

COMMISSION SPECIAL MEETING AGENDA Thursday, March 16, 2017 at the Agency Office 4:00 p.m.

Members of the public may directly address the Board on any item appearing on the Agenda. They may address the Board when the item is called by the Board Chair and he/she indicates it is the time for the public to speak to the agenda item. Audio and video recordings will be made of this meeting and will be posted to the Agency website.

1. 4:00 p.m.: Call Meeting to Order/Pledge of Allegiance

2. Roll Call

3. Open Period for Public Participation

Open time for public expression, up to two minutes per speaker, on items within CMSA's jurisdiction and not on the Board of Commissioners' agenda. The Board will not discuss or take action during open time.

4. Consent Calendar

Matters listed under this item are considered routine and will be enacted by one motion. The consent calendar may include resolutions; therefore, the motion, second, and vote will also be applicable to the resolution and recorded accordingly. There will be no separate discussion of these items unless requested by a member of the Board or the public prior to the time the Board votes on the motion to adopt.

- a) Minutes-Regular Board Meeting-January 10, 2017
- b) Treasurer's Report—Operating Account—January 2017
- c) Treasurer's Report—Operating Account—February 2017
- d) Schedule of Investments—January 2017
- e) Schedule of Investments-February 2017
- f) NPDES, Process, and Maintenance Report—January 2017
- g) NPDES, Process, and Maintenance Report—February 2017
- h) Performance Metric Report—January and February 2017
- i) CMSA Investment Policy
- j) Agency Internship Program Guidelines
- k) Amendment #1 to the Commercial Food Waste Processing and Disposal Services Agreement



5. <u>Maintenance Facility Modifications Project – Construction Contract Award</u> (CMSA Contract No. 17-06)

Recommendation: Award the construction contract for the Maintenance Facility Modifications Project to Buhler Commercial, and authorize the General Manager to execute the contract agreement.

- 6. <u>Construction Management Services Task Order with Dee Consultants</u> Recommendation: Approve Task Order #4 with Dee Consultants for construction management services for the Maintenance Facility Modifications Project, and authorize the General Manager to execute the Task Order.
- **7.** <u>PG&E Interconnection Agreement Modification Project Update</u> Recommendation: Informational, receive a report from staff regarding the PG&E Interconnection Agreement Modification Project status, and provide comments and/or direction to staff, as appropriate.
- 8. North Bay Watershed Association (NBWA) Report*
- 9. Oral Reports by Commissioners/General Manager*
- **10.** <u>Next Scheduled Meeting</u> *Tuesday, April 11, 2017 at 7:00 pm at the Agency office.*

*Information not furnished with Agenda

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Central Marin Sanitation Agency at 415-459-1455. For auxiliary aids or services or other reasonable accommodations to be provided by the Agency at or before the meeting, please notify the Agency at least 3 business days in advance of the meeting date (meeting is the second Tuesday of each month). If the Agency does not receive timely notification of your reasonable request, the Agency may not be able to make the necessary arrangements by the time of the meeting.



4.a

COMMISSION REGULAR MEETING MINUTES Tuesday, January 10, 2017 at the Agency Office

Note: The minutes are an official record of the Board meeting. There are also official audio and video recordings available on the Agency's website at <u>www.cmsa.us</u>. The time stamps on these minutes refer to the items' start times on the video recording of the meeting. Please contact CMSA at 415-459-1455 for information about receiving a copy of these records.

| 1. | Call Meeting to | Order/Piedge of Allegiance 00 | 0:00 |
|----|--|--|------|
| | Chair Hartzell ca | lled the meeting to order at 7:00 p.m. A quorum was present. | |
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| 2. | Roll Call | 00 - Alexandra Monte and Alexandra of the | :35 |
| | Present: | Chair Kathy Hartzell; Vice-Chair Diane Furst; Commissioners | |
| | ر أيليد ما المراجع . - أيليد ما المراجع . | Maribeth Bushey and Michael Boorstein; alternate Commission | ners |
| | | Doug Kelly (for Tom Gaffney) and Kate Colin (for Al Boro) | |
| | Absent: | Secretary Al Boro and Commissioner Tom Gaffney | |
| | Staff present: | Jason Dow, General Manager, and Kate Brouillet, Recording | |
| | a light from the second | Secretary | |
| | | | |

3. Open Period for Public Participation

There were no comments from the public.

4. Consent Calendar

- a) Minutes—Regular Board Meeting—December 13, 2016
- b) Treasurer's Report—Operating Account—December 2016
- c) Schedule of Investments—December 2016
- d) NPDES, Process, and Maintenance Report—December 2016
- e) Performance Metric Report—December 2016
- f) F7 2017 Budget Status Report-Second Quarter Report
- g) FY 2017 Asset Management Program–Second Quarter Report

GM Dow noted two minor typos to be corrected in Item #4a (Minutes) on page 5, Item #9.

The Board had no comments on the Consent Calendar.

Comments from the Public:

There were no comments from the public.

01:05

01:00

ACTION:

Commissioner Furst moved to approve all Consent Calendar items with the corrections to item 4a; second, Commissioner Bushey.

| Ayes: | BOORSTEIN, BUSHEY, COLIN, FURST, HARTZELL, | |
|--------------|--|--|
| | KELLY | |
| Nays: | NONE | |
| Abstentions: | NONE | |

5. December 15, 2016 Storm Event

GM Dow referred to the staff memo and the attached graph, and identified the peak flow rates from each satellite collection agency during the December 15 storm event. He stated that the peak flow rate for the Agency was 119.3 MGD, the highest influent flow on record, and that staff was able to satisfactorily manage all processes during the event. He stated that this historic peak flow is 17.1 times greater than the Agency's average dry weather flow.

GM Dow noted that the Peak Flow Rate number in the chart in the staff memo was incorrect for SD2 in some Board member agenda packets, but was correct on the website and in all other distributed packets. He stated the correct figure for SD2's peak rate is 11.3 MGD.

GM Dow showed a video of the Headworks inflow during the December storm event, and provided a handout with a graph showing member agency inflow rates during the recent January 7-9 storm event.

The Board asked a few questions about historic peak flow rates, inflow and infiltration (I&I) from the satellite collection agencies, data collection methods, and the facility's processes during wet weather events. GM Dow answered the Board's questions, and stated that the Agency is eager to work collaboratively with the member agencies in their efforts to reduce I&I in the collection system that will reduce wet weather flows and blending events.

Comments from the Public:

There were no comments from the public.

This item was informational, and no action was taken by the Board.

