Los Angeles County Waterworks District No. 40, Antelope Valley

Advanced Metering Infrastructure Project

WaterSMART: Water and Energy Efficiency Grants FY 2018

FOA: BOR-DO-18-F006

Funding Group 2

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SECTION 1: TECHNICAL PROPOSAL

Executive Summary

Date: May 10, 2018

Applicant: Los Angeles County Waterworks District No. 40, Antelope Valley
City: Serving the Cities of Palmdale, Lancaster, and Unincorporated Communities
County: Los Angeles County
State: California

Project Summary

To reduce reliance on imported water and promote water sustainability, Los Angeles County Waterworks District No. 40, Antelope Valley (District) will be pursuing a fixed network Advanced Metering Infrastructure (AMI) Project (Project). The District will be converting 38,000 antiquated meters to "smart" meters with advanced metering capabilities. Additionally, the District will install data collection devices and host server software that will integrate with utility software applications to analyze meter data in real time. AMI technology will automate meter reading, reducing vehicle emissions and maximizing work force efficiency, and allow the District to manage valuable water resources more effectively, reducing the reliance on imported water supplies. AMI will also enhance customer service by empowering customers with tools to monitor water usage, identify leaks, and maximize water use efficiency.

Project Timeline

The Project will be split into three phases, phase I will be complete by September 30, 2020, and will account for the installation of 12,000 AMI meters. Phase II will run from the end of Phase I until September 30, 2021, and will install an additional 6,000 AMI meters. Phase III will commence from the end of Phase II and proceed until September 30, 2024, and will install additional 20,000 AMI meters. For this application, we will only take into account Phases I and II.

The Project is not located on a Federal facility.

Background Data

Water Supply Sources

The District uses both purchased (i.e., imported) water and groundwater as its supply sources. The District purchases water from the Antelope Valley East Kern Water Agency (AVEK) and the projected need for wholesale water is coordinated with AVEK. AVEK receives water from the State Water Project (SWP) which is sourced from the Sacramento-San Joaquin Delta (Bay-Delta) in Northern California and delivered 444 miles via the California Aqueduct to the Antelope Valley in Los Angeles County where it is treated at AVEK's Quartz Hill and Eastside Water Treatment Plants. AVEK has an allocation of 144,844 acre-feet per year (AFY) of water from the SWP and allocates water to municipalities, ranchers, and agricultural water users.

The District purchases approximately 53 percent of its total water supply from AVEK and the remainder is supplemented by groundwater pumped from the Antelope Valley Groundwater Basin by approximately 54 wells owned and operated by the District (see Figure 1-1).

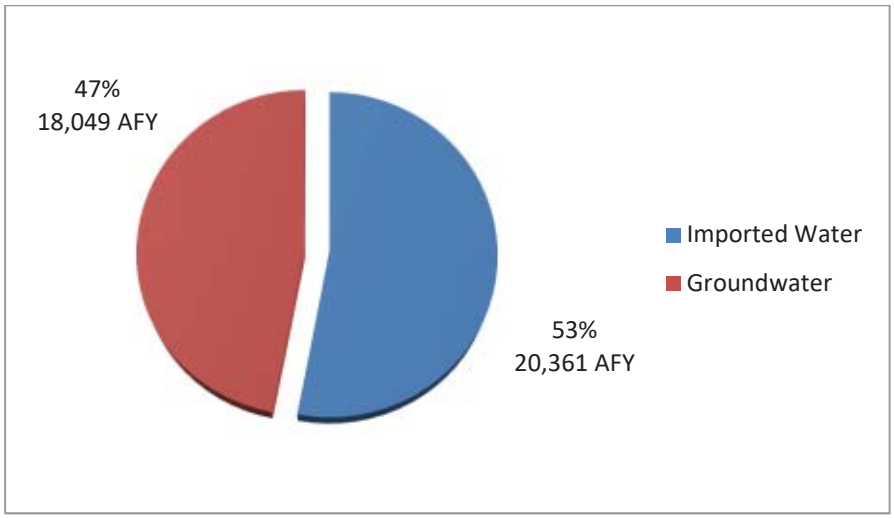


Figure 1-1: Water Supply Sources

Water Use and Current Demand

The District has an estimated total water supply of 40,033 AFY and manages 50,868 metered connections that include residential, commercial, industrial, and irrigation accounts (see Table 1-1). Historically, land uses within the Antelope Valley have focused primarily on agriculture; however, the Antelope Valley is in transition from predominantly agricultural uses to predominantly residential and industrial uses. Residential accounts now account for 69.76 percent of the water demand within the District. Commercial and other users account for 22.90

percent of the Districts water demand and the remaining 7.34 percent is attributed to water losses.

Table 1-1: Current Water Use and Demand

Current Water Use and Demand	
District 40 – Regions 04 & 34 (2017 Actual)	
Use Type	Acre-Foot/Year
Construction Meter	73
Commercial	6,622
Government	2,409
Industrial	63
Multi-Family Residential	3,679
Residential	24,250
Losses	2,937
TOTAL	**40,033**

Potential Shortfalls

The region is heavily dependent upon imported water supplies, which are very susceptible to the impacts of climate change given their reliance on seasonal snowpack. Using historical data and modeling, it is projected that by 2050 the Sierra snowpack will be reduced from its historical average by 25 to 40 percent. This decrease in supply coupled with an increase in population has proven to be a challenge for all water districts in Southern California.

Additionally, in December 2015, the Superior Court of California entered a judgment in the *Antelope Valley Groundwater Cases* (2015). Based on the Court's findings that the Antelope Valley Groundwater Basin is currently in overdraft, the judgment imposes pumping restrictions, which will be fully implemented following a 7-year ramp down period starting in 2016.

Finally, Senate Bill (SB) X7-7 also known as the Water Conservation Act of 2009 set an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. SB X7-7 also stated that the State shall make incremental progress towards this goal by reducing per capita water use by at least 10 percent by December 31, 2015.

Given the potential impacts, the District proactively implemented strategic water conservation methods to mitigate any shortfalls in water supply and meet water conservation goals by setting forth water waste ordinances that impose certain prohibitions on hose water, irrigation, leaks, car wash facilities, and public eateries, to name a few. Enforcement of the ordinances is also in place throughout the District. To intensify water conservation outreach efforts, the District also implemented public outreach and education programs. The programs include print and web-based publications, monthly bill inserts, and public outreach events. Television, radio, and newspaper contacts are routinely made as well.

Other methods being pursued by the District include water banking and recycled water sources. AVEK developed the Westside Water Bank within its service area and entered into various exchange programs with other SWP contractors. Through the Westside Water Bank facilities, AVEK can take delivery of excess SWP supplies during wet years to recharge the groundwater basin for future recovery in dry years. The District has purchased banked groundwater that AVEK will store and recover in future dry years when supplies from the SWP and the District's groundwater wells will not meet demands. Water banking is a crucial strategy that the District uses to help navigate supply uncertainties. Recycled sources have also been explored by the District. Upon completion of an isolated distribution system for irrigation and other related purposes, the District will begin purchasing recycled water from the Lancaster and Palmdale Water Reclamation Plants owned and operated by the Los Angeles County Sanitation District.

In response to the Water Conservation Act of 2009, the District set targets for 2015 and 2020 reductions in gpcd. Tables 1-2 and 1-3 below illustrate target gpcd's and actual 2015 gpcd:

Table 1-2: Baselines and Targets Summary

Baseline GPCD and Targets GPCD					
Baseline Period	**Start Year**	**End Year**	**Average gpcd**	**2015 Interim Target**	**Confirmed 2020 Target**
10- to 15-year	1996	2005	281	253	225

Table 1-3: Actual 2015 GPCD

ACTUAL 2015 GPCD								
Actual 2015 gpcd	**2015 Interim Target gpcd**	**Optional Adjustments to 2015 gpcd Enter "0" for Adjustments Not Used from Methodology 8**					**2015 gpcd (adjusted if applicable)**	**Did Supplier Achieve Targeted Reduction for 2015? Y/N**
		Extraordinary Events	**Economic Adjustment**	**Weather Normalization**	**Total Adjustments**	**Adjusted 2015 gpcd**		
165	253	0	0	0	0	165	165	Y

Note: 2015 reflects water conservation mandated by the State political climate. All values are in gpcd.

