

Attachment 3 – Proposal Work Plan

I. Description of the Project:

The Groveland Community Services District (GCSD) is a small Disadvantaged Community (<60 percent of the State's MHI) that is located in the Central Sierra due east from San Francisco in Tuolumne County, 42 miles east of Oakdale, 40 miles northeast of Mariposa, 30 miles south of Sonora and 26 miles west from the west entrance to Yosemite National Park. Figure 1 (at the end of this document) shows a water system map of the District.

The District was established in 1953 to serve the communities of Groveland and Big Oak Flat. In the 1960s and 70s, the Boise Cascade Company developed the area to the immediate northeast known as Pine Mountain Lake, significantly increasing the number of District customers.

GCSD's service area is occupied primarily by low density residential developments. GCSD's water distribution system contains over 70 miles of water mains and provides service to approximately 3,600 customers. The majority of the water distribution system was constructed during the 1970s with the PML development. Much of the distribution system in Groveland and Big Oak Flat was constructed in the 1960s.

Water leaks in the water distribution system are frequent. Underground water leaks are primarily a consequence of root intrusion and ground shifting. Above ground water leaks take place at bathroom and kitchen fixtures within private residences. Finally, winter freezes are also a significant source of water losses at GCSD. Pipe bursts are common during cold winter nights and can often go undetected for long periods of time until they are fixed.

All of GCSD's water services are metered. GCSD staff collects meter reads once per month. Due to the topography of the system and the large service area, meter reading is a time consuming task that also generates significant amounts of Green House Gases. GCSD utilizes a 4x4 utility pickup to drive and collect the meter reads. It usually takes between 80 and 96 hours every month to collect all of the meter readings. The collection route is about 210 miles long and during that time, the pickup is usually always on. Operators get in and out of the vehicle to collect readings but do not turn the engine off.

The project consists of installing Automatic Meter Reading (AMR) technology at 3,374 of GCSD's water services. AMR is a technology used in utility meters for collecting the data that's needed for billing purposes. The data is usually transmitted from the meter to the utility company by cellular telephone or radio frequency.

AMR technology provides real-time data consumption at all of the service connections. Advance Meter Analytics is a solution that combines cellular endpoints, use of existing cellular networks and an easy-to-use software product to give the utility the fast, near real-time data to detect leaks in the collection system. This feature represents the greatest opportunity to conserve water, recover lost revenues and improve overall operational efficiency.

GCSD already has meters at all service connections. This project will replace existing meters with new AMR capable meters and will install support software to provide alerts for leak detection.

II. Project Proponent/Partner (if applicable):

The proponent for this project is the Groveland Community Services District.

III. WORK PLAN TASKS

Task 1- Direct Project Administration and Reporting:

Task 1a - Project Management

Manage grant agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with DWR Grant Manager. Prepare invoices including relevant supporting documentation for submittal to DWR.

Deliverables:

- ❖ Financial Statements
- ❖ Invoices

Task 1b - Labor Compliance Program

Take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, preparation and implementation of a labor compliance program or including any payments to the Department of Industrial Relations under Labor Code Section 1771.3.

Deliverables:

- ❖ Proof of labor compliance upon request

Task 1c - Reporting

Prepare and submit quarterly Progress reports detailing work completed in prior month as outlined in Exhibit (G) of this agreement and submit to TS-IRWMA for DWR review.

Prepare draft Final Project Completion Report and submit to DWR via TS-IRWMA/DWR for DWR Project Manager's comment and review no later than 90 days after project completion. Prepare Final Report addressing TS-IRWMA/DWR's comments. The report shall be prepared and presented in accordance with the provision of Exhibit G.

Deliverables:

- ❖ Quarterly Project Progress Reports
- ❖ Draft and Final Project Completion Report

Task 2- Easement(s):

No new easements will be required for the implementation of this project

Task 3- Project Evaluation/Design/Engineering

A project feasibility analysis will be conducted to verify the strength of the cellular signals within GCSD's service area. The study will confirm that cellular technology can be used to collect real-time data from the meters.

