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# CMSA Monthly Report

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Central Marin Sanitation Agency

August 2003

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## GENERAL

**NPDES Fee Increase** - We have been tracking and reporting on the State Water Resources Control Board's (SWRCB) proposed fee increases to holders of NPDES permits. Due to the State's economic situation, the recently adopted budget does not provide funding to the SWRCB's core regulatory program. The legislature and Governor have recently approved a bill that allows the SWRCB to increase their fee structure to generate the \$16 million in revenue to replace the lost State funding. SWRCB staff have developed a flow based formula for permit holders to calculate their fee.

Our current NPDES permit fee is \$20,000 which enables us to discharge our treated effluent to the SF Bay. As of a few days ago, it appeared that our fee would be increased to \$35,000 and an additional charge of \$10,000 would be applied since we have a pretreatment program. The only unknown has been if the State will fund the ambient monitoring program that has a price tag of \$6.2 million.

We have received a notification from CASA that the State will not be funding the ambient monitoring program and that the SWRCB has modified the fee structure

to generate these dollars. This results in CMSA's fee being increased to the maximum level of \$50,000 and an additional \$10,000 pretreatment fee.

**Personnel Manual** - The Agency Personal Manual was adopted at the August Commission meeting and the document has been subsequently distributed to staff. We have been conducting informal workshops with each department's work groups, operation shifts, lab/IW, administration, E/I, and maintenance, to explain the process used to edit the manual, to note the changes, and the rationale for making the changes. The workshops were interactive and staff had several good ideas to explore during future revisions.

**JPA Manager Meeting** - The managers of the JPA organizations meet bi-monthly to discuss agency/district business, develop solutions for issues of concern, and to share information pertaining to each district's operating and capital activities. We met in early August with the focus of the meeting being a presentation on the potential Fat, Oil, and Grease (FOG) program which would ultimately minimize the number of sanitary sewer overflows in the collection system caused by grease and oil related blockages.

The Regional Water Quality Control Board (RWQCB) is

currently developing a General Waste Discharge Permit for collection systems, which at this point in time has SSO reporting requirements, contains guidelines for a sanitary sewer maintenance program, and prohibits SSOs. The FOG is a component in the sewer maintenance program and is modeled after the Federal CMOM program.

Bob Adamson, our lead industrial waste inspector, researched the topic and prepared a presentation on various methods of implementing the FOG within the CMSA service area. The managers decided to wait until we have a better understanding of the program provisions before considering how to implement the FOG.

The other topics that were discussed included procedures for shutting down the 24" Corte Madera forcemain to replace the flow meter, notification protocols when member agencies start-up and shutdown pump stations, and future improvements to the CMSA vector dumping station.

### **JPA Exploratory Committee**

The committee's first meeting has been scheduled for Thursday, August 28<sup>th</sup> at CMSA. The three Commissioner's and member agency managers will be discussing each others assets and resources, and looking at

opportunities to share these and possibly save the rate payers some dollars. Staff has prepared a questionnaire to solicit pertinent information from each organization prior to the meeting. The questionnaire contains sections on finances, assets, human resources, and employee benefits and representation.

**CMMS** - We are due to receive vendor proposals on August 29<sup>th</sup> for a new Computerized Maintenance Management System (CMMS). CH2MHill will assist us in developing selection criteria for evaluating these proposals. The vendors whose products appear to meet our needs will have the opportunity to demonstrate their software before we make our final selection.

**Security** - We have completed a Security Tactical Action Plan, and prepared a draft Security Policy and Implementation Plan / Schedule. We were assisted by three representatives of the San Rafael Police Department who toured our facility and critically assessed security. As a follow up to their tour they presented us with a list of recommended improvements. We included most of their recommendations in our implementation plan.

We have begun implementing some of the recommendations. Some signs have been purchased

and installed that give direction to visitors. We have begun requiring visitors to sign in at the Administration building front counter. Eventually we will not allow any visitors to enter the plant without first identifying themselves and signing in. We are in the process of re-keying all the main doors in the plant. We haven't changed some of the keying system since the plant opened in 1985. We feel with the number of people that have had keys to our gates and doors, it is time to change to a new key series. Ultimately, we are proposing some of the doors and gates be changed to keyless entry with the use of key cards or similar technology.

