Automated Metering Infrastructure (AMI) Project Phase II

WaterSMART: Water and Energy Efficiency Grants for FY2024 R24AS00052 Funding Group III

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SECTION 1: TECHNICAL PROPOSAL

A. Executive Summary

Date: February 22, 2024	**Applicant Name**: Santa Clarita Valley Water Agency
City: Santa Clarita	**Project Length of Time:** 24 Months
County: Los Angeles and Ventura Counties	**Estimated Completion Date:** July 2026
State: California	**Located on a Federal Facility:** No

Santa Clarita Valley Water Agency is a Category 'A' applicant.

Project Summary

To further increase Santa Clarita Valley Water Agency's (SCV Water) water supply reliability and support water conservation and management efforts, SCV Water is continuing its Advanced Metering Infrastructure Project (Project) by commencing a second phase to replace an additional 15,599 existing water service meters with new AMI meters. The Project will integrate the new AMI meters into the Customer Engagement Portal (CEP), which will be launched by December 2024 as part of Phase I of the AMI project. The CEP will provide SCV Water customers with daily water use information. These elements will increase water conservation through accurate and near real-time meter readings, detect leaks in the system prompting corrective responses, facilitate the billing process, reduce the amount of manual labor and vehicle miles traveled to read water meters and provide customers education on their water use. The Project will bring the percentage of AMI meters in the service area up to 98%. The Project will conserve an estimated **1,324 acre-feet per year (AFY)** in water savings and **1,189,196 kilowatt-hours (kWh)** per year in energy savings. SCV Water will manage the project in-house and procure a qualified contractor for AMI meter installation. These upgrades will improve SCV Water's overall management of the system and enhance customer service.
This request for funding is for $3,768,840 and will augment SCV Water's existing funding of $3,768,840 (50% match). SCV Water is ready to proceed immediately with the Project upon grant approval, to receive the required equipment and start the installation of the water meters and integration.

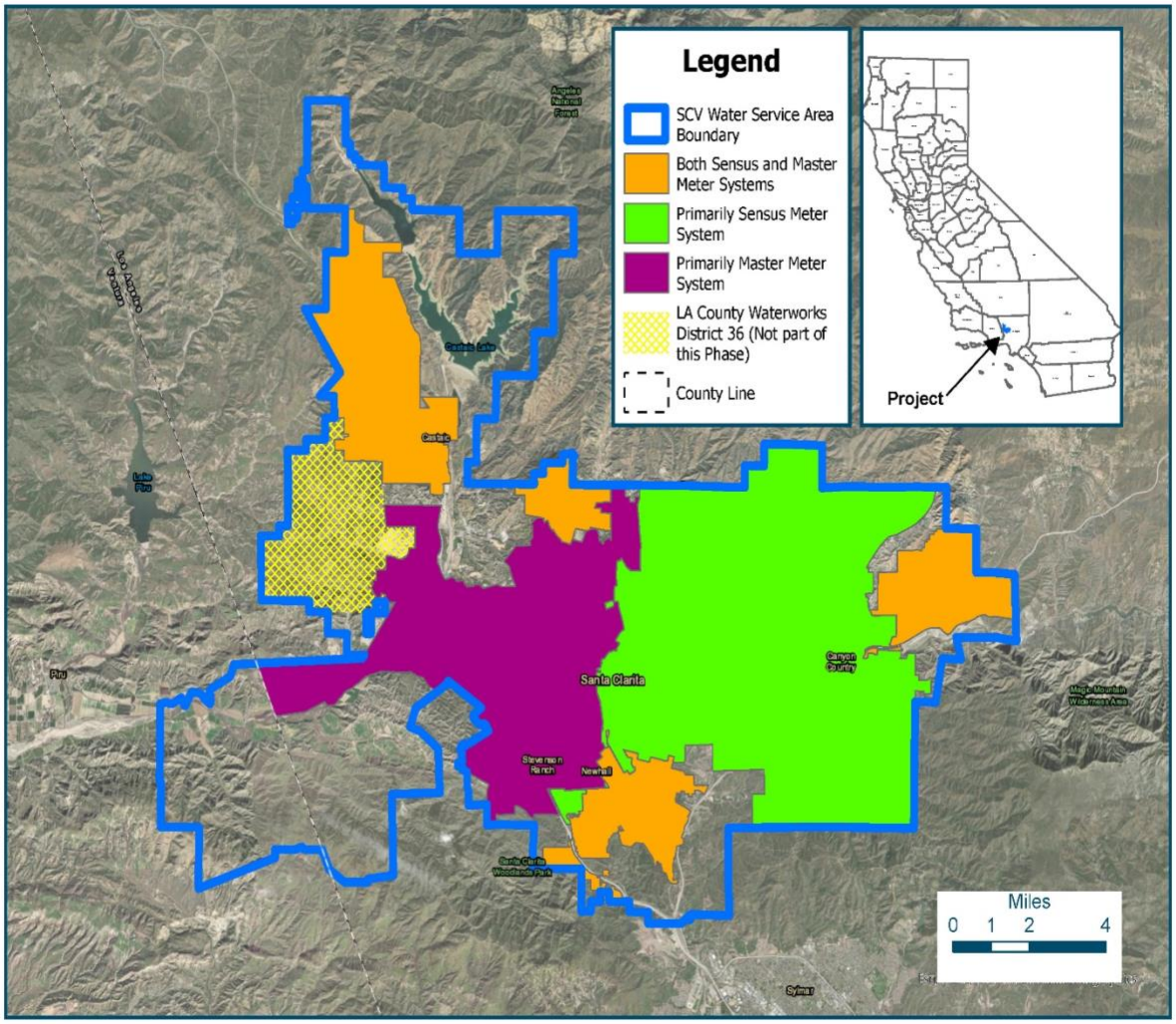
B. Project Location

The AMI Project, located in Los Angeles County in the state of California, will replace existing water meters within the SCV Water service area as shown in **Figure 1**. Appendix B contains more detailed maps showing the connections to be replaced with AMI meters. Since there are many locations where meters will be installed, the latitude and longitude for the SCV Water headquarters is 34° 26' 7.2492'' N and 118° 31' 15.6432'' W, respectively. The AMI Project replaces water meters in three communities as summarized in **Table 1**.

Table 1.New AMI Meter Installation Locations

Community	No. of Meters
Newhall	3,838
Pinetree	2,098
Valencia	9,663
Total	**15,599**

Figure 1. Project Location Map



C. Project Description

In 2018, SCV Water was formed through the consolidation of four previous standalone water agencies. The previous water agencies had long engaged in efforts to upgrade water service meters as early as twenty years ago. Being separate in the past, the legacy agencies had their own initiatives, which resulted in SCV Water inheriting various brands of equipment and different types of systems.

Planning and Design: SCV Water has completed its planning by performing pilot projects to incorporate various brands and integration of billing systems. SCV Water has also completed the system network conversion and begun the infrastructure upgrades. It is useful to summarize the completed and ongoing efforts before describing the technical aspects of the Project in this application since the Project is a continuation of these efforts.

The complete and ongoing work is as follows:

1. **Billing System and Customer Engagement Portal (CEP):** SCV Water converted its billing systems to encompass all divisions under a single platform. The new system includes an online CEP which will enable AMI-metered customers online access to near real-time information about water usage and leak detection. The billing platform was configured to support the integration with a Meter Data Management (MDM)/Analytics platform. The MDM gathers raw usage data from the metering networks and performs validation and editing to cleanse the data for billing, analysis, reporting and monitoring. The MDM identifies high usage meters, non-communicative meters, meters that are associated with vacant accounts but show usage, meters with zero usage on occupied accounts and assists in the identification of potential leaks. The MDM delivers accurate, real-time data to the CEP platform.

2. **AMI Project Phase I:** this phase of the AMI project is in progress and consists of the following components:

    1. Replacement of approximately 21,163 with advanced metering infrastructure (AMI) capable meters. Selected meters are some of the oldest meters within the system that are operating beyond their life expectancy. Meter replacements are being conducted by SCV Water staff and contractors.
    2. Connection of approximately 11,000 currently installed AMI capable meters to the CEP system to benefit from the leak detection system.
    3. Install up to three base receiver stations and additional repeater stations for communications based on the preliminary Propagation Study.
    4. Integration of the new meters to the CEP system to connect all the AMI-metered customers to a centralized portal to observe real-time water use.
    5. Conducting a public outreach campaign: In addition to the technical aspects of the Project, SCV Water has prepared a comprehensive public outreach plan as part of implementing CEP to promote customer awareness and education on the functionality of new AMI meters.

This application is for the implementation of the AMI Project Phase II which consists of the following components:

1. **Replacement of 15,599 meters with AMI meters.** Selected meters are some of the older meters within the system that are operating beyond their life expectancy.
2. **Integration of the new meters** into the billing and CEP systems to connect all new AMI-metered customers to a centralized portal to observe real-time water use.
3. **Conducting public outreach**. This component will build on the public reach conducted in Phase I and use the already established public outreach program to promote customer awareness and education on the functionality of new AMI meters. This will promote customer awareness that results in time sensitive leak detection capability and water use correction as customers approach inefficient, excessive, and wasteful levels of use.
4. **Environmental documentation**. SCV Water anticipates that the Project will qualify for a California Environmental Quality Act (CEQA) Categorical Exemption and a National

Environmental Policy Act (NEPA) Categorical Exclusion because the Project will not result in individual or cumulatively significant environmental effects. Environmental documentation will be filed after the grant is executed and the contract is awarded.

5. **Grant compliance.** SCV Water will be responsible for all grant compliance efforts after award and execution of the grant agreement.

SCV Water proposes to perform this work with contracted labor with the designated project manager overseeing the Project. Upon execution of agreement for this grant request, SCV Water will start the process for retaining a contractor by advertising for a public bid to replace meters needed to implement the Project. The SCV Water Board of Directors will award a contract to the lowest responsive, responsible bidder. As with the prior AMI Phase I project, to maintain compatibility with SCV Water existing infrastructure, meters purchased for this AMI Phase II project will be sole sourced and will require a BABA Waiver (as was issued for the AMI Phase I project), as no BABA compliant AMI technology currently exists.

D. Evaluation Criteria

D.1. Evaluation Criterion A — Quantifiable Water Savings (25 points)

All applicants should be sure to:

1. *Describe the amount of estimated water savings. For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result of this project.*
   Please include a specific quantifiable water savings estimate; do not include a range of potential water savings.

SCV Water is continually assessing its existing infrastructure and exploring all aspects of technology as it applies to water treatment, delivery, and distribution. Updating water meters and corresponding infrastructure to an AMI system is a priority for SCV Water. The current water meters are either antiquated manual-read water meters or non-functioning and outdated drive-by remote-read water meters without the capability providing real-time access to usage information to customers.

The latest science-based technology in water meters is AMI. This technology allows for water meters to be read remotely which conserves water through leak detection, improved customer billing accuracy, and online customer interface portals which have proven to lead to water savings. These components of the AMI conversion will result in direct water savings, which is estimated to be **1,324 AFY,** 432 AFY from recoverable losses (leak detection, accurate billing, and delivery tracking) and 892 AFY from reduced water use due to improved water use transparency on the customer-end via the CEP. Please see question 3 below for a more detailed description and supporting documentation of the water savings estimation methodology.

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

- *Explain where current losses are going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground)?*

Portions of the water meter infrastructure in the SCV Water service area are outdated and

many meters are beyond their useful life. Additionally, due to consolidation of four previous agencies into the SCV Water system, age and brands of equipment vary significantly throughout the system, resulting in ununiform accuracy. Significant water loss can occur in the time between water billings with old and manual-read meters since real time data is not available. Water could be leaking for an entire month before it is discovered on a higher-than-normal water bill. The water lost due to leaks either increases wastewater flows to the sanitation district, seeps into the ground, or ends up in the storm drain system and is therefore not put to beneficial use.

- *If known, please explain how current losses are being used. For example, are current losses returning to the system for use by others? Are current losses entering an impaired groundwater table becoming unsuitable for future use?*

SCV Water conducts annual validated water loss audits using American Water Works Association (AWWA) Water Audit Software (WAS) v5.0 Audit Software. The most recent audit for 2023 found an average loss of approximately 5.81%. This water is lost by seeping into the ground or lost to the storm drain system, which is not currently recoverable by SCV Water. Implementation of the AMI Project has proven to provide a mechanism for water leak detection and response to reduce the amount of water waste.

