

**Bureau of Reclamation**  
**WaterSMART:**  
**Small-Scale Water Efficiency Projects**

US Department of Reclamation - 2021 - R21AS00300



Phelan Pinon Hills Community Services District  
**AMI Water Use  
Efficiency Project**

Phelan Pinon Hills Community Services District  
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### **List of Acronyms**

AFY	Acre-feet per year
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
CEQA	California Environmental Quality
DWR	Department of Water Resources
FOA	Funding Area Opportunity
IRWM	Integrated Regional Water Management
MWA	Mojave Water Agency
NEPA	National Environmental Policy Act
PPHCSD	Phelan Pinon Hills Community Services District
Reclamation	Bureau of Reclamation
SAM	System for Award Management
SWP	State Water Project
UWMP	Urban Water Management Plan
WCVC	Watersheds Coalition of Ventura County

### **Appendices**

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## **SECTION 1: Technical Proposal and Evaluation Criteria**

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### **1.1 Executive Summary**

<b>Date:</b>	18 March 2021
<b>Applicant Name:</b>	Phelan Pinon Hills Community Services District
<b>Applicant City, County, State:</b>	Phelan, San Bernardino, California
<b>Project Title:</b>	AMI Water Use Efficiency Project, Phase 3a

The Phelan Pinon Hills Community Services District (PPHCSD) is seeking grant funding to upgrade its analog water meter system with Advanced Metering Infrastructure (AMI). The PPHCSD distribution system depends on local groundwater from 13 groundwater wells to serve its over 7,000 service connections. However, PPHCSD lies in an adjudicated basin and sees annual decreases in free production allowances and will eventually become dependent upon imported water supplies. This, coupled with the need to improve drought resiliency, has motivated PPHCSD to actively pursue measures to improve its overall water supply reliability. In 2019, PPHCSD tested 2% of its meter population and determined that a projected 50% of its meters under-register water usage and an approximate 40% of its meters are leaking. This data informed the decision to improve demand management by upgrading its water distribution meter system with AMI.

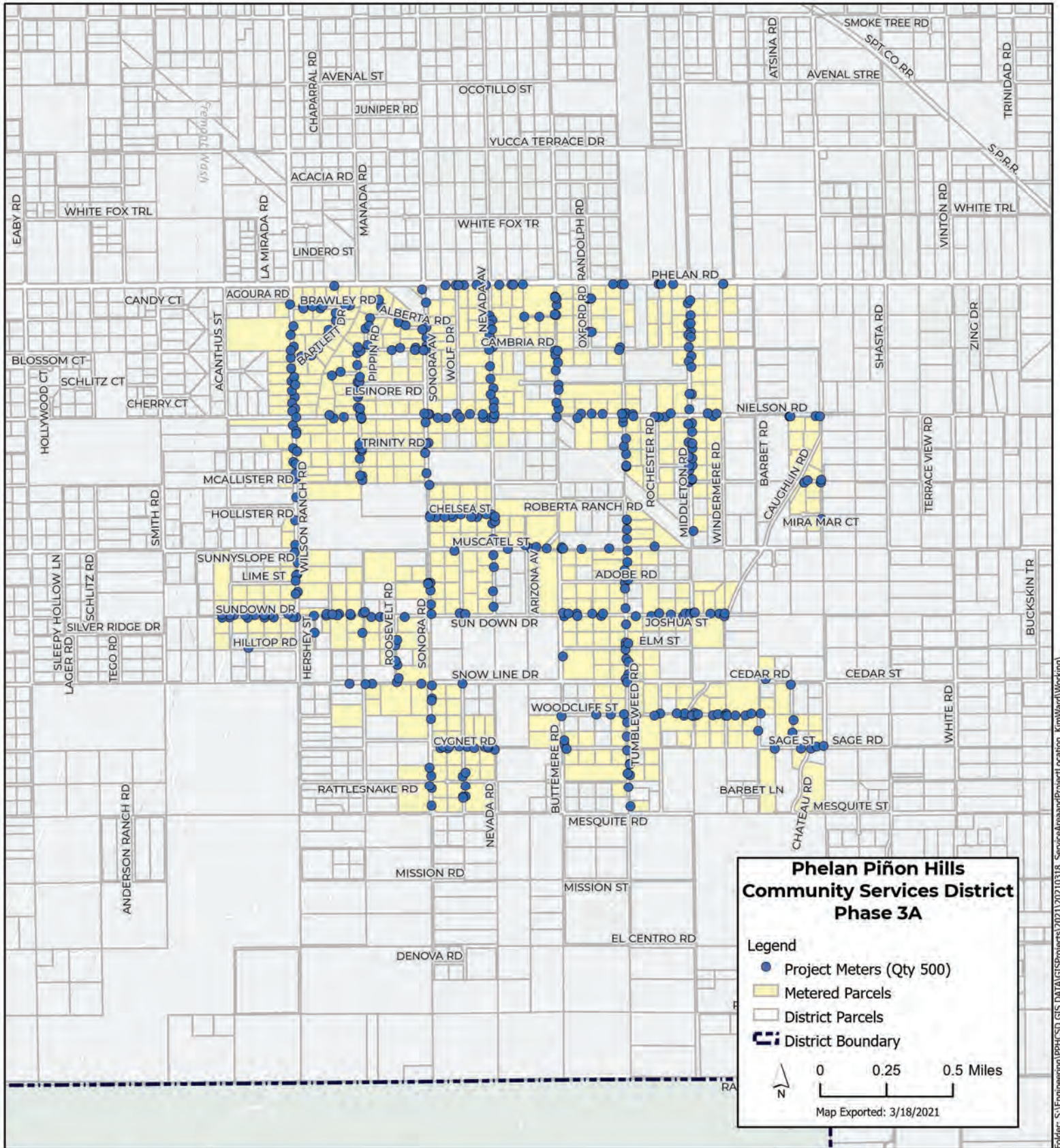
PPHCSD has currently upgraded 1,480 connections, about 21 percent of its system. Despite clear water savings benefits, however, project implementation has been delayed due to lack of funding. With funding from this WaterSMART grant program, PPHCSD would move forward with upgrading its remaining system to attain full AMI coverage and maximum water savings potential. Funding would be used for the purchase of water meters, cellular endpoints, and installation of 229 connections of PPHCSD's Phase 3A project, with the balance of 271 connections to be paid for by PPHCSD. Implementation of this project is an important step to enhancing long-term water use efficiency, and in turn improving water supply reliability within the PPHCSD service area and within the region.

