BUREAU OF RECLAMATION

FY 2021 Small-Scale Water Efficiency Projects

Arizona

City of Glendale, Landscape Irrigation Technology Incentive Project for Municipal and Non-Residential Customers

Reclamation Funding: $75,000 **Total Project Cost: $109,085**

The City of Glendale, located in Maricopa County Arizona, will provide water-efficient irrigation equipment, including smart irrigation controllers, flow sensors, water-efficient pressure regulating sprinkler spray bodies, sprinkler nozzles, sprinkler check valves, and drip irrigation, to 10 municipal and non-residential customers. The goal of the program is to encourage recipients to plant water-efficient landscapes in the hot and dry climate. The project meets the environmental sustainability theme and conservation goals of the City of Glendale's updated General Plan, adopted by City Council in 2016.

City of Yuma, Water Distribution System Pressure and Temperature Monitoring

Reclamation Funding: $29,567 **Total Project Cost: $59,134**

The City of Yuma, located in southwestern Arizona, will retrofit 20 existing Clow Medallion fire hydrants with Clow iHydrant Pressure and Temperature monitoring devices. The project will result in real-time pressure and temperature monitoring of the City's water distribution system, which will allow for a rapid response to sudden changes outside of established parameters in the system. The project has been determined as a priority in the City of Yuma Integrated Master Plan.

Colorado River Indian Tribes, Continuous Flow Monitoring Gaging Stations, Colorado River Irrigation Project

Reclamation Funding: $75,000 **Total Project Cost: $157,076**

The Colorado River Indian Tribes, located in western Arizona, will install continuous water flow measurement at six sublateral heading sites and three spill sites on the Colorado River Irrigation Project. Continuous flow measurement coupled with future integration into the Supervisory Control and Data Acquisition system will result in improved data management that will provide the Tribe with improved and more accurate accounting of their Colorado River water allocation. More accurate accounting of water deliveries and spills will support state and regional goals to reduce water use as part of drought contingency planning efforts. The project supports the goals of several Colorado River Indian Tribes planning studies for improved water management.

Cortaro Water Users' Association, Gate Replacement and Automation

Reclamation Funding: $75,000 **Total Project Cost: $182,079**

The Cortaro Water Users' Association, located in southern Arizona, will install nine automatic, supervisory control and data acquisition (SCADA) controlled gates within the Cortaro-Marana Irrigation District. These solar powered gates will be connected to an existing SCADA system and allow for constant monitoring and automatic adjustment of flow rates. The project will accomplish priorities identified in a system analysis and system optimization study, which pointed out antiquated methods of measuring water that could be improved.

Global Water Resources, Municipal Metering with Advanced Metering Infrastructure Water Meters in Red Rock Arizona

Reclamation Funding: $75,000 **Total Project Cost: $187,393**

Global Water Resources, located in southern Arizona, will upgrade a total of 500 residential and commercial water meters with water meters that have advanced metering infrastructure (AMI) capabilities. AMI infrastructure will allow customers to easily access their water use data and receive near real time alerts enabling them to make informed water use decisions and take timely action to address leaks and unexpected consumption. This project supports Global Water Resources' Total Water Management Framework planning document. AMI metering projects are also part of larger regional conservation and mitigation strategies related to ongoing Reclamation basin studies in the area for the Lower Santa Cruz River Basin and the Eloy and Maricopa – Stanfield Basins.

Paloma Irrigation Drainage and Irrigation District, Installation of Automated Gates on Gila Bend Main Canal

Reclamation Funding: $75,000 **Total Project Cost: $170,984**

The Paloma Irrigation and Drainage District, located in southern Arizona, will modernize a segment of their system by installing three new automated turnout gates for water delivery to producers off the 34-mile long Gila Bend Main Canal. The new gates will provide more reliable and efficient water deliveries, prevention spills, reduced overflows, and improved coordination with water users. The project is identified as a priority in the District's Capital Improvement Plan and Water Conservation Plan.

Pioneer Irrigation Company, Pioneer Irrigation System Upgrade - Head Gate Installation

Reclamation Funding: $72,377 **Total Project Cost: $151,309**

The Pioneer Irrigation Company, located in western Arizona, will upgrade 33 headgates to provide more accurate water flow. Upgraded headgates will allow for more efficient and accurate measurement and release of water, easier mechanisms to open and close gates by water users, and elimination of seepage under gates or through improperly closed gates. The gates will reduce waste and allow the Company to leave more water in the area reservoirs for longer periods of time in the summer. The project is a high priority under the Company's 2019 Strategic Plan.

Unit B Irrigation, Piping Upgrade
Reclamation Funding: $75,000 **Total Project Cost: $151,500**

The Unit B Irrigation District, located in southwestern Arizona, will replace two 18-inch concrete pipelines with more efficient 30-inch polyvinyl chloride (PVC) pipeline. The PVC pipe will reduce leaking and seepage, which will enable the District to deliver water more efficiently. The project is included in the District's 2017 Water Conservation Plan.

Yuma County Water Users' Association, Miller Lateral- Water Conservation Project
Reclamation Funding: $75,000 **Total Project Cost: $168,454**

The Yuma County Water User's Association, located in southwestern Arizona, will convert 1,280 feet of open ditch into buried polyvinyl chloride pipeline. The project will provide a more efficient and reliable water delivery system by reducing evaporation seepage. Piping the section of canal will eliminate an above-grade feature and system operators will benefit from near instant delivery, flow rate changes, and shut-offs. This type of project is identified as a priority of the Association's five-year Water Conservation Plan.