The District's 2015 actual per capita demand of 165 gpcd is less than the target per capita demand of 253 gpcd set by the District; meaning great strides to comply with the water conservation requirements of SB X7-7 were made. Water conservation measures have limited the increases in demand and water use declined in 2015 as a result of the State's mandated demand

reductions. It is unknown, however, to what extent per capita water use will rebound to pre-drought levels once the drought ends. Due to these uncertainties, the District is looking to supplement its water conservation efforts with long-term strategies to better manage its water resources such as AMI implementation.

Water Delivery System

The District currently operates and maintains 56,641 connections, 1,050 miles of distribution lines and transmission mains, 54 wells, and 31 gravity storage tanks with a combined volume of 49.6 million gallons (MG). The District also operates and maintains 21 forebay tanks, 4 pressure tanks, 1 sand trap, 30 pumping stations, and 50 booster pumps with a combined horsepower of 9,252 HP. These assets are spread throughout the District's service area which consists of eight Regions serving the cities of Lancaster and Palmdale, and the unincorporated communities of Pearblossom, Littlerock, Sun Village, Rock Creek, Northeast Los Angeles County, and Lake Los Angeles.

Existing Energy Sources

The District is very committed and highly encourages renewable energy and the implementation of such sustainability projects throughout its service area. In recent years, the District completed two projects of its kind that have a profound impact and success.

In December of 2012, a solar field rated for 350 KW went into operation at the District's Avenue K and 5th Street West Well Site and Pump Station facility in Region 4 (see Figure 1-2). The project consisted of 1,372 solar panels capable of generating 633,418 KWh of energy per year. To date, the project has generated approximately 2.5 million KWh in four years and by the end of its useful life, will have generated approximately 19 million KWh.

Figure 1-2: Avenue K and 5th Street West Solar Field

In addition, a Pressure Reducing Turbine (PRT) was installed on an AVEK turnout that supplies water to the District's Avenue M and 7th Street West Pump Station in Region 4 (see Figure 1-3). The idea behind the project was to capture dissipated energy during the water pressure reduction process and utilize it to generate energy. The PRT is rated for 261KW and was only recently installed. The District is currently coordinating the interconnection of the PRT to the power grid with the local utility company. Upon interconnectivity, the PRT is estimated to produce 1.4 million KWh per year and by the end of its useful life, generate approximately 35 million KWh.

Figure 1-3: Pressure Reducing Turbine

The District hopes to build on these successful efforts with the implementation of AMI. The District's goals are in line with the Bureau's goals to manage, develop, and protect water and other resources in an environmentally and economically sound matter.

Working Relationship with Reclamation

The District has a past working relationship after successfully completing a Bureau of Reclamation (Bureau) funded project on time and within budget. The District applied for and was awarded the Bureau of Reclamation's WaterSMART: Advanced Water Treatment Pilot and Demonstration Project Grant FY 2011, in the amount of $365,000, for the In-Situ Arsenic Removal Project. The project involved the testing of new technology that would remove naturally occurring arsenic in groundwater. The working relationship proved to be a success and the District looks forward to working with the Bureau on future projects.

Project Location

The District is located in the Antelope Valley portion of northern Los Angeles County, California (see Figure 1-4). The District is comprised of eight regions serving customers in the cities of Lancaster and Palmdale, and the unincorporated communities of Pearblossom, Littlerock, Sun Village, Rock Creek, Northeast Los Angeles County, and Lake Los Angeles (see Figure 1-5). The service area encompasses 554 square miles with an approximate population of 206,000 residents. The latitude is 34.751371°N and the longitude is 118.252297 °W.

The Antelope Valley comprises the southwestern portion of the Mojave Desert and ranges in elevation from approximately 2,300 to 3,500 feet above sea level. Typical of a semiarid region, mean daily summer temperatures range from 63 degrees Fahrenheit (°F) to 93°F, and mean daily winter temperatures range from 34°F to 57°F. Precipitation ranges from 5 inches per year along the northern boundary to 10 inches per year along the southern boundary.

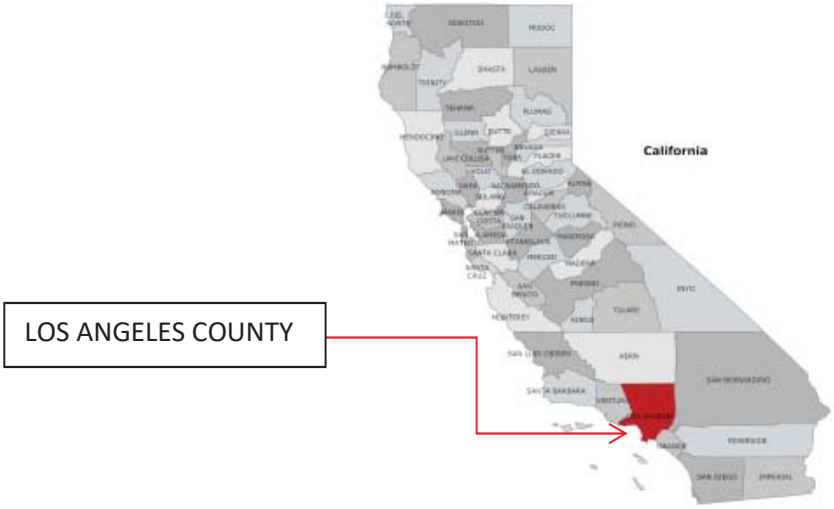


Figure 1-4: Geographic Location of LA County Waterworks District No. 40, Antelope Valley