In addition, the project reduces the number of gas fueled vehicles on the road required to read PPHCSD current meters on a daily, weekly, and monthly basis, thus furthering the fight against climate change. As such, this project contributes to the goals of this Small-Scale Water Efficiency Projects Funding Opportunity Announcement (FOA) to implement small-scale water efficiency projects that have been prioritized through applicant-led planning efforts and which conserve and use water more efficiently and contribute to supply reliability in the western United States.

Installation activities will commence upon execution of a financial agreement with the Bureau of Reclamation (Reclamation), no earlier than July 2022, and the project is anticipated to be completed within 12 months thereof.

The project will not be located on a Federal facility.





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**Figure 1**  
**PPHCSD Service Area and Project Location**  
**Phase 3A**  
**March 2021**

AMI Water Use Efficiency Project  
 WaterSMART Grants: Water Efficiency Projects

## **1.2 Background Data**

### **1.2.1 Description of Applicant and Project Location**

PPHCSD is a community services district serving 7,071 residential and small business connections within the unincorporated communities of Phelan and Pinon Hills. The PPHCSD service area is located in the foothills to the north of the San Gabriel Mountains in the Mojave Desert. The PPHCSD service area boundary, within which the proposed meter upgrades will be implemented, is shown in Figure 1.

### **1.2.2 Water Supplies and Demands**

PPHCSD's primary source of supply is local groundwater pumped from wells owned and operated by the District. The system has 12 active wells which lie in two basins, the Alto basin and the Oeste basin, and one additional groundwater well within the Antelope Valley Basin. These wells pump into nearby storage tanks or directly into the system. PPHCSD serves on average 2,284 acre-feet per year (AFY) of potable water supplies. Groundwater supplies within the region are regulated by Mojave Water Agency, from which PPHCSD has a current pumping allocation of 3,510 AFY in the Oeste basin and 196 AFY in the Alto Basin. This amount is subject to being decreased every year.

Between 2015 and 2020, actual demands averaged 2,284 AFY. PPHCSD projects its water demands to increase to approximately 2,404 AFY by 2040, which would be met with local groundwater.

### **1.2.3 Water Delivery System**

PPHCSD was established through an election in 2008 which consolidated three Special Districts, formerly operated by the County of San Bernardino. The system was primarily built in the 1970's and 1980's and consists of the unincorporated communities of Phelan and Pinon Hills encompassing approximately 116.4 square miles. Groundwater is supplied from 13 PPHCSD-owned wells.

PPHCSD operates 21 pressure zones and has 39 water storage tanks, totaling 11.4 million gallons of capacity. The total length of transmission and distribution lines is 338 miles.

PPHCSD serves 7,071 connections, all of which are metered. Of those connections, approximately 79% are analog meters averaging about 10-12 years in age. The remainder have been upgraded with AMI starting in 2020, as described in more detail below.

### **1.2.4 Past Working Relationship with Reclamation**

PPHCSD has not previously worked with Reclamation.



## **1.3 Technical Project Description and Milestones**

### **1.3.1 Project Need and Background**

It is PPHCSD's mission to efficiently provide authorized services and maximize resources for the benefit of its customers. However, PPHCSD lies in the Mojave Desert where supply is becoming increasingly scarce and recent drought mandates and reductions in pumping allowances threatens already critical supply. Further, extended periods of drought in the state have become more frequent and continued dry conditions make sources overall less reliable.

Groundwater supplies are limited and during the most recent drought period extending from 2011 to 2019, PPHCSD was severely impacted. In May 2015, the State Water Board adopted an emergency regulation requiring PPHCSD to immediately reduce usage by 32%. This requirement was recently lifted, but upcoming state regulations will permanently reduce usage per capita per day. At the same time, PPHCSD is subject to a Court Judgment which adjudicates the rights to pump groundwater in the Mojave Basin Area. This judgment has currently limited PPHCSD to a 40% reduction in pumping. The reliability assessment detailed in the 2015 Mojave Water Agency Urban Water Management Plan (UWMP), emphasizes the increasing uncertainties related to the reliability of state water supplies and future challenges for deliveries of reliable imported water supplies, upon which PPHCSD will become reliant on in the future. Therefore, PPHCSD planning efforts identify the need for increase water use efficiency and maximizing use of local water resources as a means of improving long-term water supply reliability within the PPHCSD service area. As such, PPHCSD has been proactively investigating and implementing opportunities to improve water use efficiency, increase drought resiliency and continue to reliably meet customer water demands.

Currently, about 79% of the PPHCSD system utilizes analog meters with Automated Meter Reading (AMR) technology, requiring drive by readings monthly. Numerous inefficiencies are common with aging analog meters, including an inability to automatically detect leaks, erroneous or inaccurate meter readings, and the use of substantial resources to conduct on-site meter readings and data analysis. PPHCSD currently conducts meter readings every month. This frequency is not conducive to detecting leaks or unusual water usage in a timely manner. Unless customers with analog meters personally monitor their water use and record their meter readings, leaks may go undetected until the next meter reading or until a customer receives an unusually high water bill. Many low flow leaks may still go undetected as they will not be apparent from water billing data. Further, it is difficult for customers to gauge whether or not their water conservation efforts have been effective on a day to day basis. In addition, the estimated number of meters currently leaking in the PPHCSD system based upon testing data, is at 40%. These leaks, which are in the housing of the meters, are not reflected on a customer's bill, but do impact overall system water loss.

