

FY 2015 WaterSMART Water and Energy Efficiency Grants

Arizona

City of Nogales, Drinking Water System Endpoint, Efficiency, and Improvement Program

Reclamation Funding: \$300,000

Total Project Cost: \$1,100,000

The City of Nogales in southern Arizona will continue upgrading its current water meter system to replace 3,400 outdated meters that are incapable of reading low flow-volume data with new meter technology. The project also includes the installation of all necessary software to develop real-time computer access for Nogales Public Works staff and water customers. This phase of the water meter replacement program is expected to result in annual water savings of 558 acre-feet. The conserved water will remain in the aquifer or be made available for downstream users.

California

Shasta River Water Association, Shasta River Water Association Irrigation Water Measurement and Billing Upgrades

Reclamation Funding: \$253,000

Total Project Cost: \$506,000

The Shasta River Water Association in northern California will address inaccurate flow measuring equipment and implement a new conservation billing system. The Association will install three water measuring flumes, one split box, control boxes, gates, and electronic equipment to automate all measuring locations. With the ability to better track irrigation flows to landowners, the Association can implement a new billing structure. The project is expected to result in annual water savings of 1,560 acre-feet annually. Water that is conserved as a result of this project will stay in the Shasta River for instream benefits and downstream users.

Moulton Niguel Water District, MNWD AMI Implementation Program (Phase I)

Reclamation Funding: \$300,000

Total Project Cost: \$830,122

The Moulton Niguel Water District in southern California will implement advanced meter infrastructure (AMI) with supporting software and will target customers with some of the highest water consumption rates within the District's service area. The goal of the program is to reduce real system losses and increase water use efficiency and conservation through the availability of near real-time data on water usage and daily water needs. Implementation of this phase (Phase I) would allow the District to test a full distribution system with AMI to provide both fine grain usage with weather data and corresponding actual daily water needs to customers. In order to fully maximize the capabilities and benefits of the AMI technology, a water loss management program will be integrated into the program. The project includes the installation of 2,669 residential meters and is expected to result in annual water savings of 1,650 acre-feet per year.

City of San Buenaventura, Ventura Be Water Wise Incentive Program

Reclamation Funding: \$300,000

Total Project Cost: \$1,195,202

The City of San Buenaventura will implement a rebate program that encourages landscape alterations to conserve water. Through the program, the City will replace 500,000 square feet of turf and provide rebates to install 12,500 low flow irrigation nozzles, 200 smart controllers, and 200 high-efficiency clothes washers. This project is expected to result in annual water savings of 191 acre-feet, which will reduce demand in an area that is at risk of not meeting drinking water demands due to the ongoing drought.

City of Buenaventura, Ventura Water System Optimization Improvements (Phase 1)

Reclamation Funding: \$229,631

Total Project Cost: \$574,078

The City of Buenaventura will also upgrade an existing pump and motor with a new high-efficiency pump and variable frequency drive motor. The City will also make improvements to the Saticoy Well #2 and will install 26 smart water meters that will be connected to the City's Supervisory Control and Data Acquisitions system. Implementing these improvements will allow the City to better account for its water production and losses.

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

Reclamation Funding: \$299,956

Total Project Cost: \$1,466,343

The Municipal Water District of Orange County will continue implementing a comprehensive landscape improvement program targeting residential and commercial properties throughout Orange County. The project includes: providing rebates to remove of 9.7 acres of non-functional turf grass and replacing it with California-friendly landscape; upgrading 980 irrigation timers to smart water application irrigation controllers; converting 127,000 high volume conventional spray irrigation heads to low-precipitation-rate irrigation equipment (rotating nozzles and drip); and offsetting some potable uses with alternative sustainable supplies. The project is expected to result in annual water savings of 1,160 acre-feet.

