FY 2013 WaterSMART Water and Energy Efficiency Grants

Arizona

City of Goodyear, Arizona, Initial Vadose Zone Recharge
Reclamation Funding: $300,000 **Total Project Cost: $2,163,350**
The City of Goodyear, Arizona will install five new injection wells so that available reclaimed water can be used to recharge the West Salt River Aquifer. The project is expected to result in water savings of 2,800 acre-feet annually by allowing for storage of a locally available supply that can be used to meet future demands.

Avra Valley Irrigation and Drainage District, Water and Energy Efficiency Improvement Program
Reclamation Funding: $299,790 **Total Project Cost: $751,846**
The Avra Valley Irrigation and Drainage District, near Tucson, Arizona, will install 3.2 miles of geomembrane canal liner to address seepage losses. The project is expected to result in water savings of 525 acre-feet annually. The District will also install flow meters and two new, more-efficient electric motors on irrigation pumps. Water savings resulting from the project will enable the District to reduce groundwater pumping, which will contribute to sustainable management of the aquifer in the Tucson Active Management Area. The District also expects to reduce energy consumption by approximately 2,635,918 kilowatt-hours each year through avoided pumping and installation of more efficient motors.

California

Hoopa Valley Tribe, Conserving Waters of the Hoopa Valley Indian Reservation
Reclamation Funding: $1,040,988 **Total Project Cost: $2,121,956**
The Hoopa Valley Tribe in northern California will install over 20,000 linear feet of new HDPE pipe to address inefficiencies in the existing delivery system of open ditches and pipes. The project also includes installation of an infiltration gallery, a new pump, and metering to better monitor water usage. The project is expected to result in 379 acre-feet of water savings annually. The Tribe estimates that reduced pumping requirements of the pressurization of the system, along with installation of one variable frequency drive pump as part of the project, will result in 148,399 kilowatt hours of energy savings each year. Water conserved through the project will be left in Soctish Creek and Captain John Creek and will eventually feed into the Trinity River and lower Klamath River where it will benefit threatened Coho Salmon and Green Sturgeon.

Henry Miller Reclamation District #2131, Island Canal System Modernization
Reclamation Funding: $ 1,332,506 **Total Project Cost: $2,719,400**
The Henry Miller Reclamation District #2131 in California will make improvements to its Island Canal system, including constructing new automatic flow control structures, two automatic spillways, a new regulating reservoir, and a flow and water quality monitoring station. The project is intended to reduce operational spills and to make more precise deliveries. The project is expected to result in water savings of 4,150 acre-feet annually, which will allow the District to reduce diversions from the Delta-Mendota Canal.

Patterson Irrigation District, Marshall Road and Spanish Drain Return System
Reclamation Funding: $1,500,000 **Total Project Cost: $3,200,000**
The Patterson Irrigation District in the San Joaquin Valley of California will install 3 new pump stations and approximately 3.7 miles of new pipeline so that water from the District's drains can be recovered and pumped back into the delivery system for use, reducing the need for water from other sources. The project is expected to result in 5,000 acre-feet of water savings annually, which will allow the District to market that amount through existing and new water transfer agreements.

Klamath Drainage District, West Side Water Recycling Improvement Project
Reclamation Funding: $129,556 **Total Project Cost: $311,753**
The Klamath Drainage District will install ten culverts with new headgates at five locations within the District's drainage system. The improvements will allow the District to reuse drainage water for irrigation to reduce the diversions necessary from the Klamath River. The project is expected to result in water savings of 7,953 acre-feet annually.

Tranquillity Irrigation District, East-West Intertie Water Conservation Project
Reclamation Funding: $300,000 **Total Project Cost: $681,645**
The Tranquillity Irrigation District, near Fresno, California, will connect two separate District distribution systems to increase efficiency. The project includes the construction of a pumping plant equipped with a Supervisory Control and Data Acquisitions system and flow meter and installation of a half-mile pipeline to connect the distribution systems. As a result, the project will reduce seepage, evaporation, and storage losses, expected to result in water savings of 630 acre-feet annually. The District also expects to reduce energy consumption by approximately 216,100 kilowatt-hours each year by reducing pumping requirements.

