

Advanced Metering Infrastructure Implementation Project



Grant Applicant:

City of Rialto

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Funding Group II

Table of Contents

MANDATORY FEDERAL FORMS	1
TECHNICAL PROPOSAL AND EVALUATION CRITERIA	1
(1) Executive Summary	1
(2) Project Location	2
(3) Technical Project Description	6
(4) Evaluation Criteria	8
<i>Evaluation Criterion A: Quantifiable Water Savings</i>	8
<i>Evaluation Criterion B: Renewable Energy</i>	14
Subcriterion No. B.1 – Renewable Energy	14
Subcriterion No. B.2 - Increasing Energy Efficiency in Water Management	14
<i>Evaluation Criterion C: Sustainability Benefits</i>	16
<i>Evaluation Criterion D: Complementing On-Farm Irrigation Improvements</i>	33
<i>Evaluation Criterion E: Planning and Implementation</i>	34
Subcriterion No. E.1 - Project Planning	34
Subcriterion No. E.2 - Readiness to Proceed	36
<i>Evaluation Criterion F: Collaboration</i>	38
<i>Evaluation Criterion G: Additional Non-Federal Funding</i>	40
<i>Evaluation Criterion H: Nexus to Reclamation</i>	40
(5) Performance Measures	41
PROJECT BUDGET	43
Funding Plan and Letters of Commitment	43
Budget Proposal	43
City Capital Improvement Projects Funding	43
Budget Narrative	44
ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE	50
REQUIRED PERMITS OR APPROVALS	51
LETTERS OF PROJECT SUPPORT	51
OFFICIAL RESOLUTION	52
APPENDICES	52

MANDATORY FEDERAL FORMS

The following forms were submitted electronically via grants.gov: SF-424 Application for Federal Assistance, SF-424A Budget Information – Non-Construction Programs, SF-424D Assurances – Construction Programs, and SF-LLL Disclosure of Lobbying Activities. Copies of manually signed federal forms are provided in Appendix C.

TECHNICAL PROPOSAL AND EVALUATION CRITERIA

(1) Executive Summary

Date: November 2, 2021

Applicant Name: City of Rialto, Mr. Thomas J. Crowley, Project Manager

City: City of Rialto

County: San Bernardino

State: California

Applicant Category: City of Rialto is a Category A Applicant

The City of Rialto (City, Rialto), located in San Bernardino County, California, will complete the Advanced Metering Infrastructure (AMI) Implementation Project (Project) as part of its long-term goal of water supply reliability and efficient water management. The AMI Project includes the upgrade or replacement of a total of 12,058 existing touch meters (currently read via walking) with an AMI fixed network system that will automatically collect and store consumption data, aiding in water conservation and water use efficiency, improved water management, and energy savings. The AMI Project does not include outside partners. The Project will implement the City's entire distribution system with AMI to provide water usage information, including high water usage and leak detection alerts that can be provided to customers. The AMI Project will accurately monitor water use for customers via the City's website portal, reduce water loss through enhanced leak detection capabilities, reduce water demand by enhanced conservation and leak notification, reduce energy use / operating costs, provide near real-time accurate water use information, and reduce carbon emissions by the use of remote/automated meter reads. Conservation and water use efficiency are key factors in improving water sustainability within the region. The AMI Project is a top priority for the City to achieve quantifiable and sustained water savings by reducing imported water demand. The City relies on imported water from the State Water Project (SWP), which draws water from the San Francisco-San Joaquin Bay-Delta (Bay-Delta), to replenish the groundwater basins that supply the City's potable water. The Project is expected to result in annual water savings of 1,523 acre-feet per year (AFY), which will allow this same amount of water to remain in the Bay-Delta to support the SWP and Reclamation's Central Valley Project (CVP).

Following the anticipated Spring 2022 funding award, the AMI Project is anticipated to begin in April 2022 with Project management and environmental review, and the Project is anticipated to be complete by the end of September 2023 within an approximately 18-month timeframe. The construction start date will not be prior to July 2022.

The AMI Implementation Project is not located on a federal facility.

(2) Project Location

The AMI Project will be implemented throughout the City of Rialto service area. The City is located in San Bernardino County, California at the base of the San Bernardino Mountains in the interior valley known as the San Bernardino Valley and within the Santa Ana River Basin watershed, encompassing approximately 24 square miles located between Interstate 10 and State Route 210. While the Project will be implemented throughout the City's service area, the latitude and longitude coordinates represent the City offices at latitude 33°05'59.6"N and longitude -117°22'23.5"W. The City of Rialto municipal water system provides potable, non-potable, and recycled water at retail to customers primarily within the City of Rialto and serves approximately one-half of the population of the City. Other areas of the City are served by two other agencies; however, the focus of this Project and application is only on the portion of the City served by the City municipal system (Rialto Water District) through its water system operator Rialto Water Services, LLC and Veolia Water West Operating Services, Inc. (Rialto Water Services/Veolia). The service area, shown in **Figure 1**, includes 12,058 municipal water service connections and a population of 55,860. **Figure 2** presents the City of Rialto service area within the region. The City's municipal water system obtains supplies from four adjudicated groundwater basins, surface water from canyon surface flows, emergency stand-by agreements, and recycled water. The San Bernardino Valley Municipal Water District (Valley District) monitors groundwater supplies and imports water through the SWP for groundwater recharge and management, which draws water from the Bay-Delta. Less water drawn from the Bay-Delta supports Reclamation's CVP. The City was incorporated in 1911, but can trace its roots to the 15th century when the Serrano Indians settled in the region. Over the next 500 years, Rialto went through multiple iterations – as a Mexican land grant, a ranching and railroad center, a popular stop along Route 66, and, ultimately, a thriving population and economic center for Southern California's Inland Empire. **Figure 3** includes photos of the City of Rialto, capturing some of the history of the region.

Figure 1. City of Rialto Water Service Area Map

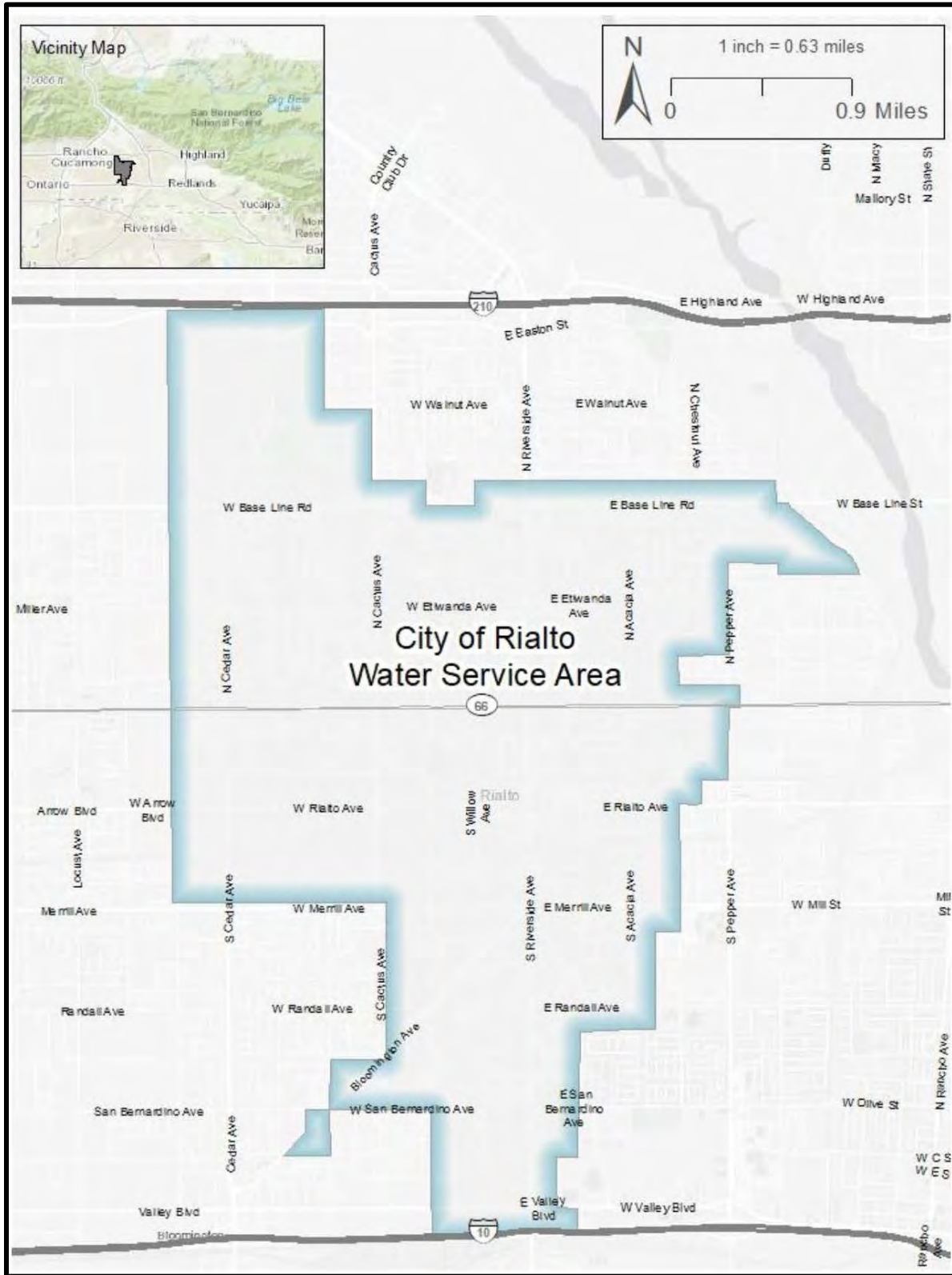


Figure 2. City of Rialto Service Area within Regional Area

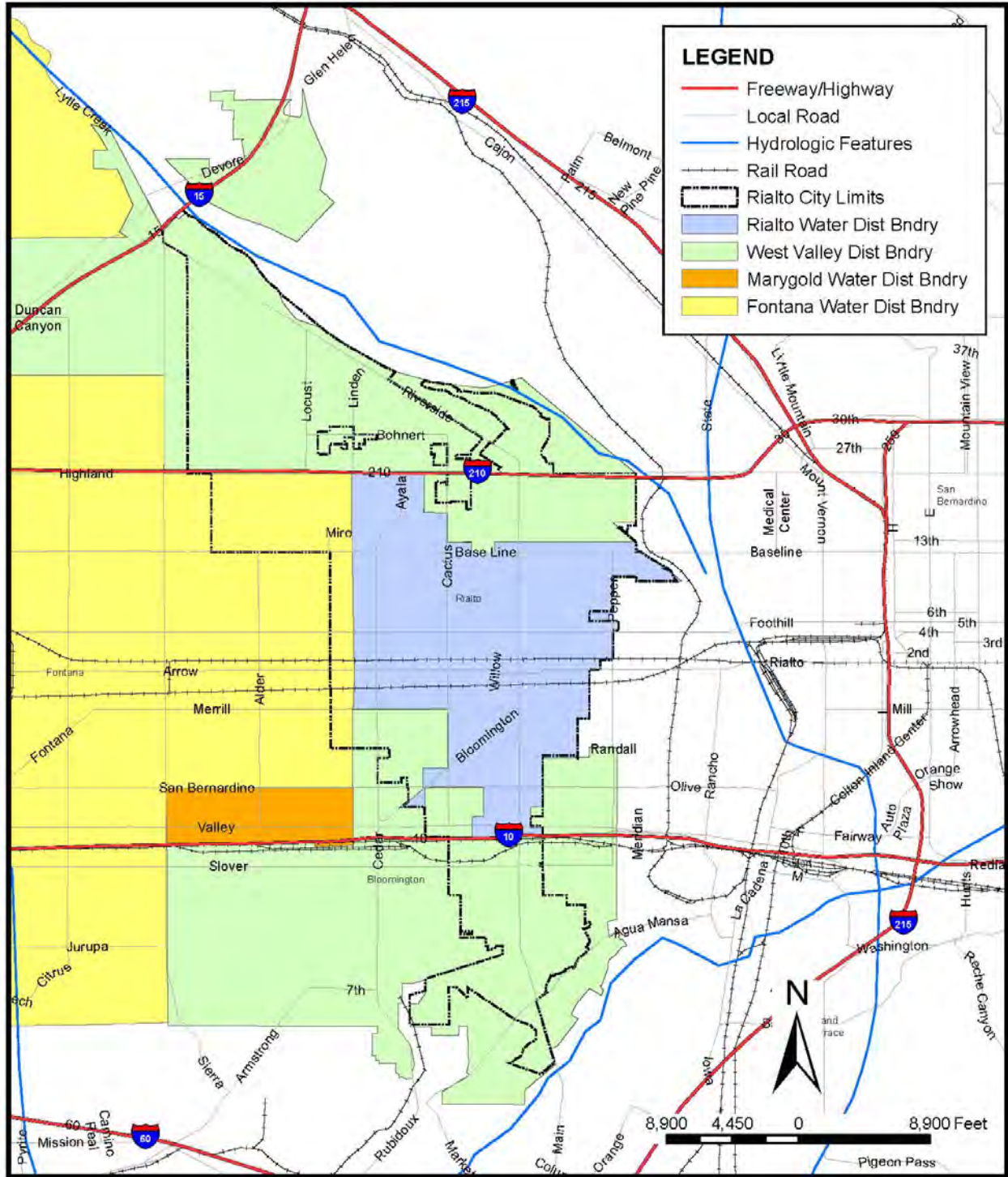


Figure 3. City of Rialto Service Area Culture



(3) Technical Project Description

The AMI Project includes the replacement of existing touch meters (currently read via walking) with an AMI fixed network system that will automatically collect and store consumption data, aiding in water conservation and water use efficiency, improved water management, and energy savings. The AMI Project will upgrade a total of 12,058 existing meter locations, install hardware and software, and provide City training needed to implement the entire City distribution system with AMI to provide water usage information and high water usage and leak alerts that can be provided to customers. The City has already converted 4,148 meters to AMI compatible meters; however, as part of the AMI Project, these existing AMI compatible meters will have a transmitter installed for sending reading and other information to the collector system. The AMI Project will also replace 7,910 non-AMI compatible meters and have a transmitter installed at these non-AMI compatible meter locations. The AMI Project is a top priority for the City and the expected sustainable annual water savings of 1,523 AFY from the Project will allow this same amount of water to remain in the local groundwater basin and Bay-Delta for other uses.

Environmental Impact Technical Overview. The AMI Project primarily involves an upgrade to existing meters and should pose no impact to the surrounding environment. Work will be performed on property that is considered already disturbed, and no further environmental requirements are needed. There are no required permits anticipated for the AMI Project. The AMI Project work will be conducted at current meter locations and City property. Project-related approvals will be managed by the City and will be executed in a timely and efficient manner. The Rialto City Council will approve a resolution authorizing the application for grant funding and to proceed with the AMI Project.

The City anticipates a Categorical Exemption pursuant to the California Environmental Quality Act (CEQA) Title 14 (California Code of Regulations), Chapter 3, Article 19, Section 15302c for the Project. In addition, the City anticipates that a Categorical Exclusion or Finding of No Significant Impact (FONSI) under National Environmental Policy Act (NEPA) will be issued by Reclamation given the nature of the Project that includes simply replacing existing meters with upgraded AMI meters. A Categorical Exclusion or FONSI is anticipated since the AMI Project will likely not have a significant effect on the human environment and, therefore, neither an Environmental Assessment nor an Environmental Impact Statement would be required.

Water Loss Technical Overview. To document the need for the AMI Project for conserving and better managing potable water served, the City considered its 2020 American Water Works Association (AWWA) Water Loss Audit. As detailed in Evaluation Criterion A, the 2020 AWWA Water Loss Audit showed a total 2020 water loss of 1,798 acre-feet (AF) and an avoidable 2020 water loss of 1,580 AF. Of the 2020 total Apparent Losses, 227 AFY is attributable to meter inaccuracies, while the balance is 23 AFY of unauthorized consumption and 18 AFY of systemic data handling errors. This validates a strong need for the AMI Project, which will significantly improve meter accuracy and data handling.

AMI System Technical Description. Through a process consistent with the City's Procurement Policy, a qualified consultants and a qualified Contractor/Vendor will be selected for the AMI Project implementation, including procurement and upgrade of a total of 12,058 AMI meters (either complete meter replacement or upgrade with additional hardware), provide training, and maintain a 20-year partnership with the City during the system life. The Contractor/Vendor's scope of work is anticipated to include: 1) procurement of water meters, AMI transmitters, transmitter holders, gateway collectors, meter lids, software, a web-based utility management portal and a web-based Customer Portal for utility users to access consumption data; 2) integration of the AMI system into the City's Customer Information System; and 3) other items as determined.

Project Implementation Approach. The City will implement the AMI Project through the following tasks (detailed in Evaluation Criterion E.2 Readiness to Proceed):

- Task 1. Project Management
- Task 2. Environmental Review
- Task 3. Procurement
- Task 4: Installation of AMI System and Meters
- Task 5. Final Testing and Implementation
- Task 6: Grant Management and Reporting

Project Management (Task 1) Manage implementation of the AMI Project for the duration of the work. Establish the final Scope of Work to facilitate the AMI Project, review invoicing, and maintain AMI Project documentation. Oversee the consultants and the Contractor/Vendor. Coordinate City staff training, ensure site conditions are prepared and ready for installation of hardware and software in accordance with the final network design, provide access to work sites, provide storage facilities for Project materials, and facilitate parking and office space for the Contractor/Vendor team, if needed.

Environmental Review (Task 2) Complete CEQA and NEPA requirements. The City will oversee the environmental consultant and facilitate the necessary environmental review to comply with state and federal permitting requirements. The City anticipates a Categorical Exemption pursuant to CEQA Title 14 (California Code of Regulations), Chapter 3, Article 19, Section 15302c for the Project. It is also anticipated that a Categorical Exclusion or FONSI under NEPA will be issued by Reclamation given the nature of the Project that includes replacing existing meters/equipment with upgraded AMI meters/equipment. The City will coordinate with Reclamation staff who will perform the Project environmental review and compliance.

Procurement (Task 3) The AMI Project assumes Contractor/Vendor procurement will begin immediately following execution of a funding agreement with Reclamation. For the competitive bid process, the City will follow its Procurement Policy and issue a Notice Inviting Bids for Proposals for the AMI Project. Qualified contractors shall submit details on the required work, proposals will be evaluated, and a Contractor/Vendor will be selected. The City will then work collaboratively with the Contractor/Vendor to select the appropriate equipment for the AMI Project. A critical element of this task is a robust customer notification program that informs customers of what is being purchased, how it will impact the customer, and what to expect during the system installation and after implementation. The Contractor/Vendor will provide the necessary AMI hardware (e.g., transmitters, transmitter holders, gateway collectors, meter box lids, and meters), software, and installation and training services needed for the AMI Project implementation. The City will only approve the use of equipment, technologies, and capabilities that are currently commercially available, are compatible with the existing AMI-compatible meters, and have been implemented in other agencies with a proven history of success.

Installation of AMI System and Meters (Task 4) Disconnect the 7,910 meters that are not AMI compatible and replace with the selected AMI meters. Install AMI transmitters and transmitter holders throughout the 12,048 total meter locations within the City service area. Install the gateway collectors, meter lids and other ancillary hardware needed for AMI implementation. Install the AMI system software within the City's network, including a web-based utility management portal and a web-based Customer Portal that will collect the consumption data and relay this information so it will be available in the web-based application that can be accessed in real-time for City billing, and live leak reports. Installation also includes establishing and connecting the communication system.

Final Testing and Implementation (Task 5) Test the AMI meters, complete software integration and install any additional infrastructure required to gather the water consumption data. Provide training to City staff. Deploy the Customer Portal and provide access to customers.

Grant Management and Reporting (Task 6) Coordination with the City's Grant Consultant for management of the grant agreement and Reclamation reporting requirements, including Program Performance Reports, Financial Reports, and Financial Reimbursement Requests.

(4) Evaluation Criteria

Evaluation Criterion A: Quantifiable Water Savings

1) Estimated Water Savings

The AMI Project's total water savings estimate: **1,523 AFY**

Supporting documentation is included in the following sections.

2) Current Losses

2020 AWWA Water Loss Audit. The City's 2020 AWWA Water Loss Audit shows Apparent Losses of 268 AFY (unauthorized consumption, metering inaccuracies, and systematic data handling errors), and Real Losses of 1,530 AFY (leakages on transmission/distribution mains, storage tanks, and service connections) for a total 2020 water loss of 1,798 AFY. The total water loss equals a 20.1% loss of total water supplied by the City in 2020 (8,929 AF). Of the 2020 total Apparent Losses, 227 AFY is attributable to meter inaccuracies, while the balance is 23 AFY of unauthorized consumption and 18 AFY of systemic data handling errors.