California

Agua Caliente Band of Cahuilla Indians, Andreas Pipeline Water Meters and System Optimization
Reclamation Funding: $50,000 **Total Project Cost: $100,000**

The Agua Caliente Band of Cahuilla Indians, located in southern California, will make upgrades to improve water efficiency of Andreas Creak on the Agua Caliente Indian Reservation. The project includes installing five meters to measure the amount of water delivered from the Andreas Pipeline to the end users and replacing an existing electric pump with a pressurized, gravity-fed line. Both project components are recommended upgrades in a planning effort for improving water delivery from the Andreas Pipeline system.

Bard Water District, Pipeline Upgrade Project for the Sioux Lateral
Reclamation Funding: $75,000 **Total Project Cost: $203,014**

The Bard Water District, located in southern California near the Arizona border, will upgrade a black corrugated pipeline on the Sioux Lateral with 1,352 linear feet of 36-inch diameter reinforced concrete pipe. The new pipeline will reduce water lost from leakage, minimize the risk of cross-contamination of irrigation water, and reduce the amount of time required for on-site monitoring during water delivery. The project will also result in decreased losses associated with seepage, evaporation, and overflow. Water saved will be used to avoid reduced deliveries during periods of drought and will help the District prepare for future adverse conditions caused by drought. The project is identified as a system priority as part of the District's overall strategy to upgrade its irrigation system.

City of Aliso Viejo, Hall Landscaping Project
Reclamation Funding: $75,000 **Total Project Cost: $200,000**

The City of Aliso Viejo, located in southern California, will replace approximately 10,000 square feet of landscaping with drought-resistant landscaping, and upgrade the irrigation system for this landscaping to a drip irrigation system. The project will result in reduced overall water usage, improved water efficiency, and reduced maintenance costs. The project addresses the City's long-term goals of improving water efficiency in its landscaping, as established in the City's Water Efficient Landscape Program regulations and goals.

City of Milpitas, Pressure Monitor Data Logger Program
Reclamation Funding: $31,474 **Total Project Cost: $62,948**

The City of Milpitas, located near San Jose California, will improve the operational efficiency of its water distribution system by installing pressure monitoring equipment in the City's water system. The City will install 31 pressure data loggers at critical pressure regulating valve infrastructure sites and distributed within larger pressure zones to monitor pressure variation in the system. The project will result in fewer water leaks and faster leak detection, enabling the City to ensure optimal delivery of water throughout the system, increase water resiliency, and help to conserve water supply for future needs. The project meets the goals of the City's Ongoing Leak Management Program, Urban Water Management Plan, Water Shortage Contingency Plan, Water Master Plan, Capital Improvement Plan, and Climate Action Plan.

City of Long Beach, Direct Install Garden Program for Disadvantaged Communities Project
Reclamation Funding: $75,000 **Total Project Cost: $169,711**

The City of Long Beach, located in southern California, will replace 50,000 square-feet of turf with drought tolerant landscaping. The project will improve regional water supply reliability, improve water quality by reducing runoff from over irrigation, support climate resilience, and create green jobs in a disadvantaged community. The project supports the City's Water Shortage Contingency Plan and Urban Water Management Plan.

City of Santa Ana, Landscape Transformation Program
Reclamation Funding: $75,000 **Total Project Cost: $167,202**

The City of Santa Ana, located in southern California, will administer a residential landscaping conversion program to remove water-consumptive turf lawns and outdated irrigation infrastructure and replace with drought tolerant landscaping and high efficiency irrigation infrastructure. The grant funding will allow the City to subsidize the cost of turf removal and efficient irrigation infrastructure for disadvantaged communities who typically cannot afford the program's high up-front costs. The turf removal program is part of the City's Drought Action Plan.

City of Santa Rosa, Cash for Grass Rebate Expansion

Reclamation Funding: $75,000 **Total Project Cost: $150,265**

The City of Santa Rosa, located in northern California, will support outdoor water conservation by providing rebates to commercial customers to remove turf and replace with low water use plants. Increased program capacity will incentivize additional landscape conversions and increase water use efficiency. The City's 2015 Urban Water Management Plan identified active water use efficiency programs, such as the grass removal program, as a source of water supply to meet future demand.

City of Yuba City, Booster Pump Station Upgrade and Modernization Project

Reclamation Funding: $75,000 **Total Project Cost: $188,000**

The City of Yuba City, located in northern California, will upgrade booster pump stations from soft start systems to Variable Frequency Drives (VFDs). The VFDs will provide more flexibility when running pumps, and the project will allow the City to manage and maintain a more effective water distribution system. Project improvements were identified in the City's 2018 Water Master Plan.

Crescenta Valley Water District, Large Meter (Advanced Metering Infrastructure) Project

Reclamation Funding: $75,000 **Total Project Cost: $200,000**

The Crescenta Valley Water District, located in southern California, will expand its advanced metering infrastructure program by replacing nineteen 3-inch meters and two 4-inch meters for apartment and condominium complexes and park irrigation. The project will result in improved water reliability, better water data and increased public awareness of water use. The project supports several planning efforts including the District's 2015 Urban Water Management Plan.

El Dorado Hills Community Services District, Stephen Harris Park Water Savings

Reclamation Funding: $75,000 **Total Project Cost: $200,000**

The El Dorado Hills Community Services District, located in northern California, will replace a portion of turf with native vegetation and a high-efficiency irrigation system at the publicly owned Stephen Harris Park. The project will result in improved year-round water use efficiency and reduced operation and maintenance costs. The project supports the District's Master Plan and the County's Water Resources Development and Management Plan.

