Project Name:

City of Oceanside
Advanced Metering Infrastructure Phase II Project

Prepared For:

U.S. Department of the Interior - Bureau of Reclamation
WaterSMART Grants:
Water and Energy Efficiency Grants Fiscal Year 2020
Funding Opportunity Announcement No. BOR-DO-20-F001

Prepared by:

Project Manager:
Lindsay Leahy
Principal Engineer
City of Oceanside
300 N. Coast Hwy
Oceanside, CA 92054
Phone: 760-435-5913
Email: lleahy@oceansideca.org

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6.1 Executive Summary

Date: October 3, 2019
Applicant Name: City of Oceanside
City, County, State: Oceanside, San Diego, California
Project Name: City of Oceanside Advanced Metering Infrastructure Phase II Project
Funding Group: Group 2
Grant Funding Request: $1,500,000
Non-Federal Matching Funds: $2,997,429
Total Project Costs: $4,497,429
Est. Project Schedule: 2/2020 – 12/2022
Est. Duration from contract award date: Approximately 34 months
Federal Facility Denotation: The Project is not located on a federal facility

Project Summary

The City of Oceanside (City) is responsible for providing reliable, high quality water to its 178,000 residents through approximately 44,500 metered connections. The City's Water Utilities Department has embraced advanced metering infrastructure (AMI) as a best management practice and proven method to reduce water consumption through water use efficiency, and requests funding from the United States Bureau of Reclamation (USBR, Reclamation) through its 2020 WaterSmart Water and Energy Grant (WEEG) Program to implement the "City of Oceanside Advanced Metering Infrastructure Phase II Project" (Project). This proposed Project is the second of a city-wide phased implementation of the AMI system.

The Project scope includes:

1) Upgrade of approximately 11,429 existing meters to AMI-compatible "smart meters" to enable the connection of nearly 25% of the City's meters to the AMI network, and

2) A public outreach campaign that educates customers about AMI and the City's web-based, "WaterSmart" customer engagement portal software (portal) and educates customers about how to utilize the consumption data and other tools made accessible through the portal.

The Project scope for Phase II is separate but additive to Phase I of the AMI project. Phase II will install and integrate 11,429 additional smart meters onto the AMI network infrastructure installed during the City's AMI Phase I Project along with 21,689 smart meters. USBR notified the City of its intent to award the City's Advanced Metering Infrastructure Phase I Project with $1.5 million from the WaterSmart WEEG Fiscal Year (FY) 19 funding cycle.

The Project aligns strongly with the objectives of Reclamation's WaterSmart WEEG Program, as it will result in a measurable savings of treated water (estimated to conserve 1,019 Acre Feet per Year [AFY]), improved water flow management and tracking. AMI will provide the City and its customers access to real-time flow consumption data that will allow for more rapid identification of water leaks, line breaks and unusual consumption patterns. It will provide customers with the ability to track daily water usage and compare that to historical usage. The Project includes a public and outreach campaign directed at customers with new smart meters and access to the customer portal in an effort to increase awareness of water consumption patterns and ultimately encourage greater use water efficiency.

6.2 Background Data

6.2.1 Source of Water Supply, Water Rights, Potential Water Supply Shortfall

Metropolitan Water District (MWD) is Southern California's wholesale water agency, and San Diego County Water Authority (SDCWA) is the largest of MWD's 26 member agencies. MWD derives its water supply from the Colorado River via the Colorado River Aqueduct (CRA), and the State Water Project (SWP) via the California Aqueduct. In 1998, SDCWA entered into a transfer agreement with Imperial Irrigation District (IID) to purchase conserved agricultural water. Through the agreement, SDCWA received 70,000 acre-feet (AF) in from IID in 2010 and by 2021 will receive an up to 200,000 AF for 75 years. Through the 2003 Quantification Settlement Agreement (QSA) on the Colorado River, SDCWA also receives 77,700 AF per year of conserved water from lining of the All-American and Coachella Canals for 110 years (RWMG, 2013). In October 2015, SDCWA began purchasing and treating desalinated seawater from the Carlsbad Desalination Plant, which is operated by Poseidon Resources Group. This desalinated seawater is blended into SDCWA's treated water supply and delivered to SDCWA's member agencies. Of the SDCWA water supply purchased by the City, approximately 20% is treated and 80% is raw (untreated). Additional information regarding SDCWA's historical, current, and planned supplies is available in SDCWA's 2015 Urban Water Management Plan (UWMP) (SDCWA, 2016). Approximately 90% of the City's water is purchased from the SDCWA. The remaining 10% is supplied by groundwater from the Mission Basin, a sub-basin of the San Luis Rey Valley Groundwater Basin (DWR Bulletin 118 Groundwater Basin No. 9-7). The Mission Basin is not adjudicated but is estimated to have a natural safe yield of 7,000 to 10,000 AFY. The basin is also shared with the local tribal nations. Brackish groundwater is pumped from the Mission Basin from wells located within the City and is treated at the Mission Basin Groundwater Purification Facility (MBGPF) with desalination technologies. The City does not currently use and does not plan to use self-supplied surface water as part of its water supply. The City also produces and distributes recycled water which is further described below in **Section 6.2.2**.

SDCWA supplies a significant portion of the City's water which is sourced from SWP, CRA and local resources. The City's reliance on water from SDCWA makes it vulnerable to the potential

impairment of any component of the imported water system. As a coastal city, the City is concerned about the potential impacts of climate change-related sea level rise affecting the Mission Basin. The City is located in a region with limited rainfall in average years, and the potential for changes in precipitation patterns pose a threat in the City's ability to sustainably manage and utilize its local resources. A climate change vulnerability assessment included in the *San Diego Integrated Regional Water Management Plan* (IRWM Plan; RWMG, 2013) concluded that climate change would result in a 164,000 AF per year shortfall in imported water supply for the San Diego region.

6.2.2 Current Customers and Water Delivery System

The City is a water retailer, distributing and metering potable and recycled water to residential, commercial, industrial, agricultural, and dedicated irrigation customers. In FY 17 the City's cumulative potable water use was 25,117 AF. 275.1 AF were distributed through the recycled water system that year. **Table 6.2-1** shows water use by customer classification as well as water loss in FY 17. The City's unaccounted for water was 6.5% in FY 17.

Table 6.2-1 FY 17 Water Demand

Customer Classification	Description	Volume (AFY)	% of Total
Single Family	Single family residential detached dwelling	10,366.2	57.7%
Multi-Family	More than one residential dwelling unit serviced by the meter: Duplex, townhome, condominium, apartments, mobile homes.	4,136.4	
Commercial	Non-residential domestic service	2,399.7	9.6%
Industrial	Businesses whose discharge to the wastewater system have high concentrations of BOD, TSS and /or ammonia.	719.6	2.9%
Landscape Irrigation	Urban landscapes on dedicated meters	4,587.5	18.3%
Agricultural Irrigation	Irrigation of commercially grown crops or other dedicated agricultural connections	928.8	3.7%
Accounted Losses		59.2	0.2%
Unaccounted Losses		1,644.6	6.5%
Recycled Water		275.1	1.1%
Total Water Use		25,117	100%

Table 6.2-2 shows the number of accounts by customer classification in FY 17. The number of accounts is less than the total number of meters as some accounts have more than one meter.

