

FY 2016 WaterSMART Water and Energy Efficiency Grants

California

Buena Vista Water Storage District, Northern Area Pipeline Southeast Extension Project
Reclamation Funding: \$1,000,000 **Total Project Cost: \$6,413,000**

The Buena Vista Water Storage District, located in the southern San Joaquin Valley of California, will improve water-use efficiency by converting 7.6 miles of unlined canals and ditches to polyvinyl chloride and high density polyethylene pipelines. These improvements are expected to result in annual water savings of 5,390 acre-feet that is currently being lost to seepage. The conserved water will be used to offset groundwater pumping.

City of American Canyon, Advanced Metering Infrastructure Project
Reclamation Funding: \$297,895 **Total Project Cost: \$661,988**

The City of American Canyon, California will install Advanced Metering Infrastructure equipment at 3,500 potable water connections. The goal of the project is to reduce residential, commercial, industrial, and agricultural potable water demand and to increase efficiency by providing real-time data to customers, including the implementation of a website portal where customers can access water use data and receive alerts. The project is expected to result in annual water savings of 254 acre-feet that will be used to offset the City's reliance on water from the State Water Project.

City of Big Bear Lake Department of Water and Power, Advanced Metering Infrastructure Project
Reclamation Funding: \$300,000 **Total Project Cost: \$1,606,000**

The City of Big Bear Lake Department of Water and Power in California will implement an Advanced Metering Infrastructure (AMI) program, involving the installation of 5,000 new water meters and radios for residential and commercial water users. The AMI program will also feature a new smart meter software system, allowing the Department and water users access to real-time consumption data. The project is expected to result in annual water savings of 33 acre-feet, which will be made available to meet growing water user demand. 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, 12-inch Big Bear Boulevard Pipeline Project
Reclamation Funding: \$300,000 **Total Project Cost: \$1,216,600**

The City of Big Bear Lake Department of Water and Power will also replace 4,000 feet of unlined steel pipeline with polyvinyl chloride pipe. The project is expected to result in annual water savings of 17 acre-feet, which will be made available to meet growing water user demand. The project implements adaptation strategies that were identified in the completed WaterSMART Santa Ana River Basin Study.

City of Fresno, Fresno School Districts Water Conservation Project**Reclamation Funding: \$300,000****Total Project Cost: \$750,000**

The City of Fresno, California, together with the Fresno Unified School District, Clovis Unified School District, and Central Unified School District, will install efficient sprinkler systems with smart controllers that will provide more efficient delivery of water for irrigated turf and landscaping at school campuses. The project is expected to result in annual water savings of 10 acre-feet, which will offset pumping from a critically over-drafted aquifer.

Coachella Valley Water District, Turf Reduction Water and Energy Efficiency Program**Reclamation Funding: \$1,000,000****Total Project Cost: \$9,000,000**

The Coachella Valley Water District will expand its existing turf reduction program to provide rebates to golf courses and commercial and residential users to replace turf with low water-use desert plants. The project is expected to result in the replacement of approximately 11,298,133 square feet of turf, with an expected annual water savings of 1,747 acre-feet. The conserved water will remain in groundwater storage instead of being pumped, alleviating groundwater overdraft. The reduced pumping is also expected to lead to annual energy savings of approximately 1,035,226 kilowatt hours.

Delta Diablo, Recycled Water Facility Reliability Project**Reclamation Funding: \$300,000****Total Project Cost: \$1,391,500**

Delta Diablo, in Antioch, California, will install a 600 kilowatt emergency generator to operate its Recycled Water Facility (RWF) during frequently occurring periods of interrupted electrical power. The installation of the generator will allow Delta Diablo to store less water at the RWF, which will allow for an additional 208 acre-feet of water to be made available to customers to offset potable uses.

