

Project Name:
Otay Water District
Advanced Metering Infrastructure Upgrade
and
Customer Engagement Portal Project – Phase 1

Prepared For:



U.S. Department of the Interior - Bureau of Reclamation
WaterSMART Grants:
Water and Energy Efficiency Grant for Fiscal Year 2022
Funding Opportunity Number: R22AS00023

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1 Technical Proposal

1.1 Executive Summary

Date: November 3, 2021

Applicant Name: Otay Water District

City, County, State: Spring Valley, San Diego County, California

Project Name: Advanced Metering Infrastructure Upgrade and Customer Engagement Portal Project – Phase 1

Category Applicant: A

Funding Group: Group 1

Grant Funding Request: \$234,645

Non-Federal Matching Funds: \$234,645

Total Project Costs: \$469,290

Est. Completion Date: March 2024

Est. Duration from contract award date: Approximately 24 months

Federal Facility Denotation: The Project is not located on a Federal facility

Estimated Annual Water Savings: 1,719 Acre Feet per Year (AFY)

Project Partner: None

Project Summary

A one-paragraph project summary that provides the location of the project, a brief description of the work that will be carried out, any partners involved, expected benefits, and how those benefits relate to the water management issues you plan to address

The Otay Water District (Otay), located in arid and drought-prone southern California just north of the Mexican border, is committed to aggressively pursuing water-use efficiency by embracing proven methods and technologies to achieve that goal. To that end, Otay proposes to implement the Advanced Metering Infrastructure (AMI) Upgrade and Customer Engagement Project– Phase 1 (Project) that will result in reduced leak duration and increased water-efficient behavior. This first phase of the Project is expected to result in **annual water savings of 1,719 acre-feet (AF) and annual energy savings of 4,007,333 kilowatt hours (kWh)**, along with associated reductions in greenhouse gas (GHG) emissions.

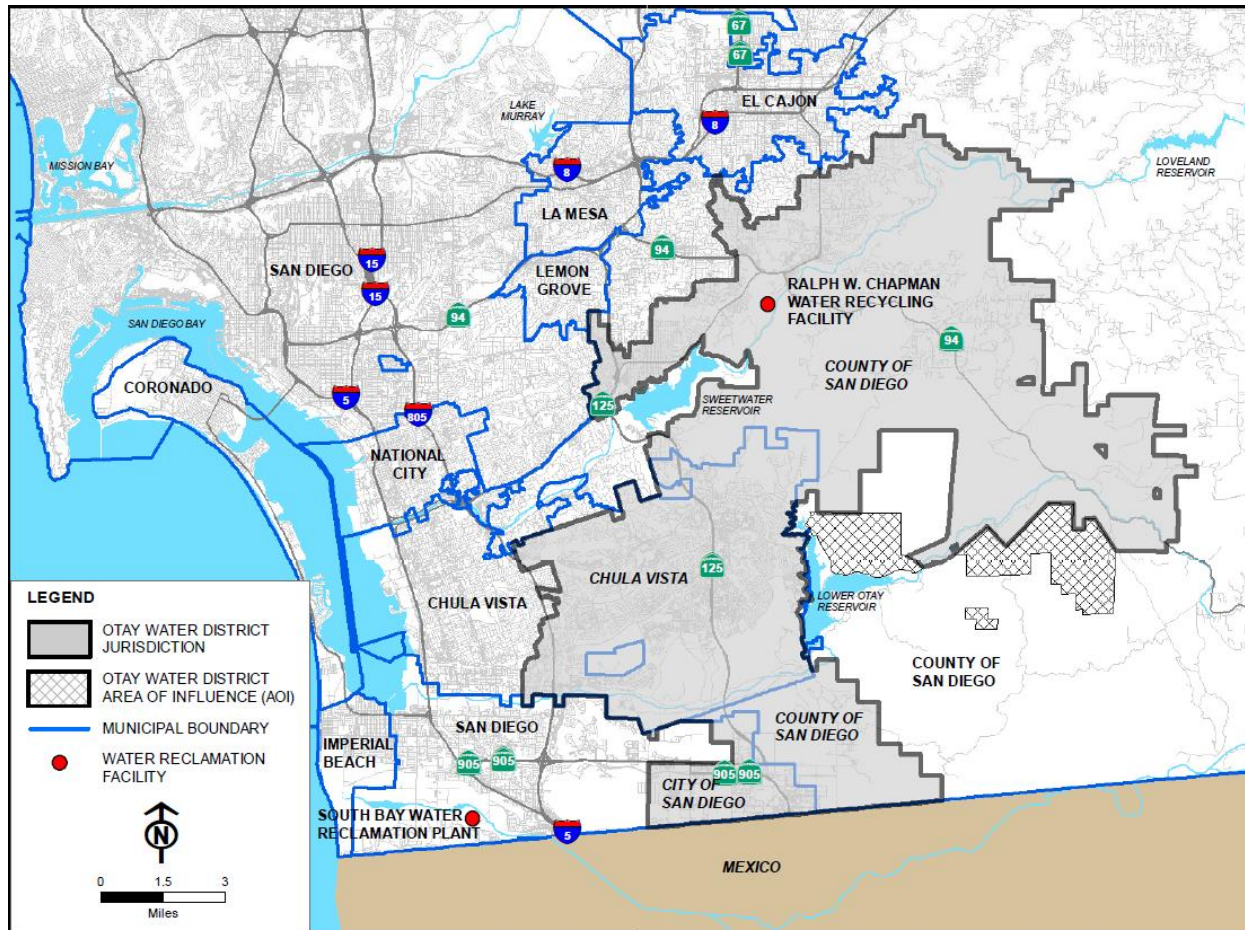
In 2012, Otay completed a transition from manual meter reading to its current Automated Meter Reading (AMR) system, which enabled monthly meter reading to be performed district-wide via drive-by methods. In 2016, Otay initiated a register replacement program for all ¾"-2" sized meters. All meter registers that were replaced (approximately 32,000 meters, representing 60% of the total) were upgraded with communications technology compatible with both the current AMR system and a future AMI system. The Project calls for the implementation of the AMI,

including installation of AMI communications network hardware, upgrades to the meter data management software system, procurement and installation of AMI-compatible meter box lids, firmware upgrades to 24,000 existing (45% of total) AMI-capable meters, and connection to the new network. This project also includes the procurement and implementation of a web-based customer engagement platform that interfaces with the AMI system and an outreach program that will transition and educate customers on how to utilize the portal in their quest to maximize water-use efficiency. This project scope represents the first of Otay’s multi-phased AMI implementation effort.

1.2 Project Location

Otay’s service area is generally located within the south-central portion of San Diego County and includes approximately 126 square miles. The topography of the service area is diverse, consisting of a variety of valleys, hills, mountains, and mesas. The area includes both urban and rural development. Otay serves a wide spectrum of cities and communities including a large portion of eastern Chula Vista, a portion of the City of San Diego on Otay Mesa, areas adjacent to the cities of El Cajon and La Mesa, and various unincorporated areas including Rancho San Diego, Jamul, Spring Valley, Bonita, as well as the Sycuan and Jamul bands of the Kumeyaay Nation. The water purveyors that border Otay includes Padre Dam Municipal Water on the north, Helix Water District on the northwest, and the Sweetwater Authority and the City of San Diego on the west. The southern boundary of Otay is the international border with Mexico. There are currently no adjacent water purveyors located to the east of Otay. See the Project Location Map on the next page. The project latitude is {32°43’N} and longitude is {116°58’W}. Smart meters throughout Otay’s service area will be upgraded and connected to the AMI system.

Project Location Map



1.3 Technical Project Description

Provide a more comprehensive description of the technical aspects of your project, including the work to be accomplished and the approach to complete the work. This description should provide detailed information about the project including materials and equipment and the work to be conducted to complete the project.

Otay is responsible for providing reliable, high-quality water service to a population of nearly 226,000 people through 53,000 metered connections. It also provides a small portion of the service area with recycled and wastewater services. In total, the water system includes approximately 730 miles of water mains, 29 pressure zones, 20 booster pump stations, and 40 storage reservoirs. The Project will pursue best management practices to facilitate a reduction in end-user water consumption through the AMI early leak detection technology and a social norming-based customer engagement web portal.