Table 6.2-2: FY 17 Account Classifications

Account Classification	# of Accounts	% of Total
Single Family	38,524	87.85
Multi-Family	2,050	4.67
Commercial	1,653	3.77
Industrial	12	0.03
Landscape	1,493	3.40
Agricultural Irrigation	119	0.27
Recycled Water	3	0.01
TOTAL	**43,854**	**100**

The City's water distribution system includes 12 storage reservoirs located throughout the service area. SDCWA supplies both treated and raw imported water to the City through five aqueduct connections. Raw water is treated at the City's Robert A. Weese Water Filtration Plant which discharges potable water directly into the City's distribution system in the southeastern sector of the City. These potable water sources are distributed to customers through 574 miles of pipelines extending throughout the City and ranging from two to 42 inches in diameter. The City plans to expand its recycled water system, currently comprised of 7.31 miles of pipeline and three metered connections, through increased deliveries to irrigation customers and development of an Indirect Potable Reuse (IPR) project. The IPR project is expected to provide approximately 3,360 AF annually by injecting purified water directly into the groundwater basin by 2021. 1,640 AF of non-potable water will be provided annually by 2022.

6.2.3 Current and Projected Water Demand

The City's 2015 UWMP (UWMP, 2016) includes the following projected water demands between 2020 and 2040, by customer classification. FY 17 actual demands were added to the UWMP's projected estimates, shown in **Table 6.2-3**. The 2015 UWMP's demand projections represent best estimates of future population growth and water use. Because water demands have remained lower than projected demands, projections could be adjusted downward in forthcoming planning documents such as the 2020 UWMP.

Table 6.2-3: Actual and Projected Demands for Potable Water

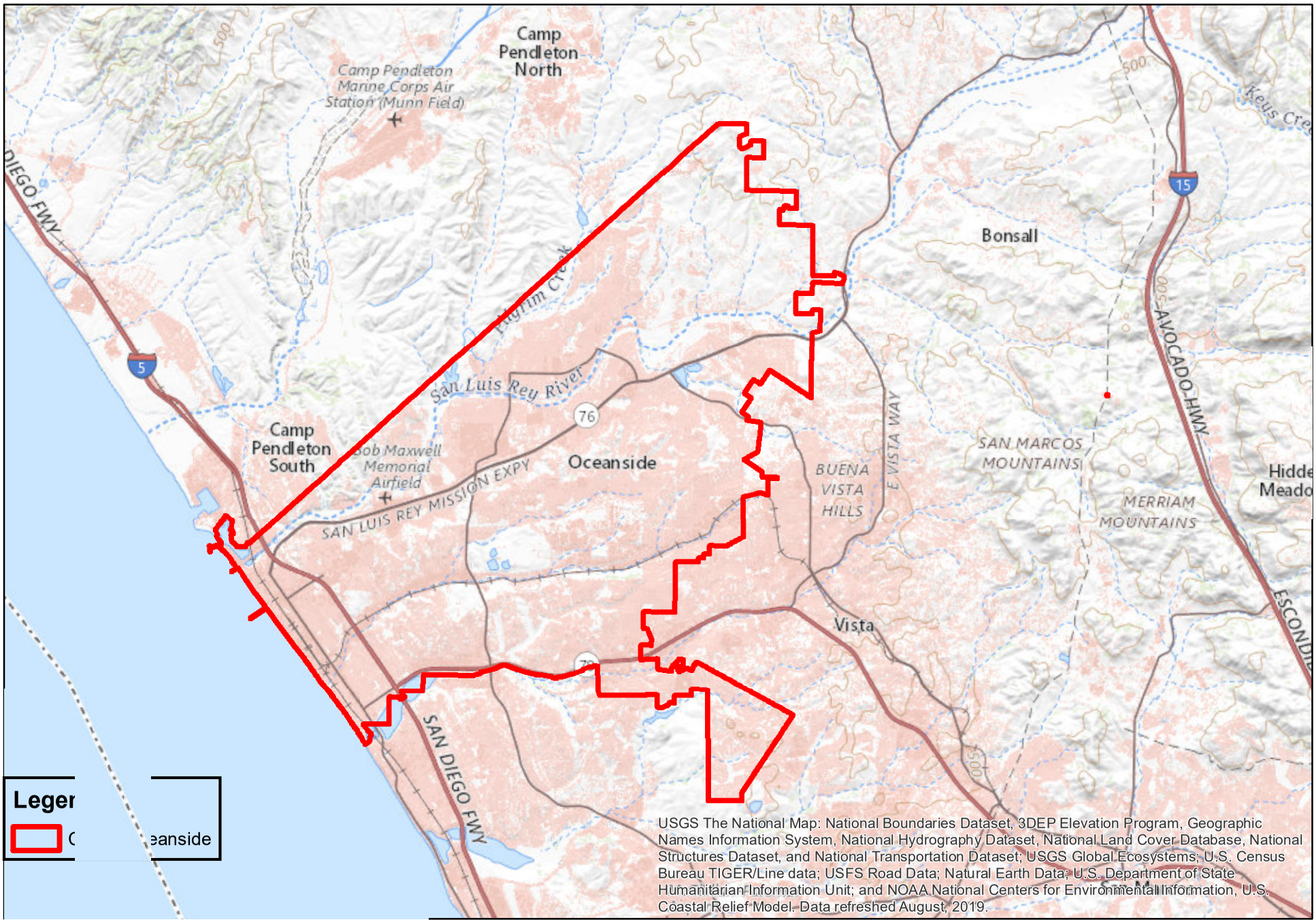
Classification	2017 Actual	2020	2025	2030	2035	2040
Single Family	10,366	13,464	13,225	12,726	12,548	12,418
Multi-Family	4,136	4,405	4,246	4,039	3,959	3,886
Commercial	2,400	2,920	2,986	3,028	3,150	3,265
Industrial	720	809	850	880	928	975
Landscape	4,588	5,888	5,967	5,248	5,541	5,467
Agricultural Irrigation	929	1,889	1,888	1,895	1,895	1,895
Water Loss	1,704	1,953	2,053	2,097	2,109	2,131
TOTAL	**24,842**	**31,328**	**31,215**	**29,913**	**30,130**	**30,037**

6.2.4 Past Working Relationships with Reclamation

- Through 2012, USBR has awarded the City $3.35 million in federal cost-share grant dollars through Title XVI to plan, design and construct a portion of the City's Title XVI-authorized 3.0 MGD Mission Basin Groundwater Purification Facility (MBGPF) expansion.
- In April 2016, the City was awarded $35,905 from USBR for the MBGPF Third Stage Reverse Osmosis Pilot Testing under the Water Reclamation Research Program (FOA No. R16-FOA-DO-011). The pilot testing investigated adding a third stage reverse osmosis (RO) system to the MBGPF to recover up to 45% of the brine discharged to an ocean outfall.
- In July 2018, the City was awarded $2.62 million for the MBGPF Well Expansion and Brine Minimization Project under USBR's Desalination Construction Projects under the WIIN Act (FOA No. BOR-DO-18-F012). This project will install additional groundwater extraction wells and brine minimization technology that will increase recovery at the MBGPF.
- In July 2019, the City was notified by USBR of its intent to award $1.5 million for the WaterSMART WEEG Grant for City's Advanced Metering Infrastructure Phase I Project (BOR-DO-19-FO-004).