Central California Irrigation District, Molasses Ditch Lining Project

Reclamation Funding: \$300,000

Total Project Cost: \$787,350

The Central California Irrigation District in Stanislaus County, California, will replace approximately two miles of the earthen Molasses Ditch with a concrete lined canal. The District will also replace existing culverts with new pipe crossings at the proper elevations, construct a new water level control structure upstream of the canal split, and construct new headwork facilities. The project is expected to result in annual water savings of 476 acre-feet that is currently being lost to seepage. The District is also working with various farmers that are interested in working with the Natural Resources Conservation Service to convert to high efficiency irrigation systems once this project is completed.

Mojave Water Agency, Commercial, Industrial, and Institutional Turf Replacement Program
Reclamation Funding: \$300,000 **Total Project Cost: \$1,550,000**

The Mojave Water Agency in southern California will expand an existing "Cash for Grass" turf replacement program, which targets removal of turf from residential and small commercial landscapes. This project will replace 54 acres of turf with drought tolerant and desert adaptive plants, resulting in an expected annual water savings of 400 acre-feet. Conserved water will be used to meet existing needs within the Agency, which has had its water allocations reduced to only 10 percent of its contracted supply as a result of the ongoing drought.

West Basin Municipal Water District, Regional Landscape Water Use Efficiency Project
Reclamation Funding: \$300,000 **Total Project Cost: \$1,043,429**

The West Basin Municipal Water District in Carson, California, will continue to implement an ongoing water conservation rebate program, which provides a financial incentive to replace lawn with water-efficient landscaping. This project is expected to result in the replacement of approximately 450,000 square feet of grass turf with water efficient landscaping alternatives, which is expected to result in an annual water savings of 60 acre-feet, reducing the District's reliance on imported water.

City of Yucaipa, Wildwood Creek Basin 4 Groundwater Recharge and Water Management
Reclamation Funding: \$227,000 **Total Project Cost: \$454,000**

The City of Yucaipa will construct a 25 acre-foot retention basin along the Wildwood Creek to capture stormwater runoff and increase groundwater recharge. Recharged stormwater will increase local groundwater supplies and will reduce the City's reliance on imported water supplies. The project is expected to recharge 250 acre-feet of water per year.

Montague Water Conservation District, Upper Shasta River Flow Enhancement through Water Conservation
Reclamation Funding: \$975,000 **Total Project Cost: \$2,679,500**

The Montague Water Conservation District in northern California, will line a two-mile stretch of the District's main canal where the highest transmission losses occur with a geomembrane liner covered with shotcrete. The proposed project is expected to result in annual water savings of 1,100 acre-feet that is currently being lost to seepage. The District, working with the National Oceanic and Atmospheric Administration and the California Department of Fish and Wildlife, will dedicate a portion of the water conserved by this project to critical habitat in the Shasta River for Coho salmon.

City of Fresno, California, Friant-Kern Pipeline Project
Reclamation Funding: \$1,000,000 **Total Project Cost: \$17,852,020**

The City of Fresno will install 4.6 miles of 60-inch diameter pipe and a new turnout diversion structure, connecting the Friant-Kern Canal with the City's Northeast Surface Water Treatment Facility. The new pipeline will allow the City to bypass 47 miles of lined and unlined open channel canals that are currently used to deliver water to the Treatment Facility. The project will reduce seepage and is expected to result in annual water savings of 4,050 acre-feet. Conserved water will be delivered to the Treatment Facility, where it will be treated, then delivered to meet domestic, potable water demands within the City of Fresno. The project contributes to the strategies identified in the City's Water Resources Management Plan, which focuses on optimizing groundwater and surface water supplies so there is sufficient water during periods of sustained drought.

Western Municipal Water District, Arlington Basin Water Quality Improvement Project
Reclamation Funding: \$1,000,000 (\$200,000 in FY 2015) Total Project Cost: \$8,287,115

The Western Municipal Water District in Riverside, California, will construct a recharge basin with a monitoring well, an extraction well, and a raw water pipeline connecting the extraction well with the Arlington Desalter, in order to expand potable water production. As a result, the project will develop local groundwater sources for use in the District's service area thereby reducing reliance on imported water. Water supplies and groundwater storage across the Santa Ana River Watershed have been depleted to historic low levels and several basins are threatened by overdraft conditions due to reduced recharge as a result of the ongoing drought conditions. The project is expected to result in annual water savings of 1,800 acre-feet annually by capturing stormwater flows and developing local sources. The project implements adaptation strategies that were identified in the 2013 WaterSMART Santa Ana River Watershed Basin Study.