The preferred alternatives selected from the feasibility studies prepared in Task 3a will be advanced to final design. The design of each of the elements in the Project The final design for each of the elements will be summarized in a Basis of Design (BOD) Report that will later be used in the preparation of final plans and specifications.

Deliverables:

- ❖ Copy of the Feasibility Report
- ❖ BOD Report
- ❖ Updated Project Cost Estimate
- ❖ 100% Design Documents

Task 4- Environmental Documentation

This task includes the required planning and environmental efforts to implement the proposed project. The project consists of installing water meters and radios within existing meter boxes. The project will not require significant modifications to existing structures.

The California Environmental Quality Act (CEQA) provides a Categorical Exemption to projects that cause minor alterations to existing facilities. This project qualifies for a categorical exemption and a Notice of Exemption will be prepared and files with the State’s Clearing House and Tuolumne County.

Deliverables:

- ❖ Copy of Notice of Exemption

Task 5- Permitting

The project will not require permits by outside agencies.

Deliverables:

- ❖ None

Task 6- Project Monitoring Plan

Develop and submit a Project Monitoring Plan. Along with the Project Performance Measures Table provided by DWR project manager, the Project Monitoring Plan will include baseline conditions, a brief discussion of monitoring systems to be used, methodology of monitoring, frequency of monitoring, and location of monitoring points.

GCSD staff will lead work for monitoring and performances measures verification after Project completion. Costs for monitoring and performance measures are not included in the budget (funding match or grant award).

Deliverables:

- ❖ Project Monitoring Plan

Task 7- Project Construction/Implementation:

Task 7a - Contract Services

GCSO will complete the implementation of these project elements mostly using its own staff. Bid documents will be prepared and used to solicit quotes for materials and equipment. Specialty work will also be advertised and competitive bids will be solicited.

Deliverables:

- ❖ Bid documents
- ❖ Proof of Advertisement
- ❖ Award of contract
- ❖ Notice to proceed

Task 7b - Construction Administration

GCSO will act as the general contractor for the construction of most of these project elements. The nature of these elements is within GCSO's abilities. Subcontractors will be hired for specialty work such as underwater work inside the tanks or the installation of the booster pump in PML. This task includes managing those specialty subcontractors, submittal review, answering requests for information, and issuing work directives. An engineering construction observer will be on site during critical parts of the project. Construction observer duties include: documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable.

Deliverables:

- ❖ Notice of Completion

Task 7c - Construction/Implementation Activities

Construction activities for each of the elements are outlined below:

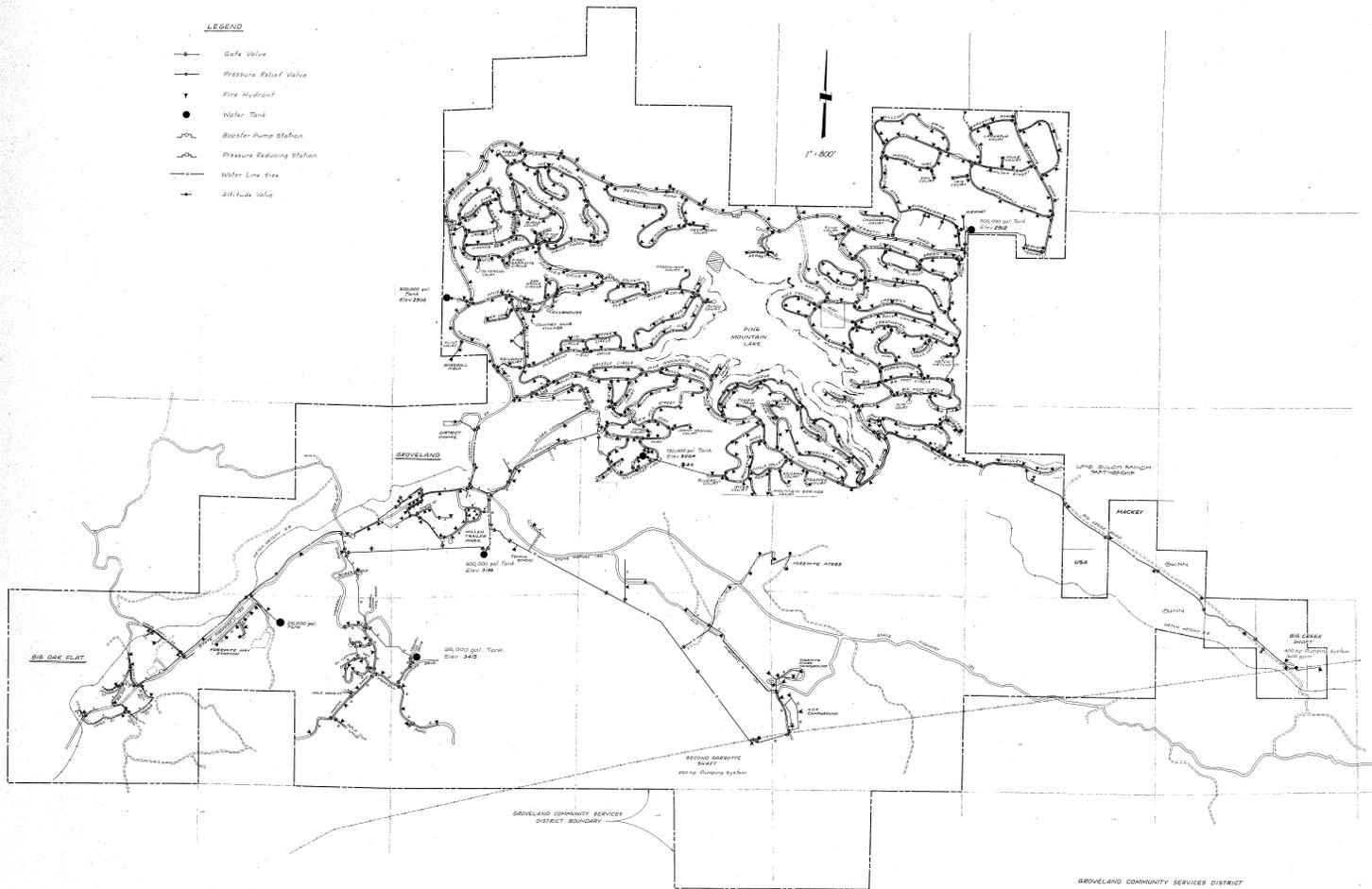
- ❖ 4c.(1): Mobilization and Demobilization: installation of the booster pump station equipment and controls will be done using GCSO staff. Thus, mobilization and demobilization will be minimal.
- ❖ 4c.(2) Site preparation will include construction of a concrete pad and extension of 480V, 3pH power next to the concrete pad.
- ❖ 4c.(3) Install a skid mounted booster pump station with controls on the constructed concrete pad. Install pipe fittings to connect to discharge piping from Tank No. 1.
- ❖ 4c.(4) Make piping modifications at Tank No. 3 to allow water from Tank No. 1 to enter the tank
- ❖ 4c.(5) Connect Booster Pump station to existing SCADA system.

Deliverables:

- ❖ Photographic documentation
- ❖ Engineers Certification

LEGEND

- + Gate Valve
- + Pressure Relief Valve
- + Fire Hydrant
- Water Tank
- + Booster Pump Station
- + Pressure Reducing Station
- + Water Line Size
- + Air Lock Valve



GROVELAND COMMUNITY SERVICES DISTRICT
OVERALL ABOLT WATER SYSTEM

DARRYL DENTON & ASSOCIATES
 CONSULTING CIVIL ENGINEERS

JULY, 1978
 Revised Map 1986

1978	BY	Revision
1978	BY	Revision
1978	BY	Revision