Eastern Municipal Water District, Meter Data Management System
Reclamation Funding: $217,000 **Total Project Cost: $434,000**
The Eastern Municipal Water District in southern California will install a Meter Data Management System covering 70, 000 customers in the District's service area. The project will increase water use efficiency within the District and is expected to result in water savings of 1,890 acre-feet annually.

Western Municipal Water District of Riverside County, High Efficiency Urinal Flush-valve Upgrade Project
Reclamation Funding: $209,157 **Total Project Cost: $584,157**
The Western Municipal Water District of Riverside County, California will install 2,000 high-efficiency flush valves on urinals throughout Riverside, through a direct install program. The project is expected to conserve 123 acre-feet annually.

Ivanhoe Irrigation District, Control System Project: 68 Main
Reclamation Funding: $300,000 **Total Project Cost: $752,500**
The Ivanhoe Irrigation District, near Visalia, California, will automate the 68 Main distribution system by installing a Supervisory Control and Data Acquisitions system and automating five control in-line gate valves. By automating the 68 Main distribution system, the District will improve water delivery efficiencies and reduce groundwater pumping in an area experiencing groundwater overdraft. The project is expected to result in water savings of 413 acre-feet annually.

Madera Irrigation District, Irrigation Water Conservation, Telemetry and Delivery System Management Improvement Project
Reclamation Funding: $299,608 **Total Project Cost: $599,217**
The Madera Irrigation District, near Fresno, California, will implement various efficiency improvements throughout its delivery system, including the installation of automated flume gates, a new Supervisory Control and Data Acquisitions system, and flow meters. The project is expected to result in water savings of 2,925 acre-feet annually through reduction of operational spills.

Colorado

Uncompahgre Valley Water Users Association, Headgate Automation, Remote Monitoring & Supervisory Control and Data Acquisitions System
Reclamation Funding: $38,758 **Total Project Cost: $86,128**
The Uncompahgre Valley Water Users Association in Montrose, Colorado will install new automatic headgate controls and a Supervisory Control and Data Acquisitions system on the M&D and Ironstone Canals to better manage water supplies throughout the delivery system. By completing these improvements, the Uncompahgre Valley Water Users Association is directly addressing the Conveyance System Efficiency Improvements adaptation strategy identified in Technical Report F of the 2012 WaterSMART Colorado River Basin Water Supply and Demand Study. The project is expected to result in the better management of approximately 309,704 acre-feet of water annually.

Idaho

Idaho Water Resource Board, Provide Flow Measurement Devices to Delivery Points
Reclamation Funding: $153,837 **Total Project Cost: $341,859**
The Idaho Water Resource Board will install flow measurement devices and remote monitoring equipment at 22 diversion sites to improve water management in an area where water users do not currently have the capacity to measure diversions accurately. Once the project has been completed, water users will be able to ensure that diversions precisely match water rights, thereby avoiding any excess deliveries in a basin where water demands for irrigation and hydropower generation must be balanced. The project is expected to result in water savings of 5,014 acre-feet each year, which will remain in the Snake River.

Twin Falls Canal Company, Kinyon Pond Re-regulation Reservoir
Reclamation Funding: $300,000 **Total Project Cost: $1,565,805**
The Twin Falls Canal Company in Idaho will construct a 200 acre-foot capacity re-regulating reservoir and will install a new concrete check structure and other improvements so that water currently lost to spills can be captured for use within the system. The project is expected to result in water savings of 13,500 acre-feet annually by reducing the amount of water needed within the system to make deliveries to growers.

Montana

Fort Shaw Irrigation District, Improving Fort Shaw Irrigation District Water Efficiency to Improve Sun River Flow – Phase II
Reclamation Funding: $199,537 **Total Project Cost: $788,329**
The Fort Shaw Irrigation District in Fort Shaw, Montana will convert 10,800 feet of open ditch canal to pipeline and will work with landowners to install six new center pivots, allowing growers to switch from flood irrigation to increase efficiency. The project is expected to result in water savings of 2,628 acre-feet annually. Conserved water will be left in the Sun River to help maintain and improve minimum stream flows to sustain the ecology of the river system.

