



## **BOARD MEETING AGENDA SUBMITTAL**

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**TO:** GCSB Board of Directors

**FROM:** Peter J. Kampa, General Manager

**DATE:** November 8, 2022

**SUBJECT: Agenda Item 6A: Adoption of a Resolution Authorizing and Supporting the Tuolumne-Stanislaus Integrated Regional Water Management Authority in an Application to the Department of Water Resources, Urban Community Drought Relief Grant Program for the Groveland Advanced Metering Infrastructure Project**

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### **RECOMMENDED ACTION:**

Staff recommends the following action:

*I move to approve Resolution 44-2022 authorizing and supporting the Tuolumne-Stanislaus Integrated Regional Water Management Authority in an application to the Department of Water Resources, Urban Community Drought Relief Grant program for the Groveland Advanced Metering Infrastructure project.*

### **BACKGROUND:**

The district has been working for several years to secure reasonable funding to replace our current system of customer water meters with the newest advanced metering infrastructure available, that also functions with our terrain and environment. Replacement and upgrade of these meters is the most important customer service, water conservation, and data gathering project needed by the district.

The AMI project was submitted in early 2022 to the department of water resources in hopes of funding through this same program, but the application was unsuccessful. We have since updated the information provided in the application and have decided the application could be more successful if aggregated with a number of other regionally significant drought resilience and water conservation projects. Therefore we requested that the Tuolumne-Stanislaus Regional Water Management Authority include our AMI project in a series of applications being combined together and submitted to DWR. In this process, we would not be the applicant to DWR and the Tuolumne county resource conservation district would be. Please see the attached portion of the application that addresses the project summary and purpose and need for the project.

### **FINANCIAL IMPACT**

The total cost of the project has to me need to be approximately \$3 million. The department of water resources considers our district disadvantaged, and therefore the 25% normal match is waived. The cost for submitting the application will cost less than \$2000 in engineering expenses.

### **ATTACHMENTS**

1. AMI Project summary
2. Resolution 44-2022

## Project Description \*

A summary description including goals and objectives.

The Project will replace approximately 3300 existing manual-read water meters with a cellular Advanced Metering Infrastructure (AMI) system that will virtually eliminate ten days per month of a vehicle running continuously for a nine hour workday, reducing greenhouse gas emissions, increase customer water conservation through accurate, real time meter readings and water budgets, and reduce water loss within the public water system.

The project reduces customer water consumption through accurate consumption measurement and volumetric pricing. Accurate customer billing is expected to result in 20-acre feet annually in water conserved by customers due to water cost. The project is expected to result in additional customer water conservation of approximately 68.5 acre- feet (ac-ft) through the new meter's software ability to establish customer water budgets and related text notifications, water usage alarms and capability to activate customer water shut off valves when plumbing breaks or abnormal water usage is indicated by the meter. In a water supply or drought emergency situation, the AMI system provides the District with the ability to identify and address water system and customer leaks and abnormally high usage through the meters immediately. Underground water main leaks can be quickly identified for repair using the project's instantaneous read technologies, where now system operators must drive around the system manually reading water meters to determine the location of the problem that could drain tanks in a short period of time. The AMI system is both the District's long term water conservation tool and short term drought emergency response strategy. The project also provides constant real-time water usage data for the evaluation of water usage trends of various land uses, enforcement of water restrictions, water conservation and water supply planning.

## Disadvantage Community (DAC)

Does the proposed project directly impact a disadvantage community? Is it within a Place, Tract or Block Group? or does your organization have a income survey to show DAC status? Please check all that apply. (For more information and map tool visit [http://www.water.ca.gov/irwm/grants/resources\\_dac.cfm](http://www.water.ca.gov/irwm/grants/resources_dac.cfm))

- DAC Place
- DAC Tract
- DAC Block Group
- Income Survey has been conducted.

## Purpose and Need \*

A description of the purpose and need of the Proposal Project and how it addresses the adopted IRWM Plan's goals and objectives, Program Preferences and Statewide Priorities. Additionally, if the proposed project is for Operations and Maintenance describe why grant funds would be necessary to finance the project.

The purpose of the project is to install new water meters to increase water conservation, water supply reliability and improve water demand management through the deployment of innovative technologies and related water system management practices. The project increases water system reliability by notification of customer and system leaks before they become large and result in property damage and jeopardize community water supply, especially in drought conditions. The project provides data to assist in prioritizing water system and water conservation program improvements, as well as accurately planning water supplies and infrastructure, as well as our drought response strategies.