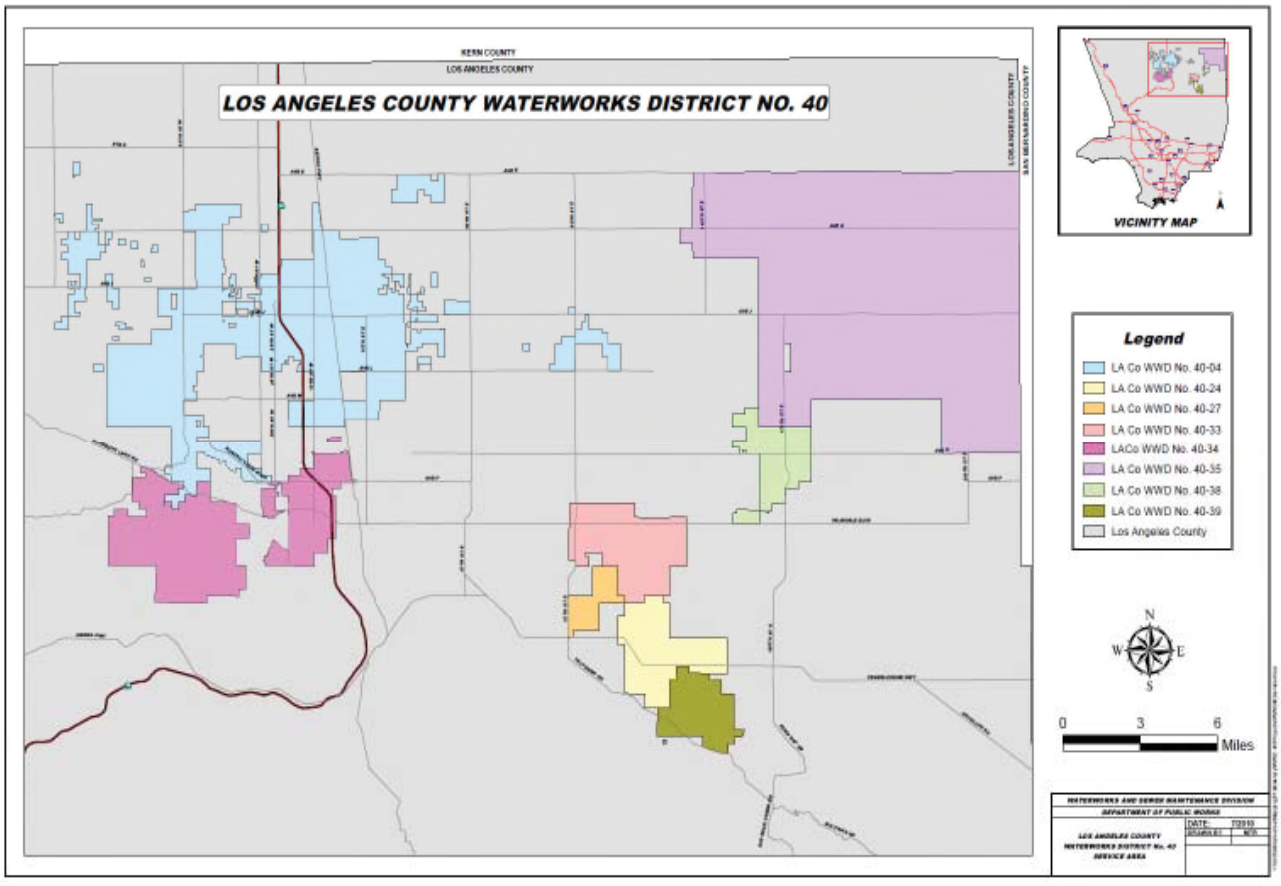


Figure 1-5: LA County Waterworks District No. 40, Antelope Valley, Service Area by Region

Technical Project Description

Project Background

In 2012, the District began the implementation of an automated meter reading (AMR) drive-by network that would facilitate meter readings and provide cost savings to the District. To date, the District upgraded over 12,000 or 20 percent of its meters to AMR meters. Furthermore, the AMR meters installed have AMI capabilities, and as a result, facilitate the migration to an AMI system. Unfortunately, there is no automatic data collection or customer portal to support an AMI system. A pilot study undertaken in 2016 strategically installed 3 Neptune Data Collection devices and set up a temporary utility portal to gauge the system's operation, efficiency, and compatibility with existing assets. The District found favorable results with the pilot project and fully committed to transitioning towards a District-wide AMI implementation.

The Project serves as an initial phase which would expand the implementation of the pilot study to include all 56,641 water connections in the District. It is the goal of the District to fully test and fine-tune the AMI system to maximize the benefits prior to District-wide implementation. The Project includes the installation of 25 data collection devices, 38,000 "smart" water meters, customer/utility portal software, staff training, and customer education and outreach for regions 4, Lancaster, and 34, Desert View Highlands, within the District (see Figure 1-6). These regions contain a combined 50,868 meters or 90 percent of the District's total connections with nearly a quarter of all meters having AMI capabilities. These regions were chosen for this Project because it would reap the greatest benefit-to-cost ratio due to the existing AMI equipment and density of the population.

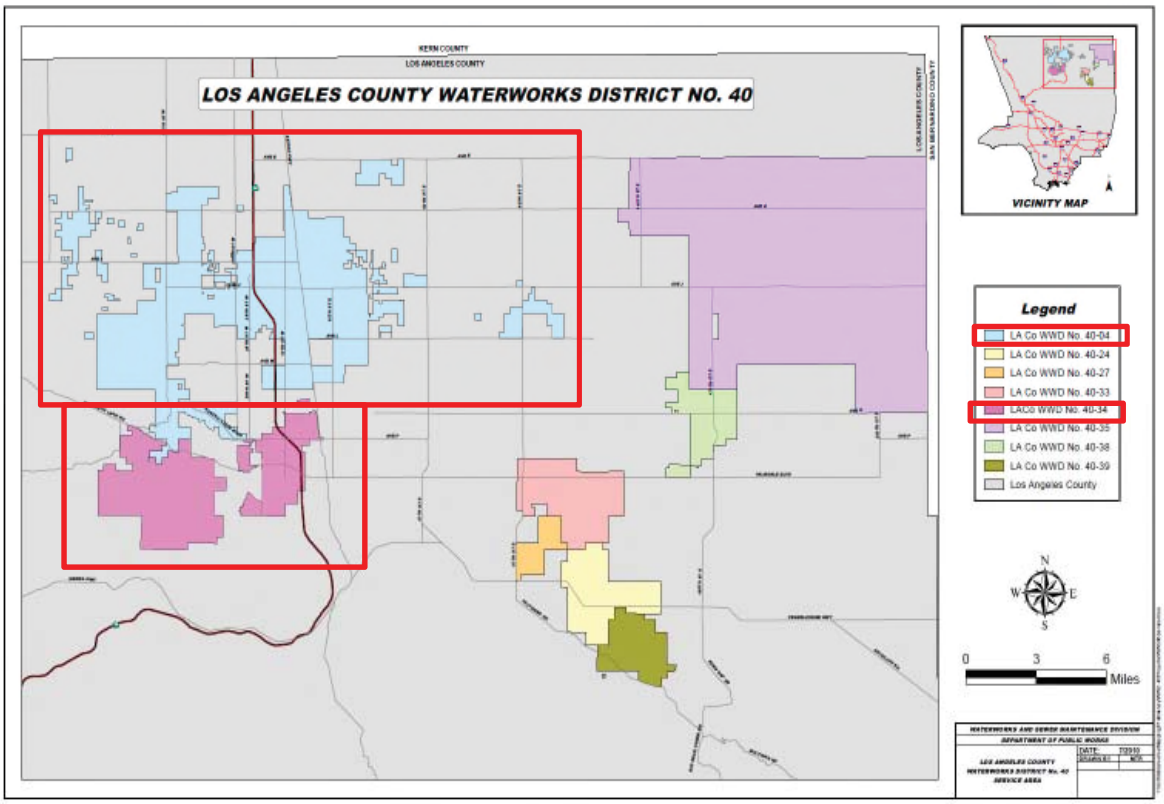


Figure 1-6: Regions 4, Lancaster, and 34, Desert View Highlands

Project Timeline

Phases I & II of the AMI Project will take less than 36 months to complete with an anticipated completion date of September 30, 2021 (see Figure 1-7).

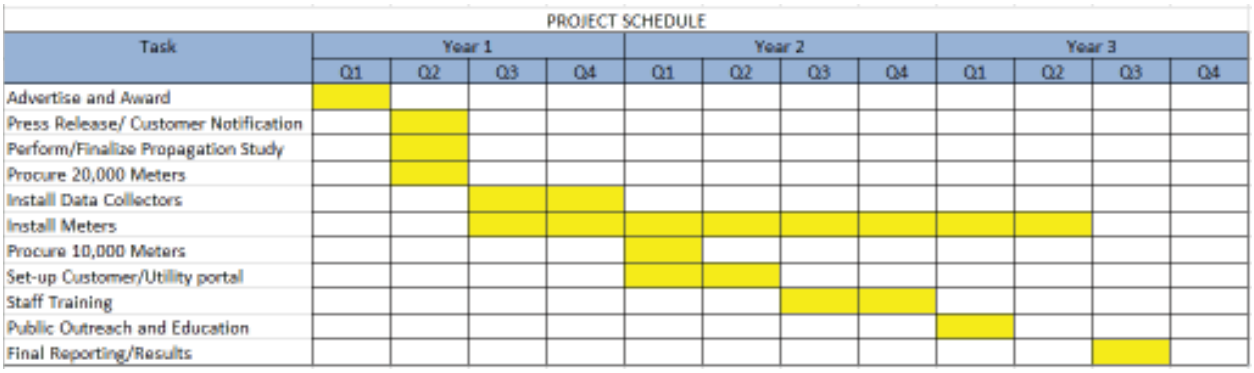
Pre-construction activities include, but are not limited to, the preparation of cost estimates and specifications for contract advertisement; bid review, propagation studies, site visits, permitting, pre-construction meetings, equipment procurement, and customer outreach. Propagation studies performed prior to the start of construction will determine strategic placement and installation of the data collectors to maximize effectiveness. The District intends to install data collectors on existing District-owned facilities; however, it may be possible to install data collectors on municipal properties so permitting may be required prior to the start of construction. These tasks are estimated to be completed within six months from official Project start.

