

RECLAMATION

Managing Water in the West

Water Infrastructure Improvements for the Nation Act of 2016 (Pub. L. 114-322), Title I Water Resources Development Section 4009(c):

Feasibility Study Review Findings

April 2021

Prepared for

United States Congress

Prepared by

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

Mission Statements

The Department of the Interior conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

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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Eligible Projects

This periodic report is provided in accordance with the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016 (Pub. L. 114-322), Title I Water Resources Development Section 4009(c). The purpose of this report is to provide a summary of each of the review findings for Title XVI feasibility studies reviewed, completed, and not previously transmitted to Congress that meet the established requirements as defined in the Bureau of Reclamation (Reclamation) Manual Directives and Standards WTR-11-01 and under section 1604 of Pub. L. 102-575, as amended. The following list of completed feasibility studies is provided:

- City of Ada (Oklahoma), Reclamation and Reuse Feasibility Study
- City of Morro Bay (California), Water Reclamation Facility Program
- City of Nampa (Idaho), Nampa Recycled Water Program
- City of Oxnard (California), Recycled Water Feasibility Study
- Metropolitan Water District of Southern California (California), Regional Recycled Water Program
- Padre Dam Municipal Water District (California), East County Advanced Water Purification Program – Phase II
- Weber Basin Water Conservancy District (Utah), Title XVI Reuse Feasibility Study

This list of projects eligible to compete for funding will be added to the list transmitted previously and will be amended as subsequent reports are provided to Congress as additional feasibility studies are completed and reviewed.

Summary of Results

This report includes a brief one-page summary of the results of each feasibility study review under WTR 11-01, including the following determinations:

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

Project specific reports are provided to summarize the results of each feasibility study review, provide a brief project description, and identify conditions.

City of Ada

Project Sponsor: City of Ada

Location: Ada, Oklahoma

Project: Reclamation and Reuse Feasibility Study

Total Estimated Project Cost: \$13,081,300

Review Completed: February 19, 2020

Project Description: The City of Ada considered the feasibility of treating its wastewater effluent to the level required for non-potable reuse for municipal, industrial, and agricultural purposes. Additional treatment infrastructure for the City's Wastewater Treatment Plant (WWTP) will include coagulation, flocculation, filtration, and chlorine disinfection to meet the water quality standards required for unrestricted non-potable reuse. The recommended project also includes a new non-potable distribution system to serve large industrial and irrigation users within proximity to the WWTP. The additional treatment and distribution infrastructure will produce an estimated 897 acre-feet per year of recycled water, which will provide long-term benefits to the Arbuckle-Simpson Aquifer by offsetting the use of potable water for irrigation and industrial purposes.

Feasibility Study Review Finding: The feasibility study report meets the requirements of a feasibility study as defined under section 1604 of Pub. L. 102-575, as amended. The feasibility study, and the process under which the study was developed, each comply with Federal laws and regulations applicable to feasibility studies of water recycling projects. The project is technically and financially feasible and provides a Federal benefit in accordance with the reclamation laws.

Funding Conditions:

- Reclamation will include City of Ada's project on a publicly available list of projects that have a completed feasibility study that has been determined to meet program requirements. The list will be available on the Reclamation website.
- The project sponsor is eligible to apply for funding through an annual competitive funding opportunity announcement, but the total Federal funding received towards the planning, design, and construction of this project may not exceed 25 percent of the total cost of the project or \$20 million, whichever is less.
- Planning, design, and construction activities completed prior to the transmission of this list of eligible projects or outside of the scope of the project described in the completed feasibility study are not eligible for funding.
- 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.).
- Prior to receiving Federal funding for construction activities, the project sponsor must demonstrate that it is financially capable of funding the non-Federal portion of project construction costs and all necessary project operation, maintenance, and replacement costs, pursuant to Reclamation Manual Directives and Standards WTR-11-02.

