



RANCHO MURIETA COMMUNITY SERVICES DISTRICT

15160 Jackson Road, Rancho Murieta, CA 95683

Office - 916-354-3700 * Fax - 916-354-2082

IMPROVEMENTS COMMITTEE

(Directors Randy Jenco and Martin Pohl)

Regular Meeting

April 5, 2022 at 8:00 a.m.

This meeting will be held via ZOOM video conference only. You can join the conference by (1) logging on to <https://us02web.zoom.us/j/89634952392>, entering Meeting ID no. 896 3495 2392 and using the audio on your computer, or (2) dialing into 1-669-900-9128 and entering the meeting code 896 3495 2392. Those wishing to join with audio only can simply call the telephone number above and enter the code. Participants wishing to join the call anonymously have the option of dialing *67 from their phone. Please refer to your telephone service provider for specific instructions. ***PLEASE NOTE – MOBILE DEVICE USERS MAY NEED TO INSTALL AN APP PRIOR TO USE AND MAC AND PC DESKTOP AND LAPTOP USES WILL REQUIRE YOU TO RUN A ZOOM INSTALLER APPLICATION – PLEASE FOLLOW DIRECTIONS AS PROVIDED BY ZOOM. IT IS RECOMMENDED YOU ATTEMPT TO LOGIN AT LEAST 5 MINUTES BEFORE THE START OF THE MEETING.***

AGENDA

1. **Call to Order**
2. **Consider Finding That as a Result of the COVID-19 Emergency: (i) Meeting in Person Would Present Imminent Risks to the Health or Safety of Attendees; and (ii) the Meeting is Authorized to be Held by Teleconference Pursuant to Gov. Code, § 54953, subd. (e)(1)(C).**
3. **Comments from the Public**
4. **Monthly Update**
5. **Discuss GIS Contract with CalCAD**
6. **Director and Staff Comments/Suggestions**
7. **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 24 hours prior to a special 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."

In compliance with the Americans with Disabilities Act if you are an individual with a disability and you need a disability-related modification or accommodation to participate in this meeting or need assistance to participate in this teleconference meeting, please contact the District Office at 916-354-3700 or awilder@rmcsd.com. Requests must be made as soon as possible.

Note: This agenda is posted pursuant to the provisions of the Government Code commencing at Section 54950. The date of this posting is March 31, 2022. Posting locations are: 1) District Office; 2) Post Office; 3) Rancho Murieta Association; 4) Murieta Village Association.

MEMORANDUM

Date: March 29, 2022
To: Improvements Committee
From: Michael Fritschi, P.E. - Director of Operations
Subject: Monthly Utilities Department Updates

SB 170 PROJECTS

Water Treatment Facility Sodium Hypochlorite Conversion – The District has contracted with HDR to perform the design of the Chlorine Gas to Sodium Hypochlorite Conversion Project. The project is scheduled to go out to bid for construction by late fall.

Recycled Water Disinfection Project - West Yost and Associates presented the draft presentation of the UV versus Hypochlorite analysis for the District recycled water disinfection system. The capital costs for the Hypochlorite System versus and for the UV System was \$1.2 million and \$2.3 million respectively. The 20-year lifecycle costs for the Hypochlorite System versus and for the UV System was \$2.5 million and \$3.9 million respectively.

There was some discussion regarding the creation of disinfection byproducts when using chlorine (sodium hypochlorite) with respect to performance for future indirect potable reuse. It was discussed that due to the remote potential to perform indirect potable reuse and the overall fate of the unstable disinfection byproduct, that at this time it is unlikely worth the additional lifecycle cost associated with the UV disinfection alternative.

West Yost will present the completed technical memorandum summarizing the analysis to the District upon completion. Also, during the meeting staff discussed hiring West Yost to perform an analysis to determine the feasibility of providing recycled water as indirect potable reuse and harvesting rainwater through the wastewater treatment facility for future reuse.

Granlees Safety Improvements

The District met with HDR on the 16th of March to review the rehabilitation and safety improvements needed for the Granlees Intake Structure. HDR will be providing the District with a quote to perform a preliminary design analysis which will review the safety improvements and operational rehabilitation and to outline any environmental permitting that would be required.

SEWER

Crest Lift Station (end of Bermuda Ct.)

Staff are in the process of determining why the pump control system is not operating properly. Crest lift station has had several control issues over the years. Staff will engage with the District vendor to interface with the station programmable logic controller to determine if the station has a programming issue versus a hardware issue. Staff will also be examining the bubbler system (which indicates water level) to determine if there are defects causing the wrong water level to be displayed.