In its water resource management planning efforts, PPHCSD identified improved leak detection, with improved metering technology, as an effective means for reducing water waste within the

PPHCSD system. AMI has substantial benefits for increasing water use efficiency, including more immediate leak detection, improved accuracy at high and low flows, and a user-friendly water use data platform. Therefore, PPHCSD has chosen to upgrade its system with AMI to increase water use efficiency, as well as to mitigate typical metering inefficiencies and help customers lower their water bills.

In July 2020, PPHCSD began implementing an AMI upgrade program, including initial installations, AMI tower data collectors, AMI software training, and integration of the new system into PPHCSD's current billing system. Since initiation of the program, PPHCSD staff has observed substantial water savings potential from AMI, detecting on average 423 high flow, low flow, and leak instances at any one time. Over 60 of these alerts indicate some type of customer side leak. When PPHCSD staff is alerted of leaks with the current smart meter software, customers are notified and required to fix the leak within a certain time period and are offered an appointment to meet with the PPHCSD Conservation Program Administrator who can assist in locating leaks. As such, these improvements have already resulted in substantial water savings.

However, due to lack of funding to purchase necessary AMI equipment, rollout of the AMI program has been delayed. At current pace, PPHCSD will not be able to complete its program for a projected 5 years. Whereas, over the last year, upgrades have only focused on old meters that have failed and a small portion of the system. The remaining connections are still equipped with analog meters, resulting in continued inefficiencies. Funding under this Small-Scale Water Efficiency Projects opportunity would provide necessary financial leverage to implement the AMI upgrades across an additional 7% of the PPHCSD service area for increased coverage and greater savings potential and will help to work towards completing the overall project. This project is a critical component for improving long-term water supply reliability in the PPHCSD service area and across the region.

### **1.3.2 Project Description, Activities and Implementation Schedule**

With this application, PPHCSD proposes to upgrade 500 meters with AMI capabilities, which will result in increased AMI coverage of 7% of the PPHCSD service area. Existing meters will be replaced and equipped with cellular endpoint assembly. The magnetic resonance meters measure the flow of water and the electronic endpoint transmits the meter data via cellular transmittal. Cellular transmittal is already enabled. PPHCSD has chosen Sensus meters with the Sensus Analytics solution, which has shown to have extremely high accuracy in readings and provides an easy-to-use database. This meter system was also found to produce the greatest benefits with respect to ease of use, meter reading accuracy and efficiency, and cost viability, compared to other options.

Project implementation will consist of the following activities:



### **Task 1 – Project Management, Administration and Reporting**

Project management will be provided by PPHCSD staff to ensure successful project implementation. Activities will include project administrative oversight, managing meter purchases, and ensuring the project advances according to schedule. In addition, PPHCSD will perform grant administration activities to execute the financial assistance agreement, ensure compliance with grant requirements, prepare and submit necessary supporting grant documents and coordinate with the Reclamation grant manager. Grant-related activities will begin immediately upon notification of award, whereas the majority of project management activities and grant reporting will begin upon executing the financial assistance agreement.

### **Task 2 – Vendor Procurement**

PPHCSD has been working with Sensus, and their vendor Aquametrics for its equipment purchases to date and will continue to work with this vendor to purchase remaining AMI equipment, under Task 3.

### **Task 3 – AMI Equipment Purchase and Installation**

A total of 500 meters will be upgraded to AMI devices, as part of this proposed project. A total of 500 meters and MXU endpoints will be purchased to accomplish those upgrades. AMI equipment installations will be conducted by Concord Utility Services, who is experienced in these installations. Equipment purchases and installations will occur upon entering into a financial assistance agreement with Reclamation.

### **Task 4 – Environmental Compliance**

Based on the nature of project activities, the project falls under a Categorical Exemption pursuant to CEQA and a Categorical Exclusion pursuant to NEPA and will therefore require minimal effort for filing applicable documentation. PPHCSD staff will complete the required filing upon notice of award and prior to project implementation.

Implementation Schedule Based on the FOA, award notification is anticipated by spring 2022. For planning purposes, selection is anticipated in September 2021 with funds awarded anticipated for January 2022. The project is anticipated to begin in late February 2022 and be completed by late December 2022, or within 10 months of executing the agreement.

## **1.4 Evaluation Criteria**

Evaluation criteria of the FOA are presented in italics, followed by specific information on the proposed project in the following subsections.

### **1.4.1 Evaluation Criterion A: Project Benefits**

*Describe the expected benefits and outcomes of implementing the proposed project.*

#### **AMI Benefits**

The proposed project will result in increased water use efficiency and improved water supply reliability within the PPHCSD service area. Water savings will result by: (a) improving accuracy of water metering, and (b) facilitating leak detection and making water meter data more transparent and easier to access for customers and PPHCSD staff.

#### Meter Reading Accuracy and Automation

The Sensus meters proposed to be installed with this project have exceptional accuracy at low to high flow conditions. This accuracy is critical for detecting leaks, particularly low flow leaks, and for enabling PPHCSD to bill customers more accurately according to use, thereby avoiding under- or overbilling. Meter reading of older analog meters is a labor-intensive effort requiring PPHCSD staff to drive throughout the District across the service area to obtain reads. The AMI system will be equipped with mobile reading software allowing automatically collected water usage data to be read remotely, in real-time. The automation will reduce errors from manual readings, improve meter reading accuracy, and reduce use of resources, including staff time and fuel for staff vehicles, related to manual meter readings.

#### Data Transparency and Water Waste Detection

One of the primary benefits of the proposed project is the ability to more easily identify water leaks. With the AMI system, data is transmitted via cloud-based software and is accessible in real-time by PPHCSD staff and customers. PPHCSD staff will be alerted of potential leaks, over usage or other inefficiencies in the system. Real-time water consumption data will show sharp spikes in usage or alert to unusual continuous use indicating small leaks or possibly a catastrophic pipeline break. With this type of transparency, PPHCSD can more easily locate and address leaks, alert customers of issues, and save both money and water. This can also prevent customers from receiving large water bills due to undiscovered leaks in their water system. The improved transparency is also anticipated to promote customer involvement and awareness of water usage to promote long-lasting water use efficiency.