Coachella Valley Water District, Irrigation Lateral 99.8-0.51 Improvement Project
Reclamation Funding: \$1,000,000 Total Project Cost: \$8,185,567

The Coachella Valley Water District in southern California will convert approximately 18,500 linear feet of existing concrete pipe to pressurized PVC pipe. As part of the project, the District will also remove existing open concrete baffle stands along lateral 99.8-0.51 in order to reduce operational losses, and will install new supervisory control and data acquisition system equipment (some powered with solar) to help better manage the facility. The project is expected to result in annual water savings of 1,535 acre-feet that is currently being lost to spills and leaks. The conserved water will be used to offset groundwater pumping. The project implements adaptation strategies that were identified in the 2012 WaterSMART Colorado River Basin Water Supply and Demand Study, which the District participated in as a stakeholder.

Upper San Gabriel Valley Municipal Water District, Large Landscape Survey and Retrofit Program
Reclamation Funding: \$1,000,000 (\$500,000 in FY 2015) Total Project Cost: \$2,627,750

The Upper San Gabriel Valley Municipal Water District in Monrovia, California, will complete phase three of the District's on-going, three-phased "Large Landscape Survey and Retrofit Program." In this final phase, the District will identify and monitor large landscape sites and install retrofits/improvements at identified landscape sites. Proposed retrofits/improvements include digging out and replacing broken pipes and broken sprinkler heads and installing water based irrigation controllers, moisture sensor systems, and high efficiency nozzles. The project is expected to result in annual water savings of 763 acre-feet, which will reduce the District's reliance on imported water and will remain in the Colorado River and Bay-Delta system. The District is currently 100 percent reliant on imported water supplies, which are increasingly threatened by current drought conditions. This project helps to reduce reliance on these limited imported water supplies.

Bella Vista Water District, Renewable Energy, Advanced Metering Infrastructure, and Water Conservation Improvements
Reclamation Funding: \$999,938 (\$400,000 in FY 2015) Total Project Cost: \$2,842,158

The Bella Vista Water District in Redding, California, will install Advanced Metering Infrastructure equipment on the District's 200 largest agricultural and irrigation meters, replace 80 existing meters (propeller and turbine type) with more accurate meters (compound and magnetic flow type), and offer smart irrigation controllers and landscape irrigation audits to customers with large irrigation demand. The proposed meters, controllers and audits are expected to result in annual water savings of 438 acre-feet. Water conserved through the project will reduce the District's pumping demand from the Sacramento River. In addition, the project includes the installation of a 500 kilowatt solar facility that will be used to support District operations. The solar installation is expected to generate 775,691 kilowatt hours of energy annually, offsetting 72% of the District's annual electricity consumption.

Colorado

Uncompahgre Valley Water Users Association, South Canal Drop 4 Hydropower Development
Reclamation Funding: \$900,000 Total Project Cost: \$9,151,272

The Uncompahgre Valley Water Users Association in Montrose, Colorado, will install a 4.8 megawatt hydroelectric facility on the existing "Drop 4" irrigation canal drop structure located on the South Canal. The Association expects to generate 17,817,000 kilowatt hours annually, which will be provided locally to the City of Delta, Colorado. As part of the project, the Association will also pipe 1,344 linear feet of canal, thereby allowing water to bypass leaking canals through a steel penstock. The project is expected to result in annual water conservation of 77 acre-feet of water annually due to seepage. The water conserved by this project will be made available to downstream water users. The project implements adaptation strategies that were addressed in the 2012 WaterSMART Colorado River Basin Water Supply and Demand Study, which the Association participated in as a stakeholder.

Idaho

Salmon River Canal Company, Canal Lining and Energy Conservation Project
Reclamation Funding: \$300,000 Total Project Cost: \$708,746

The Salmon River Canal Company in Twin Falls, Idaho, will line 19,619 linear feet of the unlined Lateral 214 with a heavy-duty geocomposite fabric. In addition, the project will widen the lateral to allow for future planned improvements for water delivery and management. The project is expected to result in annual water savings of 2,069 acre-feet, which will remain in the Salmon Falls Creek watersheds instead of being diverted.