Helendale Community Service District, Advanced Metering Infrastructure Smart Meter Installation Program Phase III

Reclamation Funding: $75,000 **Total Project Cost: $199,937**

The Helendale Community Services District, located in southern California, will install 800 new smart meters and 425 advanced metering infrastructure radios at residential and commercial locations to replace the District's outdated meters and automatic meter read radios. The

upgraded meter technology will allow for more accurate, real-time water use data. The project will help support the District's water conservation ordinance that calls for a 25% reduction in water use compared to 2013.

Pajaro Valley Water Management Agency, Remote Data Acquisition for High Production Groundwater Wells and Coastal Distribution System Turnouts

Reclamation Funding: $75,000 **Total Project Cost: $150,005**

The Pajaro Valley Water Management Agency, located on California's central coast, will deploy remote telemetry equipment on 59 metered irrigation wells and eight turnouts that supply irrigation water to farms. The telemetry equipment will integrate directly into the meter registry and replace the mechanical register with a digital display for greater dependability of operation and accuracy of delivered data. The project will improve on-farm water management, prevent unauthorized or excessive water use, ensure water reporting accuracy, and help ensure water delivery demand are met. This project is supported by the Agency's Basin Management Plan and supporting Environmental Impact Reports.

Palmdale Water District, Advanced Metering Infrastructure and Customer Engagement Software

Reclamation Funding: $75,000 **Total Project Cost: $228,000**

The Palmdale Water District, located in Los Angeles County, California, will install five advanced metering infrastructure (AMI) gateways to collect usage data from the AMI meter registers and integrate it into the District's billing system. The project will increase billing accuracy and data transparency, which is anticipated to result in reduced customer water consumption. The project is supported by the collaborative Integrated Regional Water Management planning efforts.

Phelan Pinon Hills Community Services District, Advanced Metering Infrastructure Water Use Efficiency Project, Phase 3a

Reclamation Funding: $75,000 **Total Project Cost: $173,945**

The Phelan Pinon Hills Community Services District, located near Los Angeles, California, will upgrade 500 customer-side analog water meters to advanced metering infrastructure meters. The upgrade will help the District increase water use efficiency, improve water supply reliability, and reduce the number of vehicle miles to read meters. The project was prioritized due to the success of similar projects in neighboring service areas in increasing water efficiency.

South Coast Water District, Targeted Water Conservation Incentive Program

Reclamation Funding: $75,000 **Total Project Cost: $150,078**

The South Coast Water District, located in southern Orange County, California, will offer rebates to users replacing turf grass with low water use landscaping and synthetic turf. The program will focus on single and multi-family residential and commercial properties throughout the District's service area. The two-year program will result in reductions of potable water use, increased

irrigation efficiency, and reductions of landscape maintenance costs. The project is supported by the District's 2015 Urban Water Management Plan, which specifically identifies the rebate program as a top conservation measure.

Stockton East Water District, Advanced Metering with Telemetry for Turnouts

Reclamation Funding: $75,000 **Total Project Cost: $203,014**

The Stockton East Water District located south of Sacramento, California, will install electromagnetic flow meters with telemetry on 80 agricultural irrigation turnouts in the district, 60 of which currently have propeller meters and 20 of which are unmetered. The meter upgrades will enable the District to obtain real-time data on water diversion and improve water distribution and delivery. This project is supported by the 2019 Stockton East Water District Water Management Plan.

Valley County Water District, Upgrades to the Supervisory Control and Data Acquisition System

Reclamation Funding: $65,191 **Total Project Cost: $169,305**

The Valley County Water District, located east of Los Angeles, California, will upgrade their existing supervisory control and data acquisition system at five of the District's water distribution plants. The project will provide real-time data on conditions at the plants, including demands, and alarm notifications for sudden pressure drops or non-functioning valves, which will improve real-time management of water distribution and reduce water loss. The project has been prioritized through the District's 2020 Urban Water Management Plan.

Walnut Valley Water District, Exterior Retrofit Irrigation Project Phase 2

Reclamation Funding: $70,000 **Total Project Cost: $144,318**

The Walnut Valley Water District, located 20 miles east of the City of Los Angeles in southern California, will start phase 2 of its Exterior Retrofit Irrigation Program by offering the top 1% of water users in the District free landscape surveys, weather based irrigation controllers, and high efficiency sprinkler nozzle retrofits. The program will improve irrigation system water-use efficiency and water reliability in the service area. The project is included in the District's 2019 Strategic Vision Plan and the 2020 Water Use Efficiency Strategic Plan as a key water conservation measure.

West San Martin Water Works, Advanced Meter Infrastructure Conversion

Reclamation Funding: $57,823 **Total Project Cost: $115,647**

The West San Martin Water Works, located in Santa Clara County, California, will upgrade 269 manual-read meters to advanced metering infrastructure meters. The agency depends on local groundwater from the Llagas Groundwater Basin managed by the Valley Water District, which also holds all water rights for this groundwater basin. The upgraded meters will enhance long-term water use efficiency, and support water supply reliability in the groundwater basin. The

Llagas Groundwater Basin was listed as a high priority basin by the California Department of Water Resources' 2019 groundwater basins priority rankings.

Western Municipal Water District, Supervisory Control and Data Acquisition Master Plan - Wide Area Network Implementation Phase 1 for Water System Efficiency

Reclamation Funding: $70,000 **Total Project Cost: $140,000**

The Western Municipal Water District, located in Riverside County, California, will install supervisory control and data acquisition (SCADA) Wide Area Network capability at four reservoirs as part of an overall effort to upgrade and expand the SCADA telemetry system. The upgrade will increase the operational efficiency by allowing staff to view real-time operation data, including pressure and flow rates, and adjust in real-time. The project is supported by the District's SCADA Master Plan.