Greenfields Irrigation District, Improving Greenfields Irrigation District Water Efficiency to Improve Sun River Flow - Phase II
Reclamation Funding: $126,560 **Total Project Cost: $373,415**
The Greenfields Irrigation District, near Great Falls, Montana, will convert 8,650 feet of open ditches to pipeline so that wastewater may be pumped back into the District's delivery system, thereby reducing wastewater flows. The project is part of the continuing efforts of the District, working with the Sun River Watershed Group and others, to address problematic wastewater flows into Muddy, Freezout, Big Coulee and Mill Coulee Creeks. The construction of the project is expected to allow for the reuse of approximately 4,000 acre-feet of water annually. Water conserved by this project will be left in the Sun River to enhance instream flows.

Nebraska

Bostwick Irrigation District, Water Conservation Project
Reclamation Funding: $300,000 **Total Project Cost: $691,711**
The Bostwick Irrigation District in Nebraska will convert 6.8 miles of open ditch to buried pipe, an improvement that is expected to result in water savings of 1,520 acre-feet annually that is currently being lost to seepage and evaporation. The project also includes the installation of an automated gate to more accurately measure water deliveries. Water conserved as a result of this project will be stored in the Harlan County Reservoir, on the Republican River to maintain high lake levels and future water supply and for use during drought years.

Nevada

Southern Nevada Water Authority, Landscape 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 2.6 million square feet of turf, with an expected water savings of 448 acre-feet per year. Water conserved through this project will be left in the Colorado River for instream uses in the historically threatened Colorado River Basin and will contribute to existing water banks in California, Arizona, and Southern Nevada.

Northern Mariana Islands

Commonwealth Utilities Corporation, Water Loss Reduction and Energy Saving Project
Reclamation Funding: $300,000 **Total Project Cost: $600,000**
The Commonwealth Utilities Corporation, on Saipan in the Northern Mariana Islands, will install 1,000 new advanced water meters for agricultural and domestic customers and will then address identified water losses. The project also includes installation of the first phase of a Supervisory Control and Data Acquisition system to better manage water delivery. The improvements are expected to result in water savings of 1,562 acre-feet annually, which will increase the sustainability of Saipan's limited groundwater supplies.

Oregon

Central Oregon Irrigation District, Juniper Ridge Phase II Piping Project
Reclamation Funding: $1,500,000 **Total Project Cost: $6,531,166**
The Central Oregon Irrigation District will convert 4,500 linear feet of the Pilot Butte canal to spiral wound, coated steel pipe, an improvement expected to result in water savings of 2,552 acre-feet each year. Through a partnership with the Deschutes River Conservancy, 2,000 acre-feet of conserved water will be allocated as a permanent instream flow to support water quality and habitat improvements in a reach of the Crooked River that is critical for endangered Middle Columbia Steelhead. The remaining 552 acre-feet of conserved water will be allocated for permanent instream flow in the middle Deschutes River. The District estimates that 543,343 kilowatt hours of energy savings annually will result from reduced pumping and also estimates that completion of the project will allow for as much as 3,727,545 kilowatt hours of additional power generation annually from the existing Juniper Ridge Hydroelectric Plant.

Vale Oregon Irrigation District, Willow Creek Pipeline Project
Reclamation Funding: $1,258,200 **Total Project Cost: $2,516,400**
The Vale Oregon Irrigation District will convert 61,439 linear feet of lateral canals to enclosed pipe to address seepage losses. The project is expected to result in 5,450 acre-feet of water savings annually, which will remain in Beulah Reservoir, benefitting threatened bull trout. Completion of a new pressurized system is expected to facilitate steps by landowners to convert from flood irrigation to sprinkler irrigation in the future.

Talent Irrigation District, Jasmine Water Conservation Project
Reclamation Funding: $205,643 **Total Project Cost: $411,287**
The Talent Irrigation District in Oregon will convert 1.3 miles of the open Talent Canal to pipelines to address seepage losses. This project is the last phase of an overall conservation project to pipe the lower 4.9 miles of the Talent Canal. The project is expected to result in water savings of 792 acre-feet annually. Conserved water will be stored in nearby reservoirs to enhance deliveries and make more water available for future use.