North Side Pumping Company, Pumping Station 4 Closure & Pump Ditch Abandonment Project
Reclamation Funding: \$600,000 Total Project Cost: \$1,297,073

The North Side Pumping Company near Twin Falls, Idaho, will implement a modernization project that will eliminate 20.5 miles of open-ditch water delivery systems and close an outdated, century-old pumping plant. The project includes building regulating reservoirs, connecting water users to new lateral canal delivery points, installing individual headgates and measurement devices, and automating deliveries with variable frequency drives. The project is expected to result in annual water savings of 9,150 acre-feet by reducing water currently lost to spills, evaporation, and seepage. Water savings

resulting from the project will assist in addressing shortages the Company is experiencing as a result of ongoing drought conditions. The closure of the pumping plant will result in an overall annual reduction of approximately 522,000 kilowatt hours of energy.

St. John's Irrigating Company, St. John's Canal Enclosure Project

Reclamation Funding: \$1,000,000 (\$400,000 in FY 2015)

Total Project Cost: \$2,429,775

The St. John's Irrigating Company in southeastern Idaho will pipe a 6-mile portion of the Company's main open ditch canal and a one-mile section of laterals. An inlet/screening structure will be constructed along with an outlet structure and meters will be placed on all laterals that are along the new pipeline. The project is expected to result in annual water savings of 1,454 acre-feet currently being lost to seepage. Conserved water will be used primarily to meet existing irrigation demands.

Montana

Big Springs Ditch, Water Conservation Project

Reclamation Funding: \$300,000

Total Project Cost: \$914,953

Big Springs Ditch, located outside of Helena, Montana, will convert over 3,000 feet of open canal to 54-inch reinforced polyethylene pipe. The project is expected to result in annual water savings of 4,496 acre-feet that is currently being lost to seepage. The project will also stabilize the Montana Rail Link railroad line built directly above the canal. The conserved water will reduce reliance on alternate water supplies.

Fort Shaw Irrigation District, Conversion to Pipeline Water Conservation Project

Reclamation Funding: \$298,866

Total Project Cost: \$606,606

The Fort Shaw Irrigation District in Montana will convert approximately 2 miles of open ditch canal to buried PVC pipe. The project is expected to result in annual water savings of 5,460 acre-feet currently lost to seepage. The project is expected to improve water efficiency and instream flows in the Sun River, which has gone dry below the District's head works on numerous occasions over the past ten years.

Sidney Water Users Irrigation District, District 1 & 2 Main Canal to Pipeline Water Conservation Project (Phase 5)

Reclamation Funding: \$156,597

Total Project Cost: \$317,444

The Sidney Water Users Irrigation District in eastern Montana will replace 24,200 feet of open canal with 11,400 feet of closed conduit pipeline. The project will reduce seepage, evaporation, and spills, and is expected to result in annual water savings of 1,225 acre-feet. As part of the project, the District will also install measurement devices at turnouts, providing real-time consumption data to allow for volumetric pricing. Conserved water will benefit in-stream flows in the Yellowstone River. 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.

Nebraska

Bostwick Irrigation District in Nebraska, Conservation of Water by Converting Franklin Canal Lateral 38.9 from Open Ditch to Buried Pipe

Reclamation Funding: \$169,692

Total Project Cost: \$381,011

The Bostwick Irrigation District in Red Cloud, Nebraska will replace 2.7 miles of open ditch canal lateral with buried pipe, an improvement that is expected to result in annual water savings of 620 acre-feet that is currently being lost to seepage and evaporation. The water saved will be stored by the Harlan County Reservoir to supplement supply during dry years. Water that exceeds storage capability of the reservoir will be passed to downstream users. The District completed a WaterSMART System Optimization Review grant in 2011, which evaluated a variety of efficiency options for the District, including converting from open ditch to pipe.