The City's 2020 AWWA Water Loss Audit also recognizes Unavoidable Annual Real Losses (UARL) of 218 AF. The UARL is a theoretical reference value representing the technical low level of leakage that could be achieved if all of today's best technology could be applied. It is a key variable in the calculation in the Infrastructure Leakage Index used in the Audit. Striving to reduce system leakage to a level close to the UARL is needed when the water supply is unusually expensive, scarce, or both. Subtracting the UARL from the total water losses leaves an avoidable 2020 water loss of 1,580 AFY. This validates a strong need for the AMI Project, which will significantly improve meter accuracy and data handling.

Water lost from leakages (Real Losses) are assumed to be seeping back into the ground and/or draining to a storm drain or ultimately, the Pacific Ocean. Other water that will be conserved is water that is being consumed without authorization or accurately measuring it (Apparent Losses) and water consumption that will be reduced through water use efficiency and conservation.

3) Support/Documentation of Estimated Water Savings

Documentation for the estimated water savings, including assumptions, references, and calculations are provided under Question 4a below.

4) Please address the following questions according to the type of infrastructure improvement you are proposing for funding.

The AMI Project is a Municipal Metering Project that will replace existing individual user meters with AMI meters.

- 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.**

The AMI Project will achieve water savings through three independent measures: 1) Water loss reduction from leakages; 2) Water loss reduction from correcting meter inaccuracies; and 3) Water conservation through Customer Portal usage.

These measures will be accomplished by implementing the AMI Project resulting in: 1) faster identification and correction of water leaks (currently, meters are manually read every month allowing leaks to go undetected and water to be wasted for a month before being noticed); 2) more accurate meter readings compared to aging meters (7,910 of the City's individual water service meters need to be replaced and are likely erroneously registering lower water use than actual water use based on the results of the 2020 AWWA Water Loss Audit); and 3) reduced potable water usage resulting from customer education and behavioral changes through the Customer Portal real-time data on water usage. The Project does not include Distribution system meters.

Additionally, the AMI meters will help the City reduce operational costs incurred through the manual meter reading process in which crews drive by neighborhoods to collect consumer water usage data, and reduce its carbon footprint with reduced vehicle miles per year to read meters.

Average Water Saved/Conserved with Proposed AMI Project

Total estimated water savings: **1,523 AFY**

Calculation:

(Water Loss Reduction–Leakages + Water Loss Reduction–Meter Inaccuracies + Reduction in Consumption–Customer Portal Use = Total Water Saved/Conserved)

339 AFY + 858 AFY + 326 AFY = 1,523 AFY Total Water Saved/Conserved

This estimate is calculated by adding 339 AFY saved through early leak detection + 858 AFY saved from reduced metering inaccuracies + 326 AFY saved through water use behavioral changes through Customer Portal use, for a total of 1,523 AFY of water saved by implementing the proposed AMI Project. Based on calculations shown below, approximately 79% of the water savings will be realized through water loss reduction (leaks and meter inaccuracies) and 21% savings through behavioral changes (Customer Portal).

When applied to the 2020 total water loss of 1,798 AFY, the City could potentially reduce the water loss from 20.1% (1,798 AFY / 8,929 AFY) to 3.1% (1,798 AF - 1,523 AFY = 275 AFY / 8,929 AFY) of total potable demand (8,929 AF in 2020), through implementation of the AMI Project. The City's 2020 supply and demand both equaled 8,929 AFY. This benefit will be realized annually, year-round for the 20-year life of the Project.

Detail and Supporting Calculations for Estimate:

Water Loss Reduction/Savings from Customer Leak Detection

Knowledge of customer water leaks with AMI data allows utilities to engage their customers and help them better understand the issue and identify the source. This, in turn, can lead to reduced time to correct the issue and increased water savings. The City currently reads meters manually and bills customers on a monthly basis. There is potential for smaller leaks to go undetected for as long as 30 days. With AMI, faster detection and customer notification is possible.

Valor Water Analytics partnered with Southern California Gas Company and two water utilities in 2016-2018 to track AMI utilization in water savings. Two pilot projects were commissioned by the California Public Utilities Commission; some early information can be found at http://www.cpuc.ca.gov/nexus_calculator/. Valor provided customer leaks analytics and the water utilities sent out leak notifications via phone and text to customers upon detection of leaks.

The first pilot, conducted at an Inland Empire water utility, involved comparing 492 accounts with new meters and AMI hourly water reads (treatment group) and 492 accounts with existing meters and monthly water reads (control group) over a 12-month period. Over the course of the pilot, 172 water leaks were detected by AMI analytics and a total of 6,863,852 gallons of water savings due to leak reduction by AMI analytics was estimated. This equals an average water savings of 13,951 gallons/meter/year.

The second pilot, conducted at a coastal Southern California water utility, involved comparing 1,190 accounts with new meters and AMI hourly water reads (treatment group) and 1,190 accounts with existing meters and monthly water reads (control group) over a 12-month period. Over the course of this pilot, 188 water leaks were detected by AMI analytics and a total of 3,508,520 gallons of water savings due to leak reduction by AMI analytics was estimated. This equals an average water savings of 2,948 gallons/meter/year (3,508,520/1,190).

Aggregate water savings due to leak reduction by AMI analytics was estimated by examining the treatment group during the Post AMI period. The start and end time for each leak was recorded, and the flow rate of that leak was calculated by comparing the flow rate during the leak period to normal consumption periods. To calculate the water saved, it was assumed that the leak would have continued at this flow rate until the next bill date, at which point the customer is assumed to have identified the leak from the high bill and resolved the issue. This approach is an accepted way to estimate aggregate water savings; however, the approach does under-estimate water savings associated with leaks that span multiple months, since it assumes customers are prompted to action upon receipt of their bill which may not always be the case. Therefore, this assumption is consistent with the grant program requirement that water savings must be the result of reducing or eliminating a current ongoing loss, not the result of an expected future loss.

The City has selected and used the Inland Empire utility as reference since it most closely represents the City's geography and climate. The City has a total of 12,058 individual water service meters. Within the last 5 years, the City has replaced 4,148 meters leaving 7,910 meters left to be replaced. As a result, the following water savings from leaks is estimated with AMI:

Water Loss Reduction/Savings from Customer Leak Detection Calculation

$7,910 \text{ meters} \times 13,951 \text{ gallons/meter/year} = 110,352,410 \text{ gallons/year} / 325,851 \text{ gallons/AF} = 339 \text{ AFY water saved from Customer Leak Detection}$

Water Loss Reduction/Savings from Customer Metering Inaccuracies

The City's 2020 Urban Water Management Plan [UWMP] (Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan, Part 2 Chapter 5 Rialto 2020 UWMP June 30, 2021) documented an opportunity to identify areas of significant water loss and develop strategies to minimize those water losses. Apparent water losses are the non-physical losses that occur in utility operations due to customer metering inaccuracies, systematic data handling errors in customer billing systems, and unauthorized consumption. This is water that is consumed but not accurately measured, accounted for, or billed.

The City contracts with Veolia to perform randomized annual meter audits consistent with the California

Department of Water Resources (DWR) Water Loss Audit Reporting requirements since 2015. Additionally, City staff internally perform water meter performance assessments to identify customer metering inaccuracies. The analytics include detection and prioritization of meter under-registration, meter right sizing, and meter read errors issues. Meter under-registration involves the detection of mechanical meters whose accuracy is decreasing over time, causing the meters to register less water than is flowing through the meter. Right sizing detects if the customer has a water meter sized differently than their demand, and meter read errors detects errors with meters reads like negative, unexpected consecutive zeros, and implausible reads.

The City of Rialto along with its partner Rialto Water Services/Veolia completed an analysis in 2017 by testing 886 meters that were installed between 1984 and 2011. The meters that were tested were compared against the same meter brand and size for accuracy. The analysis showed that the old meters on average had an annual loss of 35,350 gallons per meter. The City has a total of 12,058 meters. Within the last 5 years, the City has replaced 4,148 meters leaving 7,910 meters left to be replaced. Using an average water loss per meter of 35,350 gallons per year and replacing the remaining meters, the City will save an estimated 279,618,500 gallons per year, or 858 AFY.

Water Loss Reduction/Savings from Customer Metering Inaccuracies Calculation

7,910 meters x 35,350 gallons/year (average water loss/meter) = 279,618,500 gallons/year / 325,851 gallons/AF = **858 AFY water saved from Metering Inaccuracies**

Water Savings from Customer Portal Use

Savings will also result from the deployment of a Customer Portal through water use behavioral change on the part of customers who access the data for the purpose of monitoring their consumption. Customers will be able to independently access their consumption data, and the City will be able to promote routine conservation messaging as well as any new programs (e.g., water efficient fittings and appliances) to save water. Using the online Customer Portal, consumers will have an option to set water efficiency targets and receive notifications via an email or text message when their usage is atypical.

Self-leak detection is not thought to be a major benefit of the Customer Portal. Therefore, water savings associated with self-leak detection are projected in the earlier section *Water Loss Reduction/Savings from Customer Leak Detection* assuming the City will provide customers dedicated leak notifications.

Eastern Municipal Water City (EMWD), a wholesaler of water in Southern California, recently completed a demonstration project that included a Customer Portal like the proposed AMI Project. For the demonstration project, EMWD installed AMI units for a subset of its customer base, included daily water use information on customer water bills, and made flow data available to customers on EMWD's website. EMWD determined that implementation of the demonstration project realized an average annual savings of 0.027 AF per meter across all meters. Since the City's proposed AMI Project includes these same activities, it is anticipated that this same level of savings can be achieved for all 12,058 AMI meter locations connected to the Customer Portal.

Applying the same average savings of 0.027 AFY/meter to the proposed AMI Project (total, including the new meters and transmitters and the recently upgraded AMI-compatible meters that will be connected to the Customer Portal), the following is the water savings calculation:

Water Savings from Customer Portal Use Calculation

12,058 meters x 0.027 AFY/meter = **326 AFY water saved from Customer Portal Use**

The Project's conserved water demonstrates the tremendous value of implementing the AMI Project when linking the AMI meters and the Customer Portal to promote customer behavioral changes to conserve water.

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

The City's AWWA 2020 Water Loss Audit showed water losses totaled 1,798 AFY, which includes 268 AFY from apparent losses (metering inaccuracies and data handling errors) and 1,530 AFY from real losses (leaks and apparent losses). The City records daily production and demand data and reads all meters on a monthly basis to assess and manage distribution system real loss. Metered sales and other verifiable uses, such as backwash, flush water, and operation and maintenance, are recorded. A Customer Service Field Representative is available to assist customers with leak detection. If a customer suspects a leak on their property or experiences a higher-than-normal water bill, they are encouraged to contact the City's or Rialto Water Services and request that a staff member check the customer's water meter. City staff only assist customers in attempting to locate the problem, but the customer is responsible for fixing the leak or hiring someone to make repairs. In cases of water meter leaks, a Customer Service Field Representative is sent to a customer's property to ascertain the cause of the leak and make repairs, such as replacing blown-out gaskets or replacing a damaged valve or meter. If the leak occurs on the service line from the meter to a home or business, it is the customer's responsibility to make repairs or hire a plumber. The City's water services replacement, valve maintenance, and hydrant maintenance programs help to prevent system losses by systematically inspecting, repairing, and replacing (when needed) aging or failing infrastructure.

California Senate Bill (SB) 1420 signed into law in September 2014 requires urban water suppliers that submit UWMPs to calculate annual system water losses using the water audit methodology developed by the AWWA. The AWWA water loss methodology determines the City's current distribution system losses and/or the potential for reductions in water use by individual users. Water losses are defined by the International Water Association (IWA) as the difference between distribution systems input volume (i.e., production) and billed authorized consumption. The audit was developed by the IWA Water Loss Task Force as a universal methodology that could be applied to any water distribution system. This audit meets the requirements of SB 1420. Understanding and controlling water loss from a distribution system is an effective way for the City to achieve regulatory standards and manage their existing resources.

Also described above in section (a), the potential for reductions in water use by individual users were determined based on EMWD's demonstration project, which realized an average annual savings of 0.027 AF per meter through implementation of their AMI Project. Some potential reasons for water loss include leaks from water lines, water used for flushing and fire hydrant operations, unauthorized uses or theft of water, and customer meter inaccuracies, as discussed in the City's 2020 UWMP.

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.

Expected water use reduction and supporting documentation, including the EMWD's study on potential for reducing water use, are discussed above in sections (a) and (b).

- d. Installation of distribution system meters will not receive points under this criterion. Accordingly, these projects must be paired with a complementary project component that will result in water savings in order for the proposal to receive credit for water savings, e.g., pipe installation using upgraded materials, or individual water service meters.

Not applicable. No distribution main meters will be installed.

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

The AMI Project will upgrade and connect a total of 12,058 existing manually read meters with a fixed network AMI technology system that will automatically collect and store consumption data, aiding in water conservation and water use efficiency, improved water management, and energy savings. A total of 7,910 meters will be replaced with AMI-compatible meters and will also be equipped with a transmitter and connected to the AMI system as part of the Project. The replacement meters are primarily 0.75 in and 1 inch, and are anticipated to be Badger M25 and Badger M55 models, however, the City may utilize other manufacturers and models, based considerations such as Contractor/Vendor recommendations and equipment availability. In recent years, the City has replaced 4,148 meters with AMI-compatible meters, with sizes ranging between 0.75 inches and 4 inches, and meter manufacturers including Badger, Sensus, Hydrus, and Octave. These 4,148 AMI compatible meters that have been replaced will need to have a transmitter installed for sending reading and other information to the collector system as part of the AMI Project. All meters, registers, nodes, etc., as well as the AMI network and host software will be installed and managed by the Contractor/Vendor.

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

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

The City's 2020 potable water demand of 8,929 AFY was met through locally extracted groundwater and surface water, with additional water imported from the SWP for groundwater recharge and management. Water lost from any leakage is reasonably considered to be seeping back into the ground and/or flowing to a storm drain or ocean. A total of 1,523 AFY will be conserved by the proposed AMI Project. Water conserved as a result of the proposed Project's implementation represents a decrease in local water demand, which will decrease the amount of groundwater pumped by the City and ultimately imported by the Valley District for groundwater recharge and management. Therefore, the conserved water will remain at its source, the Bay-Delta for environmental and other uses. More water remaining in the Bay-Delta benefits the CVP, which is managed by Reclamation. Extending 400 miles through central California, the CVP is a complex, multi-purpose network of dams, reservoirs, canals, hydroelectric powerplants and other facilities. The CVP reduces flood risk for the Central Valley, and supplies valley domestic and industrial water. The SWP is the nation's largest state-built water and power development conveyance system. The primary purpose of the SWP is to provide a water supply and delivery system to distribute water across California. Both the CVP and SWP rely on water supply in the Bay-Delta. Reclamation and the California DWR coordinate on the balance of water in the Bay-Delta for uses in the SWP and CVP. Therefore, the CVP benefits from more water remaining in the Bay-Delta and the SWP systems.

Evaluation Criterion B: Renewable Energy

Subcriterion No. B.1 – Renewable Energy

This Project does not include renewable energy components.

Subcriterion No. B.2 - Increasing Energy Efficiency in Water Management

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.**

Implementation of the AMI Project will result in energy savings. Therefore, the Project includes an energy efficiency element due to reduced pumping related to the 1,523 AFY estimated water savings. The City primarily relies on energy provided by Southern California Edison and the Southern California Gas Company.

Although not related to the AMI Project, the City is a proponent of renewable energy, and has installed solar panels at 15 prominent City facilities, including the Civic Center, Community Center, fire stations, City offices, Metrolink Depot, Public Library, Raquet & Fitness Center, Senior Center, producing more than 2,000,000 kiloWatt Hours (kWh) of electricity annually. The City will produce additional renewable energy in partnership with Rialto Water Services and Veolia North America with the planned installation of a microgrid powered through a unique combination of biogas cogeneration, solar power and backup battery storage to supply electricity for the City's Wastewater Treatment Plant.

The AMI Project will further modernize the City's water management facilities and equipment to increase energy efficiency by installing AMI technology throughout the City's service area. The AMI Project will promote energy efficiency by reducing fuel consumption and maintenance frequency for City gas-powered vehicles previously used to collect monthly meter readings and will quantifiably reduce energy consumption through significant improvements in water use efficiency and conservation that would reduce both imported water from the Valley District for groundwater recharge and management, which receives its supply from the SWP, and pumping extracted groundwater throughout the City's service area.

Importing water is extremely energy intensive; much of the state's energy consumption is attributed to water conveyance. Reduction in water loss and overall consumption will impact the increasing energy efficiency of overall system operations. Based on the publication, "California's Water – Energy Relationship," prepared by the California Energy Commission (November 2005, p. 51), the amount of electrical energy required to transfer 1 AF of water from Northern California to an area slightly northwest of the City requires an estimated 3,000 kWh.

The City's water distribution systems provide an additional opportunity to save energy and carbon emissions from the AMI Project. The City's water distribution system includes groundwater pumps and booster stations to serve a total of three pressure zones. Operating these systems is very energy intensive. According to the City's 2020 UWMP, in 2020, the City consumed a total of 611.5 kWh of energy per AF for all water facilities.

Therefore, it is estimated that an average of 3,000 kWh/AF is used in conveying imported water from SWP to the City and an additional 611.5 kWh/AF to pump, treat, and distribute the water throughout the City's service area. The proposed Project will result in imported water savings of 1,523 AFY resulting in 5,500,315

kWh/year energy savings, calculated as follows:

Energy Savings from Reduced Imported Water and Local Delivery

1,523 AFY total water savings from the Project

Reduced Imported SWP Water = 1,523 AFY x 3,000 kWh/AF = 4,569,000 kWh/year Energy Savings

City System Delivery = 1,523 AFY x 611.5 kWh/AF = 931,315 kWh/year Energy Savings

Project Savings = 4,569,000 kWh/year + 931,315 kWh/year = **5,500,315 kWh/year Energy Savings**

Conserving energy results in reducing greenhouse gas (GHG) (carbon) emissions. Carbon emission estimates are 0.61 lbs. of carbon dioxide per kilowatt hour (CO₂/kWh) based on the United States Environmental Protection Agency's 9th edition of eGRID, "Year 2010 eGRID Subregion Emissions - Greenhouse Gases." The AMI Project will avoid GHG emissions of approximately 3,355,192 pounds of CO₂ per year.

GHG Reductions from Energy Savings

Project GHG Emissions Reductions from Energy Savings = 5,500,315 kWh/year x 0.61 lbs. CO₂/kWh = **3,355,192 pounds of CO₂ per year GHG Reductions from Energy Savings**

Over the 20-year lifespan of the AMI Project, approximately 67,103,840 total pounds of carbon emissions will be avoided.

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

The proposed Project's water conservation will reduce water import, treatment, and pumping since the demand will be decreased. This reduced pumping translates into a reduction in GHG emissions in the form of reduced pounds of CO₂ per year. As detailed in the calculations above, the AMI Project will save 3,355,192 pounds of CO₂ per year from energy savings. Energy savings from reduction in miles driven are also achieved by the Project and are detailed below.

- **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 AMI Project results in reduced pumping of groundwater for potable water supplies by conserving 1,523 AFY and reducing potable water demand. The AMI Project directly reduces the City's pumping requirements to extract groundwater and reduces the pumping requirements to import SWP water to the local groundwater basins for recharge. The current pumping requirements for the City include ten booster pumps and five groundwater extraction pumps. The booster pumps range in size from 25 to 250 horsepower (average 103 horsepower), and the groundwater extraction pumps range in size between 350 and 450 horsepower.

The City's water distribution systems include groundwater pumps, water treatment systems, and booster stations to serve a total of three pressure zones. Operating these systems is very energy intensive. According to the City's 2020 UWMP, in 2020, Rialto consumed a total of 611.5 kWh of energy per AF for all water facilities. The AMI Project will reduce energy use due to water conserved and reduced water losses resulting in less water to be treated and pumped for local distribution. The AMI Project water savings will also reduce energy usage statewide with reduced SWP water imported for groundwater basin management and recharge.

- 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 AMI Project energy savings includes both energy savings estimated from the reduction in local pumping of groundwater and estimated from the reduction in transport of imported SWP water to replenish the groundwater basin.

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

The AMI Project energy savings includes the energy currently required to treat pumped groundwater as detailed above. Plumes of various chemical pollutants have been detected in local groundwater basins requiring the installation of well head treatment systems or blending. Rialto will take action to protect and treat supplies when needed, though water quality treatment is known to have significant costs.

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

The AMI Project results in reduced vehicle miles driven, in turn reducing GHG emissions. Installation of AMI will eliminate the need for field customer service representatives to drive nearly 3,888 miles per year throughout the service area (162 total miles of pipeline x 12 months x 2 field technicians) collecting meter readings (water usage data) each month. In addition, the AMI Project results in savings on fuel, truck maintenance and the environmental impacts due to fleet replacement.

The U.S. Environmental Protection Agency website (<https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>) notes that the average passenger vehicle emits about 0.89 pounds (404 grams) of CO₂ per mile.