Texas

United Irrigation District, Canal Lining, Main Flume Improvement, Wind Powered Pump, and Other Improvements
Reclamation Funding: $1,333,901 **Total Project Cost: $2,778,961**
The United Irrigation District, near McAllen, Texas, will address continuing drought conditions in the area by completing a number of improvements to its system. Improvements include lining of 4.5 miles of canal with concrete and fiber mesh, improvement of the main flume with a new double barrel siphon, and installation of a new wind powered pump. Once completed, the project is expected to result in water savings of 2,512 acre-feet each year, a portion of which will be marketed for municipal use. Additional water conserved as a result of the project will remain in the Lower Rio Grande Valley system and will be stored in Falcon Lake and Amistad Lake. The project also includes construction of a new outlet to the Lower Rio Grande Valley National Wildlife Refuge, which will allow for greater flexibility in management of water resources within the refuge and thereby benefit critical habitat for endangered and threatened species. The District also estimates that 310,630 kilowatt hours of energy will be saved each year as a result of the project.

Cameron County Irrigation District #2, Water Measurement and Control Project
Reclamation Funding: $224,889 **Total Project Cost: $461,169**
The Cameron County Irrigation District No. 2 in San Benito, Texas will install nine new automated gates, which will allow for more accurate measurement and control of water flow within the District's delivery system. The project is expected to result in water savings of 4,484 acre-feet annually through reduction of spills and elimination of inaccurate deliveries. Water conserved as a result of the project will be stored in Amistad and Falcon Reservoirs or will remain in the Rio Grande for downstream use. The District also expects to reduce energy consumption by approximately 117,525 kilowatt-hours each year through the project by reducing pumping requirements.

Rio Grande Regional Water Authority, Surge Valve Collaborative for On-farm Water Conservation in the Lower Rio Grande Valley
Reclamation Funding: $77,500 **Total Project Cost: $155,000**
The Rio Grande Regional Water Authority in Texas will work with local growers to install highly efficient surge valves to reduce over-saturation and spills. The project is expected to conserve 1,634 acre-feet annually in an area experiencing ongoing drought and water supply imbalances.

Utah

Fremont Irrigation Company, Improve Irrigation Efficiency and Provide Sustainability
Reclamation Funding: $ 1,500,000 Total Project Cost: $8,189,025
The Fremont Irrigation Company in southern Utah will convert 5.8 miles of open ditch and earthen canals to enclosed pipe, an improvement that is expected to result in water savings of 5,352 acre-feet each year by avoiding seepage and evaporation losses. Water conserved as a result of the project will be used to meet the needs of water users during periods of shortage. The project also includes installation of a 2.5 megawatt capacity hydroplant, taking advantage of the piping improvements to generate renewable energy at the Highline Ditch diversion.

Cub River Irrigation Company, Middle Ditch Water Conservation & Renewable Energy Piping Project
Reclamation Funding: $1,500,000 Total Project Cost: $4,026,000
The Cub River Irrigation Company in northern Utah will convert 6.5 miles of open ditch canal to pipe to address seepage and evaporation losses, improvements expected to result in 2,800 acre-feet of water savings each year. Water conserved as a result of the project will be left in the Bear River and is expected to benefit the Bear River Migratory Bird Refuge downstream. The project also includes installation of a 456 kilowatt capacity hydroplant to generate renewable energy once the pipeline is in place.

Strawberry Highline Canal Company, Genola Water and Energy Conservation Piping Project
Reclamation Funding: $300,000 Total Project Cost: $814,000
The Strawberry Highline Canal Company in Payson, Utah will convert 3.5 miles of the open Genola canal system to 1.75 miles of new pipeline that will use a more direct delivery route. The project also includes installation of two new flow meters with automated valves. By completing these improvements, the Strawberry Highline Canal Company is addressing several adaptation strategies identified in the 2012 WaterSMART Colorado River Basin Water Supply and Demand Study. The project is expected to result in water savings of 725 acre-feet annually that is currently being lost to seepage and evaporation. Water saved through the project will be available for future use, including municipal uses, in an area experiencing increased water demands due to population growth. Completion of the new pipeline is also expected to facilitate future on-farm improvement by providing growers with a direct connection to a pressurized system that can be used to convert from flood irrigation to more efficient sprinkler irrigation.

Wellsville-Mendon Conservation District, Canal Piping, Lining and Metering Water Conservation Project
Reclamation Funding: $183,000 Total Project Cost: $370,035
The Wellsville-Mendon Conservation District in northern Utah will line 2,250 feet of the Wellsville-Mendon Canal with a rubber membrane liner and pipe 1,800 feet of the Pump Canal with HDPE pipe to reduce seepage losses. The project also includes installation flow measurement devices and remote monitoring equipment to reduce operational spills and over deliveries to growers. This project is expected to result in water savings of 744 acre-feet annually, which will remain in the Hyrum Reservoir.

