



CENTRAL MARIN SANITATION AGENCY

Summer/Fall 2013

FROM TRAINING ROOM TO FIELD TEST

Fats, Oils and Grease (FOG)/Food-to-Energy (F2E) live testing a success in equipment run-through.

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Staff engaged in a training session.

The FOG/Food to Energy (F2E) Facility equipment installation is complete, and CMSA staff recently received training on its operation from Kennedy Jenks,

the facility's engineering design firm. Training included a classroom session focusing on the facility's operational theory and control parameters, which was followed by live field testing of the equipment. A septic truck filled with recycled water was used to simulate deliveries of FOG, and CMSA staff operated the facility as they would when an actual delivery of FOG or food waste was offloaded. The training was successful, and included development of standard operating procedures and the discovery of a few minor issues that will be corrected by the contractor. The Agency anticipates that the FOG/F2E Facility will begin receiving deliveries of FOG in the late summer, and food waste in the fall, which should significantly increase biogas production that fuels the Agency's electrical generation equipment. ♦



Staff operating the facility during a mock delivery of FOG/food waste.

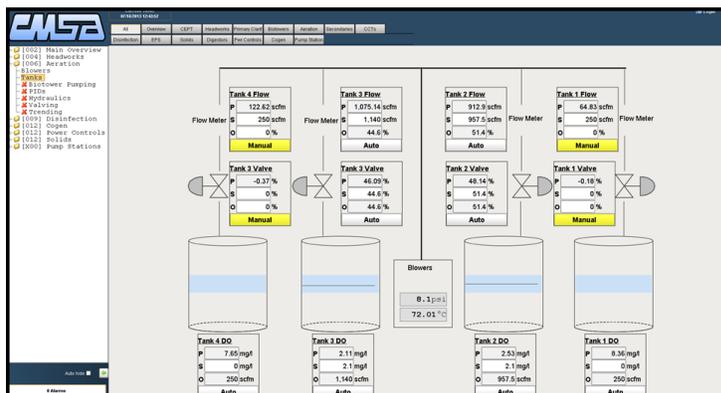
SCADA PROJECT GETTING CLOSER TO IGNITION

Staff began replacement of the existing SCADA (Supervisory Control And Data Acquisition) system with a new software program called *Ignition*, by Inductive Automation. Operators use the SCADA system to monitor and control Agency equipment and the treatment processes. The system also generates alarms to alert staff of abnormal conditions, and collects plant data for historical records.

When complete, the new SCADA system will communicate with a wide range of hardware. Its user interface will be designed to meet current industry best practices that will improve operator detection

and response to alarm conditions. These upgrades will play a vital role in continuing to maintain CMSA's history of award-winning compliance with permit requirements.

The new SCADA system is scheduled to be ready to begin operational testing in June, 2014. After successful testing, the existing SCADA system will be taken offline. ♦



New SCADA system showing aeration tank screens.

A NACWA Platinum 8 Peak Performance Agency

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OPERATIONS & MAINTENANCE

A VENDING MACHINE FOR TOOLS INSTEAD OF SODA



Fastenal "hardware store."

In 2012, a Fastenal vending machine was installed for consumable maintenance items such as grinding wheels, drill bits, and batteries. The machine is securely connected via WiFi to Fastenal's inventory system which reorders when stock is low. The trial was very successful, and benefits include an easily managed inventory and 24-hour access to a tool crib. Now, off-shift staff members have access to needed accessories and tools that previously were secured at the end of the day-shift.

BRUSHING UP

Maintenance staff recently completed the installation of weir cleaning brushes on the last two Secondary Clarifiers. The weir brush system installed last year has performed well and also significantly reduced the amount of staff time required to clean clarifiers on a weekly basis.



New brushes in place.

PUTTING A NEW FACE ON THINGS

Electrical/ Instrumentation (E/I) staff began a 10-year project to replace the original sump pump control panels throughout the plant that were fabricated out of coated mild steel. Their years of service in the plant's environment were beginning to take its toll. So far, staff have purchased stainless steel enclosures, installed new components, and assembled and tested two new panels.



New stainless steel cover.

GRIT GETS THE HEAVE-HO

Staff assisted Eagle Rock Services in removing grit from the Headworks system and from the Primary Influent Channel. Grit (sand, rocks, cell phones, etc.) will cause severe damage and limit the useful lifespan of process equipment. As part of a preventive maintenance program, this material is removed annually by an industrial vacuum cleaner and then sent to the local landfill.



Grit being removed with an industrial vacuum hose.

BRIGHT AND EFFICIENT

After 28 years of service, staff researched options to upgrade the original road lighting system. The Agency selected energy-efficient and light-pollution reducing LED retrofit kits instead of replacing the entire fixture, substantially lowering costs. The visible light is comparable to the old fixtures, and the estimated energy savings is about 7,800 kWh per year, resulting in a 3-year return on investment.