#### **Estimated Water Savings**

Current water losses within the PPHCSD service area are occurring, in large part, due to leaks within a customer's household. This is evidenced by actual AMI data that PPHCSD staff has been reviewing since initiation of the upgrade program. With the existing AMI system, PPHCSD has been able to more immediately address leaks and reduce demands. Based on current water loss data, it is estimated that AMI implementation across the entire PPHCSD system and resulting reduced water losses would result in total demand reductions by about 8 percent. Given that the project will upgrade 7 percent of the system's meters, it is estimated that the proposed project will reduce water losses by about 13 AFY and will contribute to PPHCSD's goal of 100% AMI implementation, which will reduce PPHCSD's AFY by approximately 182 AFY.

The water conserved through avoided losses would remain in the distribution system and be available for meeting other PPHCSD demands, thereby helping to extend available groundwater supplies. As such, the project is essential in optimizing water use efficiency, reducing overall water demands, and improving PPHCSD's water supply reliability. By reducing overall system water demands, the project also helps reduce PPHCSD's future reliance on imported water supplies which in turn reduces its vulnerability to potential imported water supply shortages. In addition, with high demands on imported water across the region and State, local reductions in imported water demands has far-reaching effects that can improve reliability of the supply for other beneficial uses.

#### **1.4.2 Evaluation Criterion B: Planning Efforts Supporting the Project**

*Describe how your project is supported by an existing planning effort.*

PPHCSD has worked for over a decade to manage water resources effectively to reliably meet its growing customer demands. With increasing reliability concerns of imported water supplies and limited local groundwater supplies, PPHCSD has been pursuing various opportunities to improve water supply reliability in recent years with the understanding that this involves, both, supply-side and demand-side efforts. On the supply-side, PPHCSD has been working to improve reliability of its local groundwater supply. In 2016, PPHCSD implemented a service line replacement program to address background water loss between mainlines and customer meters. To date, approximately 12% of the District's service lines have been replaced. In addition, water efficiency at booster stations have been made a priority, and certain portions of boosters have been replaced resulting in savings in the millions of gallons range.

On the demand-side, PPHCSD has observed innumerable instances of customer water leaks or unusual usage which, with analog meters, can go undetected for several weeks or, in the case of some low flow leaks, indefinitely. As such, PPHCSD identified the need to improve water use efficiency, and particularly improve leak detection as a means of reducing water waste and overall water demands. The impetus for PPHCSD to conduct initial meter upgrades was based on documented savings from smart meter upgrade projects conducted in other service areas. Case studies show that smart meter upgrades can result in substantial water savings, commonly between 7 to 10 percent of total demands and more. The nearby City of Ventura, which is in the process of implementing a large-scale smart meter program, also projected savings at the low end of that range. This water savings potential has since been substantiated for the PPHCSD system by actual results from the current AMI system, as noted in Section 1.4.1.

For these reasons, the proposed project has been identified as a priority in PPHCSD's planning efforts. Mojave Water Agency planning efforts also provide support for the proposed project, due to the need for increased water use efficiency within the Mojave Basin service area. The reliability assessment detailed in the Mojave Water Agency 2015 UWMP emphasizes the increasing uncertainties and future challenges related to imported water supply deliveries. As such, Mojave Water Agency has focused much of its planning efforts on water use efficiency and maximizing use of local water resources to ensure reliable supplies. In addition, the Mojave

Water Agency strategic plan includes promoting and facilitating implementation of water use efficiency measures as a strategy to improve long-term water supply reliability.

The proposed project also directly aligns with, and contributes to, regional water resources planning goals for increased water use efficiency and improved long-term water supply reliability. The Mojave Basin community of water agencies, natural resource agencies and other regional and state-level stakeholders collaborate across the Mojave Water Agency region as part of the Mojave Water Agency (MWA) Integrated Regional Water Management (IRWM) planning efforts. One of the primary goals of the MWA is to protect, conserve, and augment local water-supply portfolio to increase local water resilience.

### 1.4.3 Evaluation Criterion C: Project Implementation

The project will consist of the following activities, which are detailed in Section 1.3.2.

- Task 1 – Project Management, Administration and Reporting**
- Task 2 – Vendor Procurement (complete)**
- Task 3 – AMI Equipment Purchase and Installation**
- Task 4 – Environmental Compliance**

#### Implementation Schedule

Based on the NOFO presentation’s sample schedule, award selection is anticipated in September 2021 with funds awarded anticipated for January 2022. The project is anticipated to begin in late February 2022 and be completed by late December 2022, or within 10 months of executing the agreement. The project implementation schedule by task is listed below.

**TABLE 1 – PROJECT SCHEDULE**

<b>Task</b>	<b>Start Date</b>	<b>End Date</b>
1. Project Management, Administration, & Reporting	2/19/2022	12/30/2022
2. Vendor Procurement	COMPLETE	
3. AMI Equipment and Software Installation	3/21/2022	12/1/2022
4. Environmental Compliance	2/19/2022	3/21/2022

No permits or special approvals are needed for implementation of the project. Project work will be conducted at existing meter locations that are fully within PPHCSD’s authority.

The project consists of the purchase and installation of AMI equipment at meter locations within the PPHCSD service area that have not yet been upgraded. No engineering or design work was required for the project. No new policies or administrative actions are required for implementation of the project.



The project is anticipated to fall within a Categorical Exemption pursuant to CEQA and a Categorical Exclusion pursuant to NEPA and will not require further compliance measures.

#### **1.4.4 Evaluation Criteria D: Nexus to Reclamation**

- *Is the proposed project connected to Reclamation project activities? If so, how? Please consider the following:*
  - *Does the applicant receive Reclamation project water?*

PPHCSD does not receive Reclamation project water.

- *Is the project on Reclamation project lands or involving Reclamation facilities?*

The project is neither on Reclamation lands nor does it involve Reclamation facilities.

- *Is the project in the same basin as a Reclamation project or activity?*

The project is not located in the same basin as a Reclamation project or activity.

- *Will the proposed work contribute to a basin where a Reclamation project is located?*

Based on the projects listed for the region, there are no Reclamation projects or activities in the basin.

