RECLAMATION Managing Water in the West

FY 2017 WaterSMART Water and Energy Efficiency Grants

California

City of Azusa, Advanced Metering Infrastructure Project Reclamation Funding: \$1,000,000 Total Project Cost: \$7,800,116

The City of Azusa, near Los Angeles, California, will install an Advanced Metering Infrastructure (AMI) network to remotely read 23,062 water meters. The project includes the conversion of all residential, commercial, and industrial water meters to AMI smart meters, which will connect to a wireless network enabling customers to receive real-time water use data. The project is planned to span five cities, including Azusa, Covina, Glendora, Irwindale, and West Covina. Once completed, the project is expected to result in annual water savings of 4,013 acre-feet, which will help reduce the City's demand for imported water. This project implements adaptation strategies that were identified in the completed WaterSMART Los Angeles Basin Study.

City of Big Bear Lake Department of Water and Power, Advanced Metering Infrastructure Program (Phase III) Reclamation Funding: \$300,000 Total Project Cost: \$730,778

The City of Big Bear Lake Department of Water and Power will continue implementation of an Advanced Metering Infrastructure (AMI) program, involving the installation of 3,500 new AMI water meters for residential and commercial water users, which will provide real-time water use data to the City and customers. The project is expected to result in annual water savings of 113 acre-feet, which will be made available to meet growing demands. The project implements adaptation strategies that were identified in the completed WaterSMART Santa Ana River Basin Study.

City of Big Bear Lake Department of Water and Power, Division Well Field Solar Project Reclamation Funding: \$300,000 Total Project Cost: \$1,700,000

The City of Big Bear Lake Department of Water and Power will also install 700 solar panels at the City's five Division Well Pumping Plants, which provide a significant portion of the City's water supply. The solar panels will have a capacity of 220 kilowatts and are expected to generate over 400,000 kilowatt-hours of energy annually, which is expected to reduce the City's electrical power costs by 25%.

Browns Valley Irrigation District, Tennessee Ditch Canal Modernization and Hydroelectric Project Reclamation Funding: \$1,000,000 Total Project Cost: \$4,505,492

The Browns Valley Irrigation District, in Yuba County, California, will install an 8,300-foot penstock adjacent to the earthen Tennessee Ditch Canal in order to recover 270 acre-feet of water annually, which is currently lost to seepage. Conserved water will help alleviate water supply shortages and allow for improved water management across the District's service area. The project also includes the installation of

a 427-kilowatt hydroelectric facility, which is expected to produce over 1,940,000 kilowatt-hours of energy annually.

City of Buena Park, Advanced Metering Infrastructure and Customer Portal Project Reclamation Funding: \$300,000 Total Project Cost: \$6,994,293

The City of Buena Park, located south of Los Angeles, California, will implement an Advanced Metering Infrastructure (AMI) system, including the installation of 22 collectors and 19,500 new AMI smart meters. The program also includes new customer portal software that will provide real-time water consumption data and leak resolution procedures directly to City customers. Once completed, the project is expected to result in annual water savings of 1,081 acre-feet, which will help the City meet future demands. The project implements adaptation strategies that were identified in the completed WaterSMART Santa Ana River Basin Study.

Buena Vista Water Storage District, 7th Standard Pipeline Project Reclamation Funding: \$1,000,000 Total Project Cost: \$5,594,640

The Buena Vista Water Storage District, near Bakersfield, California, will convert 9 miles of unlined canals and ditches to 8.4 miles of polyvinyl chloride and high-density polyethylene pipelines. These improvements are expected to result in annual water savings of 4,802 acre-feet that is currently being lost to seepage and over-deliveries. The conserved water will be used to offset groundwater pumping.

Del Puerto Water District, Remote Flow Monitoring Program (Phase I) Reclamation Funding: \$106,399 Total Project Cost: \$217,140

The Del Puerto Water District in Patterson, California, will update its irrigation monitoring system to allow for real-time, accurate flow tracking of individual growers' water use throughout the District. The project includes installation of a radio tower, establishment of a network and user interface for collecting and displaying flow data, telemetry equipment, and upgrading meters at two high-priority turnouts. The project is expected to result in annual water savings of 455 acre-feet, which will help reduce groundwater use.