THE PROJECT INCLUDES THE FOLLOWING FEATURES:

1. AMI NETWORK INSTALLATION AND INTEGRATION:

THE FOLLOWING IS REQUIRED TO CONNECT 24,000 EXISTING AMI- CAPABLE METERS (45% OF ALL METERS) TO A NEW AMI NETWORK:

- PROCUREMENT AND INSTALLATION OF TWO BASE STATIONS AND SEVEN REPEATERS, LOCATED ON OTAY-OWNED FACILITIES
- SITE ELECTRICAL UPGRADES ASSOCIATED WITH THE INSTALLATION OF THE NEW BASE STATIONS AND REPEATERS
- PROCUREMENT AND INSTALLATION OF 500 AMI-COMPATIBLE METER BOX LID REPLACEMENTS
- UPGRADES TO THE METER DATA AND ENTERPRISE MANAGEMENT SOFTWARE SYSTEM TO ENABLE RECEIPT, READING, PROCESSING OF AMI DATA
- FIRMWARE UPGRADES TO 24,000 METER REGISTERS TO ENABLE AMI COMMUNICATIONS

2. CUSTOMER ENGAGEMENT PORTAL:

PURCHASE, INTEGRATION, OPERATION, AND MAINTENANCE OF A WEB-BASED CUSTOMER ENGAGEMENT PORTAL THAT IS COMPATIBLE WITH THE AMI SYSTEM TO PROVIDE CUSTOMERS WITH REAL-TIME, USER-FRIENDLY, AND CONVENIENT ACCESS TO THEIR CONSUMPTION DATA AND COMPARATIVE ANALYTICS.

3. CUSTOMER EDUCATION AND OUTREACH PROGRAM:

DEVELOPMENT AND DELIVERY OF A PROGRAM TO TRAIN AND INFORM CUSTOMERS TO EFFECTIVELY UTILIZE THE NEW WEB-BASED PORTAL, INTERVAL CONSUMPTION DATA, AND COMPARATIVE ANALYTICS IN THEIR QUEST TO MAXIMIZE WATER-USE EFFICIENCY. ANTICIPATED SCOPE INCLUDES

- DEVELOPMENT AND DELIVERY OF 4 AMI AND CUSTOMER ENGAGEMENT PORTAL WEBINAR TRAINING SESSIONS OVER A 12- MONTH PERIOD.
- DEVELOPMENT AND DISTRIBUTION OF ELECTRONIC AND HARD-COPY INFORMATION MATERIAL (FLYERS, EMAIL BLASTS, FAQs, ETC.)

The Project will enable the wireless transmission of water use data from the AMI-enabled smart meters to Otay’s upgraded meter data system and to customers via a cloud-based portal on a near real-time basis. Otay will benefit from the AMI system by gaining the ability to utilize frequent and on-demand reports fed from AMI smart meters. These reports will provide up-to-date information on water use anomalies and point to opportunities for customers to reduce water waste. Whereas consumption data is currently collected and made available via monthly meter reads, AMI will automate data collection, making it available at any time.

REAL TIME CONSUMPTION DATA and ANALYTICS
Rather than the traditional, delayed data feedback loop that relies upon infrequent drive-by water meter reads, AMI automates the delivery of real-time data to customers and the City (via alarms, alerts, reports, and email notifications), enabling early detection of leaks and abnormally high-water consumption, thus reducing lag times to address and correct water waste.

CUSTOMER ENGAGEMENT PORTAL

The Social Norms Based model is an approach that has been proven to encourage customers to engage in water efficient behaviors leading to a quantified reduction in water consumption.

Additionally, real-time consumption

data from the AMI system will be integrated with a web-based customer engagement portal. Customers will gain access to a user-friendly web-based application that employs social norms marketing theory to effectively motivate behavioral change.

Otay will also roll out a complementary customer-focused education program to train interested customers on the functionality of AMI and the cloud-based customer engagement portal. The education program will inform customers as to the availability of enhanced data and instruct on how to utilize the various portal-based tools that can assist in monitoring, measuring, and comparing water consumption, as well as setting up notifications.

1.4 Evaluation Criteria

1.4.1 Evaluation Criterion A - Quantifiable Water Savings

The Project is considered a **municipal metering project** according to the WaterSmart WEEG Notice of Funding Opportunity.

Describe the amount of estimated water savings. For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result

of this project. Please include a specific quantifiable water savings estimate; do not include a range of potential water savings.

The Project’s estimated 1,719 AFY accrual of water savings is based on savings related to early leak/break detection and quick repair paired with social norming influences upon customers who receive current information regarding their consumption. Detailed information regarding the rationale behind water savings estimates is included below.

Describe current losses: Please explain where the water that will be conserved is currently going and how it is being used.

Water lost to leaks, breaks, and excessive irrigation seep into the ground, runoff into storm drains, or enter the wastewater system. Otay meets 100% of its potable water demands with imported water from its wholesale agency, the San Diego County Water Authority (SDCWA). Losses do not measurably make their way back into the water system, nor do they contribute to alternative water supplies. Due to geology, the semi-arid hydrological conditions of the region, and salinity issues, Otay currently does not utilize groundwater. While it does recycle 1.3 million gallons per day (MGD) of wastewater in the service area, it cannot recycle all available wastewater as it is limited by the capacity of its reclamation plant. Excess wastewater produced in its service area is treated by the City of San Diego’s wastewater treatment system.

Describe the support/documentation of estimated water savings:

Water savings from the Project will be achieved by upgrading and connecting 24,000 existing and in-place AMI-capable meters to a newly installed AMI infrastructure and integration of a new customer engagement web portal. Real-time consumption data from the AMI system will be integrated with a web-based customer engagement portal where customers can compare their usage to that of similar households and businesses.

Recent studies link the use of AMI, the availability of real-time water consumption data, and the behavioral impacts derived from comparative water consumption analytics to quantifiable water savings. Rather than the traditional delayed data feedback loop that relies upon infrequent physical collection of water meter reads, AMI technology will automate meter reads and deliver real-time data to customers and Otay via alarms, alerts, email notifications, and “anytime” website access. Early detection of leaks and abnormally high-water consumption reduces lag times to address and correct water waste when compared to occasional meter-reads and bills that are sent to customers infrequently. Currently, customers receive consumption data monthly via email or the US postal service.

Given the region’s ongoing struggles with drought conditions, many San Diegans have developed an awareness that water is a valuable and sometimes scarce resource. With the roll out of the Projects, Otay’s customers will gain access to a user-friendly web-based application that employs

a social norms marketing theory, commonly used in efficiency programs to encourage positive behavioral change. The portal will provide information to customers about their current water use and provide graphic information that compares against past consumption and the consumption patterns of similar households/businesses. These data points offer customers motivation to perform “better”, by stepping up conservation efforts or to continue to perform well by comparison. Customization of thresholds that determine when notifications are sent can be established by the district and the customer. For example, notification can be sent as soon as an account’s consumption levels approach a higher-rate tier to encourage additional conservation-minded behavior.

Recent studies find that there is a **6.1%** reduction in water use when customers and water agencies have access to customer-side leak/break detection and notification that enables quick action to repair the leaks. Customers reduce consumption by an additional **6.6%** due to the social norming influences of a customer engagement portal. The Project includes the installation of AMI network infrastructure, meter upgrades, and connection of Otay’s first 24,000 customers to the new customer engagement portal, providing access to real-time data and other conservation behavior influences. As detailed in the table and supported by additional documentation below, estimated water savings from Phase 1 will reduce water consumption by **12.7%** annually, or 1,719 AFY.

| Water Savings Assumptions | |
|--|------------|
| Total # of existing AMI-compatible water meters to be upgraded | 24,000 |
| Number of meters as a % of total meters in Otay (24,000/53,000 meters) | 45% |
| Total estimated water supplied to project area (Otay used 30,084 AF of water in FY 2020. $30,084 \times 45\% = 13,538$). | 13,538 AFY |
| Percent water savings derived from expeditious repair of customer-side leaks, breaks, water waste due to AMI real-time consumption reporting | 6.1% |
| Percent water savings derived from connection to a customer engagement portal | 6.6% |

Note: Water savings are assumed to occur at an equal rate for each meter that connects to the AMI system.

A review of AMI studies was conducted with a focus on those that addressed social norming and household leak detection. Results from the Irvine Ranch Water District (leaks) and IBM Research (social norms model of behavior modification via customer engagement portal) were used to determine the Project’s water savings assumptions (see table below) which support the water savings analysis of the Project.

The Irvine Ranch Water District’s [“California Single-Family Water Use Efficiency Study.”](#) California Department of Water Resources (2011) documents an average leakage rate of 30.7 gallons per household per day (0.0344 AFY) – leading to wasted water that typically soaks into the ground, stormwater, and wastewater collection systems. Based on the study, it is expected that through AMI technology, the availability of real-time consumption and enhanced notification of irregular consumption will enable prompt correction of leaks and other abnormal water consumption patterns, leading to an estimated water savings of 826 AFY (6.1%).

