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## MONTHLY NEWSLETTER

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June 2005

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### GENERAL

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#### Desalination

The MMWD Desalination pilot facility began operation about two months ago. The plant's filter backwash water is being discharged to the SRSD collection system and treated here at CMSA. MMWD has received permission from SRSD and obtained a groundwater discharge permit from us. The permit has provisions to recover treatment costs, based on discharge flowrate, and special monthly sampling of the backwash water to verify compliance with our sewer use ordinance's local constituent limits. Our contract laboratory, CalTest, will analyze the MMWD samples with our monthly effluent samples and submit the results. MMWD will reimburse us for the laboratory fees.

The desalination ribbon-cutting ceremony was held on June 9<sup>th</sup>. Our manager attended the ceremony as did Commissioners Paul Cohen and Jin Yang. The facility is a well laid out installation. There were several good speeches at the event, including one from Paul Cohen who spoke to the potential future partnership for sharing the outfall and the collaboration between our two organization's to date. The

desalted bay water tasted pretty good too.

#### Belvedere Pump Station O&M Agreement Termination

The annexation process of Belvedere's sanitary collection system to Sanitary District No. 5 (Tiburon) will be completed on July 1, 2005. CMSA staff has finished the preventative maintenance work for the stations and completed a few requested special projects in preparation for the turn over. We have also met with SD#5 and Belvedere staff to inspect the stations and discuss their operation. The last item will be to disable our phone data line for the Belvedere pump station alarms when SD#5 takes over. The CMSA staff did a great job stepping up to handle contract work when Belvedere made the request five years ago, and the facilities are in better shape than when CMSA entered into this contract.

#### Capacity Management Study

The Capacity Management Alternative Study is coming to a close. Carollo Engineers is wrapping-up the final report and the executive summary documents and should have them submitted by the end of the month. At our June Board meeting, Carollo and Larry Walker Associates, gave a presentation to the Board on the final report findings and presented a recommendation that was collaboratively developed with our internal team.

The recommendation was that we expand the plant to 125 MGD at a protection level for a 5-year design flow event, and to obtain a pre-design proposal from Carollo. The Board approved both recommendations. Carollo is currently preparing the draft proposal which will include studying the outfall to determine if it can handle the pressure from an effluent pumping station; siting the new expansion facilities; a geotechnical investigation to determine foundation requirements; and evaluation of instrumentation, electrical, and mechanical systems for the expanded facilities.

The pre-design proposal should be ready for Board consideration in August. If approved, the next steps include CEQA documentation and financial planning, both of which will probably commence in early 2006.

#### Strategic Plan

During the first several months of 2005, the Agency's executive team prepared a master schedule for our 5-yr Strategic Business Plan (SBP), which was presented to the Board in April. Recently, the plan's coordinators have worked with each strategic action's responsible party to develop the detailed initiation schedule for activities planned in FY 05/06, and the executive team has aligned

its meeting schedule with the SBP action items.

Many of the SBP action items have commenced. Operations is reviewing and updating SOPs and has begun the benchmarking of the primary clarifiers (Goal 4), we are continuing to press forward with the wet weather flow management program (Goal 1), and our information system supervisor began assessing staff data and record storage needs (Goal 6). Our first quarterly planning committee meeting will be in September where the plan's coordinators will share the status of their SBP action items.

### **Security**

The new front gate project has been completed. The gate opens automatically during normal business hours, and can be opened during non-business hours using remote controls that open both the outer gate and the inter gate, card readers, and a manual switch to lock the gate open. We have added a method to open the gate from the process control system from any Process Control Computer in the plant, and a camera was added allowing us to view the gate on the same screen. Card readers have been installed on the Administration Building foyer doors, and when the locksmith work is finished, the second phase of our Security Improvement program will be complete.

## **CAPITAL/ ENGINEERING**

### **Vector Station Design**

Kennedy/Jenks (K/J) has held two stakeholder workshops with CMSA and member agency staff to discuss improvement concepts for the vector receiving station to solicit their improvement ideas, and understand the problems with the current facility. The workshops went well with all attendees actively participating in the discussions.

