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# CMSA Monthly Report

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Central Marin Sanitation Agency

May 2003

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## GENERAL

### MMWD Desalination Status

We have met with MMWD staff several times during the past year to learn more about their desalination initiative and discuss a potential partnership between our agencies. They have requested consideration, at these initial stages in the project developed, to use our outfall to dispose of the desalination facility wastewater (brine). Staff has identified a number of concerns relating to sharing the outfall and development an internal memo summarizing our thoughts on these concerns. These are in the areas of hydraulics during peak wet weather events, permit compliance issues, and O&M activities associated with the outfall.

In March 2003, we met with the MMWD engineer, Bob Castle, who is most involved with the day to day details of the desalination initiative and their consultant URS. URS is conducting the Phase 1 studies that investigate the regulatory climate regarding desalination, the initial project review, and the environmental screening. During the meeting we shared our concerns and brain stormed solutions for each topic. It appears that our concerns could be mitigated by engineering solutions, operating procedures, and specific language in a partnership agreement.

The URS study has been completed and the district has provided a copy for our review which will be included in the June Agenda. The MMWD General Manager, Pam Nicolai, has requested the Commission authorizing staff to engage in more formal discussions regarding the desalination project and reaffirmation of the Commission's involvement.

### Lab Director Recruitment

Nancy Evans has been our lab director for the past 18 years and as reported last month, has announced her retirement. Nancy has informed us that her last day at CMSA will be August 10, 2003.

Our policy at the Agency is to evaluate position job descriptions, essential job functions, and departmental needs when a position vacancy develops. We anticipate filling the new treatment plant and business services manager positions in early July and would like to maintain a continuity in the lab/industrial waste department. To facilitate the upper management transition and provide an opportunity for qualified staff, management has decided to conduct an internal recruitment for an interim lab director position. Two internal candidates have applied and the interview panel is scheduled for June 19, 2003.

### Reorganization Recruitment

The treatment plant manager position had 35 applicants while

the business services manager had 44 applicants. Our HR consultant, Koff & Associates, performed the initial screening of the candidates using a weighted evaluation matrix with criteria and weighting that were developed in collaboration with management. The top 8 candidates for each position have been interviewed by panels of managers with experience in each respective field and the top candidates were identified and recommended.

The top three treatment plant manager candidates were interviewed by the General Manager and an offer of employment was made to Steve Gittings. Steve has accepted the offer and pending his passing a pre-employment physical will begin work in early July. Steve is the current the Director of Utility Services with the City of Stockton.

The second interviews for the Business Services manager position have been scheduled for this week (June 2). There were two top candidates.

### Human Resources Policy

Manual Staff has worked with Wiley Price Radulovich to update our Human Resources Policy Manual. This effort has spanned the past few months and included several draft revisions and three review discussions at the management team meetings. The primary focus of the revisions is to

update the policies to reflect current employment law requirements, clarifying policies, and were applicable, better conformance with the 2002 MOU.

Minor changes affecting bargaining unit employees were outlined in a letter to Mape. Mape is currently reviewing the policy manual and we hope to meet and confer in the near future.

**Sewage Spill:** On Thursday May 8<sup>th</sup>, an Operator failed to correctly valve some sample collecting piping at the Corte Madera meter vault. The result of this misvalving was a sewage spill of approximately 9,000 gallons. The spill was discovered at the next scheduled visit to the meter vault, May 12<sup>th</sup>. As soon as the spill was discovered, Operations and Maintenance responded to stop and clean up the spill. Member agency Sanitary District #2, the Marin County Environmental Health Department and the Regional Water Quality Control Board were all notified as required. CMSA Lab personnel collected water samples from an adjacent tidal drainage ditch even though there was no appearance that the spill entered any surface water body. As follow up to this incident, all Operations personnel have been refreshed on the required sample collection procedures and a formal Standard Operating Procedure has been written.

Our Electrical/Instrumentation staff have been assessing needed repairs to the Corte Madera flow meter located in the subject vault. The flow meter was completely submerged when the vault flooded. Russ Turnbull has been in contact with the factory service department for advice. There are some repair procedures to try in an attempt to salvage the meter, but if these fail the meter will need to be replaced.

