CMSA Monthly Report

Central Marin Sanitation Agency **December 2003**

GENERAL

Regional Biosolids Processing Facility BACWA, the Bay Area Clean Water Agencies which is a JPA of sanitary related organizations, has formed a committee to discuss and plan for future biosolids management issues. The impetus for the formation is the current trend in the State, specifically in southern and central Counties, of banning the land application of biosolids, and the recent similar considerations in Solano County. This movement is driven by a perception that biosolids are harmful to the environment and the public, which is not supported by any scientific evidence or studies.

The Biosolids committee, understanding that the future of our disposal arrangements is unclear at best, has recently issued an RFP to consultants to conduct a feasibility study for a regional biosolids processing facility. The facility would receive dewatered biosolids from participating BACWA members and produce a marketable product such as compost or pellets. The study will consider facility siting, ownership alternatives, process technologies, and other related topics. CMSA's contribution to the study, which is allocated by dry weather flow, is $3,000. If an alternative appears feasible, the next step in the process is to conduct an EIR study.

Process Control Team We recently formed a team of staff members from each department and work group to oversee changes, modifications, and improvements to the process control of the treatment plant. The team's objective is to develop a formalized procedure for conducting studies and making potential changes in how the plant's unit processes are operated ,and recording these for historical reference. The over arching goal is to find methods to operate the unit processes that will either save dollars, by reduced energy or chemical use, simplify work procedures to reduce manpower needs, and/or produce a better quality effluent.

The first task to meet this goal, which is significant, is to benchmark the current performance of each unit process with a set of metrics. Results of pilot studies and tests conducted in the future can then be compared to the benchmark and evaluated from an economic or water quality perspective. This will allow us to make well informed process control decisions that are supported by the evaluation results and have the team's (staff) buy-in.

The team has just completed the development of a wet weather monitoring program which will be part of a more comprehensive flow management plan. The monitoring program tracks flow rates, tide levels, rainfall data, blending duration, and available freeboard at critical locations during peak wet weather events. The program and information from a recent storm event will be shared with the Commission at the January meeting.

Security - Keyless Entry The keyless entry system for the administration entrance and side gate have been installed. The new computer server arrived December 23 which records every entry made by a card holder. Security access cards will be issued to staff as soon as the server installation is complete. The card system will replace the old key system. However, the old key system will be used as backup.

Security - Front Gate The management team completed specific procedures to use regarding signage, gate closure, and lighting. The signs will be ready for installation on January 5th and a manual policy for opening/ closing the gates will be given to employees at that time. The gates will be opened at 5:30 a.m. and closed by 6:00 p.m. on weekdays and will remain closed during weekends and holidays.

In order to make the front gate area more visible to Andersen Drive traffic considering a turn into the CMSA entrance a new lamp pole will be installed. The street lamp will match existing "standards" at CMSA, but have three lighting heads on it (instead of the usual one or two). In preparation for that installation design details for future installation of the automated gate opening system, gate controller, telephone, and admittance I D card-reader will be laid out so that the current installation will be compatible with future plans. Fortunately, there is a power source near where the new light standard will be placed.

Contract Management: CMSA has executed a five year contract for Biosolids Disposal with Redwood Landfill Inc. The new contract maintained the current $23.80 per wet ton disposal cost, while giving CMSA more flexibility in selecting alternative beneficial reuse options. Our Sodium Hypochlorite contract with Pioneer Americas has been extended one year. The contract price of $.509 / gallon was maintained and is competitive with existing market conditions.

CMMS/Asset Management: CMSA is implementing a new CMMS / Asset Management system. Software from (Maintenance Connection) was chosen after carefully evaluating CMSA's needs against various CMMS / Asset Management software providers. Maintenance Connection software rated best for functions, cost and user interface. We are in the initial stages of entering extensive asset / equipment information. Once initial data entry is complete, CMSA can start using the Work Order and maintenance scheduling components of the software. After the corrective and preventative maintenance components are fully functional, the labor costing, inventory, purchasing and asset management components will be populated and initiated. Once fully implemented CMSA will be able to more efficiently track cost associated with equipment operation, maintenance, inventory and purchasing.