**Propane Tank** - CMSA's 12,000 gallon propane tank is for sale. We have advertised in the newspaper and contacted some propane vendors informing them of the available tank. We hope we receive some bids and are able to sell the tank. Since we will never use propane again, we would prefer to not have the tank on site. Bids are due September 5, 2003.

**Safety** - In an effort to help both staff and visitors know where certain safety equipment is located throughout the plant new maps are being designed which will provide detailed guidance. There will be about a dozen posters for various sections of the plant with a 'you-are-here' feature and display color icons representing different kinds of safety equipment such as emergency showers, eyewashes,

fire extinguishers, first aid kits, and heart defibrillators.

## CAPITAL PROJECTS

### **Cogeneration Engine Replacement Project**

The contract has been awarded to S.R. Hamilton Construction from Danville for the lump sum cost of \$942,000. They have provided the signed Agreement, their insurance information, performance and payment bonds, and assignment documents. We intend to assign Hamilton the four procurement contracts for the prepurchased equipment which transfers all coordination and contract monitoring responsibilities. The Notice to Proceed with construction has been issued and the pre-construction conference scheduled for later this week.

**Digester Gas Mixers** - This equipment replacement project presents some interesting challenges for procurement. Our digesters are mixed by recycling sludge gas (methane) through their contents in a pattern that induces a vortex within the digester. An array of gas diffusers is embedded in the floor of the digester. The array is organized near the center of the floor so that gas is pumped through the array causing the solids in the center to be lifted. As these gas-filled solids rise in the center, solids not yet entrained with gas from

the perimeter are drawn in to the center, creating a mixing vortex.

The gases are pumped with a compressor. The compressor is designed such that changes in the pump chamber size are reduced between the inlet side and the outlet side with the result that the pressure is increased. Other components include motors, condensate and oil separators, emergency shut-off valves, and temperature and pressure gauges all mounted on a skid with the compressor unit.

The manufacturer of the compressor for the existing skids has gone out of business so our first priority has been to search for replacement compressors compatible with the existing skids. Thus far we have not found a compatible unit. However, we have identified three companies which design and fabricate replacement skids for this specialized application and are in the process of evaluating the offerings from these three companies to ensure that what they propose to supply is comparable enough to warrant competitive bidding.

**Web Site** - A project committee was formed last month to help develop content, hire a consultant, and otherwise manage in-house resources in order to come up with a revised web site for CMSA. The 'working group' has been meeting weekly and grappled with an original list of about 100 potential content elements.

Their efforts are reviewed and steered by the Management Team. A web-savvy student was hired as a temporary independent contractor to design and assemble the new site. A consultant was also contracted, ABAG's Stephen Attaway. ABAG's role will be in reviewing what the CMSA team has assembled and recommend changes. Substantial progress has been made with the web site and it may start inhabiting cyberspace in late October. One objective of the site will be to further help administer the industrial waste discharge permitting program. Permitting guidelines and forms will be down-loadable (as 'pdf' files). The Agency's educational resources will be described including the school science presentations designed around environmental themes. The award-winning CMSA film "Where Does It Go?" will be offered. A governance menu will describe our public agency aspect and make available agendas and Board meeting minutes. A finance section will describe our budget. Visitors will still be invited to take the old 'plant tour' which we hope to spruce-up with the art from the original plant brochure.

**Coatings** - The Contractor, Redwood Painting, for the Secondary Clarifier No. 1 and Dissolved Air Flotation (DAF) Unit 2 Coating project has completed the surface preparation work in the clarifier. They have used 44 tons of blast material, which is made up of tiny pieces of garnet, a glassy jagged material with a deep green sheen. That spent

material is used once on our site, but cleaned up and recycled for other jobs. The contractor has been pro-active in presenting laboratory analyses that verify the used blast material is not hazardous. Redwood has applied the prime coat to all surfaces and will be applying 'intermediate' and 'top' coats this week at the secondary clarifier, then move on to the DAF unit. Our staff members who are inspecting this project are generally impressed with the obvious pride that Redwood Painting workers are taking in this job.