6. 2016 Performance Metric Report

18:15

01:54

Commissioner Kelly stated that he and Commissioner Boorstein met with GM Dow yesterday and reviewed this and other items.

GM Dow stated that staff presents routine monthly performance metric reports and an annual report to the Board in January for the previous calendar year. He stated that staff and the interim Lab Director have recently reviewed some of the metrics, and have found that several target ranges have been somewhat overestimated. He stated that in January's monthly report adjustments will be made to some metrics, including Lab, QA/QC, and process control analyses.

The Board commented favorably on the many achievements year after year, the high training rates and the low overtime rates, and appreciated the inclusion of the target goals.

Comments from the Public:

There were no comments from the public.

ACTION:

Commissioner Kelly moved to accept the 2016 Performance Metric Report; second, Commissioner Furst.

| Ayes: | BOORSTEIN, BUSHEY, COLIN, FURST, HARTZELL, | |
|--------------|--|--|
| | KELLY | |
| Nays: | NONE | |
| Abstentions: | NONE | |

7. <u>Solids Handling Building Ventilation Improvements Project</u> – <u>Construction Contract Award (CMSA Contract No. 17-07)</u>

20:45

GM Dow referred to the staff memo and briefly described the scope of the project. He stated that the Board adopted the Solids Handling Ventilation Improvements Project (Project) contract documents and authorized the advertisement of the Project for public bidding at the November 2016 meeting. He stated that the Notice Inviting Bids was issued on November 14, 2016, four bids were received and opened on December 20, 2016, and the lowest, responsive, responsible bidder was Buhler Commercial for the total bid amount of \$238,695. GM Dow stated that if the Board awards the construction contract tonight, the Notice to Proceed will be issued no later than January 18, 2017, and construction will be substantially completed by July 17, 2017.

The Board had no discussion.

Comments from the Public:

There were no comments from the public.

ACTION:

Commissioner Kelly moved to award the construction contract for the Solids Handling Building Ventilation Improvements Project to Buhler Commercial for the low bid amount of \$238,695, and authorize the General Manager to execute the contract agreement; second, Commissioner Furst.

| Ayes: | BOORSTEIN, BUSH KELLY | IEY, COLIN, FU | RST, HARTZI | ELL, |
|--------------|--------------------------|----------------|-------------|------|
| Nays: | NONE | | 1 | |
| Abstentions: | NONE | | | |

8. <u>CMSA Amended Joint Powers Agreement – JPA Manager</u> Review Comments

22:40

GM Dow referred to the staff memo and reviewed the background of the CMSA Joint Powers Agreement (JPA) and its amendments. He stated that the JPA managers group began the process to review the amended JPA in July 2015 to identify provisions within the JPA and areas in its Exhibits, Attachments and Figures for potential revision. He stated that at their December 2016 meeting the managers agreed that CMSA's Board should initially review their comments and provide direction on the Board's interest in initiating a discussion between the JPA agencies on potentially revising the JPA given the managers' work product.

The Board agreed that the JPA is a significant document and there are substantive issues that need to be addressed by the JPA members, and this process should be given an appropriate amount of time for a thorough review.

The Board discussed some potential review processes, and concurred that the draft agreement should be sent to the JPA managers, and that their Boards should determine the appropriate review process and the substantive areas for review and discussion.

The Board provided feedback that in Section 8–Commission Voting, voting should remain at a majority of all commission members; Section 2–Withdrawal or Dissolution, should be rewritten to make the process to withdraw or dissolve the JPA very cumbersome; and in Section 5—Powers, areas that are in the purview of the JPA agencies' Boards and those of the CMSA Board should be clearly identified.

GM Dow recommended that *Section 21—Settlement of Disputes* be augmented with additional forms of dispute resolution other than binding arbitration.

DIRECTION: GM Dow to forward a PDF version of the draft JPA agreement with the proposed changes to the JPA managers, labeled "Draft Discussion, January 2017," to include the removal of the recommendation in Section 8 allowing a majority of commissioners being present to approve a measure.

9. Wastewater Blending Reduction Alternative Selection

52:25

GM Dow stated that CMSA's National Pollution Discharge Elimination System (NPDES) permit expires on July 31, 2017, and requires the Agency to submit a permit reissuance application and Report of Waste Discharge (ROWD) by January 31, 2017. He stated that in the ROWD, the current NPDES permit states the Agency must select a preferred wastewater blending reduction alternative.

GM Dow stated that in the December Board meeting, after a substantive discussion on wastewater blending at CMSA and several of the blending reduction alternatives, the Board directed staff to bring the item back to the January meeting for further consideration of two treatment alternatives – Maintain Existing Secondary Treatment and Optimize Existing Secondary Treatment.

GM Dow briefly reviewed the two treatment alternatives, and stated that a preferred alternative needs to be selected tonight for incorporation into the ROWD.

The Board discussed the effects of inflow and infiltration (I&I) from the collection system into the treatment plant, sewer lateral replacement programs in progress with the member agencies, potential upgrades to CMSA facilities, and new technologies that address I&I.

Comments from the Public:

There were no comments from the public.

ACTION:

Commissioner Bushey moved to select the Maintain Existing Secondary Treatment in the No Feasible Alternative Analysis to Blending section of the ROWD; second, Commissioner Boorstein.

| Ay | /e | s: | |
|----|----|----|--|
| / | | | |

BOORSTEIN, BUSHEY, COLIN, FURST, HARTZELL, KELLY

Nays: NONE

Abstentions: NONE

DIRECTION: Staff to provide the Agency's regulatory consultant with specific I/I reduction plans and information provided by each member agency for use in the No Feasible Alternative Analysis to Blending section of the ROWD.

10. North Bay Watershed Association (NBWA) Report

72:35

Commissioner Boorstein indicated he did not attend the January 6 meeting of the NBWA Board.

11. Oral Reports by Commissioners/General Manager

72:50

Commissioner Kelly thanked GM Dow for their recent meeting and extensive tour of Agency facilities.

GM Dow referred to his handout and reported:

- The recruitment for the Administrative Services Manager position is now open.
- The cogeneration engine maintenance work should be completed by January 27.
- The effluent weir flowrate coefficient will be increased 20% after this week's storm events, and the coefficient adjustment date will be included in the January Monthly Self-Monitoring Report to the RWB.

- The RV Interceptor assessment has been successfully completed using the Smartball technology.
- There is a light agenda for the February Board meeting and the meeting could be canceled.
- The CalPERS Board will be lowering the discount rate from 7.5% to 7.0% over several years, and the Agency will include funding in its 10-Year Financial Forecast for the increased unfunded liability contribution beginning in FY 21.

