

All Water 2025 Challenge Grants Funded through August 2008

2004

Arizona

Gila Gravity Main Canal Board, Yuma: The Gila Gravity Main Canal Board, in partnership with the City of Yuma and NAD Bank, will make canal system improvements to conserve water, restore canal capacity and improve operation efficiency. Five irrigation districts, the City of Yuma and other domestic water users will benefit from the project. Improvements include sealing canals at high seepage points and removing sediment from the Gila Main Gravity Canal. Additional work includes installing a Supervisory Control and Data Acquisition (SCADA) system, a complex system to control a river system by providing more precise measurement of water flow. Resulting savings will be approximately 45,000 acre feet (af) of water per year. The conserved water will be available for other Colorado River users. One acre foot supports a family of four per year. The total project cost is \$2,207,775 with a *Water 2025* contribution of \$284,000.

Yuma County Water Users Association, Yuma: The Association will upgrade a SCADA system, a complex system that controls a river system by providing more precise measurement of water flow, and implement a new water tracking and measurement system. The project also includes reconstruction of key diversion structures along the main canal that will facilitate remote control of water flows. This modernization will reduce diversions from the Colorado River and provide an overall savings in water diversions of 12,000-20,000 af per year. The total project cost is \$615,552, with a *Water 2025* contribution of \$246,221.

California

Calleguas Municipal Water District, Thousand Oaks: The District will install automated monitoring devices to 23 water distributors to allow the District to implement new rate structures. These devices will improve distribution during peak demand and will encourage more efficient water use, conserve water, and manage local groundwater supplies in concert with imported water. The District covers an area of approximately 350 square miles in Ventura County. Communities served include the cities of Oxnard, Camarillo, Thousand Oaks, Simi Valley, Moorpark, and Port Hueneme, as well as Oak Park, Santa Rose Valley, Bell Canyon, Lake Sherwood, Somis, Camarillo Estates, and Camarillo Heights. This project will reduce demand on the Metropolitan Water District and the Colorado River, resulting in a savings of 5,500 af per year. The total project cost is \$3,095,000, with a *Water 2025* contribution of \$300,000.

Contra Costa Water District, Concord: The District will install 2,100 feet of pipe in the Contra Costa Canal to isolate drinking water from agricultural saline ground water seepage. The canal conveys drinking water to 450,000 residents and

vital industries in Contra Costa County. This project provides benefits statewide as well as for local stakeholders. The project will improve the ability of the Central Valley Project to meet established Sacramento-San Joaquin Delta water quality standards because of long-standing local degradation on this reach of the canal. Water savings will range from 9,000 to 34,000 af per year, depending on the water supply conditions. This amounts to a savings of an average of \$1.4 million each year. The total project cost is \$9,132,716, with a *Water 2025* contribution of \$200,000.

Imperial Irrigation District, El Centro: The District will strategically place four independent flow meter sensors along the All American Canal to improve monitoring of delivery water, particularly during high and low flow periods into the Imperial Valley, and at the diversions to Mexico and Coachella Valley. This project will result in these three areas receiving the proper allotment of water necessary for agricultural, municipal and industrial uses. Newly measured and accounted-for supply will result in more efficient distribution of water, reducing demand on the Colorado River and saving 34,500 af per year. The total project cost is \$230,452, with a *Water 2025* contribution of \$115,226.

Stevenson Water District, Merced: The District will replace 23,067 feet of open canals with pipe to control high water tables fed by seepage, water conservation, improved delivery flexibility and reduction on operational spillage. Increased measurements and improved system responsiveness will enhance irrigation service and is expected to result in further water conservation. The project will save approximately 1,155 af/yr, which may be sold to Reclamation for the San Luis National Wildlife Refuge. The total project cost is \$1,556,500, with a *Water 2025* contribution of \$300,000.

Colorado

Mancos Water Conservancy District, Mancos: This project will test the effectiveness of different materials for canal lining on 340 feet of the Jackson Gulch Inlet Canal. The inlet canal is the only source of water into Jackson Gulch Reservoir. The water users who depend on the reservoir include agricultural communities in the surrounding area, the town of Mancos, and Mesa Verde National Park. Lining the canal will provide the District with 10-15 percent more water, easing tensions between domestic and agricultural users. The total project cost is \$38,676, with a *Water 2025* contribution of \$19,338.

Lower South Platte Water Conservancy District: The District will directly reimburse individuals, or groups, up to 50% towards the purchase and installation of flow measuring devices for large-scale wells, recharge facilities or ditch diversions within the District boundaries. Over 10,000 acre-feet pumped per year is estimated to be inaccurately accounted for. The water that is accurately quantified and replaced to the South Platte River can be used by all surface water users. The total project cost is \$1,129,079 with a *Water 2025* contribution of \$300,000.

Montana

Paradise Valley Irrigation District, Chinook: The District will replace 9,000 feet of leaky hillside canal with a pressure pipeline system, conserving 1,000 af per year of water. It will be one of the first in the area and a significant improvement over the old system. This project will conserve water for the District by eliminating seepage in the canal and improve operation and control in the main canal. Efficiency levels will nearly be 100 percent with the new pipeline system, compared to the current efficiency rate of 40-45 percent. Irrigation seasons will be extended during drought years by making more use of the water that is available. The total project cost is \$524,215, with a *Water 2025* contribution of \$262,107.

New Mexico

San Juan River Dineh Water Users, Inc., Shiprock: The project will convert three lateral ditches to underground pipelines, potentially saving 5,600 af each year for other water users on the main canal. Converting all three lateral ditches into underground pipeline will improve equitable water distribution, increase conveyance efficiency, allow farmers to pursue new irrigation technologies, reduce demand on the San Juan River and reduce operation and maintenance costs. The total project cost is \$751,000, with a *Water 2025* contribution of \$200,000.