K/J presented three design concepts for review. These were: enlarging the disposal area and using a bobcat loader to transfer the debris to a dumpster; utilizing an auger type machine to remove the rock/gravel from the vector load; and using a bucket to capture and hold the debris then transporting to the adjacent dumpster with a jib type crane. Each concept would have a 3W rinsing system to clean and disinfect the material before offhaul by Marin Sanitary Service.

Before selecting an alternative to consider for design, we asked K/J to conduct a thorough review of other sanitary organizations to learn how they manage vector loads in hopes of identifying other successful methods, in particular one of low costs and minimal O&M. The research findings should be submitted in the near future.

### **Cogeneration**

The cogeneration engine has settled in to reliable operation on natural gas. The digester

gas handling system continues to present difficulty due to unexpected pressure behavior when switching fuels. The next step in troubleshooting that problem is a full-load test on digester gas with representatives from all parties (designers, engine vendor, controls and programming contractor, and CMSA) on site. That test is scheduled for July 6 and we expect to have a viable solution shortly after that. Once the solution is implemented, we expect to be able to cogenerate using digester gas for 9 or 10 hours a day.

The construction contract with SR Hamilton and the equipment purchase contract with McKenna Engineering (compressors) have been closed out with final payments mailed at the end of June. The contract with Stewart and Stevenson should be wrapped up in the next several months, pending biogas operation and tuning, correction of any other items that crop up during the shakedown testing, and air quality testing.

The new cogeneration engine is demonstrating its fundamental reliability, and we look forward to many years of using it efficiently to help meet our energy needs.

### **Coatings**

The coating contract for Secondary Clarifier No. 2 and miscellaneous metal coating was advertised for bid beginning June 17, and the prebid tour was held on June 28. Bid opening is on July 6, and we expect to have a

recommendation for the Board at its July 12 meeting. The scope of the project includes blast cleaning and recoating the metal equipment in Secondary Clarifier No. 2 and the insides of the dewatered sludge hoppers. This is the first time the sludge hoppers have needed recoating since the plant was constructed, which is excellent service from those coatings.

We are also evaluating the waterproof membrane coating on the concrete deck between the secondary clarifiers. This coating is also original to the plant, and protects the galleries under it from moisture intrusion through the concrete deck. It's showing signs of wear and tear from foot and cart traffic and 20+ years of UV exposure, and the first signs of moisture intrusion are appearing on the gallery ceilings. We will have the coating manufacturer's representative inspect it and recommend whether the coating should be patched and top-coated, or if it needs to be removed and replaced. Depending on the likely scope and cost, we may include the deck in this year's work, or do it as part of next year's coating projects.

#### **Polymer Equipment Upgrade**

Kennedy/Jenks met with CMSA staff and presented broad design concepts for upgrading our polymer handling equipment, Phase IV of our Biosolids Dewatering Improvement project. Kennedy/Jenks facilitated a discussion of the design concepts and their

respective pros and cons, and took CMSA staff's input back for further development. The next step is a follow-up workshop on July 21 to evaluate high-level designs and cost estimates, and identify the best design alternative. Once the preferred alternative is selected, actual design will commence, with the design finalized in November or December and put out to bid in early January. This upgrade will dovetail with our new polymer supply contract, and we are including provisions for temporary operation with the new polymer formulation as part of the overall project design.

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## **OPERATIONS & MAINTENANCE**

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#### **Roof Beam Repairs**

The investigation and repair of the Administration Building roof beams is underway. Although the investigation revealed the rot was more extensive than we had hoped to find (see photo, below), the structural engineer we engaged has determined that the beams still have adequate structural strength as long as the rot is stopped. To achieve that goal, the restoration contractor is placing new kiln-dried wood to replace the excavated rotted wood. Once the new wood is installed, he will impregnate the beam ends with a penetrating epoxy formula that augments the natural resins in the wood and kills any remaining fungus. After the penetrating epoxy has cured, he will apply an epoxy filler to restore the

dimensions of the beams, texture the surfaces, and prime them. The CMSA staff will paint the restored beam ends. Annual inspection and periodic repainting will preserve both the end repairs and the underlying strength of the unrotted structural sections of the beams, and should ensure many more years' good service. The whole project should be wrapped up by the end of July.