Staff retrofitting a fixture in place.

AGENCY PRO



View of rehabilitated Primary Clarifier No. 3.

NEW COATING FOR PRIMARY CLARIFIER NO. 2

The Treatment Plant has seven primary clarifiers that are part of the initial treatment process. The metal surfaces in the clarifiers need to be periodically recoated with epoxy paint for protection, and some mechanical equipment must be replaced due to wear. CMSA staff has already removed the worn-out mechanical equipment in Clarifier #2. A coating contractor will be hired to recoat the metal surfaces, and a mechanical contractor will install new mechanical equipment and gates used to control wastewater flow. The project is scheduled to be complete in the fall.

EFFLUENT STORAGE POND TO BE REGRADED

The Plant's 7-million gallon storage pond that holds treated effluent during maintenance and wet weather events was constructed over a deep layer of young bay mud that tends to settle unevenly, resulting in standing water that cannot be drained properly.



Pond's existing condition.

Design documents have been prepared, and the Agency will hire a contractor to import soil and re-grade the bottom of the pond to improve drainage. Construction will begin in late summer and be completed by early October.



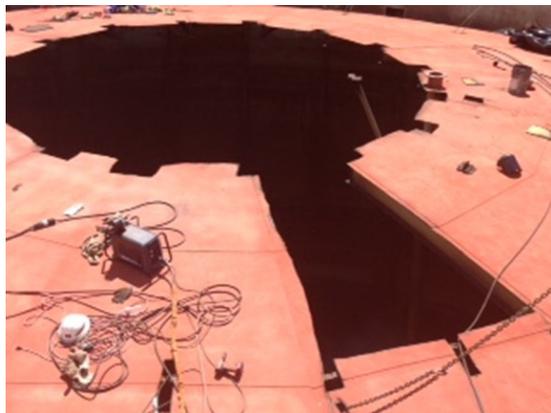
PROJECT UPDATE

RECLAIMED WATER SYSTEM UPGRADED

CMSA's contractor, Bartley Pumps of Santa Rosa, recently completed this project that replaced existing equipment that had reached the end of its useful life—two hydropneumatic tanks, two reclaimed water strainers, three reclaimed water pumps, and other equipment necessary to rehabilitate the system. The system has been successfully tested and is currently operational.



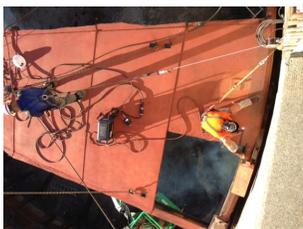
New pumps, strainer and tank.



Steel cover being cut and sections removed.

DIGESTER COVER DISMANTLED

Construction activities are ongoing for the Digester Improvements and FOG/Food to Energy Project. A recent major milestone was the removal of the floating steel cover on Digester No. 2 that had to be cut into sections and removed with a crane. With the steel cover removed, the contractor can begin installation of new mixing system pipes inside the digester which will be followed by installation of a new membrane cover. The membrane cover installation is scheduled to occur at the end of August and is the last major component of the project.



One of the last sections.

ENVIRONMENTAL SERVICES

PUBLIC OUTREACH

Staff worked the public outreach booths at the *Tiburon Salmon Release* on May 5, *Marin Home Show* on June 1-2, *Fairfax Ecofest* on June 8-9, *Wetlands Days* at the Sewerage Agency of Southern Marin (SASM) on June 18-19, and the *Marin County Fair* July 3-7. A total of 2,298 people took the environmental quiz, and staff answered many questions. The Agency also sponsored a square at the *Italian Street Painting* event in San Rafael held on June 29-30.



Kids viewing watershed diorama.

TESTING, INSPECTIONS AND ACCREDITATION

NPDES Testing

Lab testing was in compliance with NPDES permit requirements, with 100% survival in all of our recent bioassays. No priority pollutant organic compounds were detected in our semi-annual comprehensive testing.

Environmental Laboratory Accreditation Program

California's Department of Public Health Services has stringent laboratory certification requirements, and are administered by the Environmental Laboratory Accreditation Program (ELAP). ELAP staff recently performed two inspections and our laboratory did very well.

Lagoon and Canal Testing

Lab staff is currently performing annual summer testing for the lagoons in Corte Madera to make sure they are safe, and measuring the wastewater sulfide level at locations in each collection system for odor control purposes.

Ross Valley Sanitary District (RVSD) FOG

This past spring, CMSA began administering the RVSD Fats Oils and Grease (FOG) control program. Agency staff have updated the RVSD food service establishment (FSE) files and completed the first round of FSE inspections. Most of the inspections have gone well, with staff educating the dischargers about changes in the program's administration, and that inspections will be performed at least three times a year to verify compliance.