12. Next Scheduled Meeting

Tuesday, February 14, 2017 at 7:00 p.m. at the Agency office.

Note: The February meeting was canceled after this meeting adjourned, and a special meeting was scheduled for Thursday March 16, 2017 at 4:00 p.m. at the Agency office.

Chair Hartzell adjourned the meeting at 8:17 p.m.

Respectfully submitted,

Kate Brouillet, Recording Secretary

Diane Furst, Vice-Chair

Central Marin Sanitation Agency Treasurer's Report - Operating Account For the Month of January 2017

I. Accounts Summary: Bank & Investment Accounts

| Summary of Bank & Money Market Accounts | | |
|--|----|----------------|
| Westamerica Bank - Account Activity shown below | \$ | 467,015.27 |
| Local Agency Investment Fund (LAIF) - Refer to Schedule of Investments | 8 | 15,228,479.99 |
| California Asset Management Program (CAMP) - Refer to Schedule of Investments | | 358,774.52 |
| Total Bank & Investment Accounts: Ending Balance on January 31, 2017 | \$ | 16,054,269.78 |
| | | |
| | | 0. |
| II. Account Activity for Westamerica Bank | | |
| Destination Delever on Lange 4, 2047 | | |
| Beginning Balance on January 1, 2017 | | 336,277.73 |
| Cash Receipts (Deposits into Westamerica): | | |
| | | |
| Transfers from LAIF | | 400,000.00 |
| JPA Service Charges (FY17 Q3: SD#2, SRSD) | | 1,344,272.24 |
| Debt Service Charges (FY17 Q3: SD#2, SRSD) | | 534,128.98 |
| Permit and Inspection Fees | | 521.51 |
| Revenue from Haulers & RVs | | 7,018.42 |
| Revenue from Organic Waste Programs | | 14,402.61 |
| Safety Director Revenue (FY17 3Q: NSD Salary/Benefits) | | 23,314.80 |
| County-wide Public Education Program Reimbursement (FY17 2Q: LGVSD, NSD, SD#5) | 4 | 2,300.34 |
| SD 2 Operations & Maintenance Contract (FY17: October & November) | | 92,434.69 |
| SQSP Wastewater Services Contract (FY17: November) | | 108,237.75 |
| SQ Village Operations & Maintenance Contract (FY17: November) | | 865.98 |
| Expense Reimbursement from NSD for Hearing Tests | | 447.45 |
| Void check #14310 Koff Associates | | 750.00 |
| Total Cash Receipts | | |
| Total cash receipts | \$ | 2,528,694.77 |
| Cash Disbursements (Withdrawals from WestAmerica): | | |
| January 2017 Operating account disbursements register (see attached) | | \$836,441.90 |
| Regular Payroll paid 01/06/17 | | 136,575.27 |
| Regular Payroll paid 01/20/17 | | 129,979.53 |
| Transfers to EFTPS Federal Payroll Taxes (01/11, 01/17, 01/25) | | 76,278.50 |
| Merit Pay (3), Final Separation Pay (1), Vacation Cash-Out (1) | | 18,564.51 |
| Transfers to LAIF (FY17 Q3: JPA Payments) | | 1,200,000.00 |
| Bank Fee | | 117.52 |
| Total Cash Disbursements | - | \$2,397,957.23 |
| Ending Balance on January 31, 2017 | \$ | 467,015.27 |
| | 3 | |