#### **SD#2 Pump Stations**

On June 6, PG&E made the switch over to the new Village pump station. CMSA has worked closely with the interconnection sub-contractor to tune up the controls and set up the telemetry for the CMSA plant process control system. E/I

has worked out the alarm bugs as the system has run. The contractor finished up the project this month by removing the old station, and paving and fencing the site.

On June 27, the Town Council approved the SD#2 FY06 budget which included funding for the CMSA/SD#2 pump station O&M services. CMSA began the budget process on March 25 by meeting with Superintendent Dave Montero. We followed up with a safety and status inspections of their 18 Pump Stations in April and then finalized the draft budget in May.

In the new fiscal year, CMSA will be making some safety improvements at Old Landing Pump Station and we will be working with Corte Madera on other small upgrade projects. In parallel, the SD#2 capital projects are progressing well: the new Paradise Pump Station will be completed next fiscal year and improvement contracts will be initiated for the Tamalpais and Sausalito pump stations.

#### **OIT Recruitment**

Kathy Britton developed and advertised the Operator in Training, OIT, recruitment. She has received over 200 request for applications with over 80 applications turned in. The application deadline is June 30. The Operations' Team of Al Fiore, Doug Miller, Linda Bodwin and Chris Finton has started the review process to deal with the large amount of applications. The Team is

reviewing and rating the applications, in order to select the most qualified candidates for onsite interviews. They plan to have this process complete in July so we can fill the Operations' vacancy in August.

#### **O&M Training**

This month's O&M staff training included: a tailgate on West Nile Fever, First Line Supervisor Training, Sexual Harassment for Supervisors (AB 1825), and two mechanics went to Waukesha, Wisconsin for hands-on training for our new cogeneration unit (a Waukesha VGF sixteen cylinder).

#### **Process Benchmarking**

As part our Strategic Business Plan (SBP) Goal #4, Operations is evaluating our plant's process efficiency. Through our benchmarking of the primary's we have found that we are exceeding the industry's standards for Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) removal rates. Next, Operations will be conducting an Advanced Primary Treatment (APT) study for approximately six weeks to see if greater removal efficiencies can be achieved which could provide energy savings in the secondary treatment process. Another part of Goal 4 is to study operations staffing coverage and the costs. The team is looking at alternative shift schedules that meet staffing requirements at the lowest costs. A preliminary report will be completed in July.

#### **O&M Activities**

Maintenance completed the summer overhaul for Grit classifiers # 1, 2, & 3. They classifiers are available for another year of service.

Secondary Clarifier #2 was taken out of service and cleaned for inspection in preparation for the coating contract.

A PLC and telemetry radio was installed on the top floor of the solids building in preparation for adding the Nitrate odor control stations to the plant process control system. This will enable the stations to be monitored and controlled locally, reducing chemical usage and man hours traveling to the stations for routine checks.

The outfall navigational light in the San Pablo Bay was replaced this month. The old light had been working for over eighteen years. The new light is completely self contained with photovoltaic cells and batteries, and uses LED's for long life. These advances in design will allow us to perform maintenance on the light every five years instead of every year.

The new Drakes Landing development on Sir Francis Drake interrupted the electricity for our odor control site by San Quentin in May when the power lines were put underground across the development road frontage and entry. This month the phone line which provides our data and control link was cut as the phone company rerouted their lines underground.

## ENVIRONMENTAL SERVICES

### NPDES Testing

The NPDES testing we performed at CMSA for June was in compliance with our permit requirements, and we had 100% survival of the fish in our bioassay.

