

**NEWSLETTER | SUMMER 2023** 

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# TECHNICAL SERVICES

**OPERATIONS & MAINTENANCE** 

#### FINANCE ADMINISTRATION HUMAN RESOURCES

# A NACWA Peak Performance Agency

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# PROJECTS AT CMSA

#### Secondary Clarifier No. 2 Rehabilitation Almost Complete!

Construction is well underway to rehabilitate Secondary Clarifier No. 2 with a new center column and return activated sludge (RAS) pipe, fiberglass grating, walkway bracing, wires and conduits, and new protective coating for its steel and effluent channel concrete surfaces. The rehabilitation of all four secondary clarifiers was a multi-year project sequenced out in separate contracts from 2021 through 2023 to allow construction activities during dry weather and



continued operation during wet weather. This is the last secondary clarifier to be rehabilitated, and with its completion in September, the entire secondary clarifier system will be ready for another decade or more of continuous service.

Removal of the walkway bridge in Secondary Clarifier No. 2

# **Organic Waste Facility Expansion**

On-site construction began in late March and the contractor has completed the demolition, site

excavation, and installation of the underground conduits and piping. The helical piles were installed for the new tank foundation, the new chillers for the biogas treatment were delivered, and the new tank and recirculation pump are expected to arrive soon. However, due to the long lead time required for the biogas heat exchanger, the project completion date has been pushed to December 2023. This project is funded by CalRecycle's Co-Digestion Grant, and to date CMSA has requested reimbursement for \$926,000 of the \$2.5 million awarded for construction related activities.



Installation of the helical piles

#### NPDES Permit Renewal & NACWA Platinum Award

In May, the San Francisco Bay Regional Water Quality Control Board approved reissuance of CMSA's National Pollutant Discharge Elimination System (NPDES) permit. The permit became effective on July 1st and has a five-year term. This NPDES permit has eliminated Acute Toxicity and Total Coliform Monitoring, however it has included additional Chronic Toxicity and Enterococcus monitoring. In June, CMSA was also awarded the National Association of Clean Water Agencies (NACWA) 5-Year Platinum Peak Performance Award for 100% NPDES permit compliance, for five consecutive years.



# TECHNICAL SERVICES PROJECTS



# New Ammonia Instrumentation

In April, a new Skalar Ammonia analyzer was installed in the environmental laboratory. Historically, CMSA's laboratory has only been able to provide six sample analyses per run, and significant timeconsuming distillation is required prior to analysis. The Skalar system contains inline distillation equipment and allows up to 100 sample analyses per run.

# Night Work

The new ultrasonic flowmeter system for the San Rafael Interceptor is scheduled to be installed in mid-September. The manufacturer needs the pipeline to be drained for about 16 hours to properly install and align the meter's sensors. To determine how much downtime is available and how many nights are needed for the installation, a trial run was performed on

the evening of June 6th under low flow conditions. The Agency's operations and maintenance staff worked with San Rafael Sanitary District staff to isolate the flows and drain the pipeline, and determined that four hours of downtime is available. Staff has therefore planned for four consecutive nights to shutdown the pipeline for the flowmeter installation.



Nighttime work to isolate flows and drain the 45" San Rafael interceptor



# Repairing the Biosolids Hopper

This project includes removing and replacing the corroded steel members on the 35-year-old biosolids hoppers, as well as cutting, welding, coating, and replacing hardware of the structural steel, and providing temporary shoring and bracing to allow the hoppers to remain in service during construction. The project was informally bid in March, and the Notice to Proceed was issued to DW Nicholson Construction in May. All submittals have been received and reviewed, and the contractor has field verified the quantities of steel repair and rebar locations for the temporary shoring. Repairs will begin at the end of July and continue through the end of August.

#### Assessing Alternatives for the Grit Classifiers

Due to deteriorated conditions and increased maintenance of the original grit classifiers, a consultant was retained to

provide a high-level review of replacement options for the grit classifiers and pumps, which includes in-kind replacement or upgrade to a more modern high efficiency grit washer unit. To get a better understanding of the modern state-of-the-art system, staff toured the grit handling facilities at Central Contra Costa Sanitary District and Sausalito Marin City Sanitary District in July. The modern grit system would significantly increase the amount of organic materials that can be washed off the grit and recovered for beneficial use. Additionally, it would help CMSA comply with important CalRecycle regulations that aim to reduce the amount of organic matter being sent to the State's landfills.



#### **OPERATIONS AND MAINTENANCE DEPARTMENT ACTIVITIES**

# New Switchgear Building HVAC System

A recommendation from a recent inspection and assessment inside the main switchgear building was to install an HVAC system to reduce dampness and moisture in the air, to extend the life of the building's electrical components. This was an in-house project, where

Engineering staff prepared the design drawings, and mechanical and electrical technicians completed the work. CMSA chose to install a mini-split ductless system for its small size, flexibility for zoning, and ease of installation. Staff mounted condenser units (pictured), fan coil units, a new transformer, and installed wiring and disconnects. Next steps include a fresh coat of paint for the building interior, floor tile repairs, and new slip resistant floor mats.



