



RANCHO MURIETA COMMUNITY SERVICES DISTRICT

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COMMUNICATION & TECHNOLOGY COMMITTEE

(Directors John Merchant and Linda Butler)

Regular Meeting

December 5, 2019 at 9:00 a.m.

All persons present at District meetings will place their cellular devices in silent and/or vibrate mode (no ringing of any kind). During meetings, these devices will be used only for emergency purposes and, if used, the party called/calling will exit the meeting room for conversation. Other electronic and internet enabled devices are to be used in the “silent” mode. Under no circumstances will recording devices or problems associated with them be permitted to interrupt or delay District meetings.

AGENDA

1. **Call to Order**
2. **Comments from the Public**
3. **Review Purchase of Magnetic Signs**
4. **Field Operations Technology Initiatives Update**
5. **New Bills and Payment Options Outreach**
6. **Communications Related to Special Events and Coordination with RMA**
7. **Discuss Bulky Waste/e-waste/Christmas Tree Pickup Outreach**
8. **Directors & Staff Comments/Suggestions [no action]**
9. **Adjournment**

In accordance with California Government Code Section 54957.5, any writing or document that is a public record, relates to an open session agenda item and is distributed less than 72 hours prior to a regular meeting will be made available for public inspection in the District offices during normal business hours. If, however, the document is not distributed until the regular meeting to which it relates, then the document or writing will be made available to the public at the location of the meeting.

Note: This agenda is posted pursuant to the provisions of the Government Code commencing at Section 54950. The date of this posting is December 2, 2019. Posting locations are: 1) District Office; 2) Post Office; 3) Rancho Murieta Association; 4) Murieta Village Association.

MEMORANDUM

Date: November 27, 2019
To: Communication & Technology Committee
From: Paul Siebensohn, Director of Field Operations
Subject: Field Operations Technology Initiatives

DISCUSSION

Attached is the district technology initiatives proposed, I added a separate tab for field operations technology initiatives. These are items that would serve to make the department more efficient. This is critical as development is picking up and requiring staff oversight, the new water plant has significantly more oversight and maintenance required, and regulations are expanding requiring staff to do more. Please see the attached table as a start to this list, with brief descriptions and comments added.

Project Descriptions:

Maintenance Management and Work Order Software Benefits

- A computerized maintenance management system (CMMS) allows for tracking of preventive maintenance on equipment and systems and this reduces cost incurred by:
 - Equipment failure
 - Equipment downtime
 - Unplanned corrective maintenance
 - Overtime maintenance
- Equipment life is extended by routine preventive maintenance
- More work is planned and scheduled allowing for more efficient use of existing staff
- CMMS is a repository for maintenance information, so less time will be spent looking for information and this will allow for maintenance staff to spend more time on actual maintenance
- Service history is maintained on equipment so that analysis can be done to make informed maintenance decisions saving money in the maintenance activity and equipment replacement costs
- In combination with a wireless network, workers will access work orders, equipment information, and maintenance history in the field. This saves travel time and time spent in the office so that more time is available for maintenance activities.

CMMS - Schedule

Task	Subtask	Start	Complete
Choose CMMS Software Vendor	Develop Request for Proposals (RFP)		
	Identify functional requirements		
	Identify GIS requirements, if any		

	Identify network/bandwidth/security requirements for wireless network		
	Identify list of vendors		
	Distribute RFP for bidding		
	Develop short list of vendors		
	Vendor meetings		
	Final vendor selection		
Implementation			
	Define equipment hierarchies, numbering		
	Import prior CMMS data		
	Testing		
	Staff Training		
	Utilization		

Centralized SCADA System:

SCADA is an acronym for Supervisory Control and Data Acquisition. It is software that is connected to equipment through Programmable Logic Controllers (PLCs). SCADA picks up flows, alarms, and other types of data regarding the equipment and the facility. The data is collected on the SCADA server and is presented via a SCADA workstation as “displays”. Displays are logical or geographical presentations where data about the current state of the facility is laid out. Alarms or flow data can be presented in a display that geographically represents the facility. Whereas SCADA systems primarily monitor the facility, Control Systems allow operators to control the facility remotely, opening or closing down components of the facility as needed.