Yolo County Flood Control and Water Conservation, Canal System Headgate Automation

Reclamation Funding: $75,000 **Total Project Cost: $184,694**

The Yolo County Flood Control and Water Conservation District, located west of Sacramento, California, will install canal automation technology to seven canal headgates. This will allow for remote control automation of these headgates and help to improve water delivery efficiency and reduce operational spills. The proposed project assists the District comply with the requirements of the State of California's Water Measurement Compliance Program. The project also meets the goals of the Yolo County Integrated Regional Water Management Plan by increasing agricultural water use efficiency.

Yucaipa Valley Water District, Yucaipa Basin Groundwater Monitoring Project

Reclamation Funding: $75,000 **Total Project Cost: $163,267**

The Yucaipa Valley Water District, located in San Bernardino County, California, will install remote groundwater monitoring equipment on groundwater wells within the Yucaipa Basin in southern California. This equipment will be placed into ten existing production and monitoring wells to aid groundwater data collection. With more accurate and frequent groundwater level data, the District can make better-informed decisions on groundwater pumping and recharge and share this data with other stakeholders within the Yucaipa Basin. This project meets the goals in District's Sustainability Plan, Water Shortage Contingency Plan, and the Yucaipa Groundwater Sustainability Plan.

Colorado

City of Aspen, Irrigation Efficiency Assessment and Outdoor Rebate Program

Reclamation Funding: $75,000 **Total Project Cost: $151,400**

The City of Aspen, located in western Colorado, will add an irrigation efficiency rebate component to its existing irrigation efficiency program. The City will offer rebates to customers who have completed an irrigation assessment, for integration of smart controllers, conversion to

drip irrigation and high efficiency sprinkler heads, and replacement of turf with low water use plants. The City is highly dependent on snowpack and has very limited storage capacity. The rebate program will increase water use efficiency within the City's service area, which will improve overall water supply reliability for the City. The expansion of the Irrigation Efficiency program is supported by recommendations in the City's 2015 Municipal Water Efficiency Plan, the 2015 Roaring Water Efficiency Plan, and the 2012 Roaring Fork Watershed Plan.

City of Fort Collins, Xeriscape Incentive Program

Reclamation Funding: $75,000 **Total Project Cost: $175,205**

The City of Fort Collins, located in northern Colorado, will continue to offer their Xeriscape Incentive Program to commercial and homeowner association landscaping. This project will help the City reduce overall water demand through conversions to low water use landscaping and hardscaping. This project is supported by the City's 2016 Water Efficiency Plan.

City of Fountain, Efficient Irrigation Upgrade Project

Reclamation Funding: $7,053 **Total Project Cost: $14,106**

The City of Fountain, near Colorado Springs, Colorado, will upgrade to high efficiency sprinkler heads for irrigation of Fountain Mesa Park, a City park. The upgrades will include retrofitting 210 inefficient irrigation heads with efficient models. In Fountain, 40% of the City's water supply is used outdoors. This project will reduce strain on the water delivery system during peak irrigation season. The project is supported by the City's Municipal Water Efficiency Plan and Water Master Plan.

Cottonwood Water and Sanitation District, Automated Metering System Upgrade-Phase 2

Reclamation Funding: $75,000 **Total Project Cost: $177,894**

The Cottonwood Water and Sanitation District, located just south of Denver, Colorado, will upgrade 125 meters to smart meters and 601 meter endpoints to enable integration into an advanced metering infrastructure system. This project will provide real time water use statistics for billing and system monitoring purposes as well as eliminate the requirement for field meter reading services. The project is supported by the District's 2011 Water Conservation Plan, which was part of the Regional Water Conservation Plan submitted to the Colorado Water Conservation Board.

Inverness Water and Sanitation District, Automated Water Metering System Upgrade

Reclamation Funding: $75,000 **Total Project Cost: $186,799**

The Inverness Water and Sanitation District, located in the foothills west of Denver, Colorado, will upgrade 140 manual read meters to smart meters and upgrade 393 meter endpoints to enable integration into an advanced metering infrastructure system. The project will enable the District to establish a centralized meter reporting system to provide real-time water statistics for customer billing, system monitoring, and eliminate the need for field meter reading services. The

project is supported by the District's 2011 Water Conservation Plan, which was part of the Regional Water Conservation Plan submitted to the Colorado Water Conservation Board.

Purgatoire River Water Conservancy District, Water Control Gates Upgrade
Reclamation Funding: $74,322 **Total Project Cost: $148,644**

The Purgatoire River Water Conservancy District, located in southern Colorado, will replace three manually operated diversion headgates with new automated headgates. This project will increase diversion and water use efficiency by improving the timing of changes to river diversions, providing for more consistent diversion rates, and reduce manpower to manually make these changes. The project is supported by the 2020 River Assessment Report, completed by the Purgatoire River Partnership through a WaterSMART Cooperative Watershed Management Program grant.

Town of Estes Park, Water Division Smart Meter Installation Project
Reclamation Funding: $75,000 **Total Project Cost: $150,000**

The Town of Estes Park, located in Larimer County, Colorado, will upgrade 697 meters for residential and commercial customers with smart water meters capable of connecting to the Town's existing advanced metering infrastructure system. This smart metering technology will provide real-time water use statistics for billing and system monitoring purposes. The project is supported by the Town's 2021 Strategic Plan and Capital Improvement Plan.

Idaho

A&B Irrigation District, Groundwater Well Meter Upgrade in the Eastern Snake Plain Aquifer
Reclamation Funding: $47,434 **Total Project Cost: $94,686**

The A&B Irrigation District, located in southern Idaho, will replace propeller groundwater flow meters with electromagnetic meters with telemetry capabilities. This project will upgrade meters on 25 wells, approximately 15% of the meters on the District's groundwater wells. The upgraded meters will improve accuracy of water deliveries and reduce the District staff time for servicing meters. The project will address goals of the A&B Irrigation District Water Management and Conservation Plan.