The construction phase of the Project entails the installation of data collectors as determined by propagation studies. Neptune brand data collectors will be required for installation to mitigate any compatibility issues with existing assets and ensure peak performance. Upon installation of the data collectors, set up of the customer/utility portal software will be performed by the awarded vendor. The vendor will work with engineering, field, and customer service staff to develop and test the software platform interface, and train utility end-users prior to activation. A public outreach and education effort will commence to notify District customers of the

availability of new customer portal software, featuring tools to help customers better manage their own water usage.

The AMI Project will support the District's ongoing effort to replace outdated or malfunctioning water meters. The District estimates that approximately 38,000 meters require replacement over a timeline of six years. However, during the first three years (Phases I & II), we plan to replace roughly 30,000 meters which equates to about 10,000 meters per year. The District will prepare and submit all pertinent semi-annual reports detailing Project and budget progress. These tasks are estimated to be completed within a 24-month period after pre-construction activities are completed.

Figure 1-7: Project Schedule



Project Readiness

Since 2012, the District worked diligently to upgrade diminished and antiquated meters to "smart" meters with AMI capabilities. To date, the District upgraded nearly a quarter of the meters in Regions 4 and 34. It is estimated that the proposed Project, upon completion, will benefit an estimated 11,500 customers due to the existing and proposed AMI infrastructure. However, while the District is in the process of installing new "smart" meters, it has not implemented the proper hardware and platform that provides fully functioning AMI capabilities to utility customers. The District's existing platform allows customers to view their consumption use history on a bi-monthly basis, and offers limited features such as paperless billing and online bill pay. The District conducted a pilot project in 2016 that included the set-up of a temporary utility customer portal that provided District staff that reside within the District, daily notifications for no flow, high consumption, and leak events. This pilot familiarized the District with Project requirements and helped identify problem areas with the most needs. The District is proactively requesting software demonstrations from vendors such as Smart Utility Systems (SUS) and WaterSmart Software for possible implementation.

Project Budget

The total budget for Phases I & II of the Project is estimated at $14,140,665 with Reclamation providing $1,000,000 of the funding and the District providing $13,140,665 of the funding. An estimated annual budget has been prepared based off estimated Project schedules and timelines (see Table 1-4). District funding is secured and will be allocated from the District's General Fund.

Table 1-4: Annual Budget Schedule

ANNUAL BUDGET SCHEDULE						
Budget Item Description	**Computation**			**2018/19**	**2019/20**	**2020/21**
	$/Unit	**Unit**	**Quantity**			
Salaries and Wages						
Project Manager	$ 96.00	HOUR	60	$ 2,880.00	$ 1,440	$ 1,440
Project Engineer	$ 72.00	HOUR	120	$ 4,320.00	$ 2,160	$ 2,160
Project Inspector	$ 55.00	HOUR	650	$ 9,000	$ 17,750	$ 9,000
Sub-Total Salaries and Wages				**$ 16,200**	**$ 21,350**	**$ 12,600**
Fringe Benefits						
Included in *"Salaries and Wages"*						
Travel						
Not Applicable						
Equipment						
Not Applicable						
Supplies and Materials						
Not Applicable						
Contractual/Construction						
Software/Utility Portal	$ 100,000	EA	1		$ 100,000	
Training	$ 50,000	LUMP	1			$ 50,000
Data Collectors	$ 16,000	EA	25	$ 400,000		
Collector Installation	$ 4,000	EA	25	$ 100,000		
AMI Meters	$ 500	EA	18,000	$ 3,000,000	$ 3,000,000	$ 3,000,000
Meter Installation	$ 175	EA	18,000	$ 1,050,000	$ 1,050,000	$ 1,050,000
Sub-Total Contractual				**$ 4,550,000**	**$ 4,150,000**	**$ 4,100,000**
Environmental Compliance						
Not Applicable						
Reporting						
Semi-Annual and Final Reporting	$ 5,000	EA	1		$ 2,500	$ 2,500
Other						
10% Contingency	$ 1,285,515	LUMP	1	$ 456,620	$ 417,385	$ 411,510
ANNUAL PROJECT COSTS				**$ 5,022,820**	**$ 4,591,235**	**$ 4,526,610**
RECIPIENT FUNDING				**$ 4,547,820**	**$ 4,241,235**	**$ 4,351,610**
RECLAMATION FUNDING				**$ 475,000**	**$ 350,000**	**$ 175,000**
PERCENTAGE CONTRIBUTION (RECIPIENT)				**90.54%**	**92.38%**	**96.13%**
PERCENTAGE CONTRIBUTION (BUREAU)				**9.46%**	**7.62%**	**3.87%**

Evaluation Criteria

E.1.1. Evaluation Criterion A: Quantifiable Water Savings (30 points)

Up to 30 points may be awarded for this criterion. This criterion prioritizes projects that will conserve water and improve water use efficiency. Points will be allocated based on the quantifiable water savings expected as a result of the project. Points will be allocated to give greater consideration to projects that are expected to result in more significant water savings.

(2) MUNICIPAL METERING

a. How has the Estimated Average Annual Water Savings that will result from the project been Determined?

Funding for this grant is part of a larger project which aims to replace/retrofit all of the District's water meters with AMI meters. The District estimates this project will conserve approximately 6,029 AFY as a direct benefit of the AMI upgrade of 50,868 water meters and the installation of the AMI network throughout the service area. The installation of the AMI system's network (which will provide near real-time notification of water use) will result in water savings from three sources:

1.	Water conserved by water use reduction:	2642 AFY
2.	Improved residential leak detection:	1918 AFY
3.	Improved leak detection in the distribution system:	1469 AFY
TOTAL		***6,029 AFY***

Conserved water will remain in the Bay-Delta and conservation will likely reduce the District's need to purchase replenishment water from AVEK, which imports water from the Sacramento-San Joaquin-Delta region via the SWP.

The details about each of the three sources of water savings is provided below.

WATER SAVINGS SOURCE #1: Water Conserved by Water Use Reduction = 2642 AFY

A case study performed by IBM Research and published by Hanes, D. (2013), *Every drop counts: How water utilities are putting water efficiency first*, found that informed, engaged, and incentivized citizens, through use of a customer portal, conserved an average of 6.6 percent more water than those with standard billing procedures. Given the current water demand within the AMI project area of 40,033 AFY, this reduction in water usage will conserve approximately 2,642 AFY.

WATER SAVINGS SOURCE #2: Improved Residential Leak Detection = 1918 AFY

The AMI system will recognize if there is an increase in consumption that might indicate a leak, leading to faster detection and repair. Water savings due to improved detection of residential leaks (behind the meter) was calculated using reduction factors and data from the EPA's WaterSense website. The average household's leaks can account for 10,000 gallons of water

wasted every year. Furthermore, 10 percent of homes have leaks that waste 90 gallons or more per day (or 32,850 gallons per year). The District plans to retrofit AMI meters for 50,868 homes. Additionally, the District has an existing water audit program with an annual budget of $100,000 in which we utilize the assistance of a consultant to perform on-site leak tests for customers.

Table 1-5: Leak Detection/Correction Behind the Meter

Leak Detection/Correction Behind the Meter				
Households	**% of Households**	**Loss/HH/Gallons/Yr**	**Loss/Gallons/Total/Yr**	**AF Saved Through Repairs**
50868	90%	10,000	457,812,000	1405
50868	10%	32,850	167,101,380	513
		TOTALS	**624,913,380**	**1918**

WATER SAVINGS SOURCE #3: Improved Leak Detection in the Distribution System = 1469 AFY

The District's water losses are 7.34 percent on last year's production which equates to about 40,033 AFY. Per the Las Virgenes AMI study report prepared by the Las Virgenes Municipal Water District in July 2011, it was estimated that through the implementation of AMI, the utility can expect a 50 percent reduction of the total annual water losses percentage amount. Currently, water losses in the distribution system are 7.34 percent of supply and are attributable to leaks in water storage or distribution mains. This Project will help to identify system leaks and has the potential to reduce 1,469 AFY in water system losses. Additionally, the District has an existing emergency water main repair contract with an annual budget of $1,000,000.

b. How have Current Distribution System Losses and/or the Potential for Reductions in Water Use by Individual Users been Determined?

