-DO-17-F010)

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supported by an existing drought contingency plan.

Through the **Cooperative Watershed Management Program (CWMP)**, Reclamation provides funding to watershed groups to encourage diverse stakeholders to form local solutions to address their watershed management needs. Through **Phase I** of the CWMP, Reclamation provides funding for the establishment or further development of watershed groups and through **Phase II** for the implementation of watershed management projects.

FOAs with numbers are currently available. For information on the timing for other FOAs, please visit the WaterSMART Program website: www.usbr.gov/watersmart/index.html.

A.5. Natural Resource Investment Center

The Department of the Interior has established a Natural Resource Investment Center to work collaboratively with private sector investors, foundations, non-profit organizations and non-federal government entities to build partnerships to address the challenges currently being faced in water infrastructure and water management more broadly. The Investment Center is available as a resource to you. Please visit doi.gov/invest for additional information on the Investment Center and to find out more about potential sources of non-Federal funding for projects being proposed in response to this or other WaterSMART FOAs.

Section B. Award Information

B.1. Total Project Funding

The President's FY 2017 budget includes a request for \$23.4 million for WaterSMART Grants, including approximately \$16 million to be made available through this funding opportunity. Reclamation will determine the final amount of funding available for award for this WaterSMART Grants FOA once final FY 2017 appropriations have been made. Please note that approximately \$1.8 million of FY 2017 WaterSMART Grants funding, if available, will be allocated for additional phases of projects selected through previous FOAs. Any awards are subject to a determination by Reclamation that FY 2017 appropriations are available and that awards can be made consistent with all program requirements. Applications submitted under this FOA may also be considered if other funding becomes available in FY 2017 or subsequently. Updated funding information is available at www.usbr.gov/WaterSMART/weeg.

B.2. Project Funding Limitations

Multiple applications for funding may be submitted for consideration (for example, an applicant may submit a proposal for funding under Funding Group I and a separate proposal under Funding Group II). ***However, no more than \$1,000,000 will be awarded to any one applicant under this FOA.***

The Federal share (Reclamation's share in addition to any other sources of Federal funding) of any one proposed project shall not exceed 50 percent of the total project costs. Generally, the non-Federal share of project costs must be expended at the same or greater rate as the federal share of project costs.

Applicants are invited to submit proposals under the following two funding groups.

B.2.1 Funding Group I

Up to \$300,000 in Federal funds provided through this FOA will be available for smaller, on-the-ground projects.

- In general, projects funded under Funding Group I should be completed within 2 years of award (see Section C.3.3. Length of Projects for additional information).
- It is expected that funds will be awarded no later than September 30, 2017, contingent on appropriations.
- It is expected that more awards will be made for projects in Funding Group I than Funding Group II (described below).

B.2.2 Funding Group II

Up to \$1,000,000 in Federal funds provided through this FOA will be available for larger, *phased* on-the-ground projects that may take up to 3 years to complete.

- Projects selected under Funding Group II will be funded on an annual basis, for a period of up to 3 years. No more than \$500,000 in Federal funds will be provided within a given fiscal year (FY) (October 1 through September 30) to complete each phase of a project selected in FY 2017, with a maximum of \$1,000,000 available for the entire project.
- Each phase of the project is expected to be substantially completed within one year of award. Recipients must demonstrate sufficient progress to receive subsequent funding for remaining phases of the project.
- Federal funding under this FOA for the first year of phased projects will be awarded no later than September 30, 2017. Funding for the remaining project years will be made available contingent on subsequent congressional appropriations. (Note: recipients will not be asked to reapply to receive FY 2018 and FY 2019 funding).
- It is expected that only a small number of awards will be made for projects in Funding Group II.

Figure 1 (below) illustrates the funding process for a project that is requesting funding under Funding Group II. In this example, District X is requesting funding for a three-year project that includes environmental compliance for the entire project, canal lining, piping, installing a Supervisory Control and Data Acquisitions (SCADA) system, and installing a small-scale hydro-electric plant. In its application under this FOA, District X describes the entire project, (which is expected to be completed over 3 years) and requests a total of \$1,000,000 to complete the project. In its application, District X explains that in the first year (Year One) \$200,000 in Federal funding will be used to perform environmental compliance on all three phases of the proposed project and to line a one-mile stretch of canal; that in the second year (Year Two) \$300,000 in Federal funding will be used to convert 6 miles of open ditch lateral to buried polyvinyl chloride (PVC) pipe and to install the SCADA system; and that in the third year (Year Three), \$500,000 in Federal funding will be used to install a small-scale hydroelectric plant.

If District X is successful at securing a WaterSMART Grant award under this FOA, the District would receive \$200,000 in FY 2017 funding to complete Year One of the project. Contingent on the availability of appropriations and satisfactory progress in the first year, District X would then receive \$300,000 in FY 2018 funding—without reapplying—to complete Year Two of the project, and \$500,000 in FY 2019 funding to complete Year Three of the project. The result is a three-year overall project, with a total Federal cost share of \$1,000,000.

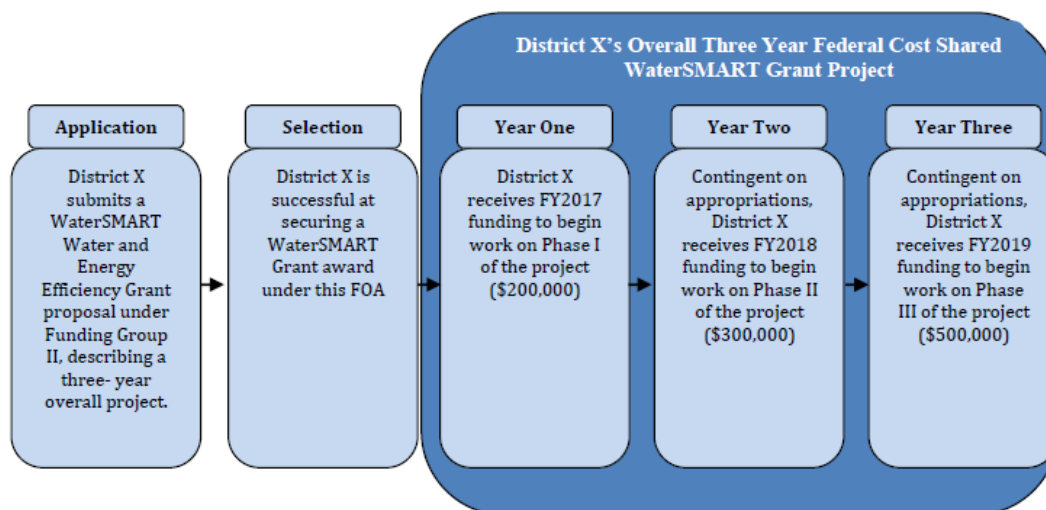


Figure 1. Sample application process for Funding Group II.

B.3. Assistance Instrument

Awards will be made through a grant or cooperative agreement as applicable to the selected project. If a cooperative agreement is awarded, the recipient should expect Reclamation to have substantial involvement in the project.

Substantial involvement by Reclamation may include:

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

At the request of the recipient, Reclamation can provide technical assistance after award of an agreement. If you would like to receive Reclamation technical assistance, you must account for these costs in your budget. To discuss available assistance and these costs, contact the Program Coordinator identified in *Section G. Agency Contacts*.

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Section C: Eligibility Information

C.1. Eligible Applicants

Under P.L. 111-11, Section 9502, an eligible applicant is a state, Indian tribe, irrigation district, water district, or other organization with water or power delivery authority.

Applicants must also be located in the Western United States or Territories as identified in the Reclamation Act of June 17, 1902, as amended and supplemented; specifically: Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming, American Samoa, Guam, the Northern Mariana Islands, and the Virgin Islands.

Those not eligible include, but are not limited to, the following entities:

- Federal governmental entities
- Institutions of higher education
- Individuals

C.2. Cost Sharing Requirements

Applicants must be capable of cost sharing 50 percent or more of the total project costs. Cost sharing may be made through cash or in-kind contributions from the applicant or third-party partners. Cost share funding from sources outside the applicant's organization (e.g., loans or state grants) should be secured and available to the applicant prior to award. Funding commitment letters must be submitted with the application (see *Section D.4.1. Application Delivery Instructions*) and contain the information stated in *Section D.2.2.9. Project Budget, subsection "Funding Plan and Letters of Commitment."*

C.2.1. Cost-Share Regulations

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

C.2.2. In-Kind Contributions

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

contract, or any other award of Federal funds may not be relied on to satisfy the cost-share requirement for an award under this FOA; except where the Federal statute authorizing a program specifically provides that Federal funds made available for such program can be applied to matching or cost sharing requirements of other Federal programs, such as awards to tribal organizations under P.L. 93-638, as amended. Applicants should refer to 2 CFR §200.434 for regulations regarding the valuation of in-kind donations and contributions, available at www.ecfr.gov.

C.3. Eligible Projects

C.3.1 Eligible Projects

Projects should seek to conserve and use water more efficiently, increase the use of renewable energy and improve energy efficiency, or protect endangered and threatened species, otherwise support water sustainability benefits, or carry out other activities to address climate-related impacts on water or prevent any water-related crisis or conflict.

Tasks A-C, below, describe projects eligible for funding under this FOA.

Applications may include any one, or a combination, of the types of projects described in Tasks A-C. In general, if you are seeking funding for multiple projects (for example, a Task A project and a Task C project) and the projects are interrelated or closely related, they should be combined in one application.

Applicants may submit multiple project proposals; however, no more than \$1,000,000 will be awarded to any one applicant under this FOA.

Other projects that are similar to those listed below may be submitted for consideration and will be allowed to the extent consistent with program authorization and goals.

Note: During Third-Level Evaluation (see Section E.2.4. Managerial Review) Reclamation will review the results of the Second-Level Evaluation (see Section E.2.2 Application Review Committee) and may prioritize projects to ensure that multiple Task Areas are represented among the projects selected for funding.