Boise Project Board of Control, Automation of Kuna Canal
Reclamation Funding: $33,445 **Total Project Cost: $66,892**

The Boise Project Board of Control, located in Boise, Idaho, will automate two of the four 36" flat sided gates at the headworks of the Kuna Canal. The proposed automation will be connected to a supervisory control and data acquisition system for remote sensing and gate control. The project will stabilize and control flows at the headworks of the canal and prevent loss from spills and over deliveries. The project implements an objective of the Board of Control's 2010 Water Conservation Plan.

Chester Canal Company, Headgate Automation Project
Reclamation Funding: $64,619 **Total Project Cost: $129,238**

The Chester Canal Company, located in eastern Idaho, will install a new headgate equipped with automation and remote operation equipment. This project is in partnership with Fremont-Madison Irrigation District and will be operated using the District's existing supervisory control and data acquisition computer system. The project will enable the Company and District to manage water deliveries more precisely. This project will be another step toward implementing an alternative in the 2015 Henry's Fork Basin Study, which was coordinated and completed with the help of several partners including the Bureau of Reclamation.

City of Rupert, Piping Upgrade Project
Reclamation Funding: $75,000 **Total Project Cost: $150,000**

The City of Rupert, located in southern Idaho, will convert two open laterals to polyvinyl chloride pipe. This project will help to reduce water loss due to seepage and evaporation and increase the irrigation efficiency to the end users. The City has a plan in place to reduce water use through enhanced infrastructure and monitoring.

Enterprize Canal Company, Headgate Automation Phase 1
Reclamation Funding: $75,000 **Total Project Cost: $164,497**

The Enterprize Canal Company, located in eastern Idaho, will install automated telemetry systems to eight existing headgates located over 2.8 miles of the Enterprize Canal. Increased control of these headgates will allow the Company to monitor water usage and deliver water more accurately to their customers. This project supports the Company's water conservation planning objectives.

Fremont-Madison Irrigation District, Automation equipment on 8 main water control structures
Reclamation Funding: $75,000 **Total Project Cost: $151,142**

The Freemont-Mason Irrigation District, located in eastern Idaho just west of the Teton Range, will install remote operating equipment on eight canal diversions. This equipment will allow the district to access data and control the diversions remotely through their supervisory control and data acquisition system. This project is in coordination with four canal companies that receive water from the Irrigation District. Canal automation was identified as one of the most cost-effective means of conserving water in the 2015 Henry's Fork Basin Study, which was coordinated and completed with the help of several partners including the Bureau of Reclamation.

Minidoka Irrigation District, Lateral 39 Piping Project
Reclamation Funding: $75,000 **Total Project Cost: $154,640**

The Minidoka Irrigation District, located in southern Idaho, will convert 2,800 feet of rock-lined open lateral to a polyvinyl chloride pipe. The project will better manage the water flow and

reducing spills, evaporation, and seepage losses. The City has a plan in place to reduce water use through enhanced infrastructure and monitoring.

Salmon River Canal Company, Meter Turnout Upgrades

Reclamation Funding: $60,000 **Total Project Cost: $127,507**

The Salmon River Canal Company, located in south central Idaho, will upgrade 37 propeller surface water flow meters with upgraded electromagnetic meters with data-logging and telemetry capabilities. The installation will improve accuracy of water delivered, providing for better delivery to users, and reduce staff time for servicing meters. The project is supported by the Idaho State Water Plan.

Kansas

Kansas Bostwick Irrigation District, Converting the Courtland 5th - 48.8 Lateral To A Buried Pipe System

Reclamation Funding: $75,000 **Total Project Cost: $203,238**

The Kansas Bostwick Irrigation District, located in northern Kansas, will convert approximately a mile of open lateral to buried polyvinyl chloride pipe. The project will reduce water losses from seepage, evaporation, and operational spills. The project meets the District's goal of converting open lateral canals to piped systems to further the objective of water conservation.

Montana

Greenfields Irrigation District, Lower Piping Project

Reclamation Funding: $75,000 **Total Project Cost: $199,970**

The Greenfields Irrigation District, located in western Montana, will convert the Lower Greenfields South Canal to 700 feet of polyvinyl chloride pipe. The project will reduce water loss due to seepage, evaporation, and spilled water that contribute to water delivery shortages. The project is supported by the District's plan to increase water use efficiency to reduce annual shortages and increase flows in Muddy Creek, and the Sun River Watershed Group's plan to increase flows in the Sun River.

Pondera County Canal and Reservoir Company, Dupuyer Creek Diversion Automation & Telemetry Project

Reclamation Funding: $74,736 **Total Project Cost: $199,736**

The Pondera County Canal and Reservoir Company, located in central Montana, will automate the Dupuyer Creek diversion structure. The project will automate gate controls for the five gates that divert water and the gate to the concrete spillway that channels uncapturable flood flows downstream. The project will also install flow monitoring equipment upstream and downstream of the diversion and install a supervisory control and data acquisition system. The project will

reduce water lost due to inefficiencies and poorly timed deliveries related to manual operation of the diversion. The project is identified as a priority in the District's 2021 update of their Water Conservation Plan.

North Dakota

City of West Fargo, West Fargo Advanced Metering Infrastructure Project - Phase II

Reclamation Funding: $75,000 **Total Project Cost: $199,930**

The City of West Fargo, located in eastern North Dakota, will install 1,544 SmartPoint heads to existing meters to enable integration with the City's advanced metering infrastructure system. The project will enable the City to provide customers with real-time water usage data and more accurately bill for water use. The project is supported by the Fargo Drought Management Plan.

