



CMSA UPGRADES

Completion of the New Liquid Organic Waste Receiving Tank Construction

The contractor completed installation and testing of all equipment for the new liquid organic waste receiving tank and gas treatment system in April. Staff is routinely using the new above ground tank by receiving liquid food waste slurry and FOG deliveries through the new screening system. This project was funded by CalRecycle's Co-Digestion Grant, and CMSA is expecting to receive full reimbursement for the entire \$2.5 million grant by this fall.



Completed Liquid Organic Waste Receiving Station

CMSA COMMISSIONERS

Eli Beckman,
Chair

Sanitary District No. 2

Dean DiGiovanni,
Vice-Chair

San Rafael Sanitation District

Mary Sylla
Secretary

Ross Valley Sanitary District

Maribeth Bushey

San Rafael Sanitation District

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INSIDE:

TECHNICAL SERVICES

•

OPERATIONS & MAINTENANCE

•

FINANCE ADMINISTRATION HUMAN RESOURCES

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New Nutrient Removal Requirements



The third nutrient watershed permit was adopted by the San Francisco Regional Water Quality Control Board in July to address nutrient management in the San Francisco Bay. Large harmful algae blooms have occurred in the Bay over the past couple years that resulted in significant fish kills. The new permit mandates significant reductions in nitrogen discharges to the

Bay by 2034. For CMSA, this translates into an interim cap on nitrogen discharges between 2024 and 2034, and a mandatory 61% reduction in nitrogen discharges after 2034. Preliminary estimates suggest the need for CMSA to construct significant new infrastructure to comply with this permit.

CMSA issued Request for Proposals to nationally recognized nutrient removal consulting firms to study nutrient removal alternatives and prepare a facilities plan with accurate implementation cost estimates. Proposals were evaluated in July and August, the Board hired a Carollo/Hazen consultant team for the project. A recommendation of the preferred alternative will be provided to CMSA's Board in Summer 2025.



Picture of algae bloom near Treasure Island resulting fish kills in the San Francisco Bay

TECHNICAL SERVICES PROJECTS

Update: Grit Classifier Replacement Project

The project team evaluated several layouts for the new grit washers and began developing the detailed design documents. To aid in this effort, Carollo Engineers laser scanned the room and developed a 3D model. The 50% design workshop was held in July, with final design expected to be completed in October, and construction to begin in March 2025. Additionally, the Board approved the pre-purchase of two Huber Coanda grit washers, which will be delivered by the time construction begins.



3D Model of Existing Grit Classifier Room



3D model of Centrifuge and Piping Layout

Process Piping Inspection

For the first time after being in continuous service since 1985, the buried expansion joints for the 48" primary effluent and one of the 30" secondary influent pipelines were excavated in April. A consultant had performed a condition assessment of the interior of the pipelines in 2021 and this excavation aimed to inspect the exterior conditions. The expansion joints, including the rubber, carbon steel elements, and stainless-steel components were all found in good condition.



Excavation of expansion joint (left) and close-up view of buried expansion joint

Primary Clarifier No. 1 Rehabilitation Project

CMSA's Capital Improvement Program includes plans to sequentially rehabilitate our seven primary clarifiers between 2024 and 2029. Staff prepared a design for rehabilitation of primary clarifier No. 1 and solicited bids from contractors. GSE construction was the lowest bidder and began work in June. The work includes repairing the deteriorated concrete surfaces and walkways, installing waterproof coating on porous concrete walls, and recoating the metallic clarifier baffles to address observed corrosion. GSE will also install an innovative flow optimization baffle system which is expected to substantially improve the solids removal efficiency of the primary clarifier. The project will be completed by end of September.



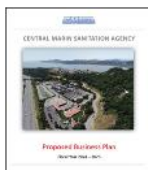
Primary Clarifier #1

Centrifuge Replacement – Design Update

Based on the required flow capacity and available physical space in the centrifuge room, the team narrowed the centrifuge selections to two manufacturers. In August, the Board approved the pre-purchase of three Flottweg centrifuges so they can be manufactured while the remaining design for the project is being completed.

FINANCE DEPARTMENT

2025 Business Plan



The Agency's Strategic Planning Committee prepared its fiscal year 2025 annual Business Plan to further meet its five-year Strategic Plan goals. The Business Plan includes objectives, such as beginning work for the highly anticipated Nutrient Removal project, providing new Treasurer services with the North Bay Watershed Association, refining treatment plant operations, and beginning work to develop a contractual services agreement with the San Rafael Sanitation District.