GHG Reductions from Energy Savings

GHG Emissions Reductions from Reduced Vehicle Miles = 0.89 pounds per mile x 3,888 miles/year = 3,460 pounds of CO₂ per year GHG Reductions from Reduced Vehicle Miles

- 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).

No renewable energy components are proposed as part of the AMI Project.

Evaluation Criterion C: Sustainability Benefits

Enhancing Drought Resiliency

The AMI Project will directly contribute to building drought resiliency by implementing a high caliber and proven water management strategy that emphasizes water reliability, conservation, and increases water use efficiency for habitat protection. All of these factors are critical for ensuring water and ecological sustainability in the future, given the increasing costs of imported water and the severe water supply challenges that Southern California constantly faces.

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

Yes, the Project seeks to improve ecological resiliency to climate change by saving 1,523 AFY of water which results in: 1) decreasing demand on imported water from the Bay-Delta, and 2) increasing water quality by reducing runoff in the Upper Santa Ana River watershed. The City's water supply consists mostly of groundwater, combined with some surface water and recycled water. The Valley District is a SWP contractor that manages the groundwater basins that supply the City's water. Groundwater is recharged with SWP water

any time water allocations are available due to the high variability of available Bay-Delta water supply. Climate change has increased the variability of the supply from the SWP. As the AMI Project seeks to offset imported water deliveries to the City by 1,523 AFY, benefits also include alleviating stress on the Bay-Delta habitat. Rationing water supplies received from the Bay-Delta limits ecological impacts of importing water. More water remaining in the Bay-Delta benefits the CVP and the SWP. The CVP reduces flood risk for the Central Valley, and supplies valley domestic and industrial water. The SWP provides a water supply and delivery system to distribute water across California. Both the CVP and SWP rely on water supply in the Bay-Delta. Reclamation and the California DWR coordinate on the Bay-Delta water balance for uses in the SWP and CVP. Therefore, the CVP benefits from more water remaining in the Bay-Delta and the SWP systems.

Climate change is affecting supply and demand as increasing temperatures may increase evapotranspiration from vegetation along with an increase in water loss due to evaporation in reservoirs. Therefore, climate change is reducing the available amount of supply from the Bay-Delta, causing imbalances between increasing demands from rapid growth and decreasing supplies. Imported water from the Bay-Delta is used to recharge groundwater basins that supply a majority of the City's water to its service area. To meet demand during drought years, the City relies on imported water (Upper Santa Ana River Integrated Regional Watershed Management (IRWM) Plan, 2015, page ES-2) via the Valley District's contract with SWP water. Implementation of the AMI Project will reduce this demand and allow more water to remain in the Bay-Delta to support the 29 known species of fish that once populated the estuary. Currently, 12 of those fish species are considered gone or threatened by extinction. The Bay-Delta is also home to the Delta Smelt, which is a protected species through a 2007 court order. The species' habitat, life cycle, and reproduction rates are adversely affected by water imported via the SWP. It has been observed that the Delta Smelt population does better when outflow is allowed to flow downstream and create a nursery habitat for Delta Smelt in Suisun Bay. With a reduction in this imported water demand, the impact on the Delta Smelt, Salmon and other species currently impacted by water pumping activities, will be alleviated to the Project extent.

The AMI Project is located in the Upper Santa Ana River IRWM Region in San Bernardino County, an area currently suffering from drought. Runoff from the City of Rialto makes its way into the Rialto Channel which connects to the Santa Ana River downstream. The Rialto Channel has plant and animal sensitive areas, including Delhi Sand and the Merriam K Rat, as well as Riversidean Alluvial Fan Sage Scrub (San Bernardino County Areawide Stormwater Program Watershed Action Plan, Appendix L: San Bernardino County [Santa Ana Watershed Region] Rialto Channel Watershed Fact Sheet, November 5, 2014). The Santa Ana Watershed Basin Study (U.S. Department of the Interior, Bureau of Reclamation, September 2013) identified ecosystem habitat as a vulnerability from climate change. In addition, the agencies in the Upper Santa Ana River Region identified the following climate change vulnerabilities: additional imported water supply uncertainty; additional potential challenges to capturing stormwater during more intense storms; water quality impacts due to more frequent and intense wildfires; degraded water quality and aquatic habitat impacts due to higher temperatures; flood system impacts due to more intense storms; and increased irrigation demand due to higher temperatures (Upper Santa Ana River IRWM Plan, 2015, page ES-3). The AMI Project will improve ecological resiliency in the Upper Santa Ana River Watershed by implementing AMI technology as a best practice for improved leak detection, reduced meter inaccuracies, and reduced water consumption through the Customer Portal. Reduced water consumption and improved water savings will positively impact local water management by reducing non-point source pollutants from entering the Rialto Channel and the greater Upper Santa Ana River Watershed region, which covers 852 square miles, approximately 32% of the total Santa Ana River watershed, primarily located in San Bernardino and Riverside Counties. Therefore, the AMI Project will protect local ecology, and allow the City to adapt to changes in the environment, including drought conditions currently impacting the water supply.

- **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).**

The AMI Project provides environmental benefits and improves the status of state listed species by making more water available in the Bay-Delta to support the species and their habitats. In 2020, a total of 23,504 AF of imported water was moved by the Valley District from the northern California Bay-Delta area through the SWP to support groundwater recharge to meet the City's demand for water. With a reduction in this imported water demand by 1,523 AFY through the AMI Project, the impact on the habitats of the Delta Smelt, Salmon, and other state listed species currently impacted by water pumping activities will be alleviated to the extent of the AMI Project. This benefit will be realized for the 20-year life of the Project.

- **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).**

The AMI Project provides environmental benefits and improves the status of the state listed species by making more water available in the Bay-Delta and Santa Ana River to support the species and their habitats. The City's water supply consists of groundwater, surface water, and recycled water. The City primarily draws groundwater for their water supply, and as a result, the Valley District imports water from the SWP for groundwater basin recharge and management. As the AMI Project seeks to offset imported water deliveries to the region by 1,523 AFY, benefits also include alleviating stress on the Bay-Delta habitat. In the last five years, between 23,504 AFY and 78,396 AFY of imported water was moved from the northern California Bay-Delta area through the SWP for groundwater basin recharge and management to meet the region's demand for water. Rationing water supplies received from the Bay-Delta helps limit the ecological impact of importing water. Twenty-nine known species of fish once populated the estuary, and currently 12 of those species are considered gone or threatened by extinction. The Bay-Delta is also home to the Delta Smelt, which is a protected species through a 2007 court order. The Delta Smelt are endemic to the upper Sacramento-San Joaquin Estuary of California, and are threatened with extinction due to anthropogenic alterations to their ecosystem, including urbanization, non-native species, water diversions, contaminants, and the conversion of complex tidal habitats to leveed channels. The Delta Smelt species is subject to a recovery plan under the Endangered Species Act, and was included in the Recovery Plan for the Sacramento-San Joaquin Delta Native Fishes initially approved in November 1996. Efforts to protect the endangered fish from further decline have focused on limiting or modifying the large-scale pumping activities of state and federal water projects at the southern end of the estuary. However, these efforts have not prevented the species from becoming functionally extinct in the wild. They were listed as threatened by both federal and state governments in 1993, and sustained record-low abundance indices prompted their listing as endangered under the California Endangered Species Act in 2010. Any reduction in water use from the SWP for this region has a positive impact on the species in and around the Bay-Delta area. With a reduction in this imported water demand by 1,523 AFY as a result of the AMI Project, the impact on the Delta Smelt, Salmon, and other state listed species currently impacted by water pumping activities will be alleviated.

The AMI Project will upgrade (replace and/or retrofit) meters throughout the City of Rialto service area, which is in the Upper Santa Ana River watershed. As described in the Upper Santa Ana River Habitat Conservation Plan (HCP), the Santa Ana River contains a variety of riverine conditions and habitat types that support a number of fish species throughout nearly the entire river when winter and spring flows are present. The Santa

Ana River wash is a state-designated Significant Natural Area (Upper Santa Ana River IRWM Plan, 2015, page 2-51). Approximately 27 sensitive plant and animal species are known to occur in the wash. About 760 acres of land belonging to the U.S. Bureau of Land Management (BLM) land within the Upper Santa Ana River wash area have been designated by BLM as an Area of Critical Environmental Concern (ACEC) because of the presence of the federally listed species, the Santa Ana River woolly-star, and the San Bernardino kangaroo rat (U.S. Fish and Wildlife Service, 1988). The AMI Project will have a positive impact on the Santa Ana River watershed by conserving water and reducing leaks, thereby reducing runoff and nonpoint source pollutants that would otherwise make its way into the habitats of these listed species. The AMI Project includes retrofitting or replacing existing meters and will have no negative impact on the listed species in the Santa Ana River HCP. Instead, the Project may contribute to its protection by reducing the amount of nonpoint source pollution entering its waters.

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

Ecosystem benefits as a direct result of the Project include protecting groundwater basins or aquifers. Groundwater basins are an important part of the hydrology that supports local ecosystem functions, as identified in the Santa Ana Watershed Project Authority (SAWPA) IRWM Plan titled, "One Water, One Watershed Plan (OWOW) Update 2018" (OWOW Plan). Management of water quality in the groundwater basins of the watershed is essential to preserving their utility. Groundwater basins are the watershed's most important local water storage tool, and salinity levels are a primary consideration for maintaining a high quality, reliable water supply. By reducing the demand on groundwater, more water will remain in the basins to reduce salinity levels for local ecological habitat.

- **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?**

The AMI Project directly results in more efficient management of the water supply in the SWP and the City's groundwater. The City's groundwater supply is highly variable due to weather and drought conditions. For example, the City's groundwater manager, the Valley District, was unable to purchase SWP water this year because of a decrease down to 5% in SWP water supply allocation due to drought conditions. The imported water supplies saved by the AMI Project will provide water to other agencies for agricultural, municipal, industrial, environmental, and recreational purposes. Any water saved that reduces the City's demand for these imported water supplies provides more water for other SWP water users, benefiting multiple water users and the environment.

To manage system water losses and reduce leaks, enhanced metering and leak detection are identified as demand management measures in the City's 2020 UWMP. The City's 2020 UWMP includes a Water Shortage Contingency Plan that also discusses water use, water loss, and water conservation measures required to reduce water loss throughout the City's service area. The AMI Project improves water management by providing leak detection, water loss reduction, and increased customer metering accuracy through real time water use data, including the Customer Portal. This more efficient use of water supplies reduces the City's water demand and provides greater flexibility to the Valley District and City water managers, resulting in more efficient use of imported SWP water and local groundwater supplies.

Addressing a specific water and/or energy sustainability concern(s).

- **Explain and provide detail of the specific issue(s) in the area that is impacting water sustainability, such as shortages due to drought and/or climate change, increased demand, or reduced deliveries.**

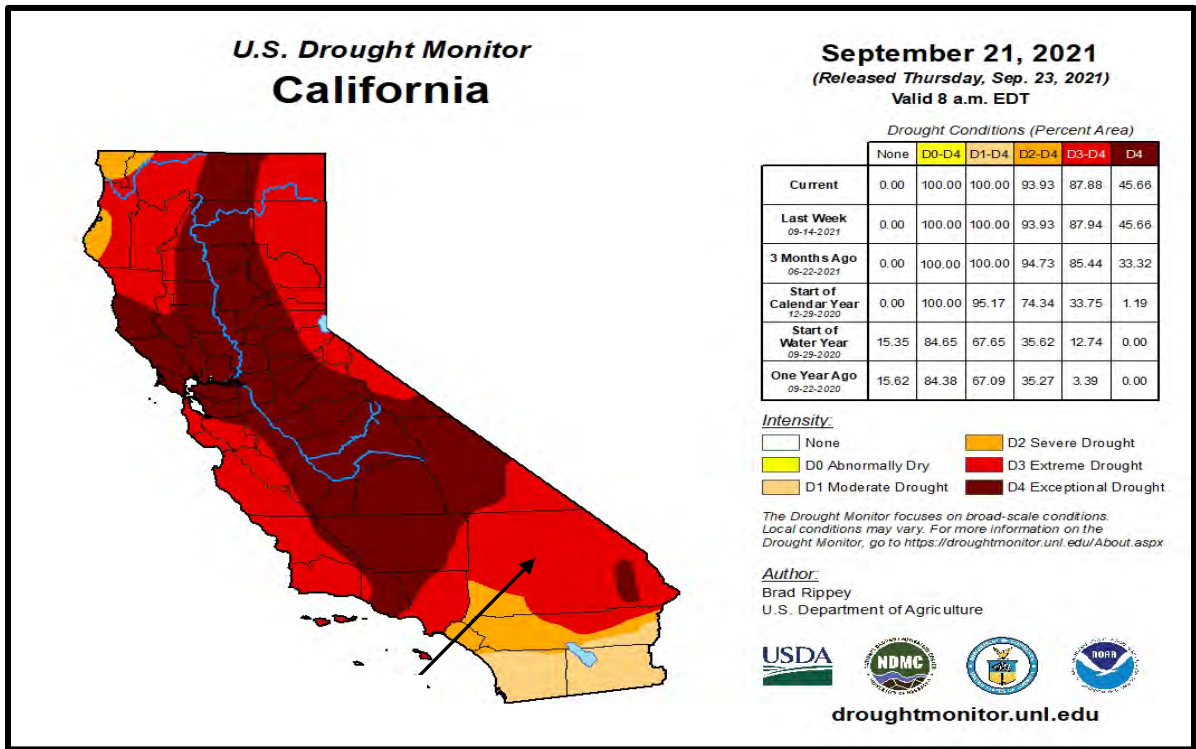
The AMI Project will address the water sustainability concern of limited supply and drought conditions in San Bernardino County, California by saving 1,523 AFY of imported potable water. California's water supply sustainability has been an increasing concern as water suppliers work to manage water demands versus environmental impacts. California has experienced historic drought conditions across the state. San Bernardino County is experiencing severe drought conditions, and the majority of California is experiencing extreme to exceptional drought conditions per the U.S. Drought Monitor's Map (**Figure 4**) on the next page.

The proposed Project is located in the Upper Santa Ana River IRWM Region in San Bernardino County, an area currently suffering from drought. This Region is highly dependent on its local water supplies, particularly precipitation stored as groundwater, which provides approximately 67% of supplies during average years and over 70% of supplies during drought years. To meet demand during drought years, the region relies on local supplies and imported water from storage (Upper Santa Ana River IRWM Plan, 2015, page ES-2).

The drought's impacts have been felt by communities in the service area since January 2014 when Governor Brown issued a drought emergency and directed state officials to take all necessary actions to prepare for the drought conditions and called upon every Californian to conserve water. As water supplies continued to diminish, the Governor's office called on all water agencies to implement drought measures to reduce water demands, and DWR reduced SWP allocations for southern California contractors to zero on January 31, 2014, and then 5% for 2014. Water resources remained very low throughout the entire state with DWR restricting SWP suppliers to 15-20% of their requested allotments until April of 2017 when heavy precipitation occurred across the state. This presented a new problem of landslides and flooding as severe storms swept through the area, resulting in a new declared emergency for severe storms. California has faced many droughts and strong precipitation cycles, and the City is also plagued by severe, dry desert winds with gusts up to 50 miles per hour (known as the Santa Ana Winds) that get channeled through nearby Cajon Pass, particularly during the autumn months. The Santa Ana winds' low humidity, combined with the warm air mass and high wind speeds, create critical fire weather conditions, making them infamous for fanning regional wildfires. As such, the City has endured severe wildfires.

California faced unmatched drought conditions in 2015 and 2016 after experiencing the hottest year on record in 2014 and the driest year ever recorded in 2013. 2015 had some of the warmest and driest months on record, including a record low snowpack in the Sierra Nevada. Even with the storms of 2020, the U.S. Drought Monitor declared the majority of San Bernardino County, California, as primarily in extreme drought in 2021 as shown in **Figure 4** on the next page. The entire state of California is in an intensifying drought with record-breaking temperatures and lack of rainfall across the Western United States.

Figure 4. U.S. Drought Monitor Map



A summary of some of the measures California has taken to address current drought conditions are as follows:

- March 23, 2021 – California DWR announced five percent (5%) allocation to State Project Contractors.
- April 21, 2021 – California Governor Newsom issued a proclamation directing state agencies to take immediate action to bolster drought resilience and proclaiming a State of Emergency to exist in Mendocino and Sonoma counties due to severe drought conditions in the Russian River watershed.
- May 10, 2021 – California Governor Newsom issued another proclamation expanding the State of Emergency to an additional 39 counties with regards to the ongoing drought conditions.
- July 8, 2021 – California Governor Newsom added nine counties (bringing the total to 50 out of 58 counties) to the regional drought State of Emergency and issued an Executive Order calling for Californians to voluntarily reduce water usage by 15% over 2020 levels.
- August 3, 2021 – State Water Resources Control Board approves emergency curtailment measures for Sacramento-San Joaquin Delta watershed.
- August 16, 2021 – Reclamation declares first ever water shortage for Colorado River.
- August 20, 2021 – California State Water Resources Control Board issues emergency curtailment measures for Sacramento-San Joaquin Delta watershed.
- October 19, 2021– California Governor Newsom issued another proclamation expanding the ongoing drought State of Emergency statewide to all 58 counties, including San Bernardino County.

The City of Rialto is located in a semi-arid environment. The local groundwater and surface water supplies are influenced by annual precipitation. In extended drought conditions, the surface water supplies in the Lytle Creek region can be severely impacted. In addition, groundwater levels in the Lytle Creek Basin have been known to drop over 300 feet during extended drought periods. As a result, the City is vulnerable to water shortages due to seasonal hot weather and climatic influences. Further, the City's pumping rights in the Rialto Basin are determined by groundwater levels. While the City and the Rialto Basin Groundwater Council plan to recharge the basin to increase water levels, the City's pumping rights could be reduced if groundwater levels decline. Efforts to reduce the City's water demand will also benefit other local and regional communities that rely on pumped groundwater or imported water sources. The City maintains emergency stand-by agreements and mutual aid agreements with local agencies to help mitigate the impact of water shortages; however, these same agencies would similarly be impacted by drought conditions.

The use of AMI technology to identify and reduce water losses and water waste is of great importance to the City due to the semi-arid climate and existing constraints on water supply (i.e., pollution and drought). The City's improvements in water use efficiency will free up additional supply to address shortages locally and throughout the region. Drought impacts to the region, including the City service area, are shown in **Table 1**.

On March 11, 2021, the National Oceanic Atmospheric Administration and National Integrated Drought Information Systems reported on their website, [Drought.gov](https://drought.gov), that California (and Nevada) remains entrenched in moderate-to-exceptional drought as the fifth into sixth consecutive dry months since October, likely ensuring that the region will suffer back-to-back dry water years. In California, 91% of the state is in drought, according to the U.S. Drought Monitor. On March 2, 2021 DWR conducted the third manual snow survey of the season at Phillips Station. Statewide snow survey measurements continue to reflect the overall dry conditions with statewide snow water equivalent at 15.5 inches, or 58% of the March 11 average, and 55% of the April 1 average. Storage in the largest northern California reservoirs is well below average, reflecting cumulative impacts from a dry 2020. Virtually all the state remains in a precipitation deficit. Drought impacts (e.g., pasture conditions, ecosystem health, water supply, fire potential) will likely intensify and expand given back-to-back dry years. Drought preparedness is key.

Typically, California relies on a handful of large storms. On average, the snowpack supplies about 30% of California's water needs as it melts in the spring and early summer. Per the California DWR, as of September 24, 2021, California's five largest reservoirs held between 27% (San Luis) and 63% (Melones) of their historical averages for that date. Lake Shasta, California's largest surface reservoir, was 40% of its historical average and 20% of total capacity.

Water conserved as a result of the AMI Project's implementation represents a decrease in the amount imported by the Valley District; thereby, the conserved water will remain at its source in the Bay-Delta for other uses. The AMI Project will yield real water supply benefits to urban water users in the short term by conserving 1,523 AFY, directly offsetting approximately 17.1% of the City's water demand (8,929 AFY in 2020). This benefit will be realized annually, year-round for the 20-year life of the Project.

Table 1. Summary of Drought Impacts

Risk to Drinking Water	Risk to Ecosystem	Risk to Groundwater	Other Drought Related Impacts
<ul style="list-style-type: none"> - San Bernardino County in a state of extreme drought in 2021 - Not receiving imported water supply for groundwater recharge and management during catastrophic or drought conditions 	<ul style="list-style-type: none"> - Hydrologic modifications threaten the Santa Ana Sucker and the other 21 species in the Upper Santa Ana River HCP - Spread of nonnative Arundo donax and other invasive plant species - Oak trees show signs of stress - Instability in soil and slopes due to weak tree/vegetation roots 	<ul style="list-style-type: none"> - During drought conditions, groundwater supply is low due to limited rainfall and surface water replenishing the groundwater basins - Increased groundwater quality issues due to decreased flows infiltrating into basins and increased groundwater pumping 	<ul style="list-style-type: none"> - Increase in water demands for landscape use due to higher temperatures - Catastrophic wildfires, including 2003 Grand Prix Fire that threatened Rialto and affected parts of the Fontana, Rancho Cucamonga, Upland, Claremont, and parts of the National Forests - Post-wildfire conditions threatening surface water quality due to increased sediment and contaminant flow within the watershed - Limited imported water supply threatens residents, including disadvantaged communities and business, impacting real estate property values, if water is not available for irrigation - Tension over finite water supplies - GHG emissions contributing to decline in the San Bernardino Forest Ecosystems

• 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.