Eastern Municipal Water District, Automated Metering Project Reclamation Funding: \$1,000,000 Total Project Cost: \$13,072,023

The Eastern Municipal Water District in Perris, California, will continue work on its Advanced Metering Infrastructure (AMI) program by installing 45,981 new AMI meters. The project is expected to save 1,059 acre-feet of water annually, which will reduce the District's reliance on imported water. This project will implement adaptation strategies identified in the completed WaterSMART Santa Ana Watershed Basin Study.

City of Fresno, Public Landscape Water Conservation Project Reclamation Funding: \$300,000 Total Project Cost: \$600,000

The City of Fresno will replace manually operated irrigation systems covering approximately 120 acres of turf and landscape areas with new automated high efficiency sprinkler systems with smart controllers. The new centrally controlled irrigation systems will allow for daily evapotranspiration adjustments and provide system alerts for breaks and leaks. The project is expected to result in annual water savings of 40 acre-feet, which will reduce the City's reliance on groundwater. This project implements adaptation strategies that were identified in the completed WaterSMART Sacramento-San Joaquin River Basin Study.

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. This project implements adaptation strategies that were identified in the completed WaterSMART Sacramento-San Joaquin River Basin Study.

Mojave Water Agency, Commercial, Industrial, and Institutional Turf Replacement ProgramReclamation Funding: \$300,000Total Project Cost: \$2,112,500

The Mojave Water Agency, in Apple Valley, California, will expand an existing Commercial, Industrial, and Institutional turf replacement program. The program will provide incentives to replace approximately 2,112,500 square feet of turf with water-efficient landscaping, which is expected to result in annual water savings of 353 acre-feet. The conserved water will help meet water demands in the Agency's service area, which includes the Morongo Band of Mission Indians.

North Kern Water Storage District, Calloway Canal Lining Project Reclamation Funding: \$300,000 Total Project Cost: \$956,922

The North Kern Water Storage District, in Bakersfield, California, will line 1,320 feet of the unlined Calloway Canal. The project is expected to result in annual water savings of 462 acre-feet due to reduced seepage loss, which will enable the District to reduce groundwater pumping. This project will implement adaptation strategies in the completed WaterSMART Sacramento-San Joaquin Basin Study and was identified as a priority in the WaterSMART System Optimization Review for the Poso Creek Integrated Water Management Plan Area.

Rincon del Diablo Municipal Water District, El Norte Parkway Recycled Water System Expansion and Mixed Meter Retrofit Program Reclamation Funding: \$300,000 Total Project Cost: \$659,125

The Rincon del Diablo Municipal Water District, in Escondido, California, will extend its recycled water delivery system to several disadvantaged communities in order to offset potable water used for landscape irrigation. The project includes the installation of approximately 5,500 feet of new 2-inch polyvinyl chloride pipe, recycled water meters, backflow prevention devices, and new efficient irrigation and landscaping. The project is expected to save 50 acre-feet of water annually. The project implements adaptation strategies that were identified in the completed WaterSMART Colorado River Basin Water Supply and Demand Study.

Rosamond Community Services District, Regional Water Conservation Infrastructure Replacement Project

Reclamation Funding: \$300,000

The Rosamond Community Services District, located north of Los Angeles, California, will replace 10,000 feet of asbestos cement distribution main with polyvinyl chloride pipe. The project is expected to result in 200 acre-feet of water annually, which is currently lost to seepage. Conserved water will be used to address shortages and to provide a more reliable water supply.

Total Project Cost: \$1,569,230

City of San Buenaventura, Advanced Meter Infrastructure Conversion (Phase II) Reclamation Funding: \$300,000 Total Project Cost: \$3,960,109

The City of San Buenaventura, located north of Los Angeles, California, will replace 10,011 manual read residential water meters with Advanced Metering Infrastructure meters, which will automatically relay data on water usage to the City's water billing system and to customers. The project is expected to save 245 acre-feet of water annually, which will enhance the City's ability to meet water demands during times of drought.

South Coast Water District, Advanced Metering Infrastructure Implementation Program (Phase 1) Reclamation Funding: \$300,000 Total Project Cost: \$1,764,706

The South Coast Water District, in Laguna Beach, California, will convert 3,008 manual read meters to Advanced Metering Infrastructure meters with an online customer portal that can automatically collect and store hourly consumption data and provide real-time updates. The project is expected to result in annual water savings of 90 acre-feet. The project implements adaptation strategies that were identified in the completed WaterSMART Colorado River Basin Water Supply and Demand Study.