C.3.1.1. Task A – Water Conservation

Projects that result in quantifiable and sustained water savings or improved water management (please note that an agreement will not be awarded for an improvement to conserve irrigation water unless the applicant agrees to the terms of Section 9504(a)(3)(B) of Public Law 111-11. See *Section F.2.3. Requirements for Agricultural Operations under Public Law 111-11, Section 9504(a)(3)(D)* of this FOA for further information). Projects include, but are not limited to:

- **Canal Lining/Piping:** Projects that line or pipe canals, resulting in conserved water. Projects include, but are not limited to:
 - Installing new proven lining materials or technology

- Converting open canals to pipeline
- Constructing conveyance improvements, turnouts, or pipelines
- **Municipal Metering:** Projects that install meters, resulting in measureable water savings. Projects include, but are not limited to:
 - Installing water service meters
 - Installing distribution systems meters associated with production and/or leakage quantification
- **Irrigation Flow Measurement:** Projects that improve measurement accuracy and result in reduced spills and over-deliveries to irrigators. Projects include, but are not limited to:
 - Installing weirs, flumes, ramps, etc. in open channels
 - Installing meters in pressurized pipes
- **Supervisory Control and Data Acquisition and Automation:** Projects that install SCADA and/or automation components that provide water savings when irrigation delivery system operational efficiency is improved to reduce spills, over-deliveries, and seepage. Projects include, but are not limited to:
 - Installing SCADA components that allow for remote monitoring of irrigation delivery system conditions (flow rates, water elevations, controls devices openings, etc.)
 - Installing automation components that allow for remote operation of delivery system control features (gates, valves, turnouts, etc.)
- **Landscape Irrigation Measures:** Projects that provide water savings by reducing outdoor water usage. These measures include turf removal, Smart irrigation controllers (weather or soil-moisture based) and high- efficiency nozzles (sprinkler heads). These measures are typically promoted by water entities through rebates or direct-install programs. Projects include, but are not limited to:
 - Removing turf
 - Installing Smart irrigation controllers
 - Installing high-efficiency nozzles (e.g., sprinkler heads)
- **High-Efficiency Indoor Appliances and Fixtures:** Projects that promote installation of high-efficiency indoor appliance and fixtures to provide water savings for municipal water entities where there is significant potential for replacing existing non-efficient indoor appliances and fixtures. This is typically promoted by water entities through rebates or direct-install programs. Projects include, but are not limited to:
 - Installing high-efficiency clothes washers, dishwashers, faucets, etc.

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- **Groundwater Recharge:** Projects that provide savings when surface water storage evaporation is reduced and/or surface runoff is intercepted for recharge. Projects include, but are not limited to:
 - Installing recharge ponds
 - Installing surface runoff interception systems
 - Removing impervious surfaces

Note: Some groundwater recharge projects are intended to increase overall water management flexibility without necessarily conserving water. Applicants proposing such projects should consider applying for funding under the WaterSMART Drought Resiliency Projects FOA, which places less emphasis on quantifiable water savings and greater emphasis on increasing water management flexibility. See the WaterSMART Drought Response Program webpage, www.usbr.gov/drought, for more information.

- **Small Water Recycling and Water Reuse Improvements:** Small projects that reclaim and reuse wastewaters or naturally impaired groundwater and surface water.

Note: Congressionally authorized Title XVI projects are not eligible. The Title XVI program is described in Section C.3.2. Ineligible Projects, subsection Title XVI Water Recycling and Reuse.

Water reuse and recycling projects that are eligible under this FOA include, but are not limited to:

- Implementing small improvements to an existing water recycling facility
- Projects that develop and supplement urban and irrigation water supplies through water reuse

Note: Some small water recycling and reuse improvements are intended to increase overall water management flexibility without resulting in significant water savings. Applicants proposing such projects should consider applying for funding under the WaterSMART Drought Resiliency Projects FOA, which places less emphasis on quantifiable water savings and greater emphasis on increasing water management flexibility. See the WaterSMART Drought Response Program webpage, www.usbr.gov/drought, for more information.

C.3.1.2 Task B – Energy-Water Nexus

Projects that increase the use of renewable energy sources in managing and delivering water and/or projects that upgrade existing water management facilities resulting in quantifiable and sustained energy savings. Projects include, but are not limited to, those discussed in the following subsections.

Implementing Renewable Energy Projects Related to Water Management and Delivery

Renewable energy projects related to water management and delivery include, but are not limited to:

- Installing small-scale hydroelectric, solar-electric, wind energy, geothermal power systems, or other facilities that enable use of these or other renewable energy sources (e.g., replacing fossil fuel powered pumps with renewable energy based pumps, installing low-head hydrokinetic power generation units in a water system)
- Producing and using biomass or renewable fuels (including woody and herbaceous crops and residues, solid waste, sewage, and liquid fuels from agricultural products) (e.g., using technology that would transform algae into a renewable oil source)

Proposals including a renewable energy component typically require additional permitting not needed for other water management improvements (e.g., canal lining). In evaluating these proposals, Reclamation may consider the applicant's progress in obtaining a Federal Energy Regulatory Commission (FERC) license or a Reclamation Lease of Power Privilege (LOPP), depending on which is applicable. Applicants for a project including a renewable energy component are asked to include documentation of steps taken to date for obtaining a FERC license or a LOPP.

Note that improvements to Federal facilities that are implemented through any project awarded funding through this FOA must comply with additional requirements. The Federal government will continue to hold title to the Federal facility and any improvement that is integral to the existing operations of that facility. Please see *Section F.2.4. Title to Improvements Under Public Law 111-11, Section 9504(a)(3)(D)*.

Applicants proposing renewable energy development may wish to contact the program coordinator listed in *Section G, Agency Contacts*, prior to the application deadline to discuss the requirements listed above.

Increasing Energy Efficiency in Water Management

Projects that increase energy efficiency in water management include, but are not limited to:

- Retrofitting or modernizing water management facilities or equipment to increase energy efficiency (e.g., installing Variable Frequency Drives, Advanced Meter Reading technology, or “smart grid” technology on pump and water systems)
- Quantifiably reducing energy consumption through water conservation projects that reduce pumping or diversions

C.3.1.3. Task C – Benefits to Endangered Species

Project components that benefit federally listed species (threatened or endangered) or

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designated critical habitat affected by a Reclamation facility or action as well as projects that benefit federally recognized candidate species. Activities include, but are not limited to:

- Improving habitat, including restoring habitat, making additional water available, and managing vegetation
- Installing fish bypasses and fish screens as well as improving hatcheries

Note: For projects that primarily focus on restoration activities, consider the WaterSMART Cooperative Watershed Management Program (CWMP) Phase II FOA, which is expected to be available in December 2016. See the WaterSMART CWMP webpage, www.usbr.gov/watersmart/cwmp/index.html, for updates and other information.

C.3.2. Ineligible Projects

Any project not specifically described in *Section 3.1. Eligible Projects* is not eligible under this FOA. The following subsections further explain ineligible projects.

C.3.2.1. Operations, Maintenance, and Replacement

Projects that are considered normal operations, maintenance and replacement (OM&R) are not eligible. OM&R is described as system improvements that replace or repair existing infrastructure or function without providing increased efficiency or effectiveness of water distribution over the expected life of the improvement. Examples of ineligible OM&R projects include:

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

Applicants that have questions regarding OM&R are encouraged to contact the program coordinator listed in *Section G. Agency Contacts*, prior to the application deadline for further information.

C.3.2.2. Title XVI Water Recycling and Reuse

Title XVI is Reclamation's Water Recycling and Reuse Program focused on identifying and investigating opportunities to reclaim and reuse wastewaters and naturally impaired

ground and surface water. In general, this FOA is not intended for large water recycling and reuse projects. *Note, however, that small improvements that relate to an existing water recycling facility (that is **not** an authorized Title XVI project) may be considered eligible for funding.*

Any projects or project elements that are part of a congressionally authorized Title XVI project of P.L.102-575, as amended (43 USC 390h et seq.), are not eligible for funding under this FOA. A list of congressionally authorized Title XVI projects can be found at www.usbr.gov/watersmart/title/authorized.html.

In addition, if a project sponsor is likely to seek funding for the activity through the Title XVI Program in the future (e.g., seeking congressional authorization for the project or preparing a Title XVI feasibility study that describes the activity as part of a proposed Title XVI project) that activity should be pursued under the Title XVI Program instead of this FOA.

If your project is in the same area as a congressionally authorized project, or if you are unclear whether your project is part of a congressionally authorized Title XVI project, please contact Amanda Erath, Title XVI Program Coordinator, aerath@usbr.gov, 303-445-2766. For additional information on the Title XVI program, please visit: www.usbr.gov/WaterSMART/title.

C.3.2.3. Water Purchases

A project that proposes using Federal funding primarily for the purchase of water is not eligible under this FOA.

C.3.2.4. Building Construction

A project that proposes to construct a building is not eligible for Federal funding under this FOA (e.g., a building to house administrative staff or to promote public awareness of water conservation).

C.3.2.5. Pilot Projects

A project that proposes to conduct a pilot study to evaluate technical capability, economic feasibility, or viability for full-scale implementation, or to test an unproven material or technology is not eligible for Federal funding under this FOA.

C.3.3 Length of Projects

In general, proposed projects should be completed within the timeframes identified below. Applications for projects requiring more time will be considered for funding only under limited circumstances. For example, some renewable energy project installations may require additional time to secure necessary permits.

C.3.3.1 Funding Group I

Funding Group I projects should be completed within 2 years of award.

C.3.3.2 Funding Group II

Funding Group II projects should not exceed 3 years in total duration (e.g., a maximum of three year-long phases). Each year, Funding Group II projects are expected to complete the work planned as part of that year's phase.

Section D: Application and Submission Information

D.1. Address to Request Application Package

This document contains all information, forms, and electronic addresses required to obtain the information required for submission of an application.

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

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

By e-mail: rshah@usbr.gov

By telephone: 303-445-2442

D.2. Content and Form of Application Submission

All applications must conform to the requirements set forth below.

D.2.1. Application Format and Length

The total application package shall be no more than **75** consecutively numbered pages. If an application exceeds 75 pages, only the first 75 pages will be evaluated. The font shall be at least 12 points in size and easily readable. Page size shall be 8½ by 11 inches, including charts, maps, and drawings. Oversized pages will not be accepted. The technical proposal and evaluation criteria section shall be limited to a maximum of **50** pages. The SF-424 forms, letters of project support, and official resolution will not be considered in the total page count.

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

D.2.2. Application Content

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

- Mandatory Federal Forms
 - SF-424 Application for Federal Assistance
 - SF-424C Budget Information – Construction Programs

- SF-424D Assurances – Construction Programs

SF-424, SF-424C, and SF-424D forms may be obtained at www.grants.gov/web/grants/forms/sf-424-mandatory-family.html.