Hillside Homeless Encampment: CMSA has been working with San Rafael PD and Marin Sanitary to clean up encampments on CMSA's property south of Andersen Drive. Transients living on the properties were informed they would have to leave and given several weeks to remove personal property. Marin Sanitary personnel cleared makeshift shacks and extensive quantities of garbage from hillside. CMSA, SRPD and Marin Sanitary continue to work closely to monitor the hillside properties and coordinate efforts to keep trespassers from the properties.

CAPITAL PROJECTS

Cogeneration Engine Replacement The Cogeneration project is proceeding along the paths of least resistance at this point. Delays have been caused primarily by the late shipment of the engine generator set by Waukesha. Recent correspondence from Waukesha circulated to CMSA dated December 29th indicates a January 30th shipping date at the latest which will put the engine here on about February 9th. However, they leave open the possibility that it may ship sooner.

The project out at the Siloxane Filter Pad is at a standstill because of the lack of a submittal (again by the engine supplier) on an acceptable particle filter. The contractor is able to make progress on the piping in the boiler room and engine room. Last week we issued work directives that have resolved several questions about piping and other mechanical considerations. A work directive being the first step in acknowledging that there is a change in the work. These directives will tell the contractor to provide missing valves, straighten out some prefabricated piping assembled by others, install some fuel lines for the emergency engine in the floor, and provide a way to electrically isolate sections of underground piping so that future corrosion activity can be monitored.

We've been told that the new 'acoustic' metal doors will be shipped in early January.

These will be welcome as there is currently quite a racket at the cogeneration facility which is hard to escape without leaving the area entirely. These are double doors sized to fit the large openings created when the knock-out walls were removed. They are big enough to get an engine through.

Tie-ins with between new and existing fuel lines will be made over the next few weeks. The contractor has been welding 4-inch diameter piping of stainless steel (for sludge gas) and carbon steel (for utility natural gas).

The first of two compressors has been replaced. The removed compressor was used to pump sludge gas to the existing Waukesha. The other compressor (not yet replaced) pumps natural gas, but was constructed with a 2-speed motor so it can pump both sludge gas and natural gas. Sludge gas needs to be provided at greater quantities (and therefore greater pressure) than natural gas at the existing engine because sludge gas has a lower energy content. Sludge gas is about 60% methane whereas natural gas is 100% methane. The new engine will be designed with a special fueling system, a vacuum-induced draw that allows for fuel to be provided under fairly low pressure. The natural gas side will need no compression at all. The sludge gas side will use one compressor to compensate for the pressure lost at the siloxane filter pad. A second sludge gas compressor will be provided for reliability in the event of a mechanical failure of the other.

Web Page. We are proceeding with the plan to make our web page accessible on January 5, 2004. Our webmaster has been putting the finishing touches to the web site and has made several requested improvements to the administrative portion of the site. The Linux-based server has been upgraded with the latest version of operating system software. The fire-wall software is also being upgraded. The web address will be " cmsa.us " If you type that now you'll get our old web page (until 1/5/04) when the new address becomes effective.

BUSINESS SERVICES

CAFR The Business Services Department has completed the first draft of the 2003 Certified Annual Financial Report (CAFR). There were some adjustments to be made to the previous report for 2002 per recommendations from Government Finance Officers Associations (GFOA). The new CAFR better correlates the audited financial report and the worksheets that were completed by staff. This CAFR will be reviewed by management and hopefully sent to GFOA by December 31, 2003 for consideration for another Certificate of Achievement for Excellence in Financial Reporting for CMSA. Staff will continue to update the CAFR next year when the agency implements changes under GASB 34. This will create a more clearly defined and easier read report than in years past.