AWARDS

The Wastewater Treatment Agencies of Marin County won the **State CWEA Public Education Program of the Year** award for 2013. Three CMSA staff members received certificates for runner-up for the State level awards—congratulations to **Jeff Boheim**



Gretchen Mueller and Rob Cole.

(Electrical and Instrumentation Person of the Year), **Gretchen Mueller** (Public Education Person of the Year), and **Kevin Lewis** (Mechanical Technician of the Year).

NACWA's Peak Performance Award program recognizes wastewater agencies for outstanding compliance with their NPDES permit requirements. The Agency received the

certificate for the **8th NACWA Platinum Peak Performance Award**, recognizing eight consecutive years without permit exceedances. With less than 2% of all treatment plants nationally qualifying for the award—having eight years of full permit compliance is a major achievement and demonstrates the dedication and hard work of the staff. ♦



OUTFALL NAVIGATIONAL AID NOW A MEMORY



Aid as it appeared in the Bay.

CMSA's seven-foot diameter outfall extends about 1-1/2 miles into the S.F. Bay to the edge of a deep shipping channel on the north side of the Richmond Bridge. The original construction included a navigational aid near the end of the pipeline to alert boaters of the outfall location.

A U.S. Coast Guard representative recently notified the Agency that the navigational aid was missing. Staff hired a diving contractor to locate it,

who reported back that the support pipe had broken at the Bay floor. Also, the upper portion of the aid was only a few feet below the water surface, and would likely be considered a navigable obstruction that could damage the hull of a vessel. CMSA then hired the diving contractor to remove the aid and deliver it back to the Agency.

Based on guidance received from the Coast Guard, the CMSA Board decided to not replace the outfall's navigational aid. ♦



Aid resting on site at the Agency.



A FOND FAREWELL TO ANTONIO . . .

It is with a heavy heart that we must say bon voyage to a dear friend. Maintenance Mechanic Antonio "Tony" Barros announced in June that after 27 years of service with the Agency, he is retiring to Spain with his wife Jackie. Tony was hired as a Utility Worker in March of 1986 and was ultimately promoted to Mechanical Technician II, the position he holds today, in 1990. Tony is the Agency's

primary pump station mechanic, and has been recognized by the California Water Environment Association (CWEA) as Mechanic of the Year and three times as Collection System Worker of the Year. ♦

. . . AND WELCOME TO ANTHONY

Please welcome Anthony Smith as the newest member of CMSA's Maintenance Team. Anthony comes to us from Ernest and Julio Gallo Wineries, where he worked as a mechanic performing maintenance and repairs on a variety of equipment utilized in the wine-making industry. Prior to the winery business, Anthony worked as an apprentice machinist and fabricator. Anthony lives in Santa Rosa and has three children, Michael, Casstia, and Adam. ♦

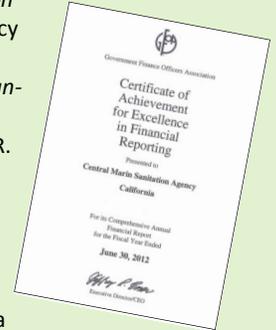


FINANCE

CAFR & PAFR AWARDS RECEIVED

For the eleventh consecutive year, *The Government Finance Officers Association (GFOA)* awarded the Agency the *Certificate of Achievement for Excellence in Financial Reporting* for both the FY 2011-12 CAFR and PAFR.

The Certificate of Achievement is the highest form of recognition in governmental accounting and financial reporting and its attainment represents a significant accomplishment by a governmental entity. The FY 2011-12 CAFR and PAFR are available at www.cmsa.us/finance/



FY13/14 BUDGET APPROVED

The Board approved the FY13/14 Budget at the June 2013 meeting, and includes operating revenues of \$10.2M, operating expenditures of \$10M and Capital Improvement/Asset Management expenditures of \$4.5M. The GFOA-formatted budget document will be submitted for evaluation this fall.

STRATEGIC BUSINESS PLAN UPDATE

At the end of this fiscal year, the Agency concluded two years of activities associated with the implementation of its second five-year Strategic Business Plan (SBP). Notable accomplishments were negotiating renewal of the Agency's NPDES permit and developing detailed contracting procedures for maintenance and capital construction projects. A full SBP report on the accomplishments will be presented to the Board in September. ♦



CMSA WEBSITE REVAMP

The Agency is in the process of updating and improving its website, section by section. So far, the Home, Awards, Finance, and About Us sections are done—next up are the Vendor/Contractor pages.

Check out www.cmsa.us to see the progress! ♦

