



## PROJECTS UNDERWAY AT CMSA

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### Secondary Clarifier Rehabilitation Project

Since April, a contractor has been busy blast cleaning and coating the concrete launder and steel components in Secondary Clarifiers No. 1 and 4 to remove corrosion and extend their life. As part of this project, the fiberglass fittings in the aeration tanks and effluent troughs in Primary Clarifiers No. 6 and 7 were also recoated to protect against UV deterioration. As soon as the coating work in the secondary clarifiers is finished, the contractor will perform mechanical and electrical improvements, including replacing the turntable drive unit, making center column modifications, weir leveling, and installing expansion joints, spray nozzles, fiberglass grating, wires, and conduits. Construction is expected to be substantially complete by the end of October in preparation for wet weather flows.



### Second Digester Cover Replacement Underway

After an unexpected and premature failure of the Digester No. 1 cover in 2021, and to minimize risk of another premature failure, staff proactively planned for the replacement of the Digester No. 2 cover in summer 2022. The temporary scaffolding was installed in July, the cover was



removed in August, and the sludge, struvite, and grit that had accumulated inside the digester were removed in September. Staff is taking advantage of the shutdown to inspect the tank and perform preventative maintenance work on the digester valves and piping before the new membrane cover is installed in October. Digester No. 2 is expected to return to service in early November.

### \$2.5 Million CalRecycle Grant

CMSA was recently informed that it was one of five wastewater agencies in California selected for a co-digestion grant from CalRecycle. The grant amount of \$2.5 million is expected to cover the majority of the Liquid Organic Waste Receiving and Biogas Treatment Upgrades Project (Project) cost, including CMSA staff time spent on managing this project. The design for the Project was completed in August and is now ready for construction. It includes installing a new above grade storage tank, screening system, pump, valves, and piping to receive liquid organic wastes. Site improvements such as drainage and grading modifications will be made to integrate the new tank into CMSA's Organic Waste Receiving Facility. The existing biogas treatment system will be modified so that the single aging biogas dryer will be replaced with new modern and redundant chillers and new heat exchanger. Contractor bids are due at the end of September, and construction is anticipated to begin in November.

## TECHNICAL SERVICES PROJECTS

### New Laboratory Certification Standard (ELAP TNI-2)

In 2020, the State Water Resources Control Board adopted comprehensive regulations for the Environmental Laboratory Accreditation Program (ELAP) to modernize it and improve data quality. Although these regulations became effective on January 1, 2021, full implementation is not required until January 1, 2024. CMSA staff have been busy preparing for this transition by reviewing and updating many laboratory administrative and sampling method procedures. Staff received a third-party ELAP readiness assessment this August, which provided highly positive feedback on the status of our final certification process. Final CMSA Laboratory TNI-2 certification is scheduled for March 1, 2023.



### Centrifuge Designer Selection

Three centrifuges are used to dewater biosolids prior to their delivery to beneficial reuse sites. These units were installed in 2002, and they will be replaced with equipment that has higher capacity to handle the increase in biosolids related to increased deliveries of organic



waste. Staff is currently in the process of developing a Request for Proposals (RFP) to solicit engineering design services to perform a pre-design study which would include a pilot test of selected centrifuges, and a detailed design based on the chosen centrifuge manufacturer. The aging biosolids hopper and polymer systems will also be evaluated during the pre-design phase. The RFP is anticipated

to be issued in late September and responses will be due in November. Staff recommendation on the consultant selection will be provided to the Board at their December meeting.

### Cogeneration System and PG&E Approval

Equipment commissioning is one of the last critical steps to complete a multi-year project for the installation of an additional

biogas fueled cogeneration system. The new system is currently in the final commission phase. During operation, it will efficiently supply heat for the Agency's office buildings and the anaerobic digesters 24 hours/day, and will also power CMSA facilities and export excess renewable power into the local electricity grid under a new Power Purchase Agreement with Marin Clean Energy (MCE). Another critical project milestone was reached in September

with the receipt of a Permission-to-Operate letter from PG&E. This successfully concluded a nearly three year and highly detailed interconnection coordination effort with PG&E.



### San Quentin Pump Station Generator



CMSA provides wastewater services to the San Quentin State Prison, which include operating and maintaining the San Quentin pump station and its force main. Staff assisted with the pump station condition assessment in 2016 and identified several improvement projects as the most cost-effective way to rehabilitate the pump station. Several improvement projects have been completed over recent years, and in August 2022, the station was further modernized, and reliability enhanced with an upgraded emergency generator, transfer switch, and ventilation system.

## OPERATIONS AND MAINTENANCE DEPARTMENT ACTIVITIES

### New Final Effluent Sample Valve

CMSA's final effluent samples, for regulatory reporting, are taken from an underground vault, above the 84" outfall, three feet below mean-tide level. During an infrequent inspection, staff found the valve to be significantly corroded. Replacement was complex and involved researching the design connection details, building a new valve and sample line apparatus, and selecting a minus-tide date to perform the work to avoid flooding the vault. The replacement work was successful due to our staff's thorough planning and preparation for the work.