East Bay Municipal Utility District, Water and Energy Conservation through Advanced Metering Infrastructure**Reclamation Funding: \$1,000,000****Total Project Cost: \$4,677,007**

The East Bay Municipal Utility District will expand its existing Advanced Metering Infrastructure program by installing 3,000 new meters at large commercial, residential, and industrial properties. The goal of the program is to reduce real system losses and increase water use efficiency and conservation through the availability of real-time data on water usage and daily water needs. The project is expected to conserve approximately 1,680 acre-feet of water annually, which will be made available for other uses or left in-stream.

El Dorado Irrigation District, Main Ditch Piping Project**Reclamation Funding: \$1,000,000****Total Project Cost: \$7,960,000**

The El Dorado Irrigation District in Placerville, California, will pipe the entire three mile length of an earthen, unlined ditch used to transport water from the Forebay Reservoir to the treatment plant. The project is expected to result in annual water savings of 1,300 acre-feet currently lost to seepage and evaporation. Conserved water will improve water supply reliability during dry years and periods of drought and will reduce reliance on Central Valley Project water. As a result of reduced pumping demand, the District estimates it will also conserve 780,000 kilowatt hours of energy annually. This project implements adaptation strategies that were identified in the completed WaterSMART Sacramento-San Joaquin River Basin Study, in which the District was a cost-share partner.

Fresno Irrigation District, Gould Canal-Friant Kern Canal Intertie Project

Reclamation Funding: \$300,000

Total Project Cost: \$4,000,000

The Fresno Irrigation District in California will implement an intertie project to connect the Gould Canal with the Friant-Kern canal. The project includes the construction of a 200 cubic feet per second capacity pumping station and 240 feet of 84 inch diameter cement mortar lined and coated steel pipe. Once completed, the project will allow the District to convey approximately 10,000 acre-feet of water annually from the Gould Canal to the Friant-Kern Canal, providing increased water supply reliability and improving water management in times of drought.

Kern County Water Agency Improvement District No. 4, Cross Valley Canal Extension Lining Project Pool No. 8

Reclamation Funding: \$1,000,000

Total Project Cost: \$3,768,167

The Kern County Water Agency Improvement District No. 4, in Bakersfield, California, will line one mile of earthen canal with fiber-reinforced concrete. The project is expected to result in annual water savings of 2,300 acre-feet that is currently lost to seepage. Conserved water will be used to supplement deliveries in dry years, offsetting groundwater pumping, and will be recharged to groundwater in normal years. The Agency also estimates an annual energy savings of 791,200 kilowatt-hours due to reduced pumping.

Laguna Beach County Water District, Advanced Metering Infrastructure to Enhance Water and Energy Efficiency Project

Reclamation Funding: \$300,000

Total Project Cost: \$3,000,000

The Laguna Beach County Water District will install an Advanced Metering Infrastructure (AMI) fixed-base network system, including 8,633 advanced meters, AMI radio transmitters, collectors, software that will collect and store consumption data, and a web-portal to provide real-time water use data. The project is expected to result in annual water savings of 400 acre-feet, which will reduce the District's demand for imported water. The project implements adaptation strategies that were identified in the completed WaterSMART Colorado River Basin Study.

Madera Irrigation District, Irrigation Water Conservation and Canal Automation Improvement Project

Reclamation Funding: \$292,261

Total Project Cost: \$591,721

The Madera Irrigation District near Fresno, California, will replace existing manual control gates with 13 automated, solar-powered metered control gates and will install a new automated flume gate in the Dry Creek weir. The new equipment will be connected to a new Supervisory Control and Data Acquisition system to provide remote sensing and control of all gate/channel operations within the canal system. The project will allow the District to maintain constant water levels, eliminating losses from spills and over-deliveries, which is expected to result in annual water savings of 3,610 acre-feet. Depending on existing conditions and needs, conserved water will be made available to meet demands within the District, channeled to the Madera Ranch Water Bank, or stored in the Hidden or Friant reservoirs.