- *Will the project benefit any tribe(s)?*

Water conservation projects benefit everyone, including area tribal members, by helping to ensure water resources are available for future generations. PPHCSD strives to be self-sufficient and look for innovative ways to conserve water. PPHCSD does not have the need to procure water from the California Water Project at this time. This allows more California Water Project resources for those in need, including tribal communities.

#### **1.4.5 Evaluation Criterion E: Department of the Interior and Bureau of Reclamation Priorities**

##### Department Priorities

1) *Creating a conservation stewardship legacy second only to Teddy Roosevelt*

The proposed project is the result of long-term, innovative water resources planning using best available science and technology to identify best practices for managing water resources. PPHCSD has worked since its inception to manage resources effectively in an arid environment while meeting customer demands, including strategic basin management to remain self-sufficient. Planning efforts include assessing potential future supplies and demand forecasting using the best available science and technology for managing water resources and adapting to climate change.

PPHCSD coordinates efforts with groundwater professionals, water districts, and agencies that have spent decades striding the groundwater basins to assess sustainability, evaluate challenges, identify best practices for basin management, and ensure water resources are available for the future. This is accomplished through cooperation with the regional watermaster, Mojave Water Agency, and the Integrated Regional Water Master Plan.

PPHCSD is in the process of updating its UWMP. As required by the Urban Water Management Planning Act in which urban water suppliers are required to prepare and adopt UWMPs at least once every five years in recognition that, among other factors, water is a limited resource that is subject to ever increasing demands, conservation, and efficient use of water is a high priority whose planning is best accomplished at the local level. The UWMP outlined demand management measures common to the industry and those used or planned for implementation in the agency service areas. Metering programs are among the highly recognized demand management measures to achieve effective water conservation.

PPHCSD and the broader community of water agencies in the region will continue to rely on science combined with the experience and knowledge of expert water resource managers to identify best practices for effectively managing water resources and adapting to climate change.

## *2) Utilizing our natural resources*

Water is the most essential natural resource available and the proposed project will help protect it. The project will increase water use efficiency, thereby reducing demands on limited groundwater supplies. By managing supplies more efficiently, this project contributes to reducing potential water-related conflicts and crises, promotes conservation of our natural resources, and helps ensure reliable drinking water to protect health and safety. These benefits are especially crucial in the face of climate change. In addition, through the water-energy nexus, the long-term water savings resulting from this project will also contribute to energy savings and enhanced energy security by reducing the number of vehicles on the road reading and turning meters on and off.

### *3) Restoring trust with local communities*

It is the PPHCSD's mission to serve safe and reliable water supplies to its customers. On a local level, the implementation of AMI across PPHCSD's service area is providing significant opportunities to assist its customers in reducing water bills and using water more efficiently, while increasing the reliability of continued supplies.

### *4) Striking a regulatory balance*

The DOI priority is not applicable to the project.

### *5) Modernizing our infrastructure*

PPHCSD was formed in 2008 when the citizens of Phelan and Pinon Hills overwhelmingly voted to separate water and other specified services from the county and create a community services district. A major priority was to upgrade neglected and aging infrastructure. Numerous projects have been completed in order to meet the needs to modernize equipment and operational process. Among those needs is the metering system, which consists primarily of aging and failing radio read meters that result in high levels of inefficiencies. The proposed project will help address infrastructure modernization needs by implementing sophisticated AMI technology across its service area to improve water use efficiency and help reduce stresses on its distribution system.

## Reclamation Priorities

### *1) Increase Water Supplies, Storage, and Reliability under WIIN and other Authorities*

The proposed project will result in long-term water use efficiency which will help extend PPHCSD's available water supplies and improve PPHCSD's ability to reliably meet demands. This water demand management measure is a critical component for improving long-term water supply reliability, in the PPHCSD service area and across the region given the dependence on local groundwater resources.

### *2) Leverage Science and Technology to Improve Water Supply Reliability to Communities*

The proposed project is the result of long-term, rigorous water resources planning using best available practices for managing water resources and implementation of advanced metering technologies with the intent to improve water supply reliability within the PPHCSD service area and beyond. Additional details on leveraging science and technology is provided above, under Department of the Interior priority 1.

### 3) Address Ongoing Drought

With its water savings benefits, the project will help improve PPHCSD’s water supply reliability and reduce vulnerabilities to drought conditions that can result in water shortages and restrictions on local groundwater pumping. PPHCSD is in a desert climate and subject to drought conditions. PPHCSD has adopted water conservation as a way of life and continually seeks ways to conserve water. Advanced metering technology will aid PPHCSD in addressing drought conditions more effectively and efficiently to ensure that PPHCSD can continue to reliably meet customer demands under drought conditions.

Reclamation priorities 2, 5, 6, and 7 do not apply.

## **SECTION 2: Project Budget**

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### **2.1 Funding Plan and Letter of Commitment**

- *Describe how the non-Federal share of project costs will be obtained.*

The non-Federal share of project costs will come from PPHCSD funds. PPHCSD’s contributions will be in the form of monetary contributions for the purchase of AMI equipment.

No funding will be provided by funding partners. As such, no letters of commitment are being provided.

No funding has been requested or received from other Federal partners for the project.

There are no other pending funding requests.

### **2.2 Budget Proposal**

Table 2, below, summarizes all funding sources (non-Federal and Federal) for the proposed project.