Nevada

Truckee-Carson Irrigation District, Installation of SatLink2 on Flow Measurement Devices

Reclamation Funding: \$97,769

Total Project Cost: \$195,538

The Truckee-Carson Irrigation District in Fallon, Nevada, will install 50 SatLink2 devices that will allow for remote monitoring of irrigation water deliveries. The project is expected to result in annual water savings of 4,573 acre-feet as a result of reduced spills and over-deliveries, which will remain in the Lahontan Reservoir.

Southern Nevada Water Authority, Water Smart Landscapes Rebate Program

Reclamation Funding: \$300,000

Total Project Cost: \$3,300,000

The Southern Nevada Water Authority will expand its existing 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 2,578,125 square feet of turf, with an expected water savings of 441 acre-feet per year. Water conserved through this project will be left in the Colorado River for instream uses in the Colorado River Basin and will contribute to existing water banks in California, Arizona, and Southern Nevada.

New Mexico

Navajo Agricultural Product Industry, Create and Implement a Comprehensive Water Management Web-Based Tool for Ordering and Delivering Irrigation Water

Reclamation Funding: \$157,000

Total Project Cost: \$315,600

The Navajo Agricultural Products Industry (NAPI) located in Farmington, New Mexico will install two 12 kilowatt in-line micro hydropower units in existing center pivot pipelines. The 48 megawatt hours of expected generation will power the two center pivots. In addition, NAPI will create and implement a web-based water management tool, allowing users to schedule, order, and deliver irrigation water, and better manage pumping load and control gate settings to ensure water deliveries and reduce spills. Through improved control gate settings and reduced spills, NAPI expects to conserve 580 acre-feet of water per year. Conserved water will allow the Navajo Nation to better meet reservation water demands.

Oregon

Santiam Water Control District, Irrigation System SCADA Automation and Water Measurement Improvement Project

Reclamation Funding: \$300,000

Total Project Cost: \$941,700

The Santiam Water Control District near Salem, Oregon, will automate numerous manual control gate and diversion structures within the canal system, including the automation of the District's small hydropower plant. The improvements will also include new and improved water measurement capabilities. More precise deliveries are expected to result in annual water savings of 2,150 acre-feet.

Klamath Irrigation District, Stukel Spill Project

Reclamation Funding: \$80,535

Total Project Cost: \$231,666

The Klamath Irrigation District in Klamath Falls, Oregon will design and construct a large capacity operational spill structure near the Stukel pump site. The spill will consist of a concrete intake structure and electric actuated roller gate, and a pipe discharge with measuring device and supervisory control and data acquisition intertie, which will discharge to Lost River. The project will provide for better management of water deliveries which will result in the reduction of diversions from Upper Klamath Lake.

Three Sisters Irrigation District, Main Canal Pipeline and Micro Hydro Generation Project

Reclamation Funding: \$1,000,000

Total Project Cost: \$4,737,906

The Three Sisters Irrigation District in Oregon will pipe 14,000 feet of the open Watson-McKenzie Main Canal. The project is expected to result in annual water savings of 1,900 acre feet that is currently being lost to seepage. A portion of the conserved water will be dedicated for instream flows to Whychus Creek in order to improve riparian habitat and benefit Bullhead Trout, Steelhead, Chinook and Sockeye Salmon, Oregon Spotted Frogs, willow flycatcher and yellow breasted chat. The District is working with the Deschutes River Conservancy to dedicate approximately 1,400 acre feet annually that will be conserved as a result of this project into a water right held by the State of Oregon. In addition, with completion of this project, pressurized water will eliminate electrical pumps on farm, which are using over 3 million kilowatt hours of electricity annually. The pressurized pipeline resulting from this project will also allow farmers who receive deliveries from the District to implement further improvements. As part of an existing partnership, the Natural Resources Conservation Service will provide assistance, as available, for those farmers to expedite coordinated water conservation improvements in the area. The project also includes the installation of 4 micro-hydro turbines, which have a combined energy capacity of 200 kilowatts.

