



# CENTRAL MARIN SANITATION AGENCY

## CMSA

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### INSIDE:

OPERATIONS



MAINTENANCE/  
ELECTRICAL



TECHNICAL  
SERVICES



FINANCE &  
ADMINISTRATION

### A NACWA Platinum 11 Peak Performance Agency

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Jason R. Dow, P.E.  
General Manager



## Construction Begins on Building Upgrades

CMSA's Maintenance Building is undergoing significant modifications, and includes creating additional office spaces for maintenance and technical services staff, remodeling existing restrooms, and enclosing the open side of the building for additional storage. Construction of a new storage building near the end of the treatment plant and grading improvements for better access and to comply with ADA accessibility requirements will also be completed.



In March 2017, the Board awarded a construction contract, and demolition began in mid-April. Construction will be ongoing throughout the summer, with completion

scheduled for November. Maintenance staff has been temporarily stationed in rented office trailers—and containers are on site for storage—so normal activities can continue during construction.



*Above and to left: Open side of the Maintenance Building being enclosed for storage (before and during construction).*



*New office area before construction began (left), and after removal of equipment and separating wall.*

## OPERATIONS ACTIVITIES

### Dechlorination System Now Using Lower Doses

During major flow events, process re-alignments, and various maintenance activities, the sodium bisulfite (SBS) primary injection point, used to fully dechlorinated the effluent prior to discharge, may have to be moved from one of three injection points to accommodate these activities. In the past, staff has been able to accomplish this by either “double-dosing” SBS at the primary injection point, or by completely diverting the effluent flow. With the installation of a third SBS neat solution line, staff now has the ability to dechlorinate at any or all injection points with a few simple keystrokes in the process control system. This reduces the potential for human error, and the Agency should also see a savings due to reduced use of SBS.



### A Wet Weather Season for the Record Books



As is well known, this has been a very wet weather season for all of California. Marin Municipal Water District’s Lagunitas

reporting station tallied 94.39 inches of rain, the second most recorded in 121 years. Due to inflow and infiltration (I&I) into the satellite collection systems, CMSA experienced the highest recorded influent and effluent flows since its commissioning—CMSA’s influent flows exceeded 120 million gallons per day on multiple occasions. To get an idea of this volume of water, imagine filling the Agency’s 7.1 million gallon effluent storage pond sixteen times a day, or *once every hour and a half!*

In addition to the wastewater treated, the influent screens removed the equivalent of 40 dumpsters (over 120 cubic yards) of rags and inorganic debris.

## MAINTENANCE / INSTRUMENTATION

### RAS Flow Meter and Valve Replaced

The Return Activated Sludge (RAS) flow meter was irreparably damaged by flooding earlier in the year, and needed replacement. And, to ensure that complete isolation between the secondary clarifiers and aeration system was available if needed, two isolation valves were also replaced. Staff was able to do all the work in under four hours.



### Reclaimed Water System Valve Upgraded



While troubleshooting the operation of the recycled water system, staff discovered its isolation valve was in very poor condition, and needed to be replaced. The new valve was manufactured using the original valve’s specifications, and was fabricated out of stainless steel to ensure many years of reliable operation.



### Aeration Flow Control Valve Conserves Energy

Air flow to the Agency’s four aeration tanks is regulated using air flow control valves. The four valves were recently replaced to take advantage of advances in energy-saving technologies in variable frequency drive controlled valves.



### Inline Flow Meter Saves Time in Data Capture

Staff installed a flow meter onto the facility’s irrigation system supply pipeline that captures flow data, which is then sent to the Agency’s process control system for use, reporting, and historical tracking. This is a great timesaver, as staff no



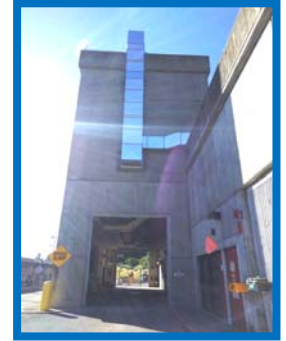
longer needs to record flows from the system with pen and paper, and then transfer the data to a spreadsheet.

# TECHNICAL SERVICES REPORT

## Improved Ventilation in the Solids Handling Building

A contract was awarded last November for the construction of supply and exhaust fans with distribution ducting in the Solids Handling Building. This new ventilation system will greatly reduce operator exposure to the diesel fumes and biosolids dust when hauling trucks are loaded from the hoppers. The system is also sized to minimize the potential for explosive atmospheric conditions that could develop from biosolids off-gassing. The project is on schedule for completion in June.