## LAB/ INDUSTRIAL WASTE

**Bioassay** - There was a 95% survival in our bioassay with the ammonia levels in the middle of the toxicity range. The fish did not look healthy, but the survival is remaining constant for the moment but with fish that do not look well it would be easy to have a survival problem. We have completed all the research and planning to install the pH adjustment system to lower the pH and reduce the toxic un-ionized ammonia formation. We are still waiting for the Regional Board's approval of our pH adjustment system.

**Temporary Lab Staff** - We have a new temporary employee, Jennifer Puente, working in the laboratory

during our transition period with Nancy's retirement and Rob as the interim laboratory director. She has a BS degree in Microbiology and lives in Mill Valley. She will be working in the laboratory so Jenny Bender and Bob Adamson can maintain Rob's industrial waste accounts and inspections.

**Web Site Contribution** - We are submitting information from the laboratory, public education, and industrial waste programs for the CMSA website. Dischargers that are in our industrial waste program will be able to access the permit applications, hauled waste policies, groundwater permits, mobile cleaning permits, auto permits, and fee schedules and hauled waste charges from the website. These documents have been updated and converted to web based formats allowing dischargers with internet access a simplified and immediate response to inquiries and application information.

**CWEA Presentation** - Bob will be giving a talk at the CWEA Northern Regional Training Conference in Lake Tahoe on Hazardous and Universal Waste Management at POTW's and what they need to do to manage these on site waste programs. His talk will be on Tuesday September 9<sup>th</sup> and he was asked to do the presentation by Elayne, our Safety Director.

## MAINTENANCE

**Dewatering Project (New Centrifuges)** Maintenance staff is assisting technicians with Centrisys (manufacturers of the centrifuges) to complete the remaining punch list items. Premature bearing failures and some control strategies are a few issues that still need to be resolved by Centrisys. There was a productive meeting on Thursday, August 20, which outlined remaining punch list items and a time frame for completion. Remaining issues should be resolved in September, 2003. The #3 centrifuge passed performance tests on August 25, which was one of the major punch list items.

**Disinfection Project** Staff initiated a project in house that will provide a higher degree of reliability for dechlorination (NPDES permit requirement) of the effluent. Secondly, CMSA is participating in a study with seven other Bay Area Public Owned Treatment Works (POTW's) to study the feasibility of allowing treatment plants to discharge small amounts of chlorine (less than 0.2 mg/L or parts per million) while maintaining a 99% compliance requirement for zero chlorine discharge to the receiving waters. Currently, permits require that there be no chlorine residual 100% of the time. Any chlorine discharge no matter how short of a duration and small amount of chlorine results in a Mandatory Minimum Penalty

(MMP) of \$3,000 since the passage of new legislation in January 2002. Regional Board staff are aware that it is difficult for POTW's to continuously and precisely balance chlorination and dechlorination processes and that occasional low level, short duration excursions can occur. Some of the excursions are believed to be false positives and most are unlikely to result in adverse water quality impacts.

The Regional Water Quality Control Board's (RWQCB) objective in supporting this study is to encourage a shift to continuous on-line monitoring for final effluent chlorine residual.

To maintain a zero residual operators overdose dechlorination chemicals to insure 100% compliance. This is costly and results in higher levels of this chemical being discharged into the receiving waters (higher total dissolved solids). This strategy increases the quantities of the chemicals that must be purchased and stored. Also, the dechlorination chemical tends to consume oxygen and can reduce the dissolved oxygen content in the receiving waters.

The Maintenance and Electrical and Instrumentation crew anticipate the project will be completely installed by the end of October 2003. We have been informed that the

Regional Board staff will authorize the project (Chlorine Residual Project) late this year or more likely early next year.

## OPERATIONS

### Polymer Optimization Test

Staff has us continuing to develop the protocol for testing emulsion polymers. Now that we are near the end of the dewatering project (installing the new centrifuges), we anticipate starting the initial testing late September or early October. The goals of the project are to increase the dryness of the cake (hauling less water) and to obtain a better capture rate in the centrate. The centrate recycles through the plant so fewer solids results in less loading back in the system.