Water savings due to water conserved by water use reduction, faster detection of system leaks, faster detection of leaks behind residential customers' meters described qualitatively and quantitatively above. The 7.34 percent water loss figure shown in Water Savings Source #3 above was taken from our dashboard report which identifies total water supply in each District vs water consumption.

c. For Installing Individual Water Meters, Refer to Regional or Area Studies that Discuss the Potential for Reducing Use or Explain How Water Use Reductions have been Estimated.

There are no regional or area studies of AMI systems; however, the District has identified three potential sources of water savings and has estimated reduction factors for each.

1. Water conserved by water use reduction:

Estimated savings 2,642 AFY Reduction Factor: A case study performed by IBM Research and published by Hanes, D. (2013), *Every drop counts: How water utilities are putting water efficiency first*, found that informed, engaged, and incentivized citizens, through use of a customer portal, conserved an average of 6.6 percent more water than those with standard billing procedures. Using the current supply of 40,033 AFY, multiplying it by a factor of 6.6 percent, we achieve the number shown above.

2. Improved leak detection behind the meter

Estimated savings 1918 AFY Reduction Factor: See Table 1-5, above. Savings were calculated using reduction factors and data from the EPA's WaterSense website. The average household's leaks can account for 10,000 gallons of water wasted every year. Furthermore, 10 percent of homes have leaks that waste 90 gallons or more per day (or 32,850 gallons per year). These percentages (reduction factors) were applied to the number of residential/household connections.

3. Improved leak detection in the distribution system

Estimated savings 1,469 AFY Reduction Factor: The Districts' water losses are about 7.34 percent on last year's production, which equates to about 2,937 AFY. In a report prepared by the Las Virgenes Municipal Water District in June 2011, it was estimated that as much as 50 percent of this amount was due to old inaccurate meters under registering water flow. This suggests that about 50 percent of these losses (reduction factor) would be attributable to leaks in water storage or distribution mains.

d. Distribution Main Meters:

By installing additional AMI meters in various strategic locations in the distribution system along with the AMI meters installed for customers, we will be able to narrow down areas where improper water consumption values are being reported in real time. This will allow us to identify locations for corrective measures as seen fit by the District.

e. What types (manufacturer and model) of devices will be installed and what quantity of each?

1. **Data Collector Installation:** The District is proposing to install 25 data collectors within Regions 4 and 34. A preliminary propagation study performed on this area determined that on average, a single data collector will read approximately 2,000 meters within the Project area (see Figure 1-8). Based on this finding, the installation of 25 data collectors will have the ability to read approximately 50,868 meters within the Project area. However, at the present time, only a quarter of these meters or 12,000 meters have been upgraded to "smart" meters with AMI capabilities. Upon data collector installation, these 12,000 customers will have the ability to access and benefit from the numerous customer portal tools and features available with AMI.

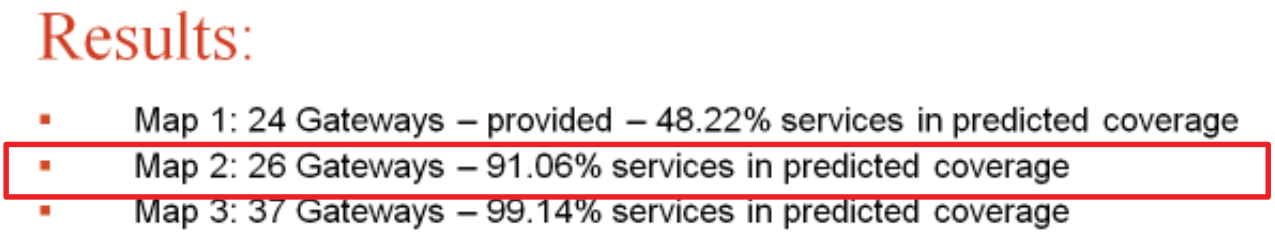


Figure 1-8: Preliminary Propagation Results

2. **Meter Installation:** The Districts' overall AMI project is seeking to install/retrofit 50,868 smart water meters (at April 2018 count). The District has provisionally selected Neptune through a competitive procurement process. Approximately 50,000 Neptune T-10 "smart" meters with R900i E-coders are proposed to be installed for the purpose of replacing antiquated and diminishing meters. These customers will have the ability to access and benefit from the numerous customer portal tools and features available upon AMI implementation.

f. How will Actual Water Savings be Verified Upon Completion of the Project.

Actual water savings will be verified upon completion of the Project through the use of utility data management software to conduct a water balance in the system. Additionally, all usage data for meters equipped with AMI will be compared to historical values to determine water savings due to increased water use efficiency.

E.1.2. Evaluation Criterion B: Water Supply Reliability (18 points)

*Up to **18 points** may be awarded under this criterion. This criterion prioritizes projects that address water reliability concerns, including making water available for multiple beneficial uses and resolving water related conflicts in the region.*

A. Does the project promote and encourage collaboration among parties in a way that helps increase the reliability of the water supply.

The Project will promote and encourage collaboration amongst the District, AVEK (wholesaler), neighboring water utilities and the Districts' customers. The District intends to hold community meetings in the near future to build more support from its customers and to answer any questions or concerns they may have. The significance of the collaboration/support between the District and the wholesaler could be a partnership to use newly installed AMI infrastructure such as the gateways to enhance the reach of the network and potentially lower overall Project costs by attaining funding support from neighboring water utilities. Future water conservation improvements by other water users such as neighboring water utilities could be enhanced by the completion of this project due to the possibility that they may use our AMI infrastructure and vice-versa to further benefit the water savings expectations to be seen.

The Project will alleviate strained relations about over pumping during years of severe drought, especially when conservation efforts vary by jurisdiction. In these situations, this Project will serve as an example of what can be accomplished using AMI technology to reduce water consumption and losses.

B. Will the project make water available to address a specific water reliability concern?

The proposed AMI Project will help the Antelope Valley groundwater basin maintain its groundwater elevation, and alleviate the need for imports. Further, historic drought conditions continue to be a critical issue for the District's and the State's water supplies. At the local level, most water supply comes from groundwater and imported water. While the average yearly rainfall in the Antelope Valley area is approximately 7.4 inches, the precipitation in 2017 was less than half of the average (3.5 inches).

At the State level, the Sierra Nevada Mountain's snowpack, which provides approximately one third of the State's water, was 5 percent of its average in 2015 (California Department of Water Resources (DWR). The snowpack increased in 2016, but DWR reports that the significant effects of previous dry years will remain for now. This is illustrated in the most recent allocations from the SWP. In December 2016, DWR announced that allocations for 2017 will be 45 percent of the requests by the 29 public agencies served by the SWP. The SWP's water resources continue to be severely affected by the drought:

1. Lake Oroville, the SWP's principal reservoir, is holding 1,895,292 AF (54 percent of capacity);
2. Shasta Lake is holding 3,327,257 AF (73 percent of capacity); and
3. San Luis Reservoir is holding 1,155,838 AF (57 percent of capacity).

Further, the roles of partners such as wholesalers and neighboring utilities in the process of implementing the AMI project will be a collaborative and financially supportive relationship. This

is in part due to the possibility of sharing communication infrastructure to enhance the reach of the AMI and provide for a steady and accurate stream of meter data to our cloud service.

C. Will the project benefit Indian tribes? Yes, see link:
http://www.avim.parks.ca.gov/people/index.shtml

D. Will the project benefit rural or economically disadvantaged communities?
Yes, there are disadvantaged communities in region numbers 4 and 34 within the greater District 40. By implementing the AMI technology within the District, residents will expect to see reductions in water rates as the District expects to decrease reliability on more expensive imported water from AVEK and focus on the existing groundwater and wells to suit their water needs.

E. Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance). Describe the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project.
The Bay-Delta is the West Coast's largest estuary and provides drinking water for approximately 25 million people in California (see Figure 1-9). Deliveries from the SWP comprise approximately 53 percent of the District's annual water supply. The Bay-Delta is also home to much of California's wildlife and fish, some of which are listed on the U.S. Fish and Wildlife Services' threatened or endangered species list; most notably the Delta Smelt (see Figure 1-10). The Delta Smelt has become a federally recognized threatened species due in part to record-high water diversions from the Bay-Delta. The significance of the Smelt is its role in the Delta's ecosystem. Its decline has also seen an alarming decline of Longfin Smelt and Delta Salmon. Delta Smelt are considered an "indicator" species, and their abundance reflects how well the Delta's aquatic environment is functioning. Meaning that as Delta Smelt decline, the Delta is changing in a way that does not support other species that are also dependent on the system (including Longfin Smelt, Green Sturgeon, Chinook Salmon, and Steelhead).

Implementing the AMI Project will offer water agencies greater flexibility in the timing of water deliveries so that they may aid in the restoration of the Delta habitats. The Project will provide a mechanism to meet water demands during environmentally sensitive windows and allow the endangered Delta fish (Delta Smelt/Salmon) species to recover. Ultimately, any reduction in water consumption would enhance the Bay-Delta by increasing in-stream flow and benefiting the endangered species affected by the SWP.

The Project is a critical way of meeting the State's co-equal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Bay-Delta ecosystem, as defined in the Amended Memorandum of Agreement Regarding Collaboration on Planning, Design and Environmental Compliance for the Delta Habitat Conservation and Conveyance Program in Connection with the California Bay-Delta Conservation Plan (December 13, 2013).

Figure 1-9: Bay-Delta

Figure 1-10: Delta Smelt

F. Will the project address water supply reliability in other ways not described above?
All potential water supply reliability benefits seen from this project have been described above.

E.1.3. Evaluation Criterion C: Implementing Hydropower (18 points)

*Up to **18 points** may be awarded for this criterion. This criterion prioritizes projects that will install new hydropower capacity in order to utilize our natural resources to ensure energy is available to meet our security and economic needs.*

Not applicable to this Project.

E.1.4. Evaluation Criterion D: Complementing On-Farm Irrigation improvements (10 points)

*Up to **10 points** may be awarded for projects that describe in detail how they will **complement on-farm irrigation improvements** eligible for NRCS financial or technical assistance.*

Not applicable to this Project.

E.1.5. Evaluation Criterion E: Department of the Interior Priorities (10 points)

*Up to **10 points** may be awarded based on the extent that the proposal demonstrates that the project supports the Department of the Interior priorities. Please address those priorities that are applicable to your project. It is not necessary to address priorities that are not applicable to your project. A project will not necessarily receive more points simply because multiple priorities are addressed. Points will be allocated based on the degree to which the project supports one or more of the priorities listed, and whether the connection to the priority(ies) is well supported in the proposal.*

1. **Restoring trust with local communities**
    a. The District intends to promote its mission statement of "To provide reliable, high-quality water, and responsive customer care in a cost-effective and environmentally responsible manner." This will be done by engaging the local community to join in the various community meetings we plan on initiating, answering any questions or concerns the community may have, and showing them that we are working hard to better the environment through this Project and further help conserve one of our most precious natural resources, water.
    b. Further, we will engage the Los Angeles County Board of Supervisors as well the County of Los Angeles Department of Public Works Director to ensure they are on board with this project through a series of public meetings and presentations. During these public meetings, the District will discuss the proposed AMI Project design, benefits, costs, and to oversee the competitive procurement that resulted in the provisional selection of Neptune. The Board of Supervisors meets monthly and represents the concerns and issues of community members (including our residential and commercial customers). The Board will continue to closely monitor the AMI Project's progress and provide input to ensure that the input of the community is considered in all phases of project implementation.
2. **Modernizing our infrastructure**
    a. By installing the various AMI infrastructure such as the Gateway collectors, we could offer support for private sector efforts to utilize our modernized infrastructure to enhance their own projects and serve the public in a more efficient and cost-effective manner.
    b. We will be prioritizing the DOI infrastructure needs to highlight;
        i. **Construction of infrastructure** – Constructing Gateway collectors to receive the various AMI smart meter data and relay water leak alerts at their source and time of occurrence. This will allow the District to fix the leak much sooner than the conventional method thus resulting in decreased water losses.
        ii. **Cyclical maintenance** – The AMI project will offer opportunities for smart maintenance based on big data and analytics. The District will be able to identify faulty or incompetent water meters much sooner resulting in increased water savings.

iii. **Deferred maintenance** – The American Water Works Association (AWWA) recommends replacing water meters every 20 years. When a water meter ages, it portrays less accurate water usage readings due to the wear of its internal parts. Also, they become more prone to water leaks and for this reason, the District currently follows the time period recommended by the AWWA to replace older water meters. Further, with the implementation of AMI, the District will be able to setup a targeted meter replacement program to ensure the overall system is displaying the correct water usage information. Through this, a more accurate water loss and water consumption value may be attained to further ensure the District is doing all that it can to remain water smart.

E.1.6. Evaluation Criterion F: Implementation and Results (6 points)

*Up to **6 points** may be awarded for these sub criteria.*

E.1.6.1. Sub criterion No. F.1: Project Planning

Points may be awarded for proposals with planning efforts that provide support for the proposed project.

Recognizing persistent yet less severe drought conditions throughout California, on May 18, 2016, the State Water Board adopted a revised water conservation regulation that replaces the emergency conservation regulation. The new regulation that will be in effect from June 2016 through January 2017 requires locally developed conservation standards based upon each agency's specific circumstances.

The District recognizes the importance of continued water conservation and is committed to implementing water conservation measures for all customer sectors with a goal of achieving a 20 percent water use reduction by 2020. The previous system, which established water use allocations for individual customers and assessed water conservation surcharges for overuse, was replaced in favor of increased customer outreach, rebates, public education and AMI implementation for District customers.

The District maintains numerous planning documents addressing water shortages and conservation alternatives including:

- *2015 Urban Water Management Plan (UWMP)*
  - The Project is in alignment with the District's latest UWMP that focuses on best management practices (BMPs) for metering in association with water conservation and water management.
- *Antelope Valley Integrated Regional Water Management Plan (IRWM)*
  - The Project is in alignment with the region's objective to reduce reliance on imported water from the SWP and identifies "Comprehensive Water Conservation/Efficient Water Use" Programs as high priority projects for the District.

- *District Water Conservation Ordinances*
  - The Project is in alignment with current water conservation ordinances designed to encourage and promote water conservation.

The previously mentioned planning documents all cite conservation as the simplest, most cost-effective way to remedy or at least postpone a myriad of resource management issues.

(1) For over 60 years, the District has worked to deliver precious water in the semi-arid southwest. The lack of local supplies and the difficulties associated with imported supplies has motivated the District to construct and operate one of the most efficient water delivery systems in California. The installation of smart meters furthers this effort.

(2) The proposed Project conserves water through education, real time feedback to residential water users, and financial incentives.

E.1.6.2. Sub criterion No. F.2: Performance Measures

Points may be awarded based on the description and development of performance measures to quantify actual project benefits upon completion of the project. ***Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project.***

The District realizes the importance of quantifying results to evaluate the Project's performance. Evaluating AMI Project metrics is an important means of determining the relative effectiveness of various water management strategies in order to support District-wide AMI implementation. It is the goal of the District to fully evaluate the benefits and capabilities of the AMI technology by establishing a set of key performance measures to quantify the Project benefits. These performance measures are preliminary and will be further evaluated and refined throughout the planning and implementation stages of the Project.