Tranquillity Irrigation District, Southeast Service Area Water Conservation and Conveyance Improvement Project Reclamation Funding: \$503,543 Total Project Cost: \$1,007,085

The Tranquillity Irrigation District, near Fresno, California, will double the capacity of Lift Pump #3 and the culverts downstream of the pump to capture Kings River high flows and improve operational efficiency. The increased capacity will allow the District to capture 3,600 acre-feet of Kings River high flows annually that are currently lost to the ocean, reduce groundwater pumping, and meet peak demands. The project also includes a Supervisory Control and Data Acquisition system and flow meters for improved water management. The project will implement adaptation strategies identified in the completed WaterSMART Sacramento-San Joaquin Basin Study.

West Basin Municipal Water District, Water Efficient Institutional Kitchens Program Reclamation Funding: \$273,125 Total Project Cost: \$546,468

The West Basin Municipal Water District, in Carson, California, will expand an existing program to directly install water efficient appliances and fixtures, such as pre-rinse spray valves and faucet flow restrictors, in institutional kitchen facilities. The project is expected to result in annual water savings of 75 acre-feet. The project implements adaptation strategies that were identified in the completed WaterSMART Colorado River Basin Water Supply and Demand Study.

Colorado

Orchard Mesa Irrigation District, Grand Valley Power Plant Turbines and Generators Upgrade Reclamation Funding: \$964,862 Total Project Cost: \$1,929,724

The Orchard Mesa Irrigation District, located in Palisade, Colorado, in partnership with the Grand Valley Water Users Association, will upgrade the Grand Valley Hydroelectric Power Plant. The upgrade will provide operational efficiencies and will add an additional 1.35 megawatts of capacity, bringing the total capacity of the system to 4.1 megawatts. The increased capacity and operational efficiencies will allow for an additional 6,000 megawatt-hours of generation annually. In addition, continued and consistent power

generation at the power plant will ensure that critical flows are maintained in the 15-Mile Reach that is a designated habitat for the recovery of endangered fish species, including the Razor Back Sucker and Humpback Chub.

Idaho

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.

Nebraska

Pathfinder Irrigation District, Lateral 21A Phase II Pipeline Project Reclamation Funding: \$239,663 Total Project Cost: \$479,327

The Pathfinder Irrigation District, in Mitchell, Nebraska, will convert the lower 3.3 miles of earthen Lateral 21A to polyvinyl chloride pipe. The project is expected to result in annual water savings of 675 acre-feet currently lost to seepage. Conserved water will be stored in the Pathfinder Reservoir and made available for future use. Once completed, the pressurized pipeline will allow irrigators to complete on-farm improvements, such as converting from gravity irrigation systems to central pivot irrigation systems.

Oregon

Horsefly Irrigation District, Dairy Canal Piping Project Reclamation Funding: \$245,839 Total Project Cost: \$491,678

The Horsefly Irrigation District, in Klamath County, Oregon, will convert 7,200 feet of the open, unlined Dairy Canal to a high-density polyethylene buried pipe system. The project is expected to conserve 350 acre-feet of water annually, which is currently lost to seepage. Conserved water will be used to meet demands within the District and Reclamation's Klamath Project.

Rogue River Valley Irrigation District, Bradshaw Drop Irrigation Canal Piping Project (Phase 2)Reclamation Funding: \$290,000Total Project Cost: \$2,955,080

The Rogue River Valley Irrigation District, in Medford, Oregon, will convert 2.4 miles of open canal to high density polyethylene pipe. The project is expected to result in annual water savings of 436 acre-feet currently lost to seepage, which will help meet water demands in the District. Once completed, the pressurized pipeline will allow irrigators to complete on-farm improvements, such as the conversion from flood irrigation to more efficient sprinkler irrigation.

