



## RANCHO MURIETA COMMUNITY SERVICES DISTRICT

15160 Jackson Road, Rancho Murieta, CA 95683

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

### IMPROVEMENTS COMMITTEE



*(Directors Les Clark and Randy Jenco)*

Regular Meeting

December 3, 2019 at 8:00 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 Monthly Updates**
  -  Development
  -  District Projects
4. **RMA Pedestrian Bridge Parcel Conveyance Update**
5. **Director and Staff Comments/Suggestions [no action]**
6. **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 November 27, 2019. Posting locations are: 1) District Office; 2) Post Office; 3) Rancho Murieta Association; 4) Murieta Village Association.

# MEMORANDUM

Date: November 26, 2019  
To: Improvements Committee  
From: Paul Siebensohn, Director of Field Operations  
Subject: Monthly Project Updates

---

## PROJECTS

### Development

#### The Retreats East and North

No new update.

#### **The Murieta Gardens (MG)**

##### The Murieta Gardens – Highway 16 Off-Site Improvements

No update.

##### MG - Murieta Marketplace

No physical work related to District infrastructure. Coastland has provided comments back on the easements that have been submitted for this area to the project engineer.

##### MG - Lot 4&5

Workers continue to install the underground infrastructure for these lots, with Coastland providing inspection for systems that will tie into District utilities and Sacramento County providing inspections for onsite work.



*View of storm drain line being installed between lots 4 & 5 with future BelAir in the background*



Also, the Cosumnes Irrigation Association (CIA) diversion box leak has been patched up as shown in the pictures below.



Hole in CIA diversion box next to Country Store, prepped for repair



Repair made to CIA diversion box, view from inside



View from outside

### MG -Lot 10 (PDF Office)

Coastland has reviewed the plans submitted and provided comments back to the project engineer. Grading work has begun, but no preconstruction meeting or schedule for this project has been provided yet.

### The Murieta Gardens II – Infrastructure

The retaining wall around a sewer manhole is outstanding.

### The Murieta Gardens II – (78 lot) Subdivision

This project is closed out from a utility infrastructure standpoint and will no longer have updates. Staff and I continue to provide inspection and accounting of water, sewer, and recycled water systems for the new homes and landscape lots.

### Rancho Murieta North – Development Project

Coastland reports that they have completed their review of the drainage and are currently cleaning it up internally. I had the comment that the method they used for stormwater runoff, the Nolte method, has been previously noted as not being an approved method by Mackay & Somps Engineering when they developed the 2003 Master Plan. They noted that a revised Sacramento method should be used instead. Depending on what method will be used, it will significantly affect the amount of runoff contributed from a development project. Coastland is following up on my comment with the engineer that had provided that comment.

### FAA Business Park

The project is waiting on final comments back from Sacramento County building department. The Developer still hopes to begin this project soon.

## **District Projects**

### Water Rights Renewal

The consultants from Wagner & Bosignore are reviewing previously submitted extensions, and the water right file on record with the Waterboard and are working on the Petition for Extension for our Master Water right renewal. They hope to have a draft of it available for District review before the end of this year. As mentioned in the Board update, the water right does not expire until December 1, 2020, and even then it is still valid until it is revoked.

### Dam Inundation Mapping and Emergency Action Plans

Dominichelli and Associates report: We are still working with OES on other EAPs, trying to get a complete read on their new requirements and process for review. We are really close to approval at this time on one of the EAPs and would like to meet with you to discuss the process further. The new regulations are making it difficult for dam owners and consultants to comply with everything they are asking for and their three phased process of review is taking a long time. I'll be coordinating with them to meet after the Thanksgiving Holiday.



Recycled Water and Untreated Water Fee Study

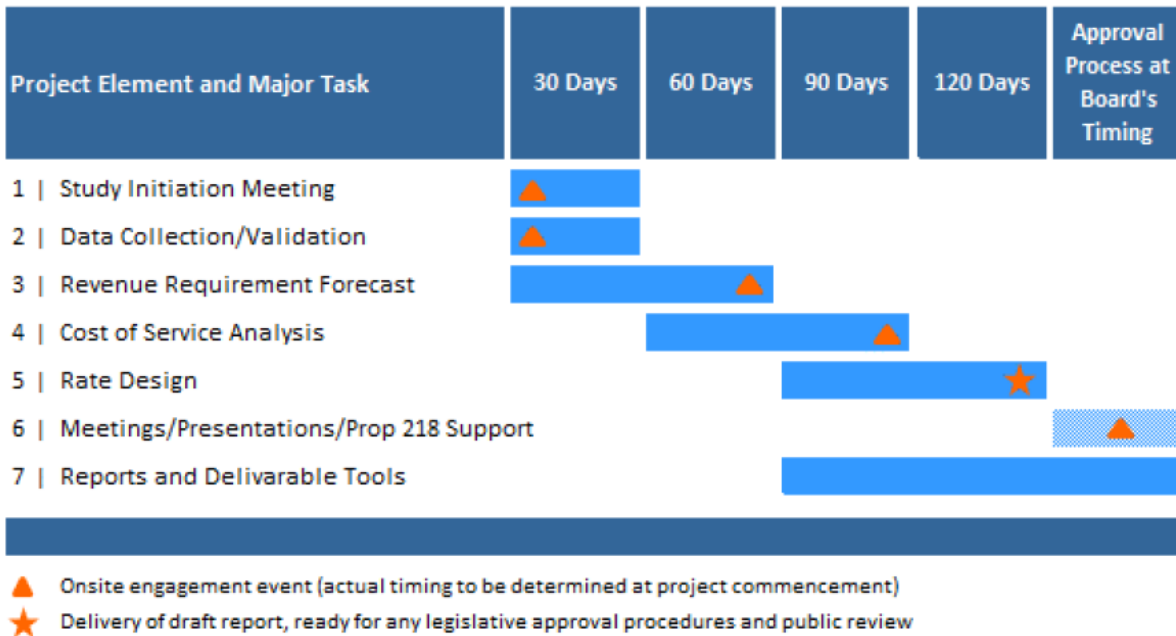
ClearSource Financial Consulting provided their required initial data request for items needed from the District. Administration staff and I have been providing them their requested data to keep this project on schedule, shown below, which began on October 21<sup>st</sup>.