The City of Rialto is progressively addressing the high demand on energy and reliance on fossil fuels required to deliver water to its service area. Per the City's 2020 UWMP, in 2020, Rialto consumed a total of 611.5 kWh of energy per AF for all water facilities. The City of Rialto's service area is in the Upper Santa Ana River watershed, and is part of their OWOW Plan. The OWOW Plan recognizes the reality that nearly all water resource infrastructure requires energy, and approximately 19% of all energy in California is used to transport, treat, and heat water. On page 5-51 of the OWOW Plan, it states that one of the goals of the plan is to meet GHG reduction targets.

In response to the need to reduce energy consumption while meeting its water demands, the City of Rialto, in partnership with Rialto Water Services and Veolia North America, have announced their joint commitment to the next phase of an ambitious plan to design and install a microgrid powered through a unique combination of biogas cogeneration, solar power and backup battery storage to supply electricity for the City's wastewater treatment plant. Although the proposed AMI Project will not directly impact the microgrid project, reduced water consumption means reduced wastewater processing, contributing to the City's overall goal to reduce energy consumption to address climate change impacts on water supplies.

The innovative microgrid project, one of the first of its kind in California, is meant to bring the City greater energy independence, resilience and efficiency to protect its essential wastewater treatment system. As quoted in Water World Magazine, March 19, 2021 in the article, "Veolia NA, Rialto Water partner on wastewater microgrid project", the following was stated: "As California and the rest of the country contend with a growing number of natural disasters linked to climate change -- including widespread power outages and brownouts caused by heat waves and wildfires -- the resilience offered by a microgrid power source is more important than ever," said Rialto Mayor Deborah Robertson. "We recognize that the time has come to

invest and think boldly and creatively in protecting our resources," she said. "This project represents a great step forward in the way municipalities like ours can take positive steps toward a more green future." Veolia operates and maintains the treatment plant on behalf of the City and its partner, Rialto Water Services. Besides the positive impact the microgrid project will have on energy efficiency and resilience, it will also contribute significantly to protecting crucial natural resources in the area. Rialto Mayor Pro Tem Ed Scott pointed out that the wastewater treatment plant is located near an environmentally sensitive waterway (the Santa Ana River) which supports a population of endangered Santa Ana suckerfish. Once the new microgrid is in place, the plant will be less vulnerable to power outages that could cause the plant to shut down and lead to potential wastewater spills into nearby waterways. "We know there is a great deal of concern about the endangered species which rely on our local resources," Mayor Pro Tem Scott said. "We are proud to partner with government and grassroots level environmental groups to make the survival of the suckerfish and other species more secure." The microgrid project is expected to be completed in 2024.

- **Please describe how the project will directly address the concern(s) stated above. For example, if experiencing shortages due to drought or climate change, how will the project directly address and confront the shortages?**

The AMI Project will assist in reducing demands on energy by saving 5,500,315 kWh of energy per year through saving/conserving 1,523 AFY of water. The AMI Project also directly addresses the current drought conditions by reducing the demand on SWP (Bay-Delta) and the groundwater basins. Groundwater is produced in the San Bernardino Basin, which is recharged by SWP water supply. Even in wet years, the Valley District (who manages the groundwater basins [four subbasins] on the City's behalf), recharges the basins using SWP water when it becomes available in the north, Bay-Delta region. When water is available, regardless of the hydrological cycle, SWP water is imported to replenish the groundwater basins because the Valley District does not know how much SWP water will be available in the coming months or years in the Bay-Delta region. Notably, there was no SWP purchase this year, as SWP contract allocations went down to only 5%. Also, low levels of water stored in Oroville Dam reflect the current drought conditions; therefore, the City and the Valley District are planning with the assumption of a 0% SWP allocation in 2022. This means the region is relying heavily on local groundwater supplies for this next year. The groundwater supplies are impacted with poor water quality, requiring treatment. Implementation of the AMI Project will significantly reduce the overall potable water demand and, therefore, reduce the demand on stored groundwater and future SWP imported water supply, when available.

- **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.**

The AMI Project will help reduce demand on the SWP by conserving 1,523 AFY of water, allowing this same amount of water to remain at its source in the Bay-Delta to support other uses, such as the CVP. Both the SWP and CVP rely on water in the Bay-Delta to provide water supply across California and for flood management. Reclamation and the California DWR coordinate on the balance of water in the Bay-Delta for uses in the SWP and CVP. Therefore, the SWP and CVP both benefit from more water remaining in the Bay-Delta.

The City is reliant on groundwater for its potable supply and reliant on imported water to recharge and manage the groundwater basins to meet its service area demands. In 2020, the City's water supply consisted of 7,346 AFY of groundwater, 1,583 AFY of surface water (Lytle Creek), and 0 AFY recycled water, for a total of 8,929

AFY of actual water supply. This amounts to groundwater providing approximately 82% of the City's total water supply, with SWP water used to replenish the groundwater basins.

The water conserved by the AMI Project will be used to offset imported water demands, and diversions from the SWP via the Valley District. Therefore, the conserved water will remain at its source in the Bay-Delta for other uses. The AMI Project will yield real water supply benefits to urban water users in the short term by conserving 1,523 AFY, directly offsetting approximately 17.1% of the City's total water demand (8,929 AFY in 2020). This benefit will be realized annually, year-round for the 20-year life of the Project.

The AMI Project will improve the reliability of water supplies from the SWP, which would ultimately benefit people and the environment associated with SWP water supply sources. AMI technology provides near-real time usage data that can be compared to City supplies, allowing staff to better manage water resources. AMI provides alerts concerning potential water losses and/or waste to both the City and the customer, providing two points of notification to facilitate a faster resolution to stop the water loss. When water resources are finite as they are by restricted water rights and dependence upon imported sources, implementation of all projects that improve reliability and help the City to consistently meet water demands is essential.

The AMI Project will result in an additional availability of approximately 1,523 AFY of water that will otherwise be lost and unavailable to the City and the Inland Empire Region, or the conserved water will remain at its source in the Bay-Delta for environmental and other uses.

California faced unmatched drought conditions in recent years – 2013 was the driest year ever recorded and 2014 was the hottest year on record. 2015 had some of the warmest and driest months on record, including a record low snowpack in the Sierra Nevada. In March 2019, for the first time since December 20, 2011, California was free of drought. The state had experienced some form of drought for 376 consecutive weeks – more than seven years. However, the dry start to 2020 reintroduced drought into California, which had been erased after a wet December 2019. Temperatures were above average during spring 2020 throughout much of the West. Widespread drier-than-normal conditions occurred in spring though some regions experienced wetter than normal months.

The SWP typically provides about a third of Southern California's water. Storage in southern California's other primary supply source, the Colorado River, stood at less than 50% of capacity in 2018 after 15 drought years in the Southwest. According to Reclamation's Current Status Report on Glen Canyon Dam (September 15, 2021 available online at: <https://www.usbr.gov/uc/water/crsp/cs/gcd.html>), at the beginning of water year 2021, total system storage in the Colorado River Basin was 28.88 million acre-feet (MAF), which is 48% of the 59.6 MAF total system capacity). This is a decrease of 2.77 MAF over the total storage at the beginning of water year 2020 when total system storage was 31.64 MAF (53% of capacity). Based on current inflow forecasts, the current projected end of water year total Colorado Basin reservoir storage for water year 2021 is approximately 22.94 MAF (38% of total system capacity). Imported water is impacted by climate variation by being greatly limited during the current and projected drought conditions. Climate variation presents unpredictable weather patterns and unreliable supplies of water. Therefore, the reliability of imported water availability has been significantly reduced.

The AMI Project will directly contribute to building drought resiliency by implementing a high caliber and proven water management strategy that emphasizes water reliability, conservation, and increase water use efficiency. All of these factors are critical for ensuring water supply sustainability in the future, given the increasing costs of imported water and the severe water supply challenges that Southern California constantly faces.

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

The conserved water will be reflected in reduced potable demands in the City's water supply, making more water available to support SWP and Bay-Delta ecosystem by leaving more water in the Bay-Delta. The water saved as a result of this Project will allow the City to pump less groundwater and allow the Valley District to import less potable water for groundwater basin recharge and management. The City's groundwater supply is highly variable due to weather and drought conditions. For example, there was no SWP purchase this year, as SWP contract allocations went down to only 5%, and low levels of water stored in Oroville Dam reflect the current drought conditions. Therefore, the City and the Valley District are planning with the assumption of a 0% SWP allocation in 2022. The imported water supplies utilized for groundwater recharge and management saved by the AMI Project can provide water to other agencies for agricultural, municipal, industrial, environmental, and recreational purposes. Water saved reduces the City's demand for these imported water supplies providing more water for other SWP water users, benefiting multiple water users and the environment.

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

The AMI Project will yield real water supply benefits to urban water users in the short term by conserving 1,523 AFY, directly offsetting approximately 17.1% of the City's total actual water demand of 8,929 AFY (2020). This benefit will be realized annually, year-round for the 20-year life of the Project.

Other Project Benefits

(1) Combating the Climate Crisis:

- o **Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.**

The AMI Project addresses the impacts of climate change and helps to combat the climate crisis by reducing water and energy consumption due to decreased water loss and increased conservation, reducing the amount of water needed to be pumped, imported or recycled locally. The Project also decreases fuel consumption because installation of AMI eliminates the need for field representatives to drive nearly 3,888 miles per year throughout the service area (162 total miles of pipeline x 12 months x 2 field technicians) collecting meter readings (water usage data) each month, resulting in an estimated fuel savings of approximately 200 gallons each year, reducing its carbon footprint, in addition to savings on truck maintenance and the environmental impacts due to fleet replacement.

- o **Does this proposed project strengthen water supply sustainability to increase resilience to climate change?**

The AMI Project strengthens water supply sustainability to increase resilience to climate change by providing the public with enhanced water use awareness and water conservation education, immediately, for the life of the Project, and beyond as potential upgrades are made. The proposed Customer Portal will provide customers with access to daily water usage data and serve as a dynamic tool to educate water users about the importance of water conservation and water use efficiency and emphasize the need to take a proactive role in their water use management. The City has a strong customer service program that has led to great partnerships and relationships with the water users in the City service area, and the AMI Project will integrate a proactive outreach and education program to promote the capabilities and tools offered by the AMI Project's Customer Portal.

In addition, the AMI Project is market-transformative and could become mainstream based on beneficial results. The AMI Project will assist the City in serving as an example of effective water use efficiency and water conservation to other water agencies that are also heavily dependent on imported water supplies. The region includes many other water suppliers that could use the collective results of the AMI Project to advance water conservation improvement measures. For example, recent successful AMI project implementation by South Coast Water District, Laguna Beach County Water District, Moulton Niguel Water District, and others in the southern California region were a key factor in the City pursuing the AMI Project for its service area to reduce demand.

o Will the proposed project establish and utilize a renewable energy source?

No, the AMI Project will not establish and utilize a renewable energy source.

o Will the project result in lower greenhouse gas emissions?

Yes, the AMI Project will result in lower GHG emissions. A total of 3,355,192 lbs. of CO₂ will be saved annually as a result of the AMI Project's estimated energy savings from water savings of 1,523 AFY.

(2) Disadvantaged or Underserved Communities:

- a. Does the proposed project directly serve and/or benefit a disadvantaged or historically underserved community? Benefits can include, but are not limited to, public health and safety through water quality improvements, new water supplies, new renewable energy sources, or economic growth opportunities.**

The AMI Project is needed to ensure disadvantaged communities (DACs) in the City of Rialto have a reliable, affordable potable water supply. As defined by the California DWR, DACs are census geographies with an annual median household income (MHI) that is less than 80% of the Statewide annual MHI. Severely Disadvantaged Communities (SDACs) are census geographies having less than 60% of the Statewide annual MHI. DACs reside in the City's service area as shown in **Figure 5**.

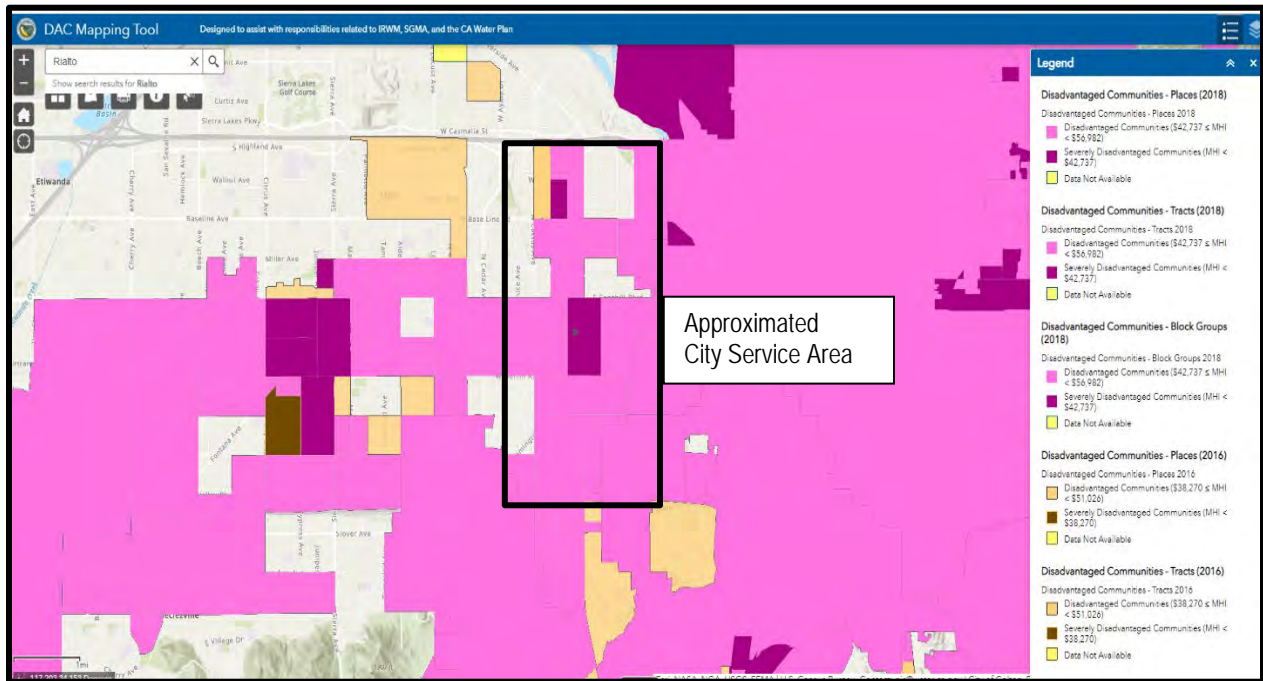
The AMI Project's water savings of 1,523 AFY will help to provide a reliable supply for the City's low-income households and DACs. Integrating system-wide water conservation measures is critical for meeting water supply demands. From a social equality and environmental justice perspective, water must be served to lower income households as a priority. California SB 1087 requires water use projections in an UWMP include the projected water use for single-family and multi-family residential housing for lower income households as identified in the housing element of any city, county, or city and county in the service area of the supplier. The City of Rialto adopted its General Plan Update in 2010. According to the updated housing element in the Rialto General Plan, it is estimated that about 41% of all Rialto households qualify as lower income. These lower-income water demands have been included in future demand projections, as shown in **Table 2** below.

Table 2. Estimated Demands for Lower-Income Households (AF)

Demand	2015	2020	2025	2030	2035	2040
Residential	2,450	3,051	3,234	3,427	3,632	3,850
Total	2,450	3,051	3,234	3,427	3,632	3,850

Source: 2015 San Bernardino Valley Regional Urban Water Management Plan, Chapter 14 City of Rialto, Table 14-7. Estimated Demands for Low-Income Households, page 14-7.

Figure 5. Disadvantaged Communities within City of Rialto Service Area



- b. If the proposed project is providing benefits to a disadvantaged community, provide sufficient information to demonstrate that the community meets the disadvantaged community definition in Section 1015 of the Cooperative Watershed Act, which is defined as a community with an annual median household income that is less than 100 percent of the statewide annual median household income for the State, or the applicable state criteria for determining disadvantaged status.

According to the City's 2020 UWMP, the City of Rialto includes DACs, and it is estimated that about 41% of all Rialto households qualify as lower income as defined by the 2020 UWMP State Guidelines (Southern California Association of Governments 6th Cycle Regional Housing Needs Allocation [RHNA]). A lower income household is defined as a household earning below 80% of the MHI. California DWR recommends retail suppliers rely on the housing elements of city or county general plans to quantify planned lower income housing with the City's service area (DWR, 2020 UWMP Guidebook, March 2021). The Regional Housing Needs Assessment (RHNA) assists jurisdictions in updating general plan's housing elements section. The RHNA identifies housing needs and assesses households by income level for the City through the 2010 United States Census. While the 2020 Census is not available yet, the City's 2020 UWMP total water use projections includes water use projections for single-family and multi-family residential housing for lower income and affordable households using the 41% level of lower income households, which is fairly consistent with the City's 2010 General Plan Housing Element. This assists the City in complying with the requirement granting priority for providing water service to lower income households.

- c. If the proposed project is providing benefits to an underserved community, provide sufficient information to demonstrate that the community meets the underserved definition in E.O. 13985, which includes populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.

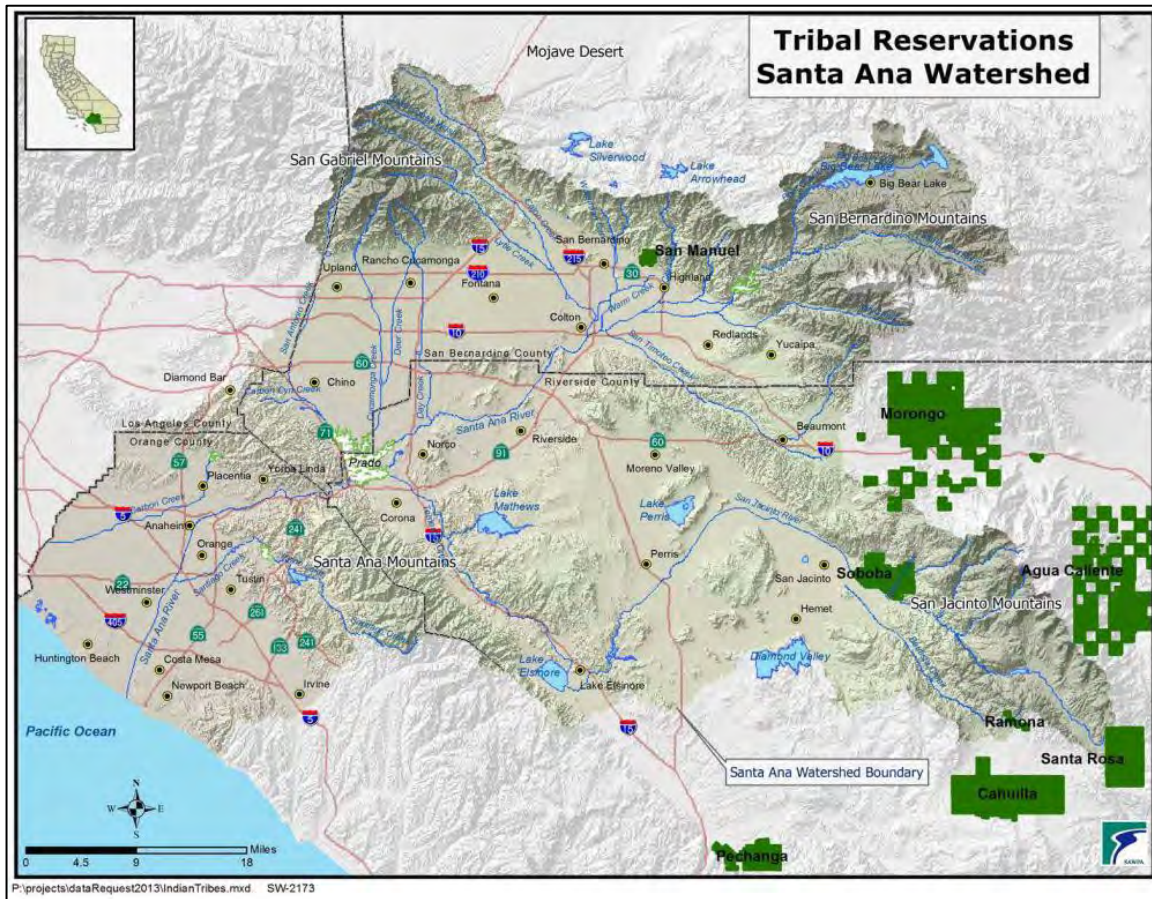
The term “underserved communities” refers to populations sharing a particular characteristic, as well as geographic communities, who have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life. In the context of the Federal workforce, this term includes individuals who belong to communities of color, such as Black and African American, Hispanic and Latino, Native American, Alaska Native and Indigenous, Asian American, Native Hawaiian and Pacific Islander, Middle Eastern, and North African persons. The 2010 United States Census reported that the racial makeup of the City of Rialto was 44.0% White, 16.4% African American, 1.1% Native American, 2.3% Asian, 0.4% Pacific Islander, 31.3% from other races, and 4.7% from two or more races. Hispanic or Latino of any race were 67.6%. Therefore, implementation of the AMI Project throughout the City’s service area will conserve water and benefit members of underserved communities as identified in the 2010 U.S. Census for the City of Rialto.