Madera Irrigation District, Lateral 24.2-17.0 Pipeline Improvement Project

Reclamation Funding: \$580,900

Total Project Cost: \$1,184,500

The Madera Irrigation District will also convert approximately 6,500 linear feet of existing sandy, open canal to 36-inch double-gasketed polypropylene pipe. As part of the project, the District will also install a solar powered automated meter on the new pipeline; will install new Supervisory Control and Data Acquisition equipment to enable remote monitoring and control of pipeline operations; and will construct a small recharge pond at the end of the new pipeline to capture excess water and provide groundwater recharge. The project is expected to result in annual water savings of 1,759 acre-feet by reducing water currently lost to evaporation, spills, and over-deliveries. Depending on existing conditions and needs, conserved water will be made available to meet demands within the District, channeled to the Madera Ranch Water Bank, or stored in the Hidden or Friant reservoirs.

Mojave Water Agency, Commercial, Industrial and Institutional Turf Replacement Program

Reclamation Funding: \$300,000

Total Project Cost: \$2,362,500

The Mojave Water Agency in southern California will expand an existing Commercial, Industrial, and Institutional turf replacement program. The program will provide incentives to replace approximately 2,362,500 square feet of turf with water-efficient landscaping, which is expected to result in annual water savings of 400 acre-feet. The conserved water will go to beneficial uses within the Agency's service area or will otherwise be made available to other users.

Municipal Water District of Orange County, Comprehensive Landscape Water Use Efficiency Program – Phase II

Reclamation Funding: \$299,934

Total Project Cost: \$1,364,825

The Municipal Water District of Orange County, California, will continue implementing a comprehensive landscape improvement program targeting residential and commercial properties throughout Orange County. The project includes: providing rebates to remove over 9 acres of non-functional turf grass and replacing it with California-friendly landscape; upgrading 928 irrigation timers to smart water application irrigation controllers; and converting 127,000 high volume conventional spray irrigation heads to low-precipitation-rate irrigation equipment (rotating nozzles and drip). The project is expected to result in annual water savings of 1,151 acre-feet, which will be retained in regional storage reservoirs and the groundwater basin for future use.

Natomas Central Mutual Water Company, Northern Drainage Canal Lift Pump Station Project

Reclamation Funding: \$852,000

Total Project Cost: \$1,704,000

The Natomas Central Mutual Water Company near Sacramento, California, will construct a new tailwater recovery pump station with a capacity of 120 cubic feet per second near its largest point of diversion on the Sacramento River. The new pump station will allow the Company to recycle additional tailwater, which is expected to result in annual water savings of 4,000 acre-feet, reducing the quantity of water pumped from the Sacramento River. The project implements work identified in the Company's Tailwater Recovery System Evaluation, which was completed as part of a 2008 WaterSMART System Optimization Review grant.

Rosedale-Rio Bravo Water Storage District, Stockdale East Groundwater Recharge Project
Reclamation Funding: \$1,000,000 **Total Project Cost: \$4,094,125**

The Rosedale-Rio Bravo Water Storage District in Bakersfield, California, will construct 200 acres of recharge ponds to capture stormwater and increase groundwater recharge. The project also includes the installation of additional pumping capacity (four pumps with pumping capacities of 140 cubic feet per second) at the Central Intake Pumping Plant. The project is expected to result in annual water savings of 5,700 acre-feet, which would otherwise cause significant flooding or go unused to the ocean. Conserved water will provide additional supply for District water users, provide enhanced protection against prolonged drought and climate changes, and provide intermittent wetlands for wildlife environmental benefits.

West Valley Water District, Water Use Efficiency in Disadvantaged Communities
Reclamation Funding: \$300,000 **Total Project Cost: \$625,500**

The West Valley Water District east of Los Angeles will expand an existing turf replacement program. The District is targeting approximately 120,000 square feet of turf removal, which is expected to result in annual water savings of 16 acre-feet. The project implements adaptation strategies that were identified in the completed WaterSMART Santa Ana River Basin Study, in which the District was a stakeholder.