City of Morro Bay

Project Sponsor: City of Morro Bay

Location: Morro Bay, California

Project: Water Reclamation Facility Program

Total Estimated Project Cost: \$125,882,000

Review Completed: July 22, 2020

Project Description: The City of Morro Bay evaluated options for implementing a water reuse strategy. The recommended project includes building a Water Reclamation Facility (WRF), injection wells to allow for indirect potable reuse, and a raw wastewater conveyance system and pump stations. The WRF will incorporate advanced treatment technology to produce purified water that meets indirect potable reuse standards for groundwater replenishment and reuse. The project is expected to produce an annual 825 acre-feet of recycled water for injection into the underlying Morro Valley Groundwater Basin, which will ultimately supply the City's potable water distribution system. The project will help limit the City's reliance on imported water and improve water quality of the Morro Groundwater Basin.

Feasibility Study Review Finding: The feasibility study report meets the requirements of a feasibility study as defined under section 1604 of Pub. L. 102-575, as amended. The feasibility study, and the process under which the study was developed, each comply with Federal laws and regulations applicable to feasibility studies of water recycling projects. The project is technically and financially feasible and provides a Federal benefit in accordance with the reclamation laws.

Funding Conditions:

- Reclamation will include City of Morro Bay's project on a publicly available list of projects that have a completed feasibility study that has been determined to meet program requirements. The list will be available on the Reclamation website.
- The project sponsor is eligible to apply for funding through an annual competitive funding opportunity announcement, but the total Federal funding received towards the planning, design, and construction of this project may not exceed 25 percent of the total cost of the project or \$20 million, whichever is less.
- Planning, design, and construction activities completed prior to the transmission of this list of eligible projects or outside of the scope of the project described in the completed feasibility study are not eligible for funding.
- 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.).
- Prior to receiving Federal funding for construction activities, the project sponsor must demonstrate that it is financially capable of funding the non-Federal portion of project construction costs and all necessary project operation, maintenance, and replacement costs, pursuant to Reclamation Manual Directives and Standards WTR-11-02.

City of Nampa

Project Sponsor: City of Nampa

Location: Nampa, Idaho

Project: Nampa Recycled Water Program

Total Estimated Project Cost: \$61,465,000

Review Completed: June 9, 2020

Project Description: The City of Nampa considered the feasibility of upgrading its wastewater treatment plant to produce highly treated effluent, which would be used to augment irrigation water supply. The recycled water produced will be sent via pipeline to Pioneer Irrigation District's primary irrigation conveyance canal. Components of the proposed project include tertiary filtration and upgraded disinfection at the wastewater treatment plant, as well as a recycled water distribution force main and pump station. The project will allow the City to expand recycled water use and maintain water quality by reducing wastewater discharge to Indian Creek.

Feasibility Study Review Finding: The feasibility study report meets the requirements of a feasibility study as defined under section 1604 of Pub. L. 102-575, as amended. The feasibility study, and the process under which the study was developed, each comply with Federal laws and regulations applicable to feasibility studies of water recycling projects. The project is technically and financially feasible and provides a Federal benefit in accordance with the reclamation laws.

Funding Conditions:

- Reclamation will include the City of Nampa's project on a publicly available list of projects that have a completed feasibility study that has been determined to meet program requirements. The list will be available on the Reclamation website.
- The project sponsor is eligible to apply for funding through an annual competitive funding opportunity announcement, but the total Federal funding received towards the planning, design, and construction of this project may not exceed 25 percent of the total cost of the project or \$20 million, whichever is less.
- Planning, design, and construction activities completed prior to the transmission of this list of eligible projects or outside of the scope of the project described in the completed feasibility study are not eligible for funding.
- 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.).
- Prior to receiving Federal funding for construction activities, the project sponsor must demonstrate that it is financially capable of funding the non-Federal portion of project construction costs and all necessary project operation, maintenance, and replacement costs, pursuant to Reclamation Manual Directives and Standards WTR-11-02.