(3) Tribal Benefits:

- a. 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?

The AMI Project will directly benefit tribes in the Santa Ana River watershed. Reclamation was a key partner in developing the Summary Report for the Santa Ana Watershed Basin Study (U.S. Department of the Interior Bureau of Reclamation, September 2013), along with SAWPA, and members of the OWOW Committee. The City of Rialto is a member agency of the Valley District, which is a member of SAWPA, and is an active member of the OWOW Committee and the OWOW Basin Monitoring Task Force, Emerging Constituents Task Force, and Main Santa Ana River Total Maximum Daily Load Task Force. Chapter 6 of the Summary Report discussed tribal communities in the watershed. Reducing demand on imported potable supplies ensures local groundwater supply reliability for tribal communities in the Santa Ana River watershed. **Figure 6** below identifies the locations of tribal reservations throughout the Santa Ana watershed. On a statewide level, the AMI Project may also help Reclamation meet trust responsibilities in the SWP area since the AMI Project will be reducing demand on this source. Any increase in water supply sustainability and greater availability in overall water supply resulting from water use efficiency efforts would help Reclamation in meeting the federal Indian trust responsibility, a legally enforceable fiduciary obligation on the part of the United States to protect tribal treaty rights, lands, assets, and resources, of the Tribes. The AMI Project will not provide renewable energy for an Indian Tribe.

Figure 6. Tribal Reservations in the Santa Ana Watershed

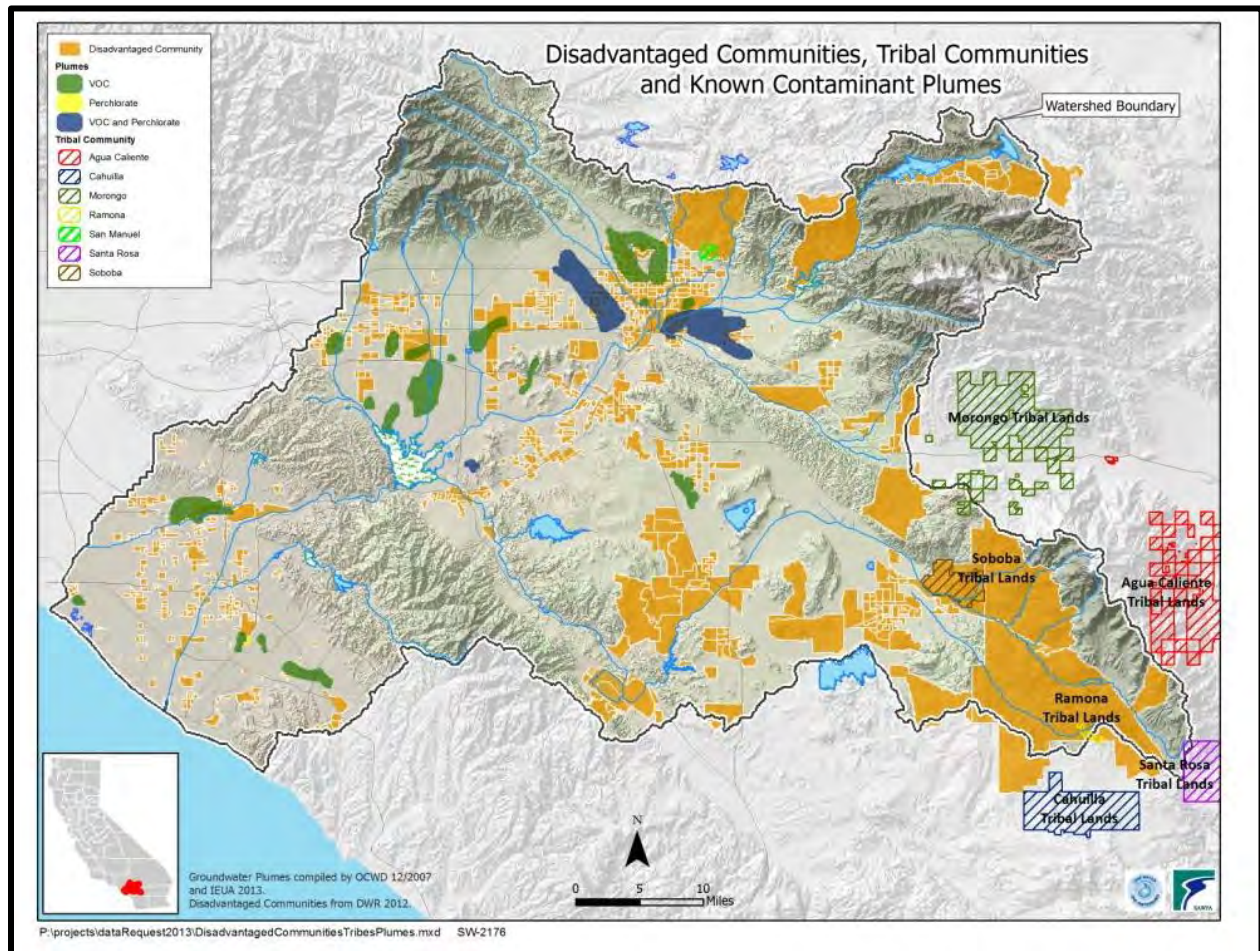


- b. Does the proposed project directly support tribal resilience to climate change and drought impacts or provide other tribal benefits such as improved public health and safety through water quality improvements, new water supplies, or economic growth opportunities?

The AMI Project supports tribal resilience to climate change and drought impacts by reducing runoff and nonpoint source pollution in the Santa Ana River watershed, where tribes reside. Reclamation was a key partner in developing the Overview of Disadvantaged Communities and Native American Tribes in the Santa Ana River Watershed (U.S. Department of the Interior Bureau of Reclamation, August 2013), along with SAWPA, and members of the OWOW Committee. The City of Rialto participated in the Study development, which analyzed DACs and Native American tribes in the Santa Ana River watershed, and the connection with water resources and water quality. Areas of water contamination were identified near tribal communities. The goal of the study effort is to help protect the quantity and quality of water resources for tribal communities. The AMI Project will directly benefit the following tribes in the Santa Ana River watershed by reducing nonpoint source pollution into existing groundwater supplies: Soboba Band of Luiseno Indians, San Manuel Band of Serrano Mission Indians, Morongo Band of Mission Indians, and the Santa Rosa Band of Cahuilla Indians. **Figure 7** below identifies the locations of DACs and Tribal Communities and Known Contaminant Plumes. A reduction in pollutants making their way into existing contaminant plumes will aid in enhancing the water quality for DACs and Native American tribes.

On a statewide scale, water conserved as a result of the AMI Project will reduce demands on the Bay-Delta, making more water available in the Bay-Delta for tribes that rely on the SWP as a source of water. The AMI Project reduces demands on imported supply from the SWP, as the City relies on imported water from SWP from the Valley District, which currently relies on the Bay-Delta to replenish groundwater basins as their primary source of water. The AMI Project will decrease imported water demand by up to 1,523 AFY through water conservation and will ultimately benefit the Bay-Delta by reduced demand on this source. Imported water savings associated with the AMI Project translate to more water remaining in the fragile Bay-Delta systems.

Figure 7. DACs, Tribal Communities and Known Contaminant Plumes



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

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

The City of Rialto relies on imported water from the SWP (Bay-Delta) to recharge its groundwater basins via the Valley District who is a SWP contractor. Southern California relies heavily on the imported water from the SWP and Colorado River Aqueduct (CRA). By conserving 1,523 AFY of water, the AMI Project reduces the demand on SWP water and makes more water available in the Bay-Delta. This indirectly reduces demand on the Colorado River, as half the state of California relies on the CRA for water supply. A decrease in demand in one source of imported water supply positively impacts the other source since the SWP and CRA

are the two primary sources of potable water for Southern California. The Colorado River Interstate Water Compact of 1922 was an agreement among several western states including Arizona, Nevada, Colorado, California, New Mexico, Utah, and Wyoming that allocated water rights to particular bodies of water to the part states. The purpose of the compact was to provide equitable division and apportionment of the use of the water of the Colorado River System; establish the relative importance of the different beneficial uses of water; to promote interstate comity; remove causes of present and future controversies; source the expeditious agriculture and industrial development of Colorado River Basin, the storage of its waters; and the protection of life and property from floods. The compact lives on today and any reduction in demand on the SWP or CRA helps California and other states in the compact comply with their water rights agreement.

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

The AMI Project will benefit environmental and recreational sectors through water conservation, reduced leaks, and reduced nonpoint source pollution entering the nearby Rialto Channel, which connects downstream to the Santa Ana River. The AMI Project is located in the Upper Santa Ana River watershed. The Upper Santa Ana River Watershed Region contains extraordinary natural resources, including the San Bernardino National Forest, which serves as the headwaters for the Santa Ana River. Downstream, the Santa Ana River and its tributaries provide habitat to riparian and aquatic species, and provide connectivity to upland habitats. The scrub, woodland, and riparian habitats in the Region support innumerable species, including species of concern such as the San Bernardino kangaroo rat, Santa Ana River wooly star, and Slender-Horned spine flower. The importance of the Region's habitats is underscored by the multiple environmental and ecological management plans currently in place, including the Western Riverside County Multi-Species Habitat Conservation Plan, Upper Santa Ana Wash Land Management and Habitat Conservation Plan, and Upper Santa Ana River Habitat Conservation Plan. In addition to serving as habitat, these areas provide valuable open space and recreational areas for the residents of and visitors to the Region. The AMI Project will help reduce the nonpoint source pollutants from impacting the environmental and recreational benefits of the Upper Santa Ana River Watershed Region.

c. Will the project benefit a larger initiative to address sustainability?

The AMI Project will benefit the larger water reliability initiatives to reduce and maintain reductions in statewide urban water use by 20%, and support the Valley District's water reliability plans to reduce demand on the SWP. A total of 1,523 AFY will be conserved by the AMI Project benefitting the larger municipal initiative that was to achieve the statewide goal of 20% reduction in urban water use by 2020 as mandated by SBX7-7, or the Water Conservation Act of 2009, and maintain that reduction into the future. Future California reduction goals also include Water Use Objectives that subscribe to a specified gallons per capita per day for indoor and outdoor use, currently under development by DWR, which the AMI Project will also support. Potable water savings from the AMI Project will directly reduce the amount of groundwater pumped by the City and water demand imported from the SWP and allow 1,523 AFY to be conserved to instream flows in the SWP (Bay-Delta). Over the last 5 years, between 23,504 AFY and 78,396 AFY of purchased imported water from SWP has been delivered to the Valley District for groundwater basin recharge and management.

Southern California obtains a large portion of its water supply from the SWP and the CRA. The Colorado River's long-term imbalance in future supply and demand is projected to be approximately 3.2 MAF by the year 2060. Approximately 40 million people rely on the Colorado River and its tributaries for water, with 5.5 million acres of land using Colorado River water for irrigation. From 2000–2015, there were only three years

when the Colorado River flow was above average (MWD, 2015 UWMP, June 2016). The availability of water supplies from the SWP can be highly variable as well. In 2015, only 20% of the total allocation to Metropolitan Water District (MWD) was available, while in 2016 only 60% of the total allocation to MWD was available. "Table A" water is the maximum entitlement of SWP water for each water contracting agency. In 2017, the final SWP Table A Allocation was 85% of the maximum allocation, amounting to 1.62 MAF to MWD. However, even with the rainfall during early 2019, Southern California was still in abnormally dry/drought conditions and is heavily reliant on imported water supplies from CRA and SWP. And in 2021, the City's groundwater manager, the Valley District, was unable to purchase SWP water because of a decrease down to 5% in SWP water supply allocation due to drought conditions. The AMI Project's reduction on imported water demand supports state and federal water reliability initiatives.

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

There is a water-related conflict over limited water supplies within the Bay-Delta and the Colorado River from which much of southern California receives imported water. The AMI Project will help to reduce the amount of water needed for import to southern California. In addition, the AMI Project may serve as a model for other agencies that are looking for ways to meet urban water use reductions. The City is reliant on imported water supplies from the Bay-Delta for groundwater recharge and management. Southern California is heavily reliant on the imported water supplies. Therefore, the water-related conflict within the Bay-Delta and Colorado River is significant, and implementing the AMI Project will assist in increasing local water reliability and decreasing imported water demand.

Locally, there is also frequent tension and litigation over water in the San Bernardino basin and its subbasins. The basins of the Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan (IRUWMP) area are among the most rigorously managed in the State. The IRUWMP Section 3.3 "Groundwater" outlines groundwater management in the San Bernardino Valley, including court judgments, groundwater management plans, and pumping rights for each of the regional groundwater basins.

Tensions are exacerbated by drought, as the local groundwater and surface water supplies are influenced by annual precipitation. Lytle Creek is one of the largest tributaries of the Santa Ana River, rising from three forks in the San Gabriel Mountains and flowing southeast, before emptying into the Santa Ana River as Lytle Creek Wash. In extended drought conditions, the surface water supplies in the Lytle Creek region can be severely impacted. In addition, groundwater levels in the Lytle Creek Basin have been known to drop over 300 feet during extended drought periods. As a result, the City is vulnerable to water shortages due to seasonal hot weather and climatic influences. Further, the City's pumping rights in the Rialto Basin are determined by groundwater levels. While the City and the Rialto Basin Groundwater Council plan to recharge the basin to increase water levels, the City's pumping rights could be reduced if groundwater levels decline.

Evaluation Criterion D: Complementing On-Farm Irrigation Improvements

The proposed AMI Project indirectly complements on-farm irrigation improvements in the Bay-Delta region by reducing imported water demand on the Bay-Delta (via the SWP) by approximately 1,523 AFY, making this same amount of water available for farm and agricultural practices in the Bay-Delta. Water supplies in the Bay-Delta also support Reclamation's CVP. Through the Bay-Delta Initiative (BDI), the Natural Resources Conservation Service (NRCS) and its local partners aim to address the critical water quantity, water quality, and habitat restoration needs of the Bay-Delta region. The Bay-Delta region encompasses more than 38 million acres and is one of the most important estuary systems in the nation. This region provides drinking

water for more than 23 million people and irrigation water to 4 million acres of farmland. More than \$400 billion in economic activities occur in the region. America's stewardship of the Bay-Delta is critical. Increased demand for limited water resources and declining water quality threatens the continued economic and environmental wellbeing of the region. The U.S. Department of Agriculture and NRCS have partnered with agricultural producers, forest landowners, urban and suburban residents, and other conservation partners to restore wetlands and enhance aquatic and other wildlife habitat on working agricultural land and private non-industrial forest land in the Bay watershed. The AMI Project will support the BDI and on-farm water use efficiency, conservation, and overall irrigation improvements by allowing more water to remain in the Bay-Delta.

Evaluation Criterion E: Planning and Implementation

Subcriterion No. E.1 - Project Planning

Planning efforts are included that provide support for the proposed Project.

- (1) Identify any City-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, System Optimization Review (SOR), Drought Contingency Plan or other planning efforts done to determine the priority of this project in relation to other potential projects.**

The AMI Project is supported by the City's 2020 UWMP, as the AMI Project is identified as a priority demand management measure in Chapter 5, Demand Management Measures, Section 5.8.1.2 Metering, in the City's 2020 UWMP (June 2021). The City's 2020 UWMP is part of the Upper Santa Ana River Watershed 2020 IRUWMP, which is available upon request and/or may be downloaded on the Valley District website located at <https://www.sbvmd.com/reports/-folder-1120>. Page 5-27 of the City's 2020 UWMP states that all existing and new water services are metered throughout the City's water service area. A water meter calibration and replacement program exist to continually improve meter read accuracy. The City has already converted approximately 34.4% of its meters to AMI compatible meters (4,148 meters / 12,058 meters), and these AMI compatible meters will need to have a transmitter installed for sending reading and other information to the collector system as part of the AMI Project.

The City acknowledges the current resource intensive methodology for water loss evaluation. The City's 2020 UWMP Page 5-28, Section 5.8.1.6, Programs to Assess and Manage Distribution System Real Losses (June 2021) states, "Rialto has an active Visible Leak Detection Program to decrease leak response times and minimize water loss throughout the water distribution system. Leaks are generally repaired within two days of discovery. Three field meter reader and two production operator employees staff the program five days per week. Meter readers are required to inspect elements in the water distribution system as they travel respective routes throughout the City. This includes meter boxes, fire hydrants, air-vacuum units, above ground piping and appurtenances. They also look for signs of leaks in soil and paved areas in the routes. Two production operators also check wells, tanks, booster pumps and appurtenant equipment for leaks each day of the business week. The leak detection activity is conducted as part of routine duties assigned and imbedded in the operations routine activities." A water loss audit was conducted per AWWA methodology for the City to understand the relation between water loss and revenue losses. The water loss summary was calculated over a one-year period (calendar year 2020) from available data and totaled 1,798 AFY. The volume of water loss calculated for this period represents 20.1% of the City's annual water supplied, which presents an opportunity to identify areas of significant water loss and develop strategies to minimize those losses. The City's 2020 AWWA Water Loss Audit identified areas for improvement and quantified total loss. Page 5-7 Section 5.2.1.2 Distribution System Water Losses of the City's 2020 UWMP states that "Rialto is committed to managing system water losses to reduce water waste and will endeavor to meet the future

water loss performance standard that is being developed by the State Water Board. Rialto currently has an annual meter replacement program for leaking or broken meters and is in the process of calibrating all large meters in the distribution system. These programs will increase the efficiency of the water distribution system by decreasing future water losses; however, water losses cannot be prevented entirely." The proposed AMI Project implements priority areas by providing leak detection, water loss reduction, and increased customer metering accuracy through real time water use data, including the Customer Portal.

(2) Describe how the project conforms to and meets the goals of any applicable planning efforts and identify any aspect of the project that implements a feature of an existing water plan(s).

The AMI Project conforms to and meets the City's 2020 UWMP Water Conservation goals and planning efforts by contributing to leak detection, water loss reduction, and increased customer metering accuracy. As detailed on Page 5-10, Section 5.3 of the City's 2020 UWMP, SBX7-7, or the Water Conservation Act of 2009, is a statewide mandate to reduce urban per capita water use by 20% by 2020 (20x2020). The City met and exceeded its reduction goal in 2020. Reduction in water use is an important part of this plan that aims to sustainably manage the Bay-Delta and reduce conflicts between environmental conservation and water supply. The AMI Project serves as a water conservation measure that will help the City continue to maintain 20% reduction in urban water use into the future, and also to meet the upcoming Water Use Objectives that subscribe to a specified gallons per capita per day for indoor and outdoor use, currently under development by DWR, and noted in the City's 2020 UWMP.

(3) If applicable, provide a detailed description of how a project is addressing an adaptation strategy specifically identified in a completed WaterSMART Basin Study or Water Management Options Pilot (e.g., a strategy to mitigate the impacts of water shortages resulting from climate change, drought, increased demands, or other causes)

The AMI Project implements the following climate change adaptation strategies identified in the Santa Ana Watershed Basin Study (U.S. Department of the Interior, Bureau of Reclamation, September 2013):

- Reduce Demand - Promote the State's 20x2020 Water Conservation Plan in the watershed.
- Resource Stewardship - Improve management of watershed lands, wildlife, and water resources through conservation, preservation, and ecosystem restoration.
- Improve Water Quality - Improve drinking water treatment, distribution, and groundwater use. Improve stormwater capture practices; address urban landscape improvements and urban runoff management; improve salinity management practices; implement groundwater remediation and pollution prevention practices.
- Public education - Increase public outreach and education through the OWOW process.

