CMSA Newsletter

Central Marin Sanitation Agency **July 2004**

GENERAL

Property Tax Shift

Earlier this year, the Governor made a deal with local governments, including special districts, that involved shifting $1.3 billion dollars of their Ad Valorem property tax revenue to the Education Revenue Allocation Fund (ERAF), in fiscal years 2004 and 2005, in exchange for Constitutional protections for their future property tax dollars. This shift would save the State the equivalent amount of dollars each year and help balance the budget. The State legislature was not consulted in the negotiation process, which has resulted in the budget adoption being delayed.

The latest news on this front is a modified local government arrangement that has been negotiated between the legislature and the Governor. It still involves the $1.3 billion dollar shifts, but the constitutional protections are not as sound. CASA reports that this is probably the best arrangement special districts should expect.

Elements of the deal include that future property tax dollars cannot be shifted to the ERAF; local dollars can only be reallocated to other local governments within a county if approved by 2/3 vote of the legislature; the State could borrow the money if the governor declared a "significant State fiscal hardship" and the legislature approves by 2/3 vote; any dollars taken by the State have to be repaid within 3 years; and the borrowing can only occur twice in 10 years and the first has to be repaid before a second borrowing is allowed.

For the next two years, enterprise special districts such as sanitary districts, will lose $ 350 million in property tax revenue which equates to about 40% of their total tax revenue. The new deal limits the shift to 10% of each district's total revenue. This affects our member agencies, however, the 10% limit it is a better situation than previously anticipated.

Biosolids Land Application General Order

The land application of biosolids has become more restrictive over the past few years as Counties have either banned land application altogether or adopted very strict provisions for land application. These actions have caused a hardship to many treatment plants by requiring them to haul the biosolids great distances, even to other states, for disposal. Fortunately for CMSA, Marin and Sonoma counties have not considered the land application topic and it does not appear to be on their radar.

The State Water Resources Control Board has certified a Program Environmental Impact Report (PEIR) for the land application of biosolids and adopted a General Order (GO), both of which state that application of Class B, the type we produce, is safe and the preferred alternative. This was a positive development from the policy maker for biosolids land application, and can be used to buttress arguments in supporting of land application in the future.

A major development was the inclusion of a policy statement, as requested by CASA and BACWA, in the GO. It states "*This General Order establishes a regulatory system to manage biosolids in a manner that is reasonably protective of public health and the environment to the extent of present scientific knowledge. The beneficial use of biosolids through land application under this General Order is environmentally sound and preferable to non-beneficial disposal*."

We had previously sent letters of support for the PEIR and GO.

MMWD Desalination

The Marin Municipal Water District's Board of Directors recently authorized their staff to proceed with hiring a consultant to design, construct and operate a desalination pilot plant. The facility will be located next to the Marin Rod and Gun Club pier and be operated for about

one year. MMWD believes that the data and information obtained from the pilot facility will enhance their EIR and is a prudent step to take before committing to a permanent facility's planning and design.

The pilot plant will test multiple pre-treatment technologies to determine which is best at removing the majority of the Bay's solids. Pre-treatment is a crucial step in desalination and under designed systems have led to significant operational problems at some facilities, most notably Tampa's 25 MGD plant that went on line last year.

MMWD and URS will be attending the August commission meeting to give an update on the desalination project's EIR status, discuss the pilot plant in more detail, and provide a general overview of the MMWD water supply situation and the challenges associated with procuring additional water from the Russian River.

Strategic Business Plan

The draft Strategic Business Plan was presented to the Commission at their July meeting by our consultant Red Oak. The Commission had some minor comments and requested they be incorporated into the SBP prior to its formal adoption. The next phase of the project is implementation during which staff will develop the strategies, actions, and tasks for departments, teams, and individuals to execute that align with the SBP's goals and objectives.

An implementation workshop with Red Oak has been tentatively scheduled for mid-August that will provide the guidance and tools for staff to effectively work through the implementation phase. We anticipate having the final draft plan completed by January 2005.