North Unit Irrigation District, Lateral 58-11 Piping Project

Reclamation Funding: \$704,478

Total Project Cost: \$1,525,545

The North Unit Irrigation District in Madras, Oregon, will pipe two miles of the 58-11 open ditch lateral to address seepage losses. The project will also include installation of 8 pressurized deliveries to District landowners. The project is expected to result in annual water savings of 570 acre-feet. Through a partnership with the Deschutes River Conservancy, conserved water will be marketed to restore instream flows in a critical reach of the Crooked River.

Tumalo Irrigation District, Piping of the Tumalo Feed Canal (Phase IV)

Reclamation Funding: \$1,000,000 (\$500,000 in FY 2015)

Total Project Cost: \$2,100,000

The Tumalo Irrigation District near Bend, Oregon, will complete Phase IV of the Tumalo Feed Canal Piping Project. Phase IV of the project includes piping 3,400 feet of the remaining 6-mile open canal system, which is expected to result in annual water savings of 776 acre-feet currently being lost to seepage and evaporation. The conserved water will be dedicated to the State of Oregon for permanent instream flows for use in Tumalo Creek, Crescent Creek, and the Little Deschutes River.

Texas

Cameron County Irrigation District No. 6, Conversion of the Saldana Canal into Pipeline, Elimination of the Saldana Pump by Construction of Aerial Crossing and Solar Powered Second Lift Pump

Reclamation Funding: \$300,000

Total Project Cost: \$769,231

The Cameron County Irrigation District No. 6 in southern Texas will enclose 3,800 feet of open canal with pipe, replace an existing pump station with a new aerial crossing, and install a solar powered lift pump. The project is expected to result in annual water savings of 275 acre-feet through reduced seepage losses, which will help to alleviate shortages due to drought in the Lower Rio Grande Basin. In addition, the solar powered lift pump is expected to generate 53,000 kilowatt-hours per year. The project also includes the construction of an outlet that will facilitate supplying water to the Lower Rio Grande Valley National Wildlife Refuge. Conserved water will be allocated to District customers and the Wildlife Refuge.

Santa Cruz Irrigation District No. 15, Shotcrete Lining of the N-Canal, Installation of a VFD at Pump-15, and Wind Powered Alternative at Pump 15

Reclamation Funding: \$300,000

Total Project Cost: \$1,250,000

The Santa Cruz Irrigation District No. 15 in southern Texas will line 7,265 feet of the existing N-Canal, install a variable frequency drive at the existing Pump-15 Lift Station, and construct a wind powered pump to provide auxiliary power to the Pump-15 Lift Station. Annually, the project is expected to result in water savings of 955 acre-feet by eliminating seepage in the canal and wind power generation of 1,733 kilowatt-hours. Conserved water will be left in the system.

Hidalgo County Irrigation District #2, Relining and Retrofit of the Two Existing Check Gate Structures of the Alamo Main Canal

Reclamation Funding: \$1,000,000

Total Project Cost: \$5,422,702

The Hidalgo County Irrigation District #2 in southern Texas will line 5.3 miles of the unlined Alamo Main Canal, install a small solar power supply at the District's office, and install advanced check gate structures. The project is expected to result in annual water savings of 2,021 acre-feet that is currently lost to spills and seepage. The project implements adaptation strategies that were identified in the completed 2013 WaterSMART Lower Rio Grande Basin Study, which the District participated in as a cost-share partner.

Utah

Newton Water Users Association, Canal Piping Project

Reclamation Funding: \$300,000

Total Project Cost: \$3,560,000

The Newton Water Users Association in northern Utah will convert an earthen and concrete canal to a 6.6 mile high-density polyethylene pipeline below the Reclamation Newton Dam. The project will reduce evaporation, seepage, and over-runs, which is expected to result in annual water savings of 1,980 acre-feet. Once completed, the pressurized pipeline will allow irrigators to complete on-farm improvements, such as retrofitting pumps with variable speed motors and smaller horsepower motors and installing pivots. The project also includes the installation of 36 flowmeters and a solar-powered metering system at service laterals, which will allow the Association to provide more accurate consumption data to customers. Conserved water will remain in the Newton Reservoir.