*Solids Handling Building before improvements, and with new ducting to roof.*

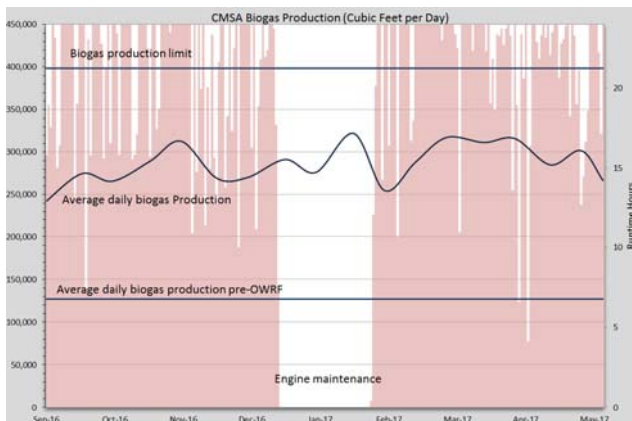


## Design and Construction Phase Beginning on PG&E Interconnection Project



*PG&E transformer and main plant switchgear; cogeneration engine.*

Last fall, CMSA began the process to modify its PG&E Interconnection Agreement to allow excess power from the biogas-fueled cogeneration system to be supplied to the electrical grid. PG&E completed their studies that identified the necessary improvements, and these were included in a new Interconnection Agreement that was approved by CMSA's Board in May. CMSA and PG&E are now beginning the design and construction phase for the improvements which are scheduled to be completed, tested, and fully operational by March 2018. CMSA also applied for and received approval from Marin Clean Energy to sell power to them through their feed-in-tariff program. Next up is to negotiate the power sale agreement with MCE and receive a State Revolving Fund loan/grant for the project's planning work.



*Average daily biogas production for the past six months.*

## Tracking Biogas Production in the Agency's Digesters

Methane biogas produced in the digesters is captured and used as a fuel source for an onsite cogeneration system that produces electricity and heat that is used by Agency facilities. In alignment with the goal of reaching energy-self-sufficiency, the Agency tracks the average daily biogas production and the maximum amount of biogas that the cogeneration system can consume in a day. The biogas is produced from the fats, oils and grease (FOG) and food waste collected at the Organic Waste Receiving Facility (OWRF) along with the solids from the wastewater treatment process.

## Lab Accreditation Changes in the Works

CMSA's laboratory is certified for several testing procedures through the Environmental Laboratory Accreditation Program (ELAP). The State Water Resources Control Board (SWRCB) is considering implementing the National Environmental Laboratory Accreditation Conference (NELAC) standard, referred to as the TNI standard. If TNI is adopted, CMSA will assess its ability to meet TNI requirements, which may result in additional staffing and/or increased reliance on contract laboratories, both of which will increase costs. It appears that TNI will be adopted in some form in the future, and that the full TNI program requirements will be implemented by ELAP over the next six years.

*(Continued on back page.)*

## NEWS FROM FINANCE

### Prep for the Audit

The fiscal year 2016-17 is rapidly drawing to a close and the Finance and Administration department will have a big job ahead of them to close out the year and prepare all the documents necessary to complete the annual audit, a requirement for transparency as well as compliance. The department has worked diligently throughout the year to keep the books and records clean, and look forward to a smooth and efficient audit.

### Budget Update

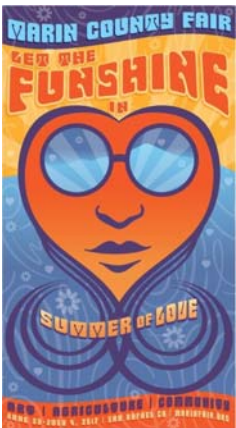
The fiscal year 2017-18 budget came together very well and all the necessary accounts and activities are funded. Plus, there are even cost savings in a number of areas, which speaks to the good work and abilities of Agency staff in managing the expenditures in the many and various accounts. This year's budget will also contain a reformulated and revised long-term forecast that will be clearer and more easily understood than before. The forecast will be presented at the June Board meeting.



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### Public Education Events

CMSA is the lead agency for the Wastewater Treatment Agencies of Marin County Public Education Program. The Program team will have public education and outreach booths at several events throughout Marin County over the summer months, including Wetlands Days, Marin County Spring Home and Garden Expo, Fairfax EcoFest, the Marin County Fair, and several farmers' markets. At the events, the public is encouraged to visit the booths to take the educational quiz about wastewater-related environmental topics.



Please visit CMSA's website for a complete list of events: [www.cmsa.us](http://www.cmsa.us)

## HR / ADMINISTRATION

### New Faces This Spring!

#### Mark Koekemoer

Mark joined the CMSA team as the Agency's laboratory director in February. He served as the laboratory director for the Napa Sanitation District for 13 years and is excited to lead CMSA in its laboratory operations and regulatory compliance. Mark is originally from South Africa and enjoys a good game of rugby and spending time with his family.



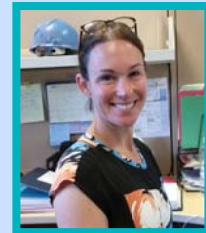
#### Ken Spray

Ken Spray is CMSA's new Administrative Services Manager who rejoins the Agency after working as Finance Directors for the Vallejo Sanitation and Flood Control District and the City of Millbrae. Ken is married with two sons, one working and the other in high school. Ken has been actively involved in Boy Scouting as Cubmaster and Assistant Scoutmaster. Ken and his family enjoy travelling during summer vacation.



#### Katy Thelen

Katy was hired in March as CMSA's new Health & Safety Manager, and she looks forward to continuing the development of safety programs that protect employees, the community, and the environment. Katy grew up outside of Chicago, and worked for the past ten years for the City of Santa Rosa Water Department as the Safety & Training Coordinator. When not working, she can be found hiking, running, or occasionally snoozing at the beach.



### Objectives for the Coming Year

Last year, the Agency developed a 5-year Strategic Plan that established CMSA's Mission, Vision, Values, and Goals. The annual business plan that addresses specific objectives and actions to be accomplished for the year is in the process of being finalized by the Agency's Strategic Business Plan Committee (ASPC). The ASPC consists of a dozen staff members who have the opportunity to work together cross-departmentally and become familiar with many Agency-wide topics and projects.

The draft plan will be brought to the Board in July.