**TABLE 2 – TOTAL PROJECT COST TABLE**

<b>Funding Sources</b>	<b>Funding Amount</b>
Costs to be reimbursed with the requested federal funding	\$75,000
Costs to be paid by the applicant	\$98,945
Value of third-party contributions	\$0
<b>Total Project Cost:</b>	<b>\$173,945</b>



The budget proposal is provided in Table 3, which lists all budget categories of the FOA. The budget items consist of costs associated with the implementation of the proposed project and fall within the Equipment and Contractual/Construction categories, as described in detail below:

**TABLE 3 – BUDGET PROPOSAL**

Budget Item Description	Computation		Quantity Type	Total Cost
	\$/Unit	Quantity		
<b>Salaries and Wages</b>				
Not applicable				\$0.00
<b>Fringe Benefits</b>				
Not applicable				\$0.00
<b>Travel</b>				
Not applicable				\$0
<b>Equipment</b>				
1" Sensus iPerl Meter with MXU	\$278.89	500	Each	\$139,445.00
<b>Supplies and Materials</b>				
Not applicable				
<b>Contractual/Construction</b>				
Concord Utility Services	\$69	500	Each	\$34,500
<b>Other/Environmental and Regulatory Compliance</b>				
Not applicable				\$0
<b>Total Direct Costs</b>				<b>\$173,945</b>
<b>Indirect Costs</b>				
Not applicable				\$0
<b>Total Estimated Project Costs</b>				<b>\$173,945</b>

### 2.2.1 Budget Narrative

#### Salaries, Wages, and Fringe Benefits

PPHCSD will not be seeking reimbursement for staff time spent on the project.

#### Travel

District staff anticipate visiting project sites regularly during project implementation, but this travel would be part of normal staff activity and no reimbursement of match for staff travel is being sought.

**Equipment**

A total of 500 meters will be purchased from Sensus for phase 3a and integrated into the previous phases' system. The cost estimate is based on the vendor quote included in Appendix B.

**Materials and Supplies**

No additional materials or supplies are required to be purchased for implementation of this project.

**Contractual/Construction**

Installations will be conducted by Concord Utility Services who are trained in the installation of AMI equipment in order to not interrupt regular staff duties.

**Third-Party In-Kind Contributions**

There are no third-party in-kind contributions related to the proposed project.

**Environmental and Regulatory Compliance Costs**

The proposed project is anticipated to fall within a Categorical Exemption pursuant to CEQA and Categorical Exclusion pursuant to NEPA that will require minimal effort for filing applicable documentation. PPHCSD will not be seeking reimbursement for staff time related to this effort. Therefore, no budget is included for this category.

**Other Expenses**

Reporting and grant administration will be conducted by PPHCSD. PPHCSD will not be seeking reimbursement for staff time.

**Indirect Costs**

No indirect costs are included in the proposed budget.

**Total Cost**

The total cost of the proposed project is \$173, 945. Funding sources for the project currently include funding from PPHCSD and requested funding from Reclamation. PPHCSD is requesting the maximum amount of \$75,000, or about 44% of total project costs, in funding from Reclamation to fund the proposed project. No other Federal funding has been requested or received for the proposed project.

### SECTION 3: Environmental and Cultural Resources Compliance

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

The project will consist of upgrading existing water service meters with automated meter devices, which will not result in ground-disturbing work. As a result, the project will not impact the surrounding environment.

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

Project activities do not include ground-disturbance and will not impact sensitive species or their habitat. Further, work will be performed within already developed, urbanized and residential areas where there is limited potential for critical habitat or otherwise suitable for sensitive species.

*3) 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.*

There are no “waters of the United States” located within the project boundaries and the project will not have any impacts on any nearby wetlands or surface waters.

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

The formation of PPHCSD occurred in 2008 in which PPHCSD took over management of the distribution system installed in 1978-1984. The water meters targeted for upgrades are on average 11 years old.

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

No, the proposed project will not result in any modification of or effects to individual features of an irrigation system. The project will involve upgrades to residential water meters and will not involve irrigation systems.

*6) Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?*

No buildings, structures or features associated with the proposed project are listed or eligible for listing on the National Register for Historic Places.

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

There are no known archaeological sites within the project area. Additionally, the project will consist of meter upgrades within already developed areas and would not affect potential archeological sites.

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

The project will not have a disproportionately high or adverse effect on low income or minority populations. The project would equally benefit all PPHCSD water customers and could actually provide financial benefits to customers through timely leak detection and water conservation that could reduce water bills.

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

No, the project will not limit access to or ceremonial use of Indian sacred sites or result in other impacts on tribal lands. The project will involve meter upgrades which would not result in adverse impacts on tribal lands.

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

The proposed project is not anticipated to contribute to the introduction, continued existence, or spread of, noxious weeds or non-native invasive species. No ground disturbing work will occur as part of the project, which could contribute to spreading invasive species.



## **SECTION 4: Required Permits or Approvals**

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No permits or special approvals are needed for implementation of the project. Project work will be conducted at existing meter locations that are fully within PPHCSD's authority.

## **SECTION 5: Official Resolution**

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The PPHCSD Board of Directors adopted a resolution on March 17, 2021, authorizing PPHCSD to apply for a WaterSMART grant, to execute a cooperative agreement with Reclamation for implementation of the project and verifying PPHCSD's funding capability. A copy of the resolution is provided in Appendix A.

## **SECTION 6: Letters of Project Support**

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Congressman Jay Obernolte, representing California's 8<sup>th</sup> Congressional District which PPHCSD resides entirely within, supports this project. As a member of the House Science, Space and Technology Committee, Congressman Obernolte recognizes that water conservation is a way of life and that this project is valuable in meeting water conservation goals. A copy of the letter of support is provided in Appendix C.

Assemblyman Thurston Smith, representing California's 33<sup>rd</sup> Assembly District, and representing the majority of PPHCSD's service area, supports this project. As a member of the California Assembly's Water, Parks, and Wildlife Committee, and as a former board member of the PPHCSD watermaster, Mojave Water Agency, Assemblyman Smith is acutely aware of the benefits of this project in conserving water resources. A copy of the letter of support is provided in Appendix C.

## **SECTION 7: SAM Registration**

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PPHCSD is registered in the System for Award Management (SAM) and its unique entity identifier (DUN) is: 967330668. PPHCSD will maintain an active SAM registration with current information during the period of its federal assistance agreement.