Weber Basin Water Conservancy District, Phase 3 Upper Willard Canal Lining and Water Marketing Project
Reclamation Funding: $1,500,000 Total Project Cost: $3,182,665
The Weber Basin Water Conservancy District, in Layton, Utah, will line approximately 2,900 feet of the Willard Canal that currently loses a significant amount of water to seepage. The project is the next step in the District's ongoing plan to increase the efficiency of its water delivery system. The District will also install a flow meter at the terminus of the lining and expand the Supervisory Control and Data Acquisitions system. The project is expected to result in water savings of 4,425 acre-feet annually in an area with significant projected population growth. Conserved water will be marketed to new or existing customers through water lease and exchange agreements. The District also estimates that the project will result in energy savings of 40,315 kilowatt hours through a reduction in pumping requirements.

Strawberry Highline Canal Company, Lateral 31 Pipe Conversion Project
Reclamation Funding: $300,000 Total Project Cost: $657,000
The Strawberry Highline Canal Company in Payson, Utah will convert 4,000 feet of the open Lateral 31 canal system to pipeline. By completing this improvement, the Strawberry Highline Canal Company is addressing several adaptation strategies identified in the 2012 WaterSMART Colorado River Basin Water Supply and Demand Study. The project is expected to result in water savings of 450 acre-feet annually that is a result currently being lost to seepage and evaporation. Water saved through the project will be available for future use, including municipal uses, in an area experiencing increased water demands due to population growth.

Washington

Kennewick Irrigation District, Ethylene Propylene Diene (EPDM) Canal Lining and Water Conservation Project
Reclamation Funding: $1,500,000 Total Project Cost: $6,975,357
The Kennewick Irrigation District in Washington will line 14.6 miles of existing earthen canal with a geomembrane liner, an improvement expected to result in water savings of 1,759 acre-feet annually. A portion of the water conserved as a result of the project will remain instream for additional fishery habitat in the Yakima River Basin, with remaining water savings used to shore up supplies during periods of shortage. The District also estimates that the project will result in energy savings of 228,459 kilowatt hours through a reduction in pumping requirements.

Roza Irrigation District, Enclosed Conduit Project Pump7
Reclamation Funding: $300,000 Total Project Cost: $1,428,014
The Roza Irrigation District in Sunnyside, Washington will complete the next phase of its ongoing water efficiency effort by converting 7.6 miles of lateral canal to pipeline and installing advanced flow meters to allow for better monitoring of deliveries. Conserved water will be stored in reservoirs to supplement existing water supplies for future needs or will remain in the Yakima River. Through completion of the project, the District is working to implement one of the adaptation strategies identified in the WaterSMART Basin Study completed in 2011 for the Yakima River Basin. The project is expected to result in water savings of 687 acre-feet annually by addressing current losses due to seepage, evaporation, and operational waste. The District also expects to reduce energy consumption by approximately 199,132 kilowatt-hours each year by reducing pumping requirements.

East Columbia Basin Irrigation District, Installation of Conservation Pipelines – Othello
Reclamation Funding: $300,000 Total Project Cost: $743,240
The East Columbia Basin Irrigation District in Washington will convert 17,590 feet of open canals to pipelines to address seepage losses. Conserved water will be left in the Columbia River or used to reduce existing groundwater pumped for irrigation to address significant aquifer depletion concerns. This project is expected to result in water savings of 829 acre-feet annually and is expected to lead to energy savings of approximately 463,000 kilowatt hours through reduction in the amount of water pumped through Grand Coulee Dam.

East Columbia Basin Irrigation District, Installation of Conservation Pipelines – Moses Lake
Reclamation Funding: $300,000 Total Project Cost: $659,032
The East Columbia Basin Irrigation District in Washington will convert 18,039 feet of open canals to pipelines to address seepage losses. Conserved water will be left in the Columbia River or used to reduce existing groundwater pumped for irrigation to address significant aquifer depletion concerns. This project is expected to result in water savings of 791 acre-feet annually and is expected to lead to energy savings of approximately 441,000 kilowatt hours through reduction in the amount of water pumped through Grand Coulee Dam.