Northeast Regional Water District, Advanced Metering Program for 2021

Reclamation Funding: $75,000 **Total Project Cost: $184,576**

The Northeast Regional Water District, located in northeast North Dakota, will upgrade their residential and bulk user metering capabilities on the North Valley Water District Branch of the system. This upgrade will include the addition 1,353 of SmartPoint heads to each automatic meter read compatible meter. The project will enable the District to provide customers with real-time water usage data and more accurately bill for water use.

Nebraska

Hooper Irrigation District, Hooper Irrigation Pipeline Project

Reclamation Funding: $75,000 **Total Project Cost: $206,166**

The Hooper Irrigation District, located in western Nebraska, will convert 1.5 miles of open, earthen irrigation canal to buried polyvinyl chloride pipe. The project will reduce required canal maintenance, reduce water losses through seepage and evaporation, and improve the reliability of water deliveries. It will also allow for the District to deliver pressurized water to farmers to improve irrigation efficiency.

Twin Platte Natural Resources District, Ultrasonic sensors to transmit water level data using Nebraska's new LoRaWAN network.

Reclamation Funding: $31,350 **Total Project Cost: $62,700**

The Twin Platte Natural Resources District, located in western Nebraska, will install 30 flow meters on irrigation wells across the District. The flow meters would allow for data validation on 30 of the District's 3,100 irrigation wells and will provide the ability to collect real-time water use data via a new radio frequency data transmission technology network established by the State of Nebraska. The project was developed in direct support of the integrated groundwater and surface water planning effort completed by the District and Nebraska Department of Natural Resources.

New Mexico

City of Las Cruces, Water Conservation in the City of Las Cruces: Installing SMART Irrigation Technology for the Efficient Use of Water Supplies

Reclamation Funding: $75,000 **Total Project Cost: $150,000**

The City of Las Cruces, located in southern New Mexico, will install a smart irrigation system at four City parks and two recreation complexes. The system will include evapotranspiration technologies, flow management, cycle and soak capabilities, and be controlled centrally. The project will reduce irrigation water waste and reduce labor requirements Efficient use of water resources is a primary goal of the City's Water Conservation Plan.

Nevada

City of Boulder City, Water Meter Upgrades

Reclamation Funding: $75,000 **Total Project Cost: $150,000**

The City of Boulder City, southeast of Las Vegas, Nevada, will upgrade 306 manual read residential and commercial meters to an automatic meter reading system. These upgraded meters will be able to capture data via radio transmission, allowing the City staff to spend less time manually reading meters and obtain more accurate water usage data. The project will help address the established Southern Nevada Water Authority Water Conservation 2035 target goal of 105 gallons of water per person per day in Boulder City.

City of Henderson, Irrigation Cell Based Registers

Reclamation Funding: $30,763 **Total Project Cost: $61,528**

The City of Henderson, near Las Vegas, Nevada, will upgrade 128 meters with cell-based registers and integrate them into the City's web-portal. The project will enhance data available to the utility and customers, reduce energy use and reduce maintenance needs, and support enforcement of watering restrictions. The upgrade of meters is identified in Henderson's Water Conservation Plan.

Moapa Valley Water District, Water Metering and Data Management Upgrade

Reclamation Funding: $75,000 **Total Project Cost: $156,271**

The Moapa Valley Water District, located in southern Nevada, will upgrade 300 domestic water meters to meters coupled with cellular endpoints for improved data analytics and water management. This project will increase efficiency in Moapa Valley Water District's distribution system by providing more accurate water usage data to the District and Customers. The project is supported by the District's Water Conservation Plan and will benefit multiple partners, including the Moapa Band of Paiute Indians, Southern Nevada Water Authority, and U.S. Fish and Wildlife Service.

Truckee-Carson Irrigation District, Upgrade to Satellite Relay for near real-time data acquisition.

Reclamation Funding: $71,670 **Total Project Cost: $143,340**

The Truckee-Carson Irrigation District, located in western Nevada, will install radios and data loggers at 25 meter sites within the Lahontan Valley (Carson Division) of the Newlands Reclamation Project located in western Nevada. The project will provide monitoring of real time conditions which will result improve water efficiency and is supported by the District's current five-year Water Conservation Plan.

Oklahoma

Locust Grove Public Works Authority, Upgraded Water Line for Increased Resiliency and Reduced Water Loss

Reclamation Funding: $75,000 **Total Project Cost: $194,400**

The Locust Grove Public Works Authority, located in northeastern Oklahoma, will upgrade 2,100 linear feet of asbestos-cement distribution pipe to polyvinyl chloride pipe. The upgrade will reduce water loss, improve system reliability, resiliency, efficiency and improve service customers. The project meets the Authority's goals of improving system resiliency, efficiency, and service to customers through decreased water loss.

Oregon

Langell Valley Irrigation District, Lorella Lateral Piping Project

Reclamation Funding: $75,000 **Total Project Cost: $189,231**

The Langell Valley Irrigation District, located in southern Oregon, will convert 1,200 feet of open, unlined canal to a buried high-density polyethylene pipe within the eastern portion of the Klamath Project. The project will increase water efficiency in a geographic area that routinely faces water shortages. The project is supported by the WaterSMART Klamath River Basin Study.

North Unit Irrigation District, Lateral 41-9 and 58-3-2 Piping Project

Reclamation Funding: $74,691 **Total Project Cost: $149,383**

The North Unit Irrigation District, in central Oregon, convert two open canals with 4,450 linear feet of buried high-density polyethylene pipe. This project will reduce water lost to seepage, improve conveyance efficiency, and reduce problematic sediment transport. This project is prioritized through several planning efforts, including the District's System Improvement Plan.