City of Oxnard

Project Sponsor: City of Oxnard

Location: Oxnard, California

Project: Recycled Water Feasibility Study

Total Estimated Project Cost: \$275,151,000

Review Completed: May 19, 2020

Project Description: The City of Oxnard considered approaches to cover its projected water supply gap with advanced purified water. The recommended project will expand recycled water capacity at the City's Advanced Water Purification Facility by 12.5 million gallons per day and expand its desalter capacity by 7.5 million gallons per day to treat groundwater for total dissolved solids and nitrates. The treated water will help the City meet its groundwater quality objectives and will be used for potable reuse via groundwater augmentation and aquifer storage and recovery. Project outcomes will include alleviating groundwater overdraft, providing a drought-proof water supply, maximizing self-sufficiency, utilizing all partially constructed assets, and improving the groundwater quality for irrigation and drinking water.

Feasibility Study Review Finding: The feasibility study report meets the requirements of a feasibility study as defined under section 1604 of Pub. L. 102-575, as amended. The feasibility study, and the process under which the study was developed, each comply with Federal laws and regulations applicable to feasibility studies of water recycling projects. The project is technically and financially feasible and provides a Federal benefit in accordance with the reclamation laws.

Funding Conditions:

- Reclamation will include City of Oxnard's project on a publicly available list of projects that have a completed feasibility study that has been determined to meet program requirements. The list will be available on the Reclamation website.
- The project sponsor is eligible to apply for funding through an annual competitive funding opportunity announcement, but the total Federal funding received towards the planning, design, and construction of this project may not exceed 25 percent of the total cost of the project or \$20 million, whichever is less.
- Planning, design, and construction activities completed prior to the transmission of this list of eligible projects or outside of the scope of the project described in the completed feasibility study are not eligible for funding.
- 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.).
- Prior to receiving Federal funding for construction activities, the project sponsor must demonstrate that it is financially capable of funding the non-Federal portion of project construction costs and all necessary project operation, maintenance, and replacement costs, pursuant to Reclamation Manual Directives and Standards WTR-11-02.

Metropolitan Water District of Southern California

Project Sponsor: Metropolitan Water District of Southern California

Location: Los Angeles, California

Project: Regional Recycled Water Program

Total Estimated Project Cost: \$2,700,000,000

Review Completed: April 3, 2020

Project Description: The Metropolitan Water District of Southern California evaluated the feasibility of a potential Regional Recycled Water Program in partnership with the Sanitation Districts of Los Angeles County to produce up to 150 million gallons per day, or 168,000 acre-feet per year, of purified water. The proposed project consists of a new advanced water treatment facility at the Sanitation District's Joint Water Pollution Control Plant. The project's conveyance system includes approximately 60 miles of pipeline and three pumping plants. The purified water will be delivered to recharge regional groundwater basins, which later will be reused as a potable water supply.

Feasibility Study Review Finding: The feasibility study report meets the requirements of a feasibility study as defined under section 1604 of Pub. L. 102-575, as amended. The feasibility study, and the process under which the study was developed, each comply with Federal laws and regulations applicable to feasibility studies of water recycling projects. The project is technically and financially feasible and provides a Federal benefit in accordance with the reclamation laws.

Funding Conditions:

- Reclamation will include Metropolitan Water District of Southern California's project on a publicly available list of projects that have a completed feasibility study that has been determined to meet program requirements. The list will be available on the Reclamation website.
- The project sponsor is eligible to apply for funding through an annual competitive funding opportunity announcement, but the total Federal funding received towards the planning, design, and construction of this project may not exceed 25 percent of the total cost of the project or \$20 million, whichever is less.
- Planning, design, and construction activities completed prior to the transmission of this list of eligible projects or outside of the scope of the project described in the completed feasibility study are not eligible for funding.
- 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.).
- Prior to receiving Federal funding for construction activities, the project sponsor must demonstrate that it is financially capable of funding the non-Federal portion of project construction costs and all necessary project operation, maintenance, and replacement costs, pursuant to Reclamation Manual Directives and Standards WTR-11-02.