- *Are there any known benefits associated with where the current losses are going? For example, is seepage water providing additional habitat for fish or animal species?*

There are currently no known benefits associated with current losses due to leaks in SCV Water's water distribution system. Furthermore, as denoted in the 2023 Water Loss Audit, some water system losses are from unauthorized connections which present sustainability, legal, and financial threats.

3. *Describe the support/documentation of estimated water savings. Please provide sufficient detail supporting how the estimate was determined, including all supporting calculations.*

The Project will produce water savings in two separate ways:

1. Timely identification and correction of leaks and correction in abnormal consumption resulting in reduced water loss: – 432 AFY
2. Customer behavioral changes in response to the availability of near-real time data consumption metrics provided through the CEP resulting in reduced water consumption: – 892 AFY

Based on an Environmental Protection Agency (EPA) report on water loss control for public water systems, water saving estimates resulting from early identification of leaks and overuse led to reductions in water losses. This report estimated that up to 75% of water loss in a system is recoverable (EPA, 2013). A case study was completed regarding the implementation of AMI in the City of Santa Maria, California. The case study found that AMI was able to reduce its non-revenue water loss from 6% down to 2%, or by two thirds (Godwin, 2011). We estimated that two-thirds of SCV Water's non-revenue water losses are recoverable due to implementation of the AMI system. Therefore, of SCV Water's 5.8% of water losses, 3.9% is estimated to be recoverable and therefore additional water savings.

Additionally, the American Water Works Association (AWWA) "Increasing Consumer Benefits & Engagement in AMI-based Conservation Programs- Guidebook for Practitioners states that "a credible range of water savings associated with AMI-based programs falls within a range of 2 to 10%". The ranges vary with the level of CEP registrations, which vary globally from 30-45% according to the AWWA Guidebook. Given that all customers of the 15,599 meters being replaced will have access to the CEP, and the ease of registration and useability of the platform, SCV Water anticipates water savings from CEP to be closer to 10 percent. SCV Water based its CEP water savings assumptions on this study (8% reduction in water usage) which is applied to 15,599 meters of SCV Water's customers/services that will be connected once the Project is completed. There are no available studies regarding the total number of years over which savings will accrue, we have assumed a conservative estimate of five years to be the lifetime of accrued savings. See **Table 2** for water saving calculations.

Table 2. Water Savings Calculations

Water Savings Calculation Variable	Value	Unit	Calculation	Source
Total Potable Water Meters in SCV Water	73,734	Meters	Input	SCVWA
Number of meters that will be upgraded to have AMI Capabilities	15,599	Meters	Input	SCVWA
Percentage of total smart meters connected to AMI through the Project	21.16%		15,599/73,734	Calculation
Total Water Supplied by SCV Water in 2023	52,693	AFY	Input	2023 Water Loss Audit
Estimated Volume of Water Supplies by AMI fitted smart meters within Project	11,148	AFY	21.16% x 52,693	Calculation
Percentage of System Water Losses in 2023	5.81%		3,061/52,693	2023 Water Loss Audit
Percentage of Recoverable Losses	3.87%		2/3*5.81%	1) Goodwin,2011, 2) EPA, 2013
Annual Recoverable Water Losses	**432**	**AFY**	**3.87% x 11,148**	**Calculation**
Water Savings from Reduced Water Loss (20-years)	**8,634**	**AFL**	**432 x 20**	**Calculation**
% Water Savings from Customer Web Portal (18.31% of all meters/customers-formula assumes equal % consumption by each meter)	1.69%		8% x 21.16%	AWWA Guidebook
Annual Water Savings from Customer Web Portal	**892**	**AFY**	**1.69% x 52,693**	Calculation
Total Water Savings from Customer Web Portal (assumed 5-year life)	**4,459**	**AFY**	**892 x 5**	**Calculation**
Total Annual Water Savings	**1,324**	**AFY**	**432 + 892**	**Calculation**
Total Project Lifetime Water Savings	**13,093**	**AFL**	**8,612 + 4,459**	**Calculation**

As is noted above, SCV Water is currently in the process of implementing a Meter Data Management (MDM)/Analytics platform and an online CEP. The CEP is expected to be online and functional by December 2024 as it was part of the Phase I AMI Project.

The MDM gathers raw usage data from the metering network and performs validation and editing to cleanse the data for water consumption billing, analysis, reporting and monitoring. The MDM identifies non-communicative meters, meters that are associated with vacant accounts but show usage, meters with zero usage on occupied accounts and assists in the

identification of water leaks. Timely identification of these scenarios will enable SCV Water to investigate, diagnose and resolve issues, resulting in reduced water loss and mitigating potential property damage. The MDM delivers accurate, real-time data to the CEP platform. Improved data integrity reduces the need to dispatch meter technicians multiple times to the same service for the purposes of collecting or verifying meter reads and reduces customer service billing errors. Because collecting usage data via AMI will be more efficient than SCV Water's current collection method, it will shorten the time between read collection and billing.

The CEP provides customers online access to near-real time usage data. Achieving behavioral change of water use habits is difficult with the delivery of a monthly bill, whereas providing near-real time access of the same data provides customers the opportunity to act and employ strategies that will have immediate reduction in unnecessary water usage.

4. *Please address the following questions according to the type of infrastructure improvement you are proposing for funding. See Appendix A: Benefit Quantification and Performance Measure Guidance for additional guidance on quantifying water savings.*

Municipal Metering: *Municipal metering projects can provide water savings when individual user meters are installed where none exist to allow for unit or tiered pricing and when existing individual user meters are replaced with advanced metering infrastructure (AMI) meters. To receive credit for water savings for a municipal metering project, an applicant must provide a detailed description of the method used to estimate savings, including references to documented savings from similar previously implemented projects. Applicants proposing municipal metering projects should address the following:*

a. *How has the estimated average annual water savings that will result from the project been determined? Please provide all relevant calculations, assumptions, and supporting data.*

Please see discussion and Table 2 above, which provide the annual water saving calculations, assumptions, and supporting documents.

b. *How have current system losses and/or the potential for reductions in water use by individual users been determined?*

Current distribution losses are determined by using AWWA WAS v5.0 Audit Software and are reported annually. The potential reductions in water use assumptions are based on the EPA's WaterSMART tool, Smart Water Energy, and the AWWA Guidebook for Practitioners, which all assume that individual water use decreases 8% when AMI is installed.

As discussed above, the CEP will provide customers with online access to near-real time usage data and the ability to set high usage alert notifications. Achieving behavioral change of water use habits is difficult with the delivery of a monthly bill, whereas providing near-real time access of the same data provides customers the opportunity to take immediate action and employ strategies that will have immediate impact. More frequent engagement on a familiar online platform, which customers are already accessing for other account-related purposes will facilitate a better understanding of usage habits, their impact and the overall value of water which will assist in achieving best practices. The CEP will provide a common educational platform for growing families, whose consumption patterns often could benefit from insight

and conservation. Accessibility to such data and acting upon it will reduce water loss and waste, which will also help to reduce customer water bills.

The parameters of the MDM system can be configured so SCV Water can set the desired alert criteria for the system. For example, SCV Water can set up an alert at 24 hours of continuous water usage. This notification would be sent to SCV Water, and they would contact the customer to inform them that they had continuous water usage for 24 hours and to look for a leak.

c. For installing end-user water service meters, e.g., for a residential or commercial building unit., refer to studies in the region or in the applicant's service area that are relevant to water use patterns and the potential for reducing such use. In the absence of such studies, please explain in detail how expected water use reductions have been estimated and the basis for the estimations.

The above-mentioned studies are:

1. American Water Works Association (AWWA), 2022. "Increasing consumer benefits & engagement in AMI-based conservation programs."
2. Environmental Protection Agency (EPA), 2013. "Water Audits and Water Loss Control for Public Water Systems". July 2013.
3. Marketing, 2022. "How much can leak detection reduce non-revenue water losses?". Aclara Blog. Hubbell.

The above-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.

According to an article titled "*How Much Can Leak Detection Reduce Non-Revenue Water Losses*" published in August 2021 on the Aclara Technologies blog, "Utilities that choose not to install proactive leak detection know exactly how much they are "saving" by avoiding that investment. Unfortunately, they often have no idea of how much they are actually "paying" to forego it, since 65 to 75 percent of water leaks never surface to prove their hidden expense." AMI technology can detect these unseen leaks and the source in a timely manner, reducing water lost and costs associated.

The Water Research Foundation's "*California Single-Family Water Use Efficiency* Study" (2016) documents an average leakage rate of 30.7 gallons per household per day for a California study group from 2005. This equates to 11,200 gallons per year, or 0.0343 AFY per household. The results of this study are higher than what was used above.

Another example was found after reviewing annual water loss audits for the City of Dallas, Georgia. It was determined that in one-year (2014) water loss accounted for nearly 20% of the city's total water supply for that year or 31.3 million gallons.

Additionally, the City of Santa Maria, CA began converting to AMI in December 2009. At the end of one year, with only one-third of their 20,000 meters converted, the water loss revenue was reduced from 6% to 2%, resulting in more than $600,000 in recovered revenue. Other California cities (both large and small) have converted to AMI and experienced similar conservation

benefits.

The Project is the beneficiary of many years of work SCV Water has done to deliver precious water to combat drought and introduce water and energy efficiency to its customers. With recurrent droughts and groundwater contamination impairing local supplies, and the difficulties associated with State Water Project (SWP) imported supplies, SCV Water has been motivated to construct and operate one of the most efficient water delivery systems in California. Installing additional new AMI meters furthers this effort. The Project conserves water through education, real time feedback to SCV Water and residential and commercial water users, and financial incentives (through reduced water bills).

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

The below table shows the meter size, manufacturer, model, and quantities of each meter to be installed for this Project application.

Table 3. Project Equipment

PROJECT EQUIPMENT			
Component	**Manufacturer**	**Model**	**Quantity**
3/4" Meters	Master Meter	Allegro AMI Meter	4,705
3/4" Meters	Sensus	iPerl Smart Water Meter	8,359
1" Meters	Master Meter	Allegro AMI Meter	797
1” Meters	Sensus	iPerl Smart Water Meter	909
1 ½” Meters	Sensus	iPerl Smart Water Meter	131
1 ½” Meters	Master Meter	Allegro AMI Meter	50
2” Meters	Sensus	iPerl Smart Water Meter	303
2” Meters	Master Meter	Allegro AMI Meter	345
		Total Meters	**15,599**

The 2018 creation of SCV Water merged three different retail water purveyors with two different meter systems. Santa Clarita Water Division (SCWD), Newhall Water District (NWD) and Valencia Water District. SCWD only employs the Sensus brand meters. NWD utilizes both Sensus and Master meter brands. The Valencia Water District system historically has employed only Master meter system. For this reason, the water meters for the Project are a combination of the two brands (Sensus and Master) as determined by their proximity to the existing systems to integrate their communications. This achieves optimum project implementation efficiency by being able to retain the existing communications infrastructure. However, both systems will be connected to

one enhanced billing application and CEP.

e. How will actual water savings be verified upon completion of the project?

Actual water savings will be verified upon project completion by comparing to historical water records through the following performance measures:

Performance Measure No. 1: Quantifiable Water Savings

A Final Project Implementation Report will be submitted to Reclamation to verify post-Project benefits. The post-project benefit objective for Performance Measure No. 1. is **1,324 AFY** of potable water saved annually through implementation of the Project. This will be verified by comparing the audited water losses reported before project implementation and the audited water losses after project implementation.

Performance Measure No. 2: Improved Water Management

The Final Project Implementation Report will contain a section entitled Improved Water Management. A portion of the Final Project Implementation Report will be dedicated to documenting general management improvements.

Performance Measure No. 3: Implementing Energy Efficiency in Water Management

The Final Project Implementation Report will contain a section entitled Increased Energy Efficiency in Water Management. This will be achieved by comparison of billing from pre-project installation and post-project installation for water production and distribution costs due to the reduction in demand. It is estimated that the project will conserve 1,189,196 kWh of energy per year through reduced energy used for water conveyance and reduced vehicle miles driven for meter reading. Other energy savings such as costs of vehicle usage and fuel costs will also be calculated.