6.3 Project Location

The City is located 35 miles north of the City of San Diego and encompasses approximately 42 square miles. It is bordered to the north by Marine Corps Base Camp Pendleton, to the south by the cities of Carlsbad and Vista, to the east by unincorporated San Diego County, and to the west by the Pacific Ocean. See **Figure 6.3-1** for a Project Location Map. Smart meters will be installed throughout the City's service area.



Scale in Miles

0 1 2

Date of Exhibit: 10/2/2019
DigitalGlobe Aerial Image: 04/2013

USBR WaterSMART: Water and Energy Efficiency Grants FY 20

City of Oceanside Advanced Metering Infrastructure Phase II Project

Figure 6.3-1 Project Location Map

6.4 Technical Project Description

6.4.1 Project Description

The Project is comprised of Phase II of the City's AMI initiative and includes replacement of existing meters with AMI-compatible smart meters. The AMI system enables wireless transmission of water use data to the City and its customers via a web/cloud-based access portal on a near real-time basis (raw data can be collected every 15 minutes, which then may be averaged at an increment to be determined). The scope of work for the Phase II project includes installation of approximately 11,429 smart meters and performance of an outreach and education campaign aimed at the group of customers that receive new smart meters as part the Project). The campaign will provide training on the use and functionality of the City's WaterSmart web-based customer portal (the online dashboard where customers view real-time water usage data and bill details). It will instruct customers on the use of alerts and various modes communications to notify of abnormal consumption patterns and potential leaks. The Project will connect approximately 25% of all meters in the overall service area (11,429 of 44,500) to the existing AMI system.

Please note, the City's AMI Phase I Project was notified of a USBR funding award through the WaterSmart WEEG FY 2019 funding opportunity in July 2019. The scope and costs associated with Phase I does not overlap with the scope and costs included in Phase II. Phase I includes installation of the AMI network and infrastructure components and the retrofit of approximately 21,689 existing meters to AMI-compatible smart meters that will connect nearly 49% of the City's meters to the AMI network. Phase I includes a public outreach and education program geared toward customers that receive smart meters and will be implemented in coordination with the rollout of the City's cloud-based "WaterSmart" customer portal to inform customers that are receiving smart meters in Phase I about the enhanced data, functionality and tools available through the portal.

Phase II - Project Scope
➢ The retrofit of approximately 11,429 existing meters to AMI-enabled smart meters. ➢ A public outreach and education campaign to introduce new customers to AMI and the customer portal, WaterSmart software, to inform them about the enhanced functionality and tools available through the portal.

6.4.2 Project Activities

Project Administration

Project administration for the grant includes all activities required to oversee, manage and report on the Project.

Design/Engineering/Environmental/Permitting

The City is investigating the need to prepare a Conditional Use Permit (CUP) for installation of the AMI network (included in Phase I) necessary to comply with City ordinances. Based on initial conversations and meetings with the Planning Department, it is not anticipated that permits will be required for the retrofit of existing meters to smart meters, as proposed in this project; and the replacement of the metering infrastructure will fall under a categorical exemption for CEQA, specifically 15301 - Existing Facilities.

The City has received notice from USBR that the Phase I project is categorically excluded from NEPA review under "516 DM 14.5 D (1) – Maintenance, rehabilitation, and replacement of existing facilities which may involve a minor change in size, location, and/or operation", and we anticipate the same for Phase II. In addition, USBR informed the City that the AMI Project will not require SHPO (State Historic Preservation Officer) review, as meter removal is an activity included on the NOPE (No Potential to Effect) list.

Construction Contracting

The City will utilize a competitive process to procure contract(s) for an AMI vendor(s) that will be responsible for providing installation services. The process will include a Request for Qualifications (RFQ) followed by a Request for Proposals (RFP) from shortlisted proposers. Phase II activities to be conducted by the AMI vendor include but are not limited to procurement, installation and integration of smart meters and end points to the existing AMI network and procurement of associated support items needed to upgrade meter boxes (including but not limited to new meter lids, covers, dumpsters, trash receptacles, storage containers, portable restrooms).

Please note, the City has already purchased the customer portal software (WaterSmart) and those costs are not included in the Phase II Project scope of work or budget. Additionally, Phase I of the AMI project includes installation of the AMI network equipment (data collectors, repeaters, etc.) and the Meter Data Management System that together comprise of the AMI infrastructure. Phase I also includes the integration and programming of these systems with the existing customer portal software. None of this work or associated costs are included in the scope of this Phase II project.

Construction Implementation

Implementation includes installation of approximately 11,429 smart meters and upgrades required to meter boxes. It also includes installation and testing of the communications network to ensure newly installed smart meters are properly connected to the existing AMI infrastructure.

6.4.3 Anticipated Project Schedule

Table 6.4-1 below shows the anticipated Project schedule.

Table 6.4-1: Anticipated Project Schedule

Phase II - Project Schedule	
Anticipated contract approval from USBR	February 2020
Project Administration	February 2020 – December 2022
Environmental/Cultural Resources Review	February 2020 – July 2020
Construction Contracting & Construction Implementation	January 2021 – December 2022

6.5 Evaluation Criteria

6.5.1 Evaluation Criterion A - Quantifiable Water Savings

Municipal Metering Project

The Project is considered a municipal metering project according to the WaterSmart WEEG FOA and includes an additional supporting water use efficiency element through an outreach and education initiative focusing on the WaterSmart customer portal. Water savings from the Project will be achieved by installing 11,429 smart meters, connecting them to the existing AMI infrastructure and encouraging customer enrollment in and use of the portal. East Bay Municipal Utility District (EBMUD) 2013 evaluation of its AMI pilot study (which used the same WaterSmart software that the City uses) included findings that customers who received information regarding their consumption in WaterSmart software's "social norms based" (SNB) format increased understanding of their personal water consumption patterns. The WaterSmart customer portal employs "social norms marketing", commonly used in efficiency programs to motivate behavioral change. SNB encourages customers achieve greater water use efficiency by comparing their current consumption against their own past consumption and by comparing their own consumption against consumption of similar households/businesses. Through such comparisons, customers are motivated to implement water use efficiency measures. Through the portal, customers will be informed of leaks and breaks or unusual consumption patterns on a real-time basis through alarms and alerts, allowing for more expeditious repair/correction of water waste. Currently, customers receive consumption data on a monthly or bi-monthly basis. As detailed in this section, estimated water savings for the Project is 1,019 AFY.

Determining Annual Average Water Savings from the Project

Note: The following assumptions are referenced and further discussed in this section:

Total # of meters in City	44,500
Total # of smart meters to be installed in Phase II	11,429
Smart meters as a % of total meters in City (=11,429 meters/44,500 meters)	25%
UWMP projected water supplied to City in FY 20 (AFY)	31,328
Total estimated water supplied to Phase II smart meters (25% x water supply)* (AFY)	7,832
% water savings derived from expeditious repair of leaks, breaks, water waste	5%
% water savings derived from implementation of the portal	5%
% water savings derived from enhanced customer outreach / education initiative	3%

*Water savings are assumed to occur at an equal rate for each meter converted to AMI system.