Talent Irrigation District, East Main Canal Chamberland Shotcrete Project

Reclamation Funding: $16,220 **Total Project Cost: $32,441**

The Talent Irrigation District, in southern Oregon, will line two unlined sections of the East Main Canal totaling 320 linear feet, with reinforced shotcrete liner. The upgrade will increase the

efficiency and reliability of water deliveries. The project supports the District's Water Management and Conservation Plan of 2018.

West Extension Irrigation District, Irrigation Main Water Meter Project - Boardman East

Reclamation Funding: $32,500 **Total Project Cost: $65,000**

The West Extension Irrigation District, in northeast Oregon will install nine magnetic meters at the head of six piped laterals. The project will allow the District to see at a glance how much water is being delivered down each lateral. This project will help the District better manage their water supply, resulting in improved water supply consistency and resilience to drought. The metering of these laterals is identified in the 2016 update of the District's Boardman Master Plan.

South Dakota

Belle Fourche Irrigation District, Indian Creek 24.3 Lateral Piping Project (Dodson Pipeline)

Reclamation Funding: $75,000 **Total Project Cost: $158,500**

The Belle Fourche Irrigation District, located in west central South Dakota, will convert the open, concrete lined 24.3 lateral to 3,000 linear feet of buried, polyvinyl chloride pipe and upgrade flow meters along the newly piped lateral. The project will reduce water loss in the canal due to evaporation and seepage and reduce erosion in the canal and the alkalinity in the water delivered to producers.

Texas

El Paso County Water Improvement District Number One, Montoya Main Lateral Concrete Lining Project: Phase II

Reclamation Funding: $75,000 **Total Project Cost: $197,784**

The El Paso County Water Improvement District No. 1, located in west Texas, will line 2,700 feet of the earthen, Montoya Main Lateral using reinforced shotcrete. The upgrade will reduce water loss in the canal due to evaporation and seepage. The lining will also reduce sediment loading in the canal, which will improve the water delivered to irrigation customers. The Project is included in the 2017 Texas State Water Plan and received substantial support from stakeholders, including the City of El Paso and local organizations.

Red River Authority of Texas, Advanced Metering Infrastructure Program for the Red River Authority of Texas

Reclamation Funding: $75,000 **Total Project Cost: $150,000**

The Red River Authority, located in northern Texas, will implement an advanced metering infrastructure program which includes the installation of 500 new meters with ancillary radio and computer reading equipment for residential and commercial customers. The project will increase water conservation and water use efficiency by providing real-time water consumption data to the Authority and its customers. The project will support the goal of the Texas Water Development Board 2017 State Water Plan to reduce demand.

Utah

Circleville Irrigation Company, Dalton Ditch Piping for Water Conservation

Reclamation Funding: $75,000 **Total Project Cost: $197,255**

The Circleville Irrigation Company, just north of Salt Lake City, Utah, will convert a 2,360 foot section of the Dalton Ditch to a pipe composed of a high density polyethylene layer around a black polyethylene core. This project will reduce loss of water from seepage and evaporation in this section of the canal and improve water reliability in the Sevier River Watershed. Piping the Dalton Ditch has been identified in the Company's conservation plan.

City of Bluffdale, Water Conservation through Soil Moisture Monitoring and Smart Controls

Reclamation Funding: $67,000 **Total Project Cost: $137,500**

The City of Bluffdale, just south of Salt Lake City, Utah, will install 400 soil moisture sensors and wire them directly to irrigation controllers in the City's parks, green spaces and trail corridors. The City used 84 million gallons of water to irrigate these areas in 2020; this project will help the City reduce irrigation water waste. This project coincides with the goals of the City's Pressurized Irrigation Master Plan.

City of Centerville, Water Metering Project

Reclamation Funding: $74,791 **Total Project Cost: $149,581**

The City of Centerville, just north of Salt Lake City, Utah, will install 462 residential smart meters and radios. The installation will curb water loss by providing more accurate water data, which will help reduce high water usage and promote water conservation. The project will also save the City labor and associated costs, as it will eliminate the need for personnel to drive to each meter to receive data. The project is a priority under the City's Water Conservation Plan.

Draper Irrigation Company (Waterpro), Culinary Smart-Metering Project

Reclamation Funding: $75,000 **Total Project Cost: $194,126**

The Draper Irrigation Company, just south of Salt Lake City, Utah, will upgrade 528 culinary water meters to ultrasonic smart meters with cellular data transmission to improve reliability,

accuracy, and efficiency in metering culinary service laterals. The installation will curb water loss by providing more accurate water data, which will help reduce high water usage and promote water conservation. The Company's Water Conservation Master Plan, updated in 2020, supports the implementation of meter upgrade projects.

Haights Creek Irrigation Company, Backyard Piping Project Phase 6
Reclamation Funding: $75,000 **Total Project Cost: $1173,091**

The Haights Creek Irrigation Company, located in northern Utah, will replace 1,300 feet of residential transit distribution lines and galvanized steel service lines in an area identified as the Phase 6 location with new polyvinyl chloride distribution lines and high-density polyethylene service lines. In addition, the Company will install flow meters on each new residential service line. The project will reduce water loss by upgrading the existing lines and improving water use monitoring and leak detection. The project is the sixth phase of an activity listed as the top priority in Haights Creek's 2016 Water Conservation Management Plan.

Jordan Valley Water Conservancy District, Residential Turf Removal Rebates: Flip Your Strip and Localscapes Rewards
Reclamation Funding: $75,000 **Total Project Cost: $150,000**

The Jordan Valley Water Conservancy District, located in central Utah, will facilitate several water efficient landscaping rebate programs to encourage more efficient water use. The project will promote water conservation, thereby stretching available water supply in the region. The District prioritized these efforts in its 2014 Water Conservation Plan.