Nevada

Truckee Carson Irrigation District and City of Fernly, Fernly: This project will improve the control of the Gilpin Spill structure by automating gate changes through installation of remote-controlled gates and telemetry at one location on the Truckee Canal. This project will allow the District to make more frequent and timelier changes to meet its demand more accurately, thus reducing the amount of water diverted from the Truckee River. The saved water - approximately 3,000 af per year - will flow downstream and enhance instream flows or be stored upstream to meet future needs. The total project cost is \$ 300,000, with a *Water 2025* contribution of \$150,000.

Oregon

Farmers Irrigation District, Hood River: The District will improve its water delivery system by replacing 8.6 miles of open canals with high quality piping, thus conserving an average of 40 percent of current water usage over the course of the season. The project will market saved water (1,500-3,500 acre-feet per year) for instream use in a fish habitat area and a siphon will be installed to eliminate barrier to fish passage. The total cost of the project is \$6,382,973, with a *Water 2025* contribution of \$300,000.

Medford Irrigation District, Medford: The District proposes an innovative approach to address water shortages for irrigation and instream uses by replacing 2,500 feet of an antiquated, open canal with 66-inch pipeline. This project will save 94 af per year, improve delivery efficiency and reduce maintenance costs. It also will remove three fish passage barriers and open up three miles of historic steelhead trout habitat. The total cost of the project is \$602,032, with a *Water 2025* contribution of \$300,000.

Central Oregon Irrigation District, Bend: This project involves numerous partners — seven irrigation districts, six cities, three tribes, and the Deschutes Resource Conservancy. The project addresses long-term basin water needs by establishing a pilot water bank, with a long-term potential savings of up to 326,522 af a year. The project demonstrates collective partnering of basin interests and addresses many institutional constraints. The total cost of the project is \$588,750, with a *Water 2025* contribution of \$233,750.

Texas

Harlingen Irrigation District, Harlingen: The District will purchase and install 225 on-farm delivery site meters for more precise water measurement and efficient water delivery. The saved water -- 3,464 af per year -- will enable continued farming during droughts and increase the length of the irrigation season. On-farm metering will help the District achieve its goal of 100 percent volumetric pricing of water delivered to its users. The total cost of the project is \$602,500, with a *Water 2025* contribution of \$300,000.

Utah

Emery Water Conservancy District, Castle Dale: The District will install automatic remote controls at three dams and automate diversions on four creeks in the Green River Basin. The devices will be integrated with existing SCADA software. The District also will install measuring weirs, upgrade weather stations, and establish an online irrigation advisory program. Water savings are estimated to be between 10 and 20 percent. The total cost of the project is \$535,520, with a *Water 2025* contribution of \$257,910.

Provo Water Users Association, Provo: The Association will meter, control and screen improvements to the existing Beaver Creek Diversion structure and canal improvements to the Weber-Provo Canal. This project will result in the conservation of approximately 4,200 acre feet each year and a savings of \$2,500 per year in operations and maintenance costs. The total cost of the project is \$426,203 with a *Water 2025* contribution of \$150,000.

Springville Irrigation District, Springville: The District will replace an open lateral in Wasatch County, with 550 feet of pipe to reduce seepage. It also will construct a new diversion structure and install a measuring weir to reduce water loss. The project will save 220 af per year and possibly benefit the June sucker, an

endangered fish. The total cost of the project is \$58,000, with a *Water 2025* contribution of \$29,000.

Wyoming

Casper-Alcova Irrigation District, Casper: The District will replace a portion of unlined canal with 5,158 feet of PVC pipe and install new head gates, valves, and flow measurement devices to save 490 af per year. When finished, the project will potentially conserve 31.7 percent of the total available water in the two lateral systems and substantially reduce operating and maintenance costs. The total cost of the project is \$502,189, with a *Water 2025* contribution of \$232,215.

2005

Arizona

Yuma County Water Users Association: The Association will line 5.8 miles of canals. The sealing of these canals with concrete will reduce seepage losses and increase water delivery efficiencies. This project is estimated to save 7,583 acre-feet of water annually and will make more water available to other Colorado River users. The total project cost is \$2 million, including a *Water 2025* contribution of \$300,000.

California

Bard Water District, Winterhaven: The water district will pipe a half mile of unlined canals that serve Quechan Tribal and private lands. The district also will replace two existing checks on the main canal and install four high water alarms. The piping will reduce seepage losses, and the replacement of the checks and four high water alarms will increase water delivery efficiencies and service to water users while protecting against crop and home damage due to flooding. The project is anticipated to save 195 acre-feet of water per year. The total project cost is \$602,288, including a *Water 2025* contribution of \$229,680.

Coachella Valley Water District: The water district's demonstration project will include quantifications of current and historic water use using GIS, detailed field monitoring, implementation of conservation practices on demonstration fields and quantification of water savings. The project is anticipated to save at least 1,000 acre-feet of water per year. The total project cost is \$909,840, including a *Water 2025* contribution of \$300,000.

Contra Costa Water District: The water district will install 50 water meters on currently unmetered lots. By installing meters, water users will be billed for actual water use instead of at a flat rate. By paying for water that they actually use, they will be more inclined to use less water. In addition, leaks in the customer delivery lines

will be located and repaired by the customer. Results of a previous pilot program have shown that metering these lines reduced water consumption by nearly two-thirds. It is estimated that the project can save 440 acre-feet of water annually. The total project cost is \$281,010, including a *Water 2025* contribution of \$137,582.

Imperial Irrigation District: The district will install automatic gates to be operated remotely at the heads of 10 lateral canals. The project also will include linking the automatic gates into an existing Supervisory Control and Data Acquisition system. The project is estimated to save 912 acre-feet of water per year. The total project cost is \$857,548, including a *Water 2025* contribution of \$300,000.