Regionalization Study

Red Oak presented an overview of the study work elements and tasks at the July Board meeting, and the preliminary schedule was discussed. A questionnaire was distributed to the Commissioners for them to provide to their managers, which requested District information in the areas of Legal/Political, Administrative, Technical, and financial. A conference call was held several days after the Board meeting to give the member agencies the opportunity to clarify any of the questionnaire contents. The targeted completion date for the information request was July 30th, although it appears that this will be delayed a couple of weeks due to the member agencies needing more time to compile the information.

The information obtained from the member agencies, from interviews of their staff, and field observations will be used to assess the strength and weaknesses of our current governance model (JPA). We are still hoping to complete this first phase of work by early September and present the findings at the September Commission meeting. This may need to be pushed to October if the information from the member agencies is not received by early-August.

SAFETY/SECURITY

Ergonomic Evaluation

In May 2004, CMSA contracted with Jan Smith from Ergonomic Solutions to evaluate seven workstations within the agency that we determined to be deficient ergonomically or had concerns expressed by their users. Jan's evaluation provided valuable insight and relevant recommendations to employees on how to adjust chairs properly, position keyboards and monitors, and organize their work spaces to minimize repetitive or strain injuries. Jan's recommendation also suggested the replacement of several chairs, keyboards, and ancillary office equipment. The Agency's' Safety Director and Safety Committee Chair are working together to develop an implementation schedule to responsibly address ergonomic deficiencies and meet risk management goals.

Safety Committee

The Agency's Safety Committee Team met on July 29, 2004. The committee

reviewed the outcome of recent safety tailgates, discussed the semi-annual safety quiz results, reviewed action items associated with the annual treatment plant and pumps stations safety inspections, reviewed a revised hearing protection policy, reviewed the ergonomic recommendations, reviewed the new standard operating procedures (SOP's) for the gas line purging, and responded to a recent safety hazard report.

Open Space Inspection

During the last couple of months, CMSA staff reported that they had seen homeless persons walking on trails located on CMSA's open space property on the south side of Andersen Drive. This was of significant concern in that the Agency as recently as February had spent time and money cleaning out a homeless encampment located on our open space property. On the afternoon of Thursday, July 22, 2004, General Manager Dow, Business Services Manager Niccolai and Officer Mark Hedeen from the San Rafael Police Department, inspected several areas of CMSA open space property. Using the SRPD vehicle, they first traveled the open space fire road. Although no evidence of encampments were found, Officer Hedeen provided several recommendations that may deter any future squatting. Recommendations included maintaining the road as there was very high grass and deep gouges, and repairing a 100-foot section that had slid down the hill. Implementing the recommendations would allow CMSA staff to inspect the property with Agency vehicles, that will provide the appearance of a well maintained road. Next a portion of the property adjacent to Andersen Drive was inspected, via foot. Two relatively small areas of garbage attributed to past use of homeless persons were found. Officer Hedeen provided additional recommendations to remove the garbage and cut down high grass located between Andersen Drive and the v-ditch located approximately 15 feet above the road way. Removal of the high grass would provide a clear view to the v-ditch, a potential homeless walk-way. CMSA staff will further review the recommendation provided by Officer Hedeen and determine the appropriate next steps.

Officer Hedeen later inspected an area of the open space higher up the hillside, accessible only by foot. Two homeless individuals were encountered and were informed them they need to move off the premises. Officer Hedeen informed CMSA that he would patrol this area frequently until the squatters had vacated CMSA property.

BUSINESS SERVICES

Finance

On July 14 & 15, a representative from our financial auditors, Vavrinik, Trine & Day, came onsite to perform a preliminary audit. The audit consisted of reviewing our internal controls and requesting documentation in preparation of the financial audit, which is tentatively scheduled for the first week of October 2004. The internal control audit consisted of several exercises. First, for two employees, the auditor compared the payroll register, a statement of employee payments and deductions, with information provided in their personnel file. The auditor then reconciled the stated salary and benefits documented in the personnel file, with what is documented in the payroll register.

The Agency Accountant and Business Services Manager also participated in a meeting with the auditor and provided verbal information regarding such things as plant security, petty cash and major chemical suppliers. All verbal discussion will be followed up with appropriate policy, procedure, and contract documents. The auditor findings from both the internal control audit and financial audit will be presented to the Agency in November 2004 and to the Board in December 2004.