Currently CSD operators walk routes through Rancho Murieta facilities to read data off of panels. Once a new SCADA system is implemented this can be done remotely. The controllers are now being upgraded to handle this.

- Centralized SCADA will allow operators to monitor CSD facilities from a central location allowing faster response to problems and more complete knowledge of the state of the facility at any point in time. This is especially critical during after-hours when staff is On-Call to respond to facility emergencies.
- Problems will be identified and responded to more quickly, decreasing down time for CSD facilities.
- SCADA greatly reduces the need for routine foot patrols through the facility to monitor panels and, thereby, reduces the cost of operating the facility.
- Centralized SCADA will maintain capacity of Operations staff as facilities and the community expand.

Wastewater Plant Automation:

This would require the installation of automated valve systems that could be controlled through SCADA, as well as flow metering systems with feedback loops to regulate and control flows. Staff would need to go through the facility and identify what valves would need to be changed to either motor controlled or pneumatic controlled systems that could be actuated by a control system. They would also need to identify where flow control valves would be installed and where control system wiring could be routed. We would then solicit vendors for the various needs to provide these upgrades.

Sewer Lift Station and Stormwater Pump Station PLC Upgrades:

Several of Sewer lift stations and the District's two stormwater pump stations have Programmable Logic Controllers (PLCs) that are due for replacement. To allow the networking capability of the facilities, the PLC needs to be upgraded to be able to accommodate control system feedback. We will be evaluating which facilities need replacement first and providing a prioritized list with estimates of cost for their replacement.

RMCS D FIELD OPERATIONS TECHNOLOGY INITIATIVES

Updated 12/02/2019

	Initiative	Status	Short Description	Start Date	Completion Date	Comments
Existing						
1.	Maintenance Management and Work Order System	Researching	A maintenance management and work order system lets an agency manage work orders and maintenance activities by tracking staff, materials and equipment related to activities. The District maintains an outdated rudimentary software system that could be improved.	July 2019	TBA	We have brought in a vendor who is capable of providing a system that would meet the goals of these items. Due to costs we need to solicit other vendors in and that process.
2.	Customer Management System	Researching	Although a work order system tracks customer maintenance requests, the District is in need of a way to better track customer issues/complaints that may not be related to maintenance activities. We are researching tools for this. It is possible a Land Management System could function in this manner as complaints issues would be tied to a parcel or address and have reporting capabilities to remind staff of outstanding complaints/matters.	Fall 2019	TBA	We have brought in a vendor who is capable of providing a system that would meet the goals of these items. Due to costs we need to solicit other vendors in and that process.
Proposed:						
1	Network District facilities	Proposing	The goal of this would be too connect all of the district's sewer lift stations, Rio Oso tank & potable water pump station, MainLift South & FAA stormwater pump stations, and Granlees raw water pumping stations to the main network.	TBD	TBA	Having a hard-lined system would add to internal network security for facilities.
1a	Wastewater plant and warehouse	Research in process	I'm having staff research the viability of a conduit that would run from the wastewater plant gate back to the wastewater control building that could be utilized for installation of a fiber optic line. Additional network and cable would have to be treched and installed back to the warehouse.	In process		
1b	Sewer Lift Station PLCs	Research in process	Would start with getting connectivity - possibly through Greefield fiberoptic system or ATT phone lines.	Winter 2019-2020		
1c	Pump Stations	Research in process	Would start with getting connectivity - possibly through Greefield fiberoptic system or ATT phone lines.	Winter 2019-2020		
2	Centralized SCADA system	Proposing	The goal of this project would be to utilize the wastewater plant SCADA system as a centralized for the remaining district facilities. Due to security concerns the water plant would remain on its own system.	TBD	TBA	

3	WWRP Automation	Proposing	This would require the installation of automated valve systems that could be controlled through SCADA, as well as flow metering systems with feedback loops to regulate and control flows.	TBD	TBA	This would create efficiencies for staff to be able to respond and control systems remotely.
4	Lake Level Monitoring system	Approved but on Hold	This project was proposed and approved by the board as it was assumed it was a legal requirement by the department of water resources. We found out we did not meet the threshold to have to comply with this at this time.	TBD	TBA	
5	And sewer lift station upgrades		Control systems at several of the sewer line stations are coming due for replacement. We need to upgrade two systems that allow networking and control of the facilities remotely.	TBD	TBA	