Soquel Creek Water District: The water district will purchase and install 325 weather-based irrigation controllers for residential, commercial, and institutional landscapes. The district is solely dependent on groundwater and relies on an overdrafted groundwater basin. The project is estimated to save 112 acre-feet of water per year. The total project cost is \$218,790, including a *Water 2025* contribution of \$109,395.

Stockton East Water District: The water district will develop a Supervisory Control and Data Acquisition system that will be used to monitor 12 sites in key locations in the water distribution system. The project will also provide for off-site water gate control at three locations in the distribution system. The availability of real time data will increase the efficiency of the district's agricultural water delivery system. The project is estimated to save 3,600 acre-feet of water per year. The total project cost is \$335,236, including a *Water 2025* contribution of \$150,255.

Tulare Irrigation District: The district will expand its Supervisory Control and Data Acquisition system to monitor operations remotely at existing regulating reservoir facilities, upgrade its water accounting capabilities, and modernize infrastructure at critical points to minimize canal spills. The projects are estimated to save 25,000 acre-feet of water per year and better manage up to 150,000 acre-feet of water per year. The project will cost \$765,300, including a *Water 2025* contribution of \$300,000.

Colorado

Grand Valley Irrigation Company: The irrigation company will install six manual check structures to maintain canal levels, raise the banks around the canals to reduce damage to canals from storm run-off, and install measuring devices to measure water deliveries. The project is estimated to save 3,594 acre-feet of water annually. The project will cost \$423,242, including a *Water 2025* contribution of \$200,367.

Groundwater Management Subdistrict, Greeley: The subdistrict will create a rebate program for 50 percent of the cost of meters to monitor the subdistrict's 937 groundwater pumping wells. The project is estimated to save up to 2,870 acre-feet of

water per year and will better manage up to 11,480 acre-feet of water per year. The total project will cost \$1,060,852, including a *Water 2025* contribution of \$300,000.

West Divide Water Conservation District and Silt Water Conservancy District, Silt: The two districts will cooperatively develop a new pump and pipeline facility that will connect the Silt Pump Canal with the existing West Lateral of the Farmers Irrigation Company. The project will allow marketing of approximately 1,080 acre-feet of water, including 300 acre-feet of saved water, from the pipe installation and unused storage allocation. The total project will cost \$406,871, including a *Water 2025* contribution of \$203,435.

Idaho

Lewiston Orchards Irrigation District: The district will replace 2,650 feet of an open canal with 60-inch pipe and will install a flow meter at the District's largest storage reservoir to better manage water deliveries. The project is estimated to save 630 acre-feet of water a year. The total project cost is \$362,437, including a *Water 2025* contribution of \$181,218.

Preston Whitney Reservoir Company: The reservoir company will replace 23,333 feet of open canal with PVC pipe and modify the works structure at Lamont Reservoir. The project is estimated to save 1,800 acre-feet of water a year. The total project cost is \$877,153, including a *Water 2025* contribution of \$300,000.

Nebraska

Bostwick Irrigation District: The district will replace 10.8 miles of open ditch with a buried pipe. It also will install water meters to measure the water deliveries. The project is expected to save 2,000 acre-feet of water annually. The total project cost is \$977,266, including a *Water 2025* contribution of \$300,000.

New Mexico

City of Las Cruces: The city will install pumps on the Elephant Butte Irrigation District water distribution system so that the city's Burn Lake can be used as a regulating reservoir for storm water runoff, operational spills, and irrigation water. The city also will install pumps so that Elephant Butte Irrigation District water stored in Burn Lake can be returned to the district as needed. The project is expected to save 3,750 acre-feet of water a year. The total project cost is \$174,889, including a *Water 2025* contribution of \$86,350.

Elephant Butte Irrigation District: The district will install 100 flow control meters to implement its metering and monitoring plan to meter all farm deliveries using telemetry. The project is estimated to save 8,000 acre-feet of water per year, with 75,000 acre-feet better managed. The total project cost is \$615,000, including a *Water 2025* contribution of \$300,000.

Oklahoma

Lugert-Altus Irrigation District: The district will continue its modernization efforts to upgrade its irrigation delivery system by expanding its remote monitoring and automation sites, improving flow measurement, and replacing and rehabilitating their farm turnouts. The project is expected to save 8,000-10,000 acre-feet of water per year, with 54,000-68,000 acre-feet better managed. The total project cost is \$600,000, including a *Water 2025* contribution of \$300,000.

Oregon

East Fork Irrigation District: The district will construct a one-mile pipe to complete the middle phase of the new Central Canal Pipeline. The pipeline will convert a century-old, unlined irrigation ditch and creek conveyance system to a pipeline, and conserve water to assist recovery of a threatened steelhead run. The project is estimated to save 1,745 acre-feet of water per year. The total project cost is \$1,338,000, including a *Water 2025* contribution of \$300,000.

Grants Pass Irrigation District: The district will replace an existing open lateral canal with culvert and pipe. The project is estimated to save 1,965 acre-feet of water per year. The total project cost is \$33,270, including a *Water 2025* contribution of \$16,538.

Swalley Irrigation District: The district will partner with 16 other irrigation districts, one ditch company and one canal company to use geographic information systems and remote sensing to assess aerial imagery to evaluate the districts for seepage loss and determine unauthorized use. This information will help the districts to make decisions about implementing water conservation practices. Once complete, the project is estimated to save up to 165,386 acre-feet of water each year. The total project cost is \$365,218, including a *Water 2025* contribution of \$182,609.

Three Sisters Irrigation District: The district will replace two miles of open irrigation delivery canals and ditches with pipe. The project will make additional water available for instream flows to meet Endangered Species Act requirements. The project is estimated to save 800 acre-feet of water a year. The total project cost is \$1,057,400, including a *Water 2025* contribution of \$300,000.

Vale Oregon Irrigation District: The district will convert 6 miles of open dirt irrigation canals to pipe to save water currently being lost to evaporation and seepage. The project is estimated to save 4,320 acre-feet of water per year. The total project cost is \$883,200, including a *Water 2025* contribution of \$300,000.