The estimated annual water savings was calculated utilizing the City's 2020 UWMP, water loss assumptions provided by the U.S. EPA, and customer leakage data provided by the District. According to the District's 2020 UWMP, the District's total water loss is approximately 21 percent of the of the water that was treated and distributed during calendar year 2020. According to the U.S. EPA, approximately 75 percent of water lost in a distribution system is recoverable; therefore, the District anticipates conserving approximately 63.3 ac-ft of water on an annual basis. On the customer side of the meter, the District anticipates conserving approximately 5.2 ac-ft of water, as demonstrated through leak adjustments performed by the District during calendar year 2020. An additional 20 acre feet of water will be conserved by reducing customer water consumption by 5% through accurate volumetric water pricing with new meters. By adding the total amount of water lost on the distribution side of the meter and the total amount of water lost on the customer side of the meter, the District estimates that approximately 88.5 ac-ft of water per year can be conserved once the proposed AMR Project is fully implemented.

The project is needed immediately to improve the community's water supply resiliency, reduce water consumption and reduce the amount of water diverted from the Hetch Hetchy water system. The project is needed to address an increasing water demand produced by public water system leaks that are difficult locate and becoming more frequent, and increasing customer water demand due to an influx of new property owners, proliferation of short term rentals in the Pine Mountain Lake community and with the majority of homes built in the 1970's and 1980's with plumbing systems beginning to fail frequently. Implementation of the AMI system is an innovative approach to place water conservation capabilities and demand management tactics in the pockets of our customers, on their cell phone. Staffing would be impossible at a level adequate to read all customer meters at once or continuously to find lost water during a water supply emergency, where this can be done efficiently and immediately by the AMI system.

In California, a disadvantaged community are those with an annual median household income (MHI) of less than 80 percent of the statewide annual figure. According to the U.S. Census Bureau, the average MHI for the State of California during 2015-2019 was \$75,235. During this same period, the District's average MHI was \$59,667, which is 75 percent of the statewide average. Therefore, the District is classified as a disadvantaged community. The Groveland CSD does not have sufficient additional funding to pay for the proposed AMI meter installation project.

The Groveland CSD currently manually record the customer water consumption for each active connection within their service area. To accomplish this task, water system operators drive, company trucks, to each water meter and manually record the water consumption for that month. By replacing the existing manual water meters with new AMI water meters, the amount of Greenhouse Gas emissions would drastically reduce as the proposed AMI water meters utilize existing cellular infrastructure to accomplish two-way communication of meter reading data efficiently and securely via the LTE-M cellular network.

**RESOLUTION 44-2022**

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE GROVELAND COMMUNITY SERVICES DISTRICT AUTHORIZING AND SUPPORTING THE TUOLUMNE-STANISLAUS INTEGRATED REGIONAL WATER MANAGEMENT AUTHORITY IN AN APPLICATION TO THE DEPARTMENT OF WATER RESOURCES, URBAN COMMUNITY DROUGHT RELIEF GRANT PROGRAM FOR THE GROVELAND ADVANCED METERING INFRASTRUCTURE PROJECT**

**WHEREAS**, the Groveland Community Services District (herein referred to as the District) is a local government agency formed and operating in accordance with Section §61000 et seq. of the California Government Code; and

**WHEREAS**, the district has identified the need to replace and upgrade the technology for its water metering systems; and

**WHEREAS**, the district has attempted for many years to secure reasonable financing for this project, titled the Groveland Advanced Metering Infrastructure Project; and

**WHEREAS**, the district is a member of the Tuolumne Stanislaus Regional Water Management Authority, who is preparing to submit an application for funding to the department of water resources under the urban communities drought relief grant program; and

**WHEREAS**, the district wishes to submit it's advanced metering infrastructure project with the package of applications being submitted by the Tuolumne Stanislaus Regional Water Management Authority.

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF GROVELAND COMMUNITY SERVICES DISTRICT** to Adopt Resolution 44-2022 Authorizing and Supporting the Tuolumne-Stanislaus Integrated Regional Water Management Authority in an Application to the Department of Water Resources, Urban Community Drought Relief Grant Program for the Groveland Advanced Metering Infrastructure Project.

**PASSED AND ADOPTED BY THE BOARD OF DIRECTORS OF GROVELAND COMMUNITY SERVICES DISTRICT** this 8th day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

APPROVE:

By: \_\_\_\_\_  
Spencer Edwards, Board President

ATTEST:

By: \_\_\_\_\_  
Rachel Pearlman, Board Secretary

**CERTIFICATE OF SECRETARY**

I, Rachel Pearlman, the duly appointed and acting Secretary of the Board of Directors of the Groveland Community Services District, do hereby declare that the foregoing Resolution was duly passed and adopted at a Regular Meeting of the Board of Directors of the Groveland Community Services District, duly called and held on November 8, 2022.

DATED: \_\_\_\_\_