A case study performed by IBM Research and published by Hanes, D., “Every Drop Counts: How Water Utilities Are Putting Water Efficiency First” (2013) found that informed, engaged, and incentivized citizens, using a customer portal, conserved an average of 6.6% more water than those without access to a portal. Given the current water demand of 13,538 AFY associated with Phase 1 efforts, it is estimated that water savings derived from customer interaction with a customer portal is 893 AFY (6.6%).

| Water Savings Calculations | | | | |
|---|-----------------------------------|--------------------------------------|-----------------|--------------|
| Project Element | Documented Water Savings | Savings Calculation | % WATER SAVINGS | AFY Savings |
| AMI Installation Early leak detection and correction | Irvine Ranch Water District, 2011 | 24,000 meters x 0.0344 = AFY Savings | 6.1 | 826 |
| Customer Engagement Portal Behavior driven water conservation | IBM Research (Hanes, D., 2013) | 24,000 meters x 0.066 = AFY Savings | 6.6 | 893 |
| TOTAL WATER SAVINGS: | | | 12.7 | 1,719 |

The following favorable research studies and references provide comparable water savings results from AMI implementation and add additional support to the previously mentioned studies that this grant proposal utilizes:

- East Bay Municipal Utility District (EBMUD) [AMI Pilot Study](#) demonstrated that AMI implementation, coupled with online water use software, provides an average account savings of 15%, with some individual account savings up to 50%.
- Eastern Municipal Water District’s (EMWD) [demonstration project](#) installed AMI units for a subset of its customer base, included daily water use information on customer water bills, and made flow data available to customers on the EMWD website. The project realized an average annual savings of 0.027 AFY/meter across all meters. According to EMWD’s website their AMI system (FlexNet), assisted the District in contacting 2,600

customers regarding continuous usage at their residence, and 2,300 of them no longer show signs of leaks.

- According to EPA [WaterSense](#), leaks in an average household can account for nearly 10,000 gallons of water wasted every year. 10% of homes have leaks that waste 90 gallons or more per day.
- The City of Santa Ana’s 2020 WaterSMART WEEG application for its [AMI Installation Project](#) included an analysis that a targeted group of relatively high-water-user accounts in the service area that reduced consumption by 10% annually after receiving early warning notifications that they were approaching the highest rate water tier.

How will actual water savings be verified upon project completion?

Actual water savings may be verified by comparing historical water consumption data from the group of 24,000 accounts with activated AMI connections to water usage after project implementation and the customer engagement portal software is implemented. Post-project consumption data should include a full one-year period after project completion to allow a meaningful comparison against the pre-project consumption data set.

1.4.2 Evaluation Criterion B—Renewable Energy

1.4.2.1 Subcriterion No. B.1: Implementing Renewable Energy Projects Related to Water Management and Delivery

Sub-Criterion No. B.1 is not relevant to the proposed project.

1.4.2.2 Subcriterion No. B.2: Increasing Energy Efficiency in Water Management

Describe any energy efficiencies that are expected to result from the implementation of the water conservation or water efficiency project (e.g., reduced pumping).

The Project is anticipated to result in quantifiable energy savings of 4,007,333 kWh/AF. The embedded energy in the water distributed by Otay includes energy to convey, treat and distribute water. The majority of the supply is imported from northern California via the California State Water Project (SWP), and from the Colorado River (USBR) via the Colorado River Aqueduct (CRA). Energy savings estimates associated with reduced water use originate from the point of diversion.

Net utility energy intensity data was gathered from respective Urban Water Management Plans for MWD, SDCWA, and Otay to calculate quantifiable energy savings. A value for kWh/AF was established by combining the net utility energy intensities multiplied by estimated water savings from the Project to determine avoidance of embedded energy resulting from reduced reliance on water imports, as shown in the table below.

| Embedded Energy Avoidance Resulting from Water Savings | | | | |
|---|--|------------------|------------------------|-------------------------------------|
| Agency | Water Management Process (kWh/AF) | | | Net Utility Energy Intensity |
| | Conveyance | Treatment | Distribution | |
| MWD | 1919.9 | 69.7 | -152.6 | 1863 |
| SDCWA | -32.6 | 112.1 | 7.7 | 87.2 |
| Otay | 381 | N/A | Included in conveyance | 381 |
| kWh/AF Saved: | | | | 2,331 |
| TOTAL kWh/AF for water savings (2,331 kWh/AF x 1,719 AF) | | | | 4,007,333 |

How will the energy efficiency improvement combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions? Will the project result in reduced vehicle miles driven, in turn reducing greenhouse gas emissions? Does the calculation include any energy required to treat the water, if applicable?

By installing the infrastructure to connect to existing smart meters, Otay staff will no longer drive to the 24,000 meter locations each month to collect water usage data. During fiscal year 20-21, four vehicles were used to capture meter reads, resulting in 55,730 miles and 3,636 gallons of fuel. Otay estimates the Project will reduce an equivalent of one vehicle’s annual mileage, resulting in the avoidance of 8.1 metric tons (MT) of carbon dioxide equivalent (CO2e) per year:

$$\begin{aligned}
 &\text{Reduction of Fossil Fuels:} \\
 &3,636 \text{ gallons (total annual fuel usage)} \\
 &\quad \times 0.25 \text{ (equivalent of one vehicle)} \\
 &= \mathbf{909} \text{ gallons per year}
 \end{aligned}$$

The EPA’s GHG Equivalencies Calculator was utilized to calculate the amount of carbon dioxide emitted per gallon of motor gasoline burned (<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>).

Reducing water use reduces the associated energy demand required to transport, treat, and convey the water (embedded energy). The EPA’s GHG Equivalencies Calculator was used to calculate the amount of carbon dioxide emitted per kilowatt hour associated with embedded

energy in imported water. Based on the calculator, the reduction in vehicle miles and water consumed is expected to translate to the avoidance of GHG emissions of 2,848.1 MT CO₂e.

| EPA GHG Equivalencies Calculator GHG Emissions Avoided | | |
|---|----------------------|--|
| Source | Savings | MT CO ₂ e Calculator Value |
| Embedded energy in water | 4,007,333 kWh year | 2,840 |
| Reduced vehicle miles and gallons of fuel | 909 gallons per year | 8.1 |
| TOTAL MT CO₂e: | | 2,848.1 |

Describe any renewable energy components that will result in minimal energy savings/production (e.g., installing small-scale solar as part of a SCADA system).

This project is not a renewable energy project, however, this project will achieve measurable reductions in water consumption.

1.4.3 Evaluation Criterion C—Sustainability Benefits

Enhancing drought resiliency. Provide information regarding how the project will enhance drought resilience by benefitting the water supply and ecosystem.

Otay relies fully on imported water to meet its potable water demand. Ultimately, this project will increase the water remaining in-stream in the Bay-Delta and Colorado River Basin systems. Increasing in-stream flows will benefit overall ecosystem health. The Project will preserve water supplied to the natural environment and to species reliant on water from these sources. The Lower Colorado River supports several hundred species of wildlife. Water is diverted from the Colorado River primarily at Lake Havasu and transported to Southern California via CRA. Diversions made to supply Southern California decrease flows that would otherwise support the Lower Colorado River ecosystem. The 2004 Lower Colorado River Multi-Species Conservation Program covers at least 27 species, most of which are state or federally listed as endangered, threatened, or sensitive species (lcrmscp.gov). The plan estimates that flow reductions could reach 1,574,000 AFY by 2051, resulting in lower water levels and higher concentrations of contaminants from agricultural runoff. Water in sufficient quantity and quality is fundamental to the health of the Colorado River and to the survival of those covered species and all elements of the wider ecosystem. By decreasing Otay’s reliance on imported water supplies, the Project will increase the quality and quantity of water that remains in the Colorado River, thereby supporting the health of the river and restoring and enhancing habitat for species dependent upon it.

The Sacramento Bay-Delta encompasses 1,600 square miles and provides habitat for more than 500 species of fish and wildlife. The Bay-Delta Conservation Plan identified over 30 species potentially impacted by withdrawals from that system through the SWP, including the delta smelt and Chinook salmon. Impacts from withdrawals occur due to the change of river flow by pumping, capture within pumping equipment, and increased saltwater intrusion due to pumping. A decrease in demand for water imported through the SWP could help to alleviate these pressures on the Sacramento Bay-Delta ecosystem and could help restore habitat for listed and non-listed species.