Lift 6a (between De La Cruz Dr. and Bass Lake)

Lift station 6a is currently down to one operational pump (out of 2). Staff are going to replace the capacitor pack for the non-operational pump to see if that can bring the pump back to operation. The District may need to procure a replacement pump if the replaced capacitor does not fix the problem. The replacement pump is quoted at \$12,200. Having two pumps in a sewer lift station is considered the minimal level of redundancy and is standard practice.

Recycled Water Tertiary Facility

The Tertiary facility is envisioned to be up and running to provide recycled water the first week of May. The lag in production startup is due to the tertiary pumps needing to be rebuilt and reinstalled. Staff has done everything in their power to facilitate the pump rebuild in a timely basis. The County Club has been notified of the later startup of the recycled water production for this upcoming irrigation season.

WATER

Rio Oso Pump Replacement Update

The pressure system pumps were scheduled to be replaced in early March, but the supplier did not provide new appurtenances (flex coupler reducers) this prompted staff to temporarily halt the installation. It was also recently learned that at least one of the gate valves is not isolating completely which will make the installation more difficult. During further inspection of the facility, it became apparent that the check valves and gate valves isolating the pumps appear to be closer to the end of their useful life.

It was also noticed that there used to be a hydropneumatic tank that was utilized to regulate pressure. Staff mentioned that it was removed from operation due to degradation and not replaced as at that time as there was no desire (by staff) to replace the hydropneumatic tank. When the hydropneumatic tank was removed from service, the supply pumps were configured to pump directly into the system, which may have caused some resulting leaks that were repaired shortly thereafter.

In discussions with staff it was also learned that the two existing pumps may have been designed to provide emergency fire flow and may be operating “off of the pump curve” even with the variable frequency drive. Staff have mentioned that there were past recommendations to install and utilize a smaller pump to provide a more equal match to the actual water demand and stay “on the pump curve”. This would likely provide additional redundancy and a significant increase in efficiency. This would require some engineering to accommodate the additional pump.

The 15-year old VFD’s are out for quote and are being replaced as a part of the project due to the relative age and desired continued functionality.

In the next month staff will be investigating the history of the pump station and may initiate a study to determine the best way forward for this important pump station that serves Rancho North. The theory is that to change out valves, the water needs to be shut down to the North for a day so any rehabilitation that is slated for this station should try to be coordinated with the shutdown.

Water Treatment Facility

Water Treatment Facility #1 will be brought back online in April, and the first of the rebuilt backpulse pumps is expected to be installed at that time.

Water Conservation

The Governor’s July 2021 voluntary request to reduce 2020 consumption by 15% (for Urban Water suppliers) does not clarify if the reduction is monthly or annual reduction. The Regional Water Authority (RWA) is measuring cumulative total water reduction. Staff will report on the cumulative water use compared to the 15% less than 2020 at the next Board meeting to determine where Rancho Murieta users stand in alignment with that conservation metric.

Calero Stage Storage Curve

Staff intend to contract a bathymetric survey of Reservoir Calero while it is full to develop an updated survey of the reservoir bottom which will allow an update of the storage capacity (stage-storage curve) of

this important reservoir. The District has received 2 out of 3 quotes so far, with the lowest quote at \$16,200 to complete the survey using a sonar water drone.

SITE DEVELOPMENT UPDATE & STORMWATER

Laguna Joaquin - The joint CSD/RMA funded midge treatments will begin in Laguna Joaquin in early April.

DEVELOPMENT

Riverview: Phase 1b utility installation has commenced with sewer lines being installed.

Retreats: Grading has begun on the north section of the retreats. There is a significant amount of spoils being transported off site which is creating a lot of truck traffic and dirt being deposited on the haul route in Rancho Murieta. The District is working with the Developer to reduce the impact of the truck traffic and resulting soil sloughing on the road. Currently the developer is running 2 street sweepers.

Taco Bell: Building construction has continued for the new taco bell which is slated to open in May of this year.

Circle K/Shell: Most utilities have been tied in and the developer is working on extending a fire service line to the property.

MEMORANDUM

Date: March 29, 2022
To: Improvements Committee
From: Michael Fritschi, P.E. - Director of Operations
Subject: District Geographical Information System (GIS)

RECOMMENDED ACTION

It is recommended that the Improvements Committee move proposed contracts with CalCAD to the Board of Directors to ratify the current expenditure of \$15,000 and approve the proposed contracts with CalCAD in the estimated amount of \$80,050 over the current and the next fiscal year to continue building the District GIS system and update the capabilities of the system as listed below in items #1 - #7. GIS work through CALCAD would be on a time and materials basis.

BACKGROUND

In 2021 the District contacted CALCAD and initial phases of the GIS platform was constructed beginning with basic sewer and water infrastructure, customer lot information, and account status. This information is located in a data base that is geographically linked and accessed by the system.