OPERATIONS AND MAINTENANCE DEPARTMENT ACTIVITIES

Primary Sludge Flowmeter Replacement

The primary sludge flowmeters in operation since 1985, have recently been replaced. Over the past year, these meters had become increasingly unreliable, necessitating additional maintenance efforts to keep them operational. To mitigate disruptions to the solids treatment process, the meter replacement was coordinated with Operations staff. Subsequently, the new meters have been seamlessly integrated into the system, and are actively reporting data to SCADA thereby enhancing operational efficiency and reliability.



Primary Sludge Flow Meters

San Quentin Pump Station Plumbing Improvements

In June, the Agency completed a plumbing project in the wet well at this pump station. The station's originally installed floor drain system was deteriorating and required a complete overhaul. CMSA had scaffolding installed prior to starting the project and all of the original metal piping and support hangers were replaced with ABS plastic drain piping.



Original Drain Pipe



New ABS Pipe

Biosolids Hopper Hydraulic Pack Replacement

Maintenance and E/I technicians completed a small project to remove and replace the facility's biosolids hopper hydraulic pack in the solids loading bay. This unit operates the hydraulic gates on the sludge hoppers. Once the hydraulic unit was secured to the base, staff connected new hydraulic lines and fittings to run new wires and conduit to the control panel that is now mounted next to the hydraulic unit.



Original Biosolids Hopper Hydraulics Unit



New Biosolids Hopper Hydraulics Unit

Biogas Scrubber Vessel Media Replacement

Prior to biogas being used as a fuel in the cogeneration engine, hydrogen sulfide gas is removed utilizing a scrubber system. The media used in these scrubbers periodically require changing out, and this requires a special contractor to do the work. The change out consisted of purging the vessel of biogas, removing both vessel service ports, and completing a confined space entry to chip and vacuum out the 22,000 pounds of media. Once the vessel was empty, new media was installed. This process took approximately two days to complete. The contractor then hauled away the old media, and the unit was returned to service.



Hydrogen Sulfide Scrubbers

THE LATEST FROM ADMINISTRATION

NEW EMPLOYEES



Nick Talbot was hired to replace the outgoing Treatment Plant Manager, Chris Finton. He holds a State Water Resources Control Board Grade V Operator License, along with Grade IV Certifications in Mechanical and Electrical Instrumentation from CWEA. He graduated from Gonzaga University with a bachelor's in Business Administration.



Corey Spray was hired to replace the outgoing Administrative Services Manager, Kenneth Spray. He is a Certified Public Accountant and holds an Master's Degree in Business Administration. He has previously worked in both the public and private sectors, all with an emphasis on financial accounting and general administration.



Grace Buell was hired to replace the outgoing Accounting Technician, Ahn Ta. She has worked with county and city agencies and a previous sanitary district, all with an emphasis on payroll, accounts payable and customer service.



Tiffany Elam was hired to replace the outgoing Administrative Specialist, Adrianna Lacoviello. She has worked in both the public and private sector for several years, all with an emphasis on administration services.



Nick Fleming joined the Agency in August 2024 as a Operator-in-Training. He previously worked for the Town of Windsor Wastewater Plant as an Intern and successfully passed his Wastewater Operator Grade II exam.



Scott Hayes joined the Agency in March 2024. He previously worked as an intern at Napa Sanitation and holds a Wastewater Treatment Plant Operator Grade II certification and is pursuing a degree in Wastewater Technology.



Edward Lee joined the Agency in February 2024. He previously worked for the City of Davis. He holds a bachelor's degree in chemical engineering and has his Grade III Wastewater Treatment Plant Operator certificate.



Pablo Loayza joined the Agency in August 2024 as an Operator-in-Training. He previously worked for Abstract Ice and successfully passed his Water and Wastewater Operator Grade II exam and is working to become certified.



Angelo Sacerdote joined the Agency in February 2024. He previously worked at the Town of Windsor Wastewater Treatment Plant as an intern and in 2023 he successfully passed the Grade II Wastewater Operator exam.



Cristhian Sandoval joined the Agency in August 2024 as Operator III. He previously worked for the City of San Leandro Water Pollution Control Plant and holds a Grade III Wastewater Treatment Plant Operator certificate.



Nikita Singh joined the Agency in June 2024 as a Laboratory Analyst. She has previously worked with IDEXX Laboratories, Eurofins Scientific and has a Bachelor of Science degree in Biochemistry and Molecular Biology.

Staff Updates: Since the last newsletter Chris Finton, Jean St. Louis, Ahn Ta and Ken Spray retired from the Agency with Haiden Jones, Kat Bauer and Myranda Lynch joining as Summer interns.