



Agency Priority Goal Action Plan

Water Conservation and Supply Enhancement

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Overview

Goal Statement

- Increase the available water supply in the Western States through conservation-related programs to help provide a more sustainable and secure water supply, reducing the impact of drought for the benefit of the public and the economy. By September 30, 2019, the Bureau of Reclamation will facilitate water conservation capacity of 155,732 acre-feet to help reduce the impact of drought.

Challenge

- The Nation faces an increasing set of water resource challenges: aging water-related infrastructure, rapid population growth, and depletion of groundwater resources.
- Water issues and challenges are especially increasing in the West due to prolonged drought.
- The primary challenges and risks that influence achievement of the Priority Goal include the availability of water measurement data, the projects proposed from year-to-year, state water laws, the ability to complete environmental compliance, and local cost-sharing ability.

Opportunity

- A sustainable water supply is critical to address current and future water shortages, degraded water quality, and increased demands for water and energy from growing populations, recognition of environmental water requirements, and water inequity for Indian tribes and rural communities disadvantaged by financial need or geographic isolation.

Goal Structure & Strategies

Implementation strategy overview

In facilitating water conservation, Reclamation will negotiate formal agreements or provide cost-shared grants on a competitive basis for the following types of on-the-ground projects:

- Projects that line or pipe canals, resulting in conserved water.
- Projects that improve irrigation flow measurement accuracy and result in reduced spills and over-deliveries.
- Projects that include the installation of automated systems, such as components that allow for remote operation of gates or remote monitoring of delivery system conditions to increase efficiency.
- Other similar water efficiency and conservation projects that save water; mitigate conflict risk in areas at a high risk of water conflict; and accomplish other benefits to increase the reliability of existing supplies.

All pending agreements and grant proposals will be evaluated using criteria that give priority to projects that save the most water, that address how water savings will help to address water supply sustainability, that complement on-farm irrigation improvements, that implement improvements connected to existing Reclamation activities, and exceed the minimum 50 percent non-Federal cost share requirement.

Summary of Progress – FY18 Q4

- **Level of Results Achieved**
 - Final selection of projects completed and funding awarded for FY 2018
- **Likelihood of Success**
 - High
- **Basis for the Assessment**
 - This goal is on target for accomplishment based on past experience with this process.
- **Actions planned to ensure achievement of the goal**
 - No additional actions required at this time.

Key Milestones

FY 2018 Milestone Summary

Key Milestone	Actual Q2	Actual Q3	Planned Q4	Actual Q4	Comments
WaterSMART Grants					
Funding Opportunity Announcement released	3/19/2018				
First level review of proposals complete		6/08/2018			
Final selection of projects			9/30/2018	9/17/2018	
Funding awarded			9/30/2018	9/30/2018	
TitleXVI					
Funding Opportunity Announcement released	3/31/2018	5/30/2018			
First level review of proposals complete	3/31/2018		8/15/2018	8/10/2018	
Final selection of projects			9/30/2018	9/5/2018	
Funding awarded			9/30/2018	9/21/2018	
CALFED					
Funding Opportunity Announcement released	1/9/2018				
First level review of proposals complete		5/29/2018			
Final selection of projects			9/30/2018	9/30/2018	
Funding awarded			9/30/2018	9/30/2018	
Yakima River Basin Water Enhancement Project					
Funding awarded for Phase II construction			9/30/2018	7/6/2018	

Key Indicators

Estimated Acre-feet of Potential Water Savings						
(As of September 30, 2018)						
	FY 2018		FY 2019		Cumulative through FY 2019	
Water Conservation & Supply Enhancement	Planned	Actual	Planned	Actual	Planned	Actual
WaterSMART Grants	37,000	38,198	90,000		128,198	
Title XVI	4,823	8,995	6,500		15,495	
CALFED	1,800	3,350	4,000		7,350	
YRBWEP	192	635	554		1,189	
WaterSMART Desalination Construction Program*			3,500		3,500	
Total	43,815	51,178	104,554		155,732	

*The WaterSMART Desalination Construction Program is a new program authorized by the WIIN Act that will contribute to the Priority Goal, beginning in 2019.

Summary of Progress – FY18 Q4

In FY 2018, Reclamation awarded 40 projects that contributed a total of 51,178 acre-feet toward the Water Conservation Goal, an increase of 17 projects from FY 2017.

Noteworthy projects that contributed toward FY 2018 accomplishments:

- **Lower Tule River Irrigation District, Riparian Area Distribution System Project (Phase 2)**
Reclamation Funding: \$1,000,000 Total Project Cost: \$3,579,662
The Lower Tule River Irrigation District in Tulare County, California, will pipe 2.3 miles of the earthen Lateral B Service Area and 3.6 miles of the earthen Lateral C Service Area. The project is expected to result in annual water savings of 9,216 acre-feet currently lost to seepage, which will reduce the District's need for groundwater.