Locally, this Project reduces water loss from breaks, leaks, and over-irrigation that would otherwise run off into storm drains, picking up and transporting pollutants (sediment, oil, fuels, trash, debris, and fertilizers) along the way. Eventually, untreated stormwater drains to the region's waterways and ultimately into the Pacific Ocean. Stormwater pollution can harm or kill fish and other wildlife and can destroy aquatic habitats. Runoff initiating in Otay's service area passes through lands within the San Diego Multiple Species Conservation Program (MSCP) Plan, which covers 85 species in the south county that are either currently listed as threatened or endangered under the California or Federal Endangered Species Acts or may become listed during the term of the MSCP Plan.

Addressing a specific water and/or energy sustainability concern(s). Will the project address a specific sustainability concern?

California and the western United States are again experiencing extensive drought conditions. For the first time, shortages were declared on the Colorado River. The 2019 San Diego Integrated Regional Water Management (IRWM) Plan notes; *"...Climate change may affect water supply availability because of droughts, seawater intrusion, changes in precipitation volumes and timing, altered fire and weather regimes, and potential changes in the availability of imported water supplies. Water quality degradation and sea-level rise are also water management concerns attributed to climate change in the region.*

Otay purchases 100% of its potable water supply from the San Diego County Water Authority (SDCWA), of which 11% is supplied by California's State Water Project (SWP) and 72% by the Colorado River. Otay's heavy reliance on imported water originating hundreds of miles away, combined with projected population growth in the service area and the region's susceptibility to drought adds continued pressure on supply reliability. The Project is expected to lead to a reduction in water demands by an estimated 1,719 AFY. Through the Project, Otay will be able to reduce its purchases of water from the SDCWA, thereby reducing demands on imported supplies supplied by USBR and SWP.

In recent years, periods of high electricity demand above or near the region's energy production capacity have resulted in emergency alerts to reduce strain on the power grid. When necessary,

the region’s energy utility provider, San Diego Gas & Electric, issues brownouts and rolling blackouts. As mentioned previously, embedded energy avoidance as a result of decreased demand for imported water will promote greater resource sustainability. Reduced energy use will reduce strain on the power grid. As discussed above, AMI will eliminate the need to drive to each meter to collect monthly data, reducing fossil fuel consumption, also contributing to sustainability.

Access to real-time consumption data through AMI technology will promote better water management, promote water-efficient behaviors, and enable faster repair of leaks and breaks. AMI provides information to end-users about their consumption and allows them to see how improving water-use efficiency could help reduce overall use, thus contributing to sustainability.

Other project benefits. These benefits may include, but are not limited to, the following:

(1) Combating the Climate Crisis: E.O. 14008: Tackling the Climate Crisis at Home and Abroad, focuses on increasing resilience to climate change and supporting climate-resilient development. Describe how the project will address climate change, including the following:

How the project will address the impacts of climate change and help combat the climate crisis. How will the project strengthen water supply sustainability to increase resilience to climate change? How will the project establish and utilize a renewable energy source? Will the project result in lower greenhouse gas emissions?

Refer above to section **Subcriterion No. B.2: Increasing Energy Efficiency in Water Management** for an overview of how the Project will result in lower GHG emissions.

(2) Disadvantaged or Underserved Communities: Please describe how the project supports these Executive Orders, including: Does the proposed project directly serve and/or benefit a disadvantaged or historically underserved community?

According to the US Census (V2019), 10.3% of San Diego County’s population is classified as “persons in poverty.” While the Project area is not located within a DAC, the water conserved by this Project is made available to the entire service area, including the neighboring (DAC) City of El Cajon, and other rural and economically disadvantaged communities (EDCs). On a regional scale, more water will be made available to other parts of the state and western region, including tribes, rural communities, and EDCs through a reduction in the amount of imported water Otay purchases.

(3) Tribal Benefits: Please address the following, if applicable: Does the proposed project directly serve and/or benefit a Tribe? Will the project increase water supply sustainability for an Indian Tribe? Will the project provide renewable energy for an Indian Tribe? Does the proposed project

directly support tribal resilience to climate change and drought impacts or provide other tribal benefits such as improved public health and safety through water quality improvements, new water supplies, or economic growth opportunities?

Otay provides potable water service to the Sycuan and Jamul bands of the Kumeyaay Nation. Each band has a resort casino located on their land, and Sycuan also is home to a golf course reliant on potable water to irrigate. There are plans to develop other tribal properties in the future, including housing. Future phases of AMI implementation will connect Jamul and Sycuan tribal lands with real-time meter data. This Project reduces the burden on the imported water system, thus helping to ensure the supply of potable water for the tribes' economic wellbeing remains stable.

(4) Other Benefits: Will the project address water and/or energy sustainability in other ways not described above? For example:

Will the project assist States and water users in complying with interstate compacts?

This Project supports the State of California's commitment to live within its annual 4.4 million AF apportionment of Colorado River water. With tensions high among the Lower Colorado River parties, the California Colorado River Water Use Plan, known as the 4.4 Plan, established a timeline for California to reduce its take on the Colorado River to its legal 4.4 million AF allocation. The 2003 Quantification Settlement Agreement (QSA) is the linchpin to the 4.4 Plan. The QSA allocates each participating agency in California its share of Colorado River water and intends to save up to 800,000 AF of water through a variety of means including conservation, agriculture to urban water transfers, and conjunctive use. Otay's project will contribute to the stability of the Colorado River supplies by reducing its demand for imported water.

b. Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal and industrial, environmental, recreation, or others)?

Every drop of water and watt of energy saved relieves pressure on strained supplies. Otay's project will reduce water use by 1,719 AFY. It will also reduce energy use by 4,007,333 kWh and avoid 2,848 MT CO₂e annually. The conserved water and energy will remain available in the system for the benefit of multiple sectors, including habitat, fisheries, agriculture, industry, and recreation.

Will the project benefit from a larger initiative to address sustainability? Will the project help to prevent a water-related crisis or conflict? Is there frequent tension or litigation over water in the basin?

Water retailers throughout the region that receive supplies from the Sacramento Bay-Delta and the Colorado River Basin face constant tension as demands for water from increasingly strained sources continue to grow. With 90% of California under extreme drought conditions and the Colorado River facing its first-ever declared water shortage, these tensions are increasing. The Project helps decrease demands for water from these sources. In addition, decreasing imports from the Bay-Delta and Colorado River Basin will help entities such as USBR meet their obligations to deliver water to projects or partners supplied by these distant water sources.

1.4.4 Evaluation Criterion D—Complementing On-Farm Irrigation Improvements

If the proposed project will complement an on-farm improvement eligible for NRCS assistance, please address the following: Describe any planned or ongoing projects by farmers/ranchers that receive water from the applicant to improve on-farm efficiencies.

Otay’s service area does not have a significant agricultural sector or agricultural customer class. As such this evaluation criterium is not relevant.

1.4.5 Evaluation Criterion E—Planning and Implementation

1.4.5.1 Subcriterion E.1— Project Planning

Does the applicant have a Water Conservation Plan and/or System Optimization Review (SOR) in place? Does the project address an adaptation strategy identified in a completed WaterSMART Basin Study?

The City of San Diego served as the lead agency in the development of the San Diego Watershed Basin Study. Information on the effort can be found here: <https://www.usbr.gov/lc/socal/basinstudies/SDBasin.html>. The San Diego Basin Study includes the identification of concepts and projects that will assist the region in meeting its water demands through the 2050s. One of the concepts listed in the basin plan is “Urban and Agricultural Water Use Efficiency”, which is described as increasing “water use efficiency by encouraging long-term behavioral change and implementing water use efficiency programs”. This AMI project falls within this type of concept.

San Diego Basin Study
 Task 2.5 – Trade-Off Analysis and Opportunities

| Concept ¹ | Narrative Concept Description |
|---|---|
| Stormwater Capture | Provide water supply by capturing stormwater through both centralized projects and regional decentralized efforts and treating it for both potable and non-potable uses. |
| Urban and Agricultural Water Use Efficiency | Increase water use efficiency by encouraging long-term behavioral change and implementing water use efficiency programs (e.g., rain barrel rebates, turf replacement credits, rebates for more efficient irrigation or plumbing fixtures, gray water system rebates). |
| Watershed and Ecosystem Management | Promote sustainable, high quality local water supplies through practices that support healthy ecosystems and improve or restore the condition of landscapes and biological communities. Such practices may include invasive species removal, restoration of native ecosystems, land acquisition for protection or enhancement, brush/forest management for wildfire risk reduction, remediation of aquifer and reservoir water quality through engineered or biological controls, management of non-point and point source pollution, and low impact development. |

¹ Concepts that were only included in the Baseline Portfolio analysis of the Task 2.4 Interim Report, such as Drought Restriction/Allocation, Firm Water Supply Agreements, and Local Surface Water Reservoirs, were not evaluated in the Task 2.5 Trade-off Analysis.