South Dakota

Belle Fourche Irrigation District: The district will line about one mile of the inlet canal for the Belle Fourche Reservoir to reduce water seepage and flooding.

Saved water will be marketed in the district's water bank. The project is estimated to save 1,825 acre-feet of water per year. The total project cost is \$250,000, including a *Water 2025* contribution of \$125,000.

Texas

Brownsville Irrigation District: The district will install 14 flow meters and 10 remotely automated gates. This project will allow for more accurate metering of water flows and levels through 14 pipelines. The project is estimated to save 3,538 acre-feet of water per year. The total project will cost \$624,711, including a *Water 2025* contribution of \$300,000.

Cameron County Irrigation District No. 2, San Benito: The district will install 11 pressure transducer flow meters, 11 automated vertical gates, and a Supervisory Control and Data Acquisition system. This system will allow for accurate metering of water flows and levels through 11 canals. The project is estimated to save 8,751 acre-feet of water a year. The total project will cost \$650,000, including a *Water 2025* contribution of \$300,000.

City of El Paso Utilities Water Service Board: The board will install four flow gaging stations and 15 electrical conductivity measurement stations on the Rio Grande and various drains. These stations will all be equipped with telemetry and provide internet-based access to real-time and archived data on flows and water quality. The project is estimated to save 7,600 acre-feet of water per year and better manage 931,840 acre-feet of water. The total project will cost \$357,386, including a *Water 2025* contribution of \$165,000.

City of McAllen Public Utility: The utility will conduct a leak detection and repair of the city's distribution system. This will include the replacement of 4,290 leaking or malfunctioning residential water meters. The utility also will replace a 30-inch raw water meter with a 40-inch raw water meter. The project will save an estimated 5,032 acre-feet of water per year. The total project cost is \$502,484, including a *Water 2025* contribution of \$186,168.

Utah

Ashley Valley Reservoir Company: The reservoir company will replace 30,000 feet of open canal with pipeline to ensure equal distribution of water among water users. The project is estimated to save 1,240 acre-feet of water annually. The total project cost is \$1,923,000, including a *Water 2025* contribution of \$300,000.

Bear River Small Irrigators Inc.: The irrigators will install a real-time, automated, diversion reporting system along the Bear River in Cache Valley, Utah. The project also includes installation of flow sensors with telemetry to provide accurate and timely water diversion data. The project is estimated to save 18,450 acre-feet of water a year. The total project cost is \$246,386, including a *Water 2025* contribution of \$123,184.

Davis and Weber Counties Canal Company: The company will install ultrasonic meters on all three of its existing pressure irrigation reservoirs. Telemetry sensors and radios also will be installed in order to monitor all key system facilities at one centralized location. The project will save an estimated 1,200 to 1,500 acre-feet of water a year. The total project will cost \$491,198, including a *Water 2025* contribution of \$245,599.

Duchesne County Water Conservancy District: The district will integrate multiple continuing real-time monitoring efforts to form a comprehensive monitoring system for the entire county. The project is estimated to save 11,000 acre-feet of water a year. The total project cost is \$382,790, including a *Water 2025* contribution of \$162,790.

Metropolitan Water District of Salt Lake and Sandy: The water district will install an injection well, infiltration pond, and an injection trench to enable it to store water in the Salt Lake Valley Aquifer through surface infiltration. The district will also work with its member agencies to develop a water bank to market the stored water. It is estimated that this project will enable the district to market 300 acre-feet of water per year. The total project cost is \$632,500, including a *Water 2025* contribution of \$300,000.

Payson City and Strawberry Highline Canal: The project will replace a 100-year old open ditch with a buried pipe. This will eliminate above-ground pollution sources, decrease water loss from evaporation and seepage, and increase water flow to users. The project is estimated to save 200 acre-feet of water a year. The total project cost is \$648,644, including a *Water 2025* contribution of \$300,000.

Sandy City: The city will enclose 1.25 miles of an open channel. The project will save an estimated 330 acre-feet of water each year. The total project cost is \$854,093, including a *Water 2025* contribution of \$300,000.

Sevier River Water Users Association: The association will enhance and expand the existing Supervisory Control and Data Acquisition system in a five county area to allow for expansion of real-time monitoring and control systems. The project will save an estimated 22,500 acre-feet of water per year. The total project cost is \$529,040, including a *Water 2025* contribution of \$247,540.

Springville Irrigation District: The district will install 20 Supervisory Control and Data Acquisition sites. The project will enable more efficient water management and accounting of water deliveries. The project is estimated to save 450 acre-feet of water every year. The total project cost is \$182,600, including a *Water 2025* contribution of \$91,300.

Washington County Water Conservation District, St. George: The district will install telemetry at 34 sites in Washington County. The project will enable the district to monitor river flows and integrate flow data into the district's existing Supervisory Control and Data Acquisition system. The project will save an

estimated 8,600 acre-feet of water a year. The total project cost is \$449,880, including a *Water 2025* contribution of \$224,940.

Wellsville-Mendon Conservation District: The district will line 5,000 feet of open canal at two locations and install metering devices at all turnouts. The project is estimated to save 1,978 acre-feet of water a year. The total project cost is \$434,496, including each *Water 2025* contribution of \$215,998.

Washington

Model Irrigation District No. 18, Spokane: The district will design and install a new telemetry system, including meters, to monitor and control the district's existing water system facilities. The project will save an estimated 134 acre-feet of water a year and will result in better management of approximately 4,000 acre-feet of water per year. The total project will cost \$457,804, including a *Water 2025* contribution of \$224,354.

Roza Irrigation District: The district will replace 10.2 miles of open lateral with pipe and install flow meters. The project will save an estimated 596 acre-feet of water a year. The total project will cost \$1,061,136, including a *Water 2025* contribution of \$300,000.