The District will use the following performance measures to evaluate the performance of the newly installed AMI equipment:

- *Water Conserved*
  - Due to existing growth and construction in the Project area, accurately gauging the effectiveness of the AMI implementation will require analysis of individual accounts in the Project area to quantify reduction in water demand and determine AMI effectiveness. Historical consumption data prior to AMI implementation will be compared with consumption data after AMI implementation. Favorable changes in observed water demand patterns will quantify the overall success of the AMI implementation.
  - Water conserved includes water losses mitigated. The District will perform water loss audits using American Water Works Association methodology and review water usage reports for the AMI implementation service area to ascertain the reduction in water losses and unaccounted-for water that has been recuperated.

- *Emissions Reduction*
  - The District expects a significant reduction in emissions related to meter reading as a result of the Project and will compare mileage logs of vehicles used to perform meter reading before and after AMI implementation.

The District has a clear baseline of historical water distribution and billing data to compare with current and future records once AMI is installed and the host server software is put into production. The District is very interested in monitoring and analyzing the performance measures for the Project as it will help identify what changes and improvements need to be made and validate the feasibility of expanding the AMI program throughout the District.

In addition, data analytics and customer engagement portal software is included as part of the Project proposal and will assist the District in analyzing the data collected from the Project. It is the goal of the District to equip District employees with the necessary tools to not only monitor water production and consumption but to also analyze and evaluate solutions for minimizing water losses and increasing water use efficiency. Similarly, it is the goal of the District to provide tools and resources to the customers so that they can comprehensively understand their water usage patterns and have access to regular feedback on the effectiveness of any activities and efforts to reduce water usage in their homes and businesses.

E.1.7. Evaluation Criterion G: Nexus to Reclamation Project Activities (4points)

*Up to **4 points** may be awarded if the proposed project is within a basin with connections to Reclamation project activities. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.*

(1) Is the proposed project connected to Reclamation project activities? If so, how?
Reclamation's WaterSMART Program focuses in part on the uses of technology to balance future water supply and demand needs throughout California and the western United States. The proposed Project demonstrates the opportunities for significant water and energy conservation through remote sensing, state-of-the-art software, and systems integration. Water conserved is directly related to the CALFED Bay-Delta Program which is a major ongoing Reclamation activity.

(2) Does the applicant receive Reclamation project water? Fifty-three percent of the District's water is imported from the SWP which is sourced from the Bay-Delta.

(3) Is the project on Reclamation project lands or involving Reclamation facilities? The Project focuses on the District's water delivery and distribution, and does not directly involve Reclamation project lands or facilities.

(4) Is the project in the same basin as a Reclamation project or activity? Yes. The proposed AMI meter and Leak Detection project will conserve water by reducing the demand on the AVEK and SWP water recycling and recharge which is sourced from the CALFED Bay-Delta Program Reclamation project. Additionally, the AMI Project will reduce reliance on imported water and benefit the Bay-Delta where Reclamation has carried out operations and projects.

(5) Will the proposed work contribute water to a basin where a Reclamation project is located? The Project will contribute 1,036 AFY per year and 6,213 AFY per year ongoing after six years, to the SWP.

(6) Will the project benefit any tribe(s)? Yes, see link:
http://www.avim.parks.ca.gov/people/index.shtml

E.1.8. Evaluation Criterion H: Additional Non-Federal Funding (4 points)

*Up to **4 points** may be awarded to proposals that provide non-Federal funding in excess of 50 percent of the project costs. State the percentage of non-Federal funding provided using the following calculation:*

$$\frac{Non - Federal\ Funding}{Project\ Cost} = \frac{\$13,140,665}{\$14,140,665} = 93\%$$

Project Budget

Funding Plan and Letters of Commitment

1) ***How will you make your contribution to the cost-share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).***

   The District will provide its cost-share contribution from General Fund revenue generated through water sales. District cost-share will primarily consist of monetary contributions with negligible in-kind contributions. The funding will be officially appropriated upon Board authorization. Cost share contributions from outside sources will not be required (see Table 4-1).

2) ***Describe any donations or in-kind costs incurred before the anticipated Project start date that you seek to include as project costs.***

   a. ***The project expenditure and amount:*** *See Table 4-1 below*

   b. ***The date of cost incurrence-*** *September 2018*

   c. ***How the expenditure benefits the Project –*** *It will allow the District to move forward with the project which will allow us to realize the environmental and Water savings benefits sooner than later.*

   d. ***Provide the identity and amount of funding to be provided by funding partners.***

      Funding partners will not be required

3) ***Describe any funding requested or received from other Federal partners. Note: other sources of Federal funding may not be counted towards the required cost share unless otherwise allowed by statute.***

N/A

4) ***Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied.***

N/A

Table 4-1: Funding Plan

FUNDING PLAN		
Funding Sources	**Amount**	
Non-Federal Entities		
Waterworks District No. 40	$	13,140,665
Non-Federal Sub-total	$	13,140,665
Other Federal Entities		
None	$	-
Other Federal Sub-total	$	-
Requested Reclamation Funding	$	1,000,000
Project Total	**$**	**14,140,665**

BUDGET PROPOSAL

The total budget for the Project is estimated to be $14,140,665, with Reclamation providing $1,000,000 of the funding and the District providing the remaining $13,140,665 of the funding (see Table 4-2). Reclamation's shared funding will be allocated for the procurement of AMI equipment.

Table 4-2: Budget Proposal

BUDGET PROPOSAL						
Budget Item Description	**Computation**			**Recipient Funding**	**Reclamation Funding**	**Total Cost**
	$/Unit	**Unit**	**Quantity**			
Salaries and Wages						
Project Manager	$ 96.00	HOUR	60	$ 5,760.00		$ 5,760.00
Project Engineer	$ 72.00	HOUR	120	$ 8,640.00		$ 8,640.00
Project Inspector	$ 55.00	HOUR	650	$ 35,750.00		$ 35,750.00
Sub-Total Salaries and Wages				**$ 50,150.00**		**$ 50,150.00**
Fringe Benefits						
Included in *"Salaries and Wages"*				$ -	$ -	$ -
Travel						
Not Applicable				$ -	$ -	$ -
Equipment						
Not Applicable				$ -	$ -	$ -
Material and Supplies						
Not Applicable				$ -	$ -	$ -
Contractual/Construction						
Software/Utility Portal	$ 100,000	EA	1	$ 100,000		$ 100,000
Training	$ 50,000	LUMP	1	$ 50,000		$ 50,000
Data Collectors	$ 16,000	EA	25	$ 200,000	$ 200,000	$ 400,000
Collector Installation	$ 4,000	EA	25	$ 100,000		$ 100,000
AMI Meters	$ 500	EA	18000	$ 8,200,000	$ 800,000	$ 9,000,000
Meter Installation	$ 175	EA	18000	$ 3,150,000		$ 3,150,000
Sub-Total Contractual				**$ 11,800,000**	**$ 1,000,000**	**$ 12,800,000**
Environmental Compliance						
Not Applicable				$ -		$ -
Reporting						
Semi-Annual and Final Reporting	$ 5,000	EA	1	$ 5,000		$ 5,000
Other						
10% Contingency	$ 1,285,515	LUMP	1	$ 1,285,515		$ 1,285,515
TOTAL PROJECT COSTS				**$ 13,140,665**	**$ 1,000,000**	**$ 14,140,665**
PERCENTAGE CONTRIBUTION				**92.93%**	**7.07%**	**100.00%**

Budget Narrative

Salaries and Wages

The salaries and wages included in the budget proposal are for District employees who will be administering and overseeing the Project. Tasks may include but are not limited to: Project meetings, inspections, preparing bid advertisement, training, public outreach and education, as

well as other Project-related tasks. The cost share for these budget items will fall solely on the District. The salary and wage rates provided are based on 2017 figures and include fringe benefits.

Fringe Benefits

Fringe benefits for the District staff listed in the budget proposal are roughly 45 percent of employee salaries. These benefits include health, medical, and vision insurance, retirement savings matches, and employee leave.

Travel

The District will not be including travel in the budget proposal.

Equipment

Equipment costs, including vehicle usage costs, have been included under the contractual portion of this narrative.