The AMI Project implements these adaptation strategies by reducing water demand through water conservation (reduced water loss, reduced leaks, and customer conservation), and increasing resource stewardship and public education through the Customer Portal (customers become aware of real time water usage and learn how their water use connects to the region), and improving water quality through reducing urban runoff (AMI meters result in reduced leaks and reduced nonpoint source pollutant runoff). The Adaptation Strategies are summarized in Table 5 on pages 22-23 of the Basin Study, which was developed by Reclamation and SAWPA, including the OWOW Committee of which the City of Rialto is a member. The AMI Project implements adaptation strategies to address the four key vulnerabilities to climate change of the Santa Ana River Watershed: Water Supply, Water Quality, Flood and Ecosystem.

In addition, the City of Rialto is currently developing a Drought Contingency Plan in partnership with Reclamation through its Drought Contingency Planning Grant Program, awarded in 2017, and agreement signed in 2019. The AMI Project will assist in implementing the Drought Contingency Plan, once completed, by serving as a key measure for water conservation to reduce the impacts of drought.

Subcriterion No. E.2 - Readiness to Proceed

Applications that include a detailed project implementation plan (e.g., estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the most points under this criterion.

- ***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.***

Project Tasks

A summary description of the major tasks necessary to complete the Project are presented below.

Task 1: Project Management

Manage implementation of the AMI Project for the duration of the work. Establish the final Scope of Work to facilitate the AMI Project, review invoicing, and maintain AMI Project documentation. Oversee the consultants and the Contractor/Vendor. Coordinate City staff training, ensure site conditions are prepared and ready for installation of hardware and software in accordance with the final network design, provide access to work sites, provide storage facilities for Project materials, and facilitate parking and office space for the Contractor/Vendor team, if needed.

Task 2: Environmental Review

The City will oversee the environmental consultant and facilitate the necessary environmental review to comply with state and federal permitting requirements. The City anticipates a Categorical Exemption pursuant to CEQA Title 14 (California Code of Regulations), Chapter 3, Article 19, Section 15302c for the Project. Further, it is anticipated that a Categorical Exclusion or FONSI under NEPA will be issued by Reclamation given the nature of the Project that includes simply replacing existing meters with upgraded AMI meters. Reclamation staff will perform the necessary environmental review and compliance for the Project, as required.

Task 3: Procurement

The AMI Project assumes Contractor/Vendor procurement will occur immediately following execution of a funding agreement with Reclamation. For the competitive bid process, the City will follow its Procurement Policy and issue a Notice Inviting Bids for Proposals for the AMI Project. Qualified Contractors/Vendors will submit details on the required work, proposals will be evaluated by the City, and a Contractor/Vendor will be selected. The City will then work collaboratively with the Contractor/Vendor to select the appropriate equipment for the AMI Project. A critical element of this task is a robust customer notification program that informs customers of what is being purchased, how it will impact the customer, and what to expect during the system installation and after implementation. The Contractor/Vendor will provide the necessary AMI

hardware (e.g., transmitters, transmitter holders, gateway collectors, meter box lids, and meters), software, and installation and training services needed for the AMI Project implementation. The City will only approve the use of equipment, technologies, and capabilities that are currently commercially available, are compatible with the existing AMI-compatible meters, and have been implemented in other agencies with a proven history of success.

Task 4: Installation of AMI System and Meters

Disconnect the 7,910 meters that are not AMI compatible and replace with the selected AMI meters. Install AMI transmitters and transmitter holders as needed throughout the 12,048 total meter locations within the City service area. Install the gateway collectors, meter lids and other ancillary hardware needed for AMI implementation. Install the AMI system software within the City's network, including a web-based utility management portal and a web-based Customer Portal that will collect the consumption data and relay this information so it will be available in the web-based application that can be accessed in real-time for City billing, and live leak reports. Installation also includes establishing and connecting the communication system.

Task 5: Final Testing and Implementation

Test the AMI meters, complete software integration and install any additional infrastructure required to gather the water consumption data. Provide training to City staff. Deploy the Customer Portal and provide access to customers.

Task 6: Grant Management and Reporting

The City Project Manager will execute the grant agreement with Reclamation, and oversee the work of the City's Administrative Analyst and the Consultant to complete required reporting. Reporting will be performed on a semiannual basis, including submittal of Financial Reports and Program Performance reports, as well as Financial Reimbursement Requests using the online Automated Standard Application for Payments (ASAP) system through the System for Award Management (SAM). Reports will be in accordance with requirements included in the grant agreement. The City Project Manager will monitor performance of the Project and will oversee submission of Project Performance Reports to Reclamation semiannually as per the grant agreement. Performance Reports will include information regarding the status of the Project's Performance Measures as explained in the financial assistance agreement.

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

There are no required permits anticipated for the AMI Project. All of the AMI Project work will be conducted at current meter locations on City property. Final approval of the Contractor/Vendor contract from the Rialto City Council will be required prior to proceeding with the AMI Project.

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

The designer and/or contractor/vendor will develop network designs based on the inputs provided. The City will review network design inclusive of locations, assumptions, etc. prior to installation.

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

No new policies are required to implement the AMI Project. As a regular process, the award of the contract for the Contractor/Vendor will need to be approved by the City Council.

- o *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).*

The AMI Project's implementation plan is shown in Table 3, below, including stages and duration of the proposed work by major tasks, milestones, and dates.

Table 3. City of Rialto AMI Implementation Plan – Schedule with Dates and Durations

Milestone*/Task	Start Date	End Date	Duration
<i>Funding Award (Anticipated Date)</i>	<i>Spring 2022</i>		
Task 1: Project Management	April 2022	September 2023	18 months
Task 2: Environmental Review	May 2022	July 2022	3 months
<i>Complete Environmental Compliance</i>	<i>July 2022</i>		
Task 3: Procurement	July 2022	December 2022	6 months
<i>Council approval of Contractor/Vendor Contract</i>	<i>September 2022</i>		
<i>Mobilization</i>	<i>September 2022</i>		
Task 4: Installation of AMI System and Meters	October 2022	June 2023	9 months
<i>Begin Construction/Installation</i>	<i>October 2022</i>		
<i>Construction Installation 50% Complete</i>	<i>January 2023</i>		
<i>Construction Installation 100% Complete</i>	<i>June 2023</i>		
Task 5: Final Implementation	July 2023	September 2023	3 months
Task 6: Grant Management and Reporting	April 2022	September 2023	18 months

**Milestones in Italics*

Evaluation Criterion F: Collaboration

Please describe how the project promotes and encourages collaboration. Consider the following:

- o *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 AMI Project will improve the reliability of water supplies from both the SWP and the local groundwater basins, which will ultimately benefit people, agriculture, and the environment associated with both of these water supply sources. The City is committed to the collaboration and maintenance of regional and local partnerships to enhance water supply reliability by promoting a regional common goal and adding flexibility to water portfolios and distribution systems. The AMI Project will advance this goal. Supporters of the AMI Project include:

San Bernardino Valley Municipal Water District. The Valley District includes the City of Rialto and is supportive of the AMI Project, as it will reduce the demand on the local groundwater basins and reduce imported water from the SWP needed for basin recharge and management. The Valley District does not deliver water directly to retail water customers, but is responsible for long-range water supply management, including importing supplemental SWP water, and is responsible for storage management of most of the groundwater basins within its boundaries and for groundwater extraction over the amount specified in the

Orange County and Western Judgments. The Valley District has specific responsibilities for monitoring groundwater supplies in the San Bernardino Basin and Rialto-Colton Subbasin, and for a portion of the minimum Santa Ana River flow required at the Riverside Narrows. The Valley District has developed a “cooperative recharge program” that is being successfully implemented to help replenish groundwater, using both SWP water and local runoff.

Santa Ana Watershed Project Authority. The Valley District is member agency of the SAWPA and part of the OWOW, SAWPA’s IRWMP. SAWPA governance and the participants in OWOW provide a collaborative, transparent, and watershed-wide view embraced by the OWOW planning process from the onset seeking to improve the way in which water and other environmental resources are managed in the watershed. The Santa Ana Watershed Basin Study helped SAWPA and its member agencies identify data gaps, conduct tradeoff analyses, address the effects of climate change, and develop effective adaptation strategies. Through this Basin Study, SAWPA and Reclamation have provided leadership on the path to a secure and sustainable water future, because without action, the demand for more water will quickly outstrip the amount available to the watershed’s populations, agriculture, and industries.

City of Rialto Customers. Customers within the City’s service area are also supporters/partners involved in the AMI Project as a result of implementation of the Customer Portal and help to achieve the water savings benefits due to reduced water consumption as a result of consumer education and use notifications.

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

The Valley District collaboration is significant because the AMI Project will reduce the amount of imported water from the SWP needed for basin recharge and management, improving groundwater management for the Valley District. SAWPA support is significant because the AMI Project upholds the strategy to improve the way in which water and other environmental resources are managed in the watershed.

Another significant factor of the AMI Project collaboration is that the water savings are a joint effort between the City and each of its customers. The AMI Project provides best management tools for monitoring water losses and for managing water usage. The AMI Project will allow the City and its customers to better monitor water use and determine if there is water waste or a leak. The customer will be able to access near real time data regarding water use and be better able to adjust water usage immediately, versus waiting until when the month-end bill arrives that shows total use has increased without a way to determine when it occurred. In addition, with the AMI meters and infrastructure implemented by the Project, customers have a means to quantify irrigation usage separately from indoor or outdoor use if they adjust irrigation times to periods with low to no water usage. This could help distinguish between indoor and outdoor usage and incentivize irrigation conservation measures.

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

This AMI Project will increase the possibility/likelihood of future water conservation improvements by other water users. The Customer Portal will directly facilitate reduced water consumption within the City service area for all water customers. Further, the benefits of the AMI Project, and any grant funding received for the Project, will serve as a catalyst for other cities, water districts, and suppliers to implement similar AMI projects or other water conservation improvements.

o ***Please attach any relevant supporting documents***

Letters of Project Support are presented in Appendix A.

Evaluation Criterion G: Additional Non-Federal Funding

Non-Federal Funding: \$4,761,169

Total Project Cost: \$6,761,169 = 70.4% Non-Federal Funding

Evaluation Criterion H: Nexus to Reclamation

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

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

No, the City does not have a water service, repayment, or O&M contract with Reclamation.

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

The City is not a Reclamation contractor. The City receives SWP (Bay-Delta) water through the Valley District, a SWP contractor. The City receives SWP water because the Valley District uses SWP water to recharge the local groundwater basins from which the City pumps and obtains almost all of its potable water supply. Although a SWP contractor is different from a Reclamation contractor, the Project benefits to the Bay-Delta are transferrable to both SWP contractors and Reclamation CVP contractors. More water remaining in the Bay-Delta benefits the Central Valley Project (CVP), for Reclamation and its contractors.

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

Yes, the AMI Project benefits a Reclamation project activity because it benefits the Upper Santa Ana River Watershed Basin Study. Reclamation was a key partner in developing the Summary Report for the Santa Ana Watershed Basin Study (Reclamation, September 2013), along with SAWPA, and members of the OWOW Committee. The City of Rialto is an active member of the OWOW Committee and a member agency of the Valley District who supplies and manages the groundwater basins from which the City pumps nearly all of its potable water supply. The Valley District is a SAWPA member agency.

The AMI Project also benefits Reclamation's efforts related to the SWP, a water facility project managed in tandem with Reclamation, as mandated in the 1986 Coordinated Operations Agreement between the U.S. and the California DWR. The Project also benefits Reclamation's efforts in the CVP. The CVP reduces flood risk for the Central Valley, and supplies valley domestic and industrial water, whereas the SWP provides a water supply and delivery system to distribute water across California. Both the CVP and SWP rely on water supply in the Bay-Delta. Reclamation and the California DWR coordinate on the balance of water in the Bay-Delta for uses in the SWP and CVP. Therefore, both the SWP and the CVP benefit from more water remaining in the Bay-Delta.

The AMI Project will increase the availability of the overall water supply through improvements in water use efficiency and conservation. The water savings attained will be the result of reduced imports from the Bay-Delta. By reducing the amount of water imported, this water in effect remains in the basin from which it originates or is made available to meet demands in other areas of the state.

Finally, another nexus to Reclamation exists in that the AMI Project directly supports the City of Rialto's Drought Contingency Plan. Preparation of this plan is underway, and in 2017 Reclamation awarded this project a grant in the amount of \$200,000 under the Drought Response Program: Drought Contingency Planning Grant Program. The funding agreement was executed in 2019.

- Is the applicant a Tribe?

The City (Applicant) is not a Tribe.

(5) Performance Measures

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved or better managed, energy generated or saved).

The AMI Project will allow for accurate measurement for water demand assessment, customer billing, diagnostic testing, locating and quantifying leakage, and other management needs. Installing new meters within the distribution system will also result in savings through improved leak detection/correction. Replacing existing meters can also result in water savings when new technologies are employed. For example, AMI devices provide real time measurement to the operator and, in some cases, to the customer as well. This allows for improved operator management, more conscientious use by the customer, and improved leakage detection by both. Quantifying savings associated with meter installation and/or replacement requires analysis of pre- and post-installation measurements from existing meters at strategic locations within the system. The City plans to consider restructuring water rates during the AMI Project implementation, and plans to perform a Cost of Service Analysis per the 1996 California Proposition 218 requirements. The City anticipates that the rate restructuring may change from the existing 4-tier rate system to a 3-tier rate system. However, details regarding how the rates will be restructured are not yet available.

The performance measures that will be used to quantify actual benefits upon completion of the AMI Project will include measures to quantify water savings, water better managed, and energy savings resulting from the installation of the newer, more technologically advanced meters. Pre- and post-installation consumption measurements will be analyzed for customers who are notified by the City that they have a leak and for all customers who view their flow data through the Customer Portal on the City's website. Water consumption at the improved meter sites where the AMI units will be installed will be monitored over a 12-month period using monthly billing data. Post-installation water consumption for each of the AMI units will be compared against pre-installation consumption to verify water savings.

Table 4 summarizes the performance measures of the AMI Project that will demonstrate and quantify actual Project benefits and effectiveness. Water use monitoring will be provided to Reclamation throughout the reporting period and included in the final report. Water use monitoring will continue beyond the grant term to make a valid assessment of the actual water savings throughout the AMI Project life (20 years).

The AMI Project will result in approximately 1,523 AFY of water saved. Customer connections are metered and billed by volume of use. The City records daily production and demand data, by zones, and reads all meters on a monthly basis. Metered sales and other system verifiable uses, e.g., backwash, flush water, and operations and maintenance, are recorded. In addition, the City currently has an annual meter replacement program for leaking or broken meters and is calibrating large meters in the distribution system.

California SB 1420 signed into law in September 2014 requires urban water suppliers that submit UWMPs to calculate annual system water losses using the water audit methodology developed by the AWWA. The City will implement an AMI program for new developments and is proposing to implement AMI throughout its service area with this Project.

The following documents provide baseline data for the AMI Project: the City's 2020 UWMP (which includes

water conservation by citing the water meter calibration and replacement program as an existing demand management measure), the City's 2020 Water Loss Audit, and EMWD's research results prove tremendous savings through the Customer Portal, as described in Evaluation Criterion A: Quantifiable Water Savings.

The City has a clear baseline of historical water distribution and billing data to compare with current and future records once AMI has been installed and the Customer Portal has been put into place. Analytical software is included as part of the AMI Project, and this software will assist the City in analyzing the data collected as part of the AMI Project. It is the goal of the City to equip employees with the adequate tools and capability to not only monitor water production and consumption, but also to analyze and evaluate solutions and follow-up actions for all factors that may contribute to water loss and decreased water use efficiency. Similarly, it is the goal of the City to provide tools and resources to its customers so that they can comprehensively understand their water usage patterns and have access to regular feedback on the effectiveness of activities and efforts to reduce water usage in their homes and businesses.

Table 4. City of Rialto AMI Project Performance Measures

Performance Measure	Target	Measurement Tools and Methods
Water Better Managed: Water Loss Reduction (Leakages)	339 AFY	Post-installation water consumption will be measured over a 12-month period following AMI installation to verify water better managed. A water loss audit will be periodically conducted.
Water Savings: Water Savings from Reduced Meter Inaccuracies	858 AFY	Post-installation water consumption will be measured over a 12-month period following AMI installation to verify water better managed. A water loss audit will be periodically conducted.
Water Savings: Reduction in Consumption	326 AFY	Water consumption reported by the AMI technology for customers who access real-time flow data in the Customer Portal produced by the new water metering units will be analyzed by the City over an initial 12-month period before and after initial exposure to the data. Post-installation water consumption data will be compared against pre-installation consumption to quantify water savings.
Energy Savings	5,500,315 kWh/year from water savings	Water savings will be converted to energy savings using the calculation of 3,000 kWh/AF of imported water conserved and 611.5 kWh/AF of pumping throughout the City's delivery system.
Carbon Emissions Savings – Energy Use Reduction	3,355,192 lbs. CO ₂ /year	Confirm the water savings resulting from the AMI Project in the Water Savings Project Performance Measures and convert to carbon emissions using the calculation of required energy = 3,000 kWh/AF and CO ₂ emissions= 0.61 lbs. of CO ₂ /kWh.
Carbon Emissions Savings – Vehicle Miles Reduction	3,460 lbs. CO ₂ /year	Vehicle miles reduced will be converted to carbon emissions savings using the calculation of 0.89 lbs. per mile reduced.

PROJECT BUDGET

The complete AMI Project Budget includes a Funding Plan and Letters of Commitment, Budget Proposal, Budget Narrative, and the SF 424 Budget Form.

Funding Plan and Letters of Commitment

Non-Federal Share of Project Costs

The non-Federal share of the AMI Project costs will be provided through the City's Capital Improvement Projects Funding.

Cost Share Contribution

The estimated City contribution (non-Federal subtotal) is \$4,761,169. The City will provide its cost share in monetary (cash) contributions.

Any Third-Party In-Kind Costs

None.

Funding Partners and Letters of Commitment

None. Funding (cost share) will not be provided by an entity other than the City.

Funding Requests from other Non-Federal Entities

No other funding has been requested or received from other Federal entities.

Pending Funding Requests

There are no pending funding requests for the AMI Project.

Any Costs Incurred Prior to Award

The City does not anticipate any costs prior to the Project award. The Project start date is anticipated in April 2022, after the anticipated grant award date in Spring 2022. No construction is proposed before July 2022.

Budget Proposal

The total AMI Project costs are shown in **Table 5**. As proposed, the City will fund 70.4% of the AMI Project costs, and the City is requesting \$2,000,000 of Federal funding from Reclamation. **Table 6** provides the summary of funding sources.

Table 5. AMI Project Cost

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$2,000,000
Costs to be paid by the applicant	\$4,761,169
Value of third-party contributions	\$0
TOTAL PROJECT COST	\$6,761,169

Table 6. Summary of Project Federal and Non-Federal Funding Sources

Funding Sources	Amount
Non-Federal Entities	
City Capital Improvement Projects Funding	\$4,761,169
Non-Federal Subtotal	\$4,761,169
Other Federal Subtotal	\$0
Requested Reclamation Funding	\$2,000,000

Table 7 provides the Budget Detail by cost categories (Budget Item Description). No In-Kind funding is proposed or included. Salaries and Wages are consistent with the detail shown in Table 8, and Contractual/Construction costs are consistent with Table 9 and Table 10, which provides the detail to those costs. Subsequent pages present the Budget Narrative.

Table 7. City of Rialto AMI Implementation Project Budget Proposal

Budget Item Description	Computation	Quantity	Quantity Type	Total Cost
	\$/Unit			
Salaries and Wages w/ Fringe Benefits				
Thomas J. Crowley	\$103.54	168	Hours	\$17,394.72
Administrative Analyst	\$51.20	60	Hours	\$3,072.00
		Subtotal		\$20,466.72
Fringe Benefits				
Thomas J. Crowley	\$55.75	168	Hours	\$9,366.00
Administrative Analyst	\$27.57	60	Hours	\$1,654.20
None		Subtotal		\$11,020.20
Travel				
None		Subtotal		\$0
Equipment				
None - included in Contractor/Vendor costs		Subtotal		\$0
Supplies and Materials				
None - included in Contractor/Vendor costs		Subtotal		\$0
Contractual/Construction				
Consultant A – Grant Reporting	\$165	~60.58	Hours	\$9,995
Consultant B – CEQA Documentation	\$5,000	1	Lump Sum	\$5,000
Consultant C – Designer	\$10,000	1	Lump Sum	\$10,000
Consultant D – Construction Manager	\$291,500	1	Lump Sum	\$291,500
Construction Contractor/Vendor	\$6,413,187	1	Lump Sum	\$6,413,187
		Subtotal		\$6,729,682
Third-Party Contributions				
No third-party contributions included.		Subtotal		\$0
Other				
Environmental Compliance (Reclamation)		Subtotal		\$0
Total Direct Costs				\$6,761,169
Indirect Costs				
No indirect costs included.		Subtotal		\$0
Total Estimated Project Costs				\$6,761,169

**Some costs are rounded.*

Budget Narrative

Salaries and Wages

The Project Manager and other key City personnel are shown by Project task in Table 8 along with estimated hours, rate of compensation, and total Salaries and Wages costs for each task for the Project duration, consistent with the Project Schedule in Table 3. Table 8 is consistent with the totals by City personnel

included in **Table 7**. Only labor rates are shown in **Table 8**; fringe benefits are presented separately. The Project Manager is Thomas J. Crowley, City Utilities Manager. His budgeted time includes a direct administration labor rate of \$103.54/hour, not including fringe benefits. An Administrative Analyst will also assist in Project management; their budgeted time includes a direct labor rate of \$51.20/hour, not including fringe benefits. A total of 228 hours at a cost of \$20,466.72 is estimated over the 18-month Project.