- oslorlig Prepared by: <u>Hare</u> Heidi Lang, Financial Analyst

Reviewed by: Jason Dow, General Manager 2/7/17

| Check Number | Date | Vendor/Payee | | Amount | Description |
|-----------------|------------|--------------------------------------|---|-----------------------|--|
| 14516 | , Darc | venuor/rayee | | | Last check # from prior month's register |
| 14517 | 01/03/17 | Phillip Frye | | 225.63 | |
| 14518 | . 01/03/17 | James L. Johnson | | 172.48 | |
| 14519 | 01/03/17 | Cal Public Employee Retirement | | 62,102.57 | • |
| 14520 | 01/03/17 | Delta Dental Plan of Calif. | | 8,132.18 | • |
| 14521 | 01/03/17 | Lincoln Financial Group | | 1,863.04 | |
| 14522 | 01/03/17 | Vision Service Plan -(CA) | | 927.50 | |
| 14523 | 01/05/17 | CalPERS | | | Retirement Pension Contribution: Agency and EPMC, |
| 14525 | 01/00/17 | Carrens | | 30,473,30 | PPE 12/31/2016 (Note C) |
| 14524 | 01/06/17 | California Public Employee | • | 4,479.04 | |
| 14525 | 01/06/17 | California State Disbursement | | 314.76 | |
| 14526 | 01/06/17 | ICMA Retirement Trust-457 | | 8,683.00 | |
| 14527 | 01/06/2017 | Navia Benefit Solutions | | 640.19 | |
| 14528 | 01/06/2017 | Nationwide Retirement | | 4,770.60 | • |
| 14529 | 01/06/2017 | Operating Engineers Local 3 | | 1,206.12 | |
| 14530 | 01/06/2017 | SEIU Local 1021 | | 1,094.44 | |
| 14531 | 01/10/2017 | Airgas USA, LLC | | 388.98 | |
| 14531 | 01/10/2017 | Allied Fluid Products Corp | | 415.25 | |
| 14533 | 01/10/2017 | Alliant Insurance Services | | 875.00 | |
| 14534 | 01/10/2017 | Battalion One Fire Protection | | 400.00 | |
| 14535 | 01/10/2017 | BreakPoint | | 344.14 | - · · |
| 14536 | 01/10/2017 | California Chamber of Commerce | | 30.20 | Labor law poster |
| | 01/10/2017 | CSRMA | | 36,491.75 | Pooled Liability Program Insurance, 12/31/2016-12/31/2017 |
| 14537 14538 | 01/10/2017 | Foster Flow Control | | 972.33 | SD2 PS Maint: Emergency repair check valve (Note B) |
| | 01/10/2017 | Frontier Analytical Lab. | | 900.00 | NPDES Permit: PCB sampling and analysis |
| 14539 14540 | 01/10/2017 | GFOA | | 590.00 | GFOA memberships and award review fees (2 invoices) |
| | | GHD Inc | | 9,712.26 | SQPS Maint: Machine guarding (Note B) |
| 14541 | 01/10/2017 | | | 8,260.04 | |
| 14542 | 01/10/2017 | HDR Engineering, Inc. | | 8,200.04 755.00 | Prof Svcs: Effluent Flow Monitoring Study, 10/30-11/26/2016 Labor relations consulting, January 2017 |
| 14543 | 01/10/2017 | IEDA, Inc. | | | |
| 14544 | 01/10/2017 | Koff & Associates, Inc. | | 750.00 | Compensation survey (replacement for lost check) Employee and dependent expenses eligible for Agency dental |
| 14545 | 01/10/2017 | Heidi Lang | | 1,294.10 | reimbursement |
| 14546 | 01/10/2017 | Marin Independent Journal | | 262.60 | Newspaper subscription renewal |
| 14547 | 01/10/2017 | Marin Office Supply | | 845.84 | Office supplies, December 2016 |
| 14548 | 01/10/2017 | Monica Oakley | | 16,991.18 | Prof Svcs: Regulatory consulting, 11/26-12/30/16 |
| 14549 | 01/10/2017 | Marin Municipal Water District | | 42.65 | Water service, SD2 meter vault, 10/08-12/07/2016 |
| 14549 | 01/10/2017 | Navia Benefit Solutions | | 51.10 | |
| 14551 | 01/10/2017 | New Pig Corporation | | 671.90 | Fuel Spill Response Kit for above ground diesel tank |
| 14552 | 01/10/2017 | P.G.& E. | | 34,277.64 | Electricity service, 11/18-12/18/2016 (3 invoices) |
| 14552 14553 | 01/10/2017 | William Ray Consulting LLC | | 10,350.00 | Prof. Svcs.: Interim Lab Director, December 2016 |
| | 01/10/2017 | SPURR | | 2,957.59 | Natural gas, November 2016 |
| 14554 | | Stanley Convergent Security | | 2,373.00 | Annual fire alarm service |
| 14555 | 01/10/2017 | - | | | Methane gas monitoring equipment for digester and engine roo |
| 14556 | 01/10/2017 | TEC Associates Inc Univar USA Inc | | 4,834.00 25,863.69 | Sodium Bisulfide (4 deliveries); Sodium Hypochlorite (4 deliverie |
| 14557 14559 | 01/10/17 | USP Technologies | | 9,951.93 | Hydrogen Peroxide (1 delivery) |
| 14558 | 01/10/17 | _ | | 9,951.95 4,140.50 | |
| 14559 | 01/10/17 | Yokogawa Corp of America | | | Differential pressure transmitter for digester gas scrubbers |
| 14560 | 01/10/17 | Johnson Lam | | 2,575.00 | NPDES Permit: Reporting Software Programming Services |
| 14561 | 01/12/17 | Automation Direct Co., Inc. | | 193.00 | SD2 PS Maint: Fan motor (Note B) |
| 14562 | 01/12/17 | Brandon Tire Cal Steam | | 168.57 | Tire replacement 1) Maintenance parts & supplies (1 invoice) |
| 14563 | 01/12/17 | | | 59.65 | |

| Check | | | | • | . * |
|----------------|----------------------|---|---|---------------------|--|
| Number | o Date | Vendor/Payee | | Amount | Description |
| . 1456 | 64 01/12/17 | Caltest Analytical Laboratory | | 3,573.32 | |
| 1456 | 5 01/12/17 | CDW Government, Inc. | | 3,806.04 | Office 365 User Licenses for staff |
| 1456 | 6 01/12/17 | Comcast | | 182.53 | Internet service, 01/04-02/03/17 |
| 1456 | 7 01/12/17 | Jason Dow | | 1,000.00 | Employee expenses eligible for Agency dental reimbursement |
| 1456 | 8 01/12/17 | Fisher Scientific | | 576.20 | Lab supplies (4 invoices) |
| 1456 | 9 01/12/17 | Grainger | | 435.05 | Maintenance parts & supplies (4 invoices) |
| 1457 | • • | Hach Company | | 223.41 | Lab supplies |
| 1457 | | IDEXX Distribution Inc | | 193.75 | Lab supplies |
| 1457 | 2 01/12/17 | Koff & Associates, Inc. | | 11,250.00 | |
| | | | • | | and Administrative Services Manager Recruitments |
| 1457 | | Lamotte Co. | | 84.68 | \$. E |
| 1457 | | Marin Sanitary Service | | 7,314.81 | |
| 1457 | · · | Polydyne, Inc. | | 28,441.15 | |
| 1457 | | Power Industries Co. | | 220.69 | |
| 1457) 14578 | | Ricoh USA Inc | | 1,675.92 | |
| 14579 | | Thomas Fish Company | | 139.50 | |
| · 14580 | | Thatcher Company of ULINE | | 4,788.75 80.70 | |
| 14581 | | Univar USA Inc | | 6,671.22 | |
| 14582 | | VWR International | | 227.67 | Sodium Bisulfide (1 delivery); Sodium Hypochlorite (1 delivery) Lab supplies (2 invoices) |
| 14583 | | Water Components & Bldg. Supp. | | 246.61 | |
| | | Frater components d blug, supp. | | 2.40.01 | 2) SD2 PS Maint: Pipe repair (1 invoice) (Note B) |
| 14584 | 1 01/12/17 | Aramark Uniform Services | | 2,934.32 | Uniform Services, November & December 2016 |
| 14585 | | Jason Dow | | 200.00 | Employee per diem advance: CASA Winter Conference |
| 14586 | | McMaster-Carr Supply Co. | | 477.91 | |
| 14587 | | Monica Oakley | • | 8,537.03 | Prof Svcs: Regulatory consulting, 10/29-11/25/2016 |
| 14588 | 3 01/12/17 | Ahn Ta | | 1,750.00 | Employee Computer Loan Program (Note A) |
| 14589 | 01/18/17 | AireSpring | | 697.95 | Telephone service, December 2016 |
| 14590 | 01/18/17 | АТ&Т | | [.] 292.75 | Fax and emergency phone service, 01/07/2016-02/06/2017 |
| 14591 | 01/18/17 | AT&T Dataplan | | 392.86 | Wireless service, 12/02/2016-01/01/2017 |
| 14592 | 01/18/17 | CWEA TCP | | 210.00 | CWEA meeting registration fee (6 employees) |
| 14593 | 01/18/17 | So Yun Hwang | | 555.00 | Employee Expense Reimb: CA Civil Professional |
| | | | | | Engineer certificate exam fee |
| 14594 | 01/18/17 | Gretchen Mueller | | 169.30 [.] | Employee Expense Reimb: California Hazardous Waste |
| | | | | | Management annual training |
| 14595 | 01/18/17 | Anthony Smith | | 604.03 | Employee Expense Reimb: California Hazardous Waste |
| · | | | | | Management annual training |
| 14596 | | Total Waste Systems, Inc. | | 6,897.33 | Biosolids hauling fee, December 2016 |
| 14597 | 01/18/17 | Waste Management | | 19,329.38 | Redwood Landfill biosolids reuse fee, December 2016 |
| 14598 14599 | 01/20/17 01/20/17 | Amazing Solutions, Inc. | | 412.50 | Prof Svcs: Accounting software support, December 2016 |
| 14599 | 01/20/17 | BWS Distributors, Inc. Evoqua Water Tech LLC | | 2,306.03 612.81 | Ambient gas monitoring system for Headworks |
| 14601 | 01/20/17 | Fastenal Company | | 1,140.29 | Lab supplies (3 invoices) Maintenance parts & supplies (3 invoices) |
| 14602 | 01/20/17 | Fisher Scientific | | 653.16 | Lab supplies (6 invoices) |
| 14603 | 01/20/17 01/20/17 | Hagel Supply Co. | · | 347.63 | Utility supplies, December 2016 |
| 14604 | 01/20/17 | IDEXX Distribution Inc | | 202.94 | Lab supplies |
| 14605 | 01/20/17 | Jackson's Hardware | | 17.46 | Maintenance parts & supplies |
| 14606 | 01/20/17 | Lystek International LTD | | 8,706.04 | Biosolids beneficial reuse, December 2016 |
| 14607 | 01/20/17 | Safety-kleen Systems, Inc | | | Oil disposal |
| 14608 | 01/20/17 | Shamrock Materials, Inc. | | | Propane |
| 14609 | 01/20/17 | Thatcher Company of | | | Ferric Chloride (1 delivery) |
| 14610 | 01/20/17 | ULINE | - | | Maintenance parts & supplies |
| | | | | | |