Colorado

Cottonwood Water and Sanitation District, Biological Treatment for Removal of Selenium from Water Treatment Plant Concentrate
Reclamation Funding: \$300,000 **Total Project Cost: \$4,000,000**

The Cottonwood Water and Sanitation District in Englewood, Colorado, in partnership with the Arapahoe County Water and Wastewater Authority, will construct a biological treatment system at their Joint Water Purification Plant to remove residual selenium from concentrate discharge following reverse osmosis treatment. The biological treatment system will allow the District to reuse 2,200 acre-feet of water annually, which will offset non-tributary groundwater use from the Denver Basin.

Grand Valley Water Users Association, Government Highline Canal Top 500 Feet Lining Project: Canyon Canal Improvement Project
Reclamation Funding: \$300,000 **Total Project Cost: \$800,000**

The Grand Valley Water Users Association in Grand Junction, Colorado will improve the hydraulic efficiency of the top 500 feet of the Canyon Canal by installing a polyvinyl chloride liner and a shotcrete wear surface. The project will increase the capacity of the canal by up to 40,000 acre-feet per year to increase operational flexibility. The project implements adaptation strategies that were identified in the completed WaterSMART Colorado River Basin Water Supply and Demand Study.

Larimer and Weld Irrigation Company, Optimizing Irrigation Water Delivery
Reclamation Funding: \$1,000,000 **Total Project Cost: \$3,696,293**

The Larimer and Weld Irrigation Company in northern Colorado will automate canal check gates, will install a radio network to enable gate-to-gate communication, and will deploy a remote management and telemetry Supervisory Control and Data Acquisition system. All new devices will be solar powered. The project will allow the Company to better manage canal operations and to reduce spills and over-deliveries.

In total, the project is expected to conserve 10,095 acre-feet of water annually, which will be made available for existing water users in times of shortage.

**Uncompahgre Valley Water Users Association, South Canal Hydropower Development Project:
Drop 5**

Reclamation Funding: \$1,000,000

Total Project Cost: \$6,814,258

The Uncompahgre Valley Water Users Association in Montrose, Colorado, will install a 2.4 megawatt hydroelectric facility on the existing “Drop 5” irrigation canal drop structure located on the South Canal. The Association expects to generate 8,623,000 kilowatt hours annually, which will be provided locally to the Delta Montrose Electric Association. The project implements adaptation strategies that were identified in the completed 2012 WaterSMART Colorado River Basin Water Supply and Demand Study, which the Association participated in as a stakeholder.

Idaho

Aberdeen-Springfield Canal Company, Canal Lining Water Efficiency Project

Reclamation Funding: \$176,308

Total Project Cost: \$359,812

The Aberdeen-Springfield Canal Company in southeastern Idaho will line 1.4 miles of open canal currently experiencing significant seepage losses with a geomembrane liner. The project is expected to result in annual water savings of 23,007 acre-feet, which will help offset groundwater use. The project will help the Company to 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.

Bingham Ground Water District, Irrigation Flow Measurement Project

Reclamation Funding: \$992,430

Total Project Cost: \$2,205,399

Bingham Ground Water District in southeastern Idaho will partner with Aberdeen American Falls Ground Water District to install advanced water flow measurement devices on 400 groundwater wells located within the Eastern Snake Plain Aquifer. Installation of these meters will increase flow measurement accuracy and is expected to result in water savings of 16,173 acre-feet annually through reduced groundwater pumping. The conserved water will remain in the aquifer and will help 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.

Boise Project Board of Control, New York Canal Lining

Reclamation Funding: \$108,488

Total Project Cost: \$216,976

The Boise Project Board of Control in Idaho will replace 300 linear feet of existing concrete and asphalt lining along the New York Canal with a multi-layer, geocomposite membrane and concrete cap. The project will reduce seepage, resulting in expected annual water savings of 544 acre-feet, which will be made available to Board of Control users to help alleviate ongoing shortages.

Bonneville-Jefferson Ground Water District, Irrigation Flow Measurement Project

Reclamation Funding: \$296,454

Total Project Cost: \$658,786

The Bonneville-Jefferson Ground Water District in southeastern Idaho will install advanced water flow measurement devices for 120 groundwater wells that are owned or operated by individuals within the

District. The project is expected to conserve 9,153 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.