Water Savings Assumptions	Water Savings (AFY)
1. Estimated water savings from prompt response time to fix leaks and correct abnormal consumption patterns associated with 25% of the City's meters:	392 *(7,832 x 5%)*
2. Estimated water savings generated from customer interface with the SNB based portal:	392 *(7,832 x 5%)*
3. Estimated water savings generated from Project's enhanced customer outreach and education initiative:	235 *(7,832 x 3%)*
Total estimated water savings from the Project:	**1,019**

The section below provides a detailed discussion of the assumptions and calculations used to quantify estimated water savings resulting from implementation of the Project.

Describe Current Losses

Water from leaks, breaks, runoff and inefficient use typically moves into the groundwater, stormwater or wastewater collection system.

Support/Documentation and Assumptions Regarding Estimated Water Savings

Estimated water savings generated from reduction in losses due to leakage: Connection of an additional 11,429 smart meters to the AMI system enables the City and its customers to receive timely alarms and notification of major and minor leaks and abnormal use patterns, allowing water waste to be discontinued quickly and resulting in a quantifiable avoidance of water loss. Currently, customers receive consumption data on a monthly or bi-monthly basis. A 2016 study from the Water Research Foundation, titled "California Single-Family Water Use Efficiency Study" documents an average leakage rate of 30.7 gallons (.0344 AFY) per household per day –

leading to wasted water that typically soaks into the ground, stormwater, and wastewater collection systems. Using the study as the basis to estimate water savings for this project, the amount saved passing through the 11,429 meters retrofitted is 392 AFY (.0344 AFY x 11,429 = 392 AFY). This water savings will account for approximately 5% of water passing through the retrofitted meters (392 AFY/7,832 AFY = 5%). 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.

Estimated water savings generated from connecting the AMI system to the portal and increasing customer use of the portal: A third party evaluation conducted in 2013 of EBMUD's AMI Pilot Study found that AMI, coupled with utilization of the same social norms based (SNB) WaterSmart Analytics software (WaterSmart.com) that the City owns, resulted in average water savings of five percent. The evaluation suggests that water savings accrued as a result of social norming that occurs when customers gain knowledge and understanding of their own consumption patterns. Study participants were encouraged to take steps to achieve greater water use efficiency when they compared their current water to historic use, other similar users, and high efficiency users.

Using the evaluation as the basis to estimate water savings associated with customer interaction with the SNB-driven portal, estimated water savings for this project is approximately 392 AFY (7,832 AFY x .05).

Estimated water savings generated from enhanced customer outreach and education program: A robust outreach and education program will be delivered that targets the 11,429 households and businesses receiving smart meters through this project. A successful outreach campaign will drive a substantial number of these entities to enroll, engage and interact with the web-based portal. The workshops, education materials, contact with City staff and training sessions these customers will be exposed to through the initiative will lead to an increased awareness of the benefits of AMI and a heightened focus on water consumption and conservation habits. The portal will support this focus by providing up to date information about current water use efficiency programs (rebates, surveys, contests, etc.) offered by the City and other agencies. Customers with tiered water rates will have access to real time data through the portal and therefore the ability to gauge when they are nearing the next, more expensive rate tier. Armed with this information, they are positioned to decide whether to curb consumption and avoid accruing costs at a more expensive rate. Through this custom outreach and education program, enhanced water savings of three percent or 235 AFY is anticipated (7,832 AFY x .03).

Installation of Distribution Main Smart Meters

The Project does not include installation of distribution main smart meters.

Types and Quantities of Meters to be Installed

The make and model of the AMI smart meters will be determined based on the installations made from Phase I of the project. The City will install a total of 11,429 smart meters as part of the Project, which is separate and distinct from the group of meters installed in Phase I.

Actual Water Savings Verification Upon Project Completion

A validation count of the number of meters installed and associated geocode reference or address will be available at the conclusion of the Project. A sample set of accounts may be selected to compare water consumption for a set period of time before and after properties have been retrofitted with smart meters and customers have received access to the portal.

6.5.2 Evaluation Criterion B—Water Supply Reliability

The Project Addresses Specific Reliability Concerns

The City currently purchases approximately 90% of its potable water supply from the SDCWA, of which 11% is supplied by the SWP and 72% is supplied by the CRA. The City's heavy reliance on imported water, combined with projected population growth in the service area and susceptibility to drought adds continued pressure on supply reliability. The Project is expected to lead to a reduction in demands by an estimated 1,019 AFY. Measurable water savings derived from the Project will reduce the City's dependence on the imported water and improve the City's resilience to the impacts of climate change. Through implementation of the Project, the City will be able to reduce its purchases of water from the SDCWA, thereby reducing demands on imported supplies, including those from the MWD via CRA and SWP. The groundwater basin from which the City pumps is subject to over-drafting in extreme scenarios and the water savings realized through implementation of the Project will help achieve sustainable groundwater management goals.

Drought has been a concern and a challenge over much of the past ten years in Southern California. Due to the cyclical nature of drought and flood conditions that have historically characterized California and intensifying concerns regarding the impact of climate change on hydrology in the state, AMI technology and the portal will provide tools to empower customers to make better decisions about water consumption. AMI provides information to end-users about their consumption and allows them to see how improving water use efficiency could help control costs and add a level of sustainability. Access to near real-time consumption data will promote better water management, allow water use efficiency strategies to be implemented, make it possible to repair leaks and breaks more quickly and modify behavior as we compare our consumption patterns to our neighbors and larger community. This all translates to the Project's quantifiable water savings and reduced reliance on imported and local water resources. These supplies can be made available for other uses or can remain in-stream. Water retailers throughout the region that receive supplies from the Sacramento Bay-Delta and the Colorado

River Basin face constant tension as demands grow on increasingly strained water sources. This Project helps decrease demand on 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.

The Project Makes Water Available to Achieve Multiple Benefits or to Benefit Multiple Users

The Project will make more water available for in-stream flows for the sources of the Bay-Delta and Colorado River Basin. By reducing demand on these source supplies, the conserved water will remain at its source which will help maintain in-stream flows and overall ecosystem health. The Project will provide more water 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 the CRA. The result of this and other diversions is a decrease in flows to support the Lower Colorado River ecosystem. The 2004 Lower Colorado River Multi-Species Conservation Program covers 17 species that are not federally listed (CA DWR, 2013). 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 17 non-listed species. By decreasing the City's reliance on imported water supplies, the Project will increase the quality and quantity of water that remains in the Colorado River and Lake Mead, thereby supporting the health of the river and restoring and enhancing habitat for all those 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 2013 Bay-Delta Conservation Plan identified over 30 non-listed species potentially impacted by withdrawals from that system through the SWP. 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 water imported through the SWP could help to alleviate these pressures on the Sacramento Bay-Delta ecosystem and could help restore habitat for non-listed species. Healthy ecosystems and fisheries have economic benefits. For example, the Bay-Delta provides a variety of recreational opportunities including fishing, hunting, boating, camping, picnics, and viewing nature, which amount to approximately $809M in income and economic value added per year. Recreational activities on the Colorado River and its tributaries generate $17B in retail sales which stimulate jobs, tax revenues, and other benefits from the state and regional economies, resulting in a total value of around $25.6B.