D.2. Evaluation Criterion B—Renewable Energy (20 points)

E.1.2.2. Subcriterion No. B.2: Increasing Energy Efficiency in Water Management

Up to 6 points may be awarded for projects that address energy demands and reduce greenhouse gas emissions by retrofitting equipment to increase energy efficiency and/or through water conservation improvements that result in reduced pumping or diversions.

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

- *If quantifiable energy savings is expected to result from the project, please provide sufficient details and supporting calculations. If quantifying energy savings, please state the estimated amount in kilowatt hours per year.*

Currently, SCV Water collects metering data for these meters by driving to each meter location monthly. By installing 15,599 new AMI meters, SCV Water will no longer have to complete the monthly driving routes associated with these meters. This will not only result in substantial water savings, but also reduce the vehicle miles driven, SCV Water personnel time and effort, conserve energy and help reduce greenhouse gas (GHG) emissions.

By implementing AMI meters, SCV Water will also conserve energy through reduced electrical usage in SCV Water's water conveyance and distribution system**.** Conserving water that is otherwise wasted through leakage results in substantial reduction in energy consumption and

GHG emissions required for water treatment and delivery. The energy savings from reduction in water treatment and distribution and vehicle miles driven to collect the meter information is estimated below in Table 4.

Energy Savings by Reducing SCV Water's Water System Electrical Usage:

SCV Water averaged the monthly kWh used in all of its facilities and dividing the total system power usage by the total system flow provides 854.7 kWh per AF of water delivered to its customers. The annual energy savings for SCV Water system energy usage as a result of the Project would therefore be:

Table 4. Energy Savings Provided by Quantifiable Water Savings

Energy Savings	Value	Unit	Calculation	Source
Annual Water Conserved	1,324	AFY	From Table 1	Project Application
Energy Used per Water Unit Produce	854.7	kWh / AF	Total Energy Consumed in Water System 56,403,587 kWh divided by Total Water Delivered of 65,996 AF	SCV Water 2020 UWMP
Total Energy Savings per Year	**1,131,219**	**kWH per Year**	**Annual Water Conserved (1,324 AFY) multiplied by Unit Energy Consumption (854.7 kWh)**	

Energy Savings from Reduced Vehicle Miles Driven:

The Project will create additional energy savings through reducing fossil fuel consumption. By installing AMI meters, SCV Water staff will no longer need to drive to the 15,599-meter locations to record water usage data. It is conservatively assumed that ~0.2 miles are driven for each meter recording.

Table 5. Energy Savings from Reduced Miles Driven

Energy Savings	Value	Unit	Calculation	Source
Annual Mileage	37,438	miles/year	15,599 meters x 0.2 miles/meter x 12 meter reads/year	
Annual Gallons	1,583	gallons/year	37,342 miles/year / 21.5 miles/gallon *1.10	EPA- average MPG + 10% for stop-and-go conditions
Total Energy Savings per Year	**57,977**	**kWh/year**	1,370 gallons/year* 1.25 therms/gallon * 29.3 kWh/ therm	EPA

- *How will the energy efficiency improvement combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions.*

Energy savings will be achieved from two methods as stated above. The first is from reduced water deliveries due to leak detection and reduced water use from customers being able to view their water consumption through the online portal. The second is a result of eliminating the need to drive and manually read each of the 15,599 water meters.

SCV Water's water delivery system is still largely dependent on fossil fuels as its source of energy. SCV Water estimates that approximately 855 kWh are consumed per AF delivered which means any reduction in water delivered will equate to direct reduction in fossil fuel consumption and GHG emissions.

GHGs are the major human-influenced drivers of climate change. These gases warm the Earth's surface by trapping heat in the atmosphere. According to the Center For Climate And Energy Solutions: **Transportation is now the largest source of carbon emissions in the United States** and automobiles are the single greatest polluters that rely heavily on petroleum. Burning one gallon of gasoline creates about 20 pounds of CO2—which means the average vehicle creates roughly 6 to 9 tons of CO2 each year.

Currently, SCV Water meter-reading personnel must physically drive to the approximately 38% of the metered locations within SCV Water boundaries, which span a vast 195 square miles, to manually read water meters every month. SCV Water has approximately 75,000 meters. About 62% of these meters have been recently converted to AMI technology. The remainder of the meters are read through AMR technology, which require staff to drive multiple days per month to collect meter reads. This method is extremely inefficient as it consumes excessive time and labor hours and results in substantial vehicle maintenance costs and GHG emissions from motor vehicle use. Implementation of the Project will allow automated reading of the meters and eliminate the need to drive to every meter on monthly basis resulting in substantial GHG reductions. This grant will help SCV Water convert a large portion of the AMR meters to AMI. Once all meters have been converted to AMI, SCV Water meter-reading staff will be able to focus on more proactive and preventative maintenance tasks instead of manual reads, rechecks and multiple visits to meters to acquire meter reads for move in and move out customers.

- *If the project will result in reduced pumping, please describe the current pumping requirements and the types of pumps (e.g., size) currently being used. How would the proposed project impact the current pumping requirements and energy usage?*

The Project will reduce groundwater pumping by SCV Water. SCV Water relies on a water supply portfolio comprised of local groundwater resources (38% of water supplied in 2022), imported water from the SWP (15% of water supplied in 2022) and Dry Year Reserve Programs (46% of water supplied in 2022), all of which require various forms of pumping. Perchlorate, a chemical found in propellants, has been impacting groundwater quality in the Santa Clarita Valley since 1997. This chemical has been detected in five SCV Water wells, two of which were replaced (Wells 201 and Valley Center), one currently out of service (Well N-11), and two that remain in service with required additional treatment (Saugus Wells 1 and 2). The Saugus Perchlorate Treatment Facility has been in service since 2011 (treating Saugus Wells 1 and 2) and another Perchlorate Treatment Facility was introduced to SCV Water's system in 2017 at Well 201. As mentioned in the previous section, the kWh needed to provide one AF of water to customers is estimated to be 855 kWh. This includes the energy needed to extract, treat, and deliver potable water to all SCV Water customers, which includes the cost and energy required to pump water. Given the additional treatment SCV Water's groundwater requires prior to distribution to customers due to perchlorate impairment, reduced groundwater pumping from improved leak detection and informed water consumption will reduce energy consumption

substantially.
In addition, the water savings achieved by implementing the Project will result in reduced need for pumping groundwater, resulting in less wear and tear and extended life of the current groundwater well pumps. While waste reduction is a good business practice, it also helps in reduction of energy for production and installation.
Also, the AMI networks can be expanded to include additional functionality such as leak detection for distribution meters (which could help avoid a larger-scale leak event and water waste) and remote shutoffs.

- *Please indicate whether your energy savings estimate originates from the point of diversion, or whether the estimate is based upon an alternate site of origin.*

The estimated energy savings result from the point of diversion which is achieved from reduced water deliveries to SCV Water customers (realized from conserved water due to leak detection and reduced water use) and vehicle miles driven originate from the point of diversion.

- *Does the calculation include any energy required to treat the water, if applicable?*

Yes, as mentioned above, the figure of 855 kWh/AF of SCV water includes the energy needed to extract, treat, and deliver potable water to all SCV Water customers.

- *Will the project result in reduced vehicle miles driven, in turn reducing greenhouse gas emissions? Please provide supporting details and calculations.*

Yes, as described in Table 5, the Project will reduce greenhouse gas emissions by reducing vehicle miles driven by SCV Water for manual meter readings by 37,342 miles annually.

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

Not applicable.

D.3. Evaluation Criterion C—Other Project Benefits (15 points)

Resilience and Sustainability Benefits*. Will the project address a specific water and/or energy sustainability concern? Please address the following:*

- *Explain and provide detail of the specific issue(s) in the area that is impacting water resilience and sustainability. Consider the following:*

Describe recent, existing, or potential drought or water scarcity conditions in the project area. Is the project in an area that is experiencing, or recently experienced, drought or water scarcity? Describe any projected increases to the severity or duration of drought or water scarcity in the project area. Provide support for your response (e.g., reference a recent climate informed analysis, if available).

SCV Water demands are met by utilizing four sources: local groundwater from the Santa Clara River Valley East Sub-basin, recycled water, exchange/banking programs and the increasingly scarce imported water from the SWP, which accounted for approximately 15% of SCV Water's total water supply in 2022. Please see Table 6 for SCV Water's 2022 water portfolio.

Table 6. SCV 2022 Water Portfolio

Source	Quantity (AF)	Percentage of Total Supply
Groundwater	24,050	38%
Recycled Water	340	1%
Imported Water (SWP)	9,281	15%
Exchange & Banking Programs	28,938	46%
TOTAL	**62,609**	**100%**

Due to ongoing droughts, SCV Water's annual SWP allocation has become increasingly scarce. Every year, the California Department of Water Resources coordinates with the Bureau of Reclamation (operator of the Central Valley Project (CVP) to determine operations for SWP and CVP water recipients. SWP allocations fluctuate anywhere from 100% to 0% of the contracted SWP amount depending on water levels of storage reservoirs, environmental needs of the state water system including the Delta, and anticipated snowmelt runoff totals. In recent years, SWP allocations were reduced substantially to where SCV Water **only received 5% of their allotted allocation in 2021 and 2022.**

Los Angeles and Ventura Counties have been enduring frequent and intense drought conditions since the mid-early 2000's, with the most intense statewide drought being in 2020 spanning until early 2023. According to the U.S. Drought Monitor a large portion of the region was in Category D3-Extreme Drought and Category D4-Exceptional Drought during the latest drought. In October 2021, Governor Gavin Newsom issued an executive order that extended the state of emergency due to severe drought conditions to Los Angeles and Ventura County. The Governor found that these conditions "caused by the drought, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond." SCV Water is located in a Mediterranean climate whose rain deficits have led to alarming drought conditions.

Although heavy snow and rainfall of the winter season of 2022-2023 significantly improved drought conditions for the State, on January 3, 2023, all of Los Angeles and Ventura Counties (SCV Water location) were still experiencing varied levels of drought classification. 100% classified as D1-D4 Moderate Drought or Worse, 49.9% classified as D2-D4 Severe Drought or Worse and 12.6% classified as Extreme Drought or Worse.

In addition to the recent droughts that have impacted SCV Water's service area and the majority of California, scientists predict that prolonged drought periods will continue to plague the Western U.S. as the impacts of climate change intensify. The National Aeronautics and Space Administration (NASA) published a study in March 2023 which concluded that distortion of the water cycle will be one of the consequences of climate change which manifests in longer duration droughts coupled with infrequent, high intensity precipitation events. This means the droughts are expected to persist and remain within SCV Water's service area. Therefore, water sustainability projects that bolster the water management agencies' drought resiliency are critical to ensure an uninterrupted water supply.

Therefore, given the historical vulnerability to intense droughts for this region (Figures 2 and 3

below) and predictions of persistent future droughts, it is vital for SCV Water to plan for drought events and manage local water supplies accordingly.