| Check | • | | | |
|--------------------|-----------|--------------------------------|-------------|---|
| Number | Date | Vendor/Payee | Amount | Description |
| 14611 | 01/20/17 | Univar USA Inc | 32,207.91 | Sodium Bisulfide (6 deliveries); Sodium Hypochlorite (3 deliveries) |
| 14612 | 01/20/17 | Western Exterminator Co., Inc. | 163.50 | |
| 14613 | 01/24/17 | CalPERS | 35,719.05 | Retirement Pension Contribution: Agency and EPMC, |
| | | | | PPE 01/14/2017 (Note C) |
| 14614 | 01/24/17 | California Public Employee | 4,479.04 | |
| - | | | | PPE 01/14/2017 (Note C) |
| 14615 | 01/24/17 | California State Disbursement | 314.76 | |
| 14616 | 01/24/17 | ICMA Retirement Trust-457 | 8,733.00 | |
| 14617 | 01/24/17 | Navia Benefit Solutions | 640.19 | |
| 14618 | 01/24/17 | Nationwide Retirement | 3,930.60 | |
| 14619 | 01/24/17 | Operating Engineers Public & M | 1,216.48 | |
| 14620 | 01/24/17 | SEIU Local 1021 | 1,098.34 | |
| 14621 | 01/25/17 | Bay Area Air Quality Mgt Distr | 15,924.00 | |
| 14622 | 01/25/17 | CAL-CARD | 11,956.87 | |
| 14623 | 01/25/17 | Carbon Activated Corporation | 14,963.00 | - |
| | 01,20,11 | | 2 1,2 00 00 | and Disposal |
| 14624 | 01/25/17 | Carollo Engineers, Inc. | 78,852.89 | |
| 14625 | 01/25/17 | Jason Dow | 194.10 | Employee Expense Reimb: CASA Winter Conference |
| 14626 | 01/25/17 | Downtown SR Farmer's Market | 40.00 | |
| 14627 | 01/25/17 | FLO-LINE Technology Inc. | 4,317.26 | Test Ferric pump for sludge conditioning system |
| 14628 | 01/25/17 | Foster Flow Control | 38,853.61 | |
| 14629 | 01/25/17 | HDR Engineering, Inc. | 15,017.45 | Prof Svcs: Effluent Flow Monitoring Study, 11/27-12/31/2016 |
| 14630 | 01/25/17 | Herc Rentals Inc | 183.15 | SQSP PS Maint: Storm backup pump (Note B) |
| 14631 | 01/25/17 | IDEXX Distribution Inc | 204.65 | Lab supplies |
| 14632 | 01/25/17 | JWC Environmental | 21,119.12 | SQSP PS Maint: Channel grinder cartridge (Note B) |
| 14633 | 01/25/17 | Kone Inc | 126.35 | |
| 1.4634 | 01/25/17 | Lord and Sons Inc | 283.44 | Maintenance parts & supplies |
| 14635 | 01/25/17 | Gretchen Mueller | 1,000.00 | Employee expenses eligible for Agency dental reimbursement |
| 14636 | 01/25/17 | Pacific EcoRisk | 3,785.00 | NPDES Permit: Chronic Toxicity testing |
| 1.4637 | 01/25/17 | Regional Government Svcs | 3,300.00 | Temporary Source Control employee, December 2016 |
| 14638 | 01/25/17 | Scientific Sales, Inc | 3,159.00 | Replacement weather station |
| 14639 | 01/25/17 | SPURR | 3,008.50 | Natural gas, December 2016 |
| 14640 | .01/25/17 | Ahn Ta | 103.48 | Employee Expense Reimb: Office supplies |
| 14641 | 01/25/17 | Woodland Center Auto Supply | | Auto parts, December 2016 |
| 14642 | 01/30/17 | Caltest Analytical Laboratory | | Lab analyses (2 invoices) |
| 14643 | 01/30/17 | Dealers Industrial Equipment | 759.84 | SQSP PS Maint: 5HP grinder motor (Note B) |
| 14644 | 01/30/17 | Fisher Scientific | 112.85 | Lab supplies (2 invoices) |
| 14645 | 01/30/17 | Grainger | 881.96 | 1) Maintenance parts & supplies (5 invoices) |
| | | | | 2) SD2 PS Maint: Plug and connector for generator |
| | | | | (2 invoices) (Note B) |
| 14646 | 01/30/17 | Hoffmeyer Co. Inc. | 11,739.17 | Reclaimed water screening sump and replacement drain gate |
| | | · · · | | (2 invoices) |
| 14647 | 01/30/17 | Home Depot Credit Services | 107.27 | Maintenance parts & supplies, December 2016 |
| 14648 | 01/30/17 | Intec Solutions, Inc. | 8,263.98 | SD2 PS Maint: Pump #4 VFD repair (Note B) |
| 14649 | 01/30/17 | Kaman Industrial Technologies | 343.27 | Maintenance parts & supplies, December 2016 |
| ⁻ 14650 | 01/30/17 | Lord and Sons Inc | | Piping and valve stainless hardware |
| 14651 | 01/30/17 | Marin Color Service | | Paint supplies, December 2016 |
| 14652 | 01/30/17 | McMaster-Carr Supply Co. | | Maintenance parts & supplies (6 invoices) |
| 14653 | 01/30/17 | Praxair Distribution, Inc. | , | Welding gas |
| | | · . | | |