The following items have been initially added:

1. Water lines
2. Sewer lines
3. Sewer lift stations
4. Major Drainage structures
5. Easements
6. Property information
7. Ratepayer late payments

PROPOSAL

The District planning team has identified several different components for future GIS use to continue building on the centralized geographical data base:

1. **On-call GIS Services Contract** (\$15,000) – Provide a block of 100 hours to enrich the GIS database and other tasks requested by CSD to enhance the system, including:
 - a. **Condition Assessment** – Used to geographically track the known and investigated conditions of the infrastructure to utilize for CIP Reserve repair/replacement quantities and used to help facilitate the determination of adequate reserve funding and planning.
 - b. **Overall Database Enrichment** - The District plans on hiring a temporary intern to enrich the data base with items like pipe materials, depths, repairs, etc.
2. **Global Search Integration** (\$4,950) – Provide for Global Search integration with GIS database to access District information from the District server and cross reference with GIS attributes. This will allow any document to be pulled up from the District server with a corresponding search tag through GIS.

3. **Computerized Maintenance Management System (CMMS) and Integration** – Provide a computerized maintenance management system (CMMS) for tracking maintenance and repairs and scheduling preventative maintenance tasks (\$18,000 – if the staff approve of the CMMS system). Provide a GIS link to the CALCAD (or other) CMMS system for access of preventive maintenance and completed tasks and notes that can be accessed geographically on GIS (\$26,000).
4. **User Account Tracking** (\$3,600) – Required for the ability to view real-time water use data and to allow for the integration of District financial software.
5. **Establish Connection with Azure Cloud** (\$2,400) – Enables connection to District Server for Global Search and financial software.
6. **Add Storm Drain System Layers** (\$6,500) – Add drainage infrastructure to GIS.
7. **Add Security Camera Feed Layers** (\$3,600) – Add live camera feed interfaces with GIS.
8. **RMA and RMCC Joint Utility Layers** – To have RMA and RMCC add utility information layers at their cost to be visible to CSD and CSD infrastructure visible to RMA RMCC.

Proposed Timeline

Phase 1 – Create GIS System and begin familiarizing staff – **Complete**

Phase 2 – Enrich utility data base information and build on the initial platform, set the ground work for condition assessment and CMMS interface. Tie in security cameras. Provide utility staff with ability to record repairs and maintenance activities in the field via tablet. **Current FY to FY 22-23**

Phase 3 – Water meters updated and integrate to GIS access on a real-time basis to provide customer use tracking. Financial software integrated with GIS. Joint utility integrated if completed by RMA and/or RMCC. Condition assessment data uploaded. Continue updating data and tightening accuracy. **FY 22-23 – ongoing.**

SYSTEM FUNDING

Funding is expected to come from water/sewer/drainage/security materials and services operating budgets.



P.O. Box 4779
 Modesto, CA 95352
 209-578-5580
 www.calcad.com

Quote

Date	Quote #
3/29/2022	605714

Bill To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Ship To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Terms	Sales Rep	Expires
Net 30	RK	

Item	Description	Qty	Cost	Total
Service	<p>Create Layer in GIS for District Camera Feeds to be published</p> <ul style="list-style-type: none"> • Work with District IT or other Tech personnel to get connection to server hosting the video feeds • Get location and description information for each of the District Cameras • Create a database of the URL information for each Camera • Create specific Security group for ability to view Camera feeds • Get list of "Authorized Viewers" from District <p>This is a "Not To Exceed Estimate" pending the successful discovery of all above information. District would be billed actual development hours. If more time is needed, District personnel will be contacted for approval prior to hours being encumbered.</p>	24	150.00	3,600.00

Accepted By _____

Subtotal	\$3,600.00
Sales Tax (8.0%)	\$0.00
Total	\$3,600.00



P.O. Box 4779
 Modesto, CA 95352
 209-578-5580
 www.calcad.com

Quote

Date	Quote #
3/29/2022	605715

Bill To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Ship To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Terms	Sales Rep	Expires
Net 30	RK	

Item	Description	Qty	Cost	Total
Service	<p>Establish remote connection from Azure Cloud server hosting the GIS to the District to enable live reads of District information.</p> <ul style="list-style-type: none"> • Work with District IT contact to create VPN or other agreed-upon remote connection protocol to District servers from Azure Cloud server hosting the GIS <p>This is a "Not To Exceed Estimate" pending the successful discovery of all above information. District would be billed actual development hours. If more time is needed, District personnel will be contacted for approval prior to hours being encumbered.</p>	16	150.00	2,400.00