Water Resource Board of the Duck Valley Indian Reservation, Tribal Water Conservation and Management Improvement Project

Reclamation Funding: \$300,000

Total Project Cost: \$787,751

The Water Resource Board of the Duck Valley Indian Reservation in southwestern Idaho will line approximately 3.5 miles of the River Canal with geocomposite geotextile. In addition, the Board will install three new headgate structures at the head of the West Main Canal, River Canal, and Thacker Canal, equipping each structure with solar-powered Supervisory Control and Data Acquisition systems. The project will allow the Board to reduce tail end spills and reduce canal seepage losses. The project is expected to result in annual water savings of 2,000 acre-feet, which will be made available to Duck Valley users.

Jefferson Clark Ground Water District, Irrigation Flow Measurement Project

Reclamation Funding: \$296,454

Total Project Cost: \$658,786

The Jefferson Clark Ground Water District in southeastern Idaho will install advanced flow meters on 120 groundwater wells located within the Eastern Snake Plain Aquifer. The project is expected to conserve 6,912 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.

Montana

City of Bozeman, Sunset Hills Cemetery and Lindley Park Water Conservation Project

Reclamation Funding: \$300,000

Total Project Cost: \$875,000

The City of Bozeman, Montana will install a new rock diversion structure with an automated headgate to better control flows into the Story Ditch. The City will also replace 1,100 feet of the Story Ditch with a polyvinyl chloride half pipe to reduce water losses from seepage. The project is expected to result in annual water savings of 1,082 acre-feet, which will be used to increase instream flows for fish habitat and made available for downstream water users.

Huntley Project Irrigation District, Tunnel 2 Lining Project

Reclamation Funding: \$1,000,000

Total Project Cost: \$3,773,740

The Huntley Project Irrigation District near Billings, Montana, will line 1,623 feet of diversion tunnel with steel and concrete, significantly improving operational efficiency. The improvements are expected to result in annual water savings of 6,558 acre-feet currently lost to seepage, reducing the District's diversion from the Yellowstone River and improving instream flows, while also benefitting downstream users.

Nevada

Southern Nevada Water Authority, Water Smart Landscapes Rebate Program

Reclamation Funding: \$1,000,000

Total Project Cost: \$11,000,000

The Southern Nevada Water Authority in Las Vegas, Nevada, will expand its landscape rebate program, which provides a financial incentive for residential property owners to replace turf with water efficient landscaping. The project is expected to result in the replacement of approximately 6,321,839 square feet of turf, with an expected annual water savings of 1,082 acre-feet. Water conserved through this project will be left in the Colorado River for other uses in the Colorado River Basin and will contribute to existing water banks in California, Arizona, and Southern Nevada.

Oklahoma

Choctaw Nation of Oklahoma, Develop and Implement Water Conservation Measures at Major Choctaw and Chickasaw Facilities

Reclamation Funding: \$300,000

Total Project Cost: \$630,000

The Choctaw and Chickasaw Nations in southern Oklahoma will work collaboratively to implement water conservation measures, including installing high-efficiency indoor appliances and fixtures, as well as computer controlled irrigation systems, at their six largest casinos. This project is estimated to result in annual water savings of 179 acre-feet.

Oregon

City of Newport, Citywide Automatic Meter Interface Water Meter Upgrade Project

Reclamation Funding: \$300,000

Total Project Cost: \$1,209,675

The City of Newport, Oregon will install an integrated Advanced Meter Infrastructure (AMI) system, including replacing 2,088 outdated meters with digital metering devices with advanced reading capability, solar-powered telemetry stations, and AMI software with updated billing and reporting capabilities. The project is expected to conserve 571 acre-feet annually, which will be left in the Siletz River and Big Creek Reservoir system and made available for customers outside the City.