### Environmental Stewardship

We provided water to Remillard Park Pond (Larkspur) for a two week period in June. The level in the pond will fall to dangerously low levels during the summer months which can threaten the habitat and an endangered species of turtle that lives in the pond. We have been providing water since 1988 as part of a settlement agreement with the San Francisco Regional Water Quality Control Board as a result of a sewage spill in Larkspur. We will continue to work with the City of Larkspur to provide water during the summer months to maintain the habitat for the Western Pond Turtle (*Clemmys marmorata*).

### Public Outreach Events

The Marin County Fair, our largest public outreach event of the year, will be June 30<sup>th</sup> to July 4<sup>th</sup> and we have been preparing for. Normally we hand out and grade at least 2000 environmental quizzes, which educate the public on wastewater, stormwater, and how we reduce pollution in the environment at the wastewater treatment plant. We use the information gathered from the quizzes in our pollution prevention reports to the regional board

to document our outreach efforts.

### Enforcement Actions

Staff has issued an administrative order to Northstar Motors in San Rafael requiring them to submit a sewer use permit application. The permit will allow them to discharge washwater if they have the proper pretreatment equipment in place. The pretreatment equipment will reduce the release of vehicle fluids, metals, and solids to the sanitary sewer.

Northstar Motors was discovered while performing inspections in the area and after reviewing the business licenses from the City of San Rafael. Staff hand delivered a permit application and North star did not respond. Syaff then issued a Notice of Violation that has a date by which they are required to respond, and to inform them they are violating a condition of our sewer use ordinance by discharging untreated washwater to the sewer. The permit application was not received during the required 15 day response period. An Administrative Order was then issued with another required response by a predetermined date, after which we can issue fines or plug their sewer connection.

We have issued a Notice of Violation (NOV) to Marin Airporter for issues concerning their vehicle/ bus washpad. They have a 4,000 square foot wash pad that is uncovered. We require dischargers that have more than 300 square feet of area that drains to the sanitary sewer to have it covered, otherwise there

would be increased flows during periods of rain. The NOV requires a plan detailing how they intend to proceed in covering their washpad or if they intend to become a zero discharge facility and no longer discharge washwater to the sanitary sewer.

### LGVSD Assistance

We have submitted a Draft FOG (fats, oil, grease) Policy and Implementation Schedule to LGVSD for their review. Once they have reviewed and commented on the document we will be able to mail out the Policy to the food service establishments (FSE) within their service area. We will then proceed to schedule a workshop to discuss the Policy and what will be required of the FSEs. Permit applications can then be mailed out with due dates for receiving the completed applications. Grease removal devices (GRD) will need to be installed by facilities that do not meet the Policy requirements by a predetermined date and/or GRD compliance plans may also be required. An enforcement and inspection program will then take place to ensure the FOG Program is working properly and FSEs are complying with the Policy requirements.

## **BUSINESS SERVICES**

### **Fiscal Year 2005/2006 Budget**

During the development of the fiscal year 2004/2005 (FY05) budget, our executive team made significant changes to the Agency's operating budget. The changes were implemented to increase staff responsibility and accountability in the areas of budget development, management, and monitoring. The budget modifications have been successful with estimated-actuals for FY05 being 97.4% of the adopted budget.

Earlier this year, the executive team began the FY06 budget development process that followed the principles established while developing the FY05 budget; increasing staff responsibility and accountability. The account administrators were heavily involved in the estimating and preparation of their budget items. Feedback from other staff members was also solicited.

The first draft FY06 budget was presented to the Board at the May 10, 2005 Commission meeting. The Board had minimal comments and overall were pleased with the draft budget. Over the next month, staff continued to refine the budget figures based on more current information in the areas of chemical supplies, insurance and utilities. The revised draft budget was presented and subsequently adopted

by the Agency Board at the June 14, 2005 Commission meeting. The budget included an 8% rate increase, which bring our EDU charge to \$129.

### **Asset/Contract Manager**

Our current asset/contract (A/C) manager, Steve Egbert, announce his resignation from CMSA effective July 31, 2005. Steve began his tenure at CMSA in 1994 as an operator and moved to his current position in 2003. Steve has decided to relocate to Florida to start a private business.