| Check | | | | |
|--------|----------|--------------------------------|-----------|--|
| Number | Date | Vendor/Payee | Amount | Description |
| 14654 | 01/30/17 | Rafael Lumber | 271.91 | 1) Maintenance parts & supplies, December 2016 |
| | | | | 2) SD2 PS Maint: Pressure transmitter parts (Note B) |
| | | | н. С | SQSP PS Maint: Maintenance parts & supplies (Note B) |
| 14655 | 01/30/17 | Ryan Herco Flow Solutions | 244.85 | Lab supplies |
| 14656 | 01/30/17 | Rock Steady Juggling | 1,500.00 | Public Ed. Program: Outreach at three schools (Note B) |
| 14657 | 01/30/17 | Shamrock Materials, Inc. | 35.45 | Propane |
| 14658 | 01/30/17 | Toyota Material Handling | 1,005.01 | Electric cart controller |
| 14659 | 01/30/17 | Univar USA Inc | 23,485.00 | Sodium Bisulfide (3 deliveries); Sodium Hypochlorite (4 deliveries) |
| 14660 | 01/30/17 | VWR International | 136.90 | Lab supplies |
| 14661 | 01/30/17 | Water Components & Bldg. Supp. | 801.87 | Maintenance parts & supplies (3 invoices) |
| | | | | |

Payments by Automatic Clearing House:

| 120171 | 01/04/17 | Payments to 23 retirees | 6,517.06 | Reimbursement for retiree health benefits | |
|--------|----------|--------------------------|-----------|---|---|
| 106048 | 01/18/17 | Michael Owen Boorstein | . 100.00 | Stipend for 01/10/2017 Board Meeting | • |
| 106049 | 01/18/17 | Maribeth Bushey | 100.00 | Stipend for 01/10/2017 Board Meeting | |
| 106050 | 01/18/17 | Catherine Colin | 100.00 | Stipend for 01/10/2017 Board Meeting | |
| 106051 | 01/18/17 | Diane L. Furst | 100.00 | Stipend for 01/10/2017 Board Meeting | |
| 106052 | 01/18/17 | Kathleen Ohlson Hartzell | 100.00 | Stipend for 01/10/2017 Board Meeting | • |
| 106053 | 01/18/17 | Douglas T Kelly | 100.00 | Stipend for 01/10/2017 Board Meeting | |
| 10617 | 01/09/17 | EDD | 13,819.93 | State & SDI Taxes, PPE 12/31/2016 | |
| 11017 | 01/13/17 | EDD | 1,614.65 | State & SDI Taxes, PPE 01/10/17 for C. Oblites (last check) | |
| 11317 | 01/13/17 | EDD | 79.75 | State & SDI Taxes, Quarterly report, Oct-Dec 2016 | |
| 12517 | 01/20/17 | EDD | 11,934.34 | State & SDI Taxes, PPE 01/14/2017 | |
| | | | | | |

Grand Total

836,441.90

Notes:

A: Not an Agency Expense. Expense funded through Payroll deduction.

B: Not an Agency Expense. CMSA will be reimbursed for this expense.

C: CMSA is partially reimbursed for this expense per Employee Labor Agreements.

Central Marin Sanitation Agency Treasurer's Report - Operating Account For the Month of February 2017

| I. Accounts Summary: Bank & Investment Accounts | 34 (4) | | | - 31 - 37 |
|---|---------------------|-----------------|--------------------|------------------|
| Summary of Bank & Money Market Accounts Westamerica Bank - Account Activity shown below Local Agency Investment Fund (LAIF) - Refer to Schedule of In | vertments | | | \$ |
| California Asset Management Program (CAMP) - Refer to Schedule of Im | | | | 359,008.23 |
| Total Bank & Investment Accounts: Ending Balance on Februa | | а 19 | 6 . • # | \$ 16,262,907.25 |
| | | | | |
| II. Account Activity for Westamerica Bank | | 8 | * * | |
| Beginning Balance on February 1, 2017 | | | | 467,015.27 |
| Cash Receipts (Deposits into Westamerica): | | а 4 | | |
| IPA Service Charges (FY17 Q3: SD#1) | | | | 1,254,567.26 |
| Debt Service Charges (FY17 Q3: SD#1) | | | 5. (*) | 473,445.28 |
| Connection Fees (Capacity Charges): SRSD - 2 Residential Conr | ections | 2.83 | | 11,726.40 |
| Permit and Inspection Fees | | | | 1,034.62 |
| GVSD - pollution prevention & FOG (FY17 2Q: Oct-Dec) | * | 0 <u>4</u> | | 3,596.82 |
| VSD - FOG Program (FY17 2Q: Oct-Dec) | | 5/65 | | 4,211.09 |
| CSD - FOG Program (FY17 2Q: Oct-Dec) | | | * | 402.82 |
| evenue from Haulers & RVs | | | | 4,866.90 |
| evenue from Organic Waste Programs | | | | 12,011.50 |
| ounty-wide Public Education Program Reimbursement (FY17 | 2Q: SASM) | | | 650.83 |
| D 2 Operations & Maintenance Contract (FY17: December) | | e | | 37,702.16 |
| QSP Wastewater Services Contract (FY17: December) | | | | 124,599.24 |
| Q Village Operations & Maintenance Contract (FY17: Decemb | er) | | | 1,641.08 |
| isc Revenue: CalCARD Incentive Payment | | | | 478.67 |
| OBRA Health Benefit Payments from separated employees/re | tirees | 6 | | 478.26 |
| oid check #13411 & 14574 | | 8. | - | 7,814.81 |
| otal Cash Receipts | 55 | а , | - | \$ 1,939,227.74 |
| ash Disbursements (Withdrawals from WestAmerica): | а. (у. 15 (у. 15 | | 17 A | |
| ebruary 2017 Operating account disbursements register (see a | attached) | ° | 57 m | \$1,414,015.90 |
| egular Payroll paid 02/03/17 | | | · · · | 123,876.45 |
| egular Payroll paid 02/17/17 | 38 8 (| | | 122,978.20 |
| ansfers to EFTPS Federal Payroll Taxes (02/08, 02/22) | | | 8 . | 62,169.38 |
| erit Pay (3) | | | 1971 ₁₈ | 7,664.00 |
| ank Fee | | | • | 120.05 |
| otal Cash Disbursements | а в | t, ¹ | ă. | \$1,730,823.98 |
| nding Balance on February 28, 2017 | 5 4 3 | | | \$ 675,419.03 |
| | 17 B - | | | |
| | 55 44 | | , ÷ | ~ |
| | | 6 | 6 | RD |
| repared by: Mudi Marg | | | wed by: | 1.54 |
| eidi Lang, Financial Analyst | 2 A A A | Jason | Dow, General N | /lanager |

