DOI Priority Goal Action Plan

Water Conservation and Supply Enhancement

Goal Leader: Brenda Burman, Commissioner, Bureau of Reclamation (BOR)

Deputy Goal Leader: Robert Wolf, Director of Program and Budget, BOR

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Fiscal Year 2020, Quarter 4

Overview

Goal Statement

- By September 30, 2021, the Bureau of Reclamation will facilitate water conservation capacity of 114,108 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, state water laws, ability to complete environmental compliance, and local cost-sharing ability.

Opportunity

- A sustainable water supply would help address current and future water shortages, degraded water quality, demands for water/energy from growing populations, and water inequity for Indian tribes and rural communities disadvantaged by financial need or geographic isolation.

Leadership & Implementation Team

Goal Leader: Brenda Burman, Commissioner, Bureau of Reclamation

Deputy Goal Leader: Robert Wolf, Director of Program and Budget

WaterSMART Grants	Title XVI and WaterSMART Desalination Construction	CALFED Water Conservation Grants	Yakima River Basin Water Enhancement Project (YRBWEP)
• Josh German -- Program Coordinator • Dean Marrone -- Manager, Water Resources and Planning Division • One regional coordinator for each of Reclamation's five regions	• Amanda Erath – Program Coordinator • Dean Marrone -- Manager, Water Resources and Planning Division • One regional coordinator for each of Reclamation's five regions	• Anna Sutton Program Coordinator • Heather Casillas Branch Chief, Resource Management	• Brianna Pitcock Program Coordinator • Jaimee Turner Regional Program Coordinator

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, address how water savings will help to address water supply sustainability, complement on-farm irrigation improvements, implement improvements connected to existing Reclamation activities, and exceed the minimum 50 percent non-Federal cost share requirement.

Summary of Progress – FY 2020 Q4

- **Level of Results Achieved**
  - The FY 2020 actual results exceeded the target of 98,054 acre-feet and achieved a total of 130,981 acre-feet of water savings.

- **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 2020 Milestone Summary

Key Milestone	Actual Q1	Actual Q2	Planned Q3	Actual Q3	Planned Q4	Actual Q4	Comments
WaterSMART Grants							
Funding Opportunity Announcement (FOA) released	8/6/19						
First level review of proposals complete	11/1/19						
Final selection of projects		2/18/20					
Funding awarded					9/30/20	9/30/20	
Title XVI							
Funding Opportunity Announcement released	12/19/19						
First level review of proposals complete					9/30/20	9/30/20	
Final selection of projects				6/8/20	9/30/20		
Funding awarded					9/30/20	9/30/20	
California Federal Bay-Delta (CALFED)							
Funding Opportunity Announcement released	12/2/19						
First level review of proposals complete	12/18/19						
Final selection of projects			~~6/30/20~~		9/30/20		This milestone was partially met. Of the three CALFED projects selected and approved, two were awarded by September 18, 2020 and the third CALFED project is scheduled to be awarded in FY 2021. Two Agriculture Water Use & Efficiency projects are pending approval.
Funding awarded					9/30/20		
Yakima River Basin Water Enhancement Project							
Award FY 2020 for Phase II construction				5/6/20	9/30/20		
WIIN Act Desalination Construction Projects							
Funding Opportunity Announcement released	~~3/31/20~~				9/30/20		The WIIN Act Desalination Construction Projects milestones were not met. FY 2019 project selections are still under review by OMB. FY 2020 Funding Opportunity Announcement cannot be released until FY 2019 project selections are transmitted to Congress and project sponsors are notified.
First level review of proposals complete					9/30/20		
Final selection of projects					9/30/20		
Funding awarded					9/30/20		