Our standard practice when a vacancy occurs is to evaluate the position's job function and determine if any changes are needed to better align with the department's and/or organization's future needs. A recommendation was made to the Board at the June 14, 2005 Commission meeting to modify the A/C managers job description as well as renaming the job title to Asset/Contract Administrator. The Board approved the modifications.

With the departure of Steve and the job title and description revisions approved by the Board, the Agency is actively pursuing an A/C Administrator. Two current CMSA staff members expressed interest in the position and submitted applications. The Agency will be conducting an internal recruitment in July.

### **Sodium Bisulfite**

The Sodium Bisulfite Supply Contract with Basic Chemical Solutions (BCS) will expire on 6-30-05. The contract has a provision allowing for an extension if agreed to by both parties. BCS has declined to extend the contract at the current cost and terms. A new sodium bisulfite contract

bid package was prepared bid. The apparent low bidder was Basic Chemical Solutions. The CMSA Commission awarded Basic Chemical Solutions the 25% Sodium Bisulfite Supply Contract (at their June 14, 2005 Board meeting. The bid proposal Total Unit Price is \$0.5348 per gallon for 25% solution which is a 23% increase in the unit price. The new contract expiration date is 6-30-06.

#### **Mannich Polymer**

The Mannich Polymer Supply Contract with Polydyne will expire 6-30-05. Normally, a new polymer supply contract would be prepared and sent out to bid and a new contract awarded to the lowest responsible bidder. However, CMSA will discontinue the use of mannich polymer in 6-8 months once the emulsion system is in place. Extending the contract guarantees the existing price and avoids the cost of bidding and the uncertainty of unpredictable bid unit costs. The CMSA Board of Commissioners approved the extension of polymer contract 99-04 at their May 10, 2005 Board meeting. Polydyne signed the Contract extension agreement and the new contract expiration date is 6-30-06.

#### **Biosolids Hauling**

The Biosolids Hauling Contract with Total Waste Systems, Inc. (TWS) will expire on 6-30-05. The contract has a provision that allows the contract to be extended for an additional

year, if agreed to by both parties. After careful evaluation of existing market conditions, it was determined TWS's current unit cost is competitive with current fair market pricing and extending the contract is justified. TWS was contacted in regards to extending the contract and they were agreeable to an extension. Polydyne signed the Contract extension agreement and the new contract expiration date is 6-30-06.

#### **CMMS**

Phase Two has been expanded to seven milestones from five. Milestones 1 to 4 focus on collecting, collating, delineating, populating and implementing preventative maintenance procedures for the plant, pump stations, odor control stations, and member agency stations. Milestone 5 focuses on reviewing and assigning association criteria to all assets, PM's and procedures. This will enable the creation of effective reports for tracking various CMMS activities. Milestone six involves developing a method to capture run time data from the SCADA and transferring data to CMMS software to allow scheduling of PM's based on run time vs. fixed frequency. Milestone 7 will exploit the new capabilities of version 1.9 by consolidating PM's into more manageable format.

#### **Strategic Asset Management Plan**

In May 2005, the Agency accepted a proposal from the consulting firm of Brown & Caldwell (B&C) to assist us in developing a strategic asset management plan (SAMP).

The scope of work is to evaluate current asset management practices and capabilities, comparing these to industry best practices and developing a tangible strategic asset management plan that compliments the Agency's Strategic Business Plan.

On June 8, 2005, Vince Yee from B&C, conducted our first asset management workshop and focus group meetings. The purpose of the workshop was to present to the Asset Management Team an overview of asset management concepts and principles. The afternoon was spent meeting with 'focus' groups made up of individuals from the various functional areas within the Agency (Maintenance, Operations, etc.). The purpose of the focus group meetings was to collect information on existing asset management practices.

Following the June 8 meetings, Vince submitted to the Agency a draft Current Status Assessment Report formally documenting the Agency's asset management readiness. During the month of July, the Asset Management Team, working with B&C, will provide feedback on the Assessment report and conduct two additional workshops to define the asset management vision and develop an asset management strategy.