Budget Business Services staff is currently beginning the process of creating a new budget for the 2004/2005 fiscal year. The new budget will allocate certain accounts to each department and will lead to better accountability for each department manager. This, in turn, will lead to more accurate budgeting in the future for CMSA. The outline will be complete during the week of January 5th and draft financial figures will be inserted as staff closes the month of December (sometime in the third week in January). The management team will then meet for a first budget meeting in early March to finalize preliminary figures before bringing the draft document to the Board of Commissioners in April. This will give the agency staff and commissioners some time for final adjustments before the final submission for approval at the June 2004 commission meeting.

MAINTENANCE

Centrifuge Inspection The #3 centrifuge bearings, and other internal components, were replaced by the manufacturer with a new type of bearing that will provide a longer life expectancy. The existing bearings in #3 centrifuge were in satisfactory

shape when replaced with the upgraded bearings. Centrisys will replace the components on the other two centrifuges during routine inspections at no costs to CSMA. Staff is still waiting on a controller for the #3 centrifuge that is covered under warranty.

Disinfection Project Update
The Electrical and Instrumentation (E&I) staff are now terminating equipment wiring to the new RTU panel at the final effluent sample vault. When this is completed, maintenance staff will finish installing the remaining equipment. E&I staff have focused their attention on installing the new security measures and the Computerized Maintenance Management System (CMMS) while waiting for ordered equipment which has now arrived.

Hypochlorite/Bisulfite Tank (Bleach Tank) Inspections
One of the five bleach tanks developed a leak last year and was replaced in early October. Staff initiated an inspection program for the remaining four tanks due to the premature failure of the one tank. Staff completed tank inspections in early December and found one additional tank with a faulty liner. This tank is scheduled for replacement during the summer of 2004.

One of the two sodium bisulfite (SBS) tanks has been inspected and is good shape. The remaining SBS tank will be inspected in January 2004.

Telemetry System Upgrade for Belvedere Pump Stations Kit Groves, our Instrumentation System Supervisor, will be involved in converting the alarm system for the Belvedere Pump stations from telephone lines to radio telemetry. The aging telephone system has resulted in increased maintenance cost and a greater incidence of down time (the inability of staff to monitor the stations). A prolonged equipment failure caused by a telemetry failure could result in sanitary system overflows (SSO). The contractor hired to build the telemetry units for Belvedere has started assembly work and anticipates installation to begin in January or February. Our staff will energize the radio telemetry stations once installed by the contractor.

Sanitary District #2 Contract
CMSA has been operating and maintaining the Sanitary District #2 wastewater pump stations since 1985 when the treatment plant began operation. Over this time we have developed an exceptional working relationship with SD#2 and have kept their stations in a well maintained state. Our contract has not been updated or modified since 1989 when a minor amendment was approved. Both parties agree that a revised contract is needed to accurately reflect the SD#2 assets and our current scope of work, in addition to other practices that are in effect but not codified in the contract. The contract has been revised, and reviewed by CMSA Counsel and the SD#2 management. Comments and minor modifications have been made and the intent of new provisions clarified. This will be brought to the Commission for approval in January after which is needs to be approved by the SD#2 Board.

OPERATIONS

Polymer Optimization Test
Last month operations staff tested two different emulsion polymers. Their performance was the same as the manic polymer we currently use but at a higher cost. We now have two more emulsion products that we will test in January and two additional polymer representatives that want to test their products. Testing will get underway after the holidays.

Operator In Training (OIT) Recruitment Update The initial oral board panel interviewed 16 candidates in early December. The six top candidates are being interviewed by staff during the last week of December and the first week of January to determine the most qualified applicants. We hope to have a top candidate selected by the end of January.

December 29 Storm Event
The rain event began on Sunday evening and flows increased from 20 MGD to a

peak of nearly 110 MGD within 12 hours. 100 MGD was exceeded for three hours. Blending the storm water flow has been continuos since 0100 hours on December 29 and may continue through December 30, totaling 48 hours of continuous blending. The 24 hour total flow for December 29 was 74.41 MGD as compared to the normal 8-10 MGD daily total.