**PROJECT SCHEDULE**

ClearSource forecasts to **deliver reporting from this study 120 days from project commencement**. These reporting documents will enable final presentation, final edits based on Board of Directors review and input, and public procedure thereafter along the District’s timeline and legislative priorities.

Figure 3 illustrates the estimated time for completion of our previously described work plan tasks, timing of deliverables, and a sample timeline for implementation procedures.

**FIGURE 3 | ESTIMATED PROJECT TIMELINE**



## Zieour Drainage

After my meeting and discussion with Mr. Zieour to offer suggestions as to what he may do with his drainage, we decided that the District would excavate a channel from the headwall of the drainage pipe to his property line where the sewer and drainage easement are. He verbally committed to working on his property and coordinating with his neighbor to continue the channel between his and his neighbor's properties to allow drainage overflows to pass through. I talked with the RMA maintenance manager and he was ok with us putting the excavated material in the common ground that had eroded behind Mr. Zieour's lot.



*Work completed by District behind Zieour's lot as of 11/22/19.*

---

## Chlorine Gas to Sodium Hypochlorite (bleach) conversion

### Budget:

This Sewer Improvements Reserve project, CIP# 18-07-2, has a budget of \$266,140. The goal is to eliminate the use of chlorine gas at the Wastewater Plant for recycled water disinfection and convert to using industrial strength sodium hypochlorite (bleach). Bleach is a much safer product, there is substantially less regulatory oversight and required staff training, and it mitigates risk to community from transport, storage and use of chlorine gas.

### Idea:

My plan is to do as much work as practical, myself and with staff, to save time and money for this project. Any work we can't do would be bid and awarded to outside contractors. At this point the work that would be contracted would be electrical and telemetry wirings, and SCADA integration. The plan consists of utilizing as much current infrastructure as possible while providing the best long-term viability for the facility. This would start with assessing the current Sodium Hydroxide tank at the bulk chemical storage site, as Sodium Hypochlorite is also a caustic based product and the tank isn't being used for pH adjustment anymore. We will

clean the tank and its lines out and test them. If they are viable for use or require only a minor rehabilitation, we'll work towards utilizing them. If not, it would be replaced with a new tank system. There would be a bulk receiving tank of at least 5,000 gallons and two day-tanks where the high strength bleach would be deluded down to a more chemically stable percentage. The issue with high strength bleach is that it degrades very quickly and off-gases chlorine vapor, therefore you want to dilute it down to a more stable percentage to work with. The bulk tank needs two be at least 5,000 gallons so that we can receive a price break on its cost. A water deionization system is needed for the dilution fill water to prevent any reactivity with the bleach. We would also retrofit chemical feed systems within an existing chemical room for supplying the bleach for disinfection purposes within the facility. That would be the ideal location as there is existing on slash off power and telemetry controls for the chemical systems. However; if the chemical feed systems need to be located closer to the injection points of the chemicals, which sometimes is an issue due to off-gases, we could move these chemical feed skids at a later time. We would keep the existing chlorine system online until the new system could be proven effective. Once it has been proven to work well, we will remove the chlorine gas systems and utilize the room it's in for a feed tank.

#### Sequence of work:

- 1) Clean out existing Sodium hydroxide tank and all of its feed lines. Test the tank and lines to see if they are sound for use.
- 2) Remove old acid tank and lines. Replumb system to be able to accommodate a day-tank. Plumb in lines to the chemical feed room and the discharge lines to the pre and post disinfection feed locations at the wastewater reclamation facility.
- 3) Solicit costs and then purchase two chemical feed skids.
- 4) Solicit costs and then purchase/rent/lease deionized water system.