Padre Dam Municipal Water District

Project Sponsor: Padre Dam Municipal Water District

Location: Santee, California

Project: East County Advanced Water Purification Program – Phase II

Total Estimated Project Cost: \$251,610,000

Review Completed: January 16, 2020

Project Description: The purpose of this feasibility study was to evaluate and identify components for Phase II of the District's East County Advanced Water Purification Program. Phase II will expand Padre Dam's Ray Stoyer Water Recycling Facility by an additional 9 million gallons per day of treatment capacity, expand the solids handling facility to manage added solids load, and expand the Advanced Water Purification facility to produce an additional 8 million gallons per day of recycled water. With the Phase II Project, the expanded program will generate an additional 8,960 acre-feet per year of local potable water supply through surface water augmentation at Lake Jennings.

Feasibility Study Review Finding: The feasibility study report meets the requirements of a feasibility study as defined under section 1604 of Pub. L. 102-575, as amended. The feasibility study, and the process under which the study was developed, each comply with Federal laws and regulations applicable to feasibility studies of water recycling projects. The project is technically and financially feasible and provides a Federal benefit in accordance with the reclamation laws.

Funding Conditions:

- Reclamation will include Padre Dam Municipal Water District's project on a publicly available list of projects that have a completed feasibility study that has been determined to meet program requirements. The list will be available on the Reclamation website.
- The project sponsor is eligible to apply for funding through an annual competitive funding opportunity announcement, but the total Federal funding received towards the planning, design, and construction of this project may not exceed 25 percent of the total cost of the project or \$20 million, whichever is less.
- Planning, design, and construction activities completed prior to the transmission of this list of eligible projects or outside of the scope of the project described in the completed feasibility study are not eligible for funding.
- 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.).
- Prior to receiving Federal funding for construction activities, the project sponsor must demonstrate that it is financially capable of funding the non-Federal portion of project construction costs and all necessary project operation, maintenance, and replacement costs, pursuant to Reclamation Manual Directives and Standards WTR-11-02.

Weber Basin Water Conservancy District

Project Sponsor: Weber Basin Water Conservancy District

Location: Layton, Utah

Project: Title XVI Reuse Feasibility Study

Total Estimated Project Cost: \$46,430,000

Review Completed: February 6, 2020

Project Description: Weber Basin Water Conservancy District considered approaches for implementing a water reuse project to provide a more resilient and reliable water supply throughout its service area. The District plans to partner with Central Weber Sewer Improvement District (CWSID) to operate a recycled water plant at the CWSID Water Reclamation Facility. Treatment technology will include biological aerated filters, denitrification filters, and cloth disc filters, which were recommended based on nutrient removal capability and long-term reliability. Once treated by CWSID, recycled water will be delivered to the Willard Canal for non-potable reuse or stored in Willard Bay to meet in-stream flow requirements.

Feasibility Study Review Finding: The feasibility study report meets the requirements of a feasibility study as defined under section 1604 of Pub. L. 102-575, as amended. The feasibility study, and the process under which the study was developed, each comply with Federal laws and regulations applicable to feasibility studies of water recycling projects. The project is technically and financially feasible and provides a Federal benefit in accordance with the reclamation laws.

Funding Conditions:

- Reclamation will include the Weber Basin Water Conservancy District's project on a publicly available list of projects that have a completed feasibility study that has been determined to meet program requirements. The list will be available on the Reclamation website.
- The project sponsor is eligible to apply for funding through an annual competitive funding opportunity announcement, but the total Federal funding received towards the planning, design, and construction of this project may not exceed 25 percent of the total cost of the project or \$20 million, whichever is less.
- Planning, design, and construction activities completed prior to the transmission of this list of eligible projects or outside of the scope of the project described in the completed feasibility study are not eligible for funding.
- 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.).
- Prior to receiving Federal funding for construction activities, the project sponsor must demonstrate that it is financially capable of funding the non-Federal portion of project construction costs and all necessary project operation, maintenance, and replacement costs, pursuant to Reclamation Manual Directives and Standards WTR-11-02.