

Water Infrastructure Improvements for the Nation Act of 2016 (Public Law 114-322), Title I Water Resources Development Section 4009(a): Feasibility Study Review Findings

U.S. Department of the Interior, Bureau of Reclamation's Desalination Construction Program

Prepared for

Committee on Energy and Natural Resources of the Senate Committee on Natural Resources of the House of Representatives

Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; honors its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated Island Communities.

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.

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Introduction

This report is provided in accordance with Public Law (P.L.) 114-322, the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016, Title I Water Resources Development, Section 4009(a) and the Infrastructure Investment and Jobs Act – Title IX Western Water Infrastructure (P.L. 117-58).

As required under Section 4009(a) of the WIIN Act, projects are eligible to compete for funding after a project sponsor completes a feasibility study and Reclamation determines that it meets the programmatic requirements outlined in the Reclamation Manual Directives and Standards WTR 11-01. WTR 11-01 is designed to provide structured guidance for feasibility study reviews and to meet feasibility study legislative requirements. This includes:

- The feasibility study report meets the requirements of a feasibility study as defined under Section 1604 of P.L. 102-575, as amended.
- The feasibility study, and the process under which the study was developed, comply with Federal laws and regulations applicable to feasibility studies of Title XVI projects.
- The desalination project is technically and financially feasible and provides a Federal benefit in accordance with Reclamation law.

Feasibility Reviews and Determinations

Section 4009(a) of the WIIN Act requires the Secretary of the Interior to submit a report to Congress that describes the results of feasibility reviews. Figure 1 below is a summary of the five (5) feasibility study reviews that have occurred since the last Feasibility Study Review Findings report was transmitted to Congress. All five (5) feasibility studies were determined to meet the requirements of WTR 11-01.

As a result of meeting requirements outlined in WTR 11-01, these projects, as defined by the feasibility study, are now eligible for planning, design, and construction funding through the competitive WIIN Act Desalination Construction grant program. Reclamation uses annual competitive funding opportunities to allocate funds available for the WIIN Act Desalination Construction Program. The total Federal funding received may not exceed 25 percent of the total project cost, up to the per project Federal funding cap identified in the WIIN Act Desalination Construction funding opportunity.

Prior to receiving Federal funding, the project must comply with all applicable environmental laws, including the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), and before any construction begins, all project sponsors must demonstrate that it is financially capable of funding the non-Federal portion of project construction costs and all operation, maintenance, and replacement costs, pursuant to Reclamation Manual Directives and Standards WTR-11-02.

Project Summaries

Provided below is a summary of the 5 projects that include the projects sponsors, location, project description, and total estimated project costs.



Figure 1.—Summary of the 5 feasibility studies reviewed by Reclamation.

Brazosport Water Authority

Project: Brackish Groundwater Desalination Project

Location: Lake Jackson, TX

Review Completed: November 25, 2024

The Brazosport Water Authority evaluated options for the development of a brackish groundwater desalination plant. The preferred alternative will include a reverse osmosis process building that will produce 12 million gallons of desalinated water per day upon completion. To collect brackish groundwater for treatment, additional wells will be constructed along with collection pipeline to convey raw water to the facility.

Total Estimated Project Costs: \$87,196,000

Calleguas Municipal Water District

Project: Calleguas Watershed Brackish Groundwater Program

Location: Thousand Oaks, CA

Review Completed: November 22, 2024

The Calleguas Municipal Water District, in partnership with Camrosa Water District, the City of Camarillo, and Ventura County Waterworks District No. 1, will address increasing salinity levels in regional groundwater basins through the Calleguas Watershed Brackish Groundwater Program. The program includes three projects to develop local, drought-resistant water supplies: the extension of the Calleguas Regional Salinity Management Pipeline; expansion of the North Pleasant Valley Desalter; and construction of the Arroyo Santa Rosa Basin Desalter. The program will help address issues of water supply through the delivery of 4,684 acre-feet of desalinated water per year.

Total Estimated Project Costs: \$305,295,000

Foss Reservoir Master Conservancy District

Project: Drinking Water Pretreatment Rehabilitation Project

Location: Foss, OK

Review Completed: November 21, 2024

The Foss Reservoir Master Conservancy District evaluated improvement alternatives to the Foss Water Treatment Plant (WTP), which treats the brackish Foss Reservoir source water. The preferred alternative includes upgrades to the WTP pre-treatment systems to provide redundancy to the existing desalination process. The upgrades are expected to increase the plant's total capacity by about 25 percent, from approximately 1.8 million gallons per day to 2.3 million gallons per day.

Total Estimated Project Costs: \$29,519,759

Laguna Madre Water District

Project: Port Isabel Seawater Desalination Treatment Facility

Location: Port Isabel, TX

Review Completed: November 25, 2024

The Laguna Madre Water District explored the feasibility of seawater desalination to create a new, reliable water source to meet current and future demands. The project includes construction of a seawater desalination treatment facility, a new seawater intake structure, raw water pipeline to the existing water treatment plant, and microfiltration and reverse osmosis systems, among

other improvements. Once constructed, the facility is expected to produce up to 5,600 acre-feet of desalinated water annually.

Total Estimated Project Costs: \$72,700,000

Southmost Regional Water Authority

Project: Wellfield and Brackish Groundwater Treatment Facility Improvements

Location: Brownsville, TX

Review Completed: November 22, 2024

The Southmost Regional Water Authority (SRWA) assessed upgrades to the SWRA Brackish Groundwater Treatment Facility (BGTF) to increase the facility's capacity and improve resiliency in the local water system. The project includes the reconstruction of all 20 existing groundwater wells and the construction of two new wells to provide redundancy in the case of maintenance or failure of any existing wells. The project will also include modifications to the reverse osmosis permeate piping, installation of additional microfiltration racks and a filtrate transfer pump, upgrades to electrical equipment and instrumentation, and improvements to chemical dosing and storage. Upon completion of the project, the capacity of the BGTF will increase by 4,820 acre-feet per year.

Total Estimated Project Costs: \$63,306,000