#### Procurement:

- 1) Solicit costs for up to three new insulated chemical storage tanks, fittings, and appurtenances rated for maximum strength Sodium Hypochlorite use.
- 2) Solicit costs for up to two new chemical Feed skids containing primary and backup feed pumps with 4-20mA control systems, adjustable backpressure valves, calibration columns, anti-siphon valves, and isolation valves, rated for maximum strength Sodium Hypochlorite use.
- 3) Solicit costs for piping and piping connections
- 4) Solicit costs for deionization system for dilution water feed into day-tanks. (lease or renting is option)

#### Demolition:

- 1) Remove the Acid tank and lines which are not in use.
- 2) Remove tertiary pump station injection system for caustic and modify it for bleach injection and diffusion.
- 3) Remove chlorine tons, tons stands, scales, and crane system in the chlorine gas storage room, only after Sodium Hypochlorite feed system is confirmed to work as intended.

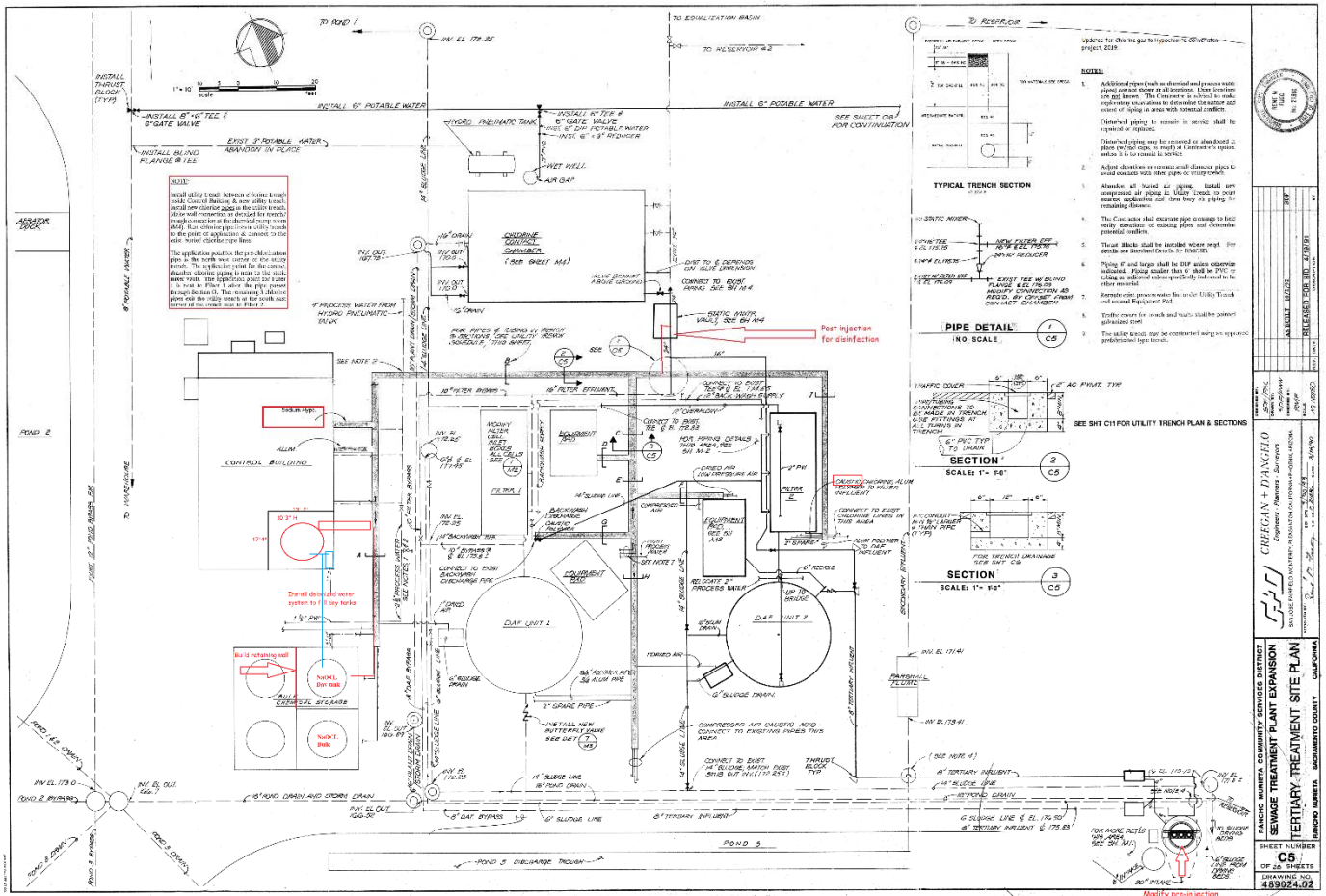
Photos available below for further discussion.





Aerial view of tertiary treatment plant





Plan sheet marked up of most of work to be done



View of bulk chemical tanks, trench, and control building at tertiary treatment facility





*View of discharge from existing caustic tank*





*View from existing acid tank in left foreground and caustic tank in background*





*View of top of existing caustic tank with hatch open*





*View of chemical feed room and piping trench*





*View of chemical piping trench towards tertiary pump station*





Tertiary pump station with chemical feed lines feeding into wet well



Existing Chlorine tons and feed system