Contract Management

CMSA's contract for supplying Nitrate Salt Solution expires August 18, 2004. Per the

provisions of the contract, a one year extension was available with the current supplier, USFilter, at the same unit price. Upon determining that the unit price is remains favorable to the Agency, CMSA and USFilter agreed in July 2004, to exercise the provision and to extend the contract for a one year period. CMSA spends approximately $235,000 per year on Nitrate Salt Solution for use in odor control.

CAPITAL/ ENGINEERING

Wet Weather OPS Manual

CH2MHill has submitted a revised working draft of the Wet Weather Operating Procedure Manual. Operations staff have met a few times to review and discuss the draft manual and comments have been recorded and provided to CH2MHill. The next step in the manual development is for the comments to be incorporated into a final draft version, staff to review that document, and then the last workshop will be held.

Our goal is to create a sound well developed document that captures our operations staffs experiences and will be used as a best management practice during these peak wet weather events. The final document should be completed in August or early September in time to train staff before the next wet weather season begins.

Forcemain Model

Nolte Engineering has provided the preliminary results of the forcemain collection system model that indicates 125 MGD can be pumped to CMSA when all design pumps are operating, and 155 MGD can be pumped to CMSA when all pumps, including back-ups, are operating.

The preliminary report was presented by Nolte at the July 14th JPA manager meeting. The results were discussed at length and the primary action item from the meeting was to have Nute Engineering review the report on behalf of the member agencies. We expect Nute to validate the findings. The final report will include our comments and those of Nute.

Cogeneration Project

There is a September 20th deadline on the horizon. We have in hand schedules from the contractor indicating a start-up date for testing purposes of August 23rd. Details are still being nailed down concerning wire terminations and hardware conflicts and we appear to be narrowing the number of things that need correcting. There are now six full-time workers on the construction project fielded by the contractor, and the electrical subcontractor is working 10-hour days. Theirs is currently the biggest task. We've managed to settle on a design for the power conduits, the largest on the project which are 4-inch diameter and heavy, especially when filled with wire.

In order to help facilitate construction (we are now officially in a hurry) we've turned off the old Waukesha. It was noisy and the folks assembling the large diameter conduit need to be able to think and talk to each other. There were some other problems as well. Water mixed with oil was discovered and one cylinder liner was suspect. There was also an exhaust leak in the room which required us to keep all of the doors open to assure adequate ventilation. Considering it all - the noise, the exhaust, the cooling system leaks - turning off the engine seemed like the prudent thing to do. It will cost us (assuming the engine would have lasted). The additional power costs for the next billing period will be $30,000 higher. This seemed small in comparison with the $560,000 in grant money which is on the table. The design intention had been to run the engine as long as possible, but the design did not anticipate equipment arriving six months late and jeopardizing our grant.

At our request the electrical subcontractor has also gotten the instrumentation and human-machine-interface integration specialists working. They had been in sequence on the critical path to start after all of the electrical work was completed. Now they are

working in parallel and should be able to provide serviceable control interfaces for the CMSA process control system in time for testing and start-up.

Pre-purchasing so much of the equipment in advance has created quite a challenge for everyone concerned. Our biggest focus right now is the wiring between the engine and the control panel. The design engineer has done a reconciliation with what they've found during a field inspection. It appears that the manufacturer of the control system, a Colorado-based company called Encorp, had added 10 pages to their design documentation since their official submittals months ago. We found that the controls manufacturer Encorp, the vendor Stewart and Stevenson, and the engine manufacturer Waukesha, had not done a thorough coordination of what each was providing. A field engineer from Stewart and Stevenson will be here on Monday, August 2nd and should help round-out the review and the vendor response with correcting the documentation of their control diagrams.

We have been reviewing the documentation specifically required by the grant. This includes obtaining a permit to operate from the Bay Area Air Quality Management District. In our discussions with the air district we have been invited to just give them a date for starting up the new facility and they will issue the permit (with the provision that we complete our emission tests within 60 days).

Then there is the documentation and testing required by PG&E for interconnecting with the facility. We are working on as many parallel tracks as we can and trying to focus on just what is needed for what the utility terms "substantial completion." We may delay certain portions of the work which are not critical to getting the engine up and running. Those portions include the installation of redundant equipment (designed in for reliability) and the siloxane removal system. The utility is not funding the siloxane filter system and does not care if we start with or without it. So its start-up can be deferred in favor of those parts of the project needing completion to meet the grant deadline.