- **North Snake Ground Water District, Irrigation Flow Measurement Project**
Reclamation Funding: \$296,454 Total Project Cost: \$658,786
The North Snake Ground Water District, near Twin Falls, Idaho, will install advanced water flow measurement devices on 120 groundwater wells that are owned or operated by individuals within the District. The project is expected to conserve 3,130 acre-feet of water annually by increasing flow measurement accuracy and better documenting groundwater withdrawals, helping the District comply with an agreement between the Idaho Ground Water Users Association and the Surface Water Coalition to reduce groundwater diversions of the Eastern Snake Plain Aquifer.

Summary of Progress – FY18 Q4

Water Conservation Projects multiple public benefits:

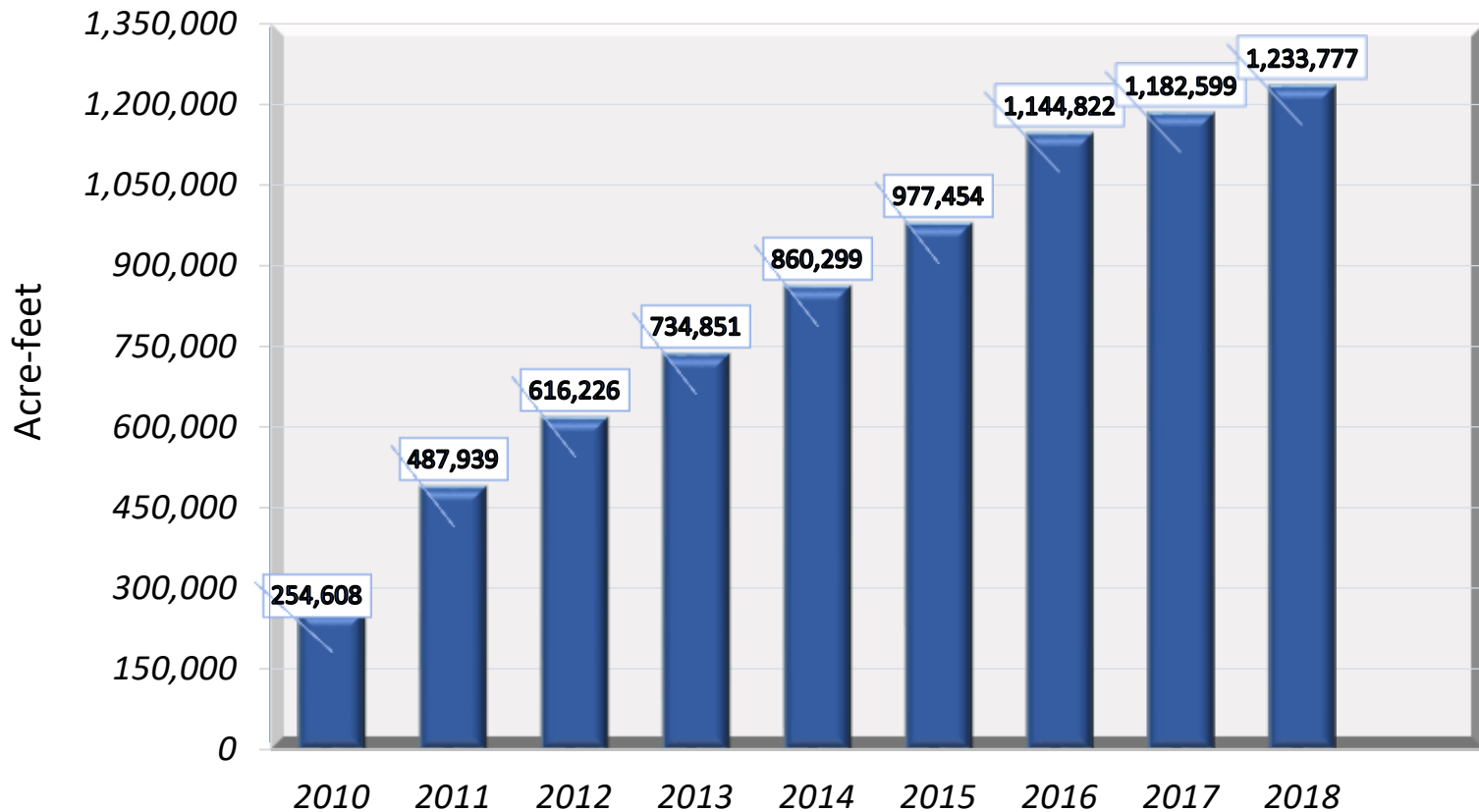
In addition to quantifiable water savings, projects that contribute toward the Priority Goal have multiple public benefits. For example, WaterSMART Grant project benefits include water savings, mitigation of water conflicts in high risk areas, water delivery improvements that facilitate future on-farm improvements coordinated with the Natural Resources Conservation Service, and other benefits to increase the reliability of existing water supplies.