Three Sisters Irrigation District, Canal Piping and McKenzie Hydroelectric Facility Project Reclamation Funding: \$400,000 Total Project Cost: \$4,476,155

The Three Sisters Irrigation District, located near Bend, Oregon, will pipe 7.5 miles of existing open canals with high density polyethylene pipe, complete restoration work along six miles of Whychus Creek, and install a 300-kilowatt hydroelectric turbine. The conversion of open canals to pipe is expected to result in annual water savings of 1,400 acre-feet that is currently lost to seepage. The District will work with the Deschutes River Conservancy to dedicate approximately 210 acre-feet per year of the conserved water to a new instream water right held by the State of Oregon. In addition, the District will complete stream restoration work along six miles of Whychus Creek, including planting native vegetation, eliminating an unscreened diversion, and installing a fish passage. The increased instream flows and restoration will improve riparian habitat and benefit various species, including Bull and Steelhead Trout, Chinook and Sockeye Salmon, the Oregon Spotted Frog, the willow flycatcher, and the yellow breasted chat. The pressurized pipeline resulting from this project will allow farmers who receive deliveries from the District to implement further improvements. Lastly, the project will also include the installation a 300-kilowatt hydro turbine at McKenzie Reservoir, which is expected to generate over 1 million kilowatt-hours of energy annually.

Texas

Cameron County Irrigation District No. 2, Conversion of Lateral "8" from Open Canal to Pipeline Reclamation Funding: \$299,731 Total Project Cost: \$599,462

The Cameron County Irrigation District No. 2, in San Benito, Texas, will convert 6,800 feet of unlined, open Lateral "8" to a polyvinyl chloride pipe. The project is expected to result in annual water savings of 659 acre-feet that is currently lost to seepage and evaporation. The project will also include a service lateral that will facilitate the transfer of water to the Lower Rio Grande Valley National Wildlife Refuge. Conserved water will be allocated to District customers and the Wildlife Refuge. The project implements adaptation strategies that were identified in the completed WaterSMART Lower Rio Grande Basin Study.

Cameron County Irrigation District No. 2, Conversion of Canal "E" from Open Canal to Pipeline Reclamation Funding: \$299,674 Total Project Cost: \$599,348

In addition, the Cameron County Irrigation District No. 2 will convert 4,900 feet of unlined, open Canal "E" to a polyvinyl chloride pipe. The project is expected to result in annual water savings of 477 acre feet that is currently lost to seepage and evaporation.

Cameron County Irrigation District No. 2, Conversion of Lateral "F" from Open Canal to Pipeline Reclamation Funding: \$227,283 Total Project Cost: \$599,946

The Cameron County Irrigation District No. 2 will also convert 7,000 feet of unlined, open Lateral "F" to a polyvinyl chloride pipe. The project is expected to result in annual water savings of 488 acre-feet that is currently lost to seepage and evaporation.

Cameron County Irrigation District No. 2, Conversion of Lateral "JN-1" from Open Canal to Pipeline Reclamation Funding: \$173,311 Total Project Cost: \$346,622

Lastly, the Cameron County Irrigation District No. 2 will convert 3,900 feet of unlined, open Lateral "JN-1" to a polyvinyl chloride pipe. The project is expected to result in annual water savings of 318 acre-feet that is currently lost to seepage and evaporation.

Utah

City of Alpine, Secondary Irrigation Municipal Metering Project Reclamation Funding: \$1,000,000 Total Project Cost: \$2,514,587

The City of Alpine, located south of Salt Lake City, Utah, will install 2,420 meters on currently unmetered connections throughout the City's pressurized irrigation system. In addition to meters, the City will install Advanced Metering Infrastructure to allow for real-time flow monitoring, automatic meter reading, and usage-based billing. Once completed, the project is expected to result in annual water savings of 1,040 acre-feet, reducing the City's reliance on pumping water from the North Utah County Aquifer.

Bear River Canal Company, Hammond East Canal Lining and SCADA Project Reclamation Funding: \$300,000 Total Project Cost: \$600,694

The Bear River Canal Company, near Tremonton, Utah, will line a 4,400 feet earthen section of the Hammond East Canal with an Ethylene Propylene Diene Monomer liner. Once completed, the project is expected to result in annual water savings of 3,930 acre-feet, which is currently lost to seepage. A portion of the conserved water will benefit the Bear River Migratory Bird Refuge. In addition, as part of the project the Company will install one solar powered Supervisory Control and Data Acquisition Acoustic Doppler monitoring meter to more efficiently manage water downstream in their system.

Benson Irrigation Company, Benson Canal EnclosureReclamation Funding: \$1,000,000Total Project Cost: \$2,675,000

The Benson Irrigation Company, located in Cache County, Utah, will convert approximately 9 miles of earthen canal to polyvinyl chloride pipe. Once completed, the project is expected to result in annual water savings of 2,130 acre-feet currently lost to seepage and spills. The conserved water will provide a more secure water supply and decrease the amount of water diverted from the Bear River. The project also includes a centralized pumping station that will pressurize the entire pipeline. Once completed, the pressurized pipeline will allow irrigators to complete on-farm improvements, such as converting to drip irrigation systems.