#### **Facility Door Upgrades**

There are over 100 exterior doors at CMSA, and most were installed when the facility was built in the early 1980s. Most of these doors are exposed to high humidity and corrosive environments. We have a multi-year project in the capital improvement program to replace facility doors based on their condition. Over



Original Door Replacement Door

the last year, 10 facility doors were replaced. The old doors were removed, and their frames were cut out of the concrete walls that supported them. The new doors and frames were installed and then painted to match the existing doors. Ten doors are scheduled to be replaced over the next year.

# Outfall Diffusers Annual Inspection

A diving contractor annually performs underwater assessments of the submarine outfall's diffuser section in the Bay. The work involves closely examining the outfall diffusers, assessing their condition, and documenting any necessary repairs. Every 10 years, divers also measure the level of solids accumulation inside the outfall pipeline. Due to particularly strong winds and turbulent waters during this spring and summer, the unfavorable ocean conditions made it unsafe and impractical for the divers to begin the assessment work. They will perform the inspection as soon as favorable weather conditions arise.

# **Critical Electrical System Assessment**

CMSA's switchgear serves as the central hub for our electrical distribution systems, and allows us to control, protect, and isolate power for over 20 Motor Control Center (MCC) units that power Agency facilities. In June, expert technicians and engineers assessed our switchgear and headworks MCC. The work included visual inspections, rigorous functionality testing including operating the equipment under different load conditions to verify the circuit breakers' responsiveness, and insulation resistance testing to identify signs of deterioration, loose connections, or potential electrical hazards. During the inspection, the field technicians identified several worn-out components. Based on these findings, our electrical engineering consultant is preparing recommendations to address the identified issues to ensure that the Agency will continue to have a safe and reliable electrical distribution system.





#### THE LATEST FROM FINANCE AND ADMINISTRATION

#### Adoption of the FY24 & FY25 Budget

A new two-year budget has been prepared for Fiscal Years 24 and 25, and was adopted by the Board in June. The budget contains revenue increases to offset various cost increases and utilizes reserves to balance the budget.

#### **New Business Plan**

It's that time again, and the Agency's strategic planning committee has developed a new Business Plan for FY24. This is the third annual Business Plan to support the five-year Strategic Plan, and builds on the Goals and Objectives of the Strategic Plan whether it's expansion of power generation, more effective communication, or education on employee benefits. In July, the Board adopted the new Business Plan.

#### **Auditor Change**

Cropper Accountancy, the Agency's current auditor, will be ending its six-year contract with completion of the FY23 audit. A Request for Proposal will be delivered to qualified audit firms in October, staff will review firm proposals in November, a new auditor will be selected, and a service contract will be presented to the Board in December for approval.

#### **Benefits of Hiring Retired Annuitants**

The Agency currently has three retired annuitants, which are former employees that work on special projects and train new staff. Retired annuitants have extensive experience and are a good addition to augment and support Agency business and operations. We foresee hiring another retied annuitant in the late summer to provide administrative support during a key employee's pregnancy leave.

### **NEW EMPLOYEES, PROMOTIONS, AND RETIREES!**

**Richard Hendrick** joined CMSA in April 2023 as a Mechanical Technician. He grew up in San Jose and now lives in Forestville. Richard graduated with a degree in Corrections/Probation and has competed in both MMA and submission grappling competitions. He enjoys spending his free time with his wife and two kids at the beach or building projects for their yard.



**Bob Stiles** accepted a position as a Mechanical Technician in April 2023. Bob began his career in wastewater in his early teens, working for his father's construction company building and installing water and wastewater facilities. He transitioned from a career in construction to working at Novato Sanitary District, where he worked for over 10 years. Bob lives in Windsor with his wife and enjoys being a dad of three. In his free time, he enjoys mountain biking.

Freddy Poveda was hired as an Institutional Utility Laborer in April 2023. Freddy studied graphic design at Santa Maria University in Ecuador. Prior to working at CMSA, Freddy worked for two years in security for a residential building. In his free time, Freddy enjoys spending time with his daughter, playing soccer, hiking, and enjoying days at the park.

**James Jarrett** joined CMSA in June of 2023 as an Institutional Utility Laborer. He grew up in Santa Rosa and graduated high school in 2007. Before CMSA, James worked in a grocery store. James is married and enjoys his free time with his two boys. He's a baseball fan and will always root for the San Francisco Giants.



Cody Leveque – Cody was hired in November 2022 as an Institutional Utility Laborer to perform day-to-day operations of the San Quentin State Prison pump station. Cody passed the Grade II Wastewater Treatment Plant Operator Certification exam and when a vacancy became available, made the transition to the Operations department. In May 2023, Cody was promoted to Operator-in-Training and has spent the past couple of months learning operational duties.

**Mike Gardea** announced his retirement in June, after 23 years of service with the Agency. Mike started his working career as a bridge tender for the City of Petaluma. Later got his wastewater plant operator certificate and was hired as an Operator for Sanitary District No. 5. In 2000, Mike joined CMSA as a Mechanic, and in 2005, he was promoted to Lead Mechanical Worker, which is the position he held until his retirement. Mike intends to spend the next few months traveling and enjoying time with his wife and family.