Selah-Moxee Irrigation District: The district will replace four miles of canal with pipeline, line 1500 feet of canal, and install one flow meter with a Supervisory Control and Data Acquisition system. The project will save an estimated 2,119 acre-feet of water per year. The total project cost is \$640,000, including a *Water 2025* contribution of \$300,000.

Sunnyside Division Board of Control, Sunnyside Valley Irrigation District: The district will replace 10,700 feet of open lateral with pipe and install water measurement capability. The project will save an estimated 400 acre-feet of water a year. The total project cost is \$624,761, including a *Water 2025* contribution of \$300,000.

Wyoming

Casper - Alcova Irrigation District: The district will automate three structures on the Casper Canal and upgrade meters on canal laterals. The total project cost is \$229,831, including a *Water 2025* contribution of \$108,000.

2005 State projects

Arizona: The Arizona Department of Water Resources will develop a Web-based reporting tool to collect water-use data from community water systems in rural Arizona; develop a database of supply-and-demand information; make data available

via the Web; review system efficiency; and develop goals or benchmarks for water conservation in rural communities. The project will facilitate regional planning, promote conservation and enhance monitoring. The total project will cost \$438,700 with a Water 2025 contribution of \$190,000.

Idaho: The Idaho Water Resources Board will develop a groundwater-recharge project for the Eastern Snake Plain Aquifer, using unappropriated natural surface-water flows from the Upper Snake River Basin. The Board will construct a pipeline from the W-Canal to two recharge basins. The recharge project would receive about 10,000 acre-feet of water per year. The total cost of the project is \$519,126 with a Water 2025 contribution of \$250,000.

Kansas: The Kansas Department of Agriculture will install flow-measurement equipment on 100 diversions in the Republican River basin. The real-time monitoring of the diversions will enhance water-management and water-marketing opportunities between senior and junior water rights holders. Irrigators in the basin have had to curtail diversions in 5 of the 6 previous years. The total project will cost \$495,698 with a Water 2025 contribution of \$230,720.

Montana: The state of Montana will install flow-measurement equipment on 13 diversions in the Milk River Project; develop a computer flow-simulation model for the Milk-St. Mary Rivers System; upgrade four streamflow gages on tributaries of the Milk River; and install an agrimet station and use satellite imagery to verify consumptive uses in Canada. The total project will cost \$188,999 with a Water 2025 contribution of \$81,286.

New Mexico: The state of New Mexico will rehabilitate a USGS streamflow gage on the Pecos River to provide more accurate high streamflow measurements. The gage will help better measure water under high flow conditions. Accurate measurement of water delivered to Texas under the Pecos River Compact is critical to the state. The total project will cost \$146,660 with a Water 2025 contribution of \$59,480.

Texas: The Texas Water Development Board will purchase 10 acoustical leak-detection units and make them available to public water-supply systems and analyze statewide public water-system loss audits in preparation of setting regulations. The project will identify leaks in water systems for future water-saving projects. The total project will cost \$321,527 with a Water 2025 contribution of \$158,250.

2006

Arizona

Central Arizona Irrigation & Drainage District: The district will fully automate six lateral canals, including implementation of remote monitoring and control capabilities at twenty-six sites and ultrasonic water meters at lateral headings

and farm deliveries. The project is estimated to save 605 acre-feet of water per year. The total project cost is \$214,000, including a *Water 2025* contribution of \$100,000.

California

Fresno Irrigation District: The district will construct a new control structure on the Enterprise Canal with automatic control gates, construct a new spill structure with automatic control gates, replace the existing flume structure, and connect to the district's telemetry system. The project will allow water to be diverted to a conveyance system that can deliver water to the district's water banking facility. The project is estimated to save 6,000 acre-feet of water per year. The total project cost is \$940,500, including a *Water 2025* contribution of \$300,000.

Solano Irrigation District: The district will construct a new recovery dam, including new concrete canal lining upstream and downstream of the dam, to reduce canal spills and seepage losses. The project is estimated to save 500 acre-feet of water per year. The total project cost is \$150,000, including a *Water 2025* contribution of \$70,000.

Nebraska

Bostwick Irrigation District in Nebraska: The district will replace up to 3.6 miles of open ditch with buried pipe. The project is estimated to save between 238 and 720 acre-feet of water per year. The total project cost is \$432,269, including a *Water 2025* contribution of \$100,000.

Oregon

Central Oregon Irrigation District: The district will expand the operations of the existing Central Oregon Water Bank. Activities will include development of an on-line water rights management system, development of a storage program for the bank, and further capitalization of reserves and bank operations. The total project cost is \$310,713, including a *Water 2025* contribution of \$99,937.

Three Sisters Irrigation District: The district will install 11,300 linear feet of pressurized pipe to replace an existing open canal. The project is estimated to save 750 acre-feet of water per year. The total project cost is \$1,352,000, including a *Water 2025* contribution of \$300,000.

South Dakota

Belle Fourche Irrigation District: In the second phase of a project to line the inlet canal for the Belle Fourche Reservoir, the district will line approximately 1,750 feet of the canal. Saved water will be marketed in the district's water bank. The

project is estimated to save 1,233 acre-feet of water per year. The total project cost is \$200,000, including a *Water 2025* contribution of \$100,000.

Utah

Huntsville South Bench Canal Co.: The canal company will replace 3.3 miles of open canal with pipe and will install seventeen turnout structures. The project is estimated to save 430 acre-feet of water per year. The total project cost is \$1,430,000, including a *Water 2025* contribution of \$100,000.

State of Utah, Division of Water Resources: The Division of Water Resources will install 250 to 300 landscape evapotranspiration controllers in residential irrigation systems to improve water use efficiency. The project is estimated to save 103 acre-feet of water per year. The total project cost is \$298,000, including a *Water 2025* contribution of \$100,000.