- Title page
- Table of contents
- Technical proposal and evaluation criteria (limited to **50** pages)
 - Executive summary
 - Background data
 - Project description
 - Evaluation criteria
 - Performance measures
- Environmental and cultural resources compliance
- Letters of project support (will not count toward the page limitation)
- Required permits or approvals
- Official resolution (will not count toward the page limitation)
- Project budget
 - Funding plan and letters of commitment
 - Budget proposal
 - Budget narrative

D.2.2.1. Mandatory Federal Forms

The application must include the following standard Federal forms.

SF-424 Application for Federal Assistance

A fully completed SF-424 Application for Federal Assistance, signed by a person legally authorized to commit the applicant to performance of the project must be submitted with the application. Failure to submit a properly signed SF-424 may result in the elimination of the application from further consideration.

SF-424 Budget Information

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

SF-424 Assurances

An SF-424D Assurances Construction Programs, signed by a person legally authorized to commit the applicant to performance of the project must be

Section D. Application and Submission Information

included. Failure to submit a properly signed SF-424D may result in the elimination of the application from further consideration.

D.2.2.2. Title Page

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

D.2.2.3. Table of Contents

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

D.2.2.4. Technical Proposal and Evaluation Criteria

The technical proposal and evaluation criteria (**50** pages maximum) includes:

- (1) Executive summary
- (2) Background Data
- (3) Project description
- (4) Evaluation criteria

Executive Summary

The executive summary should include:

- The date, applicant name, city, county, and state
- A one paragraph project summary that specifies the work proposed, including how project funds will be used to accomplish specific project activities and briefly identifies how the proposed project contributes to accomplishing the goals of this FOA (see *Section C.3.1. Eligible Projects*)
- State the length of time and estimated completion date for the proposed project
- Whether or not the project is located on a Federal facility

Background Data

Provide a map of the area showing the geographic location (include the state, county, and direction from nearest town) of the proposed project.

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

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

If the application includes renewable energy or energy efficiency elements, describe existing energy sources and current energy uses.

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

Project Description

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

Evaluation Criteria

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

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

It is suggested that applicants copy and paste the evaluation criteria and subcriteria in Section E.1. Evaluation Criteria into their applications to ensure that all necessary information is adequately addressed.

D.2.2.5 Performance Measures

All WaterSMART Grant applicants are required to propose a method (or "performance measure") of quantifying the actual benefits of their project once it is completed. Actual benefits are defined as water actually conserved or better managed, as a direct result of the project. A provision will be included in all assistance agreements with WaterSMART Grant recipients describing the performance measure and requiring the recipient to quantify the actual project benefits in their final report to Reclamation upon completion of the project.

Quantifying project benefits is an important means to determine the relative effectiveness of various water management efforts, as well as the overall effectiveness of WaterSMART Grants.

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The following information is intended to provide applicants with examples of some acceptable performance measures that may be used to estimate pre-project benefits and to verify post-project benefits upon completion.

However, the following is not intended to be an exclusive list of acceptable performance measures. Applicants are encouraged to propose alternatives to the measures listed below if another measure is more effective for the particular project.

Reclamation understands that, in some cases, baseline information may not be available, and that methods other than those suggested below may need to be employed. If an alternative performance measure is suggested, the applicant must provide information supporting the effectiveness of the proposed measure as applied to the proposed project.

Performance Measure No. A: Projects with Quantifiable Water Savings

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

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

Canal lining or piping projects are implemented to decrease canal seepage and evaporation. **The following information may be helpful in estimating the pre-project benefits and to verify the post-project benefits of canal lining and piping:**

Pre-project estimations of baseline data:

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

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

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

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

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

$$([100\%-(2 \text{ acre-feet}/6 \text{ acre-feet} \times 100)]=33\% \text{ efficiency}).$$

If after lining or piping the canal, the irrigation district only needs to divert 4 acre-feet of water to deliver the 2 acre-feet; efficiency would improve by 17 percent:

$$([100\%-(2 \text{ acre-feet}/4 \text{ acre-feet} \times 100)]=50\% \text{ efficiency}).$$

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

Performance Measure No. A.2: Measuring Devices

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

Measuring Devices: No. A.2.a. Municipal Metering

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

- Whether the project includes new meters where none existed previously or replaces existing meters.
- Whether the project includes individual water user meters, main line meters, or both.

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- If the project replaces existing meters with new meters, whether new technologies (automatic meter reading (AMR) or advanced metering infrastructure (AMI) meters) will be employed.
- If main line meters are included, whether system leak detection may be improved.

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

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

- Municipal water delivery meters are typically installed for each water user as well as at locations to measure production and/or supply and storage. Accurate measurement allows for demands assessment, customer billing, diagnostic testing, locating and quantifying leakage, and other management needs.
- Significant water savings can be achieved when meters are installed where none existed previously. In the case of individual water user metering, most customers use significantly less water when billed at a usage rate; and especially so when a tiered rate is applied (i.e., higher rates for higher use). Installing new meters within the distribution system can also result in savings through improved leak detection/correction. Replacing existing meters can also result in water savings when new technologies are employed. For example, AMR and AMI devices provide real time measurement to the operator and, in some cases, to the customer as well. This allows for improved management by the operator, more conscientious use by the customer, and improved leakage detection by both.
- Quantifying savings associated with meter installation and/or replacement requires analysis of pre- and post-installation measurements from existing meters at strategic locations within the system. If the installing meters will result in conserved water, please provide support for this determination (including, but not limited to, studies and previous projects). A logical scheme should be developed that compares before and after installation flow quantities and that accounts for leakage and other considerations. The site-specific water savings verification plan should be as detailed as possible and clearly state all assumptions and the relative level of accuracy expected. In addition, please provide details underlying any assumptions being made in support of water savings estimates (e.g., residential users will reduce use once a more advanced billing structure is imposed).

Measuring Devices: No.A.2.b. Irrigation Metering

Measuring devices that may be installed may include, but are not limited to, the following:

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

Potential benefits from improved irrigation delivery system measurement include:

- Quantification of system losses between measurement locations
- Quantification of wasteway (spill) flows
- Accurate billing of customers for the actual amount of water delivered
- Facilitation of accurate and equitable distribution of water within a district

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

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

Pre-project estimations of baseline data:

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

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

- Compare post-project water measurement (deliveries or consumption) data to pre-project water uses
- Compare pre-project and post-project consumptive use by crop via remote-sensing information—taking into account cropping patterns, irrigation methods, crop rotations, climatic variables, etc.

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- Survey users to determine utility of the devices for decision making

Document the benefits of any rate structure changes made possible by the installation of measuring devices (e.g., if districts that convert from nonmetered to metered are able to convert from billing water users at a flat rate to billing for actual water use using a volumetric or tiered water pricing structure)

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

Proposals may involve the installing or expanding a SCADA or combined SCADA/GIS system that monitors flows in an individual district or in a basin that includes several districts. SCADA systems provide water managers with real-time data on the flow and volume of water at key points along a water delivery system. Access to such data allows water managers to make accurate and timely deliveries of water, reducing over-deliveries and spillage at the end of the canal. SCADA/GIS systems can provide water users with real time delivery data to promote improved on-farm efficiencies.

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

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

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

Pre-project estimations of baseline data:

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

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

- Calculate amount of increased carryover storage in associated reservoirs. This is a long-term measure which will be more meaningful over a period of years.
- Track and record the diversions to water users and compare to pre-project diversions. This would show results of improved management if yearly fluctuations in weather are accounted for.
- Report delivery improvements (e.g., changes in supply, duration, or frequency that are available to end users because of SCADA/GIS).
- Document other benefits such as less mileage by operators on dusty roads (which saves time and influences air quality) and less damage to canal banks.

Performance Measure No. A.4: Automation

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

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

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

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

Pre-project estimations of baseline data:

- Establish baseline data by measuring existing spillage or document historical spillage. A rated measuring device should be positioned to measure spillage losses. To account for temporal variations, a minimum of a one-year history of pre-project measurements is desirable for future

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comparison to post-project water usage. Spillage volumes can vary substantially between wet and dry years; therefore, some multi-year estimates of spillage may be necessary.

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

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

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

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

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

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

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

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

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

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

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

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

Pre-project estimations of baseline data:

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

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

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

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

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

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

- Pump stations with constant flow rates

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

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

Pre-project estimations of baseline data:

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

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

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

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

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

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

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

Performance Measure No. A.7: Landscape Irrigation Measures

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

Landscape Irrigation Measures: No. A.7.a. Turf Removal

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

Pre-project estimations of baseline data:

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

Dedicated meter data. Municipal water delivery entities often have users where dedicated irrigation meters exist (e.g., parks, home owners associations, and golf courses). If so, metered water use can be divided by the irrigated area to calculate the average annual irrigation rate per unit area of turf. The greater the number of years of data used, the better the averages should be with regard to varying weather conditions. Also, when using this information, consider that parks and golf courses irrigation is typically more efficient relative to residential irrigation, so the actual turf removal savings for all types of users would be expected to be higher than for the average for these.

Winter/summer use data. In the absence of dedicated irrigation meter data and where irrigation ceases during winter months, summer versus winter use data can be compared to estimate irrigation use. This can be analyzed for a sample of users and combined with an estimate of the total area irrigated. An average turf irrigation rate can be calculated.

Theoretical irrigation requirement. In areas where winter irrigation occurs and dedicated irrigation meter data are not available, weather data can be used to estimate theoretical irrigation demand. These calculations consider reference evapotranspiration (ET) values from local weather stations, a crop coefficient for the type of grass, and an assumed average irrigation efficiency rate.

Assumed domestic use rate. An alternative method for calculating theoretical irrigation demand subtracts the assumed domestic (indoor) water use rates from total use. Domestic water use can be estimated based on household size and an assumed per person indoor usage rate. The age of the community and existence of high-efficiency appliances and fixtures should be considered in the per-person domestic use rate.

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

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

Landscape Irrigation Measures: No. A.7.b. Smart Irrigation Controllers

A Smart irrigation controller automatically adjusts the amount of water applied to landscaped areas based on weather or soil moisture conditions. Weather based controllers receive weather information from either onsite sensors or from remote weather stations via radio, pager or Internet signals. Soil moisture based controllers receive soil moisture information from one or more onsite sensors.