Horsefly Irrigation District, Horsley Canal and Somers Canal Piping Project

Reclamation Funding: \$236,360

Total Project Cost: \$474,045

The Horsefly Irrigation District in southern Oregon will convert 8,900 feet of open canal to a buried pipe system composed of both high-density polyethylene and polyvinyl chloride pipe. The project is expected to result in annual water savings of 720 acre-feet of water annually that is currently being lost to seepage. Conserved water will allow the District to reduce its diversions from Clear Lake Reservoir.

Tumalo Irrigation District, Tumalo Feed Canal Piping Project: Phase V

Reclamation Funding: \$1,000,000

Total Project Cost: \$3,407,135

The Tumalo Irrigation District in Bend, Oregon, will complete Phase V of the Tumalo Feed Canal Piping Project. Phase V of the project includes converting 5,500 feet of open canal to 84-inch diameter high density polyethylene pipe and connecting it to the existing piping system. The project is expected to result in annual water savings of 1,149 acre-feet currently lost to seepage and evaporation. Once completed, the pressurized pipeline will allow irrigators to complete on-farm improvements, such as converting to drip irrigation systems. The District will work with the State of Oregon to dedicate approximately 655 acre-feet of the conserved water for permanent instream flow rights for Tumalo Creek. The remaining 494 acre-feet will be stored in Crescent Lake.

Texas

Cameron County Irrigation District No. 2, Conversion of Lateral “J” from Open Canal to Pipeline

Reclamation Funding: \$288,652

Total Project Cost: \$577,304

The Cameron County Irrigation District No. 2 in southern Texas will convert approximately 7,200 feet of unlined, open canal to an underground polyvinyl chloride pipe. The project is expected to result in annual water savings of 611 acre-feet that is currently lost to seepage and evaporation. In addition, the project will 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. This project implements adaptation strategies that were identified in the 2013 WaterSMART Lower Rio Grande Basin Study.

City of Arlington, Leak Detection and Smart Metering

Reclamation Funding: \$300,000

Total Project Cost: \$4,112,500

The City of Arlington, Texas, will install 21,000 smart meters and 50 leak detection sensors to address water losses throughout the City’s system. The project will improve meter accuracy and provide customers with reliable, secure and real time access to their water usage data. Once completed, the project is expected to result in annual water savings of 2,428 acre-feet, which will help reduce the City’s demand for water from regional reservoirs.

Utah

Davis and Weber Counties Canal Company, Piping and Hydro Project

Reclamation Funding: \$300,000

Total Project Cost: \$750,000

The Davis and Weber Counties Canal Company in northern Utah will pipe 950 feet of canal liner with an 8-foot wide by 7-foot tall reinforced concrete box culvert. The proposed project will reduce seepage and is expected to result in annual water savings of 144 acre-feet. Conserved water will provide a more secure water right, alleviate the impacts of drought, and provide irrigation, residential, and environmental benefits. In addition, the Company will install a 5 kilowatt small hydropower generation turbine along the main canal, which is expected to generate 21,600 kilowatt hours of power per year. The turbine will power the Company’s main river diversion gates and other high energy demands such as pumping; excess power will be sold back to the local utility, providing renewable energy along the Wasatch Front. The project

implements work identified in the Davis and Weber Canal Master Plan, which was completed in 2013 as part of a 2011 WaterSMART System Optimization Review grant.

East Wanship Irrigation Company, Ditch Piping Water & Energy Conservation Project

Reclamation Funding: \$300,000

Total Project Cost: \$942,842

The East Wanship Ditch Company in northern Utah will convert 3.2 miles of unlined, open ditch to 16-inch high density polyethylene pressurized pipe. The project is expected to result in annual water savings of 686 acre-feet, currently lost to seepage, evaporation, and spills. The conserved water will remain in Rockport Reservoir and will be made available to water users within the District experiencing shortages. Completion of the new pipeline is also expected to facilitate future on-farm improvements by providing growers with a direct connection to a pressurized system that can be used to convert from flood irrigation to more efficient irrigation practices.