## **Appendix A**

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Resolution to Execute Cooperative Agreement with the United States Bureau of Reclamation

**RESOLUTION NO. 2021-04**  
**RESOLUTION OF THE BOARD OF DIRECTORS OF  
THE PHELAN PIÑON HILLS COMMUNITY SERVICES DISTRICT  
SUPPORTING PARTICIPATION IN THE BUREAU OF RECLAMATION  
WATERSMART GRANTS: SMALL-SCALE WATER EFFICIENCY  
PROJECTS PROGRAM**

**WHEREAS**, the Board of Directors of the Phelan Piñon Hills Community Services District ("District") deems it to be in the interest of the District to participate in the WaterSMART Grant Program;

**NOW, THEREFORE, BE IT RESOLVED** that:

1. The District has reviewed and supports a proposal for the WaterSMART Grant: Small Scale Water Efficiency Projects; and
2. The District is capable of providing the amount of funding and/or in-kind contributions specified in the funding plan for Phase 3 of the Smart Meter Implementation Project, as specified in the funding plan; and
3. If selected for a WaterSMART Grant, the District will work with the Bureau of Reclamation to meet established deadline for entering into a cooperative agreement; and
4. The General Manager is authorized to execute all necessary forms on behalf of the District.

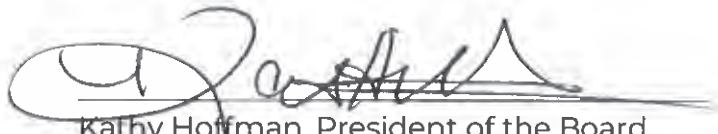
**APPROVED AND ADOPTED** this 17<sup>th</sup> day of March, 2021, to be effective immediately by the following roll call vote:

Ayes: Hoffman, Johnson, Kujawa, Philips, Roberts

Noes:

Absent:

Abstain:



Kathy Hoffman, President of the Board  
Phelan Piñon Hills Community Services District

ATTEST:



---

Kimberly Ward, Board Secretary  
Phelan Piñon Hills Community Services District

## Appendix B

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### Vendor Quotes

C D A A A A C A A A C A C B C A C D  
 B C D C A A A E C C C A A C C E G E G A A C E C D E  
 L J L J A A B C G A E C E A E E C A A B C G E F E D H A A M K L L L  
 A E E E D A M L K K L L L M L L L A G D H E C E C C I C E G C I D E C H E

C E C E A K L H K J K K

A E G E C D E E H A E D E C E A E E E E A E E E E F B A  
 C E E C E E E H D E E E D E A C E D F  
 D D D F F H  
 E G H B C C D H A H  
 A E E E D H  
 A C E E H

A D C D E D	A A C O E D E C	C A D A C E A	A E A C D A E
L J J	K I A A A E A C A A A C E D D A H A H	J K L K H K L	J L J H L M J H J
L J J	L K J A A B E E D A E E G B C E G A E E E G	J K K L H L L	J L L H L K L H J

C E A E D E A D B C A D E A E A D A E M E C A E A D A E A A D E C E A E A C A E A E A B C C D C A E E D E F  
 H A C E E D E A E A E A A C A E A C A E E A G A E E A A E D E A D B A C G  
 I A A E D A C E A C A B E A C E E A E E G  
 I G A E C C E A C D E A E D A C C D E E E E A E E C A G H H H H H H G  
 I A A E A C E E A E A E A E  
 I A A E E D A E D A E A D E A A E A C A E A A I A E E D A C D O B A G  
 I A A C E A A E A D E A A C C E A C E A E A A D D E E C D E A A A D E A E E A D A D C A E D C A G

B G C E C E J K K M H K L H J  
 B E E E E D A A C E D E E D  
 B C E D A C C G J K J H J K M H L  
 C D A E E E E E E E E E



### Pricing Worksheet

Description	Quantity	Unit Price	Extended Price
Meter Replacement 5/8" thru 1" (Excludes replumbing e.g., fire meters)	5,000	\$ 69.50	\$ 347,500.00
Pit lid drilling - Plastic		Included	
<b>Sub Total:</b>			<b>\$ 347,500.00</b>

Additional Cost Items	Quantity	Unit Price	Extended Price
Project Management	NA	NA	NA
Office/Staging:	By Owner	By Owner	By Owner
Storage Containers	By Owner	By Owner	By Owner
Call Center	By Owner	By Owner	By Owner
Waste/Spoils	By Owner	By Owner	By Owner
Mobilization/Demobilization	NA	NA	NA
WOMS - Programming and Setup	NA	NA	NA
WOMS - Transaction Fee:	NA	NA	NA
Billing Integration	NA	NA	NA
<b>Sub Total:</b>			<b>\$ 347,500.00</b>
<b>Total:</b>			<b>\$ 347,500.00</b>

X

**Don Bartz**  
General Manager



## **Appendix C**

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Letter of Support – Jay Obernolte, Congressman for CD-08

Letter of Support – Thurston Smith, Assemblyman for AD-33

Congress of the United States  
Washington, DC 20515

3/4/2021

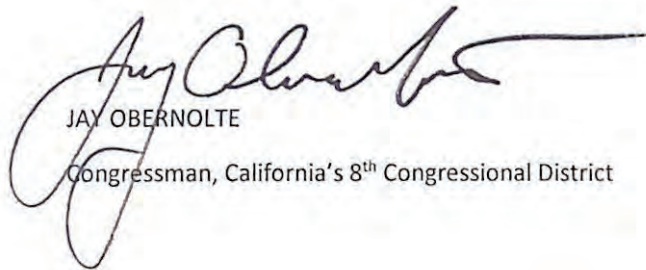
Bureau of Reclamation

As the representative for California's 8<sup>th</sup> Congressional District, I am writing this letter in support of the Phelan Pinon Hills Community Services District's Advanced Metering Infrastructure Water Use Efficiency Project.

This project will help the Phelan Pinon Hills Community Services District, and by extension my constituents, meet water conservation goals by utilizing advanced metering technology. As a rural community, water conservation is a way of life and every project that helps meeting our water conservation goals is valuable.

In closing, please accept this letter of support for the Phelan Pinon Hills Community Services District's Advanced Metering Infrastructure Water Use Efficiency Project. If you have any questions, please contact my office at (760) 247-1815.