With Smart controllers, watering is limited to replacing only the moisture that the landscape lost due to ET since the last irrigation.

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

Pre-project estimations of baseline data:

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

- Site audits should be conducted at each location within the project to measure landscape area and estimate the irrigation system's efficiency. Site audit-based recommendations for system efficiency improvement are strongly recommended.

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

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

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

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

Landscape Irrigation Measures: No. A.7.c. High-Efficiency Nozzles

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

Pre-project estimations of baseline data

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

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

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

Performance Measure No. B: Projects with Quantifiable Energy Savings

The performance measures included below are examples that may be helpful in estimating pre-project benefits and post-project energy savings for projects that are expected to increase the use of renewable energy sources in the management and delivery of water and/or are upgrading existing water management facilities resulting in quantifiable and sustained energy savings.

Energy efficiency projects are intended to increase the use of renewable energy and increase overall energy efficiency in managing and delivering water.

Applicants should address the following subsections as part of the performance measures they submit with their applications.

Performance Measure No. B.1: Implementing Renewable Energy Improvements Related to Water Management and Delivery

- Explain the methodology used for quantifying the energy generated from the renewable energy system
- Explain the methodology for calculating the quantity of energy savings resulting from the activity
- Explain anticipated cost savings for the project
- Include an estimate of energy conserved

Performance Measure No. B.2: Increasing Energy Efficiency in Water Management

- Explain the methodology for calculating the quantity of energy savings resulting from the water management improvements or water conservation improvements
- Explain anticipated cost savings

Performance Measure No. C: Projects that Benefit Endangered Species and/or Critical Habitat

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

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

D.2.2.6. Environmental and Cultural Resources Compliance

So that Reclamation can assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), and National Historic Preservation Act (NHPA) requirements. ***Note: Applicants proposing a Funding Group II project must address the environmental and cultural resources compliance questions for their entire project, not just the first 1-year phase.***

Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. The application should include the answers to:

- Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.
- Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?
- Are there wetlands or other surface waters inside the project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the proposed project may have.
- When was the water delivery system constructed?
- Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

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- Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.
- Are there any known archeological sites in the proposed project area?
- Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?
- Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?
- Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

Note, if mitigation is required to lessen environmental impacts, the applicant may, at Reclamation's discretion, be required to report on progress and completion of these commitments. Reclamation will coordinate with the applicant to establish reporting requirements and intervals accordingly.

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

If you have any questions regarding NEPA, ESA, CWA and/or NHPA requirements, please contact your local local Reclamation office, www.usbr.gov/main/offices.html.

D.2.2.7. Letters of Support

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

D.2.2.8. Required Permits or Approvals

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

Applicants proposing renewable energy components to Federal facilities should note that some power projects may require FERC permitting or a Reclamation Lease of Power Privilege. To complete a renewable energy project within the time frame required of this FOA, it is recommended that an applicant has commenced the necessary permitting process prior to applying. To discuss questions related to projects that propose renewable energy development, please contact the Program Coordinator listed in *Section G, Agency Contacts*.

Note that improvements to Federal facilities that are implemented through any project awarded funding through this FOA must comply with additional requirements. The Federal government will continue to hold title to the Federal facility and any improvement that is integral to the existing operations of that facility. Please see P.L. 111-11, Section 9504(a)(3)(B). Reclamation may also require additional reviews and approvals prior to award to ensure that any necessary easements, land use authorizations, or special permits can be approved consistent with the requirements of 43 CFR §429, and that the development will not impact or impair project operations or efficiency.

D.2.2.9. Official Resolution

Include an official resolution adopted by the applicant's board of directors or governing body, or, for state government entities, a signed statement from an official authorized to commit the applicant to the financial and legal obligations associated with receipt of a financial assistance award under this FOA, verifying:

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

An official resolution meeting the requirements set forth above is mandatory.

If the applicant is unable to submit the official resolution by the application deadline because of the timing of board meetings or other justifiable reasons, the official resolution may be submitted up to 30 days after the application deadline.

D.2.2.10. Project Budget

The project budget includes:

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

Funding Plan and Letters of Commitment

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

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

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

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

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

Note: applicants proposing a Funding Group II project are not required to have non-Federal cost share funding secured for the entire project at the time of award. Funding Group II applicants must demonstrate sufficient evidence that non-Federal cost-share for the first year of the project will be available by the start of that phase and must describe a plan and schedule for securing non-Federal funding for subsequent years of the project.

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

- How you will make your contribution to the cost-share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).
- Describe any costs incurred before the anticipated Project start date that you seek to include as project costs. For each cost, identify:
 - The project expenditure and amount

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

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

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

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

Budget Proposal

The budget proposal should include detailed information on the categories listed below and must clearly identify all project costs. Unit costs shall be provided for all budget items including the cost of work to be provided by contractors. The budget proposal should also include any in-kind contributions of goods and services provided to complete the Project. It is strongly advised that applicants

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use the budget proposal format shown below on Table 2 or a similar format that provides this information. If selected for award, successful applicants must submit detailed supporting documentation for all budgeted costs.

Note: Budget proposals must not include post-construction monitoring costs. Applicants are required to identify a performance measure to quantify water savings; however, the costs for post-construction monitoring are classified as normal OM&R costs and are not eligible for reimbursement.

Table 2.—Sample Budget Proposal Format

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

Budget Narrative

Submission of a budget narrative is mandatory. An award will not be made to any applicant who fails to fully disclose this information. The budget narrative provides a discussion of, or explanation for, items included in the budget proposal. Include the value of in-kind contributions or donations of goods and services and sources of funds provided to complete the project. The types of information to describe in the narrative include, but are not limited to, those listed in the following subsections. Costs, including the valuation of in-kind contributions and donations, must comply with the applicable cost principles contained in 2 CFR Part §200, available at the Electronic Code of Federal Regulations (www.ecfr.gov).

Salaries and Wages

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

Include estimated hours for compliance with reporting requirements, including final project and evaluation. Please see *Section F.3. Reporting Requirements and Distribution* for information on types and frequency of reports required.

Clearly identify any proposed salary increases and the effective date.

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

Fringe Benefits

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

Travel

Include purpose of trip, destination, number of persons traveling, length of stay, and all travel costs including airfare (basis for rate used), per diem, lodging, and miscellaneous travel expenses. For local travel, include mileage and rate of compensation.

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Equipment

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

Materials and Supplies

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

Contractual

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

Environmental and Regulatory Compliance Costs

Applicants must include a line item in their budget to cover environmental compliance costs. "Environmental compliance costs" refer to costs incurred by Reclamation and the recipient in complying with environmental regulations applicable to an award under this FOA, including costs associated with any required documentation of environmental compliance, analyses, permits, or approvals. Applicable Federal environmental laws could include NEPA, ESA, NHPA, CWA, and other regulations depending on the project. Such costs may include, but are not limited to:

- The cost incurred by Reclamation to determine the level of environmental compliance required for the project
- The cost incurred by Reclamation, the recipient, or a consultant to prepare any necessary environmental compliance documents or reports

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

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

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

For assistance related to budgeting for environmental compliance costs, contact your local Reclamation office, listed at www.usbr.gov/main/offices.html.

Other Expenses

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

Indirect Costs

Indirect costs that will be incurred in performance of Project activities, which will not otherwise be recovered, may be included as part of the budget proposal. Show the proposed rate, cost base, and proposed amount for allowable indirect costs based on the applicable cost principles for the recipient's organization. Applicants must not incorporate indirect rates within other direct cost line items.

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

recommendation by a qualified certified public accountant (CPA) along with support for the rate calculation. Please note that the applicant will need to obtain a federally negotiated indirect cost rate agreement within one year of award.

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

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

Total Costs

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

D.3. Unique Entity Identifier and System for Award Management

All applicants (unless the applicant has an exception approved by Reclamation under 2 CFR §25.110[d]) are required to:

- (i) Be registered in the System for Award Management (SAM) before submitting its application;
- (ii) Provide a valid unique entity identifier in its application; and
- (iii) Continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency.

Meeting the requirements set forth above is mandatory. If the applicant is unable to comply with these requirements by the application deadline, the unique entity identifier must be obtained and SAM registration must be initiated within 30 days after the application deadline in order to be considered for selection and award. Applications that do not comply with these requirements may be removed from consideration.

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

D.4. Submission Date and Time

Application submission date deadline:

January 18, 2017, 4:00 p.m. Mountain Standard Time (MST)

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

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

D.4.1. Application Delivery Instructions

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

By mail: Bureau of Reclamation Acquisition Operations Branch
Attn: Ms. Rupal Shah
Mail Code: 84-27852
P.O. Box 25007
Denver, Colorado 80225

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

By courier services: Bureau of Reclamation
Attn: Ms. Rupal Shah
Denver Federal Center
Bldg. 56, Rm. 1000
6th Avenue and Kipling Street
Denver, Colorado 80225

D.4.2. Instructions for Submission of Application

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

D.4.2.1. Applications Submitted by Mail, Express Delivery or Courier Services

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

- Applicants shall submit one copy of all application documents for hardcopy submissions. Only use a binder clip for documents submitted. Do not staple or otherwise bind application documents.
- Hard copy applications may be submitted by mail, express delivery, or courier services to the addresses identified in this FOA.
- Materials arriving separately will not be included in the application package and may result in the application being rejected or not funded. This does not apply to letters of support, funding commitment letters, or official resolutions. However, letters of support received after the application deadline for this FOA will not be considered in the evaluation of the proposal.
- Faxed and emailed copies of application documents will not be accepted.
- Do not include a cover letter or company literature/brochure with the application. All pertinent information must be included in the application package.

D.4.2.2. Applications Submitted Electronically

If the applicant chooses to submit an electronic application, it must be submitted through Grants.gov (www.grants.gov). Reclamation encourages applicants to submit their applications for funding electronically at www.grants.gov/applicants/apply-for-grants.html. Applicant resource documents and a full set of instructions for registering with Grants.gov (www.grants.gov), and completing and submitting applications online are available at: www.grants.gov/applicants/apply-for-grants.html.

- Please note that submission of an application electronically requires prior registration through Grants.gov, which may take 7 to 21 days. Please see registration instructions at www.grants.gov/applicants/apply-for-grants.html. **In addition, please note that the Grants.gov system only accepts applications submitted by individuals that are registered and active in SAM as both a user and an Authorized Organizational Representative.**

- Applicants have experienced significant delays when attempting to submit applications through Grants.gov. If you plan to submit your application through Grants.gov you are encouraged to submit your application several days prior to the application deadline. If you are a properly registered Grants.gov applicant and encounter problems with the Grants.gov application submission process, you must contact the Grants.gov Help Desk to obtain a case number. This case number will provide evidence of your attempt to submit an application prior to the submission deadline.