## CAPITAL

### **Secondary Clarifier/DAF**

**Coatings** Bids will be opened on Tuesday, June 3<sup>rd</sup> for the Secondary Clarifier No. 1 and Dissolved Air Flotation Unit No. 2 Coatings contract. Industrial coating operations at the CMSA facility will involve the use of sand-blasting for surface preparation and application of 2-part epoxy coatings. Five contractors have visited our site so we may receive five bids. The 90-foot diameter secondary clarifiers are used to settle out the 'bugs' from the activated sludge secondary treatment system.

This will be the first time this particular clarifier has been re-coated since the plant was constructed. The dissolved air flotation (DAF) units are used to thicken those same bugs which are diverted from the activated sludge process and "wasted" to the digesters. Dissolved air is introduced along with the settled solids causing them to

float and form a blanket on the top which is scraped off and discharged into a waste sludge sump. This will be the first re-coating of the DAF unit No. 2 since it was constructed. Last year the bid for a secondary clarifier alone was \$77,000. We expect this year's bid to be in the neighborhood of \$100,000 for blasting and coating the DAF along with the clarifier.

### **Dewatering Improvement**

We notified Schram Construction of the Commissions acceptance of the project as substantially complete at the April meeting. The delay issues associated with the project and related changes have been negotiated into a final change order of \$3,500. The total change orders on the project is 3.5% of the construction costs.

The final punch list has been prepared and Schram is currently addressing the few remaining project tasks. The job will be accepted as finally complete in the near future.

### **Cogeneration Engine Replacement Project**

The 90% design drawing review has been completed by the project team and we had a full day workshop with CH2MHill to discuss our review comments. The specifications and front end documents have also been reviewed and the contract's bond, insurance, and general provision preferences have been selected.

The contract with Steward and Stevenson Services has been executed and the Notice to Proceed letter sent. Steward and Stevenson will be supplying the Waukesha engine-generator system and heat exchangers for the project at the lump sum cost of \$ 655,000. We plan to investigate the feasibility of releasing the engine for production prior to full shop drawing approval. This is possible since the engine is a standard configuration, and has the benefit of shortening the delivery period by 4-6 weeks.

The other prepurchase equipment have been approved for manufacturing and the shop drawings fully reviewed. We expect delivery of the siloxane filter system, compressors, and refrigerated dryer in August 2003. Bid opening is still planned for early August.

## MAINTENANCE

### Propane Tank

**Decommissioning** We have decommissioned the plant's 12,000 gallon propane tank from service. Originally, propane was the backup fuel to digester gas for operation of the boilers and the cogeneration engine. The last time we attempted to use propane as a fuel, detonation in a cylinder occurred and cause a catastrophic failure. This was one of the few runs ever made with propane fuel. The cost of repairs from this

single failure was in excess of \$100,000.00. We now have natural gas as backup for the boilers and propane is not recommended nor an option with our new engine.

Allied Propane Company in Richmond assisted us in disconnecting all piping and flaring off the small amount of propane remaining in the tank. They also filled the tank with 15 PSI of nitrogen as a final step. CMSA has been approached by a firm that is interested in purchasing the empty tank. We will be considering any future needs for the tank, and may recommend selling it if no needs for retaining are foreseen.

**DAF Repairs** The maintenance staff is continuing with repairs to the dissolved air floatation system. In preparation for re-coating all the interior steel surfaces in one of our tanks, the maintenance workers are renewing the flight chains and the surfaces they ride upon. They are attaching new stainless steel wear strips on top of the badly worn chain tracks. Also the main drive shaft and bearings will be replaced after the sandblasting and coating work is complete.

**CMMS Selection** As part of the selection of a new CMMS (computerized maintenance management system) we are meeting with CH2MHill who is contracted to assist us. They will help us assess and evaluate software that fit our needs. We will be looking at needs, functionality, resource

analysis and any other pertinent features. The CMMS will be a great tool in helping make maintenance, capital and Asset Management decisions.

### **Security Assessment Update**

Kathy Britton attended a Utilities Office Security Workshop. She is working with Dick Lindgren in a continuing look at plant security. Some recommendations have been implemented while others are being considered.

New signs have been installed at the plant parking lot entrances to deter trucks from entering these areas and causing property damage as they attempt to turn around. More signs will be installed to give better direction to recreational vehicles, and septic haulers. We have also implemented a routine perimeter check of the plant to look for weakness in our fences and gates.