Figure 2. Drought History for Los Angeles County (2000-Present)

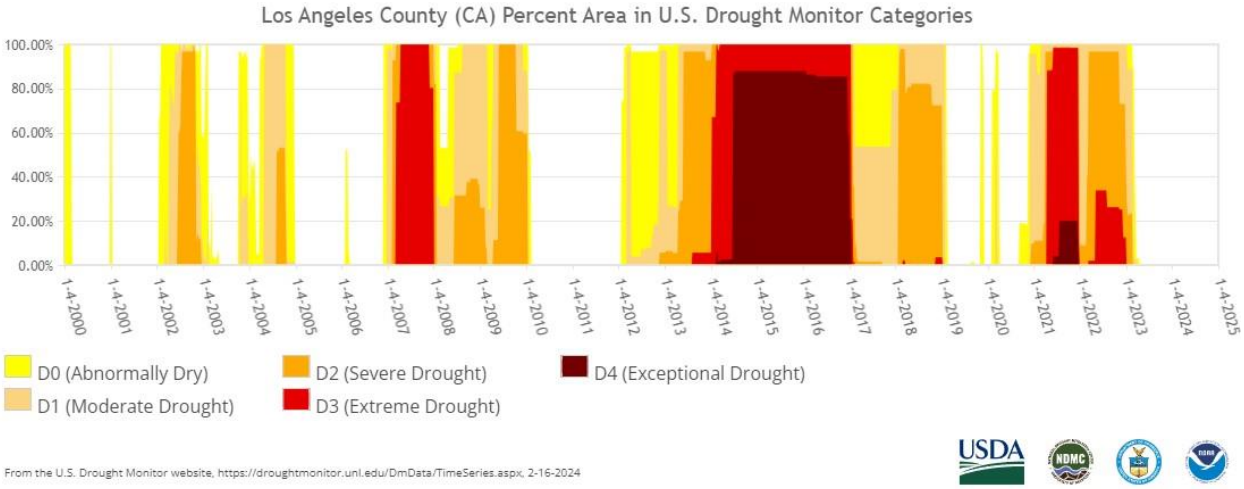
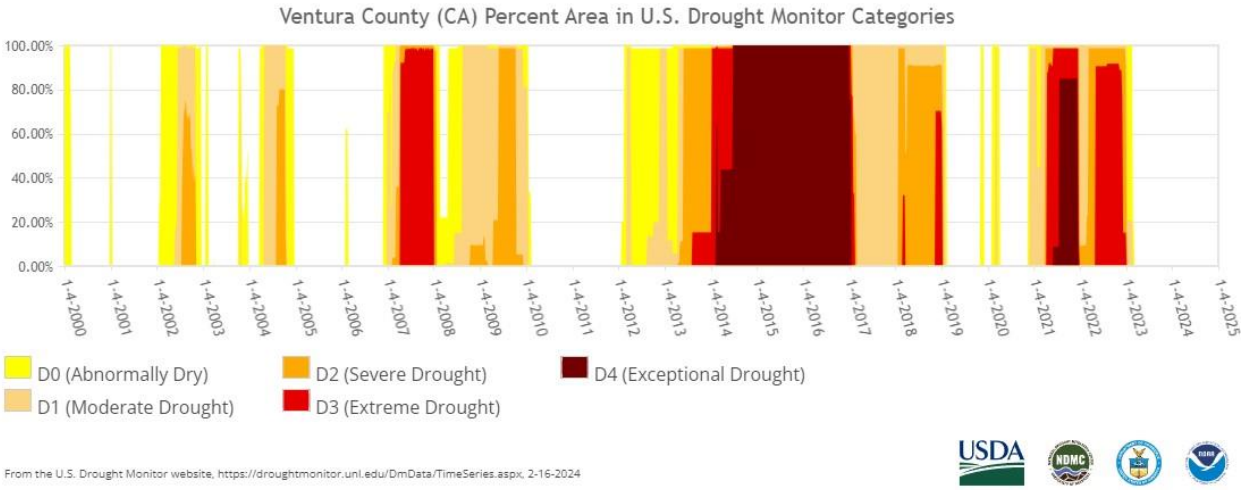


Figure 3. Drought History for Ventura County (2000-Present)



- *Explain and provide detail of the specific issue(s) in the area that is impacting energy sustainability, such as reliance on fossil fuels, pollution, or interruptions in service.*

Additionally, the Project offers climate change resiliency through the reduction in GHG emissions associated with the conveyance, treatment, and distribution of potable water within the SCV Water system. The majority of GHG emissions reductions are the result of the quantifiable water savings of 1,324 AFY. Based on SCV Water's 2020 water deliveries and energy consumption, it has been determined that for each AF of water delivered, 855 kWh of energy are consumed which results in substantial GHG emissions. SCV Water's primary energy sources used to power its system are predominantly fossil-fuel derived energy which has proven to perpetuate climate change through the released of GHG emissions. The Project will

reduce energy consumption associated with the treatment, delivery, and distribution of water supplies by 1,189,196 kWh annually. The Project will also result in the reduction of GHG emissions through elimination of vehicular miles driven. The vehicles used to perform the meter readings are currently gas-powered vehicles. The existing 15,599 meters require monthly manual meter readings (12 readings a year), resulting in approximately 37,342 miles driven annually. Based on EPA data on average gas mileage and therms of energy consumed per gallon of petroleum, 57,977 kWh/year will be conserved following project implementation.

- *Please describe how the project will directly address the concern(s) stated above.*

The AMI Project will upgrade 15,599 water service meters to current technology. AMI technology is simple in concept yet is transformative in the way water management is done. AMI allows for the reading of water meters using a computer application from the office with more accuracy and with the ability to detect leaks and overuse. In addition, it can be integrated into existing billing systems for timely and accurate bill generation. The customer portal gives users access to their water account information in real time to help manage their use and conserve water. AMI is a powerful system for evaluation, measurement and verification of data that will allow the SCV Water to track real-time impacts of conservation efforts and perform a trending analysis to improve water system management.
The multitude of benefits AMI offers can easily be demonstrated to and viewed by other agencies considering implementation. The SCV Water's AMI system can serve as a model of success to proliferate the use of technology to simplify the water management process and conservation task to build towards a sustainable water future. The 1,324 AFY of water conserved and better managed through the implementation of the Project will assist in SCV Water's preparation for more frequent and longer duration drought events.

- *Will the project directly result in more efficient management of the water supply? For example, will the project provide greater flexibility to water managers, resulting in a more efficient use of water supplies?*

Yes, the primary objective of the Project is to increase water use efficiency and improve water management by reducing water waste resulting from leaks, breaks and inefficient water use such as excess irrigation use. The Project will result in 1,324 AFY of water savings, which will enable SCV Water to better manage its water resources. Over the lifetime of the Project, it is estimated that 13,093 AF will be conserved. This will provide SCV Water and other SWP water users with increased operational flexibility, particularly in times of drought.
In addition to the labor savings benefits, AMI networks provide a reliable water usage collection method irrespective of weather conditions. Implementation of the Project will enable customer service staff to field billing inquiries more effectively by asking targeted questions related to usage patterns. AMI read collection will free up operations staff, which may improve response times to water break emergencies.
The method and plan for quantifying the water savings is discussed in more detail in the "Performance Measures" section in this application. Essentially, SCV Water will compare water usage at the replaced meters pre and post Project implementation to determine the water savings from the Project.

- *Please address where any conserved water as a result of the project will go and how it will be used, including whether the conserved water will be used to offset groundwater pumping, used to reduce diversions, used to address shortages that impact diversions or reduce deliveries, made available for transfer, left in the river system, or used to meet another intended use.*

As described above, SCV Water obtains most of its potable water supply from imported water from the SWP and from local groundwater. SCV Water is fully dependent on limited water supplies, but at the same time faces steady population growth and a changing climate. Climate change, as highlighted in all of California's water management plans, brings serious uncertainties to the reliability of the water resources for the state's residents, agriculture, businesses, and industry. The effects of climate change have been demonstrated in California over the past two decades with more severe and more frequent droughts, as well as intense wildfires. Therefore, SCV Water recognizes that conservation measures are crucial. The AMI Project will also contribute to the state water management objectives as a whole as detailed in the statewide initiative known as the Water Resilience Portfolio issued in 2020 (discussed in further detail below).

In addition to threats to water reliability from climate change, the threat to SCV Water's local supplies is heightened due to water quality impairment. As mentioned in more detail above, perchlorate, a chemical found in propellants, has been impacting groundwater quality in the Santa Clarita Valley since 1997 and has been detected in eleven different SCV Water wells. Additionally, SCV Water has been impacted by PFAS which caused 23 groundwater wells to be taken out of service due to PFAS contamination. Five wells have been restored to service with PFAS treatment, two additional wells will be coming back into service in 2023 with PFAS treatment and additional wells are schedule to be returned to service with PFAS treatment over the next several years. Given the continued detection of PFAS and perchlorate, conserving groundwater that is not impaired to meet demands during drought conditions is vital to maintain a reliable water portfolio. The Project will conserve 1,324 AFY of water, some of which will remain in the underlying aquifer.

Water savings realized by implementation of the AMI Project will offset the purchase of additional expensive imported water from the SWP. The AMI Project will provide multiple benefits to SCV Water as an agency and all its customers. The reduced water consumption realized through replacing aging, outdated water meters with AMI technology propagates into multiple benefits as summarized below.

1. The Project will produce an estimated amount of water savings of **1,324 AFY** achieved through quick leak detection and early notification of high-use customers as they approach inefficient, excessive, and wasteful levels of water use.
2. The water saved because of the Project reduces the need for SCV Water to purchase additional transfer or imported water.

3. The reduced amount of imported water transfers from north of Delta contractors results in environmental benefits to the species that rely on this water north of and within the Delta.
4. The ability to automatically obtain meter readings results in substantial SCV Water labor savings.
5. The ability to automatically obtain meter readings results in substantial decreases in motor vehicle fuel and maintenance costs.
6. The reduced vehicle-miles traveled translates into a reduction in GHG emissions.
7. The labor and financial savings realized through the Project will ultimately be made available for other purposes such as capital projects to upgrade SCV Water's infrastructure, which further improves water reliability and sustainability by eliminating leaks and wasted water.

- *Indicate the quantity of conserved water that will be used for the intended purpose(s).*

The AMI Project is estimated to save 1,324 AFY (13,093 AFL during the lifetime of the Project (AFL)) of water. The conserved water will be used to offset the need to purchase additional costly imported water.

- *Provide a description of the mechanism that will be used, if necessary, to put the conserved water to the intended use.*

No mechanism is required to put the conserved water to the intended use. The conserved water is the result of reduced system leaks and efficient customer use. Therefore, it originates and stays within the existing water system.

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

Not applicable.

- *Will the project help to prevent a water-related crisis or conflict? Is there frequently tension or litigation over water in the basin?*

Although heavy snow and rainfall over the last two winters have improved drought conditions for the State, water in California has historically been a very scarce resource. Due to the variability of intensity of drought in California, allocating water resources to the over 27 million residents and 750,000 acres of farmland that rely on water from the SWP, has always been a complex and challenging task that gets more difficult during droughts. For example, some of the Northern California agencies filed a lawsuit against the State Water Resources Control Board over an emergency drought order issued in August 2021 to curtail water diversions. The Project aims to conserve water resources through enhanced operational efficiency. Reducing water consumption will decrease SCV Water's reliance on additional imported water purchases north of Delta, especially during dry years, which is expected to reduce the potential for tensions and conflict with other SWP member agencies.

***Ecological Benefits**. In addition to the separate WaterSMART Environmental Water Resources Projects NOFO, this NOFO places a priority on projects that that result in ecological benefits, through this section and other sections above, consistent with the SECURE Water Act. Please provide information regarding how the project will provide ecosystem benefits, including the*

following:

- *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)? Please describe the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project or is subject to a recovery plan or conservation plan under the Endangered Species Act (ESA).*

In 2022, SCV Water received approximately 15% of its water supply from SWP. The primary water source for the SWP is the Feather River, a tributary of the Sacramento River. Storage released from Oroville Dam on the Feather River flows down natural river channels to the Delta. While some SWP supplies are pumped from the northern Delta into the North Bay Aqueduct, the vast majority of SWP supplies are pumped from the southern Delta into the 444-mile-long California Aqueduct.

In extremely dry conditions, SCV Water has had to purchase water from water agencies north of the Delta. In 2022, additional water purchased from north of Delta was approximately 748 AF. The existing water meter system, which is aging and outdated, results in water losses. The conserved water as a result of the AMI Project will be used to offset additional SCV Water transfers from northern California. This conserved water will essentially remain at its source, which is the Delta and its tributaries. The Delta is the largest wetland ecosystem on the Pacific Coast of the United States and provides habitat to highly diverse plant and animal life.

The impact on the environment due to recent drought conditions has been tremendous. According to the Pacific Institute, many of the State's environmental flows went unmet during the drought period, affecting aquatic ecosystems and decreasing protections for endangered species. The recent drought has caused losses or destruction of fish and wildlife habitat, loss of wetlands, more wildfires and lower water levels in reservoirs, lakes, and ponds. Dry creeks and rivers led 18 fish species to diminish to near extinction.

- *Will water remain in the system for longer periods of time? If so, provide details on current/future durations and any expected resulting benefits (e.g., maintaining water temperatures or water levels, recreational benefits, etc.).*

Yes, the Project will conserve 1,324 AFY of water supplies allowing it to remain in the SCV Water's water resources. Imported water and/or groundwater production will be reduced by the same amount annually to allow water to remain in the system for when it is needed most. A study from The Ecological Society of America stated that declining streamflow and the accompanying rising stream temperatures have immediately threatened the provision of drinking water, hydropower generation and health of ecosystems that rely on water.