Otay is a stakeholder in the 2019 San Diego Integrated Regional Watershed Management (IRWM) Plan. The Project would, directly and indirectly, address many of the Plan’s recommendations, including making improvements in water supply and addressing climate change. The 2019 IRWM Plan seeks to develop an integrated, balanced, and consensus-based approach to ensuring the long-term sustainability of the Region’s water supply, water quality, and natural resources. One of the 2019 IRWM Plan’s objectives is to improve water supply and focus on optimizing local water resources to reduce the Region’s reliance on imported water. The targets include conserving water through water-use efficiency and conservation measures. The Project will increase water-use efficiency and reduce the loss of potable supplies in support of the plan. The Project will help improve local supply reliability by reducing demands and will result in reductions in energy use and GHGs through reduced demand for imported water that requires energy to pump water from distant watersheds.

The goals and objectives of the Project align with the State’s SBx7-7 requirements and objectives of the anticipated “framework” that is being developed by a collaboration of California state agencies, directed at “making water conservation a way of life in California”.

California’s recent drought of the mid-2010s prompted the passage of Senate Bill 606 and Assembly Bill 1668 and issuance of two executive orders (EOs) by California’s Governor Brown in 2016 and 2017, with the intent of responding to the historical and extended hydrological drought and water shortages that plagued the state and larger western U.S. region. Both EO B-37-16 and EO B-40-17 direct the State Water Board and Department of Water Resources to minimize water system leaks in urban retail water systems that waste large amounts of water. Further, the

California Water Code Section 10608.34 required the State Water Board to develop water loss performance standards for urban retail water suppliers between January 2019 and July 2020

AMI is a strategy identified in Otay’s 2019-2022 Strategic Plan for Growth and Sustainability, which can be viewed here: <https://otay-3y354o0pajyrfwiyyvs.netdna-ssl.com/wp-content/uploads/2019/04/FY-2019-2022-Strategic-Plan.pdf>

E.1.5.2. Subcriterion E.2— Readiness to Proceed

Identify and provide a summary description of the major tasks necessary to complete the project.

Otay is the singular entity implementing the Project, which is located entirely within Otay’s service area and is ready to proceed according to the schedule provided in this proposal. Otay employs a talented staff who have been an integral part of the planning process for AMI implementation. Otay is ready to work with the USBR and welcomes the opportunity to collaborate through funding and implementation of the Project. Otay’s Board of Directors supports the AMI initiative, as evidenced by the draft resolution included in Appendix C. A dedicated portion of the Capital Improvement Program has been designated to fund the Project. Otay has already started installing AMI-capable meters in anticipation of this long-awaited AMI upgrade project. Otay will undergo a competitive process to ensure competitive selection of vendors occurs when more than one qualified firm can provide the product or service and will issue contracts in accordance with requirements outlined in the agency’s policies and regulations.

Otay will complete all required environmental and cultural resources reviews and anticipates acquiring any applicable permits connected with the Project. It is anticipated that the AMI work scope would qualify as a NEPA Categorical Exclusion.

| Project Schedule | |
|--|----------------------------|
| Anticipated contract approval from USBR | April 2022 |
| Project Administration | April 2022 – March 2024 |
| Environmental/Cultural Resources Review | November 2021 – March 2022 |
| Contracting | April 2022 – February 2023 |
| Construction/Implementation (to begin after July 2022, Per NOFO) | July 2022 – March 2024 |

Note: Accrual of eligible expenses could begin after grant agreement execution and prior to July 2022, pending prior approval by USBR.

6.3.6 Evaluation Criterion F—Collaboration

Is there widespread support for the project?

While Otay will be implementing the Project without project partners, support for the project has been expressed by the Board of Directors as well as those entities providing letters of support included as Appendix C of this grant application.

1.4.6 Evaluation Criterion G— Addition to Non-Federal Funding

State the percentage of non-Federal funding provided using the following calculation:

$$\frac{\$234,645(\text{Non – Federal Funding})}{\$469,290 (\text{Total Project Cost})} = 50 \% \text{ Cost Share}$$

The percentage of non-Federal funding is 50%, which meets the required 50% match.

1.4.7 Evaluation Criterion H— Nexus to Reclamation

Describe the nexus between the proposed project and a Reclamation project or Reclamation activity. Please consider the following: Does the applicant have a water service, repayment, or O&M contract with Reclamation? If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means? Will the proposed work benefit a Reclamation project area or activity? Is the applicant a tribe?

Otay receives a large portion of its water from sources that ultimately originate from the Bay-Delta and the Colorado River Basin. Otay purchases the large majority of its potable water supply from the SDCWA, of which 11% is supplied by California’s SWP and 72% is supplied by the CRA. Parker Dam, a Reclamation Project, provides water regulation and storage for the CRA. The Central Valley Project (CVP), which shares resources with the State of California’s SWP, is also a Reclamation project. The Project will conserve water that will ultimately reduce demand on the SWP/CVP and CRA, thereby benefiting Reclamation projects. The applicant is not a USBR contractor directly but does receive imported water from MWD, a contractor. The Project is neither on Reclamation lands nor does it involve USBR facilities. The applicant is not a tribe but does have tribal lands located within its service area.

2 Project Budget

2.1 Funding Plan & Letters of Commitment

Otay will provide the non-Reclamation share of the Project costs through its capital improvement project budget. The cost breakdown is shown in the table below. No additional funding commitments have been pursued for the scope of this project at this time.

| FUNDING SOURCE | % OF PROJECT | FUNDING AMOUNT |
|---------------------------------------|--------------|----------------|
| Non-Federal Entities | | |
| Otay Water District | | |
| <i>Non-Federal Subtotal:</i> | 50% | \$234,645 |
| Other Federal Entities | | |
| N/A | 0% | |
| <i>Other Federal Subtotal:</i> | 0% | |
| Requested Reclamation Funding: | 50% | \$234,645 |
| TOTAL PROJECT FUNDING: | 100% | \$469,290 |

2.2 Budget Proposal

The proposed budget breakdown by funding source for the Project is provided in this table.

| | AMOUNT |
|---|------------------|
| Costs to be reimbursed with the requested Federal | \$234,645 |
| Costs to be paid by the applicant | \$234,645 |
| Value of third-party contributions | \$0 |
| TOTAL PROJECT COST | \$469,290 |

The proposed budget for the Project is provided below.

| Budget Proposal | | | | |
|--|--------------------|-----------------|----------------------|---------------------|
| BUDGET ITEM DESCRIPTION | COMPUTATION | | Quantity Type | TOTAL COST |
| | \$/Unit | Quantity | | |
| Salaries and wages | | | | \$0 |
| N/A | | | | \$0 |
| Fringe benefits by \$ or % | | | | \$0 |
| N/A | | | | \$0 |
| Travel | | | | \$0 |
| N/A | | | | \$0 |
| Equipment | | | | \$0 |
| N/A | | | | \$0 |
| Materials and Supplies | | | | \$0 |
| N/A | | | | \$0 |
| Contractual/Construction | | | | \$469,290.00 |
| Meter Box Lids | \$50 | 500 | Units | \$25,000.00 |
| Base Stations - Installation Services | \$20,000 | 2 | Units | \$40,000.00 |
| Repeaters – Installation Services | \$13,000 | 7 | Units | \$91,000.00 |
| Customer Engagement Portal | | | Lump Sum | \$150,000.00 |
| Site Electrical | | | Lump Sum | \$60,000.00 |
| Integration of Meter Data Management and Customer Portal | | | Lump Sum | \$25,000.00 |
| Software Fees | | 1 | Units | \$54,290.00 |
| Education and Outreach Program | | | | \$24,000.00 |
| Environmental and Regulatory Costs | | | | \$0 |
| N/A | | | | |
| Third-Party Contributions | | | | \$0 |
| N/A | | | | |
| Other | | | | |
| N/A | | | | \$0 |
| TOTAL ESTIMATED PROJECT COSTS | | | | \$469,290.00 |

2.3 Budget Narrative

Salaries and Wages

The Project is not requesting funds for salaries and wages.

Fringe Benefits

The Project is not requesting funds for fringe benefits.

Travel

The Project is not requesting funds for travel.