Significance of the Accomplishment (through the Priority Goal) especially in relation to past experience and benefit to the public:

Projects funded from 2010-2018 have contributed 1,233,777 acre-feet of capacity toward the goal. These investments are expected to result in water savings equivalent to the amount necessary to meet the needs of more than 4.9 million people. A reliable water supply is critical to address current and future water shortages and increased demands for water and energy from growing populations, as well as water inequity for Indian tribes and rural communities disadvantaged by financial need or geographic isolation.

Water Conservation and Supply Enhancement

FY 2010-2018 Cumulative Acre-feet of Water Savings



Data Accuracy and Reliability

Means used to verify and validate measured values: Reclamation developed an application review committee (ARC) comprised of technical experts from across Reclamation to review proposals for funding. ARC members read and evaluate applications individually, using a pre-determined evaluation criteria. During these “consensus sessions” ARC members are encouraged to reach a general agreement on scores for each individual criterion and on the amount of water savings for which an applicant is given credit.

Sources for the data: Each fiscal year, Reclamation reports the water savings expected from water conservation activities funded that year toward the Department of the Interior’s Priority Goal for Water Conservation. Water savings for each funded project are based on estimates of the number of acre-feet expected to be conserved each year once that project becomes operational. The estimates are provided by non-Federal project sponsors and are based on water measurement and accounting records, calculations by the project sponsor’s engineering sources, hydrologic modeling, statistical analysis of historic climatic data, and other information.

Level of accuracy required for the intended use of the data: Reclamation requires documentation on how a water savings estimate provided in an application was derived. Each year’s funding opportunity announcement describes in detail the types of data / documentation necessary for an applicant’s water savings estimate to be accepted. The ARC determines the additional data / documentation supporting the estimate that is necessary; the ARC assesses and determines viability of the additional information provided and if inadequate documentation is provided for a particular project, Reclamation does not include water savings from the project in Priority Goal reporting.

Limitations to the data at the required level of accuracy: Since water savings estimates are provided by non-Federal project sponsors prior to undertaking the actual project, it is still possible that, despite a rigorous application review, that the actual water savings might vary from the estimate.

How the agency has compensated for such limitations if needed to reach the required level of accuracy: In order to improve on the accuracy of water savings estimates on the front end, Reclamation makes a concerted effort to improve the application and review each year. Applicants are required to include performance measures or methods of quantifying project benefits.

Additional Information

Contributing Programs: The following programs assist Reclamation in accomplishing its goal to enable capability to increase available water supply for agricultural, municipal, industrial, and environmental uses in the western United States:

- *WaterSMART Grants* (<http://www.usbr.gov/WaterSMART>): Reclamation provides competitive WaterSMART Grants that provide up to 50% of the cost of on-the-ground projects to save water, increase energy efficiency and the use of renewable energy in water management, address environmental issues, recover endangered species, and facilitate transfers to new uses.
- *Title XVI Program* (<http://www.usbr.gov/watersmart/title/index.html>): Through the Title XVI Water Reclamation and Reuse Program, authorized by P.L.102-575 in 1992, Reclamation provides financial and technical assistance to local water agencies for the planning, design, and construction of water recycling and reuse projects, thereby improving efficiency, providing flexibility during water shortages, and diversifying the water supply.
- *CALFED Water Conservation Grants* (<http://www.usbr.gov/watersmart/weeg/index.html>): CALFED is a combined State of California and Federal program focused on the restoration of the Sacramento-San Joaquin Delta's ecosystem while improving water supply reliability for urban and agricultural water users. The goal of CALFED is to accelerate the implementation of cost-effective water conservation actions that provide state-wide benefits.
- *Yakima River Basin Water Enhancement Project (YRBWEP)* (<https://www.usbr.gov/pn/programs/yrbwep/>): The YRBWEP is to evaluate and implement structural and nonstructural measures to increase the reliability of the irrigation water supply and enhance streamflows and fish passage in the Yakima River basin.
- *WaterSMART Desalination Construction Program* (<https://www.usbr.gov/watersmart/desalination/index.html>): The Water Infrastructure Improvements for the Nation (WIIN) Act provides new authority to develop a program that will provide a path for ocean/brackish water desalination projects to receive Federal funding, in 2019.

Stakeholder / Congressional Consultations: Reclamation works collaboratively with non-federal, state, local and tribal governments, water districts, and other entities on a cost-shared basis to implement water management and conservation projects in the 17 Western states.

- Through the water conservation program oversight and through stakeholder engagement, Reclamation utilizes feedback into its conservation efforts to implement enhanced methodologies during program formulation. For example, based on applicant feedback, Reclamation revised the Title XVI funding opportunity to make it easier for applicants to request funding for ongoing work without having to break it into project phases. Similarly, Reclamation published the WaterSMART Strategic Implementation Plan in the Federal Register in March 2011 (http://www.usbr.gov/watersmart/docs/FedRegister_WaterSMART_Implementation_plan_FINAL.PDF) and incorporated comments into the final document.