Roy Water Conservancy District, Secondary Water Metering Project Phase 3
Reclamation Funding: $75,000 **Total Project Cost: $187,402**

The Roy Water Conservancy District, located in northern Utah, will install 100 secondary water meters, including meters, radios, and lids on unmetered, residential secondary water connections. The installation of these meters will help the District and its secondary water users to improve water conservation, increase water reliability, promote water use accountability, and help the District move towards drought resiliency. This project meets the goals of District's Water Conservation Plan and the State of Utah's Regional M&I Water Conservation Goals.

Strawberry High Line Canal Company, Genola Supervisory Control and Data Acquisition System Integration
Reclamation Funding: $54,000 **Total Project Cost: $108,000**

The Strawberry High Line Canal Company, located in central Utah, will upgrade and integrate their supervisory control and data acquisition system with advanced mater infrastructure meters. The Company traditionally delivered water to agricultural users but, due to the urbanization of the area, now delivers water to several residential connections where there was once a single agricultural connection. The Company will install five magnetic flow meters at the outlet of irrigation storage ponds and 55 meter interface units to residential connections. These additions

will help the company to improve water delivery to a more complex customer base. This project addresses many of the goals outlined in the companies Water Management and Conservation Plan.

Vernon Irrigation Company, Vernon Irrigation Company Secondary Water Metering Project

Reclamation Funding: $24,745 **Total Project Cost: $49,490**

The Vernon Irrigation Company, located in Central Utah, will install 22 secondary water meters at existing, unmetered connections to the Company's pressurized irrigation system. The installation of these meters will help the Company and its secondary water users to improve water conservation, increase water reliability, promote water use accountability, and help the District move towards drought resiliency. The project is supported by the Company's strategic planning efforts.

Washington County Water Conservancy District, Installing Smart Water Meters for Ivins Irrigation Company Phase I

Reclamation Funding: $75,000 **Total Project Cost: $ 190,670**

The Washington County Water Conservation District, located in southwest Utah, will install 19 meters with automatic meter reading capability for agriculturally irrigation end users that are within the Ivins Irrigation Company. The meters will provide information for watering habits and identification of high-water users to help with better water management. The project is supported by Ivins City's water conservation plan, which includes Ivins Irrigation Company within their planning.

Weber Basin Water Conservancy District, Secondary Water System Metering Project - Large HOA Meters

Reclamation Funding: $48,175 **Total Project Cost: $96,350**

The Weber Basin Water Conservancy District, located near Salt Lake City, Utah, will install 25 meters on currently unmetered secondary water connections. The project will focus on connections for homeowner associations near Ogden, Utah. The project will help the District better manage water supplies and promote conservation among its retail customers. This project will help the District meet goals set forth in their 2008 System Optimization Review, 2018 Drought Contingency Plan, 2021 Water Conservation and Management Plan, and 2017 Supply and Demand Study.

Washington

Columbia Irrigation District, End of Canal System Automation & Measurement

Reclamation Funding: $75,000 **Total Project Cost: $165,144**

The Columbia Irrigation District, located in south central Washington, will install automated gates at four locations along Lateral 1 and 2, a spillway along each lateral, and several flow meters along the laterals. #2. The automation of these laterals will reduce spillage at the end of

the canal, improve water delivery consistency, and improve canal safety. This will allow the district to operate in a "just in time" mode where water is delivered where it is needed when it is needed, reducing waste and improving efficiency. These improvements are in line with recommendations of the District's Comprehensive Water Conservation Plan.

East Columbia Basin Irrigation District, Installation of Automated Gates - Blocks 40 & 41

Reclamation Funding: $75,000 **Total Project Cost: $176,195**

The East Columbia Basin Irrigation District, located in central Washington, will upgrade six existing turnout gates with automated gates along the East Low Canal. Automating the gates will reduce spills and allow more accuracy on the amount of water being sent down the lateral. The increased efficiency of the East Low Canal will support the District's ability to replace groundwater in the Odessa Subarea with surface water.

Kennewick Irrigation District, Cherry Creek to Pressurized Service Area 126 and 37 Intertie Project

Reclamation Funding: $75,000 **Total Project Cost: $160,751**

The Kennewick Irrigation District, located in southern Washington, will consolidate two existing pump stations with the existing, larger Kennewick Southeast Regional reservoir and pump station. The District will install 1,800 linear feet of polyvinyl chloride pipe to connect the pump stations and installing a pressure reducing valve station. This project will allow the District to better manage their water by pump stations the water flows through. This project meets the goals of the District's Kennewick South Regional Consolidation Plan from 2013.

Kittitas Reclamation District, North Branch Supervisory Control and Data Acquisition

Reclamation Funding: $61,476 **Total Project Cost: $122,952**

The Kittitas Reclamation District, located in central Washington, will install four supervisory control and data acquisition stations on the North Branch Canal, enabling the District to better manage their water supply and reduce operation spills. The project will support the District's 1999 Water Conservation Plan and 2015 Feasibility Plan.

Lake Chelan Reclamation District, Upgrading Domestic Meters to Improve Water Management

Reclamation Funding: $75,000 **Total Project Cost: $157,160**

The Lake Chelan Reclamation District, located in north central Washington, will upgrade 550 residential, propeller-style meters to automated meters. The new meters will provide web accessible flow data every 4 hours compared to the current frequency of every two months. The project will improve the accuracy of water usage measurements, which will enable the District to bill for water use more accurately and promote water use efficiency. Meter replacement is identified in the District's 2021 Water Conservation Plan.