Equipment

The Project is not requesting funds for equipment.

Materials and Supplies

The Project is not requesting funds for materials and supplies.

Contractual

The Project accounts for AMI upgrades for approximately 45% of the total meters in Otay's service area and includes installation of new AMI communications network hardware, upgrading the meter data management software system, procurement and installation of AMI-compatible meter box lids, procurement and implementation of a web-based customer engagement platform, and public outreach to educate customers on how to utilize the new portal to maximize water-use efficiency. The 24,000 meters included in this phase of the AMI implementation effort are currently operating in the ground and being read by Otay's current AMR system but are capable of being upgraded and connected to the new AMI system, once constructed. Otay will administer competitive selection processes to procure professional services, and installation services as applicable to the Project.

The total of all these items combined is a total of \$469,290 for construction and contractual costs for the Project budget.

Third-Party In-Kind Contributions

The Project is not requesting third-party in-kind contributions.

Environmental and Regulatory Compliance Costs

The Project is not requesting funds for environmental and regulatory compliance costs.

Other Expenses

The Project is not requesting funds for other expenses.

Indirect Costs

The Project is not requesting funds for indirect costs.

Total Costs

The total cost of the proposed project is **\$469,290.00**. Funding sources for the Project are the Otay Water District and the requested funds from USBR. Otay is requesting **\$234,290.00** from USBR to fund the Project. This request represents 50% of the total project cost. No other Federal funding has been requested or received for the Project.

3 Environmental and Cultural Resource Considerations

Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

The Project will consist of building the AMI network to enable activation of AMI functionality for 24,000 AMI-compatible smart meters capable of providing real-time meter readings. Earth-disturbing work is not anticipated when building the AMI infrastructure or upgrading the meters.

Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

The project area is located within a Multiple Species Conservation Program (MSCP) area and within proximity to U.S. Fish and Wildlife Service (USFWS) Species Critical Habitats for Least Bell's Vireo, Southwestern Willow Flycatcher, Coastal California Gnatcatcher, and Quino checkerspot butterfly. Although these species may be located within the project area, they are unlikely to be located within AMI network installation replacement sites (customer meter boxes) or within the existing right of way where water distribution lines are located. These areas are previously disturbed. Given the small-scale and temporary nature of work activities associated with the Project, listed species or designated critical habitat is not expected to be adversely affected.

Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?" If so, please describe and estimate any impacts the proposed project may have.

There are several surface waters and wetlands inside the Otay boundary that would fall under CWA jurisdiction as "Waters of the United States". These include several lakes, rivers, streams,

and marshes. However, none of the surface waters or wetlands areas would be impacted by the project. All work will occur within sites which have previously been disturbed.

When was the water delivery system constructed?

The Otay Water District was established in 1956 to serve as a public water utility. The potable water system has developed over time and continues to expand to meet the requirements of new development continue.

Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

The Project will not modify or affect individual features of an irrigation system. The Project is centered around upgrades to water meters and will not involve irrigation systems.

Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

The Project will not modify or affect any buildings, structures, or features. Therefore, cultural resources will not be affected because of program implementation.

Are there any known archeological sites in the proposed project area?

There are no known archeological sites in the proposed AMI network infrastructure installation sites (existing Otay-owned facilities). The Project would not result in significant ground-disturbing activity that would pose a significant threat to archaeological sites.

Will the proposed project have a disproportionately high and adverse effect on low-income or minority populations?

The Project will occur throughout Otay’s service area which includes low-income and minority populations, with no disproportionate impacts or benefits from program implementation anticipated to those populations. AMI offers real-time information on water consumption which may be of benefit to lower-income customers due to an anticipated increase in early leak detections (and prompt response) thus lowering water bills.

Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

It is not anticipated that this project will limit access to and ceremonial use of Indian sacred sites or have negative impacts on tribal lands.

Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

The Project does not include any habitat alteration components. The program would not contribute to the introduction, continue the existence of, or spread noxious weeds or non-native invasive species.

4 Required Permits or Approvals

The Project will piggyback upon Otay’s existing water meter programs which have been implemented for several years. Through its existing programs, Otay anticipates that it will not need more than filing a CEQA Notice of Exemption to achieve environmental permitting approval. No extensive permitting work is anticipated for this project. Funding is not being requested for the permitting and environmental tasks and no costs are included for such activities in the budget.

5 Letters of Project Support

Otay has received letters of support for the Project from the following entities, which can be found in Appendix B:

- U. S. Congressman Juan Vargas
- CA State Senator Brian Jones
- San Diego County Supervisor Joel Anderson
- San Diego County Supervisor Nora Vargas
- City of Chula Vista Mayor Mary Casillas Salas
- Chula Vista Chamber of Commerce
- South County Economic Development Corporation

6 Official Resolution

A resolution will be introduced at Otay’s November 3, 2021 Board meeting to authorize the General Manager to apply for this WaterSmart WEEG grant. A draft resolution is attached in Appendix C, which provides the following:

- Identification of the official with legal authority to enter into an agreement
- Board support of the application

- Verification of applicant’s ability to provide the funding match
- Verification of applicant’s willingness to work with Reclamation to meet established deadlines for entering into a cooperative agreement

The final executed copy will be submitted to USBR within 30 days of the application submittal.

7 Automated System Application for Payment (ASAP) Registration

Otay has an active account in the ASAP registration system with current information. Otay will maintain an active ASAP account during the period of any federal assistance agreement. Otay’s ASAP ID is 0645526.

8 System for Award Management (SAM) Registration

Otay is registered in the SAM and will maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. The City’s unique entity identifier is MFXR1XB7D5GG8.

9 References

- City of Santa Ana, Application to WaterSMART Water and Energy Efficiency Grants, Automated Metering Infrastructure (AMI). [WaterSMART Grants | Bureau of Reclamation \(usbr.gov\)](#), 2020
- East Bay Municipal Utility District, Advanced Metering Infrastructure (AMI) Pilot Study Update.” https://www.ebmud.com/files/5914/3172/1409/112514_finance_presentations.pdf. 2014.
- EPA Greenhouse Gas Equivalencies Calculator. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>. March 2021
- EPA WaterSense, “Leaks Can Run, but They Can’t Hide. Checking for Leaks.” <https://www.epa.gov/watersense/fix-leak-week>. Accessed 14 October 2021.
- Haines, D., IBM Research. “Every Drop Counts: How Water Utilities Are Putting Water Efficiency first.” Journal AWWA, vol 105, no 6. June 2013, pp. 78-81.
- Irvine Water District, “California Single-Family Water Use Efficiency Study.” California Department of Water Resources. <https://cawaterlibrary.net/wp-content/uploads/2019/07/California-Single-Family-Home-Water-Use-Efficiency-Study-20110420.pdf>. 2011
- Lower Colorado River Multi-Species Conservation Program. (2004). *Habitat Conservation Plan*, vol II. https://www.lcrmscp.gov/publications/hcp_volii_2004.pdf

- Otay Water District, 2020 Urban Water Management Plan. https://wuedata.water.ca.gov/public/uwmp_attachments/3946873307/Otay%20Water%20District%202020%20UWMP%20Complete.pdf. June 2021
- Sensus, “Eastern Municipal Water District Improves Meter Read Accuracy.” <https://sensus.com/resources/case-studies/eastern-municipal-water-district-improves-meter-read-accuracy>. Accessed 14 October 2021.

10 Appendices

10.2 Appendix B - Letters of Support

WASHINGTON OFFICE
2244 RAYBURN BUILDING
WASHINGTON, D.C. 20515
(202) 225-8045
FAX: (202) 225-2772

CHULA VISTA OFFICE
333 F STREET, SUITE A
CHULA VISTA, CA 91910
(619) 422-5983
FAX: (619) 422-7280

EL CENTRO OFFICE
380 NORTH 8TH STREET, #14
EL CENTRO, CA 92243
(760) 312-9900
FAX: (760) 312-9664



Congress of the United States
House of Representatives

Juan Vargas
51st District, California

COMMITTEE ON FINANCIAL SERVICES
SUBCOMMITTEE ON INVESTOR PROTECTION,
ENTREPRENEURSHIP AND CAPITAL MARKETS
SUBCOMMITTEE ON HOUSING,
COMMUNITY DEVELOPMENT AND INSURANCE
SUBCOMMITTEE ON NATIONAL SECURITY,
INTERNATIONAL DEVELOPMENT
AND MONETARY POLICY

COMMITTEE ON FOREIGN AFFAIRS
WESTERN HEMISPHERE, CIVILIAN SECURITY,
AND TRADE
MIDDLE EAST, NORTH AFRICA,
AND INTERNATIONAL TERRORISM

October 29, 2021

The Honorable Camille Touton
Deputy Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Dear Deputy Commissioner Touton:

I am writing this letter to introduce you to the Otay Water District (District), as they submit their application to the U.S. Department of the Interior (DOI) under the Fiscal Year 2022 WaterSMART: Water and Energy Efficiency Grant (WEEG) Funding Opportunity Announcement [FOA] #R22AS00023.