Washington

Roza Irrigation District: The district will conduct rehabilitation of the main canal concrete. The total project cost is \$84,381, including a *Water 2025* contribution of \$42,190.

2007

California

Chowchilla Water District: The district will expand existing SCADA system to include measurement and control at 15 sites and measurement at an additional three sites. The project is estimated to save 6,000 acre-feet of water per year. The total project cost is \$729,792, including a *Water 2025* contribution of \$300,000.

City of Pasadena: The City of Pasadena will develop landscape mapping coverage to support ongoing conservation efforts using high resolution imagery. The project is estimated to save 1,700 acre-feet of water per year. The total project cost is \$384,230, including a *Water 2025* contribution of \$192,115.

City of Woodland: The City of Woodland will install SCADA system at City well field to measure water withdrawal, prevent spills and locate unauthorized water use. The project is estimated to save 2,453 acre-feet of water per year. The total project cost is \$1,231,503, including a *Water 2025* contribution of \$299,901.

Delano-Earlimart Irrigation District: The district will install 199 pressure regulators on turnouts to allow for downstream control. The project is estimated to

save 9,200 acre-feet of water per year. The total project cost is \$599,487, including a *Water 2025* contribution of \$299,743.

East Bay Municipal Utility District: The district will install acoustic data loggers and digital correlators to identify leaks on a continuous basis. The project is estimated to save 550 acre-feet of water per year. The total project cost is \$ \$600,000, including a *Water 2025* contribution of \$ \$300,000.

Goleta Water District (1): The district will upgrade 6 oversized outdated water meters and install new valves, piping and vault boxes. The project is estimated to save 13 acre-feet of water per year and better manage 136 acre-feet per year. The total project cost is \$148,000, including a *Water 2025* contribution of \$58,000.

Goleta Water District (2): The district will install a SCADA system at 14 sites to increase the districts ability to monitor and control its water system. The project is estimated to better manage 5,720 acre-feet of water per year. The total project cost is \$800,000, including a *Water 2025* contribution of \$232,000.

Lost Hills Water District: The district will line 3.1 miles of open canal with geomembrane liner. The project is estimated to save 855 acre-feet of water per year. The total project cost is \$831,000, including a *Water 2025* contribution of \$300,000.

Madera Irrigation District: The district will create a groundwater bank; which will better-manage up to 20,000 acre-feet per year. The total project cost is \$1,390,010, including a *Water 2025* contribution of \$297,600.

Nevada Irrigation District: The district will replace 5,700 feet of unlined canal with 3,800 feet of 24" pipe. The project is estimated to save 188 acre-feet of water per year. The total project cost is \$1,063,000, including a *Water 2025* contribution of \$300,000.

Pelger Mutual Water Company: The water company will rehabilitate 1 mile of canal with geomembrane liner. The project is estimated to save 300 acre-feet of water per year. The total project cost is \$161,680, including a *Water 2025* contribution of \$80,000.

Rancho California Water District: The district will install 500 ET controllers. The project is estimated to save 430 acre-feet of water per year. The total project cost is \$480,156, including a *Water 2025* contribution of \$87,500.

San Diego County Water Authority (No. 065): Water Authority will develop water budget software potentially connecting to water billing system. The project is estimated to save 6,170 acre-feet of water per year. The total project cost is \$111,148, including a *Water 2025* contribution of \$ 55,574.

San Diego County Water Authority (No. 068): Water Authority will provide streamlined water audits for commercial landscapes. The project is estimated to save

1,177 acre-feet of water per year. The total project cost is \$125,254, including a *Water 2025* contribution of \$60,000.

San Luis Canal Company: The canal company will install a SCADA system bay station to eliminate spills. The project is estimated to save 23,100 acre-feet of water per year. The total project cost is \$190,000, including a *Water 2025* contribution of \$95,000

Idaho

South Board of Control: The project will convert 5.4 miles of earthen canal to pipe and construct four sediment containment ponds. The project is estimated to save 692 acre-feet of water per year. The total project cost is \$622,034, including a *Water 2025* contribution of \$135,586.

Black Canyon Irrigation District: The district will replace 8 miles of open canal with 3,000 linear feet of 15" PVC pipeline. The project is estimated to save 2,100 acre-feet of water per year. The total project cost is \$686,664, including a *Water 2025* contribution of \$300,000.

Winder Lateral Association: The Association will replace 8 miles of unlined canal with pipeline, convert 88 acres from flood irrigation to sprinkler and install measurement devices at each service connection. The project is estimated to save 880 acre-feet of water per year. The total project cost is \$729,028, including a *Water 2025* contribution of \$300,000.

Kansas

Kansas Bostwick Irrigation District No.2: The district will replace 9.3 miles of open lateral with buried pipe and install meters on turnouts. The project is estimated to save 2,000 acre-feet of water per year. The total project cost is \$1,139,459, including a *Water 2025* contribution of \$300,000.

Nebraska

The Central Nebraska Public Power and Irrigation District: The district will automate three gates to reduce spills and improve water level control. The project is estimated to save 750 acre-feet of water per year. The total project cost is \$61,780, including a *Water 2025* contribution of \$30,715.

Nevada

Las Vegas Valley Water District: The district will implement a leak-detection program, install a FIREFLY automatic meter reading system and complete an artificial recharge feasibility study. The project is estimated to save 25 acre-feet and

better manage 222 acre-feet of water per year. The total project cost is \$105,000, including a *Water 2025* contribution of \$52,500

Kyle Canyon Water District: The district will install 367 Municipal and Industrial water meters and automated meter-reading devices. The project is estimated to save 78 acre-feet of water per year. The total project cost is \$760,250, including a *Water 2025* contribution of \$300,000.

New Mexico

San Juan Dineh Water Users, Inc.: The project will replace 12,000 feet of earthen canal with pipe and install flow meters on all turnouts. The project is estimated to save 1,003 acre-feet of water per year. The total project cost is \$454,979, including a *Water 2025* contribution of \$225,000.