Jason Dow, General Manager

Central Marin Sanitation Agency Operating Account Disbursements Register

For the Month of February 2017

| · | | | | | |
|----------------------------------|--|--|-----|------------------|--|
| Check | | | | | |
| Number | Date | Vendor/Payee | | Amount | Description |
| 14661 | | | | | Last check # from prior month's register |
| 14662 | 02/01/17 | Cal Public Employee Retirement | | 61,844.15 | |
| 14663 | 02/01/17 | Delta Dental Plan of Calif. | | 8,132,18 | |
| 14664 | 02/01/17 | Lincoln Financial Group | -1 | 1,863.04 | |
| 14665 | 02/01/17 | Vision Service Plan -(CA) | • • | , 927.50 | |
| 14666 | 02/02/17 | Phillip Frye | | 225.63 | |
| 14667 | 02/02/17 | James L. Johnson | | 172.48 | |
| 14668 | 02/02/17 | CASH-PETTY CASH | | 368.17 | - |
| 14669 | 02/06/17 | CalPERS | | 36,501.63 | · · · |
| | ,, | | | , | PPE 01/28/2017 (Note C) |
| 14670 | 02/06/17 | California Public Employee | | 4,479.04 | |
| | ,, | | | ., | PPE 01/28/2017 (Note C) |
| 14671 | 02/06/17 | California State Disbursement | | 314.76 | • • • • |
| 14672 | 02/09/17 | ICMA Retirement Trust-457 | | 8,733.00 | , |
| 14673 | 02/09/17 | Navia Benefit Solutions | | 640.19 | |
| 14674 | 02/09/17 | Nationwide Retirement | | 3,930.60 | • • • • • • |
| 14675 | 02/09/17 | Operating Engineers Public & M | | 1,216.48 | - |
| 14676 | 02/09/17 | SEIU Local 1021 | | 1,098.34 | |
| 14677 | 02/09/17 | Atmospheric Analysis | | 270.00 | , |
| 14678 | 02/09/17 | AireSpring | | 701.00 | • • • |
| 14679 | 02/09/17 | Allied Fluid Products Corp | | 349.62 | • |
| 14680 | 02/09/17 | Amazon | | 1,034.27 | |
| 14681 | 02/09/17 | CalPERS | | 2,218.80 | |
| 14682 | 02/09/17 | CASA | | 275.00 | |
| 14683 | 02/09/17 | GHD Inc | | 1,841.23 | SQPS Maint: Machine guarding design services (Note B) |
| 14684 | 02/09/17 | IEDA, Inc. | | 755.00 | Labor relations consulting, February 2017 |
| 14685 | 02/09/17 | Koff & Associates, Inc. | | 12,000.00 | Prof Svcs: Laboratory Director recruitment, final payment |
| 14686 | 02/09/17 | Lystek International LTD | | 10,574.68 | Biosolids beneficial reuse, January 2017 |
| 14687 | 02/09/17 | Marin Office Supply | | 681.10 | Office supplies, January 2017 |
| 14688 | 02/09/17 | National Meter & Automation | | 2,154.52 | Replacement RAS flow meter |
| 14689 | 02/09/17 | Navia Benefit Solutions | | 704.00 | Annual fee and monthly fee for January 2017 |
| 14690 | 02/09/17 | OCCUMETRIC | | 325.00 | Pre-employment medical evaluation |
| 14691 | 02/09/17 | P.G.& E. | | 43,174.05 | Electricity service, 12/14/2016-01/12/2017 (2 invoices) |
| 14692 | 02/09/17 | William Ray Consulting LLC | | 10,500.00 | Prof. Svcs.: Interim Lab Director, January 2017 |
| 14693 | 02/09/17 | Ricoh USA Inc | | 259.35 | Lab copier lease, 01/09-02/08/2017 |
| 14694 | 02/09/17 | SHAPE Incorporated | • | 11,494.05 | SD2 PS Maint: Pumps for 3 pump stations (Note B) |
| 14695 | 02/09/17 | State Water Resources Ctrl Brd | | 340.00 | Operator Grade IV certification fee |
| 14696 | 02/09/17 | State Water Resources Control | | 1,676.00 | Stormwater annual permit fee, 01/01-12/31/2017 |
| 14697 | 02/09/17 | Thatcher Company of | | 4,468.22 | Ferric Chloride (1 delivery) |
| 14698 | 02/09/17 | Total Waste Systems, Inc. | | 7,156.02 | Biosolids hauling fee, January 2017 |
| 14699 | 02/09/17 | Univar USA Inc | | 40,688.54 | Sodium Bisulfide (6 deliveries); Sodium Hypochlorite (7 deliveries) |
| 14700 | 02/09/17 | USP Technologies | | 10,444.80 | Peroxide (1 delivery) |
| 14701 | 02/09/17 | Waste Management | | 18,133.16 | Redwood Landfill biosolids reuse fee, January 2017 |
| 14702 | 02/03/27 | VOID | | | |
| 14702 | 02/10/17 | · CAL-CARD | | 7,294.80 | State of California Purchase Card, December 2016 & January 2017 |
| 14703 | 02/10/17 02/15/17 | Amazing Solutions, Inc. | | 112.50 | Prof Svcs: Accounting software support, January 2017 |
| 14704 | 02/15/17 | Breakpoint | | 173.31 | Business cards |
| 14705 | 02/15/17 02/15/17 | Caltest Analytical Laboratory | | 1,656.87 | Lab analyses (5 invoices) |
| 14706 | 02/15/17 | S.F. Bay Section, CWEA | | - | Construction management training (2 employees) |
| | | | | | |
| | | • | | | |
| | | | | | |
| 14707 14708 14709 14710 | 02/15/17 02/15/17 02/15/17 02/15/17 | FactoryMation Alan Flore Fisher Scientific | | 135.00 500.00 | Electrical supplies Replacement for lost check Lab supplies (7 invoices) |