The conserved water will remain in the local groundwater basins, allowing a more sustainable local supply to be managed during drought events. It will also help offset the need for additional imported surface water diversions, which will help prevent potential increase in salinity and algal production, less dilution, reduced oxygen levels, and higher temperatures that are detrimental to wildlife production.

- *Will the proposed project reduce the likelihood of a species listing or otherwise improve the species status?*

Water conservation projects such as AMI reduce the pressure on water supplies and allow the resources such as the Delta to benefit for survival and recovery of endangered species. Many of

the endangered species need higher volumes of water and lower temperatures to survive. Any incremental increase in the water volume helps provide these necessary conditions for the endangered species. Some of the endangered species in the Delta include the Delta Smelt, Chinook Salmon and Sacramento Splittail.

- *Please describe any other ecosystem benefits as a direct result of the project.*

Implementation of this Project will make an additional 1,324 AFY available. This in turn gives SCV Water operational flexibility in managing its other sources of water such as SWP water and improves local groundwater management. The Project itself will implement AMI meters and supporting technology to conserve water resources. Although the Project isn't designed to directly address ecosystem sustainability, any conservation of water resources will ultimately benefit flora and fauna that rely on the volume and quality of this water to survive.

Note: Projects that are intended to improve streamflows or aquatic habit, and that are requesting $500,000 or more in Federal funding, must include information about plans to monitor the benefits of the project. Please describe the plan to monitor improved streamflows or aquatic habit benefits over a five-year period once the project has been completed. Provide detail on the steps to be taken to carry out the plan.

***Climate Change**: E.O. 14008 emphasizes the need to prioritize and take robust actions to reduce climate pollution; increase resilience to the impacts of climate change; protect public health; and conserve our lands, waters, oceans, and biodiversity.*

- *Describe how the project addresses climate change and increases resiliency. For example, does the project help communities adapt to bolster drought resilience?*

The Project is the beneficiary of many years of work SCV Water has done to deliver vital water resources to combat drought and introduce water and energy efficiency to its customers. The depleting local groundwater supplies and the difficulties associated with imported supplies have motivated SCV Water to construct and operate one of the most efficient water delivery systems in California. Installing additional new AMI meters furthers this effort. The Project conserves water through education, real time feedback to SCV Water and residential water users, and financial incentives (through reduced water bills). Additionally, the Project addresses climate change by reducing the amount of energy consumed to convey, treat, and deliver potable water resources and to perform manual meter readings. Both of these activities require energy either to power the water system or the vehicles used to perform the water meter readings. Reducing SCV Water's energy consumption further bolsters their climate change resiliency and reduces GHG emissions. Therefore, this Project addresses SCV Water's climate resiliency through water conserved and energy conserved, both of which are vital to achieving sustainability.

- *Does the project seek to improve ecological resiliency to climate change?*

SCV Water relies on a water supply portfolio comprised of local groundwater resources (38% of total water supplied in 2022), recycled water (1%), water from dry year reserves (46%) and imported water from the SWP (15%). The 1,324 AFY water savings from the Project will allow

the same amount to remain in SCV Water's water sources that ecosystems also rely upon. For example, in times of drought, where there are limited imported surface supplies, SCV Water relies more heavily on local groundwater resources to meet demands. All water savings from the Project will reduce the impact on local groundwater dependent ecosystems by keeping more water in the ground and reducing occurrences of low water levels which can endanger these ecosystems.

The extreme impacts of climate change on water availability have become clear in recent years. All scientific research, as well as actual current drought patterns, indicate the frequency, severity and duration of droughts are increasing. SWP water originates in the Sierra-Nevada Mountains in Northern California. Although the State's current drought status has improved drastically due to heavy rain and snowfall in late 2022 to early 2023, droughts are expected to persist and worsen as climate change occurs. Therefore, reliance on water from the SWP must be reduced due to vulnerability to intense droughts that impact water supply reliability that the State faces.

The reduced SWP water delivery to SCV Water will remain at the Sacramento – San Joaquin Delta (the Delta) that is an ecologically sensitive habitat. The Delta provides an ecosystem to a number of endangered fish species (i.e. Delta Smelt) that require higher volumes of water to survive. Implementation of the Project will result in water conservation that is much needed for sustainability of our local and regional environment.

- *Does the proposed project seek to reduce or mitigate climate pollutions such as air or water pollution?*

Although the primary goal of the Project is to obtain quantifiable water savings, the Project will also result in substantial energy savings. Energy savings will be obtained through the reduction in water deliveries due to leak detection and informed consumption as well as through the elimination of vehicular miles driven previously required to manually read meters. The Project will reduce energy consumption by 1,189,196 kWh annually, which will equate to a direct reduction in fossil fuel consumption and respective greenhouse gas emissions.

- *Does the proposed project include green or sustainable infrastructure to improve community climate resilience?*

Not applicable.

- *Does the proposed project contribute to climate change resiliency in other ways not described above?*

No, the primary climate change resiliency components include water and energy conservation.

D.4. Evaluation Criterion D—Disadvantaged Communities, Insular Activities, and Tribal Benefits (10 points)

Up to 15 points may be awarded based on the extent that the project demonstrates support for

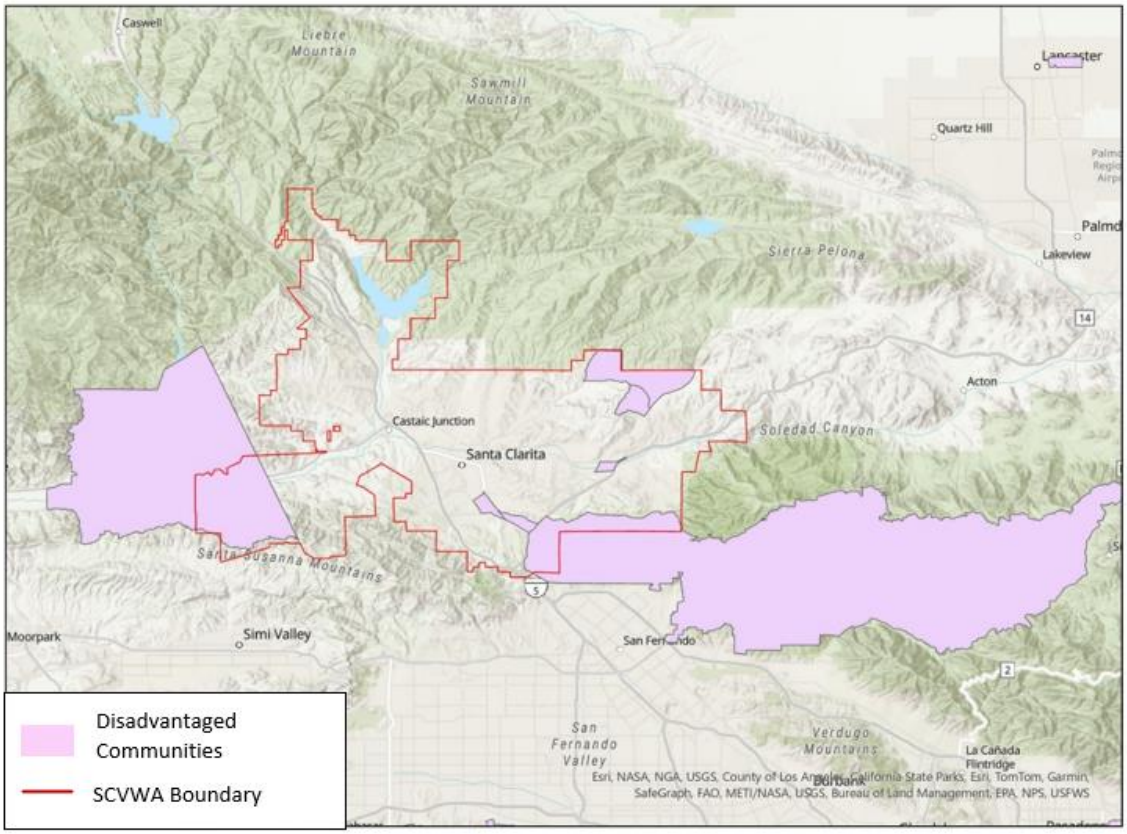
D.1. Disadvantaged Communities

SCV Water is comprised of seven census tracts that are classified as disadvantaged per the Climate and Economic Justice Screening Tool (CEJST) as shown in the figure below. This means that these census tracts endure the following socioeconomic burdens:

- Having income less than or equal to twice the federal poverty level, and

- Having disproportional exposure to at least one other socioeconomic burden (climate change, energy, health, housing, legacy pollution, transportation, water, and wastewater, and/or workforce development). Each census tract varies on which socioeconomic burden it is enduring in combination to having income less than or equal to twice the federal poverty level.

Figure 4. CEJST Map for SCV Water Service Area



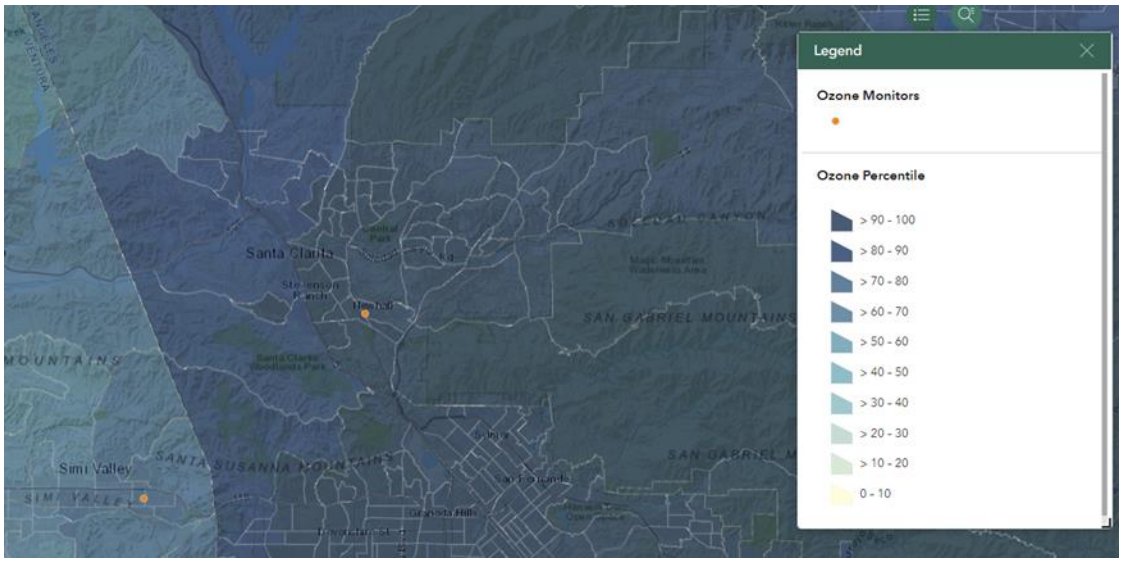
Communities within SCV Water service area are also disadvantaged based on the Census American Community Survey (ACS) 2016-2020, the statewide Median Household Income (MHI) for California was $78,672. To be deemed as a disadvantaged community, the MHI of the community must be less than or equal to 80% of the State MHI; $62,938 in 2020 dollars. SCV Water serves five census tracts, which is approximately 8% of the water service area, that are below the 80% MHI threshold, which classifies these communities as disadvantaged. The MHI for the two communities in 2020 dollars can be seen in Table 7.

Table 7. Median Household Income Determination

Census Tract	MHI	Population
6037920031	$58,617	4,741
6037920341	$48,721	3,299
6037920342	$59,861	3,040
6037920343	$50,000	3,972
6037920047	$55,959	6,755
6037920038	$50,000	1,658
	Total DAC Population	23,465

Not only are these census tracts financially disadvantaged, but they suffer from disproportionate environmental stressors which are demonstrated through the California Office of Environmental Health Hazard Assessment's online mapping tool; CalEnviroScreen 4.0. This mapping tool can be used to analyze various economic, social, and environmental factors for any disadvantaged census tract, including atmospheric ozone concentrations. Ozone is produced from emissions from trucks, cars, planes, trains, factories, farms, construction, and dry cleaners. These emissions react with sunlight at ground level and can cause irritation and inflammation to the lungs and make existing illnesses worse, even at low levels of exposure. Children, the elderly, and people who spend the majority of their time outdoors are specifically sensitive to the effects of ozone. Ozone concentrations are directly proportional to temperature. According to CalEnviroScreen 4.0 the entire SCV Water service area is in the 80-97th percentile meaning that this area suffers from ozone concentrations that are up to 97% higher than the rest of California.