Regardless of the delivery method used, you must ensure that your proposal arrives by the date and time deadline stated in this FOA. Applications received after this date and time due to weather or express delivery/courier performance will not be considered for award. Late applications will not be considered unless it is determined that the delay was caused by Federal Government mishandling or by a problem with the Grants.gov application system.

D.4.2.3. Acknowledgement of Application Receipt.

If an application is submitted by mail, express delivery, or courier, Reclamation will notify you in writing that your application was received and whether it was received prior to the deadline identified in the FOA.

If an application is submitted through Grants.gov, you will receive an email acknowledging receipt of the application from Grants.gov. In addition, Reclamation will notify you in writing that your application was retrieved from Grants.gov.

D.5. Intergovernmental Review

This FOA is not subject to Executive Order 12372, “Intergovernmental Review of Federal Programs.”

D.6. Funding Restrictions: Pre-award Costs

Project pre-award costs that have been incurred prior to the date of award but after July 1, 2016 may be submitted for consideration as an allowable portion of the recipient’s cost share. **In no case will pre-award costs incurred prior to July 1, 2016, be considered for cost-share purposes.**

For example, such costs might include design or construction plans and environmental compliance costs directly supporting the proposed project. Reclamation will review the proposed pre-award costs to determine if they are allowable in accordance with the authorizing legislation and applicable cost principles. To be considered allowable, any pre-award costs proposed for consideration under the new awards must comply with all applicable requirements under this FOA.

D.7. Automated Standard Application for Payments Registration

All applicants must also be registered with and willing to process all payments through the Department of Treasury Automated Standard Application for Payments (ASAP) system. All recipients with active financial assistance agreements with Reclamation must be enrolled in ASAP under the appropriate Agency Location Code(s) and the Data Universal Number System (DUNS) Number prior to the award of funds. If a recipient has multiple DUNS numbers they must separately enroll within ASAP for each unique DUNS Number and/or Agency. All of the information on the enrollment process for recipients, including the enrollment initiation form and the enrollment mailbox can be found at www.usbr.gov/mso/aamd/asap.html.

Note that if your entity is currently enrolled in the ASAP system with an agency other than Reclamation, you must enroll specifically with Reclamation in order to process payments.

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Section E. Application Review Information

E.1. Evaluation Criteria

The evaluation criteria portion of your application should thoroughly address each of the following criteria and subcriteria in the order presented to assist in the complete and accurate evaluation of your proposal. If a particular criterion does not apply to your project, please indicate which criteria are inapplicable as part of your application. (Note: it is suggested that applicants copy and paste the below criteria and subcriteria into their applications to ensure that all necessary information is adequately addressed). **Applications will be evaluated against the evaluation criteria (listed below), which comprise 100 points of the total evaluation weight.** Please note that projects may be prioritized to ensure balance among the program Task Areas and to ensure that the projects address the goals of the WaterSMART program.

*Please note, if the work described in your application is a phase of a larger project, please **only** discuss the benefits that will result directly from the work discussed in your application and that is reflected in the budget and exclude discussion of benefits expected from the overall project.*

E.1.1. Evaluation Criterion A: Quantifiable Water Savings (25 points)

*Up to **25 points** may be awarded for a proposal that will conserve water and improve efficiency. Points will be allocated based on the quantifiable water savings expected as a result of the project. Points will be allocated to give greater consideration to projects that are expected to result in significant water savings.*

Describe the amount of water saved. For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result of this project. Please provide sufficient detail supporting how the estimate was determined, including all supporting calculations. Please be sure to consider the questions associated with your project type (listed below) when determining the estimated water savings, along with the necessary support needed for a full review of your proposal (please note, the following is **not** an exclusive list of eligible project types. If your proposed project does not align with any of the projects listed below, please be sure to provide support for the estimated project benefits, including all supporting calculations and assumptions made). *In addition, please note that the use of visual observations alone to calculate water savings, without additional documentation/data, are not sufficient to receive credit under this section.*

In addition, all applicants should be sure to address the following:

- Where is the water that will be conserved currently going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground)?

Please include a specific quantifiable water savings estimate; do not include a range of potential water savings.

Please address the following questions according to the type of project you propose for funding.

- (1) **Canal Lining/Piping:** Canal lining/piping projects can provide water savings when irrigation delivery systems experience significant losses due to canal seepage. Applicants proposing lining/piping projects should address the following:
 - (a) How has the estimated average annual water savings that will result from the project been determined? Please provide all relevant calculations, assumptions, and supporting data.
 - (b) How have average annual canal seepage losses been determined? Have ponding and/or inflow/outflow tests been conducted to determine seepage rates under varying conditions? If so, please provide detailed descriptions of testing methods and all results. If not, please provide an explanation of the method(s) used to calculate seepage losses. All estimates should be supported with multiple sets of data/measurements from representative sections of canals.
 - (c) What are the expected post-project seepage/leakage losses and how were these estimates determined (e.g., can data specific to the type of material being used in the project be provided)?
 - (d) What are the anticipated annual transit loss reductions in terms of acre-feet per mile for the overall project and for each section of canal included in the project?
 - (e) How will actual canal loss seepage reductions be verified?
 - (f) Include a detailed description of the materials being used.
- (2) **Municipal Metering:** Municipal metering projects can provide water savings when individual user meters are installed where none exist to allow for unit or tiered pricing, when existing individual user meters are replaced with advanced metering infrastructure (AMI) meters, and when new meters are installed within a distribution system to assist with leakage reduction. To receive credit for water savings for a municipal metering project, an applicant must provide a detailed description of the method used to estimate savings, including references to documented savings from similar

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previously implemented projects. Applicants proposing municipal metering projects should address the following:

- (a) How has the estimated average annual water savings that will result from the project been determined? Please provide all relevant calculations, assumptions, and supporting data.
 - (b) How have current distribution system losses and/or the potential for reductions in water use by individual users been determined?
 - (c) For installing individual water user meters, refer to studies in the region or in the applicant's service area that are relevant to water use patterns and the potential for reducing such use. In the absence of such studies, please explain in detail how expected water use reductions have been estimated and the basis for the estimations.
 - (d) If installing distribution main meters will result in conserved water, please provide support for this determination (including, but not limited to leakage studies, previous leakage reduction projects, etc.). Please provide details underlying any assumptions being made in support of water savings estimates (e.g., how leakage will be reduced once identified with improved meter data).
 - (e) What types (manufacturer and model) of devices will be installed and what quantity of each?
 - (f) How will actual water savings be verified upon completion of the project?
- (3) **Irrigation Flow Measurement:** Irrigation flow measurement improvements can provide water savings when improved measurement accuracy results in reduced spills and over-deliveries to irrigators. Applicants proposing municipal metering projects should address the following:
- (a) How have average annual water savings estimates been determined? Please provide all relevant calculations, assumptions, and supporting data.
 - (b) Have current operational losses been determined? If water savings are based on a reduction of spills, please provide support for the amount of water currently being lost to spills.
 - (c) Are flows currently measured at proposed sites and if so what is the accuracy of existing devices? How has the existing measurement accuracy been established?
 - (d) Provide detailed descriptions of all proposed flow measurement devices, including accuracy and the basis for the accuracy.

- (e) Will annual farm delivery volumes be reduced by more efficient and timely deliveries? If so, how has this reduction been estimated?
- (f) How will actual water savings be verified upon completion of the project?

(4) Supervisory Control and Data Acquisition and Automation:

SCADA and automation components can provide water savings when irrigation delivery system operational efficiency is improved to reduce spills, over-deliveries, and seepage. Applicants proposing SCADA and automation projects should address the following:

- (a) How have average annual water savings estimates been determined? Please provide all relevant calculations, assumptions, and supporting data.
- (b) Have current operational losses been determined? If water savings are based on a reduction of spills, please provide support for the amount of water currently being lost to spills.
- (c) Will annual farm delivery volumes be reduced by more efficient and timely deliveries? If so, how has this reduction been estimated?
- (d) Will canal seepage be reduced through improved system management? If so, what is the estimated amount and how was it calculated?
- (e) How will actual water savings be verified upon completion of the project?

(5) Landscape Irrigation Measures: Landscape irrigation measures can provide water savings by reducing outdoor water usage. These measures include turf removal, Smart irrigation controllers (e.g., weather or soil-moisture based) and high-efficiency nozzles (e.g., sprinkler heads).

(6) Turf Removal: Applicants proposing turf removal projects should address the following:

- (a) How have average annual water savings estimates been determined? Please provide all relevant calculations, assumptions, and supporting data.
- (b) What is the total surface area of turf to be removed and what is the estimated average annual turf consumptive use rate per unit area?
- (c) Was historical water consumption data evaluated to estimate average annual turf consumptive use per unit area? If so, did the evaluation include a weather adjustment component?
- (d) Will site audits be performed before applicants are accepted into the program?

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- (e) How will actual water savings be verified upon completion of the project?
- (7) **Smart Irrigation Controllers and High-Efficiency Nozzles:** Applicants proposing smart irrigation controller or high-efficiency nozzle projects should address the following:
 - (a) How have average annual water savings estimates been determined? Please provide all relevant calculations, assumptions, and supporting data.
 - (b) Was historical water consumption data evaluated to estimate the percent reduction in water demand per unit area of irrigated landscape? If so, did the evaluation include a weather adjustment component?
 - (c) What types (manufacturer and model) of devices will be installed and what quantity of each?
 - (d) Will the devices be installed through a rebate or direct-install program?
 - (e) Will site audits be performed before and after installation?
 - (f) How will actual water savings be verified upon completion of the project?
- (8) **High-Efficiency Indoor Appliances and Fixtures:** Installing high-efficiency indoor appliance and fixtures can provide water savings for municipal water entities where there is significant potential for replacing existing non-efficient indoor appliances and fixtures. Applicants proposing high-efficiency indoor appliance and fixtures projects should address the following:
 - (a) How have average annual water savings estimates been determined? Please provide all relevant calculations, assumptions, and supporting data.
 - (b) What types (clothes washers, shower heads, etc.) of appliances and fixtures will be installed and what quantity of each?
 - (c) Have studies been conducted to verify the existence of non-efficient appliances and fixtures? Provide published water savings rates for each of these devices and reference the source for each of the device savings rates.
 - (d) Will the devices be installed through rebate or direct-install programs?
 - (e) How will actual water savings be verified upon completion of the project?