Oregon

Central Oregon Irrigation District: The district will install of 22 flow measurement and telemetry devices in six irrigation districts. The project is estimated to save 5,510 acre-feet of water per year. The total project cost is \$257,094, including a *Water 2025* contribution of \$121,722.

East Fork Irrigation District: The district will install 1.7 miles of pipeline and inverted siphon near Neal Creek. The project is estimated to save 1,745 acre-feet of water per year. The total project cost is \$4,327,674, including a *Water 2025* contribution of \$300,000.

Klamath Irrigation District: The district will replace the Miller Hill Pump station with electric variable speed pumps and install SCADA in new pumping plant. The project is estimated to better manage 12,500 acre-feet of water per year. The total project cost is \$697,231, including a *Water 2025* contribution of \$300,000.

North Unit Irrigation District: The district will replace 0.5 mile of canal with HDPE pipe. The project is estimated to better manage 11,360 acre-feet of water per year. The total project cost is \$574,007, including a *Water 2025* contribution of \$237,002.

Swalley Irrigation District: The district will replace open canal with 1.7 miles of pipeline. The project is estimated to save 2,881 acre-feet of water per year. The total project cost is \$2,288,856, including a *Water 2025* contribution of \$300,000.

Texas

Cameron County Irrigation District No. 2: The district will replace 7,000 feet of open canal with pipe. The project is estimated to save 320 acre-feet of water per

year and better-manage 10,860 acre-feet per year. The total project cost is \$831,325, including a *Water 2025* contribution of \$300,000.

Utah

Bell Canyon Irrigation Company: The irrigation company will convert 2.9 miles of an open canal irrigation system to 1.7 miles of pressurized pipe. The project is estimated to save 225 acre-feet of water per year. The total project cost is \$847,926, including a *Water 2025* contribution of \$300,000.

Payson City and Highline Canal: The project will replace 2,230 feet of open canal with pressurized pipeline that allows for conversion to sprinkler irrigation. The project is estimated to save and better-manage 935 acre-feet of water per year. The total project cost is \$603,111, including a *Water 2025* contribution of \$300,000.

Provo River Water Users: Provo River Water Users will replace 1,200 ft of pipeline at Broadhead diversion dam and installation of meters and screens. The project is estimated to better manage 1,575 acre-feet of water per year. The total project cost is \$697,481, including a *Water 2025* contribution of \$300,000.

Scipio Irrigation Company: The irrigation company will install a SCADA system, diversion structure and improve storage reservoir. The project is estimated to save 675 acre-feet of water per year. The total project cost is \$163,435, including a *Water 2025* contribution of \$80,335.

Strawberry High Line Canal Association: The canal association will construct a 6-CFS pump station to recover water within the Strawberry High Line Canal system. The project is estimated to better manage 1,800 acre-feet of water per year. The total project cost is \$530,000, including a *Water 2025* contribution of \$260,000.

Strawberry Water Users Association: The Strawberry Water Users Association will construct four improved measurement structures; install five communications devices which will provide real-time information on the web and market seeped water which has not been previously measured. The project is estimated to save 1,000 acre-feet of water per year. The total project cost is \$148,600, including a *Water 2025* contribution of \$74,300.

Uintah Indian Irrigation Project: Project will reconstruct existing diversion structure including a new diversion gate with telemetry and automation. The project is estimated to better manage 19,074 acre-feet of water per year. The total project cost is \$395,103, including a *Water 2025* contribution of \$153,078.

Uintah Indian Irrigation Project #2: Project will improve a diversion structure. The project is estimated to better manage 38,400 acre-feet of water per year. The total project cost is \$150,800, including a *Water 2025* contribution of \$72,900.

Uintah Water Conservancy District: The district will install a 20-CFS pump station to facilitate the exchange of Vernal Unit Project water; and install ultrasonic meter and SCADA system. The project is estimated to better manage 2,200 acre-feet of water per year. The total project cost is \$737,000, including a *Water 2025* contribution of \$300,000.

Utah Lake Distributing Company: The distributing company will construct two flumes to measure the overflow and market the water in excess of that needed to satisfy return flows to the Jordan River. The project is estimated to save 4,200 acre-feet of water per year. The total project cost is \$118,600, including a *Water 2025* contribution of \$59,300.

Weber Basin Water Conservancy District: The district will create a new water bank utilizing groundwater recharge. Additional improvements include development of 3 acres of recharge basins, fencing, one monitoring well and flow meter. The project is estimated to save 3,650 acre-feet of water per year. The total project cost is \$473,363, including a *Water 2025* contribution of \$234,500.

Washington

Clallam Conservation District: Two water districts will replace two unlined open canals with one single pipeline, 13 miles in length; small portion of project will include a recharge component. The project is estimated to save 1,829 acre-feet of water per year. The total project cost is \$3,264,000, including a *Water 2025* contribution of \$300,000.

Naches-Seleh Irrigation District: The district will rehabilitate 3,000 linear feet of open canal with geomembrane liner. The project is estimated to save 230 acre-feet of water per year. The total project cost is \$204,000, including a *Water 2025* contribution of \$102,000.

Naches-Seleh Irrigation District (2): The district will install 5,500 linear ft. of PVC pipe, flow meters and flow control devices. The project is estimated to save 360 acre-feet of water per year. The total project cost is \$442,680, including a *Water 2025* contribution of \$221,340.

Wyoming

Wyoming State Engineer's Office: The Wyoming State Engineer's Office will install real-time monitoring and control systems on 43 diversion sites. The project is estimated to save 11,000 acre-feet of water per year. The total project cost is \$548,580, including a *Water 2025* contribution of \$262,405.

2008

California

Fresno Irrigation District: The District will upgrade the existing diversion structure with new control and diversion structures that will allow improved water management of water that enters the Enterprise Canal and is carried downstream. Construction includes a new control structure, automated control gates, replacement of the existing siphon structure and connection to the District's telemetry system. The project is estimated to save 15,000 acre-feet of water per year. The total project cost is \$1,061,060, including a *Water 2025* contribution of \$300,000.