Echo Ditch Company, Piping and Metering Project

Reclamation Funding: \$300,000

Total Project Cost: \$755,000

The Echo Ditch Company in northern Utah will slip-line 5,080 feet of pipe into an existing 60 year old gas pipe, which is currently used as the Company's main distribution line. The project also includes the conversion of 11,550 feet of open ditches to pipe as well as the installation of eight turnouts and two metering stations. The project is expected to result in an annual water savings of 333 acre-feet that is currently lost to seepage. Once completed, the pressurized pipeline will allow irrigators to complete on-farm improvements, including conversion of flood irrigation to sprinklers. Conserved water will remain in the Weber River system where it will be available for use by the Company's current and future water users and will provide additional flows for the existing Bountiful Light and Power hydroelectric facility located on Echo Reservoir.

Haight Creek Irrigation Company, Green Road Piping, Metering, and Small Hydro Project

Reclamation Funding: \$231,000

Total Project Cost: \$550,000

The Haight Creek Irrigation Company near Salt Lake City, Utah will replace 1,665 feet of asbestos concrete pipe with polyvinyl chloride pipe, install a 12-inch pressure reducing valve at the Green Road Reservoir, and, install 75 secondary flow meters. In addition, the Company will install a 125 kilowatt small hydropower turbine at the Green Road Reservoir, which is expected to generate 183,000 kilowatt hours of power per year. The project is expected to result in annual water savings of 159 acre-feet. Conserved water will be stored in Echo and Rockport Reservoirs, providing a more secure water right and alleviating the impacts of drought.

Haight Creek Irrigation Company, Piping and Metering Project

Reclamation Funding: \$300,000

Total Project Cost: \$816,339

The Haight Creek Irrigation Company will also replace 6,215 feet of asbestos concrete pipe with polyvinyl chloride pipe and install 84 secondary flow meters. The project is expected to result in annual water savings of 148 acre-feet. Conserved water will be stored in Echo and Rockport Reservoirs, providing a more secure water right and alleviating the impacts of drought.

Newton Water Users Association, Dam Piping and Pipeline Pressurization Project
Reclamation Funding: \$708,000 **Total Project Cost: \$1,770,000**

The Newton Water Users Association in northern Utah will pipe the final open channel section connecting Newton Dam and Newton Reservoir with high density polyethylene and stainless steel pipe. This will create a pressurized irrigation system that is expected to result in annual water savings of 1,860 acre-feet currently lost to evaporation, seepage, and over-deliveries. Completion of the new pipeline is also expected to facilitate future on-farm improvements by providing growers with a direct connection to a pressurized system, including retrofitting pumps with variable speed motors and smaller horsepower motors and installing pivots. Conserved water will provide a more secure water right, be stored in Newton Reservoir, or will otherwise be made available to the Town of Newton.

Scipio Irrigation Company, Ivie Creek Pipeline Project
Reclamation Funding: \$1,000,000 **Total Project Cost: \$2,781,000**

The Scipio Irrigation Company in central Utah will convert four miles of canal between Scipio Lake Reservoir and Highline Canal to high density polyethylene pipe. This conversion will reduce seepage and evaporation losses and is expected to result in annual water savings of 1,671 acre-feet. Conserved water will provide additional supply to the Irrigation Company in order reduce shortages and provide a more secure water supply in the drought stricken region.

Spanish Fork South Irrigation Company, South Field Canal Metering and Piping Project
Reclamation Funding: \$300,000 **Total Project Cost: \$1,184,900**

The Spanish Fork South Irrigation Company near Provo, Utah, will install flow measurement devices and a Supervisory Control and Data Acquisitions system for the eight large laterals of the South Field Canal System. In addition, the Company will pipe 6,180 feet of open canal. The project is expected to result in annual water savings of 3,725 acre-feet that is currently lost to seepage, spills, and over-deliveries. Conserved water will be used to extend the irrigation season during drought years and reduce demand for Central Utah Project water.