- (9) **Groundwater Recharge:** Groundwater recharge can provide savings when surface water storage evaporation is reduced and/or surface runoff is intercepted for recharge. Applicants proposing groundwater recharge projects should address the following:

- (a) How have average annual water savings estimates been determined? Please provide all relevant calculations, assumptions, and supporting data.
- (b) Describe the source of the water to be used for recharge and what percentage of the recharged water is going to be available for use and how it will be used. Describe how this supply of water will offset other supplies.
- (c) If water savings are based on reduced surface water storage evaporation, provide calculations for reduced evaporation losses.
- (d) If water savings are based on recharge from existing surface runoff, provide calculations quantifying the estimated increased deep percolation amount.
- (e) How will actual water savings be verified upon completion of the project?

Note: Some groundwater recharge projects are intended to increase overall water management flexibility without necessarily conserving water. Applicants proposing such projects should consider applying for funding under the WaterSMART Drought Resiliency Projects FOA, which places less emphasis on quantifiable water savings and greater emphasis on increasing water management flexibility. See the WaterSMART Drought Response Program webpage, www.usbr.gov/drought, for more information.

- (10) **Small Water Recycling and Water Reuse Improvements:** Small projects that reclaim and reuse wastewaters or naturally impaired groundwater and surfacewater to offset existing uses. Applicants proposing small water recycling and reuse improvements should address the following:

- (a) How have current uses been determined? Please provide all relevant calculations, assumptions, and supporting data.
- (b) Explain in detail how the proposed project will result directly in offsetting current uses, including how the water be delivered to customers.

Note: Some small water recycling and reuse improvements are intended to increase overall water management flexibility without resulting in significant water savings. Applicants proposing such projects should consider applying for funding under the WaterSMART Drought Resiliency Projects FOA, which

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places less emphasis on quantifiable water savings and greater emphasis on increasing water management flexibility. See the WaterSMART Drought Response Program webpage, www.usbr.gov/drought, for more information.

(11) Other Project Types Not Listed Above: Projects to provide water savings for irrigation and municipal water systems other than those listed above will be considered and evaluated based on the amount of estimated water savings and the adequacy of the description of how the savings are estimated. Applicants proposing these types of projects should address the following items:

- (a) How have average annual water savings estimates been determined? This should include a detailed description of the rationale and methodologies used to develop the estimates. Please provide all relevant calculations, assumptions, and supporting data. Reference relevant studies or past project documentation that support the water saving estimates.
- (b) If new technologies or devices are proposed, how will the savings occur? Please provide detailed descriptions that will enable the reviewer to understand function and how savings occur.
- (c) How will actual water savings be verified upon completion of the project? Please explain the calculations and the analyses for this verification.

E.1.2. Evaluation Criterion B: Water Sustainability Benefits Expected to Result from the Project (25 points)

Up to 25 points may be awarded under this criterion based on the water sustainability benefits that are expected to occur as a result of the project.

Maximum consideration under this criterion will be given to projects that will commit conserved water to instream flows for the benefit of federally listed threatened or endangered species, designated critical habitat, or other fish and wildlife benefits. Consideration will also be given to projects expected to result in water sustainability benefits in other ways, such as making water available to alleviate water supply shortages or to address other specific water management concerns in the region.

Please describe in detail where the conserved water will go and how the conserved water is expected to increase water sustainability. Consider the following:

- Will the project commit conserved water to instream flows? If so, please address the following:

- Provide a detailed description of the mechanism that will be used (e.g., collaboration with a state agency or nonprofit organization, or other mechanisms allowable under state law) and the roles of any partners in the process. Please attach any relevant supporting documents.
- Indicate the quantity of conserved water that will be committed to instream flows. Describe where conserved water will be committed to increase instream flows (indicate specific stream reaches if applicable).
- Describe the benefits that are expected to result from increased instream flows. Will the increased instream flows result in benefits to fish and wildlife? If so, please describe the species and expected benefit of the project.
- Please describe the status of the species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular ecological, recreational, or economic importance), the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project.
- Will the increased instream flows result in benefits to habitat or other ecological benefits? If so, describe these benefits. Will the flows specifically benefit federally designated critical habitat?
- Will the increased instream flows result in other benefits not discussed above, including recreational, social, or economic benefits? If so, please explain.
- Some projects may address water supply sustainability in ways other than committing water for instream flows. If the questions listed above are not applicable to your project, please address the following to explain how the water savings from the project are expected to result in a public benefit:
 - Is there a specific water supply sustainability concern in the region? What factors are contributing to the concern? Please include a description of the impacted geographic area and stakeholders, the partners that are collaborating to resolve the concern, and any other applicable information.
 - How will the proposed project help to address that concern? Will water conserved through the project result in reduced diversions or be made available to help alleviate water supply shortages due to drought, climate variation, or over-allocation?

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- Will the project make additional water available to Indian tribes, and/or rural or economically disadvantaged communities)? If so, please explain.
- Will water conserved through the project help to address water supply sustainability in a way not listed above?

Note: Maximum consideration under this criterion is also available to projects that result in habitat improvements that benefit federally listed threatened or endangered species, designated critical habitat, or other fish and wildlife (i.e., Task C activities).

For Task C activities with benefits unrelated to water savings (e.g., habitat improvements, or installation of fish bypasses or fish screens), describe the activities and associated benefits in detail. Please address the following: Will the project benefit federally-recognized candidate species? Will the project directly accelerate the recovery of, threatened or endangered species or address designated critical habitat? Is the project expected to have other fish and wildlife benefits?

Note: For projects that primarily focus on restoration activities consider the WaterSMART Cooperative Watershed Management Program (CWMP) Phase II FOA, which is expected to be available in December 2016. See the WaterSMART CWMP webpage, www.usbr.gov/watersmart/cwmp/index.html, for updates and other information.

E.1.3. Evaluation Criterion C: Energy-Water Nexus (18 points)

Up to 18 points may be awarded based on the extent to which the project increases the use of renewable energy or otherwise results in increased energy efficiency. Note: an applicant may receive points under both subcriterion No.C.1 and C.2 if the project consists of an energy efficiency component separate from the renewable energy component of the project. However, an applicant may receive no more than 18 points total under both subcriteria No. C.1 and C.2.

For projects that include construction or installation of renewable energy components, please respond to Subcriterion No. C.1: Implementing Renewable Energy Projects Related to Water Management and Delivery. If the project does not implement a renewable energy project but will increase energy efficiency, please respond to Subcriterion No. C.2. Increasing Energy Efficiency in Water Management. If the project has separate components that will result in both implementing a renewable energy project and increasing energy efficiency, an applicant may respond to both. However, an applicant may receive no more than 18 points total under both Subcriteria No. C.1 and C.2.

E.1.3.1. Subcriterion No. C.1: Implementing Renewable Energy Projects Related to Water Management and Delivery

Up to 18 points may be awarded for projects that include construction or installation of renewable energy components (e.g., hydroelectric units, solar-electric facilities, wind energy systems, or facilities that otherwise enable the use of renewable energy). Projects such as small-scale solar resulting in minimal energy savings or production will be considered under Subcriterion No. C.2 below.

Describe the amount of energy capacity. For projects that implement renewable energy systems, state the estimated amount of capacity (in kilowatts) of the system. Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate.

Describe the amount of energy generated. For projects that implement renewable energy systems, state the estimated amount of energy that the system will generate (in kilowatt hours per year). Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate.

Describe any other benefits of the renewable energy project. Please describe and provide sufficient detail on any additional benefits expected to result from the renewable energy project, including:

- Expected environmental benefits of the renewable energy system
- Any expected reduction in the use of energy currently supplied through a Reclamation project
- Anticipated beneficiaries, other than the applicant, of the renewable energy system
- Expected water needs of the renewable energy system

AND/OR

E.1.3.2. Subcriterion No. C.2: Increasing Energy Efficiency in Water Management

Up to 4 points may be awarded for projects that address energy demands by retrofitting equipment to increase energy efficiency and/or through water conservation improvements that result in reduced pumping or diversions.

Describe any energy efficiencies that are expected to result from implementation of the water conservation or water management project (e.g., reduced pumping).

- Please provide sufficient detail supporting the calculation of any energy savings expected to result from water conservation improvements. If

quantifiable energy savings are expected to result from water conservation improvements, please provide sufficient details and supporting calculations. If quantifying energy savings, please state the estimated amount in kilowatt hours per year.

- Please describe the current pumping requirements and the types of pumps (e.g., size) currently being used. How would the proposed project impact the current pumping requirements?
- Please indicate whether your energy savings estimate originates from the point of diversion, or whether the estimate is based upon an alternate site of origin.
- Does the calculation include the energy required to treat the water?
- Will the project result in reduced vehicle miles driven, in turn reducing carbon emissions? Please provide supporting details and calculations. Describe any renewable energy components that will result in minimal energy savings/production (e.g., installing small-scale solar as part of a SCADA system).

E.1.4. Evaluation Criterion D: Addressing Adaptation Strategies in a WaterSMART Basin Study (8 points)

Up to 8 points may be awarded for projects that address an adaptation strategy identified in a completed WaterSMART Basin Study.

Proposals that provide a detailed description of how a project is addressing an adaptation strategy specifically identified in a completed Basin Study (e.g., a strategy to mitigate the impacts of water shortages resulting from climate change, drought, increased demands, or other causes) may receive maximum points under this criterion. Applicants should provide as much detail as possible about the relationship of the proposed project to the adaptation strategy identified in the Basin Study, including, but not limited to, the following:

- Identify the specific WaterSMART Basin Study where this adaptation strategy was developed. Describe in detail the adaptation strategy that will be implemented through this WaterSMART Grant project and how the proposed WaterSMART Grant project would help implement the adaptation strategy.
- Describe how the adaptation strategy and proposed WaterSMART Grant project will address the imbalance between water supply and demand identified by the Basin Study.
- Identify the applicant's level of involvement in the Basin Study (e.g., cost-share partner, participating stakeholder, etc.).

- Describe whether the project will result in further collaboration among Basin Study partners.