Accepted By _____

Subtotal	\$2,400.00
Sales Tax (8.0%)	\$0.00
Total	\$2,400.00



P.O. Box 4779
 Modesto, CA 95352
 209-578-5580
 www.calcad.com

Quote

Date	Quote #
3/29/2022	605716

Bill To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Ship To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Terms	Sales Rep	Expires
Net 30	RK	

Item	Description	Qty	Cost	Total
Service	<p>Create and add Storm Drain System to GIS</p> <p>Use data provided by District as the basis for data inventory. Look through drawings, as-builts, and other data to construct the most complete system possible.</p> <ul style="list-style-type: none"> • Add Mains and Structures layers to map • Confirm and fix flow direction of each Main • Add directional flow arrow as notation • Give unique ID to each Structure • Give unique ID to each pipe based on Upstream and Downstream Structure ID's • Create search for Storm Drain Assets based on ID • Create Storm Drain system summary reports 	1	6,500.00	6,500.00

Accepted By _____

Subtotal	\$6,500.00
Sales Tax (8.0%)	\$0.00
Total	\$6,500.00



P.O. Box 4779
 Modesto, CA 95352
 209-578-5580
 www.calcad.com

Quote

Date	Quote #
3/29/2022	605717

Bill To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Ship To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Terms	Sales Rep	Expires
Net 30	RK	

Item	Description	Qty	Cost	Total
Service	<p>Create Live Connection to Global Search Document Repository</p> <ul style="list-style-type: none"> • Work with District IT and Global Search Tech personnel to get connection to the District's Global Search Document Repository • Determine Unique ID and linking protocol for: <ul style="list-style-type: none"> • Easement Documents • Escrow files • Lot Files • Update Parcel report to give access to Escrow files for users authorized by the District • Create new link in the parcel report so that field personnel can see the Lot files associated with each parcel to get historic maintenance data <p>This is a "Not To Exceed Estimate" pending the successful discovery of all above information. District would be billed actual development hours. If more time is needed, District personnel will be contacted for approval prior to hours being encumbered.</p>	33	150.00	4,950.00

Accepted By _____

Subtotal	\$4,950.00
Sales Tax (8.0%)	\$0.00
Total	\$4,950.00



P.O. Box 4779
 Modesto, CA 95352
 209-578-5580
 www.calcad.com

Quote

Date	Quote #
3/29/2022	605718

Bill To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Ship To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Terms	Sales Rep	Expires
Net 30	RK	

Item	Description	Qty	Cost	Total
Service	<p>Establish a link to Tyler Incode Customer Service module for updating parcel report to include Customer Service specific data elements.</p> <p>This is a "Not To Exceed Estimate" pending the successful discovery of all above information. District would be billed actual development hours. If more time is needed, District personnel will be contacted for approval prior to hours being encumbered.</p>	24	150.00	3,600.00

Accepted By _____

Subtotal	\$3,600.00
Sales Tax (8.0%)	\$0.00
Total	\$3,600.00



P.O. Box 4779
 Modesto, CA 95352
 209-578-5580
 www.calcad.com

Quote

Date	Quote #
3/29/2022	605719

Bill To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Ship To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Terms	Sales Rep	Expires
Net 30	RK	

Item	Description	Qty	Cost	Total
Service	<p>On-Call GIS Services Contract</p> <ul style="list-style-type: none"> • Bank of hours to be used for various GIS enhancement tasks as requested by District Personnel. Typical tasks would include: <ul style="list-style-type: none"> • Enable edit functionality for various Infrastructure assets • Add new data layers to the site • Update or enhance existing reports • Add new reports or data lookup capabilities • Add ability to upload pictures to assets • Establish connections to various data sources used for reporting • Update existing infrastructure layers with new information <p>Projects will only commence upon District request and approval. Hours will only be billed as they are used on District-approved projects.</p>	100	150.00	15,000.00

Accepted By _____

Subtotal	\$15,000.00
Sales Tax (8.0%)	\$0.00
Total	\$15,000.00



P.O. Box 4779
 Modesto, CA 95352
 209-578-5580
 www.calcad.com

Quote

Date	Quote #
3/7/2022	605720

Bill To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Ship To
Rancho Murieta CSD P.O. Box 1050 15160 Jackson Rd. Rancho Murieta, CA 95683-1050

Terms	Sales Rep	Expires
Net 30	RK	

Item	Description	Qty	Cost	Total
DashGIS CMMS	CMMS work order Extension for DashGIS©	1	18,000.00	18,000.00
DashGIS CMMS Set...	DashGIS© CMMS Extension Setup and Configuration Setup and configuration for Water and Sewer systems	1	26,000.00	26,000.00

Accepted By _____

Subtotal	\$44,000.00
Sales Tax (8.0%)	\$0.00
Total	\$44,000.00