California and the western United States are presently experiencing significant drought conditions, and Southern California faces ongoing water supply challenges and climate change impacts. The 51st District lies at the end of the water supply chain. For this reason, I am interested to look at innovative ways to ensure that water supplies are being used efficiently to reduce the impact on such limited natural resources.

I have been told that the project proposal submitted by the District would construct an Advanced Metering Infrastructure (AMI) communications network that enables remote, real-time water meter reading capabilities, eliminating the need for District staff to read meters manually each billing cycle. It is my understanding that the implementation of an AMI system will provide customers with hourly meter reads that can be easily accessed through a user-friendly internet (web) portal. Through this program, customers would gain the ability to proactively monitor and then manage their water consumption at any time, rather than just upon receipt of their monthly bill.

I have also been told that this system would allow customers the option of receiving notifications should water use anomalies occur or high-water usage thresholds be met, thereby allowing them to address potential water waste issues quickly. The system would also provide District staff with easy-to-access real-time data if customers do not have access to the internet or prefer to talk to someone directly about their water use.

If awarded funding, I understand the deployment of the AMI project could help improve the overall efficiency of water use. To enhance water supply in my district, I support innovative ways to use water and other natural resources wisely.

As you consider applicants for funding for the WaterSmart WEEG Program, I ask that you please give the Otay Water District's application full and fair consideration based on its merits and within all applicable rules, regulations and laws set forth. If you have any questions, please feel free to contact my staff at (619) 422-5963.

Sincerely,

A handwritten signature in blue ink that reads "Juan Vargas". The signature is written in a cursive, flowing style.

JUAN VARGAS
Member of Congress

California State Senate

SENATOR BRIAN W. JONES
THIRTY-EIGHTH SENATE DISTRICT



October 29, 2021

The Honorable Brenda Burman
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Dear Commissioner Burman:

I am writing to express my support for the Otay Water District's (District) grant application to the U.S. Department of the Interior (DOI) under the Fiscal Year 2022 WaterSMART: Water and Energy Efficiency Grant (WEEG) Funding Opportunity Announcement [FOA] #R22AS00023. This vital funding would support the deployment of the District's Advanced Metering Infrastructure (AMI) project.

Through this grant application, the District is requesting funding to construct an AMI communications network that enables remote, real-time water meter reading capabilities, eliminating the need for District staff to read meters manually each billing cycle. Implementation of an AMI system will provide customers with hourly meter reads that can be easily accessed through a user-friendly internet (web) portal. Customers will gain the ability to proactively monitor and then manage their water consumption at any time, rather than just upon receipt of their monthly bill. This system even allows customers the option of receiving notifications should water use anomalies occur or high-water usage thresholds be met, allowing them to address potential water waste issues quickly. It would also provide District staff with easy-to-access real-time data if customers do not have access to the internet or prefer to talk to someone directly about their water use.

California and the western United States are presently experiencing significant drought conditions, and Southern California faces ongoing water supply challenges and climate change impacts. For this reason, it is imperative that agencies such as the Otay Water District implement programs like this one to ensure that water supplies are being used efficiently and reduce our impact on the region and planet.

As a California State Senator representing several constituents within the Otay Water District's service area, I recognize the valuable role that this project plays in using water wisely. Please accept my recommendation for full and fair consideration, as permitted under law, of the Otay Water District's application for WaterSmart WEEG funding.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. Jones".

Brian W. Jones
Senator, 38th District



JOEL ANDERSON

Serving the cities of:
El Cajon
La Mesa
Lemon Grove
Poway
Santee

Serving the communities of:
Agua Caliente
Alfred Gardens
Alpine
Barter
Blossom Valley
Bostona
Buckner
Campo
Carmel
Casta de Oro
College Area
Crest
Cuyamaca
Delmar
Del Cerro
Descanso
Dulzura
Escondido Hills
Ferdinand
Four Springs
Granite Hills
Grainville
Guatay
Harbison Canyon
Jambula
Janao
Jubastown
Julian
Lake Murray
Lakeside
Mammoth Lakes
Pine Hills
Pine Valley
Poinsett
Ramona
Rancho San Diego
Rolando
San Carlos
San Diego County Estates
San Pasqual
Santa Ysabel
Santee Valley
Spring Valley
Tavara
Terra del Sol
Vallecitos
Vindula

*Serving the Indian
reservations of:*
Barona
Campo
Casta
Escondido
Imperial
Janao
La Posta
Maricopa
Mesa Grande
Santa Ysabel
Sycuan
Tijera

October 27, 2021

Ms. Camille Touton
Deputy Commissioner
Bureau of Reclamation
1849 C Street, NW
Washington, DC 20240-0001

Dear Ms. Touton:

I am writing to express my support for the Otay Water District's (District) grant application to the U.S. Department of the Interior (DOI) under the Fiscal Year 2022 WaterSMART: Water and Energy Efficiency Grant (WEEG) Funding Opportunity Announcement [FOA] #R22AS00023. This vital funding would support the deployment of the District's Advanced Metering Infrastructure (AMI) project.

Through this grant application, the District is requesting funding to construct an AMI communications network that enables remote, real-time water meter reading capabilities, eliminating the need for District staff to read meters manually each billing cycle. Implementation of an AMI system will provide customers with hourly meter reads that can be easily accessed through a user-friendly internet (web) portal. Customers will gain the ability to proactively monitor and manage their water consumption at any time, rather than just upon receipt of their monthly bill. This system provides customers the option of receiving notifications should water use anomalies occur or high-water usage thresholds be met, allowing them to address potential water waste issues quickly. It would also provide District staff with easy-to-access real-time data if customers do not have access to the internet or prefer to talk to someone directly about their water use.

California and the western United States are presently experiencing significant drought conditions, and Southern California faces ongoing water supply challenges. It is, therefore, imperative that agencies such as the Otay Water District implement programs like this to ensure that water supplies are being used efficiently and reduce our impact on the region and planet.

SAN DIEGO COUNTY BOARD OF SUPERVISORS, SECOND DISTRICT
1600 PACIFIC HIGHWAY, ROOM 335, SAN DIEGO, CALIFORNIA 92101-2470
PHONE: (619) 531-5522 • EMAIL: JOEL.ANDERSON@SDCOUNTY.CA.GOV
www.supervisorjoelanderson.com

Ms. Camille Touton
October 27, 2021
Page 2

Recognizing the valuable role that this project plays in using water wisely, I encourage you to give full consideration to funding the District's grant application for WaterSMART WEEG funding.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Anderson", with a long horizontal flourish extending to the right.

Joel Anderson
Supervisor, Second District



Nora Vargas

SUPERVISOR, FIRST DISTRICT
San Diego County Board of Supervisors

October 29, 2021

Ms. Camille Touton
Deputy Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Re: Support for Otay Water District: Advanced Metering Infrastructure Project

Dear Deputy Commissioner Touton:

On behalf of the San Diego County Board of Supervisors First District, I am writing to request consideration and support for the Otay Water District's (District) grant application to the U.S. Department of the Interior (DOI) under the Fiscal Year 2022 WaterSMART: Water and Energy Efficiency Grant (WEEG) Funding Opportunity Announcement [FOA] #R22AS00023. This vital funding would support the deployment of the District's Advanced Metering Infrastructure (AMI) project.

Through this grant application the District is requesting funding to construct an AMI communications network that enables remote, real-time water meter reading capabilities, eliminating the need for District staff to read meters manually each billing cycle. Implementation of an AMI system will provide customers with hourly meter reads that can be easily accessed through a user-friendly internet (web) portal. Customers will gain the ability to proactively monitor and then manage their water consumption at any time, rather than just upon receipt of their monthly bill. This system even allows customers the option of receiving notifications should water use anomalies occur or high-water usage thresholds be met, allowing them to address potential water waste issues quickly. It would also provide District staff with easy-to-access real-time data if customers do not have access to the internet or preferred to talk to someone directly about their water use.