Table 8. Environmental Stressors



The Project will benefit the entire SCV Water service area which consists of disadvantaged communities (DACs) by providing quantifiable water savings of 1,324 AFY of potable water that would otherwise be lost from the water system and become unusable. These water savings

realized through leak detection and real time water consumption reporting, will support reliability of water supplies, and will minimize the financial burden for all customers, including economically DACs, through increased water consumption transparency allowing customers to reduce their water consumption and thus their water bills.
Water savings such as the ones provided by the project are of critical importance as the region is currently experiencing drought conditions and progressively unpredictable water supply from the SWP. Additionally, the groundwater table is expected to severely diminish if dry years such as the past few years persist. When the water is in short supply, the following public health and social concerns can occur:

- Impacts on sanitation and hygiene.
- Reduced water usage for the irrigation of landscaping can result in higher dust and related particles, which may exacerbate respiratory conditions such as asthma.
- Reduced fire suppression capabilities

Implementation of this Project will allow the service area, especially DACs, to have access to water for daily uses and for practices that will promote safe public health.
Furthermore, the Project will provide substantial energy savings of 1,189,196 kWh annually, therefore reducing GHG emissions for the highly ozone-polluted service area which will benefit the health of all residents, including DACs.

D.2. Tribal Benefits

There are no Federally recognized Tribal communities in the immediate area of the Project Site or in Los Angeles County as a whole. However, by saving an existing water supply, the proposed Project will promote improved water management and drought resiliency for the region. This will reduce SCV Water's reliance on the already scarce imported water sources. Therefore, the Project will allow water to be conserved for the rest of California, including the closest Federally recognized Tejon Tribe, located in Kern County.

- *Does the proposed project directly serve and/or benefit a Tribe? Will the project increase water supply sustainability for an Indian Tribe? Will the project provide renewable energy for an Indian Tribe?*

While, the proposed project does not directly benefit tribes, shifting demand away from additional imported water transfer purchases in dry years from north of the Delta through the Project will make supplies more available to support the ecosystem, some of which are of significance to local tribes.

- *Does the proposed project support Tribal led conservation and restoration priorities, and/or incorporate or benefit indigenous traditional knowledge and practices?*

Not applicable.

- *Does the proposed project directly support tribal resilience to climate change and drought impacts or provide other Tribal benefits such as improved public health and safety through water quality improvements, new water supplies, increased renewable energy, or economic growth opportunities? Does the proposed project support Reclamation's Tribal trust responsibilities or a Reclamation activity with a Tribe?*

Not applicable.

D.5. Evaluation Criterion E—Complementing On-Farm Irrigation Improvements (8 points)

Not applicable for the proposed Project.

D.6. Evaluation Criterion F—Readiness to Proceed (8 points)

- *Identify and provide a summary description of the major tasks necessary to complete the project. Note: please do not repeat the more detailed technical project description provided in Section D.2.2.4.; this section should focus on a summary of the major tasks to be accomplished as part of the project.*

The major tasks for this project can be summarized as follows:

- Replacement of 15,599 meters with AMI meters.
- Integration of the new meters into the billing and CEP systems
- Conducting public outreach.
- Environmental documentation.

- *Describe any permits that will be required, along with the process for obtaining such permits.*

There are no permits required to implement the proposed Project.

- *Identify and describe any engineering or design work performed specifically in support of the proposed project.*

SCV Water identified this project as a priority since its consolidation in 2018 and has anticipated the need for AMI technology requiring new developments to install smart water meters. In addition to new developments installing smart water meters, SCV Water also replaces worn or broken water meters with smart meters on an on-going basis.
SCV Water has completed its planning by performing pilot projects to incorporate various brands and integration of billing systems. SCV Water has been preparing for this project by upgrading its billing system to integrate with the AMI communication system. As a result, a wide range of data collection, controls, and analytics capabilities have been developed to take advantage of AMI meter technology to reduce water loss through improved leak detection and reduce operating costs through streamlined billing. In addition, SCV Water has been working with billing software consultants to upgrade the billing system components to interact with the new Cellular Connection Units to receive and produce the billing information for each account. The AMI Project is ready for implementation as all preliminary assessment work for the Project has been completed and no additional engineering or design work is needed. SCV Water will be ready to procure the equipment and begin meter replacement by the selected qualified contractor as proposed in the below schedule.

- *Describe any new policies or administrative actions required to implement the project.*

There are no new policies or administrative actions required to implement the proposed Project.

- *Describe the current design status of the project. If additional design work is required prior to construction, describe the planned process and timeline for completing the design work.*

All preliminary assessment work for the Project has been completed and no additional engineering or design work is needed. The Project is ready to begin upon notice of award.

- *Please also include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates. Milestones may include, but are not limited to, the following: complete environmental and cultural compliance; mobilization; begin construction/installation; construction/installation (50% complete); and construction/installation (100% complete). Was the expected timeline for environmental and cultural compliance discussed with the local Reclamation Regional or Area Office?*

Implementation of the Project will take approximately 24 months to complete as detailed in **Table 9** below.

Table 9. Project Schedule

Estimated Project Schedule			
No.	Task/Milestone	Start Date	Completion Date
1	Evaluation of available technology & products		Completed
2	Propagation Study		Completed
4	Develop bid documents & technical specifications		Completed
5	CEQA/ NEPA Environmental Documentation	Immediately upon Notice of Award estimated December 31, 2024	February 2025
	Procure equipment for installation	March 2025	July 2025
6	Installation of meters by Contractor	August 2025	January 2026
7	System testing and network interface	February 2026	May 2026
8	Public outreach	August 2025	July 2026
9	Project close out	May 2026	July 2026

D.7. Evaluation Criterion G—Collaboration (5 points)

- *Is there widespread support for the project? Please provide specific details regarding any support and/or partners involved in the project. What is the extent of their involvement in the process?*

The Project has wide local and regional support which promotes and encourages local and regional collaboration to meet the goals set by the California State Governor's office in the published Water Resilience Portfoloio-2020 and achieve California's overarching goal to increase the reliability of water supply and provide long-term solutions to the effects of climate change and population growth.

Water conservation through the availability of advanced water service meters and daily water usage information will generate widespread support among SCV Water's customers as customers will be able to view their daily water use through the customer portal, thereby providing water and cost savings to SCV Water's customers. Please see attached for letters of support **(Appendix A)** for the Project from:

- The Upper Santa Clara River (USCR) Integrated Regional Water Management (IRWM) District,
- Santa Clarita Valley Groundwater Sustainability Agency (SCV GSA)
- Santa Clara River Conservancy (SCRC), and
- The University of California, Santa Barbra (UCSB)
- U.S. Congressional Representative Mike Garcia (CA-27)

In addition, there is widespread support as indicated below:

State Support: Through their approval of the 2020 Urban Water Management Plan for the Santa Clarita Valley Water Agency, The Climate Change Handbook for Regional Water Planning (Department of Water Resources 2011) and the DWR California Single-Family Water Use Efficiency Study, which cites conservation as the simplest, most cost-effective way to remedy.

Regional Support: SCV Water is a lead and/or participant in many local and regional planning groups. As a member agency of the Santa Clarita Valley Groundwater Sustainability Agency (SCV-GSA), SCV Water partners with Los Angeles County Waterworks District No. 36, City of Santa Clarita, and Los Angeles Department of Regional Planning for sustainable management of groundwater in the Santa Clara River Valley East Subbasin. The stakeholder group for SCV-GSA consist of many large businesses and environmental and industrial leaders in the region. SCV Water will be able to share the results of this project with the other member agencies and the stakeholders for further conservation efforts in the region that will ultimately benefit the Subbasin.
In addition, SCV Water also leads coordination with other agencies and stakeholders via the Upper Santa Clara River Integrated Regional Water Management (IRWM) Planning process. Interaction and lines of communication will be enhanced with other water suppliers in the region as lessons learned are shared with colleagues and industry groups about effectiveness of AMI and customer portals in achieving water conservation.

Consistent Local Support: The most recent planning efforts are SCV Water's 2020 UWMP and WSCP. Management of water resources in the service area is guided by the 2020 SCV Water UWMP. The UWMP is centered on drought planning and preparedness in response to recent severe droughts, as well as implementation of conservation and efficient use of urban water supplies. In June 2021, the SCV Water Board of Directors adopted the Water Conservation and Water Supply Shortage Ordinance which, among other things, outlines general indoor and outdoor water use efficiency recommendations, watering restrictions, and water use reduction measures specific to declared water shortage conditions. The UWMP section on demand management measures (DMM) describes how each DMM is being implemented. Additionally, the UWMP lays out agency goals for reducing or maintaining per capita water use to comply with water use targets required by the current California Water Conservation Act. **This project is qualified as a conservation project and supports SCV Water's DMMs.**

The UWMP engaged in a robust community engagement component to actively involve communities with diverse social, cultural, and economic elements throughout the SCV Water service area prior to and during preparation of UWMP and discussions of water demands, and conservation as documented in Section 8 of this plan.

The Santa Clarita Valley Water Use Efficiency Strategic Plan identifies implementation of an AMI system as one of the most effective programs for water conservation measures, achieving higher cost savings per AFY as compared to other conservation measures.

- *What is the significance of the collaboration/support?*

Ultimately, the significance of the SCV Water's collaboration with and support from other agencies and inclusion in various water management programs reinforces the regional commitment to conserve and better manage valuable water resources for the future of California.

San Clarita Valley's climate typically exhibits hot, dry summers, when the daily temperature can easily exceed 100 degrees Fahrenheit and mild winters. Climate is a primary factor that influences water demand within the service area. With the water supplies being so scarce within the region, SCV Water and its partners have recognized the need to manage the water supply in the region as a complete unit to ensure there is ample water resources for all citizens of the Valley now and in the future as the State faces the effects of climate change and population growth.

In addition, SCV Water strives to implement projects that will save significant amounts of valuable water that affect all of California. AMI systems have a proven track record in water conservation beyond drought stages. This is one of the single-most important factors in success of the AMI system and is achieved by customer's involvement in staying informed of their water usage. The water savings achieved through implementation of the AMI system will benefit all SCV Water partner agencies.

Will this project increase the possibility/likelihood of future water conservation improvements by other water users?

The AMI Project will upgrade the SCV Water's water service meters to current technology. AMI technology is simple in concept yet is transformative in the way water management is done. AMI allows for the reading of water meters using a computer application from the office with more accuracy and with the ability to detect leaks and overuse. In addition, it is able to be integrated into existing billing systems for easy bill generation. The customer portal gives users access to their water account information in near real time to help manage their use and conserve water. AMI is a powerful system for evaluation, measurement and verification of data that will allow the SCV Water to track real-time impacts of conservation efforts and perform a trending analysis to improve water system management.

The multitude of benefits AMI offers can easily be demonstrated to and viewed by other agencies considering implementation. The SCV Water's AMI system can serve as a model of success to proliferate the use of technology to simplify the water management process and conservation task to build towards a sustainable water future.

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

SCV Water serves approximately 289,000 people that reside within its service area. The service area includes commercial, industrial, institutional, recreational, and residential customers with approximately 73,550 connections.

SCV Water's service area is home to popular recreation facilities such as Castaic Lake State Recreation Area, Placerita Canyon Nature Center, Rocky Mountain Recreation, and several parks that all depend on a healthy source of water for survival. The Six Flags Magic Mountain and Hurricane Harbor amusement parks receive over 10,000 visitors per day that provide economic sustainability for the area.

Also, water is supplied to various types of industries in the service area, including food and beverage, college institutions, a hospital and manufacturing industries. These industries rely on the water supply to operate and provide services, which helps maintain economic growth in the region. If drought reduces the water available, it could have a major economic impact due to the possible need to reduce production to match the reduction in water. Reduced water supply will impact industries which rely more heavily on water services such as commercial laundries, food processing, and other highly water dependent manufacturing.