The Project will benefit all sectors (residential, commercial, industrial, agricultural, irrigation) as AMI will be extended to the additional meter retrofits included in the Project scope. The Project will also have benefits for the local Indian tribes in the City's service area. The City encompasses the San Luis Rey Band of Luiseño Indian tribal lands. The San Luis Rey Band of Luiseño Indians

have water rights within the Mission Groundwater Basin. As the City conserves water, more water is available to stay in the groundwater basin, improving the quality and quantity of water available for the tribe. The Project will benefit the tribes by increasing sustainability and diminishing reliance on imported supplies.

A recent geospatial analysis found that a population of approximately 16,500 people lived within disadvantaged communities (DACs) in Oceanside, and total of 32% of the City's service area by geographical location met the DAC definition. These calculations were based on the populations and size of a combination of Census block-groups and tracts within the boundaries of the City that met the 80% MHI definition of a DAC. The Project area will implement AMI technology within a portion of these DAC's. While the remaining portion of the Project area is not located within a DAC, it conserves water that is available for the entire service area, including rural and economically disadvantaged communities (EDCs). On a regional scale, more water would be made available to other parts of the State, including tribes and rural and EDCs through a reduction in the amount of imported water the City purchases.

The Project Promotes and Encourages Collaboration to Increase Water Use Efficiency

There is broad support for the Project, as evidenced by the support letters included in Appendix B. Please see **Section 6.5.4** for a discussion of how the Project may benefit the agricultural sector. The Project will benefit the City's goal to reduce the gallons per capita daily average to meet SBx7-7 regulations and the California Department of Water Resources' (DWR) legislative mandate to "make water conservation a way of life in California". It supports the SDCWA's goal of securing greater water independence and reduced reliance on imported water supplies from MWD. The City relies on proactive efforts of its customers as partners to achieve water savings that can be attained through knowing water consumption patterns, fixing leaks and breaks faster and striving to use water wisely and efficiently in everyday life. By reducing water consumption and demand for imported water supplies, a future water-related crisis or conflict such as that experienced in 2015 and 2016 in California (resulting in mandated cutbacks of 25% State-wide and 20% for the City) may be deferred and/or avoided. The enhanced portal will foster collaboration and interaction amongst customers and the City as end-users gain a greater sense of water consumption, and a sense of how it compares to their neighbors, water-efficient users, and to themselves over time.

6.5.3 Evaluation Criterion C—Implementing Hydropower

The City does not intend to implement hydropower components in conjunction with the Project.

6.5.4 Evaluation Criterion D—Complementing On-Farm Irrigation Improvements

Agricultural irrigation and related agricultural practices comprise approximately four percent of the potable water demands for the City. Deployment of AMI technology and full utilization of the

portal will assist current and future on-farm improvements by giving agricultural customers access to near real-time data. The Environmental Quality Incentives Programs (EQIP) offered by the local Natural Resources Conservation District (NRCS) has preliminary requirements for participation which include having access to robust water usage data. Mission Resources Conservation District (MRCD) is the local NRCS for the City. MRCD has completed 14 irrigation evaluations (technical assistance) to growers in the City's service area in the last five years. Irrigation evaluations provide information about flow rate and uniformity distribution of the existing irrigation system and are a predecessor to an agricultural grower's participation in EQIP. To date, these irrigation evaluations have led to the development of six conservation plans, three of which resulted in EQIP grants.

There has been marked interest by agricultural water users in the City's service area to have access to near real-time water use data that AMI offers. AMI-generated data provides the information that enable growers to identify leaks and line breaks swiftly and react to abnormal consumption patterns promptly. In addition, access to this near real-time data gives growers the ability to detect the overall quantity of water being delivered to a crop. This irrigation data is critical to be able to give a grower the capability to adjust the water delivery by comparing actual water use against optimal water use calculations based on evapotranspiration and plant factor variables. AMI also aids farmers in their pursuit of additional certifications, such as sustainability certifications that require documented water usage. Additional discussions with local farmers have indicated that AMI technology would allow them to shift water demands to a time that is more optimal to the City's production and distribution system because it would help them reduce manual irrigation practices.

The additional data provided by AMI helps inform additional on-farm improvements that are part of the irrigation water management best management practices recognized by USBR, and include low application rate irrigation emitters and soil moisture sensors. The City intends to utilize the AMI infrastructure and portal to enhance its support of agricultural customers in achieving water savings and acquiring funding for the necessary improvements through programs such as EQIP. A June 2014 Issue Brief prepared by Natural Resources Defense Council and the Pacific Institute titled "Agricultural Water Conservation and Efficiency Potential in California" concluded that based on previous efficiency studies, agricultural water use could be reduced in California by 17-22%. Applying water savings assumptions employed in this application across the City's agriculture customer class (four percent City's overall water use), an estimated 13% (5% from leak reduction + 5% from portal interface + 3% from enhanced outreach), water savings of 163 AFY (.13 x .04 x 31,328 AFY projected in FY 20) could be realized by the City of Oceanside's agricultural sector alone.

6.5.5 Evaluation Criterion E—Department of the Interior Priorities

Creating a Conservation Stewardship Legacy Second Only to Teddy Roosevelt

Increasing demand coupled with an historically unpredictable water supply in California that stems from complex sources and water rights has caused the DWR, water utilities, environmental organizations, and other key stakeholders to develop a set of urban best management practices (BMPs) for water conservation. Further, as a result of the historic drought that California recently experienced, the State government is developing a framework to make conservation a way of life in California. This framework will include quantitative water use objectives and BMPs for retail water agencies throughout the state.

As part of its long-range planning efforts, the City has sought ways to meet ongoing and future water demands and increase supply reliability. The Project is part of this ongoing effort. These planning efforts rely upon utilizing the best available science, and come from a variety of local, regional, statewide, and national sources to identify BMPs for managing water resources and future planning. One such planning measure is the UWMP. This plan is required by the Urban Water Management Planning Act California Water Code (CWC) Division 6, Part 2.6, mandating urban water providers to adopt UWMPs every five years. This mandate acknowledges that water supply is a finite resource with ever-increasing demands and that conservation is of paramount importance and can be best planned for at the local level. The City's UWMP includes different demand management measures planned for use in its service area. AMI is specifically highlighted in the latest plan as one of the measures that the City can use to achieve effective water conservation.

The City will continue to lean upon the best available science in association with the knowledge and expertise of its staff to identify BMPs for efficiently managing its water supply and adapting to any unforeseen changes in the environment. The City forecasts an increase in water demand through 2040, as shown in **Table 6.2-3**. With the official declaration that drought ended in 2017 by former Governor Brown, associated water conservation efforts will likely wane as vigilance toward consumption relaxes. This, combined with anticipated population increase point to future increases in water demand. Implementation of the AMI and this Project will assist in combating such predicted increases in consumption. Increased water use efficiency will mitigate the cyclical drought conditions that strike California and will increase the availability of water for all to use.

Utilizing Our Natural Resources

Importing water is an energy intensive process. Oceanside is in San Diego County, making the City one of the furthest destinations for water to be delivered from the Colorado River Basin and the Bay-Delta. The National Resources Defense Council put out a study titled "Energy Down the Drain: The Hidden Costs of California's Water Supply" which found that the energy required to transfer water from the SWP to Southern California over the Tehachapi Mountains is equal to an estimated one-third of the total average household electric use in the region. This figure only

takes into account the SWP and does not factor in the energy requirements for importing water from the Colorado River Basin to Southern California. Therefore, any reduction in water demand from the City as a result of this Project will reduce energy demands from pumping water to the City, making it available for other uses.