Irvine Ranch Water District: The District will develop groundwater banking facilities on the Strand Ranch which will help reduce conflict for reduced imported supplies during dry years. The project is estimated to better manage up to 17,500 acre-feet of water per year. The total project cost is \$15,000,000, including a *Water 2025* contribution of \$300,000.

James Irrigation District: The project will reduce local and regional water conflicts by helping to eliminate the District's dependency on Central Valley Project water. The project proposes to expand an existing storage and recharge basin. The project is estimated to save 1,600 acre-feet of water per year. The total project cost is \$1,578,036, including a *Water 2025* contribution of \$300,000.

Solano Irrigation District: The Project consists of concrete lining currently unlined sections of canal. The project is estimated to save 800 acre-feet of water per year. The total project cost is \$901,500, including a *Water 2025* contribution of \$300,000.

West Basin Municipal Water District: This project involves the installation of Evapotranspiration (ET) Irrigation Controllers for urban landscapes that are 1 acre or greater in size. Through the installation of 558 ET Controllers, 20 to 50 percent of irrigation water will be conserved, thus reducing the need to import water to the region. The project will reduce excess water runoff up to 70 percent. The project is estimated to save 340 acre-feet of water per year. The total project cost is \$899,198, including a *Water 2025* contribution of \$300,000.

Colorado

Upper Arkansas Water Conservancy District: The District will install telemetry data-collection platforms and flow control at six reservoirs to accurately acquire data and install devices and related gauges at six reservoir outlet channels and nine streams to generate the accurate water flow measurements needed for good water management. The project is estimated to save 1,566 acre-feet of water

per year. The total project cost is \$847,784, including a *Water 2025* contribution of \$296,724.

Idaho

Preston Whitney Irrigation Company: This project will replace 7.5 miles of unlined, earthen canals with 7.2 miles of high-pressure, plastic irrigation pipe and will convert 200 acres from flood irrigation to sprinkling. Each irrigation company will install an inline master meter at each of the reservoirs and McCrometer propeller-type meters at the point of delivery. The project is estimated to save 2,302 acre-feet of water per year. The total project cost is \$2,135,779, including a *Water 2025* contribution of \$300,000.

New Mexico

Navajo Agricultural Products Industry: The tribe will create a canal Gate Operating System (system) and an irrigation scheduling program to decrease annual canal spills and to reduce incidents of over-applications of water to the irrigated fields. The system will gather water level data from upstream and downstream positions of the 22 gate structures and make calculations and provide seamless integration back into the supervisory control and data acquisitions (SCADA) system for proper gate operations and settings. The project is estimated to save 26,600 acre-feet of water per year. The total project cost is \$1,095,848, including a *Water 2025* contribution of \$300,000.

Oregon

Swalley Irrigation District: The District will pipe 1.9 miles of open canal to conserve water, protect water quality, improve public safety, reduce operation and maintenance costs and reduce energy costs to individual water users and farms. Seven cubic feet per second will be permanently dedicated to the Deschutes River for instream flow, improving water quality and habitat conditions for fish and wildlife in the Deschutes Sub-basin. The project is estimated to save 2,966 acre-feet of water per year. The total project cost is \$1,500,000, including a *Water 2025* contribution of \$300,000.

Three Sisters Irrigation District: The District will install High Density Polyethylene Pressurized Pipeline in the existing open irrigation delivery canals and ditches to eliminate excessive seepage losses. The project will conserve water and improve fishery habitat in Whychus Creek while improving the economic sustainability of agriculture in the McKenzie Canyon project area. The project is estimated to save 500 acre-feet of water per year. The total project cost is \$700,000, including a *Water 2025* contribution of \$300,000.

Texas

Brownsville Irrigation District: The District will convert 1,800 linear feet of earthen canal into pipe, install two vertical gate structures and necessary SCADA components, and install three transducers to measure water levels in storage reservoirs. The project is estimated to save 147 acre-feet of water per year. The total project cost is \$602,048, including a *Water 2025* contribution of \$300,000.

Cameron County Irrigation District No. 2: The District will install ten Rubicon standard Flume Gate structures and remote flow measurement and control features that are fully compatible with the existing SCADA system in the District. This project will allow for the accurate metering of water flow and level through the Low Line canal. The project is estimated to save 3,253 acre-feet of water per year. The total project cost is \$534,843, including a *Water 2025* contribution of \$262,923.

City of McAllen Public Utility: The Utility will install 6,000 linear feet of underground pipeline as well as install a magnetic meter raw water measuring device at the intake side of the pipe that will allow the Utility to remotely and more accurately monitor the amount of water received from the water supplier. The project is estimated to save 700 acre-feet of water per year. The water saved will be stored and used during peak summer months by the rapidly-growing residential and commercial/industrial sector and developing new water markets with other municipalities and water users in the region. The total project cost is \$2,604,000, including a *Water 2025* contribution of \$300,000.

Utah

Jordan Valley Water Conservancy District: The District will install a new diversion structure on the Middle Fork of Dry Creek and connect it to an existing raw water supply pipeline. This will complete required storm drainage improvements in the surrounding area. The District will also remove the historic Draper Irrigation Company ditch to improve management of the Middle Fork of Dry Creek water source. The project is estimated to save 132 acre-feet of water per year. The total project cost is \$880,154, including a *Water 2025* contribution of \$300,000.

Washington

Roza Irrigation District: The District will replace approximately eight miles of the Roza Irrigation District laterals with PVC pipe ranging in size of 21 to 2-inch diameter and replace the weirs with flow meters. The project is estimated to save 144 acre-feet of water per year. The total project cost is \$1,191,183, including a *Water 2025* contribution of \$300,000.