### Process Optimization

Operations staff have made some recent adjustments to the biological and primary clarification processes to improve effluent quality. As a result of the changes the effluent quality is approaching tertiary treatment levels. The biological oxygen demand (BOD) and total suspended solids (TSS) levels are at typical values for tertiary treated effluent. Our turbidity levels range between 3-4 turbidity units and which is very close to tertiary levels. The improved effluent quality saves on chemical costs (sodium bisulfite and sodium hypochlorite) due to

decreased chemical dosages needed to meet disinfection requirements.

**Staffing Note** There is one mechanic, Mike Gardea, and one operator, Steve Egbert, on extended leaves (5 weeks) for maternity reasons. We congratulate them but will miss their services during their absence.

## BUSINESS SERVICES

### Long Term Investments -

Staff has completed both teleconference calls and face-to-face meetings with our representatives at USB PaineWebber and California Asset Management Program (CAMP). Richard Ebert from PaineWebber and staff spoke at length about the agency's current investments at UBS and have decided to meet again in October when the agency's two Certificate of Deposits (\$100,000 each) mature. CMSA current value of investments with UBS PaineWebber is valued at \$337,000. At that point, staff will complete an analysis of the market and the economy to chose our new investment vehicle.

On Friday, August 22, CAMP representatives Nancy Jones and Nsesa Kazadi came to CMSA to meet personally with staff to introduce themselves and give a brief yet very detailed history of our investments at CAMP. Because of the relatively high cash on

hand in our pooled investments and the fact that one of CMSA's notes (market value of \$502,500) is due to mature in mid-September, staff decided to monitor the market and meet again the second week of September to reinvest both.

**Security Grant** - The agency's vulnerability assessment to identify security improvements to the plant has been completed by agency staff with assistance from the San Rafael Police Department. To fund the assessment and the noted security improvements, staff has been looking at various grant opportunities. At this time, there are a few grants that may be available in the next year. One promising grant in particular is a senate bill that has been passed at the committee level but has yet to come to the senate floor. This bill, S.B. 1039, is entitled the '*Wastewater Treatment Works Security Act of 2003*' and would include monies available for vulnerability assessments as well as implementing security enhancements at wastewater facilities. Staff will be using the cost analysis of the security measures found in the vulnerability assessment to create a model for a grant application until this new bill is passed. Having our "ducks in order" at the time the bill is passed and being first in line for the funding will be advantageous for the agency.

**Review/Revision of**

**Purchasing Policy** - Staff is currently updating the purchasing policy to clarify our internal control policies while making it more streamlined for those that need to purchase items on a regular basis. The draft update has been completed and the management team will be meeting on August 26, 2003 to discuss the amended version.

**Centration/Mandated Costs**

**Programs** - Staff has been in close contact with Centration over the past few weeks to acquire the status of mandated costs that have not been reimbursed to CMSA by the State of California. This amount totals about \$2,000 for CMSA at this point. The State suspended the guaranteed payments in the 99/00 fiscal year because of the budget constraints at the time and have not reinstated the payments because of the current budget. It should be noted that these funds are earning interest at the current LAIF rate for the agency. Centration has stated that because the State budget has been signed for, the monies should be available at anytime because there was no stipulation of withholding the funds any longer. In addition, staff is working with Centration to reclaim the costs spent each quarter for the agency Investment Reports. This may bring the agency another \$225 per quarter.

**CAFR** - Glenn Thurkow, our prior Finance Manager, worked with department managers to develop and submit CMSA's Comprehensive Annual Financial Report (CAFR) for the fiscal year ending June 2002 (FY02). This was the first time since 1998 that we have prepared a CAFR. The CAFR contains the Agency's audited financial statement, an introductory section detailing our current initiatives and long range planning goals, and a statistical section.

We have been notified by the Government Finance Officers Association (GFOA) that CMSA (Glenn) has received the Certificate of Excellence in Financial Reporting for the FY02 CAFR.

Staff intends to prepare the CAFR on a regular basis in the future.