As discussed above, the AMI Project will provide multiple benefits to multiple users with its operational improvements and conservation of 1,324 AFY of water resources.

- *Please attach any relevant supporting documents (e.g., letters of support or memorandum of understanding).*

Please refer to Appendix A of this application for letters of support.

D.8. Evaluation Criterion H— Nexus to Reclamation (4 Points)

Describe the nexus between the proposed project and a Reclamation project or Reclamation activity. Please consider the following:

- *Does the applicant have a water service, repayment, or O&M contract with Reclamation?*

Although SCV Water does not receive water directly from Reclamation, SCV Water stores its carryover water within the San Luis Reservoir. San Luis Reservoir is a facility that is jointly operated by the State of California and Bureau of Reclamation. Additionally, SCV Water receives a substantial portion of its water from the SWP, which is operated in conjunction with the Central Valley Project (CVP), a Reclamation operated facility. Both the CVP and the SWP rely on the Delta to provide water resources to their respective contractors. The Project will conserve 1,324 AFY, which will allow SCV Water to mitigate for and reduce reliance on the SWP due to increasingly stringent regulatory and operating criteria in dry years. Most recently, SCV Water received only 5% allocations of SWP in 2021 and 2022. In particular, this project will allow SCV Water to utilize an alternate source of supply to, in part, mitigate for dry-year reductions associated with the amended (in 2018) Coordinated Operations Agreement between the Bureau of Reclamation and the California Department of Water Resources for the CVP and the SWP, respectively.

- *If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?*

Please see the response above.

- *Will the proposed work benefit a Reclamation project area or activity?*

The Project is not on Reclamation land, but the proposed water conservation will reduce the need for additional imported transfer water from north of Delta contractors, thereby assisting BOR and DWR in the management of the CVP and SWP, respectively.

- *Is the applicant a Tribe?*

No, the applicant is not a Tribe.

E. PERFORMANCE MEASURES

Actual water savings will be verified upon project completion by comparing to historical water records:

Performance Measure No. 1: Quantifiable Water Savings
A Final Project Implementation Report will be submitted to Reclamation to verify post-Project benefits. The post-project benefit objective for Performance Measure No. 1. is **1,324 AFY** of potable water saved annually through implementation of the Project.

Performance Measure No. 2: Improved Water Management
The Final Project Implementation Report will contain a section entitled Improved Water Management. A portion of the project journal will be dedicated to documenting general management improvements.

Performance Measure No. 3: Implementing Energy Efficiency in Water Management
The Final Project Implementation Report will contain a section entitled Increased Energy Efficiency in Water Management. This will be achieved by comparing billing from pre-project installation for water production and distribution cost due to the reduction in demand. Other energy savings such as those in cost of vehicle usage and fuel costs will also be calculated. It is estimated that the project will conserve **1,189,196 kWh** of energy per year.

SECTION 2: BUDGET NARRATIVE

The budget narrative is attached as a separate attachment as requested by the NOFO.

SECTION 3: ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

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.

This project involves replacement of existing meters and addition of network collection units that do not require any earth disturbance. Therefore, this Project will not have any impact on the environment and is expected to be exempt from CEQA/NEPA review. Environmental documentation for Categorical Exemption will be filed after the grant is executed and the contract is awarded.

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?

There are no Federal threatened species, endangered species, or designated critical habitat that will be affected by project activities.

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

There are no wetlands or other surface waters inside the Project boundaries.

When was the water delivery system constructed?

With the completion of the Earl Schmidt Filtration plant in 1980 CLWA began transmission of SWP Water to the retail purveyors.

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 result in any modification of individual features of an irrigation system.

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.

There are no buildings, structures, or features in the Project area that are listed or eligible for listing on the National Register of Historic Places that will be impacted by this project.

Are there any known archeological sites in the proposed project area?
There are no known archeological sites in the Project area.

Will the proposed project have a disproportionately high and adverse effect on low-income communities with environmental justice concerns?
The Project will not have a negative or adverse effect on low income or minority populations. In fact, the Project will benefit the entire service area, including DACs, by providing quantifiable water savings that will reduce the amount of imported water SCV Water will have to purchase to meet demands. Imported water is expensive and scarce, which often forces water purveyors to raise water rates when relying heavily on these sources. The Project will increase service reliability for potable and affordable waters, especially for DACs.

Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?
The Project will not have any impact on sacred sites or tribal lands.

Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?
The Project involves the replacement of existing meters with AMI compatible meters. No earth disturbing activities will take place and therefore no vegetation will be removed or introduced at the Project sites and therefore no noxious weeds or non-native species will be spread.

SECTION 4: REQUIRED PERMITS OR APPROVALS

There are no permit requirements or other approvals needed for this project.

SECTION 5: OVERLAP OR DUPLICATION OF EFFORT STATEMENT

SCV Water certifies that there is no overlap between the proposed Project or any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel. Additionally, SCV Water certifies that this proposal does not duplicate any proposal or project that has been submitted for funding consideration to any other potential funding sources.

SECTION 6: CONFLICT OF INTEREST DISCLOSURE STATEMENT

No actual or potential conflicts of interest associated with the implementation of this Project have been identified prior or during the time of submission of this application.

SECTION 7: LETTERS OF SUPPORT

Please see Appendix A for the letters of support received for the Project.

SECTION 8: OFFICIAL RESOLUTION

RESOLUTION NO. XXX

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA CLARITA VALLEY WATER AGENCY AUTHORIZING AN APPLICATION FOR GRANT FUNDING BY THE BUREAU OF RECLAMATION'S FY2024 WATERSMART WATER ENERGY EFFICIENCY GRANT PROGRAM FOR THE AUTOMATED METER INFRASTRUCTURE IMPROVEMENT PROJECT – PHASE 2

WHEREAS, the Santa Clarita Valley Water Agency (Agency) provides potable water for the businesses and residents in its service area and collects water usage data on a monthly frequency; and

WHEREAS, the Agency is in the planning stages of an Automated Meter Infrastructure (AMI) Project (AMI Replacement Project) to replace existing meters with new smart meters that have the capability to communicate via radio or similar technology and enable the Agency to implement technological enhancements such as automated meter reads, usage notifications and interactive customer portals on a real time frequency; and

WHEREAS, case studies have shown that communities that upgrade to AMI systems can achieve water consumption savings of up to 15 percent by supplying customers with on-demand, real time water consumption data enabling them to make more informed decisions about their water use; and

WHEREAS, The United States Department of the Interior offers financial assistance in the form of grant funding through its Bureau of Reclamation's WaterSMART (Sustain and Manage America's Resources for Tomorrow) Water Energy Efficiency Grant Program (WEEG) for this type of project. The FY2024 WaterSMART WEEG program provides funding up to a maximum of $5,000,000 for projects up to 3 years, but not to exceed 50% of the total project cost; and

WHEREAS, the Agency desires to fund part of the cost of the AMI Replacement Project with grant funding from the WaterSMART WEEG program.

NOW, THEREFORE BE IT RESOLVED, the Board of Directors of the Santa Clarita Valley Water Agency hereby finds, determines, declares, and resolves as follows:

1. The Board hereby supports a grant application to the WaterSMART WEEG Program for the AMI Improvement Project – Phase 2.

2. The Board hereby authorizes and directs the General Manager, or his or her designee, to complete, review, sign and submit, for and on behalf of the Agency, a grant application to the Bureau of Reclamation's WaterSMART WEEG Program for the AMI Replacement Project Phase 2.

3. The General Manager, or his or her designee, is authorized and designated to provide the assurances, certifications, and commitments required for the grant

application, including executing a financial assistance or similar agreement with the Bureau of Reclamation within established deadlines and any amendments or changes thereto.

4. The General Manager, or his or her designee, is authorized and designated to represent the Agency in carrying out the Agency's responsibilities under any grant future agreement, including certifying disbursement requests on behalf of the Agency and compliance with applicable state and federal laws.

5. If a grant award is made to the Agency by the Bureau of Reclamation, the Agency commits, pending Board compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) and approval of the AMI Replacement Project – Phase 2, to providing a minimum of 50% in matching funds for the AMI Replacement Project, and up to the balance of funds needed to complete the AMI Replacement Project – Phase 2.

6. This Resolution shall take effect immediately.

RESOLVED FURTHER that the Agency's Board of Directors does authorize the Agency's General Manager or its Chief Operating Officer to (1) apply for funding under the Bureau of Reclamation's WaterSMART FY2024 Water Energy Efficiency Grant Program; (2) execute a grant agreement and carry out responsibilities under any future grant agreement; (3) and commit to providing funding match of at least 50% and up to the balance of funds necessary to complete the project.

SECTION 9: LETTERS OF FUNDING COMMITMENT

As shown in the Draft Resolution above, SCV Water is committed to providing the required match funding to implement this Project. SCV Water is not seeking any external funding and therefore does not have any additional letters of funding commitment.

SECTION 10: CERTIFICATION REGARDING LOBBYING

Please see attached form SF-LLL for SCV Water's certification regarding lobbying activities.

APPENDICES

Appendix A: Letters of Support
Appendix B: Meter Replacement Map

Appendix A: Letters of Support

UPPER SANTA CLARA RIVER
Integrated Regional Water Management

Santa Clarita Valley Water Agency
City of Santa Clarita
Los Angeles County Flood Control District
Santa Clarita Valley Sanitation District
San Gabriel and Los Angeles Rivers and Mountains Conservancy

January 30, 2024

Bureau of Reclamation
Financial Assistance Operations
Attn: NOFO Team
P.O. Box 25007, MS 84-27815
Denver, CO 80225

RE: Support for the Santa Clarita Valley Water Agency's Application to WaterSMART Water Energy Efficiency Grant Program for Fiscal Year 2024

Dear NOFO Team,

I am writing you to show our region's strong support of the Santa Clarita Valley Water Agency's (SCVWA) application to the WaterSMART Water Energy Efficiency Grant Program for Fiscal Year 2024.

The SCV Water grant application seeks funding for Phase 2 of a multi-phase meter infrastructure upgrade program. The USCR Integrated Regional Water Management Plan (IRWM Plan) describes a number of specific project ideas to meet our watershed's core objectives, and specifically includes SCV Water's implementation of Advanced Metering Infrastructure (AMI). This AMI project will help our region to meet its IRWM Plan objectives in several ways, such as improving water use efficiency and resource stewardship and promoting actions to reduce greenhouse gas emissions via improved efficiency of water use.

This project will install and implement AMI technology to provide real-time operational information to SCV Water. SCV Water will use the information to best meet the State of California drought compliance standards. An additional benefit is enhanced communication with customers. Customers can use the AMI information in the web portal to monitor and evaluate their water usage to more effectively manage their water consumption further driving water savings.

We are fully supportive of SCV Water's AMI project to assist with increasing energy and water use efficiency. We respectfully ask for your support of this application. Thank you for your time and consideration.

Sincerely,

Rick Vasilopulos, Chair
Upper Santa Clara River IRWM
cc: USCR IRWM RWMG

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO

SANTA BARBARA • SANTA CRUZ

MARINE SCIENCE INSTITUTE
SANTA BARBARA, CALIFORNIA 93106-6150
PHONE: (805) 893-2911
FAX: (805) 893-8062

31 January 2024

Bureau of Reclamation Financial Assistance Operations
Attn: NOFO Team
P.O. Box 25007, MS 84-27815
Denver, CO 80225

RE: Support for the Santa Clarita Valley Water Agency's Application -
WaterSMART Water Energy Efficiency Grant Program, Fiscal Year 2024

Dear NOFO Team:

As a scientist with the Marine Science Institute at the University of California, Santa Barbara, involved in research on water conservation issues in the Santa Clara River watershed, I am writing in support of Santa Clarita Valley Water Agency's (SCV Water's) application to the WaterSMART Water Energy Efficiency Grant Program for Fiscal Year 2024. I further support this program as the recent President of the Santa Clara River Conservancy, which seeks sustainable use and environmental protection for the Santa Clara River in Los Angeles and Ventura Counties.