Table 8. Project Budget for City Salaries and Wages by Task

Task	Activity & Employee	Hours	Rate	Total Costs
Task 1	Project Management			
	Project Manager (Thomas J. Crowley)	44	\$103.54	\$5,170.16
	Administrative Analyst	12	\$51.20	
Task 2	Environmental Review			
	Project Manager (Thomas J. Crowley)	8	\$103.54	\$1,033.12
	Administrative Analyst	4	\$51.20	
Task 3	Procurement			
	Project Manager (Thomas J. Crowley)	8	\$103.54	\$1,033.12
	Administrative Analyst	4	\$51.20	
Task 4	Installation of AMI System and Meters			
	Project Manager (Thomas J. Crowley)	40	\$103.54	\$4,960.80
	Administrative Analyst	16	\$51.20	
Task 5	Final Testing and Implementation			
	Project Manager (Thomas J. Crowley)	32	\$103.54	\$4,132.48
	Administrative Analyst	16	\$51.20	
Task 6	Grant Management and Reporting			
	Project Manager (Thomas J. Crowley)	36	\$103.54	4,137.04
	Administrative Analyst	8	\$51.20	
TOTAL SALARIES AND WAGES		228		\$20,466.72

Task 1. Project Management: The Project Manager is responsible for the overall success of the AMI Project. This includes managing the various staff members, including the Administrative Analyst, as well as consultants and the Contractor/Vendor required to complete the AMI Project. A total of 66 hours is allocated directly for project management in the Project budget.

Task 2. Environmental Review: City Staff will oversee preparation of CEQA and NEPA documentation by Consultant B, shown below in **Table 9**. Work will consist of completing CEQA Plus for the AMI Project and providing all applicable documentation to the California SWRCB. A total of 12 hours is estimated for the Project Manager and Administrative Analyst for this effort.

Task 3. Procurement: City staff will oversee selection and procurement of the Contractor/Vendor, and then procurement of the AMI system hardware and software in coordination with Consultants C and D, and the Construction Contractor/Vendor, shown in **Table 9**. A total of 12 hours is estimated for the Project Manager and Administrative Analyst for this effort.

Task 4. Installation of AMI System and Meters: City staff will oversee installation of the AMI system, meters, and other equipment performed by Consultants C and D, and the Construction Contractor/Vendor, shown in **Table 9**. A total of 56 hours is estimated for the Project Manager and Administrative Analyst for this effort.

Task 5. Final Testing and Implementation: City staff will oversee final testing and implementation of the AMI system, meters, and other equipment and launch of the Customer Portal performed by Consultants C and D, and the Construction Contractor/Vendor, shown in **Table 9**. A total of 48 hours is estimated for the Project Manager and Administrative Analyst for this effort.

Task 6. Grant Management and Reporting: The Project Manager will oversee the work of Consultant A, shown in **Table 9**, and the Administrative Analyst will support the reporting effort for all activities related to grant management and reporting. Reporting management will consist of a review of documentation prepared by Consultant A for Reclamation submittal. A total of 44 hours is allocated for review and consultation for the duration of the grant term.

The budget proposal and narrative should include estimated hours for compliance with reporting requirements, including final project and evaluation.

Reporting activities will be completed in Task 6 by City staff and Consultant A, Soto Resources. Estimated hours for reporting are based on the proposed Project schedule as shown in **Table 3** and the level of effort on similar projects. Reporting hours and costs are shown in **Table 8** and **Table 9** as Task 6 for each staff member and Consultant A. Work includes negotiation, execution and management of the financial assistance agreement with Reclamation, semiannual submission of Federal Financial Reports and Interim Performance Reports, and submission of the Final Performance Report.

Generally, salaries of administrative and/or clerical personnel will be included as a portion of the stated indirect costs. If these salaries can be adequately documented as direct costs, they should be included in this section; however, a justification should be included in the budget narrative.

The City rates, including administrative personnel, are included as direct costs and are supported by the City Pay Schedule Effective July 1, 2020, revised March 9, 2021, available on the City's webpage. These salaries are documented as direct costs for the administrative personnel because they will include directly related, Project-specific efforts required to accomplish the AMI Project, such as initiating purchase requisitions for contract services (for vendor/consultant/contractor) and direct support for the Project Manager. No indirect costs are proposed for the AMI Project.

Fringe Benefits

The City is proposing to include the cost of fringe benefits, as detailed in **Table 7**, separate from direct labor. The Project Manager and other key City personnel are shown in **Table 7** along with estimated hours, rate of compensation, and total fringe benefits costs for the Project duration. The Project Manager is Thomas J. Crowley, City Utilities Manager. His budgeted time includes a fringe benefit rate of \$55.75/hour. An Administrative Analyst will also assist in Project management; their budgeted time includes a fringe benefit rate of \$27.57/hour. A total of 228 hours at a cost of \$11,020.20 is estimated over the 18-month Project timeframe.

Travel

No travel costs are included for the AMI Project.

Equipment

The City will work collaboratively with the Consultants and Construction Contractor/Vendor to select the appropriate equipment for the AMI Project. The City will approve the use of equipment, technologies, and capabilities that are currently commercially available, are compatible with the existing meters, and have a history of success. Equipment costs are not included in this budget category, as equipment costs are included under Contractual/Construction.

Supplies and Materials

Supplies and materials are not included in this budget category, as equipment will be purchased and installed under a construction contract and these costs are included in the Contractual/Construction cost estimate.

Contractual/Construction

Contractual activities by consultant and Contractor/Vendor are shown in **Table 9**. Please refer to the Technical Project Description section for a description of each task. The total contractual/construction cost is estimated at \$6,729,682, and includes the purchase of all equipment, and supplies, and materials.

Consultant A – Soto Resources will provide grant management and reporting for the duration of the grant term under Task 6. Grant management and reporting is estimated at \$9,995.

Consultant B – Environmental Consultant will provide Environmental Compliance Services for the AMI Project. Services will be included in Task 2: Environmental Review and a total cost of \$5,000 is included in the budget.

Consultant C – Designer will assist with the selection and design of the proposed AMI System and equipment. The Designer's time is anticipated to be utilized during Task 3: Procurement, Task 4: Installation of AMI System and Meters, and Task 5: Final Testing and Implementation. A total cost of \$10,000 has been budgeted for this consultant.

Consultant D – Veolia, as the Project Construction Manager will provide oversight and inspection during construction. The construction management budget is approximately 5% of the Project Contractor/Vendor subtotal cost. The estimate is based on the City's experience with similar projects.

Construction Contractor/Vendor – The Construction Contractor/Vendor's budget is approximately 95% of the total Project cost. Cost estimates were developed based on the City's experience. Construction Contractor/Vendor cost detail is shown in **Table 10**.

Third-Party In-Kind Contributions

Not applicable. The Project Budget does not include third-party in-kind contributions.

Environmental and Regulatory Compliance Costs

Environmental compliance costs have not been included in the budget based on the Reclamation's statement in the Funding Opportunity Announcement that Reclamation may be able to complete its compliance activities without additional costs. It is understood that if costs are incurred by Reclamation, those costs will be added as a line item to the final Project budget during development of the financial assistance agreement and cost shared with the City.

Table 9. Project Contractual/Construction Costs

Consultant	Task	Activity	Units/Hours	Rate	Total Costs
Consultant A - Soto Resources, Grant Management	Task 6	Grant Management and Reporting	60.58	\$165	\$9,995
Consultant B – Environmental	Task 2	Environmental Review 5% contingency cost included in total costs.	1	LS	\$5,000
Consultant C – Designer	Tasks 3, 4, and 5	Procurement, Installation, and Testing 10% contingency cost included in total costs.	1	LS	\$10,000
Consultant D – Veolia, Construction Mgr.	Tasks 3, 4, and 5	Procurement, Installation, and Testing 10% contingency cost included in total costs.	1	LS	\$291,500
Construction Contractor/Vendor	Tasks 3, 4, and 5	Procurement, Installation, and Testing 10% contingency cost included in total costs. See Table 10 for construction cost detail.	1	LS	\$6,413,187
TOTAL CONTRACTUAL/CONSTRUCTION					\$6,729,682

The AMI Project involves an upgrade to existing meters and should pose no impact to the surrounding environment. Work will be performed on property that is considered already disturbed, and no further environmental requirements are needed. There are no required permits anticipated for the AMI Project. All of the AMI Project work will be conducted at current meter locations and City property. All Project-related approvals will be handled by the City and will be executed in a timely and efficient manner. Final approval from the City of Rialto’s City Council will be required prior to proceeding with the AMI Project. The City anticipates a Categorical Exemption pursuant to CEQA Title 14 (California Code of Regulations), Chapter 3, Article 19, Section 15302c for the AMI Project. It is anticipated that a Categorical Exclusion or FONSI under NEPA will be issued by Reclamation given the nature of the AMI Project that includes simply replacing existing meters with upgraded AMI meters. A Categorical Exclusion or FONSI is anticipated since the AMI Project will likely not have a significant effect on the human environment and, therefore, neither an Environmental Assessment nor an Environmental Impact Statement would be required.

Other Expenses

Environmental Compliance Costs are included under “Other” Expenses, as described above.

Indirect Costs

No indirect costs are included in this proposal.

Budget Form – SF-424A, Budget Information – Construction

The City has completed the SF-424A, Budget Information—Non-Construction Programs form, submitted separately from this narrative.

Table 10. Preliminary Project Construction Cost Estimate*

Item Description	Quantity	Unit	Cost per Unit	Total
Hardware				
Transmitters	1	Lump Sum	\$1,512,225	\$1,512,225
Transmitter Holders	1	Lump Sum	\$129,250	\$129,250
Gateway Collectors	2	Each	\$25,493	\$50,985
Meter Lids	1	Lump Sum	\$212,619	\$212,619
Meters	1	Lump Sum	\$1,674,626	\$1,674,626
Software				
Hosting Fee	1	Lump Sum	\$22,500	\$22,500
Text Messaging	1	Lump Sum	\$1,200	\$1,200
RNI Set Up	1	Lump Sum	\$8,884	\$8,884
RNI Hosting	1	Lump Sum	\$10,350	\$10,350
Billing Integration	1	Lump Sum	\$11,500	\$11,500
Water Analytics Host	1	Lump Sum	\$4,140	\$4,140
Customer Portal Set Up	1	Lump Sum	\$5,750	\$5,750
Meter Installation Services				
Meter Installation	1	Lump Sum	\$1,372,921	\$1,372,921
Transmitter Installation	1	Lump Sum	\$544,616	\$544,616
Lid Installation	1	Lump Sum	\$161,518	\$161,518
Trans Eq Materials	1	Lump Sum	\$10,311	\$10,311
Network Installation Services	1	Lump Sum	\$37,500	\$37,500
SaaS Project Management	1	Lump Sum	\$49,500	\$49,500
Gateway Maintenance	1	Lump Sum	\$2,875	\$2,875
Training	1	Lump Sum	\$6,900	\$6,900
Subtotal				\$5,830,170
Contingency 10%				\$583,017
Construction Subtotal				\$6,413,187

*Some costs are rounded.

ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

The AMI Project involves an upgrade to existing meters and should pose no impact to the surrounding environment. The work will be performed on property that is considered already disturbed. A Categorical Exemption is anticipated to meet CEQA requirements, and a Categorical Exclusion or FONSI under NEPA will be required given the nature of the AMI Project that entails replacement of existing meters with upgraded AMI meters. A Categorical Exclusion seems appropriate since the AMI Project will likely not have a significant effect on the human environment and, therefore, neither an Environmental Assessment nor an Environmental Impact Statement would be required. Based on experience with other Reclamation-funded AMI Projects and previous correspondence with Doug McPherson (Environmental Protection Specialist, Bureau of Reclamation, Southern California Area Office), it is anticipated that the proposed AMI Project will receive a Categorical Exclusion under NEPA. As the lead for NEPA, any costs identified for Reclamation to perform NEPA work will be included in the final project budget in the Financial Assistance Agreement. Questions focusing on the NEPA, ESA, and Natural Historic Preservation Act requirements are presented below.

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

No, the AMI Project is not anticipated to impact the surrounding environment. Work primarily includes upgrade or replacement of existing meters with upgraded AMI meters and software installation.

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

No known species listed or proposed to be listed as a federal endangered or threatened species, or designated critical habitats are within the AMI Project area.

- **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 project may have.**

No, there are not wetlands or other surface waters inside the AMI Project boundaries that potentially fall under Clean Water Act jurisdiction as "Waters of the United States." No associated impacts would occur, and no mitigation is required.

- **When was the water delivery system constructed?**

Construction of the City's water delivery system generally began in 1924, with significant growth between the 1950s and the 1980s.

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

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

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

The Bureau of Reclamation Southern California Area Office staff searched the National Register Information System (NRIS) public database and identified one property within the City of Rialto that is listed in the National Register of Historic Places: 03000037 First Christian Church of Rialto at 201 N. Riverside Avenue. This structure is also listed in the National Park Service's National Register of Historic Places (NRHP) within the City of Rialto, citing architectural significance. The AMI Project is not anticipated to affect the architecture of this historic property or other properties.

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

No, there are no known archeological sites in the AMI Project area.

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

No, the AMI Project will not have a disproportionately high and adverse effect on low income or minority populations. The AMI Project has the potential to provide positive monetary benefits to low income and minority populations by identifying water inefficiencies within their community, which, after installation of AMI, will potentially decrease the costs of water to that population as a result of water savings.

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

No, the AMI Project will not limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands.

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

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

REQUIRED PERMITS OR APPROVALS

State whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.

There are no required permits anticipated for the AMI Project. All of the AMI Project work will be conducted at current meter locations and City property. All Project-related approvals will be handled by the City and will be executed in a timely and efficient manner. Final approval of the Contractor/Vendor contract from Rialto's City Council will be required prior to proceeding with the AMI Project.

LETTERS OF PROJECT SUPPORT

Letters of Project support were provided by Congressman Pete Aguilar, Representative for California's 31st District in the U.S. House of Representatives; Congressmember Norma T. Torres, Representative for California's 35th District in the U.S. House of Representatives; Senator Connie M. Leyva, California State Senator for the 20th District; Assemblymember Eloise Gomez Reyes, Assembly Majority Leader for California's 47th District; Heather Dyer, Chief Executive Office/General Manager San Bernardino Valley

Municipal Water District; and Deborah Roberston, President of the Rialto Basin Groundwater Council. Copies of the Letters of Support are included in **Appendix A**.

OFFICIAL RESOLUTION

An official resolution of the City of Rialto's City Council is planned for adoption at their meeting on November 9, 2021. A copy of the draft resolution is included in **Appendix B**. A copy of the executed resolution will be submitted to Reclamation within 30 days of November 3, 2021, the due date of this application. The resolution verifies the City's legal authority to enter into an agreement; that the City Council has reviewed and supports submittal of this application; the capability of the City to provide the amount of funding and in-kind contributions specified in the Funding Plan; and that the City will work cooperatively with Reclamation to meet established deadlines for entering into a cooperative agreement.

APPENDICES

Appendices are presented on the following pages.

Appendix A – Letters of Support

Appendix B – Draft Resolution

Appendix C – Copies of Manually Signed Federal Forms

Appendix A – Letters of Support

109 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 355-3001

685 EAST CARNEGIE DRIVE
SUITE 100
SAN BERNARDINO, CA 92408
(909) 890-4443

VICE CHAIR OF THE
HOUSE DEMOCRATIC CAUCUS

HOUSE DEMOCRATIC STEERING
AND POLICY COMMITTEE



PETE AGUILAR
CONGRESS OF THE UNITED STATES
31ST DISTRICT, CALIFORNIA

COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON DEFENSE

SUBCOMMITTEE ON HOMELAND SECURITY

SUBCOMMITTEE ON TRANSPORTATION,
HOUSING AND URBAN DEVELOPMENT, AND
RELATED AGENCIES

COMMITTEE ON HOUSE ADMINISTRATION

SUBCOMMITTEE ON ELECTIONS

October 29, 2021

Mr. Grayford Payne
Deputy Commissioner
U.S. Bureau of Reclamation
1849 C Street, NW
Washington, DC 20240-0001

Re: City of Rialto WaterSMART Grants: Water and Energy Efficiency Grants Application

Dear Mr. Payne:

I am writing to express my support for the Advanced Metering Infrastructure (AMI) Project grant application, submitted by the City of Rialto for the WaterSMART Grants: Water and Energy Efficiency Grants program. The city will provide \$6,761,000 and is requesting \$2,000,000 to complete the AMI project. If approved, this grant will enable the city to upgrade or replace the remaining 12,058 manually read touch meters with an AMI system to improve water sustainability throughout the city's service area.

The City of Rialto's municipal water system provides potable, non-potable, and recycled water to residents and serves approximately 55,860 people. The city relies on imported water from the State Water Project (SWP); to replenish groundwater basins that supply its potable water. The AMI Project is expected to result in annual water savings of 1,523 acre-feet per year (AFY), which will keep the city on track to meet the long-term goal of conservation and water supply reliability.

The AMI network will conserve water for the Rialto community by accurately monitoring customer water use through remote/automated meter reads, reducing water loss through enhanced leak detection capabilities, and reducing water demand by enhanced conservation measures. Further, the project will reduce carbon emissions and save operating costs. Grant funds will be used to purchase and install upgraded AMI meters, transmitters, and meter reading software to replace existing manually read touch meters.

109 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3001

685 EAST CARNEGIE DRIVE
SUITE 100
SAN BERNARDINO, CA 92408
(909) 890-4443

VICE CHAIR OF THE
HOUSE DEMOCRATIC CAUCUS

HOUSE DEMOCRATIC STEERING
AND POLICY COMMITTEE



PETE AGUILAR
CONGRESS OF THE UNITED STATES
31ST DISTRICT, CALIFORNIA

COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON DEFENSE
SUBCOMMITTEE ON HOMELAND SECURITY
SUBCOMMITTEE ON TRANSPORTATION,
HOUSING AND URBAN DEVELOPMENT AND
RELATED AGENCIES

COMMITTEE ON HOUSE ADMINISTRATION

SUBCOMMITTEE ON ELECTIONS

The City of Rialto has provided reliable, safe drinking water to its customers for decades. With our current drought conditions, projects like AMI Project are critical for efficient water and energy management throughout San Bernardino County. I encourage you to give the City of Rialto's AMI Project grant application your full and fair consideration, consistent with applicable laws and regulations. If you have any questions, please contact Curt Lewis, Grant Program Director in my office: Curt.Lewis@mail.house.gov.

Sincerely,

A handwritten signature in black ink that reads "Pete Aguilar".

Pete Aguilar
Member of Congress

NORMA J. TORRES
35TH DISTRICT, CALIFORNIA
2444 RAYBURN HOUSE OFFICE BLDG
WASHINGTON, DC 20515
PHONE: (202) 225-6161
FAX: (202) 225-8671
3200 INLAND EMPIRE, SUITE 200B
ONTARIO, CA 91764
PHONE: (909) 481-6474
FAX: (909) 941-1362

Congress of the United States
House of Representatives
Washington, DC 20515

COMMITTEE ON RULES
COMMITTEE ON APPROPRIATIONS
REGIONAL WHIP

November 2, 2021

The Honorable Camille C. Touton
Deputy Commissioner
U.S. Bureau of Reclamation
U.S. Department of Interior
1849 C Street NE
Washington, DC 20240-0001

Dear Commissioner Touton:

As Representative for California's 35th District in the United States House of Representatives, I strongly urge consideration of and support the City of Rialto's WaterSMART Water and Energy Efficiency grant application for their Advanced Metering Infrastructure (AMI) Implementation Project to facilitate the city's long-term goal of water supply reliability and efficient water management.

It is my understanding that, if awarded, the two-year project will allow Rialto to equip its full distribution system with AMI to provide water usage information, including high water usage and leak detection alerts to customers. The AMI project will accurately monitor water use via a website portal, reduce water loss through enhanced leak detection capabilities, reduce water demand by enhanced conservation and leak notification, reduce energy use and operating costs, provide near real-time accurate water use information, and reduce carbon emissions with remote/automated meter reads. I am thrilled by the report that the AMI project will produce an expected sustainable annual water savings of 1,523 acre-feet.