Welby Jacob Water Users Company, Welby Jacob Canal Water Efficiency Project

Reclamation Funding: \$230,190

Total Project Cost: \$511,535

The Welby Jacob Water Users Company near Salt Lake City will install 75 measurement structures with supervisory control and data acquisition systems on the Welby Jacob canal system. The project is expected to result in annual water savings of 4,960 acre-feet, which is currently lost to seepage, evaporation, and operational spills. Conserved water will remain in Utah Lake and Deer Creek Reservoir.

Weber River Water Users Association, Weber River Flow Measurement Project

Reclamation Funding: \$53,665

Total Project Cost: \$107,330

The Weber River Water Users Association in Sunset, Utah will install flow measurement stations at seven key locations within the Weber River basin to more accurately and efficiently distribute available supplies. Improved flow measurement will help minimize or avoid future conflict among water users affected by the operation of the river. The project is expected to result in annual water savings of 4,635 acre-feet per year through elimination of over deliveries. Conserved water will be made available for storage in the multiple system reservoirs, providing greater water supply in the Weber River basin, which has suffered from one of its worst drought periods on record (2012 to 2014).

Daniel Irrigation Company, Daniel Irrigation Company Canal Piping

Reclamation Funding: \$224,318

Total Project Cost: \$498,484

The Daniel Irrigation Company near Provo, Utah, will convert 1.3 miles of open canal to a fully enclosed pipeline. The project is expected to result in annual water savings of 2,003 acre-feet of water annually from reduced seepage. Conserved water will remain in Daniels Creek for use by downstream users.

Moon Lake Water Users Association, Yellowstone Feeder Canal Improvements

Reclamation Funding: \$300,000

Total Project Cost: \$1,122,000

The Moon Lake Water Users Association in Altonah, Utah, will pipe 4,000 feet of critical areas within the first 10.6 miles of the Yellowstone Feeder Canal. Piping these areas of canal is expected to result in annual water savings of 481 acre-feet by reducing seepage and spills. The project implements adaptation strategies that were identified in the 2012 WaterSMART Colorado River Basin Water Supply and Demand Study.

Sandy City Corporation, Advanced Water Metering Infrastructure Program

Reclamation Funding: \$300,000

Total Project Cost: \$2,784,046

Sandy City will install 9,219 new water meters for residential, commercial, and irrigation users along with a new smart meter software system, as part of its ongoing Advanced Metering Infrastructure Program. The project is expected to result in annual water savings of 470 acre-feet from reduced usage.

Davis and Weber Counties Canal Company, Canal Piping and Hydro Project

Reclamation Funding: \$300,000

Total Project Cost: \$750,478

The Davis and Weber Counties Canal Company in Sunset, Utah, will enclose 2,000 feet of open, unlined earthen canal with a 66-inch diameter reinforced concrete pipe. The proposed project will reduce seepage and is expected to result in annual water savings of 365 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 10 kilowatt hydropower turbine along the main canal, which is expected to generate 43,200 kilowatt hours of energy each 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.

Davis and Weber Counties Canal Company, Secondary Water Irrigation Metering and Hydro Project

Reclamation Funding: \$300,000

Total Project Cost: \$750,200

The Davis and Weber Counties Canal Company will also install 700 meters for secondary water end users, which is expected to result in annual water savings of 152 acre-feet that is currently being lost to overuse. Conserved water will be left in the Echo and East Canyon reservoirs, providing a more secure water right, mitigating drought, and providing irrigation, residential, and environmental benefits. In addition, the Company will install a 20 kilowatt small hydropower generation reversible pump turbine at the end of the secondary water system's lowest elevation reservoir main diversion, which is expected to generate 27,000 kilowatt hours of power per year. 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.

Woodruff Irrigation District, Woodruff Pressurized Irrigation Project

Reclamation Funding: \$1,000,000 (\$750,000 in FY 2015)

Total Project Cost: \$4,200,000

The Woodruff Irrigation District in northern Utah will convert 20 miles of open canal to 9 miles of pressurized PVC pipe. The project is expected to result in annual water savings of 3,600 acre-feet, which is currently being lost to seepage. Conserved water will be used to address shortages as a result of ongoing drought conditions and will otherwise remain in the Bear River system.