Capacity Study

Three firms have been selected from a field of seven consulting teams that submitted statements of qualifications for the CMSA Capacity Management Alternative Study. While we believe that we have selected the three most qualified firms for advancing to the proposal stage, two of the four firms not selected made on-site visits seeking explanations as to why they were not selected. The three finalists are Carollo Engineers, Dodson Engineers, and Montgomery, Watson, Harza - all three firms reside in Walnut Creek. Their deadline for proposals is August 13th. We intend to have these firms make presentations and answer questions during the week of August 23rd. Pending Board approval, possibly at the September Commissioners' meeting, we would then negotiate a contract and present a scope of work in time for the October meeting of the CMSA Board of Commissioners.

Critical parts of the study will be determining a logical and practical hypothetical storm for developing design alternatives. Our focus is on containment at this time. However, treatment capacity may eventually be brought into play. We want to ensure that the criteria used by the regulatory community requires no more than is being applied at other facilities in our region.

Preliminary findings by Nolte and Associates, which show a 125 MGD to 155 MGD possible flow at the headworks (based on equipment available) will serve as a starting point by the consultants who will ascertain what kind of storm might bring that result and who will evaluate future improvements made by member agencies to be factored into the design storm(s) flow estimates.

We are also planning on using other consultants to a limited degree, but each according to their special talents. For discussions with the Regional Board, we are considering

Larry Walker and Associates who have assisted CMSA with previous negotiations for NPDES permits. Another may be Professor Monismith of Stanford to assist in our review of the outfall and plant-wide hydraulics.

Primary Clarifier Coatings

We are waiting for contract documents from the apparent low bidder, F. D. Thomas, Inc. for coating the primary clarifiers. With such a low bid we have been trying to roll out the red carpet in preparation for their work at our facilities. Clarifier launder chutes have been modified to prevent backflow from soiling the freshly cleaned tanks 2 and 3. Considering how they have been put to work over the years, these tanks look pretty spiffy right now.

We've been hoping for an early August start-up of coating work and have been told that the contract documents are "in the mail." Meanwhile we have reviewed and approved their insurance certification and verified their experience modification ratings which, while not as good as last year's Redwood Painting (they were extraordinary) still have excellent EMRs in the neighborhood of 0.7. A value of 1.0 or less is qualifying.

ENVIRONMENTAL SERVICES

NPDES Testing

Due to the holiday, sampling was completed the second week in July and we are waiting for our results from the contract laboratory. The NPDES testing we performed at CMSA has been in compliance with our permit requirements.

Laboratory

In order to maintain our laboratory certification, we must annually analyze performance evaluation samples of unknown concentrations to find out how much of a specific compound the sample contains within narrow control limits. We recently performed these analyses and submitted our chemical testing results to the EPA and Environmental Laboratory Accreditation Program, a division of State Health, and are awaiting our results. If we achieve the high level of accuracy they require, we only have to analyze one set of samples a year. If we do not meet the required confidence interval, we must submit a letter with the reason why we did not achieve the required results, what we have done to correct the problem, and re-analyze additional samples.

Each classification of testing such as drinking water, wastewater, and hazardous waste requires certification testing and each field of testing has a set of samples (including chemical, bacteriological, organic, inorganic, radiological, specialized research, in both liquid and solid matrices). For CMSA, we are certified for wastewater covering chemical analysis and bacteriological analysis. Commercial labs have sets of samples for each classification and each field of testing requiring almost a continuous certification process.

Bioassay Test

We had 100% survival of the rainbow trout in the July bioassay. Every month we are required to perform a 96-hour bioassay that runs continuously from Monday to Friday. The purpose of this test is to assess the effects of our effluent on the survival of the fish.

Biosolids

Land application continued during the month of July and we expect to land apply our biosolids till the end of October. Our bi-monthly biosolids testing during land application demonstrated that we meet all of the regulatory requirements.