With the current drought conditions in California and decreased reliability of imported water supply, it is my opinion that conservation and water use efficiency projects like the AMI project are critical for improving water sustainability throughout Rialto's service area and within San Bernardino County. I believe that Rialto has been providing reliable, safe drinking water to its customers for decades and I fully support the AMI project and the city's efforts to enhance water and energy efficiency.

For these reasons provided, I respectfully request that you give this grant proposal your full and fair consideration pursuant to all applicable rules and regulations.

Sincerely,



Norma J. Torres
Member of Congress

CAPITOL OFFICE
STATE CAPITOL
ROOM 4061
SACRAMENTO, CA 95814
TEL (916) 651-4020
FAX (916) 651-4920

DISTRICT OFFICES
101 W. MISSION, SUITE 111
POMONA, CA 91766
TEL (909) 469-1110
FAX (909) 469-1123

464 WEST 4TH STREET
SUITE 454B
SAN BERNARDINO, CA 92401
TEL (909) 888-5360
FAX (909) 591-7096

California State Senate

SENATOR
CONNIE M. LEYVA
TWENTIETH SENATE DISTRICT



CHAIR
EDUCATION

DEMOCRATIC CAUCUS

CALIFORNIA LEGISLATIVE
WOMEN'S CAUCUS

SELECT COMMITTEE ON
MANUFACTURED HOME
COMMUNITIES

MEMBER
BUDGET & FISCAL REVIEW
SUBCOMMITTEE NO. 1
ON EDUCATION

BUSINESS, PROFESSIONS
& ECONOMIC DEVELOPMENT

ELECTIONS & CAMPAIGN
FINANCE REFORM

HEALTH

October 28, 2021

Thomas J. Crowley
Utilities Manager, City of Rialto
150 S. Palm Avenue
Rialto, California 92376

Re: Letter of Support for Funding City of Rialto's **Advanced Metering Infrastructure Implementation Project** grant application for the United States Department of the Interior, Bureau of Reclamation's WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2022

Dear Mr. Crowley:

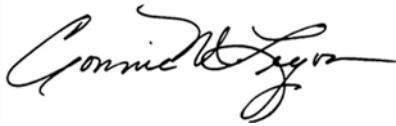
I understand that the City of Rialto (City) is submitting a WaterSMART Water and Energy Efficiency grant application for consideration by the United States Bureau of Reclamation for Fiscal Year 2022. This grant would help fund the City's Advanced Metering Infrastructure (AMI) Implementation Project, as part of its long-term goal of water supply reliability and efficient water management.

The two-year project will allow the City of Rialto to equip their full distribution system with AMI to provide water usage information, including high water usage and leak detection alerts that can be provided to customers. The project will accurately monitor water use via a website portal, reduce water loss through enhanced leak detection capabilities, reduce water demand by enhanced conservation and leak notification, reduce energy use and operating costs, provide near real-time accurate water use information, and reduce carbon emissions with remote/automated meter reads. The AMI project will produce an expected sustainable annual water savings of 1,523 acre-feet.

With the current drought conditions and decreased reliability of imported water supply, conservation and water use efficiency projects like this AMI project are critical for improving water sustainability throughout the City's service area and within San Bernardino County, California.

The City has been providing reliable, safe drinking water to its customers for decades and I fully support the project and the City of Rialto's efforts to enhance water and energy efficiency. If you have questions or need additional information regarding support of this project, please contact my District Representative, Michael Townsend, by email at Michael.Townsend@sen.ca.gov or via telephone at (909) 469-1110.

Sincerely,

A handwritten signature in black ink, appearing to read "Connie M. Leyva". The signature is fluid and cursive, with a prominent initial "C" and a long, sweeping underline.

Connie M. Leyva
California State Senator, 20th District

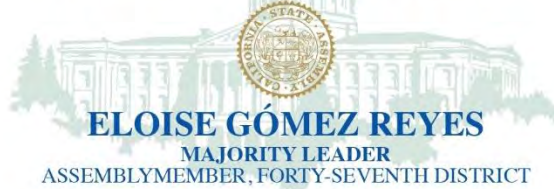
STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0047
(916) 319-2047
FAX (916) 319-2147

DISTRICT OFFICE
290 NORTH D STREET, SUITE 903
SAN BERNARDINO, CA 92401
(909) 381-3238
FAX (909) 885-8589

E-MAIL

Assemblymember.Reyes@assembly.ca.gov

Assembly
California Legislature



COMMITTEES
AGING AND LONG-TERM CARE
BUDGET
JUDICIARY
LABOR AND EMPLOYMENT
UTILITIES AND ENERGY
BUDGET SUBCOMMITTEE NO. 2 ON
EDUCATION FINANCE
LEGISLATIVE ETHICS

Secretary Deb Haaland
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240

Re: Letter of Support for Funding City of Rialto's **Advanced Metering Infrastructure Implementation Project** grant application

Dear Secretary Haaland:

I am writing in support of the City of Rialto's efforts to fund the city's Advanced Metering Infrastructure (AMI) Implementation Project through the Bureau of Reclamation's WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2022.

The two-year project will allow the city to equip their full distribution system with AMI to provide water usage information, including high water usage and leak detection alerts that can be provided to customers. The project will accurately monitor water use via a website portal, reduce water loss through enhanced leak detection capabilities, reduce water demand by enhanced conservation and leak notification, reduce energy use and operating costs, provide near real-time accurate water use information, and reduce carbon emissions with remote/automated meter reads. The AMI project will produce an expected sustainable annual water savings of 1,523 acre-feet.

With the current drought conditions and decreased reliability of imported water supply, conservation and water use efficiency projects like this AMI project are critical for improving water sustainability throughout the city's service area and within San Bernardino County, California.

Thank you in advance for your consideration of this request. If you have any questions regarding my support, please feel free to contact me at my District Office at (909) 381-3238. I look forward to hearing back from you soon.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Gomez Reyes', written over a white background.

ELOISE GÓMEZ REYES
Assembly Majority Leader, 47th District

EGR:dp

CC: Thomas J. Crowley, P.E., Utilities Manager, City of Rialto



380 East Vanderbilt Way
San Bernardino, CA 92408
phone: 909.387.9200
fax: 909.387.9247
www.sbvwmwd.com

October 21, 2021

Thomas J. Crowley
Utilities Manager, City of Rialto
150 S. Palm Avenue
Rialto, California 92376
tjcrowley@rialtoca.gov
(909) 820-8056

Re: Letter of Support for Funding City of Rialto's **Advanced Metering Infrastructure Implementation Project** grant application for the United States Department of the Interior, Bureau of Reclamation's WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2022

Dear Mr. Crowley:

On behalf of the San Bernardino Valley Municipal Water District, I am pleased to support the City of Rialto's Advanced Metering Infrastructure (AMI) Implementation Project for Bureau of Reclamation WaterSMART Grant funding. I understand this AMI Project is part of the City's long-term goal of water supply reliability and efficient water management.

Given the importance of managing water resources for the long-term health of the region, as well as the current drought and ongoing dry conditions in Southern California, water conservation and water use efficiency projects like the City's AMI project are critical for improving water sustainability throughout the City's service area and across Valley District's service area as well.

Through this two-year Project, the City will equip its entire distribution system with AMI to provide water usage information, including high water usage and leak detection alerts, that can be provided to customers. The Project will accurately monitor water use via a website portal, reduce water loss through enhanced leak detection capabilities, reduce water demand by enhanced conservation and leak notification, reduce energy use and operating costs, provide near real-time water use information, and reduce carbon emissions by enabling remote/automated meter reads. The AMI Project will produce an expected sustainable annual water savings of 1,523 acre-feet.

The City has been providing reliable, safe drinking water to its customers for decades. As a partner in water use efficiency, Valley District supports the Project and the City's efforts to enhance water and energy efficiency.

Thank you for your consideration of this Project for Bureau of Reclamation WaterSMART Grant funding. If you have questions or need additional information regarding support of this project, please contact me at 909-387-9200.

Sincerely,

Heather
Dyer  Digitally signed by
Heather Dyer
Date: 2021.10.21
09:35:25 -07'00'

Heather Dyer
CEO/General Manager

Board of Directors and Officers

JUNE HAYES
Division 1

GIL J. BOTELLO
Division 2

SUSAN LONGVILLE
Division 3

T. MILFORD HARRISON
Division 4

PAUL R. KIELHOLD
Division 5

HEATHER P. DYER
CEO/General Manager

October 28, 2021

Thomas J. Crowley
Utilities Manager, City of Rialto
150 S. Palm Avenue
Rialto, California 92376
tjcrowley@rialto.ca.gov
(909) 820-8056



Re: Letter of Support for Funding City of Rialto's **Advanced Metering Infrastructure Implementation Project** grant application for the United States Department of the Interior, Bureau of Reclamation's WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2022

Dear Mr. Crowley:

We understand that the City of Rialto (City) is submitting a WaterSMART Grants: Water and Energy Efficiency Grants application for consideration by the United States Bureau of Reclamation for Fiscal Year 2022. This grant would help fund the City's Advanced Metering Infrastructure (AMI) Implementation Project, as part of its long-term goal of water supply reliability and efficient water management.

The two-year Project will allow the City to equip their full distribution system with AMI to provide water usage information, including high water usage and leak detection alerts, that can be provided to customers. The Project will accurately monitor water use via a website portal, reduce water loss through enhanced leak detection capabilities, reduce water demand by enhanced conservation and leak notification, reduce energy use and operating costs, provide near real-time accurate water use information, and reduce carbon emissions with remote/automated meter reads. The AMI project will produce an expected sustainable annual water savings of 1,523 acre-feet.

With the current drought conditions and decreased reliability of imported water supply, conservation and water use efficiency projects like this AMI project are critical for improving water sustainability throughout the City's service area and within San Bernardino County, California.

The City has been providing reliable, safe drinking water to its customers for decades and I fully support the Project and the City's efforts to enhance water and energy efficiency. If you have questions or need additional information regarding support of this project, please contact my assistant Ms. Angela Perry by email at aperry@rialto.ca.gov or via telephone at (909) 820-2689.

Sincerely,

A handwritten signature in black ink, appearing to read "Deborah Robertson", is written over a thin horizontal line. The signature is fluid and cursive.

Deborah Robertson,
President

Appendix B – Draft Resolution

1 RESOLUTION NO. _____

2
3 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIALTO,**
4 **CALIFORNIA, ENDORSING WATERSMART WATER AND ENERGY**
5 **EFFICIENCY GRANTS FOR FISCAL YEAR 2022.**

6
7 **WHEREAS**, the United States Bureau of Reclamation is currently offering grant
8 opportunities through the WaterSMART Grants: Water and Energy Efficiency Grants for
9 Fiscal Year 2022 and

10 **WHEREAS**, said WaterSMART Water and Energy Efficiency Grants for Fiscal Year
11 2022 is a cost-shared program emphasizing water and energy efficiency; and

12 **WHEREAS**, the City Council supports the submission by the City of Rialto ("City") of
13 a grant application for Advanced Metering Infrastructure Implementation Project, prepared
14 and approved by City, to the WaterSMART Water and Energy Efficiency Grants for Fiscal
15 Year 2022; and

16 **WHEREAS**, The City is capable of providing the amount of matching funds of up to
17 \$4,761,169 in cash and/or in-kind contributions specified in the grant application's funding
18 plan; and

19 **WHEREAS**, if selected for a WaterSMART Water and Energy Efficiency Grants for
20 Fiscal Year 2022, the City will work with the United States Bureau of Reclamation to meet
21 established deadlines for entering into a cooperative agreement.

22 **NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF RIALTO DOES**
23 **HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:**

24 **Section 1:** The City Council approves the submission of the application for the
25 WaterSMART Water and Energy Efficiency Grants for Fiscal Year 2022 by the City for
26 fiscal year 2021-22, fiscal year 2022-23, and fiscal year 2023-24.

27 **Section 2:** In the event grant funding is provided by the United States Bureau of
28 Reclamation, the City Council authorizes the City Manager or designee to accept the grant

1 and sign any contract for administration of the grant funds and delegate the Finance
2 Director to act as a fiscal agent for any grant funding received.

3 **Section 3:** This Resolution shall take effect immediately.

4 **Section 4:** The City Clerk shall certify to the adoption of this Resolution and
5 henceforth and thereafter the same shall be in full force and effect.

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1 **WHEREFORE**, this Resolution is passed, approved and adopted this 9th day of
2 November 2021.

3
4 _____
5 DEBORAH ROBERTSON, Mayor
6

7
8
9 ATTEST:

10
11
12 _____
13 BARBARA A. McGEE, City Clerk
14

15 APPROVED AS TO FORM:

16
17
18 _____
19 ERIC VAIL, City Attorney
20
21
22
23
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27
28

1 STATE OF CALIFORNIA)
2 COUNTY OF SAN BERNARDINO) ss
3 CITY OF RIALTO)

4 I, Barbara A. McGee, City Clerk of the City of Rialto, do hereby certify that the
5 foregoing Resolution No. _____ was duly passed and adopted at a regular meeting of
6 the City Council of the City of Rialto held on the 9th day of November 2021.

7 Upon motion of Councilmember _____, seconded by Councilmember
8 _____, the foregoing Resolution No. _____ was duly passed and
9 adopted.

10 Vote on the motion:

11 AYES:

12 NOES:

13 ABSENT:

14 IN WITNESS WHEREOF, I have hereunto set my hand and the Official Seal of
15 the City of Rialto this _____ day of _____, 2021.

16
17
18 _____
19 BARBARA A. MCGEE, City Clerk
20
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26
27
28

Appendix C – Copies of Manually Signed Federal Forms

This Workspace form is one of the forms you need to complete prior to submitting your Application Package. This form can be completed in its entirety offline using Adobe Reader. You can save your form by clicking the "Save" button and see any errors by clicking the "Check For Errors" button. In-progress and completed forms can be uploaded at any time to Grants.gov using the Workspace feature.

When you open a form, required fields are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message. Additional instructions and FAQs about the Application Package can be found in the Grants.gov Applicants tab.

OPPORTUNITY & PACKAGE DETAILS:

Opportunity Number:	R22AS00023
Opportunity Title:	WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2022
Opportunity Package ID:	PKG00268431
CFDA Number:	15.507
CFDA Description:	WaterSMART (Sustain and Manage America's Resources for Tomorrow)
Competition ID:	R22AS00023
Competition Title:	WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2022
Opening Date:	08/03/2021
Closing Date:	11/03/2021
Agency:	Bureau of Reclamation
Contact Information:	Ned Weakland

APPLICANT & WORKSPACE DETAILS:

Workspace ID:	WS00792902
Application Filing Name:	Advanced Metering Infrastructure Implementation Project
DUNS:	0835838490000
Organization:	RIALTO, CITY OF
Form Name:	Application for Federal Assistance (SF-424)
Form Version:	3.0
Requirement:	Mandatory
Download Date/Time:	Oct 09, 2021 06:54:25 PM EDT
Form State:	No Errors

FORM ACTIONS:

Application for Federal Assistance SF-424

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>
---	---	--

* 3. Date Received: Completed by Grants.gov upon submission.	4. Applicant Identifier: <input type="text"/>
--	---

5a. Federal Entity Identifier: <input type="text"/>	5b. Federal Award Identifier: <input type="text"/>
---	--

State Use Only:

6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>
--	--

8. APPLICANT INFORMATION:

* a. Legal Name: City of Rialto	
* b. Employer/Taxpayer Identification Number (EIN/TIN): 956000768	* c. Organizational DUNS: 0835838490000

d. Address:

* Street1: 150 S. Palm Avenue
Street2: <input type="text"/>
* City: Rialto
County/Parish: <input type="text"/>
* State: CA: California
Province: <input type="text"/>
* Country: USA: UNITED STATES
* Zip / Postal Code: 92376-6406

e. Organizational Unit:

Department Name: <input type="text"/>	Division Name: <input type="text"/>
--	--

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: Mr.	* First Name: Thomas
Middle Name: J.	<input type="text"/>
* Last Name: Crowley	<input type="text"/>
Suffix: <input type="text"/>	<input type="text"/>

Title: Utilities Manager

Organizational Affiliation: <input type="text"/>
--

* Telephone Number: (909) 820-8056	Fax Number: <input type="text"/>
---	---

* Email: tjcrowley@rialto.ca.gov

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

C: City or Township Government 

Type of Applicant 2: Select Applicant Type:



Type of Applicant 3: Select Applicant Type:



*** Other (specify):**

*** 10. Name of Federal Agency:**

Bureau of Reclamation

11. Catalog of Federal Domestic Assistance Number:

15.507

CFDA Title:

WaterSMART (Sustain and Manage America's Resources for Tomorrow)

*** 12. Funding Opportunity Number:**

R22AS00023

*** Title:**

WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2022

13. Competition Identification Number:

R22AS00023

Title:

WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2022

14. Areas Affected by Project (Cities, Counties, States, etc.):

*** 15. Descriptive Title of Applicant's Project:**

Advanced Metering Infrastructure Implementation Project

Attach supporting documents as specified in agency instructions.

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	2,000,000.00
* b. Applicant	4,761,169.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	6,761,169.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

a. This application was made available to the State under the Executive Order 12372 Process for review on .
 b. Program is subject to E.O. 12372 but has not been selected by the State for review.
 c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

Yes No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:
Middle Name:
* Last Name:
Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed: *Thomas J. Crowley*

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Agency:	Bureau of Reclamation
Contact Information:	Ned Weakland

APPLICANT & WORKSPACE DETAILS:

Workspace ID:	WS00792902
Application Filing Name:	Advanced Metering Infrastructure Implementation Project
DUNS:	0835838490000
Organization:	RIALTO, CITY OF
Form Name:	Assurances for Construction Programs (SF-424D)
Form Version:	1.1
Requirement:	Optional
Download Date/Time:	Oct 09, 2021 06:56:47 PM EDT

Form State:

FORM ACTIONS:

ASSURANCES - CONSTRUCTION PROGRAMS

OMB Number: 4040-0009
Expiration Date: 02/28/2022

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards of merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. § 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
20. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL Completed on submission to Grants.gov <i>Thomas J. Crowley</i>	TITLE <i>Utilities Manager</i>
APPLICANT ORGANIZATION <i>City of Rialto</i>	DATE SUBMITTED Completed on submission to Grants.gov <i>10/29/21</i>

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Contact Information:	Ned Weakland

APPLICANT & WORKSPACE DETAILS:

Workspace ID:	WS00792902
Application Filing Name:	Advanced Metering Infrastructure Implementation Project
DUNS:	0835838490000
Organization:	RIALTO, CITY OF
Form Name:	Disclosure of Lobbying Activities (SF-LLL)
Form Version:	2.0
Requirement:	Optional
Download Date/Time:	Oct 09, 2021 06:55:04 PM EDT
Form State:	No Errors

FORM ACTIONS:

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013
Expiration Date: 02/28/2022

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
--	--	--

4. Name and Address of Reporting Entity:
 Prime SubAwardee
 * Name: City of Rialto
 * Street 1: 150 S. Palm Ave. Street 2: _____
 * City: Rialto State: CA: California Zip: 92376
 Congressional District, if known: 35

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency: US Dept. of Interior, Bureau of Rec	7. * Federal Program Name/Description: WaterSMART (Sustain and Manage America's Resources for Tomorrow) CFDA Number, if applicable: 15.507
---	---

8. Federal Action Number, if known: _____	9. Award Amount, if known: \$ _____
---	---

10. a. Name and Address of Lobbying Registrant:
 Prefix: Mr. * First Name: Kevin Middle Name: _____
 * Last Name: Bosch Suffix: _____
 * Street 1: 517 2nd Street, NE Street 2: _____
 * City: Washington State: DC: District of Columbia Zip: 20002

b. Individual Performing Services (including address if different from No. 10a)
 Prefix: Mr. * First Name: Kevin Middle Name: _____
 * Last Name: Bosch Suffix: _____
 * Street 1: 517 2nd Street, NE Street 2: _____
 * City: Washington State: DC: District of Columbia Zip: 20002

11. information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* Signature: Completed on submission to Grants.gov *Thomas J. Crowley*

* Name: Prefix: Mr. * First Name: Thomas Middle Name: J.
 * Last Name: Crowley Suffix: _____

Title: Utilities Manager Telephone No.: 909-820-8056 Date: Completed on submission to Grants.gov *10/29/21*

Attachment 14. Areas Affected by Project

City of Rialto

Advanced Metering Infrastructure Implementation Project

Areas affected by the Project include the City of Rialto's entire service area, which provides water and wastewater services primarily within the City of Rialto, serving 55,860 people in San Bernardino County, California. The City's service area is essentially the incorporated portion of the City of Rialto located between Interstate 10 and State Route 210.

The Project will reduce the quantity of groundwater pumped locally for potable supply and reduce the demand on imported water received from the San Bernardino Valley Municipal Water District via the State Water Project to recharge and manage groundwater basins that supply the City's potable water.

County: San Bernardino

State: California