Through the WaterSMART Basin Study Program, Reclamation is working with state and local partners, as well as other stakeholders, to comprehensively evaluate the ability to meet future water demands within a river basin. The Basin Studies allow Reclamation and its partners to evaluate potential impacts of climate change to water resources within a particular river basin, and to identify adaptation strategies to address those impacts. For more information on Basin Studies, including a list of completed basin studies and reports, please visit: www.usbr.gov/WaterSMART/bsp.

E.1.5. Evaluation Criterion E: Expediting Future On-Farm Irrigation Improvements (8 points)

*Up to **8 points** may be awarded for projects that describe in detail how they will directly expedite future **on-farm irrigation improvements**, including future on-farm improvements that may be eligible for NRCS funding.*

Note: Scoring under this sub-criterion is based on an overall assessment of the extent to which the WaterSMART Grant project will facilitate future on-farm improvements. Applicants should describe any proposal made to NRCS, or any plans to seek funding from NRCS in the future, and how an NRCS-funded activity would complement the WaterSMART Grant project. Applicants may receive maximum points under this sub-criterion by addressing the types of information described in the bullet points below. Applicants **are not required to have assurances of NRCS funding by the application deadline to be awarded the maximum number of points under this sub-criterion**. Reclamation may contact applicants during the review process to gather additional information about pending applications for NRCS funding if necessary.

If the proposed projects will help expedite future on-farm improvements please address the following:

- Include a detailed listing of the fields and acreage that may be improved in the future.
- Describe in detail the on-farm improvements that can be made as a result of this project. Include discussion of any planned or ongoing efforts by farmers/ranchers that receive water from the applicant.
- Provide a detailed explanation of how the proposed WaterSMART Grant project would help to expedite such on-farm efficiency improvements.
- Fully describe the on-farm water conservation or water use efficiency benefits that would result from the enabled on-farm component of this project. Estimate the potential on-farm water savings that could result in

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acre-feet per year. Include support or backup documentation for any calculations or assumptions.

- Projects that include significant on-farm irrigation improvements should demonstrate the eligibility, commitment, and number or percentage of farmers/ranchers who plan to participate in any available NRCS funding programs. Applicants should provide letters of intent from farmers/ranchers in the affected project areas.
- Describe the extent to which this project complements an existing NRCS-funded project or a project that either has been submitted or will be submitted to NRCS for funding.

Note: On-farm water conservation improvements that complement the water delivery improvement projects selected through this FOA may be considered for NRCS funding and technical assistance in FY 2017 to the extent that such assistance is available. For more information, including application deadlines and a description of available funding, please contact your local NRCS office. See www.nrcs.usda.gov for further contact information in your area.

E.1.6. Evaluation Criterion F: Implementation and Results (8 points)

Up to 8 points may be awarded for these subcriteria.

E.1.6.1. Subcriterion No. F.1: Project Planning

Points may be awarded for proposals with planning efforts that provide support for the proposed project.

Does the project have a Water Conservation Plan and/or System Optimization Review (SOR) in place. Please self-certify, or provide copies of these plans where appropriate to verify that such a plan is in place.

Provide the following information regarding project planning:

- (1) Identify any district-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, SOR, or other planning efforts done to determine the priority of this project in relation to other potential projects.
- (2) Describe how the project conforms to and meets the goals of any applicable planning efforts, and identify any aspect of the project that implements a feature of an existing water plan(s).

E.1.6.2. Subcriterion No. F.2: Support and Collaboration

Points may be awarded based upon the extent to which the project garners widespread support and promotes collaboration.

Describe the extent to which the project garners support and promotes collaboration.

Does the project promote and encourage collaboration among parties? Consider the following:

- Is there widespread support for the project?
- What is the significance of the collaboration/support?
- Will the project help to prevent a water-related crisis or conflict?
- Is there frequently tension or litigation over water in the basin?
- Is the possibility of future water conservation improvements by other water users enhanced by completion of this project?

E.1.6.3. Subcriterion No. F.3: Performance Measures

Points may be awarded based on the description and development of performance measures to quantify actual project benefits upon completion of the project.

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved or better managed, energy generated or saved). For more information calculating performance measure, see Section D.2.2.5 *Performance Measures*.

Note: All Water and Energy Efficiency Grant applicants are required to propose a “performance measure” (a method of quantifying the actual benefits of their project once it is completed). A provision will be included in all assistance agreements with Water and Energy Efficiency Grant recipients describing the performance measure, and requiring the recipient to quantify the actual project benefits in their final report to Reclamation upon completion of the project. If information regarding project benefits is not available immediately upon completion of the project, the financial assistance agreement may be modified to remain open until such information is available and until a Final Report is submitted. Quantifying project benefits is an important means to determine the relative effectiveness of various water management efforts, as well as the overall effectiveness of Water and Energy Efficiency Grants.

E.1.7. Evaluation Criterion G: Additional Non-Federal Funding (4 points)

Up to 4 points may be awarded to proposals that provide non-Federal funding in excess of 50 percent of the project costs. State the percentage of non-Federal funding provided using the following calculation:

$$\frac{\text{Non-Federal Funding}}{\text{Total Project Cost}}$$

E.1.8. Evaluation Criterion H: Connection to Reclamation Project Activities (4 points)

Up to 4 points may be awarded if the proposed project is in a basin with connections to Reclamation project activities. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.

- (1) How is the proposed project connected to Reclamation project activities?
- (2) Does the applicant receive Reclamation project water?
- (3) Is the project on Reclamation project lands or involving Reclamation facilities?
- (4) Is the project in the same basin as a Reclamation project or activity?
- (5) Will the proposed work contribute water to a basin where a Reclamation project is located?
- (6) Will the project help Reclamation meet trust responsibilities to Tribes?

E.2. Review and Selection Process

The Federal government reserves the right to reject any and all applications that do not meet the requirements or objectives of this FOA or which are outside the scope of the WaterSMART Program. Awards will be made for projects most advantageous to the Federal government. Award selection may be made to maintain balance among the eligible projects listed in this FOA. The evaluation process will be comprised of the steps described in the following subsections.

E.2.1. Initial Screening

All application packages will be screened to ensure that:

- The applicant meets the eligibility requirements stated in this FOA.

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- The applicant meets the unique entity identifier and SAM registration requirements stated in this FOA (this may be completed up to 30 days after the application deadline).
- The application meets the content requirements of the FOA package, including submission of technical and budget proposals, a funding plan, letter(s) of commitment, and related forms.
- The application contains a properly executed SF-424 Application for Federal Assistance, form SF-424C Budget Information—Construction Programs, and form SF-424D Assurances—Construction Programs.
- The application includes an official resolution, adopted by the applicant's board of directors, governing body, or appropriate authorized official (this may be submitted up to 30 days after the application deadline).
- The application and funding plan meets or exceeds the minimum non-Federal cost share requirements identified in this FOA.
- The project can be completed by September 30, 2019 (Funding Group I), or by September 30, 2020 (for a 3-year Funding Group II project).

Reclamation reserves the right to remove an application from funding consideration if it does not pass all Initial Screening criteria listed above. An applicant that has submitted an application that is determined to be ineligible for funding will be notified along with other applicants, or sooner, if possible.

E.2.2. Application Review Committee Review

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

During ARC review, Reclamation may contact applicants to request clarifications to the information provided, if necessary.

E.2.3. Red-Flag Review

Following the results of the ARC review, Reclamation offices will review the top-ranking applications and identify any reasons why a proposed project would not be feasible or otherwise advisable, including environmental or cultural resources compliance issues, permitting issues, legal issues, or financial position. Positive or negative past performance by the applicant and any partners in previous working relationships with Reclamation may be considered, including whether the

applicant is making significant progress toward the completion of outstanding financial assistance agreements and whether the applicant is in compliance with all reporting requirements associated with previously funded projects.

In addition, during this review, Reclamation will address any specific concerns or questions raised by members of the ARC, conduct a preliminary budget review, evaluate the applicant's ability to meet cost share as required, determine whether the applicant has budgeted appropriately for environmental compliance, and ascertain whether any significant environmental issues (i.e., issues that would make the project infeasible) are apparent.

E.2.4. Managerial Review

Reclamation management will prioritize projects to ensure the total amount of all awards does not exceed available funding levels. Management will also ensure that all projects meet the scope, priorities, requirements, and objectives of this FOA. Management may also prioritize projects to ensure that multiple project types are represented.

E.2.5. Pre-Award Clearances and Approvals

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

E.2.5.1 Environmental Compliance Review

Reclamation will forward all proposals selected for award consideration to the appropriate Reclamation Regional or Area Office for completion of environmental compliance. To the extent possible, environmental compliance will be completed before a financial assistance agreement is signed by the parties. However, in most cases, the award will be made contingent on completion of environmental compliance. The financial assistance agreement will describe how compliance will be carried out and how the costs will be paid. Ground disturbing activities may not occur until this second level of environmental analysis is completed.

E.2.5.2 Budget Analysis and Business Evaluation

A Reclamation Grants Officer will also conduct a detailed budget analysis and complete a business evaluation and responsibility determination. During this evaluation, the Grants Officer will consider several factors that are important, but not quantified, such as:

- Allowability, allocability, and reasonableness of proposed costs

- Financial strength and stability of the applicant
- Past performance, including satisfactory compliance with all terms and conditions of previous awards, such as environmental compliance issues, reporting requirements, proper procurement of supplies and services, and audit compliance
- Adequacy of personnel practices; procurement procedures; and accounting policies and procedures, as established by applicable Office of Management and Budget circulars

E.4. Federal Award Performance Integrity Information System

Prior to making an award with a Federal total estimated amount greater than \$150,000, Reclamation is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through System of Award Management (SAM) (currently Federal Award Performance Integrity Information System [FAPIIS]) (see 41 United States Code [U.S.C.] §2313). An applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM. Reclamation will consider any comments by the applicant, in addition to the other information in FAPIIS, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR §200.205 Federal awarding agency review of risk posed by applicants.

E.5. Anticipated Announcement and Federal Award Date

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

Section F. Federal Award Administration Information

F.1. Federal Award Notices

Successful applicants will receive by electronic mail, a notice of selection signed by a Reclamation Grants Officer. This notice is not an authorization to begin performance.