Restoring Trust with Local Communities

The Project will allow the City of Oceanside to be a better neighbor to those it shares resources with by reducing its demand for water from already taxed sources: the Bay-Delta and Colorado River Basin. While this is not entering a direct dialogue with its neighbors, it demonstrates an initiative to improve relationships in the region by lessening its need for water, a critical resource that many others also need in the area and who also have the same limited sources for this water. The robust outreach and education campaign that will delivered as part of this project provides a valuable touch point to interact with customers and citizens and provide support to those actively embracing a new technology.

Striking a Regulatory Balance

The Project will allow customers to monitor consumption real time through the portal, effectively easing the City's involvement in the task. As discussed, customers can be notified of abnormal consumption patterns automatically. This will allow City staff to focus on ways to improve water consumption and efficiency on a broader scale.

AMI functionality will provide the City with the ability to quantify the amount of water being consumed on a real time basis.

Modernizing our Infrastructure

The oldest parts of the City's infrastructure were built in 1926 and most of the City's infrastructure was built in the 1980's and 1990's. The City sees that modernizing its existing system with AMI technology will benefit the entire service area through early leak detection, reducing demand and allowing more water to be available for other uses or to remain in-stream.

6.5.6 Evaluation Criterion F—Implementation and Results

6.5.6.1 Project Planning

Several planning efforts provide support for the Project. In 2016, the City updated their *Water Conservation Plan* (City of Oceanside, 2016) which identified a suite of water conservation measures to implement in order to comply with SBx7-7. The Water Conservation Plan focused on the largest customer classes within the City, residential and dedicated irrigation, together comprising 78% of all water consumption. AMI was identified as a preferred initiative within the suite of recommended water conservation measures. The City also updated the UWMP in 2016 and remain in compliance with the Urban Water Management Planning Act in the California Water Code. DWR's UWMP guidelines require a specific set of demand management measures

(DMMs) to be reported on, including Water Waste Prevention Ordinances, Metering, Conservation Pricing, Public Education and Outreach, Programs to Assess and Manage Distribution System Real Loss, Water Conservation Program Coordination and Staffing Support. The City's UWMP states goals and proposed measures to help reduce water consumption to comply with the water use targets set by SBx7-7. The Plan identifies AMI technology as one of the measures anticipated to meet conservation goals. The City's UWMP can be found at the following link: https://www.ci.oceanside.ca.us/civicax/filebank/blobdload.aspx?blobid=42608

The State of California produces a strategic plan for managing and developing the water supply for current and future need in its California Water Plan. This document outlines collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California's water future. The 2013 State of California Water Plan outlines smart metering as a top Best Management Practice (BMP), see Section 3: Urban Water Use Efficiency. The State Water Plan can be found at the following link: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Water-Plan-Updates/Files/Update-2013/Water-Plan-Update-2013-Volume-3.pdf.

The City is a stakeholder in the 2019 San Diego Integrated Regional Watershed Management (IRWM) Plan, to be adopted in December 2019. 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 focuses 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 loss of potable supplies. The plans' objective to address climate change focuses on adapting to and mitigating against climate change vulnerability with targets of increasing local supplies, implementing adaptation strategies and implementing mitigation strategies that decrease emissions of greenhouse gases. The Project will help improve local supply reliability by reducing demands and will result in reductions in energy use and greenhouse gas emissions through reductions in imported water demand that requires energy to pump water from distant watersheds. Three key recommendations are also addressed which are supported by the Project:

- Web-based customer access will provide an increase in stakeholder involvement by providing tools for water use management. (Plan, Challenge #4)
- Public education and awareness will lead to better water management through the web-based portal and include additional opportunities to provide water conservation messages. (Plan, Challenge #5)

- Long term sustainability of regional water supplies will be achieved through more hands-on water management tools. (Plan, Challenge #11)

The goals and objectives of the Project aligns 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". The State of California's Water Plan indicates that AMI systems are BMPs to help reduce water use and cites the Pacific Institute's Single-Family Water Use Study to show the significance of water loss due to residential leaks.

6.5.6.2 Performance Measures

A sample set of accounts may be selected to compare water consumption for period of time before and after properties have been retrofitted with smart meter and customers have received access to the portal. This can provide the basis for an analysis of actual changes in water consumption and estimation of water savings related to the Project scope. To verify installation of smart meters, the City can provide information regarding the number of AMI units installed by customer classification and address/geocode. Field inspections may be arranged with City staff, as requested.

6.5.6.3 Readiness to Proceed

The City is the singular entity completing the Project and the Project is located entirely within the City's service area. The City employs a skillful and talented staff who have been an integral part of the planning process for AMI implementation. The applicant has shown, through its past successful projects with USBR, a willingness to work with the agency and welcomes the opportunity to further its collaboration through funding and implementation of the Project. An AMI feasibility study was completed for the City by a consultant in 2017. Capital Improvement Program funding has been designated for the Project. The City plans to issue the procurement documents (RFQ/RFP)to hire vendors to furnish and install all smart meters and lids associated with the Project, as well as other implementation functions (including installation of the network and infrastructure are part of Phase I of the Project) before the end of 2019.

The City is completing all required environmental and cultural resources reviews and anticipates acquiring the applicable permits connected with the Project by September 2020. Based on initial investigations, the City plans file a Notice of Exemption, as applicable, to comply with CEQA. The City is investigating its need to prepare a CUP to comply with City ordinances. If required, the process for obtaining a CUP entails filling out various applications and forms, preparing plans, environmental reports, and maps; and preparing and executing a community outreach plan. Discussions with USBR regarding the Project indicate that a categorical exclusion will be pursued by USBR to meet NEPA requirements.

There will be no new policies or administrative actions required to implement the Project.

6.5.7 Evaluation Criterion G— Nexus to Reclamation Project Activities

The City receives a large portion of its water from sources that ultimately originates from the Bay-Delta and the Colorado River Basin. The CRA is a Reclamation Project and the Central Valley Project (CVP), which shares resources with the State of California's SWP, is a Reclamation project. The Project will help increase water supply through its conservation measures that will ultimately reduce demand on the SWP/CVP and CRA, thereby benefiting Reclamation projects.

The Project is neither on Reclamation lands nor does it involve USBR facilities. The Project is not located in the same basin as a USBR project or activity. USBR is nearing completion of a basin study for the San Diego region, for which Oceanside is a part of.

The Project may help Reclamation meet trust responsibilities to Tribes to the extent that by reducing demands on SWP and CRA imports, the Project will help improve conditions on water resources and reliability. These improvements to the water supply could then in turn benefit Reclamation and the Federal government in meeting its obligations as a part of the trust in tribal treaty rights, lands, assets, and resources to the tribes.

6.5.8 Evaluation Criterion H— Additional Non-Federal Funding

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

$$\frac{\text{Non-Federal Funding}}{\text{Total Project Cost}}$$

$$\frac{\$2{,}997{,}429\ (\quad \text{n}-\text{Federal Funding})}{\$4{,}497{,}429\ (\text{T}\quad \text{tal Pr}\quad \text{ject C}\quad \text{st})} = 66.7\%\ \text{Cost Share}$$

The percentage of non-Federal funding is 66.7% which exceeds the required 50% match.