Thank you,



JAY OBERNOLTE  
Congressman, California's 8<sup>th</sup> Congressional District

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**STATE CAPITOL**  
P.O. BOX 942849  
SACRAMENTO, CA 94249-0033  
(916) 319-2033  
FAX (916) 319-2133  
**DISTRICT OFFICE**  
9700 7TH AVENUE, SUITE 227  
HESPERIA, CA 92345  
(760) 244-5277  
FAX (760) 244-5447



**COMMITTEES**  
VICE CHAIR: ENVIRONMENTAL SAFETY  
AND TOXIC MATERIALS  
BUDGET  
BUDGET SUBCOMMITTEE NO. 3 ON  
CLIMATE CRISIS, RESOURCES,  
ENERGY, AND TRANSPORTATION  
BUDGET SUBCOMMITTEE NO. 6 ON  
BUDGET PROCESS, OVERSIGHT,  
AND PROGRAM EVALUATION  
GOVERNMENTAL ORGANIZATION  
JOBS, ECONOMIC DEVELOPMENT, AND  
THE ECONOMY  
MILITARY AND VETERANS AFFAIRS  
WATER, PARKS, AND WILDLIFE

March 18, 2021

Bureau of Reclamation

I am writing this letter in support of the Phelan Piñon Hills Community Services District's Advanced Metering Infrastructure Water Use Efficiency Project. I represent the 33<sup>rd</sup> Assembly District, which includes Phelan and Piñon Hills and its residents.

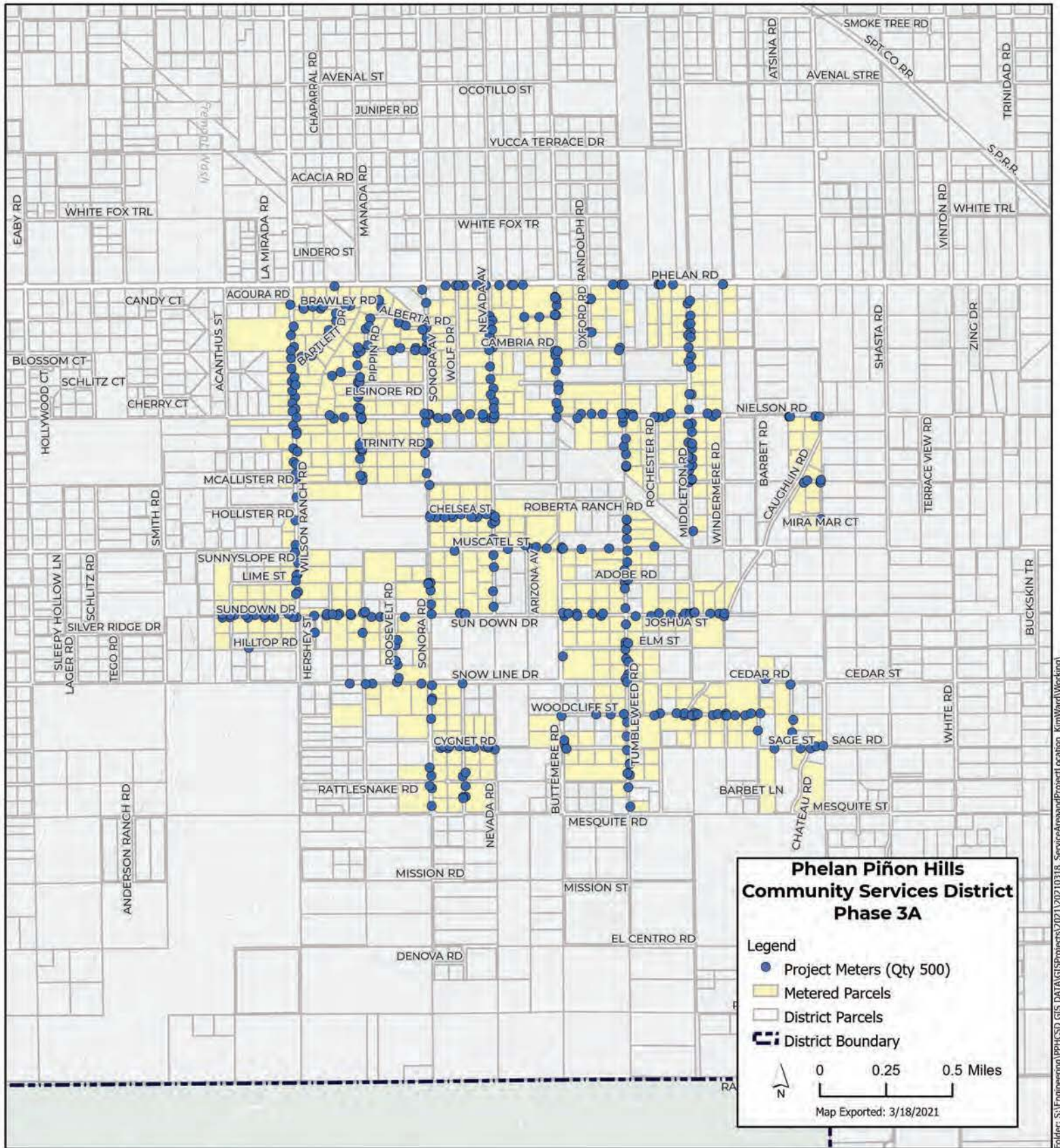
This project will help my constituents and the Phelan Piñon Hills Community Services District meet water conservation goals by utilizing advanced metering technology. Water conservation is important and a way of life for rural communities and this project has my full support.

Thank you for your consideration and please feel free to contact me at (760) 244-5277 if you have any questions.

Sincerely,

THURSTON "SMITTY" SMITH  
Assemblyman, 33<sup>rd</sup> District





Folder: S:\Engineering\PPHCSD GIS DATA\GISProjects\2021\20210318\_ServiceAreaandProjectLocation\_KimWard\Working



**Figure 1**  
**PPHCSD Service Area and Project Location**  
**Phase 3A**  
 March 2021

AMI Water Use Efficiency Project  
 WaterSMART Grants: Water Efficiency Projects