Materials and Supplies

Material and supply costs have been included under the contractual portion of this narrative

Contractual

The contractual budget makes up the bulk of the overall budget proposal. The District will contract with local vendors for the purchase and installation of 38,000 "smart" meters, 25 fixed base data collectors, software to compile meter reading information into a usable format, customer/utility portal to maximize the benefits of the system, and staff training. These counts were obtained by a preliminary propagation study undertaken in October 2016**;** however, final figures and collector placement will be finalized when the contract is awarded. The rates and costs for contractual services were obtained from an AMI pilot project implemented within the District in 2016.

Environmental and Regulatory Compliance Costs

Environmental compliance is not anticipated.

Other Expenses

A 10 percent contingency expense of $1,285,515 has been included in the budget for potential project cost overruns.

Indirect Costs

Indirect costs are not anticipated for this project.

Total Costs

Estimated total cost is $14,140,665. The requested federal share is $1,000,000; non-federal share is $13,140,665.

Environmental and Cultural Resources Compliance

1.) ***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.***

No, the Project involves the replacement of outdated meters with AMI-compatible meters within existing meter boxes and installation of data collectors at existing facilities. As a result, there will be neither earth-moving work nor impact to the surrounding environment.

2.) ***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?***

No, it is not anticipated that any species would be affected by any activities associated with the proposed Project.

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

No, there are no wetlands or "Waters of the United States" within the Project boundaries that potentially fall under the Clean Water Act jurisdiction.

4.) ***When was the water delivery system constructed?***

The District is comprised of eight regions serving customers in the cities of Lancaster and Palmdale, and the unincorporated communities of Pearblossom, Littlerock, Sun Village, Rock Creek, Northeast Los Angeles County, and Lake Los Angeles. The first region formed was Lancaster in 1919 and the last region formed was Rock Creek in 1968.

5.) ***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.***

No, the proposed Project will not result in any modification of or effect to, individual features of an irrigation system.

6.) ***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.***

No, there are no buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places.

7.) ***Are there any known archeological sites in the proposed project area?***

No, there are no known archaeological sites in the proposed Project area.

8.) ***Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?***

No, the Project will not have an effect on low income or minority populations.

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

No, the Project will not limit access to and ceremonial use of Indian sacred sites or impact tribal lands.

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

No, the Project will not contribute to the introduction, continued existences, or spread of noxious weeds or non-native species known to occur in the area.

Required Permits or Approvals

The District does not anticipate permits being required for the AMI Project. All AMI-compatible meters will be installed in place of existing outdated meters within existing meter boxes. Efforts will also be made to install all data collectors on District-owned infrastructure and property. In the event that a data collector must be installed on city or County property for greater effectiveness, the District will make the necessary efforts to obtain the necessary building permits from the proper jurisdiction. The District will not know if building permits will be required until a propagation study and field investigation is complete.

LETTERS OF SUPPORT

lancaster ca
it's positively clear

May 1, 2018

Mr. Darren Olson
Bureau of Reclamation
Financial Assistance Support Section
Mail Code: 84-27814
P.O. Box 25007
Denver, Colorado 80225

Re: Bureau of Reclamation WaterSmart: Water and Energy Efficiency Grant Opportunity for the Los Angeles County Waterworks District No. 40 Advanced Metering Infrastructure Project

Dear Mr. Olson:

On behalf of the City of Lancaster, I would like to express our support of the District's application for an Advanced Metering Infrastructure (AMI) project to help create water conservation solutions through technological advancements. The AMI project will automate meter reading in the District while enhancing water consumption and leak detection monitoring. The AMI project will enable the District and its customers to better manage water usage, improving customer service and promoting water conservation and efficiency.

This project is consistent with the City of Lancaster's goals to better and efficiently manage resources in the Antelope Valley region. This project will provide accessibility to water supplies that would have otherwise been lost or unaccounted. The project will improve water use efficiency for residential customers and large landscaped areas within the City.

We are also aware that this project will be the first in a larger AMI District-wide effort, and help position the District to best align with State and Federal mandates for water conservation, while creating a model for other water providers in the region to follow.

We look forward to working closely with the District as they implement the AMI project, and we request that you consider the positive impact this project would have on our community, environment, and our expressed support for this project, while evaluating the grant application.

If you have additional questions or comments, please contact me at (661) 723-6044.

Sincerely,

Jeff Hogan
Development Services Director

JH/jr

PALMDALE

a place to call home

May 1, 2018

38300 Sierra Highway

Palmdale, CA 93550-4798

Tel: 661/267-5100

Fax: 661/267-5122

TDD: 661/267-5167

Mr. Darren Olson
Bureau of Reclamation
Financial Assistance Support Section
Mail Code: 84-27814
P.O. Box 25007
Denver, Colorado 80225

Dear Mr. Olson:

Re: Bureau of Reclamation WaterSmart: Water and Energy Efficiency Grant Opportunity. Los Angeles County Waterworks District No. 40 – Advanced Metering Infrastructure Project

On behalf of the City of Palmdale, I would like to express our support of the District's application for an Advanced Metering Infrastructure (AMI) project to help create water conservation solutions through technological advancements. The AMI project will automate meter reading in the District while enhancing water consumption and leak detection monitoring. The AMI project will enable the District and its customers to better manage water usage; improving customer service and promoting water conservation and efficiency.

This project is consistent with the City's goals to better and efficiently manage resources in the Antelope Valley region. This project will provide accessibility to water supplies that would have otherwise been lost or unaccounted. The project will improve water use efficiency for residential customers and large landscaped areas within the City.

We are also aware that this project will be the first in a larger AMI District-wide effort and help position the District to best align with State and Federal mandates for water conservation while creating a model for other water providers in the region to follow.

We look forward to working closely with the District as they implement the AMI project and we request that you consider the positive impact this project would have on our community, environment and our expressed support for this project, while evaluating the grant application.

If you have additional questions or comments, please contact Mike Shahbakhti at (661)267-5310.

Sincerely,

Chuck Heffernan
Director of Public Works

OFFICIAL RESOLUTION

The District anticipates that the signed official resolution will be submitted to the Bureau by July 10th, 2018. Attached is the draft Resolution that will be signed by the County of Los Angeles Board of Supervisors on the scheduled agenda item date. We apologize for any inconvenience this may cause and appreciate the Bureau's understanding on this matter.

ENCLOSURE A

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF LOS ANGELES, CALIFORNIA, AUTHORIZING LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40 (ANTELOPE VALLEY) TO SUBMIT APPLICATIONS FOR THE UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION'S WATERSMART: WATER AND ENERGY EFFICIENCY GRANT PROGRAM

WHEREAS, the United States Department of the Interior, Bureau of Reclamation's (herein referred to as BUREAU) WaterSMART: Water and Energy Efficiency Grant Program provide funding for projects that seek to conserve and use water more efficiently, improve energy efficiency, and contribute to water supply sustainability; and

WHEREAS, the County Strategic Plan Goal of Fiscal Responsibility supports augmenting County funds with grant funds.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Supervisors of the County of Los Angeles, acting as the governing body of the Los Angeles County Waterworks District No. 40 (Antelope Valley), (hereinafter referred to as DISTRICT), hereby:

1. Authorizes the Director of Public Works or his designee to submit applications for the BUREAU's WaterSMART: Water and Energy Efficiency Grant Program.

2. Verifies that the DISTRICT is capable of providing the funding and in-kind contribution as specified in the funding plan for the grant applications.

3. Directs the DISTRICT to meet the BUREAU's established deadlines for the grant program if the project is selected for funding.

4. Supports the DISTRICT's proposal for the Advanced Metering Infrastructure Project.

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The foregoing resolution was adopted on the ___ day of _____, 2018, by the Board of Supervisors of the County of Los Angeles as the governing body of the Los Angeles County Waterworks District No. 40 (Antelope Valley).

CELIA ZAVALA
Acting Executive Officer of the
Board of Supervisors of the
County of Los Angeles

By _____
Deputy

APPROVED AS TO FORM:

MARY C. WICKHAM
County Counsel

By _____
Deputy