### Field Work Data Tablets

A goal in the Agency's business plan is for Operations staff to utilize electronic devices for field work. After surveying other agencies, selecting equipment, installing electronic data tags on assets, and developing the tablet-based data sheets, Operations staff traded in their pen and paper for a stylus and data tablet. Operations' tablets are also SCADA enabled so operators can answer alarms, and view and operate equipment from anywhere on Agency property.



### Headwork's Gas Monitoring System

Staff installed a new hazardous atmosphere monitoring system in the Headwork's grit tank room, for continuous real-time monitoring of hydrogen sulfide gas, oxygen levels, and explosive gases in the room's atmosphere. The system's controller was mounted downstairs in the Headwork's sample room for ease of operation and maintenance. This system is connected to the Agency's primary alarm system and externally mounted warning beacons, to alert staff when the Headworks atmosphere is unsafe to enter.

### Headwork's Hydraulic Pack Replacement

The original 1985 hydraulic unit was used to operate gates at the Headworks, Primary Clarifiers, and Grit Load-bay. A few years ago, the hydraulic gate operators for the Primary Clarifiers were replaced with electric operators. Due to the unit being 37 years old and now oversized, it was replaced with a skid mounted and self-contained unit equipped with two motors and pumps, fluid storage tank, and a control panel. Mechanical technicians installed the new unit and Electrical/Instrumentation technicians connected it to the SCADA system and an emergency use only portable generator transfer switch.



## THE LATEST FROM FINANCE AND ADMINISTRATION

### Project Accounting Initiation

CMSA has over 2,500 tracked assets and accounting for them can be time consuming and tedious. This important task has been made easier with our new finance system's project accounting function. Project numbers are used as a link to account for and group all costs associated with a project or asset. Project costs are charged to a project number and the system organizes the costs into assigned components. Project accounting was used to detail all the costs associated with the Cogeneration System Installation Project for possible reimbursement from the recently enacted federal Inflation Reduction Act.

### Pension Obligation Bonds

The Agency issued Pension Obligation Bonds in April 2022 in the principal amount of \$9.2M to substantially fund and refinance the then Unfunded Actuarial Liability (UAL) with CalPERS. The bonds were issued at 3.36% with 15 years amortization through 2037. Annual debt service is significantly less than the previously scheduled UAL payments to CalPERS. These savings will be placed annually in a Section 115 trust to grow and accumulate to pay future pension costs.

### Financial Audit

Our FY22 financial audit is well underway with the independent auditors coming to CMSA for final fieldwork during the end of September. The audit has progressed nicely, with all requested items submitted early due to the experience of staff and efficiencies gained from the new financial system, for a result much appreciated by the auditor.

### New Credit Card Payments

One of the features of the new financial system is that it allows for credit card payments to be made at the Agency's office and over the internet. Staff is working on configuration of this new payment system that we anticipate will be operating by the end of October. It will improve payment processing speed while providing convenience to our customers.

### Benefits Reference Guide

The Agency's Benefits Reference Guide is a useful tool to provide an overview of employee benefits. For each benefit, the Guide provides written reference information and pictorials of pertinent documents. Recently, the Guide was updated with various changes from the completed labor relations negotiations with our two employee groups. Employees are encouraged to read the Guide, review the revisions, and take advantage of the benefits offered by the Agency. It can be found on the Agency's website under employee benefits.

## WELCOME NEW EMPLOYEES!



**Antonio Aguiar** joined the CMSA team in April as an Electrical and Instrumentation Technician. He formerly worked for Perdue Farms Hatchery in Petaluma. Tony is an avid Giants and 49ers fan and he and his wife enjoy decorating their home for the holidays. He was the architect for his cousin's house in Novato that won ABC's "The Great Christmas Light Fight" in 2018.

**Garrett Dossett** was hired by CMSA in April as Institutional Utility Laborer. Garrett graduated from Sonoma Valley High School and honorably served five years in the United States Marine Corps. Garrett's previous work experience includes working at a wholesale warehouse, grocery store, construction yard, and in the Carpenter's union. Garrett enjoys reading, golfing, going to the gym, and hiking.



**Victor Vargas** joined the Agency in May. He previously worked for The Town of Discovery Bay Wastewater Treatment Plant. He is a certified Grade II Wastewater Treatment Plant Operator and Grade I Distribution System Operator. When not at work, Victor enjoys fishing, working out at the gym, hiking, going to the coast, and wine and beer tasting.

**Derion Davis** came aboard in August as an Institutional Utility Laborer. He studied Theatre Art at City College of San Francisco and Broadcast Journalism at Los Medanos College. Derion is always eager to lend a helping hand and support to others. In his free time, Derion enjoys spending time with his daughter and his family, appreciates all forms of art, and discovering new music and places to visit.