Key Milestones

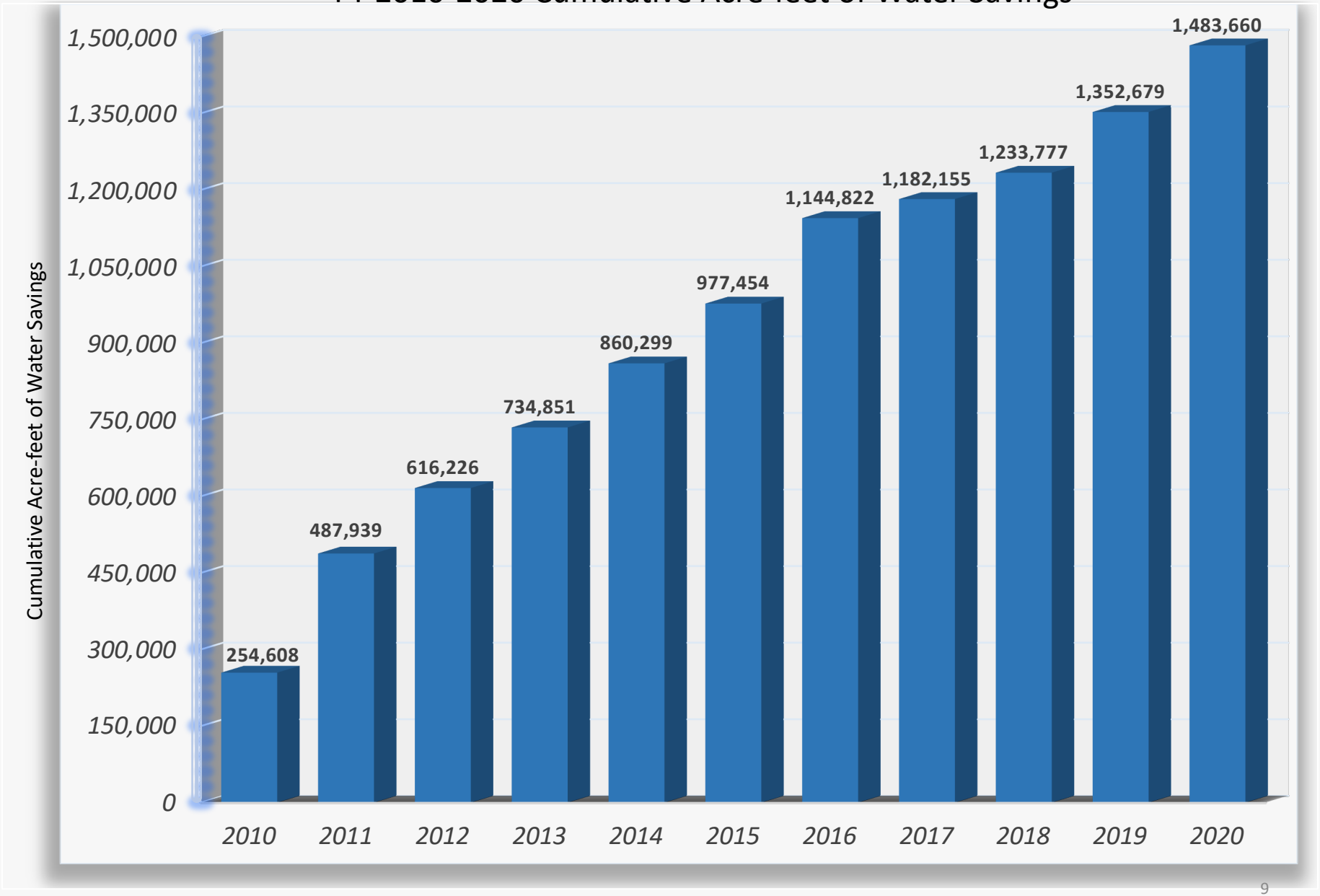
FY 2021 Milestone Summary					
Key Milestone	**Planned Q1**	**Planned Q2**	**Planned Q3**	**Planned Q4**	**Comments**
WaterSMART Grants					
Funding Opportunity Announcement released	**12/31/20**				
First level review of proposals complete	**12/31/20**				
Final selection of projects		**3/31/21**			
Funding awarded				**9/30/21**	
TitleXVI					
Funding Opportunity Announcement released		**3/31/21**			
First level review of proposals complete					
Final selection of projects					
Funding awarded					
CALFED					
Funding Opportunity Announcement released	**12/31/20**				
First level review of proposals complete		**3/31/21**			
Final selection of projects			**6/30/21**		
Funding awarded				**9/30/21**	
Yakima River Basin Water Enhancement Project					
Funding awarded for Phase II construction				**9/30/21**	
WaterSMART Desalination Construction Projects					
Funding Opportunity Announcement released		**3/31/21**			
First level review of proposals complete				**9/30/21**	
Final selection of projects				**9/30/21**	
Funding awarded				**9/30/21**	