7 Project Budget

7.1 Funding Plan & Letters of Commitment

The City of Oceanside will provide the non-Reclamation share of the Project costs through a capital improvement project. The cost breakdown is shown in **Table 7.1-1** below. No additional funding commitments have been pursued for the scope of this project at this time.

Table 7.1-1: Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCE	% OF PROJECT	FUNDING AMOUNT
Non-Federal Entities		
City of Oceanside	66.7%	$2,997,429
Non-Federal Subtotal:	66.7%	$2,997,429
Other Federal Entities		
N/A	0%	
Other Federal Subtotal:	0%	
Requested Reclamation Funding:	33.3%	$1,500,000
TOTAL PROJECT FUNDING:	100%	$4,497,429

7.2 Budget Proposal

The proposed budget breakdown by funding source for the Project is provided in **Table 7.2-1**.

Table 7.2-1: Total Project Cost Table

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding*	$1,500,000
Costs to be paid by the applicant	$2,997,429
Value of third-party contributions	$0
TOTAL PROJECT COST	$4,497,429

* Includes estimated cost of environmental review of $1,000 to be incurred by USBR.

The proposed budget for the Project is provided in **Table 7.2-2**.

Table 7.2-2: 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				**$4,497,429**
AMI Integration - Professional Services	$41,250	1	Lump Sum	$41,250
MDMS Integration - Professional Services	$82,250	1	Lump Sum	$82,250
Program Management, Business Process, and Integration Services	$357,500	1	Lump Sum	$357,500
Meter Box Lids	$35	7,906	Units	$276,710
Meters & Endpoints	$246.78	11,429	Units	$2,820,453
Installation Services, Equipment, Software	$879,016	1	Lump Sum	$879,016
Education and Outreach Initiatives	$160	250	Hours	$40,000
Environmental and Regulatory Costs				**$0**
N/A				$0
Third-Party Contributions				**$0**
N/A				$0
Other				**$0**
N/A				$0
TOTAL DIRECT COSTS				**$4,497,429**
Indirect Costs				**$0**
N/A				$0
TOTAL ESTIMATED PROJECT COSTS				$4,497,429

7.3 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 vast majority of the requested budget is contractual and includes construction costs for the Project. The City will issue competitive procurement documents for the entire AMI project to be implemented. This grant is seeking funding only for the Phase II of that overall project. Phase II accounts for approximately 25% of the total project scope, which includes the procurement and installation of approximately 11,429 smart meters, 7,900 AMI compatible lids, and Integration and Program Management services associated for this phase of the project only. Via the AMI procurement documents, the City is seeking an entire turnkey system, inclusive of all necessary materials and systems needed for its AMI project. Budgetary estimates for the project were developed during the City's AMI Feasibility Study which was completed in 2017. The study utilized market quotes from manufacturers and suppliers, as well as the consultant's database, which reflected pricing from related recent projects at that time. In preparation of issuing the procurement documents in fall 2019, the City has performed additional market research, compiled recent bid tabulations, and updated the AMI Project cost estimates and budget project.

Proposed costs for a consultant to assist with the education and outreach campaign for Phase II is set at $40,000 (estimated at 250 hours x $160/hour).

The total of all these items combined is a total of $4,497,429 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 **$4,497,429**. Funding sources for the Project is the City of Oceanside and the requested funds from Reclamation. The City is requesting **$1,500,000** from Reclamation to fund the Project, less costs for USBR's required environmental review. This request represents **33.3%** of the total project cost. No other Federal funding has been requested or received for the Project.

8 Environmental & Cultural Resources Compliance

The following questions from the FOA are answered herein:

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 replacing existing water meters with smart meters capable of providing real-time meter readings. Earth-disturbing work is not anticipated when replacing meters. Please refer to the Project Activities section of this application for additional discussion and information provided from USBR regarding environmental and cultural compliance associated with the Project.

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, and Coastal California Gnatcatcher. Although these species may be located within the project area, they are unlikely to be located within the meter

replacement sites (customer meter boxes). 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.

Several surface waters within the City's service area fall within Clean Water Act jurisdiction, including the San Luis Rey River and the Santa Margarita River Lagoon. The Project would not adversely impact these surface water bodies because they are not within the AMI installation sites (customer meter boxes).

When was the water delivery system constructed?

The oldest part of the City of Oceanside's water infrastructure was constructed in 1926, with the majority built in the 1980's-1990's.

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 as a result of program implementation. Please see additional discussion included in the Project Activities section of this application.

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

There are no known archeological sites in the proposed AMI installation sites (customer meter boxes). 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 meter replacements funded through the Project will include all meters/properties in the Project area, including low-income and minority populations, with no disproportionate impacts or benefits from program implementation anticipated to those populations. WaterSmart offers

a Customer Assistance Program that address affordability issues (i.e., delinquent payments leading to service disconnections) that disadvantaged communities face. As such, the program may benefit disadvantaged customers due to anticipated increase in early leak detections (and prompt response) made possible through enhanced access to real time consumption data.

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

A Sacred Lands File search was conducted for the North San Diego Water Reuse Coalition (NSDWRC)'s 2015 Program Environmental Impact Report (PEIR; OMWD, 2015), which the City participates in, through the Native American Heritage Commission. The search revealed 21 Native American ground and/or individuals within the project area. These lands and sites would not be impacted as a result of Project, and access to these sites would not be affected.

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. Therefore, the program would not contribute to the introduction, continue existence, or spread of noxious weeds or non-native invasive species. In addition, the Project has the possibility to introduce customers to conservation programs in the region that encourage native and drought resistant plant landscaping, culminating in benefits related to Reclamation's efforts.

9 Required Permits or Approvals

The Project will piggyback upon the City's existing water meter programs which have been implemented by the City for several years. Through its existing programs, the City anticipates that it will not need more than filing a NOE to achieve environmental permitting approval. As such, no extensive permitting work is necessary for this project. Funding is not being requested for this task and costs are not included in the budget.

10 Letters of Project Support

The City has received four letters of support for the Project from the Oceanside Chamber of Commerce, the San Diego Regional Climate Collaborative, Initiative for Local Government and San Diego County Farm Bureau, which can be found in Appendix B.

11 Official Resolution

Due to timing of board meetings the City was unable to pass an official resolution prior to the submission deadline for this grant application. On October 23, 2019 it is anticipated that the City Council will pass a Resolution authorizing the City to apply for this WaterSmart WEEG grant. The final executed copy will be submitted to Reclamation within 30 days of the application submittal.

12 Automated System Application for Payment (ASAP) Registration

The City of Oceanside has an active account in the ASAP registration system with current information. The City will maintain an active ASAP account during the period of any federal assistance agreement. The City's ASAP ID is jmcke549.

13 System for Award Management (SAM) Registration

The City of Oceanside 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 073370678. The City's CAGE code is 39BK9.

14 Disclosure of Lobbying Activities

The City has completed and executed Standard Form LLL (SF-LLL) the "Disclosure of Lobbying Activities" form, which is included as an attachment to this application.

15 References

City of Oceanside, 2016. 2015 Urban Water Management Plan.

City of Oceanside, 2016. Water Conservation Master Plan Update.

City of Oceanside, 2016. City of Oceanside Greenhouse Gas Emissions Inventory and Forecast.