Blanding Irrigation Company, Dry Wash Pipeline Reclamation Funding: \$300,000

The Blanding Irrigation Company in San Juan County, Utah, will convert 2.25 miles of open canal to 1.7 miles of high density polyethylene pipe. The project is expected to result in an annual water savings of 806 acre-feet currently lost to seepage. Conserved water will be made available to water users in San Juan County, including the Ute Mountain Ute Tribe. The project implements adaptation strategies that were identified in the WaterSMART Colorado River Basin Water Supply and Demand Study.

Total Project Cost: \$690,000

Davis & Weber Counties Canal Company, Large Piping and Solar ProjectReclamation Funding: \$1,000,000Total Project Cost: \$2,500,000

The Davis & Weber Counties Canal Company, located north of Salt Lake City, Utah, will pipe 3,220 feet of unlined earthen canal through Clearfield and Layton City with two 66-inch diameter reinforced concrete pipes and pipe an additional 500 feet of earthen canal in Layton with a single 66-inch diameter reinforced concrete pipe. The project is expected to result in an annual water savings of 733 acre-feet currently lost to seepage. The Company will work with the Utah Division of Wildlife Resources and others to dedicate a portion of the water conserved from the project to instream flows at critical times of the irrigation season, which will benefit the Bonneville Cutthroat Trout and Bluehead Sucker. As part of the project, the Company will also install a 10.3 kilowatt solar panel array at the Company's maintenance building, which is expected to generate 16,723 kilowatt-hours annually to offset energy demands. The project implements work identified in the Davis & Weber Canal Master Plan, which was completed in 2013 as part of a 2011 WaterSMART System Optimization Review grant.

Draper Irrigation Company (WaterPro), Pressure Irrigation Metering Project Reclamation Funding: \$300,000 Total Project Cost: \$767,150

The Draper Irrigation Company (WaterPro) in Salt Lake County, Utah, will install 395 pressure irrigation meters on currently unmetered connections. As part of the project, the Company will also implement a tiered billing structure. The project is expected to result in 334 acre-feet of water savings annually.

Lindon City, North Union Piping Water Conservation and Measurement Project Reclamation Funding: \$258,922 Total Project Cost: \$573,922

Lindon City will replace two sections of deteriorating concrete lined canal with 1,325 feet of concrete pipe. The project is expected to result in an annual water savings of 635 acre-feet currently lost to seepage. As a result of the project, the City will divert less water from the Provo River, which can instead be used to generate an additional 95,355 kilowatt-hours of energy annually through Central Utah Water Conservancy District's hydropower generation plant.

Mountain Green Secondary Water Company, Mountain Green Secondary Improvements Project Reclamation Funding: \$1,000,000 Total Project Cost: \$5,042,000

The Mountain Green Secondary Water Company, located north of Salt Lake City, Utah, will replace an existing diversion dam with a concrete structure that will more efficiently capture, divert, and convey water from Cottonwood Creek. The new structure will also include a fish ladder that will allow Bonneville Cutthroat Trout to access approximately 7.6 miles of previously inaccessible spawning habitat. In addition, the Company will replace 19,920 feet of open ditch with 15,030 feet of high density polyethylene pipe and will install a new splitter box to accurately split flows between the Northwest Pipeline and Main Farm Pipeline. The project also includes construction of a 138-acre-foot storage reservoir adjacent to Cottonwood Creek, along with a new 700-foot pipeline conveyance connecting the reservoir to the Northwest Pipeline. Once completed, the project is expected to result in annual water savings of 326 acre feet, currently lost to seepage, evaporation, and spills.

Weber Basin Water Conservancy District, Secondary Water Metering, Fish Passage & Solar Array Project

Reclamation Funding: \$1,000,000

Total Project Cost: \$2,500,070

The Weber Basin Water Conservancy District in Layton, Utah, will install 2,365 secondary water meters in the West Haven service area and a portion of the Layton Secondary System. The project is expected to conserve 1,339 acre-feet of water annually, which will be used to support future growth within the District's service area. The District will also install a small-scale 20 kilowatt capacity solar array at the Davis North Water Treatment Plant, which is expected to generate over 29,000 kilowatt-hours of power annually, offsetting energy use at the Treatment Plant. In addition, the District will replace an existing culvert on Dalton Creek with a fish passage structure, which will allow Bonneville Cutthroat Trout to pass upstream. The project builds on work identified in the plan developed through the District's 2008 WaterSMART System Optimization Review grant.