Our staff ensured that all equipment and processes operated properly during this major flow event.

LAB/ INDUSTRIAL WASTE

Laboratory We had 100% survival of the fish in our bioassay for December. This is the second month we have been adjusting our effluent pH to reduce the toxic form of ammonia that occurs when we run a bioassay. The method requires that we aerate our effluent during the test which raises the pH and increases the toxic form of ammonia (un-ionized ammonia), and we now lower the pH to keep the toxic ammonia concentration very low. Our NPDES testing in December showed no violations.

Plant Tour On December 10th we had a group of 12 students and their instructor from the College of Marin take a two hour tour of CMSA. They were very well informed on environmental issues and asked a variety of questions on water treatment and how the plant worked. They even had questions about sharing our outfall with MMWD for a desalination facility.

Elevated Flows With the high flows extra laboratory analysis is required during the blending events. This year we have had historically high suspended solids results due to inflow and infiltration from the collection system. Our NPDES permit requires we remove 85% of the suspended solids and the biochemical oxygen demand(BOD) from the influent coming into the plant. It is very difficult to meet this permit requirement because the high flows carry the solids through the plant. The BOD of the water coming into the plant is very low because much of the flow is just infiltration and the blending does not remove enough BOD to achieve our treatment requirements.

Remillard Pond Our annual report to the Regional Board for water provided to Remillard Park Pond was completed this month because we were still providing water in the latter half of November. It compiles all of the laboratory testing for the periods during the year when we were providing water.

RWQCB Inspections We had the annual inspection from the Regional Board of our pretreatment program. They review our activities for the year and go over the files for our significant industrial users and inspection procedures. They requested copies of our inspections and will comment in the report they will submit in February. They have developed new guidelines for local limits and this will impact our sewer use ordinance. The Regional Board will include the new guidelines in the February report and then we will begin reviewing our local limits and sewer use ordinance to make sure they meet any requirements that the Regional Board has developed.

We also had our annual inspection from the Regional Board Stormwater Division. They inspected the plant and everything looked good. No changes or requirements were noticed or suggested. A report will be sent from the Regional Board with any final comments.

Industrial Waste Two of our metal platers may be leaving our service area. The property off West Francisco where Specification Chromium and Quality Chrome are located is for sale and they have not renewed their leases. We have had enforcement problems with Specification Chromium in the past and unknown releases of water that contain high concentrations of metals used in plating. We are doing consistent monitoring to make sure no material is released to the sanitary sewer that does not meet our required discharge limits.

Ground Water Permits We issued a ground water discharge permit to Boyett Petroleum who operates a gas station in Corte Madera. They had previously applied for a permit and were denied due to elevated levels of petroleum byproducts in the water they submitted. The city asked they remove the holding tank they had on the property as soon as possible. They submitted testing results of the water they would be discharging from the tank (approximately 3500 gallons) and it met our limits. A permit was issued and we requested they contact the city to discuss access and flow rates to the collection system.

LGVSD Assistance Bob Adamson has completed the inspections for LGVSD and is compiling the information into an annual pollution prevention report for review by LGVSD. We jointly participate in most of our pollution prevention events with LGVSD and assist them when possible with their events. The cooperation benefits both agencies by sharing the cost of our programs and in increased coverage by staff from both agencies.

LGVSD Contract In 1992 CMSA and LGVSD entered into an contractual arrangement under which we would provide assistance in developing their pollution prevention program and on-going assistance as requested. Recently, LGVSD approached us to gauge our interest in managing their program. Our IW staff has determined that we could assume this responsibility with our current staffing levels and that this will generate up to $45,000 in revenue.

After we received approval to proceed, a new contract was prepared by staff and approved by the LGVSD Board. This will be brought to the Commission for consideration in January.