Marion Upper Ditch Company, Marion Upper and Lower Ditches Piping Project
Reclamation Funding: \$1,000,000 (\$600,000 in FY 2015) Total Project Cost: \$2,480,500

The Marion Upper Ditch Company located near Salt Lake City, Utah, will eliminate two existing open, gravity-flow ditches--one within the Marion Upper Ditch Company and one within the Marion Lower Ditch Company--and replace them with one 6.25 mile stretch of pressurized high density polyethylene pipe. The proposed project will reduce seepage, evaporation, and spills, which is expected to result in annual water savings of 2,919 acre-feet. Conserved water will be made available to existing shareholders and to downstream users, including the Echo and Rockport Reservoirs. As part of the project, the Company will also install a 3.7 kilowatt micro-hydro unit, which is expected to generate 10,656 kilowatt hours of energy per year. Upon completion of the project, users will be able to convert from flood irrigation to efficient sprinkler systems.

Ephraim Irrigation Company, Gobblefield Ditch Piping and Ephraim Tunnel Improvements
Reclamation Funding: \$1,000,000 (\$500,000 in FY 2015) Total Project Cost: \$3,337,500

The Ephraim Irrigation Company in central Utah will work with Ephraim City of pipe the Gobblefield Ditch and upgrade the Ephraim Tunnel. The project will convert 3.5 miles of the open Gobblefield Ditch canal to polyvinyl chloride pipe and will include installation of seven turnouts along the pipeline to deliver water to small regulating ponds. As part of the project, the Ephraim Tunnel, which is a major water conveyance facility for both the Company as well as Ephraim City, will be upgraded by inserting a new 54 inch diameter high-density polyethylene pipeline, encased in cellular concrete, which will increase the efficiency and flow capacity of the tunnel, as well as to provide needed stabilization. The project is expected to result in annual water savings of 1,360 acre-feet currently lost to seepage and evaporation, which will be used to address shortages.

Payson City, Payson City Pressurized Irrigation Meters
Reclamation Funding: \$300,000 Total Project Cost: \$2,757,492

Payson City Corporation will install 4,473 individual residential irrigation meters with radio telemetry to the existing Payson City Secondary Pressurized Irrigation System. Through this project, Payson City will be able to monitor irrigation usage throughout the city. The project is expected to save approximately 677 acre-feet of water per year. Conserved water will reduce reliance on groundwater and will be stored in the system irrigation ponds, with excess going back into Peteetneet Creek to be used by other users.

Washington

Quincy-Columbia Basin Irrigation District, W53.1D Canal Lining
Reclamation Funding: \$300,000 Total Project Cost: \$700,000

The Quincy-Columbia Basin Irrigation District in Quincy, Washington, will line 7,000 feet of the W53.1D earthen lateral with a geomembrane liner in combination with concrete. The project is expected to result in annual water savings of 841 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.

City of Quincy, Water Reclamation and Pipeline Project

Reclamation Funding: \$1,000,000

Total Project Cost: \$14,500,000

The City of Quincy will complete the final design and construction of a wastewater reuse facility and conveyance pipeline project. The project includes the installation of additional primary filtration systems and a reverse osmosis system at the City's existing Industrial Reuse Water Treatment Plant. The project also includes construction of a pumping station and discharge pipeline to convey industrial reuse water and reclaimed water for irrigation or groundwater recharge. The project is expected to result in the addition of 3,147 acre-feet of alternative water supply annually.

East Columbia Basin Irrigation District, Installation of Conservation Pipelines--Block 47

Reclamation Funding: \$300,000

Total Project Cost: \$766,000

The East Columbia Basin Irrigation District in Washington will convert 25,783 feet of open canals to 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. This project is expected to result in water savings of 1,400 acre-feet annually and is expected to lead to annual energy savings of approximately 781,000 kilowatt hours through reduction in the amount of water pumped through Grand Coulee Dam.