West Porterville Irrigation Company, Piping & Micro-Hydro Project Reclamation Funding: \$1,000,000 Total Project Cost: \$2,109,525

The West Porterville Irrigation Company, located in Morgan, Utah, will replace 25,075 feet of asbestos concrete pipe with high density polyethylene pipe. The project is expected to result in annual water savings of 540 acre-feet, currently lost to leaks and seepage. Conserved water will allow for a more secure water right, improve reliability during times of drought, and supplement downstream flows. The Company will commit a portion of the conserved water for instream flows in the East Canyon and Hardscrabble Creeks to benefit the Bonneville Cuthroat Trout. Once completed, the pressurized pipeline will allow irrigators to complete on-farm improvements, such as converting to drip irrigation systems. In addition, as part of the project the Company will also increase the capacity of an existing reservoir to improve water storage and management. Lastly, the Company will install a 15 kilowatt micro-hydro power unit, which is expected to generate over 55,000 kilowatt-hours of power annually that will be sold to local residents and agricultural users.

Whiterocks Irrigation Company, Whiterocks Canal Piping & Efficiency ProjectReclamation Funding: \$300,000Total Project Cost: \$1,100,000

The Whiterocks Irrigation Company, in Lapoint, Utah, in partnership with Mosby Irrigation Companies, will replace 4.1 miles of open canal with 2.8 miles of high density polyethylene pipe. The project is expected to save 82 acre-feet of water annually currently lost to seepage. The Company will also install a solar powered Supervisory Control and Data Acquisition system to monitor flows in the pipe. Once completed, the pressurized pipeline will allow irrigators to complete on-farm improvements, such as the conversion from flood irrigation to more efficient sprinkler irrigation. The project implements adaptation strategies that were identified in the WaterSMART Colorado River Basin Water Supply and Demand Study.

Washington

East Columbia Basin Irrigation District, Installation of Conservation Pipelines--Blocks 41, 42, 45, 47, & 49

Reclamation Funding: \$300,000

Total Project Cost: \$662,445

The East Columbia Basin Irrigation District, near Othello, Washington, will convert 20,087 feet of earthen canals to polyvinyl chloride pipelines to address seepage and evapotranspiration losses. Conserved water will be left instream to enhance flows in the Columbia River and used to offset existing groundwater pumping in an area with significant aquifer depletion. The project is expected to result in water savings of 725 acre-feet annually.

Quincy-Columbia Basin Irrigation District, W53.1E Lateral LiningReclamation Funding: \$300,000Total Project Cost: \$722,000

The Quincy-Columbia Basin Irrigation District in Quincy, Washington, will line 7,154 feet of the W53.1E earthen lateral with a geomembrane liner in combination with concrete. The project is expected to result in annual water savings of 810 acre-feet that is currently lost to seepage. Conserved water will remain in the Columbia River where it will be available for other uses, such as meeting hydropower and fishery demands.

Wyoming

Greybull Valley Irrigation District, Roach Gulch Outlet Hydroelectric Power Plant Reclamation Funding: \$300,000 Total Project Cost: \$5,858,073

The Greybull Valley Irrigation District located near Emblem, Wyoming, will install a 3.9 megawatt hydropower facility on the Roach Gulch Dam outlet works. The project also includes the installation of a 200-foot penstock pipe to convey water to the new powerhouse as well as a 16-mile, 12 kilovolt powerline to connect the hydropower facility to the Emblem Substation. The project is expected to generate over 7.5 million kilowatt-hours of energy annually.

Greybull Valley Irrigation District, Roach Gulch Inlet Hydroelectric Power Plant Reclamation Funding: \$300,000 Total Project Cost: \$3,102,526

The Greybull Valley Irrigation District will also install a 1.1 megawatt hydropower facility on the Roach Gulch Inlet Canal. The project will include a new intake/bypass structure and a 2.5-mile, 12 kilovolt powerline. The project is expected to generate over 2.7 million kilowatt-hours of energy annually.