Recruitment

We have completed the interviewing process for the Industrial Waste Inspector/Laboratory Technician position. We have identified the top candidate and have made a contingent offer of employment to Devina Douglas. Ms. Douglas has a B.S. Degree from Cal Poly San Luis Obispo in Microbiology and over two years experience working for the City of San Luis Obispo in the wastewater laboratory and doing outside environmental monitoring.

LGVSD Assistance

We have completed the inspections of 13 restaurants within the Las Gallinas Service Area. We began the restaurant inspections in areas where there have been frequent grease blockages in the collection system. Every restaurant was mailed a letter informing them that LGVSD would be implementing a FOG program and we made appointments to meet with the authorized personnel for the inspections. There are about 50 restaurants that will need to be inspected before the survey is complete and then decisions about control devices and maintenance can be made.

Guide Dogs for the Blind has a facility in the LGVSD service area with large dog yards that are uncovered and drain to the sanitary sewer. This is causing elevated flows in the area and adding to the normal higher flows the plant receives during the rainy periods. They were sent a letter from the District Manager at LGVSD informing them of the District's concerns and allowing a 2-½ year period in which to remedy the situation. We have been asked to follow-up on the letter that was sent to the facility by drafting an administrative order that would formally establish the 2 ½ year compliance schedule to correct the stormwater to sanitary problem.

Public Outreach

We gave out a total of almost 1800 quizzes at the Marin County Fair. They were given out in two different formats with 754 of the quizzes taken by adults and 1016 of the quizzes taken by children. The overall results on the adult quizzes showed that 67% achieved a 100 score.

In our service area, 68% of the adults had a score of 100, and outside our service area 66% had a 100 score. The average of the children's quizzes was 55% with a 100 score. Within our service area, 60% had a 100 score, and outside our service area 52% had a 100 score. We believe that the higher scores within our service area, especially on the children's quizzes, demonstrates that our public education program in the schools has been successful and had an impact on wastewater and stormdrain knowledge.

SD#2 FOG

We met with David Montero from Sanitary District #2 about possible implementation of a FOG control program in their service area. He wanted an estimate of the cost to set up a program and possible training of staff.

Golden Gate Transit NOV

We have issued a second Notice of Violation (NOV) to Golden Gate Transit District for zinc violations. The undercoatings on their new buses have caused elevated zinc levels when they are washed after receiving them from the east coast manufacturer. They have been advised to contain the washwater in a holding tank and treat it with their pre-treatment unit. The treated water will have to meet our zinc limit prior to discharge to the sanitary sewer. They will also have their interceptors pumped and cleaned after the buses have been washed.

OPERATIONS & MAINTENANCE

New Treatment Plant Manager

Nathan Brennan has accepted the treatment plant manager position and will be starting on August 9th. Nathan was a member of the peer review team from our 2002 Operation and Management Review.

Waukesha Training

We are sending two mechanical technicians to Waukesha, Wisconsin for the Waukesha engine training course. This course is called Gas Engine Technology, and covers balancing the cooling system, descriptions of the lubrication, intake and exhaust, engine protection methods, and fuel systems adjustments. Hands on shop activities include: Cylinder head & power cylinder overhaul procedures and valve adjusting. This training will insure a thorough understanding of our new Waukesha engine being installed as part of the cogeneration project.

Sludge Grinder

The new Muffin Monster grinder has been installed on our primary and secondary digester feed lines. This will help grind up some of the large rags and other debris that has been plugging our pumps and centrifuge feed lines, which will prevent down time and additional maintenance.

Aeration DO Probes

The dissolved oxygen probes for aeration tanks 3 and 4 have been changed to a new style that, in testing, has proven to be more accurate and demands much less time in calibration. The old probes had reached the end of there life expectancy (approximately 2 years) and needed to be replaced. The old probes worked well over the years but needed weekly calibration. During the test of the new probes we went a month without calibration and they held an accurate reading. These probes control the aeration blowers which are the largest power users in the plant, so accuracy is important.

Aeration Diffusers

The diffuser membranes for our 4 aeration tanks are scheduled to be replaced over the next year. Staff conducted a study to compare the supply pressure to each tank and with those values when the membranes were installed. The study showed that the membranes are less efficient at transferring oxygen today, and replacing them has a 1.5 year payback (energy savings). We will be replacing the membranes in tanks 1&2 first.