Uintah Water Conservancy District, Uintah River Bifurcation Structure
Reclamation Funding: \$300,000 **Total Project Cost: \$854,000**

This Uintah Water Conservancy District in northeastern Utah, in partnership with multiple irrigation companies served by the Uinta River system, will install a new bifurcation structure upstream on the Uinta River to regulate and maintain sufficient flows in the east and west channels of the river. The project also includes the installation of automated gates and telemetry. The project implements adaptation strategies that were identified in the completed 2012 WaterSMART Colorado River Basin Water Supply and Demand Study.

Washington County, Quantifiable and Improved Water Management by Installing Smart Meters
Reclamation Funding: \$300,000 **Total Project Cost: \$704,244**

The Washington County Water Conservancy District in Saint George, Utah, will implement an Advanced Metering Infrastructure system for unmetered residential and agricultural users of the Toquerville Secondary Water System. This project is expected to result in annual water savings of 884 acre-feet, which will be used to help meet the demands of growing Washington County communities. The project implements adaptation strategies that were identified in the completed 2012 WaterSMART Colorado River Basin Water Supply and Demand Study.

Weber Basin Water Conservancy District, Uintah Bench Secondary Water Metering & Small Hydro Project

Reclamation Funding: \$1,000,000

Total Project Cost: \$2,500,000

The Weber Basin Water Conservancy District in Layton, Utah, will install 2,956 secondary meters on unmetered residential connections in an area with high water demand. The project is expected to conserve approximately 1,360 acre-feet annually, which will be used to support future growth within the Uintah Bench area. In addition, the District will also install a small-scale, 20 kilowatt capacity hydropower unit on the Causey Reservoir outlet, which is expected to generate 68,000 kilowatt hours of power each year, offsetting the District's electricity requirement. The project builds off of work identified in the plan developed through the District's 2008 WaterSMART System Optimization Review grant.

Woodruff Irrigating Company, Woodruff Hydroelectric Project

Reclamation Funding: \$1,000,000

Total Project Cost: \$6,885,200

The Woodruff Irrigating Company in northern Utah will convert approximately four miles of open ditch conveyance to high density polyethylene and steel pipeline. The project is expected to result in annual water savings of 1,700 acre-feet currently lost to seepage. Conserved water will be used provide a more secure water right and will otherwise remain in the Bear River system. As part of the project, the Company will also install a one megawatt hydropower plant along the pipeline, which is expected to generate 2,160,000 kilowatt hours of power each year.

Washington

Kittitas Reclamation District, North Branch Canal Lining Project

Reclamation Funding: \$147,104

Total Project Cost: \$294,208

The Kittitas Reclamation District in central Washington will line 850 linear feet of earthen canal with a geomembrane and concrete lining. This project is expected to result in annual water savings of 166 acre-feet per year that is currently lost to seepage. The District will work with State of Washington's Department of Ecology and Trout Unlimited to dedicate the conserved water for instream flow benefits in designated critical habitat areas in the Upper Yakima River tributaries, which will improve the riparian environment and benefit Bullhead Trout and Steelhead.

Kennewick Irrigation District, HDPE Canal Lining and Water Conservation Project

Reclamation Funding: \$1,000,000

Total Project Cost: \$3,880,579

The Kennewick Irrigation District in south central Washington will line 7.2 miles of an existing earthen canal with a high-density polyethylene geomembrane canal liner. The project is expected to result in annual water savings of 1,067 acre-feet per year that is currently being lost to seepage. A third of the conserved water will remain in the Yakima River in a manner consistent with the State v. Acquavella settlement agreement, providing critical habitat to the endangered bull trout and mid-Columbia steelhead.

Wyoming

Midvale Irrigation District, Sand Butte 2 Lateral Project

Reclamation Funding: \$203,893

Total Project Cost: \$973,893

The Midvale Irrigation District in central Wyoming will convert a mile-long section of concrete lined lateral to a 42-inch polyvinyl chloride pipe linked to reinforced concrete turn-out boxes. The project is expected to result in annual water savings of 1,800 that is currently lost to seepage and system spills. Conserved water will be used to help reduce the District's diversions from the Wind River.