F.2. Administrative and National Policy Requirements

F.2.1 Environmental and Cultural Resources Compliance

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

Reclamation will be the lead Federal agency for NEPA compliance and will be responsible for evaluating technical information and ensuring that natural resources, cultural, and socioeconomic concerns are appropriately addressed. As the lead agency, Reclamation is solely responsible for determining the appropriate level of NEPA compliance. Further, Reclamation is responsible to ensure that findings under NEPA, and consultations, as appropriate, will support Reclamation's decision on whether to fund a project. Environmental and cultural resources compliance costs are considered project costs. If a proposal is initially recommended for funding, a detailed analysis will be performed to determine the actual environmental impacts of the project, to agree on any mitigation measures needed, and to document environmental compliance. The recipient will then work with Reclamation to provide the information necessary for Reclamation to complete the environmental compliance work.

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

proceeds before environmental and cultural resources compliance is complete may risk forfeiting Reclamation funding under this FOA.

F.2.2. Approvals and Permits

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

F.2.3. Requirements for Agricultural Operations under P.L. 111-11, Section 9504(a)(3)(B)

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

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

F.2.4. Title to Improvements P.L. 111-11, Section 9504(a)(3)(D)

If the activities funded through an agreement awarded under this FOA result in a modification to a portion of a federally owned facility that is integral to the existing operations of that facility, the Federal government shall continue to hold title to the facility and the improvements thereto. Title to improvements, P.L. 111-11, Section 9504(a)(3)(D) that are not integral to existing water delivery operations shall reside with the project sponsor.

F.2.5. Operation and Maintenance Costs under P.L. 111-11, Section 9504(a)(3)(E)(iv)

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

F.2.6. Liability under Public Law 111-11, Section 9504(a)(3)(F)

F.2.6.1. In General

Except as provided under Chapter 171 of Title 28, United States Code (USC) (commonly known as the Federal Tort Claims Act), the United States shall not be liable for monetary damages of any kind for any injury arising out of an act,

omission, or occurrence that arises in relation to any facility created or improved through an agreement awarded under this FOA, the title of which is not held by the United States.

F.2.6.2. Tort Claims Act

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

F.2.7. Award Document

If the applicant is awarded a financial assistance agreement as a result of this FOA, the proposed project and other relevant information (e.g., expected water savings) from the application will be referenced in the agreement. The agreement document must be signed by a Reclamation Grants Officer before it becomes effective.

F.2.8. Water Savings Validation

Reclamation will conduct water savings validation efforts on a number of successful Water and Energy Efficiency Grants, including before and after tests, to assess the overall accuracy of water savings estimates. Through these efforts, Reclamation will collect data that can be used to determine ways to improve the information requested in the FOA related to water savings estimates, leading to more precise estimates in the future. Tasks related to validation will take place after a financial assistance agreement has been entered into and the results will in no way impact a recipient's funding.

F.3. Reporting Requirements and Distribution

Recipients of awards made under this FOA will be required to submit the following reports during the term of the agreement. The specific terms and conditions pertaining to the reporting requirements will be included in the financial assistance agreement.

F.3.1. Financial Reports

Recipients will be required to submit a fully completed form SF-425 Federal Financial Report on at least a semi-annual basis and with the final performance report. The SF-425 must be signed by a person legally authorized to obligate the recipient.

F.3.2. Interim Program Performance Reports

Recipients will be required to submit interim performance reports on at least a semi-annual basis. At a minimum, each interim performance report must include the following information:

- A comparison of actual accomplishments to the milestones established by the financial assistance agreement for the period
- The reasons why established milestones were not met, if applicable
- The status of milestones from the previous reporting period that were not met, if applicable
- Whether the project is on schedule and within the original cost estimate
- Any additional pertinent information or issues related to the status of the project

F.3.3. Final Program Performance Reports

Recipients will be required to submit a final performance report encompassing the entire period of performance. The final performance report must include, but is not limited to, the following information:

- Whether the project objectives and goals were met
- Discussion of the benefits achieved by the project, including information and/or calculations supporting the benefits
- How the project improves long-term resiliency to drought
- How the project demonstrates collaboration, if applicable
- Photographs documenting the project are also appreciated

Note: Reclamation may print photos with appropriate credit to the applicant. Also, final reports are public documents and may be made available on Reclamation's website, watersmartapp.usbr.gov/WaterSmart.

F.4. Releasing Applications

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

Section G. Agency Contacts

There will be no pre-application conference. Organizations or individuals interested in submitting applications in response to this FOA may direct questions to the Reclamation personnel identified below.

G.1. Reclamation Financial Assistance Management Contact

Questions regarding application and submission information and award administration may be submitted to Rupal Shah, Grants Management Specialist, as follows:

By mail: Bureau of Reclamation
Financial Assistance Services
Attn: Ms. Rupal Shah
Mail Code: 84-27852
P.O. Box 25007
Denver, Colorado 80225

By email: rshah@usbr.gov

By phone: 303-445-2442

G.2. Reclamation Program Coordinator Contact

Questions regarding applicant and project eligibility and application review may be submitted to Josh German, WaterSMART Grants Program Coordinator, or Robin Graber, Program Analyst, as follows:

By mail: Bureau of Reclamation
Water Resources and Planning
Attn: Mr. Josh German
Mail Code: 84-51000
P.O. Box 25007
Denver, Colorado 80225

By e-mail: jgerman@usbr.gov

By phone: 303-445-2839

AND/OR

Funding Opportunity Announcement No. BOR-DO-17-F012

By mail: Bureau of Reclamation
Water Resources and Planning
Attn: Ms. Robin Graber
Mail Code: 84-51000
P.O. Box 25007
Denver, Colorado 80225

By e-mail: rgraber@usbr.gov

By phone: 303-445-2764

Section H: Other Information

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

H.1. National Environmental Policy Act

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

Some projects may fit within a recognized **Categorical Exclusion (CE)** to NEPA (i.e., one of the established categories of activities that generally do not have significant impacts on the environment). If a project fits within a CE, no further NEPA compliance measures are necessary. Use of a CE can involve simple identification of an applicable **Interior CE** or documentation of a **Reclamation CE** using a **Categorical Exclusion Checklist (CEC)**. If a CE is being considered, Reclamation will determine the applicability of the CE and whether extraordinary circumstances (i.e., reasons that the CE cannot be applied) exist. That process can take anywhere from 1 day to about 30 days, depending upon the specific situation.

If the project does not fit within a CE, compliance with NEPA might require preparation of an **Environmental Assessment/Finding of No Significant Impact (EA/FONSI)**. Generally, where no CE applies but there are not believed to be any significant impacts associated with the proposed action, an EA will be required. The EA is used to determine whether any potentially significant effects exist (which would trigger the further step of an **Environmental Impact Statement (EIS)**, below). If no potentially significant effects are identified, the EA process ends with the preparation of a FONSI. The EA/FONSI process is more detailed than the CE/CEC process and can take weeks or even months to complete. Consultation with other agencies and public notification are part of the EA process.

The most detailed form of NEPA compliance, where a proposed project has potentially significant environmental effects, is completion of an **EIS** and **Record**

of Decision (ROD). An EIS requires months or years to complete, and the process includes considerable public involvement, including mandatory public reviews of draft documents. It is not anticipated that projects proposed under this program will require completion of an EIS.

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

Reclamation has the sole discretion to determine what level of environmental NEPA compliance is required. If another Federal agency is involved, Reclamation will coordinate to determine the appropriate level of compliance. You are encouraged to contact your regional or area Reclamation office. See www.usbr.gov/main/offices.html with questions regarding NEPA compliance issues. You may also contact the WaterSMART Grants Program Coordinator (see *Section G: Agency Contacts*) for further information.

H.2. National Historic Preservation Act

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

If a proposal is selected for initial award, Water and Energy Efficiency Grants recipients will work with Reclamation to complete the Section 106 process. Compliance can be accomplished in several ways, depending on how complex the issues are, including:

- If Reclamation determines that the proposed project does not have the potential to cause effects to historic properties then Reclamation will document its findings and the Section 106 process will be concluded. This can take anywhere from a couple of days to one month.
- If Reclamation determines that the proposed project could have effects on historic properties, a multi-step process, involving consultation with the State Historic Preservation Officer and other entities, will follow. Depending on the nature of the project and impacts to cultural resources, consultation can be complex and time consuming. The process includes:
 - A determination as to whether additional information is necessary

- Evaluation of the significance of identified cultural resources
- Assessment of the effect of the project on historic properties
- A determination as to whether the project would have an adverse effect and evaluation of alternatives or modifications to avoid, minimize, or mitigate the effects
- A Memorandum of Agreement is then used to record and implement any necessary measures. At a minimum, completion of the multi-step Section 106 process takes about two months.
- Among the types of historic properties that might be affected by Water and Energy Efficiency Grants Projects are **historic irrigation systems** and **archaeological sites**. An irrigation system or a component of an irrigation system (e.g., a canal or headgate) is more likely to qualify as historic if it is more than 50 years old, if it is the oldest (or an early) system/component in the surrounding area, and if the system/component has not been significantly altered or modernized. In general, projects that involve ground disturbance, or the alteration of existing older structures, are more likely to have the potential to affect cultural resources. However, the level of cultural resources compliance required, and the associated cost, depends on a case-by-case review of the circumstances presented by each proposal.

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

H.3. Endangered Species Act

Pursuant to Section 7 of the ESA, each Federal agency is required to consult with the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service to ensure any action it authorizes, funds, or carries out is not likely **to jeopardize the continued existence of any endangered or threatened species or destroy or adversely modify any designated critical habitat**.

Before Reclamation can approve funding for the implementation of a Drought Resiliency Project Grant, it is required to comply with Section 7 of the ESA. The steps necessary for ESA compliance vary, depending on the presence of endangered or threatened species and the effects of the proposed project. A rough overview of the possible course of ESA compliance is:

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

The time, cost, and extent of the work necessary to comply with the ESA depends upon whether endangered or threatened species are present in the project area and, if so, whether the project might have effects on those species significant enough to require formal consultation.

ESA compliance is often conducted parallel to the NEPA compliance process and, as in the case of a CEC, documented simultaneously. The best source of information concerning the compliance with the ESA in a particular project area is the local Reclamation environmental staff that can be helpful in determining the presence of listed species and possible effects that would require consultation with the USFWS or NOAA Fisheries Service. Contact your regional or area Reclamation office, www.usbr.gov/main/offices.html with questions regarding ESA compliance issues.