SCVWA serves approximately 289,000 residents in the Santa Clarita Valley, and inland arid-climate region climate of Southern California. SCV Water is implementing Phase 2 of a water and energy efficiency project which will promote water conservation efforts and prepares SCV Water to respond to the recurring drought conditions in California. Furthermore, natural ecosystems and over two dozen federally listed wildlife species associated with Santa Clara River riparian areas depend on sustained water availability for their survival. These riparian ecosystems will benefit from improved applied water resource efficiency in the surrounding developed region, including in the lower reaches of the Santa Clara River flowing through Ventura County.

This project will install and implement Phase 2 of an Advanced Metering Infrastructure (AMI) System designed to provide real-time operational modeling information to track water customer demand and usage. The AMI system and web portal technology provides specific tools to create significant water savings and allows SCV Water's customers to monitor their water usage in near real time to effectively manage their water consumption. This information is key in evaluating water delivery needs and how best to meet drought compliance standards set by the State of California.

We are supportive of SCV Water's advancements of technology and are committed to assist with increasing water use efficiency. We respectfully ask for your support of this application.

Thank you for your time and consideration.

Tom Dudley
Research Faculty, Marine Science Institute, UC Santa Barbara &
Cheadle Center for Biodiversity and Ecological Restoration

February 9, 2024

Bureau of Reclamation Financial Assistance Operations
Attn: NOFO Team
P.O. Box 25007, MS 84-27815
Denver, CO 80225

RE: Support for the Santa Clarita Valley Water Agency's Application to WaterSMART Water Energy Efficiency Grant Program for Fiscal Year 2024

Dear NOFO Team:

The Santa Clara River Conservancy is writing in support of Santa Clarita Valley Water Agency's (SCVWA) application to the WaterSMART Water Energy Efficiency Grant Program for Fiscal Year 2024.

SCV Water serves approximately 289,000 residents in the Santa Clarita Valley, located in the arid climate of Southern California. SCV Water's application seeks funding for Phase 2 of a multi-phase advanced metering infrastructure upgrade program that prepares the agency to respond to recurrent drought conditions in California by advancing significant water and energy savings for the entire Santa Clarita Valley community.

This project will install and implement an Advanced Metering Infrastructure (AMI) System designed to provide real-time operational modeling information to track customer water demand and use. This information is key in evaluating water delivery needs and how best to meet drought compliance standards set by the state of California.

The AMI system and integrated web portal technology provides specific tools to create significant water savings and allows SCV Water's customers to monitor their water usage in near real time to effectively manage their water consumption. A project that results in significant water savings is critical for our community and our environment, including, importantly, the Santa Clara River upon which many threatened and endangered species rely.

We are supportive of SCV Water's deployment of technology to increase water use efficiency and its application for grant funding for the AMI Phase 2 Project.

Thank you for your time and consideration.

Sincerely,

Shawn W. Kelly, Executive Director
Santa Clara River Conservancy

Santa Clarita Valley
Groundwater Sustainability Agency

SCV
GSA

February 13, 2024

Bureau of Reclamation
Financial Assistance
Operations Attn: NOFO Team
P.O. Box 25007, MS 84-27815
Denver, CO 80225

RE: Support for the Santa Clarita Valley Water Agency's Application to WaterSMART Water Energy Efficiency Grant Program for Fiscal Year 2024

Dear NOFO Team:

The Santa Clarita Valley Groundwater Sustainability Agency is writing in support of Santa Clarita Valley Water Agency's (SCVWA) application to the WaterSMART Water Energy Efficiency Grant Program for Fiscal Year 2024.

SCV Water serves approximately 289,000 residents in the Santa Clarita Valley, located in the arid climate of Southern California. SCV Water's application seeks funding for Phase 2 of a multi-phase advanced metering infrastructure upgrade program that prepares it to respond to recurrent drought conditions in California by advancing significant water and energy savings for the entire Santa Clarita Valley community.

This project will install and implement an Advanced Metering Infrastructure (AMI) System designed to provide real-time operational modeling information to track customer water demand and use. This information is key in evaluating water delivery needs and how best to meet drought compliance standards set by the state of California.

The AMI system and integrated web portal technology provides specific tools to create significant water savings and allows SCV Water's customers to monitor their water usage in near real time to effectively manage their water consumption.

We are supportive of SCV Water's deployment of technology to increase water use efficiency and its application for grant funding for the AMI Phase 2 Project.

Thank you for your time and consideration.

Sincerely,

DocuSigned by:
Gary Martin

Gary Martin, Board President
SCV-GSA

MIKE GARCIA
27TH DISTRICT, CALIFORNIA

WASHINGTON, DC OFFICE
144 CANNON HOB
WASHINGTON, DC 20515
(202) 225–1956

HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON COMMERCE, JUSTICE, & SCIENCE
SUBCOMMITTEE ON DEFENSE
SUBCOMMITTEE ON ENERGY & WATER DEVELOPMENT

HOUSE PERMANENT SELECT COMMITTEE ON INTELLIGENCE
DEFENSE INTELLIGENCE & OVERHEAD ARCHITECTURE SUBCOMMITTEE
NATIONAL SECURITY AGENCY & CYBER SUBCOMMITTEE

HOUSE COMMITTEE ON SCIENCE, SPACE, & TECHNOLOGY
SUBCOMMITTEE ON SPACE & AERONAUTICS

Congress of the United States
U.S. House of Representatives
Washington, DC 20515–0527

February 21,2024

Bureau of Reclamation & Bureau of Interior
FY2024 WaterSMART Water and Energy Efficiency
18 C Street, NW.
Washington, DC 20240

Dear Commissioner Camille Calimlin Touton:

I write you to call your attention to the Santa Clarita Water Agency's application for the WaterSMART FY2024 Water and Energy Efficiency Grant to fund Phase two of its Automated Meter Infrastructure Replacement Project.

The Phase 2 project will replace approximately 15,000 existing water service meters with Advanced Metering Infrastructure (AMI) to be integrated into a Customer Engagement Portal (CEP) which will provide SCV Water customers with daily water use information. These components will promote water and energy conservation through accurate, real-time meter readings (which will reduce miles driven to read meters and manual labor), detection of leaks in the system resulting in immediate corrective responses, facilitation of the billing process, and customer education on water use. This is expected to result in an estimated 856 acre-feet per year (AFY) in water savings and 781,789 kilowatt-hours (kWh) per year in energy savings. In addition to water and energy conservation, this project is key to evaluating water delivery needs and how to best meet drought compliance standards set by the State of California.

SCV Water's mission is to provide responsible water stewardship to ensure the Santa Clarita Valley has reliable supplies of high-quality water at a reasonable cost. The technology implemented by the Project will save ~856 AFY of water by encouraging conservation and reducing water losses, and will result in substantial energy conservation as well as reduced GHG emissions associated with delivery and treatment of water. Reductions in these metrics will not only increase drought resilience in SCV Water's service area but will decrease environmental pollution in the 27th District and statewide.

I urge you to give this proposal your full and fair consideration. Thank you for your attention to this request, and I look forward to continuing to work with you on this important matter.

Sincerely,

Mike Garcia
U.S. Member of Congress CA-27

ANTELOPE VALLEY
1043 WEST AVENUE M4, SUITE A
PALMDALE, CA 93551
(661) 839–0532

SANTA CLARITA VALLEY
27200 TOURNEY ROAD, SUITE 300
SANTA CLARITA, CA 91355
(661) 568–4855

SECTION 2: BUDGET NARRATIVE

A. Funding Plan and Letters of Commitment

SCV Water has allocated the matching funds required to complete the project. The sources of the cost share are from SCV Water's Capital Improvement Program funds.

As shown in the draft Resolution that is on the agenda for adoption by the Board of Directors on March 19, 2024, SCV Water is committed to providing the remaining matching funds to complete the Project.

SCV Water has completed all the feasibility and preliminary work for the Project. The cost for this work has already been incurred and is not included as part of the Project cost. The environmental studies will be completed by SCV Water upon notice of award and are not included as part of this project, so that we will be ready to advertise as soon as the grant application has been completed.

SCV Water is eager to start this project and has prepared the technical specifications that will be used to evaluate the proposed systems by bidders. Due to the current delays in delivery of equipment, SCV Water would like the option to procure equipment as soon as possible to ensure that construction begins by August 2025. Currently there is a delay in receiving equipment and the above schedule has allowed an extended time for this task. Meter replacements will start immediately upon receipt of the necessary equipment.

Table 1. Total Project Costs by Source

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding	$3,768,840
Costs to be paid by the applicant	$3,768,840
Value of third-party contributions	$0
Totals	**$7,537,681**

Table 2. Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT	%
Non-Federal Entities		
SCV Water	$3,768,840	**50.0%**
Non-Federal Subtotal	**$3,768,840**	**50.0%**
Other Federal Entities		
None	-	-
Other Federal Subtotal	-	-
REQUESTED RECLAMATION FUNDING	**$3,768,840**	**50.0%**

B. Budget Proposal

The below table represents all of the anticipated costs associated with implementing the AMI Project Phase II.

Table 3. Project Budget

BUDGET ITEM DESCRIPTION	COMPUTATION		QUANTITY TYPE	TOTAL COST
	$/Unit	Quantity		
Salaries and Wages				**$ -**
Fringe Benefits				**$ -**
Travel				**$ -**
Equipment				**$ -**
Supplies/Materials				**$ 5,581,881**
3/4" Meters (Sensus) (including transponders)	$323.47	4,705	Unit	$ 1,521,926
3/4" Meters (Master)	$304.95	8,359	Unit	$ 2,549,077
1" Meters (Sensus) (including transponders)	$402.24	797	Unit	$ 320,585
1" Meters (Master)	$386.57	909	Unit	$ 351,392
1 1/2" Meters (Sensus) (including transponders)	$1,151.82	131	Unit	$ 150,888
1 1/2" Meters (Master)	$635.23	50	Unit	$ 31,762
2" Meters (Sensus) (including transponders)	$1,275.23	303	Unit	$ 386,395
2" Meters (Master)	$782.19	345	Unit	$ 269,856
Contractual Construction				**$ 1,642,800**
Contractor Labor 3/4" & 1" meters (Estimated)*	$100	14,770	Hour	$ 1,477,000
Contractor Labor 1 1/2" & 2" meters (Estimated)*	$200	829	Hour	$ 165,800
Other				**$ 312,000**
Labor Compliance				$ 12,000
Hazardous Waste Disposal (electronics & batteries)				$ 300,000
TOTAL DIRECT COSTS				**$ 7,536,681**
Indirect Costs				**$ 1,000**
Reclamation Environmental Review				$ 1,000
TOTAL ESTIMATED PROJECT COSTS				**$ 7,537,681**

C. Budget Narrative

Salaries and Wages

Not included in Project Budget.

Fringe Benefits

Not applicable.

Travel

Not applicable.

Equipment

Not applicable. All equipment costs are captured under materials and supplies or

contractual/construction.

Materials and Supplies

The Project will require the purchase of equipment as detailed in the equipment **Table 3** in the Evaluation Criteria section above. Since the meters to be replaced need to be the same as the meters currently installed to be compatible with the existing network, SCV Water will sole source the meters from Master Meter and Sensus directly.

Contractual/Construction

This cost item reflects the contractor costs to install the meters. Contract labor costs are based on recent Rate Sheets provided to SCV Water by a local contractor. It is estimated that contractors will replace approximately 15,599 meters. The associated labor costs are approximately $1,642,800. These costs are estimates and will be updated after the competitive bidding process for contract labor services.

Through a competitive bid process in compliance with 2CFR200.317-327, State Contract Code, and SCV Water's internal purchasing policies, a qualified Contractor will be selected to complete installation of ~15,599 meters. The SCV Water Board of Directors will then award the construction contract to the lowest responsible and responsive bidder. SCV Water will start procurement of the equipment prior to the grant agreement has been executed to ensure the project meets the specified schedule.

Third-Party In-Kind Contributions

Not applicable.

Environmental and Regulatory Compliance Costs

An allocation of $1,000 has been stipulated in the project budget for the Reclamation's consultant as reflected in **Table 12**.

Other Expenses

Other costs include costs associated with state and federal labor compliance and costs associated with the disposal of hazardous waste materials are anticipated to be $312,000.

Indirect Costs

The only indirect cost considered is the environmental review by the Bureau of Reclamation. SCV Water has allocated $1,000 to this cost item since this Project will take place on existing facilities.

Total Costs

The total cost of the Project is $7,537,681.