Other considerations in the discussion stages include: requiring all plant visitors to sign in at the front desk and wear a visitor badge, possible need for some door and window security alarming, assess our fire walls on our computerized information and SCADA systems for vulnerability through the internet, evaluation of how we conduct facility tours, and looking at our chemical and truck delivery procedures as being adequate. We are scheduled to discuss these and

other security issues at our next Management Team meeting.

## OPERATIONS

**PG&E Peak Period:** On the first of May, the PG&E "on peak period" began. From that date each year through the end of each October, the utility imposes a higher demand charge for electricity. The Agency minimizes these demand charges by ensuring that the cogeneration engine is running optimally and that the power draw from the utility is as little as it can be. The hours for the peak period "window" are from 2 p.m. until 6 p.m. Operations personnel manage the energy recovery system to ensure that the engine is running particularly well through the window.

**Secondaries:** The Department had secondary clarifier #1 out of service, drained and ready for cleaning and inspection for its coatings work. The plant is performing well with the three remaining secondary clarifiers in service.

**Odor Control:** The four odor control chemical dosing stations were returned to service in May. As the collection system flows decrease and the wastewater temperatures increase, conditions develop which are prime for odor generation. To combat these conditions, a nitrate salt solution is injected into the wastewater at the North Francisco, West Railroad,

Greenbrae and Paradise sewage pump stations. This chemical supplies available oxygen to the collection system's naturally occurring microorganisms so they don't have to take oxygen from sulfates which could then create odorous chemical compounds.

**Nitrate Contract:** The nitrate salt supply contract expires on the 28<sup>th</sup> of July and there is no extension available. Operations staff have reviewed the supply contract document which will go out to competitive bid the first week of June. These bids will be opened on the first of July and the results reported to the Board of Commissioners at the July board meeting.

**Biosolids Land Application:** Land application of dewatered biosolids resumed on the 19<sup>th</sup> of May. During the rest of the year, the biosolids are disposed at the Redwood Landfill in Novato. The land application site for this year is about half a mile north of Highway 37 and just west of the Lakeville highway.

## LAB

### **NPDES Permit Appeal**

**Abeyance:** After our NPDES Permit was issued in September 2001, we appealed it to the State Water Resources Control Board over a number of issues. The issues include limits (especially the fact that we have 2 mercury limits, one for concentration and one for mass, which exposes us to the potential of 2 fines for 1

mercury violation and is therefore "double jeopardy"), the 85% removal requirement (which causes us occasional Permit violations in rainy months), and others. We asked that the appeal be held in abeyance, because almost all other POTWs have appealed their Permits, and if the State Board resolves these issues, all of us who have appealed should get the changes in our NPDES Permits. At that time the State Board gave us a 2-year abeyance, until October 2003. The issues still have not been resolved, so we have just asked for an additional 1-year extension of the abeyance, until October 2004.

### **Oil and Grease Test**

**Reduction:** We have recently received approval from the RWQCB to lower our oil and grease monitoring frequency from monthly to quarterly, which will save us both time and money. They modified our NPDES Permit to allow the reduction because we have not had any violations of the Permit limit. In fact, we have not detected any oil and grease in the effluent at all since we began monthly testing in October 2001. Quarterly samples will be collected in March, June, September, and December.

### **Commercial Lab Contract,**

**cont'd:** Rob and Nancy have finished a detailed evaluation of commercial laboratories. Lab references were checked,

proposals were reviewed, data was analyzed, and labs were visited and inspected. A matrix was completed for the 2 finalist labs, which evaluated them based on 13 factors. The recommendation is that the contract be given to Caltest Analytical Laboratory. This will be brought to the Commission at their June meeting.

Tour: On May 20, Rob and Nancy gave a plant tour to 27 students from Marin Catholic High School. They were sophomores from an environmental science class. This is the first time that Marin Catholic students have toured the plant. They were impressed by the tour and said they will be back again.

## INDUSTRIAL WASTE

### **Promotional Items for Public**

**Outreach:** Every two years CMSA and LGVSD develop a new logo to be printed on the "promotional items" that are given away at the County Fair and other public education events. A new logo featuring a crab was developed this Spring. The logo, which advertises the two agencies and our 1-800-SAV-R-BAY hotline, is being printed on T-shirts, toy crabs, stickers, magnets, pens, and canvas shopping bags. All the

merchandise should arrive at CMSA in time to be featured at the 2003 Marin County Fair, July 2-6.