California and the western United States are presently experiencing significant drought conditions, and Southern California faces ongoing water supply challenges and climate change impacts. For this reason, it is imperative that agencies such as the Otay Water District implement

County Administration Center • 1600 Pacific Highway, Room 335 • San Diego, CA 92101

Phone: (619) 531-5511 • Fax: (619) 531-6262

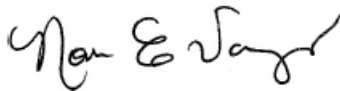
Email: Nora.Vargas@sdcounty.ca.gov

programs like this one to ensure that water supplies are being used efficiently and reduce our impact on the region and planet.

The Otay Water District serves many of the same residents that are within my County Supervisorial District and I recognize the valuable role that this project plays in using water wisely. As the County Supervisor I support this project because it aligns with the County of San Diego's Climate Action Plan, which includes as one of our performance metrics to reduce outdoor water consumption by 40% by 2030. By providing better data access to County residents, it will help them make informed decisions about water consumption.

Please accept our recommendation for full and fair consideration, as permitted under law, of the Otay Water District's application for WaterSmart WEEG funding.

Sincerely,



Nora Vargas, Vice Chair
First District Supervisor

Cc: Honorable Todd Gloria, Mayor, City of San Diego



OFFICE OF THE MAYOR
Mary Casillas Salas

October 26, 2021

The Honorable Brenda Burman
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Dear Commissioner Burman:

I am writing to express support for the Otay Water District's (District) grant application to the U.S. Department of the Interior (DOI) under the Fiscal Year 2022 WaterSMART: Water and Energy Efficiency Grant (WEEG) Funding Opportunity Announcement [FOA] #R22AS00023. This vital funding would support the deployment of the District's Advanced Metering Infrastructure (AMI) project.

Through this grant application the District is requesting funding to construct an AMI communications network that enables remote, real-time water meter reading capabilities, eliminating the need for District staff to read meters manually each billing cycle. Implementation of an AMI system will provide customers with hourly meter reads that can be easily accessed through a user-friendly internet (web) portal. Customers will gain the ability to proactively monitor and then manage their water consumption at any time, rather than just upon receipt of their monthly bill. This system even allows customers the option of receiving notifications should water use anomalies occur or high-water usage thresholds be met, allowing them to address potential water waste issues quickly. It would also provide District staff with easy-to-access real-time data if customers do not have access to the internet or prefer to talk to someone directly about their water use.

California and the western United States are presently experiencing significant drought conditions, and Southern California faces ongoing water supply challenges and climate change impacts. For this reason, it is imperative that agencies such as the Otay Water District implement programs like this one to ensure that water supplies are being used efficiently and reduce our impact on the region and planet.

Please accept our recommendation for full and fair consideration, as permitted under law, of the Otay Water District's application for WaterSmart WEEG funding.

Sincerely,

A handwritten signature in blue ink that reads "Mary Casillas Salas".

MARY CASILLAS SALAS
Mayor



CHULA VISTA
CHAMBER OF COMMERCE

Board of Directors

President

Todd Galarneau

October 28, 2021

President Elect

Susana Villegas

The Honorable Camille Touton

Deputy Commissioner

Bureau of Reclamation

Past President

Eric Johnson

1849 C Street, NW

Washington, DC 20240-0001

Vice Presidents

Patricia Alvarez

Rick King

James Pollock

Dear Deputy Commissioner Touton,

I am writing this letter on behalf of the Chula Vista Chamber of Commerce to express support for the Otay Water District's (District) grant application to the U.S. Department of the Interior (DOI) under the Fiscal Year 2022 WaterSMART: Water and Energy Efficiency Grant (WEEG) Funding Opportunity Announcement [FOA] #R22AS00023. This vital funding would support the deployment of the District's Advanced Metering Infrastructure (AMI) project.

Directors

Roberto Alcantar

Hollie Allen

Giovanna Castro

Becky Cortez

Robert Cromer

Dolores Jackson

Zulema Maldonado

Michael Monaco

Krysthal Moneda

David Polansky

Robert Stanfill

Jennifer Tabler

Dr. Matthew Tessier

Dinah Willier

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Special 1 year term

Jay Norris

California and the western United States are presently experiencing significant drought conditions, and Southern California faces ongoing water supply challenges and climate change impacts. For this reason, it is imperative that agencies such as the Otay Water District implement programs like this one to ensure that water supplies are being used efficiently and reduce our impact on the region and planet.

CEO

William A. Hall

The Chula Vista Chamber recognizes the valuable role that this project plays in using water wisely. We strongly endorse the project because the proposed project efforts that Otay Water District plans to execute have a direct positive impact on our business members and our regional constituency.

Please accept our recommendation for full and fair consideration, as permitted under law, of the Otay Water District's application for WaterSmart WEEG funding.

Sincerely,

William A. Hall

CEO, Chula Vista Chamber of Commerce



October 25, 2021

The Honorable Brenda Burman
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Dear Commissioner Burman:

The South County Economic Development Council is writing to express support for the Otay Water District's (District) grant application to the U.S. Department of the Interior (DOI) under the Fiscal Year 2022 WaterSMART: Water and Energy Efficiency Grant (WEEG) Funding Opportunity Announcement [FOA] #R22AS00023. This vital funding would support the deployment of the District's Advanced Metering Infrastructure (AMI) project.

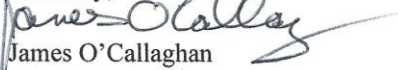
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California and the western United States are presently experiencing significant drought conditions, and Southern California faces ongoing water supply challenges and climate change impacts. For this reason, it is imperative that agencies such as the Otay Water District implement programs like this one to ensure that water supplies are being used efficiently and reduce our impact on the region and planet.

The South County EDC recognizes the valuable role this project plays in using water wisely. The SCEDC supports the project because it is imperative to have the resources necessary to sustain the jobs solidifying our region. The South County EDC is a proponent of investing in infrastructure and encourages technological advances ensuring we are leaders in conservation and proactive stewards in our community.

Please accept our recommendation for full and fair consideration, as permitted under law, of the Otay Water District's application for WaterSmart WEEG funding.

Sincerely,


James O'Callaghan
President/CEO

780 Bay Blvd, Suite 204, Chula Vista, CA 91910

619.424.5143

10.3 Appendix C - Draft Resolution

RESOLUTION NO. 4402

A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE OTAY WATER DISTRICT AUTHORIZING WATERSMART: WATER AND
ENERGY EFFICIENCY GRANT FOR FISCAL YEAR 2022

WHEREAS, the United States Bureau of Reclamation (USBR) is soliciting applications for authorized projects for WaterSMART: Water and Energy Efficiency Grant (Program) funding for Fiscal Year 2022 per Funding Opportunity Announcement No. R22AS00023; and

WHEREAS, the Otay Water District has 52,000 active water meters in the system and desires to implement a project to convert a portion of the meters to Advanced Meter Infrastructure; and

WHEREAS, The Otay Water District has prepared and submitted a grant application under this Program for Fiscal Year 2022 with an application due date of November 3, 2021; and

WHEREAS, USBR has directed applicants to include in its application an official resolution adopted by the applicant's board of directors or governing body verifying 1) the identity of the official with legal authority to enter into an agreement, 2) the board of directors, governing body, or appropriate official who has reviewed and supports the application submitted, 3) the capability of the applicant to provide the amount of funding and/or in-kind contributions specified in the

funding plan, 4) that the applicant will work with USBR to meet established deadlines for entering into a grant or cooperative agreement.

NOW, THEREFORE, BE IT RESOLVED as follows:

1. The General Manager or his designee is authorized to submit an application to the United States Bureau of Reclamation (USBR) to obtain a WaterSMART: Water and Energy Efficiency Grant (Program) funding for Fiscal Year 2022 per Funding Opportunity Announcement No. R22AS00023; and

2. The General Manager has reviewed and supports the application submitted on or about the 3rd day of November 2021; and

3. The Otay Water District is able to provide the minimum 50% funding match specified in the funding plan for the application; and

4. The Otay Water District's Customer Service Manager is hereby authorized and directed to prepare the necessary data, conduct investigations, and facilitate the filing such application.

5. The General Manager is authorized to execute a grant agreement with the USBR in association with this application process.

6. The Otay Water District will work with the USBR to meet established deadlines required for entering into a

cooperative agreement to obtain the aforementioned grant
funding.

PASSED, APPROVED, AND ADOPTED by the Board of Directors of
the Otay Water District at a regular board meeting held this 3rd
day of November 2021, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

President

ATTEST:

District Secretary

Attachment to SF 424 – List of Additional Program/Project Congressional Districts the Project impacts:

CA-051

CA-053