East Bay Municipal Utility District, 2013. Evaluation of East Bay Municipal Utility District's Pilot of WaterSmart Home Water Reports.

Irvine Ranch Water District, 2011. California Single-Family Water Use Efficiency Study.

Regional Water Management Group (RWMG), 2013. 2013 San Diego Integrated Regional Management Plan.

Regional Water Management Group (RWMG), 2019. 2019 San Diego Integrated Regional Management Plan.

San Diego County Water Authority (SDCWA), 2016. 2015 Urban Water Management Plan.

16 Appendices

Appendix A SF Forms

Appendix B Letters of Support

Appendix B – Letters of Support

OCEANSIDE
CHAMBER OF
COMMERCE

September 18, 2019

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

Dear Commissioner Burman:

The Oceanside Chamber of Commerce is writing to express support for the City of Oceanside, California's application to the U.S. Department of the Interior (DOI) for *WaterSMART: Water and Energy Efficiency Grants for Fiscal Year 2020* (Funding Opportunity Announcement [FOA] No. BOR-DO-20-F001). This vital funding would deploy Automated Metering Infrastructure throughout a portion of Oceanside in North San Diego County.

The City of Oceanside's project consists of replacing water meters with remote reading capabilities and combining these real-time reads with a customer portal, capable to notifying customers of water use anomalies, high usage as well as suspected leaks. In addition, the remote reading capabilities negate the need to physically send staff to take the meter reading, reducing Greenhouse Gas Emissions.

As you are well aware, Southern California faces many water supply challenges and climate change impacts due to droughts, population growth, as well as legal and environmental constraints. For this reason, it is imperative that agencies such as the City of Oceanside implement programs which ensure that water supplies are being used efficiently as well as reduce our impact on the planet. The Oceanside Chamber of Commerce recognizes the valuable role that this project plays in using water wisely and reducing the City's carbon footprint and strongly supports the approach of the City of Oceanside.

In conclusion, we ask for full and fair consideration, as permitted under law, of the City of Oceanside's application for DOI WaterSMART Water and Energy Efficiency funding. If you have any questions, please contact me at (760) 722-1534, ext. 107.

Sincerely,

Scott M. Ashton, CEO
Oceanside Chamber of Commerce

928 North Coast Highway • Oceanside, California 92054

phone (760) 722-1534 • fax (760) 722-8336 • www.oceansidechamber.com

September 23, 2019

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

Dear Commissioner Burman:

Our organization is writing to express support for the City of Oceanside, California's application to the U.S. Department of the Interior (DOI) for *WaterSMART: Water and Energy Efficiency Grants for Fiscal Year 2020* (Funding Opportunity Announcement [FOA] No. BOR-DO-20-F001). This vital funding would deploy Automated Metering Infrastructure throughout a portion of Oceanside in North San Diego County.

The City of Oceanside's project consists of replacing water meters with remote reading capabilities and combining these real-time reads with a customer portal, capable to notifying customers of water use anomalies, high usage as well as suspected leaks. In addition, the remote reading capabilities negate the need to physically send staff to take the meter reading, reducing Greenhouse Gas Emissions.

As you are well aware, Southern California faces many water supply challenges and climate change impacts due to droughts, population growth, as well as legal and environmental constraints. For this reason, it is imperative that agencies such as the City of Oceanside implement programs which ensure that water supplies are being used efficiently as well as reduce our impact on the planet. The San Diego Regional Climate Collaborative recognizes the valuable role that this project plays in using water wisely and reducing the City's carbon footprint and strongly supports the approach of the City of Oceanside.

In conclusion, we ask for full and fair consideration, as permitted under law, of the City of Oceanside's application for DOI WaterSMART Water and Energy Efficiency funding. If you have any questions, please contact Christiana DeBenedict, Director for the San Diego Regional Climate Collaborative at cdebendict@sandiego.edu or 619-260-2281.

Sincerely,

Christiana DeBenedict
Director, San Diego Regional Climate Collaborative
cdebenedict@sandiego.edu

INSTITUTE FOR LOCAL GOVERNMENT℠
Promoting Good Government at the Local Level

September 30, 2019

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 City of Oceanside, California's application to the U.S. Department of the Interior (DOI) for *WaterSMART: Water and Energy Efficiency Grants for Fiscal Year 2020* (Funding Opportunity Announcement [FOA] No. BOR-DO-20-F001). This vital funding would deploy Automated Metering Infrastructure throughout a portion of Oceanside in North San Diego County.

The City of Oceanside's project consists of replacing water meters with remote reading capabilities and combining these real-time reads with a customer portal, capable to notifying customers of water use anomalies, high usage as well as suspected leaks. In addition, the remote reading capabilities negate the need to physically send staff to take the meter reading, reducing Greenhouse Gas Emissions.

The City of Oceanside has been a successful member of The Institute for Local Government's Beacon Program, a program aimed at recognizing cities and counties addressing climate change. I am impressed with the city's holistic approach to sustainability and very much think this project is worthy of funding.

As you are well aware, Southern California faces many water supply challenges and climate change impacts due to droughts, population growth, as well as legal and environmental constraints. For this reason, it is imperative that agencies such as the City of Oceanside implement programs which ensure that water supplies are being used efficiently as well as reduce our impact on the planet. The Institute for Local Government recognizes the valuable role that this project plays in using water wisely and reducing the City's carbon footprint and strongly supports the approach of the City of Oceanside.

In conclusion, we ask for full and fair consideration, as permitted under law, of the City of Oceanside's application for DOI WaterSMART Water and Energy Efficiency funding. If you have any questions, please contact me at 916-658-8274.

Sincerely,

Karalee C Browne

Karalee Browne
Sustainability Program Manager, Institute for Local Government

FARM BUREAU San Diego County

The Voice of Local Farmers
Serving San Diego agriculture since 1914

September 30, 2019

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

Dear Commissioner Burman:

The San Diego County Farm Bureau is writing to express support for the City of Oceanside, California's application to the U.S. Department of the Interior (DOI) for *WaterSMART: Water and Energy Efficiency Grants for Fiscal Year 2020* (Funding Opportunity Announcement [FOA] No. BOR-DO-20-F001). This vital funding would deploy Automated Metering Infrastructure (AMI) throughout Oceanside, including the agricultural areas of the community.

The City of Oceanside's AMI project includes replacing water traditional meters with smartmeters which are capable of remotely measuring real-time water consumption and reporting at multiple intervals her hour via a web-based customer portal. The San Diego County Farm Bureau recognizes the valuable role that this project plays in using water wisely. Currently, growers must manually read their meters or wait for monthly water bills to detect anomalies in water use. AMI will provide growers in Oceanside with real time water consumption data and automated notification of leaks and unexpected flow patterns. AMI promises to be a powerful tool to help growers better manage water use, which is usually one of the costliest inputs for a farming operation in San Diego County.

Please accept our recommendation for full and fair consideration, as permitted under law, of the City of Oceanside's application for DOI WaterSMART Water and Energy Efficiency funding. If you have any questions, please contact me at 760-745-3023 or Hannah@sdfarmbureau.org

Sincerely,

Hannah Gbeh
Executive Director

420 S. Broadway - Ste 200, Escondido, CA 92025 760.745.3023 www.sdfarmbureau.org sdcfb@sdfarmbureau.org