Key Indicators

Estimated Acre-feet of Potential Water Savings (As of September 30, 2020)					
	FY 2020		FY 2021	Cumulative through FY 2021	
	Planned	Actual	Planned	Planned	Actual
WaterSMART Grants	70,000	106,770	8,000	78,000	
Title XVI	20,000	18,265	0	20,000	
CALFED	4,000	428	4,000	8,000	
YRBWEP	554	553	554	1,108	
WaterSMART Desalination Construction Program	3,500	4,965	3,500	7,000	
Total	98,054	130,981	16,054	114,108	

Water Conservation and Supply Enhancement

FY 2010-2020 Cumulative Acre-feet of Water Savings



Summary of Progress – FY20 Q4

Noteworthy examples of projects funded under the Water Conservation Goal:

- **Klamath Irrigation District, C-4-a Canal Lining/Piping Project**

  Reclamation Funding: $210,650 Total Project Cost: $421,301

  The Klamath Irrigation District, located in Klamath County, Oregon, will convert 1.5 miles of the currently open C-4-a Canal to 3,000 feet of Ethylene Propylene Diene Monomer lining and 5,000 feet of high-density polyethylene pipe. The project is expected to result in an annual water savings of 664 acre-feet which is currently lost to seepage, evaporation, and operational spills. Once the project has been completed, the District will reduce diversions from Upper Klamath Lake. The project is expected to improve lake levels to benefit fish species such as the endangered Shortnose Sucker, and to provide a potential late season supply for other water users in times of shortage. In addition, conserved water may be available for the fall waterfowl migration at the Lower Klamath National Wildlife Refuge.

- **City of Orem, City of Orem Advanced Metering Infrastructure Program**

  Reclamation Funding: $1,500,000 Total Project Cost: $7,298,424

  The City of Orem located near Provo, Utah, will install 18,691 advanced metering infrastructure (AMI) meters to replace existing manually read primarily residential water meters. An additional 1,451 existing meters will be retrofitted for AMI capability. The project is expected to result in annual water savings of 3,133 acre-feet through the availability of consumption data, improved leak detection, and more accurate meter reading and billing. The City is in an area that is highly susceptible to severe drought, projected population growth, and increased water demands. The water conserved will remain in the Provo River

Summary of Progress – FY20 Q4

Noteworthy examples of the projects funded under the Water Conservation Goal continued:

- **Padre Dam Municipal Water District, East County Advanced Water Purification Program**

  Reclamation Funding: $4,000,000 Non-Federal Cost Share: $12,000,000

  Padre Dam Municipal Water District (District) is implementing the Phase I Water Recycling Project, which includes the expansion of the Ray Stoyer Water Reclamation Facility, construction of a new advanced water purification facility, potable reuse conveyance pipelines, a product water pump station, and a biosolids digestion facility to offset energy demands of the project. The project will create 3,900 acre-feet per year of potable water by capturing wastewater flows that would otherwise be discharged to the ocean, allowing the District to increase local water supplies.

Summary of Progress – FY20 Q4

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

- Projects funded from 2010-2020 have contributed 1,483,660 acre-feet of capacity toward the goal. These investments are expected to result in water savings approximately equivalent to the amount necessary to meet the needs of more than five 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.

- Under the CALFED Program, projects have contributed to the CALFED objectives to reduce existing irrecoverable losses, increasing the overall volume of available water; achieving multiple state-wide benefits; preserving local flexibility; and building on existing water use efficiency programs. Under the Agriculture Water Use & Efficiency program, projects have contributed the joint Reclamation-NRCS goal of improving the efficiency of agricultural water use throughout the state of California.

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.

Data Sources 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 evaluates 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*: 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*: Through the Title XVI Water Reclamation and Reuse Program, authorized by P.L.I02-575 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*: 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. CALFED includes the implementation of cost-effective water conservation actions that provide state-wide benefits.

- *Yakima River Basin Water Enhancement Project (YRBWEP)*: Under the YRBWEP, Reclamation evaluates and implements 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*: 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 and incorporated comments into the final document.