| Check | | . * | | | |
|----------------|----------------------|--|-----|------------------------------|--|
| Number | Date | Vendor/Payee | Am | nount | Description |
| 14711 | 02/15/17 | Five Thousand Forms Inc | | 3,945.49 | Public Education Program: Promotional items (Note B) |
| 14712 | 02/15/17 | Galco Industrial Electronics | | 7,827.72 | Electrical supplies (2 invoices) |
| 14713 | 02/15/17 | Harrington Industrial Plastics | | 384.70 | Maintenance parts & supplies |
| 14714 | 02/15/17 | IDEXX Distribution Inc | | 241.84 | Lab supplies |
| 14715 | 02/15/17 | Orchard Business/SYNCB | | 516.21 | Maintenance parts & supplies, December 2016 |
| 14716 | 02/15/17 | Pace Supply Corp. | | 347.13 | Maintenance parts & supplies |
| 14717 | 02/15/17 | Ryan Herco Flow Solutions | | 80.60 | Lab supplies |
| 14718 | 02/15/17 | Rock Steady Juggling | | 500.00 | Public Education Program: Outreach at 1 school (Note B) |
| 14719 | 02/15/17 | Roy's Sewer Service, Inc. | | 1,662.50 | SQVSMD PS Maint: Emergency services (Note B) |
| 14720 | 02/15/17 | Thomas Fish Company | | 139.50 | Lab supplies |
| 14721 | 02/15/17 | Univar USA Inc | | 9,069.33 | Sodium Bisulfide (1 delivery); Sodium Hypochlorite (2 deliveries) |
| 14722 | 02/15/17 | Env. Lab Accreditation Program | · . | 3,550.00 | Annual ELAP Certification fee renewal |
| 14723 | 02/17/17 | Aramark Uniform Services | | 1,268.18 | Uniform Services, January 2017 |
| 14724 | 02/17/17 | AT&T Dataplan | | 392.86 | Wireless service, 01/02-02/01/2017 |
| 14725 | 02/17/17 | Comcast | • | 182.53 | Internet service, 02/04-03/03/2017 |
| 14726 | 02/17/17 | Hach Company | | 140,49 | Lab supplies |
| 14727 | 02/17/17 | IDEXX Distribution Inc | · | 202.94 | Lab supplies |
| 14728 | 02/17/17 | Mark Koekemoer | | 84,18 | Employee Expense Reimb: Travel for pre-employment evaluation |
| 14729 | 02/17/17 | Marin Sanitary Service | 1 | 4,496.11 | Yardwaste, grit, and rag box disposal service, January 2017 |
| 14730 | 02/17/17 | Monica Oakley | | 7,912.46 | Prof Svcs: Regulatory consulting, 12/31/2016-01/27/2017 |
| 14731 | 02/17/17 | OCCUMETRIC | | 325.00 | Pre-employment medical evaluation |
| 14732 | 02/17/17 | Ricoh USA Inc | | 317,99 | Admin copier lease, 01/23-02/22/2017 |
| 14733 | 02/17/17 | The Perm Med Grp | | 244.00 | Workers' Comp Insurance payment |
| 14734 | 02/17/17 | Univar USA Inc | 1 | 7,165.79 | Sodium Bisulfide (4 deliveries) |
| 14735 | 02/17/17 | VWR International | | 478.88 | Lab supplies (2 invoices) |
| 14736 | 02/17/17 | Wiley Price & Radulovich | | 192.50 | Prof Svcs: Employment Law Services, January 2017 |
| 14737 | 02/21/17 | CalPERS | 3 | 5,088.45 | Retirement Pension Contribution: Agency and EPMC, |
| : | | | | | PPE 02/11/2017 (Note C) |
| 14738 | 02/21/17 | California Public Employee | - | 4,479.04 | Contribution to Retiree Health Benefits Trust Fund, |
| | | , | | | PPE 02/11/2017 (Note C) |
| 14739 | 02/21/17 | California State Disbursement | | 314 . 76 ⁻ | EE Garnishment, PPE 02/11/2017 (Note A) |
| 14740 | 02/21/17 | ICMA Retirement Trust-457 | . 4 | 8,733.00 | Deferred compensation contributions, PPE 02/11/2017 (Note A) |
| 14741 | 02/21/17 | Navia Benefit Solutions | | 640.19 | Flexible spending account, PPE 02/11/2017 |
| 14742 | 02/21/17 | Nationwide Retirement | | 3,930.60 | Deferred compensation contributions, PPE 02/11/2017 (Note A) |
| 14743 | 02/21/17 | Operating Engineers Public & M | | | MARA contributions, PPE 02/11/2017 |
| 14744 | 02/21/17 | SEIU Local 1021 | | | Union dues, PPE 02/11/2017 |
| 14745 | 02/21/17 | Jason Dow | | 282.00 | Employee per diem advance: CASA DCPublic Policy Forum |
| 14746 | 02/28/17 | Allied Fluid Products Corp | | 852.04 | Maintenance parts & supplies (3 invoices) |
| 14747 | 02/28/17 | Amazon . | | 925.16 | Replacement microwave and electrical equipment |
| 14748 | 02/28/17 | American Battery Co. | | 974.42 | Replacement batteries (4) for Waukesha engine |
| 14749 | 02/28/17 | AT&T | | 309.84 | Fax and emergency phone service, 02/07/2016-03/06/2017 |
| 14750 | 02/28/17 | Brandon Tire | | | Tires for electric carts |
| 14751 | 02/28/17 | Brown & Caldwell | ι.L | | Prof Svcs: Design for Odor Control Improvements Project, |
| · 447F1 | 02/20/47 | Cal Staars | | | 09/30-12/15/2016 |
| · 14752 | 02/28/17 | Cal Steam | | | Maintenance parts & supplies Prof Succe 2017 Exclusion Master Plan Project January 2017 |
| 14753 14754 | 02/28/17 | Carollo Engineers, Inc. | | | Prof Svcs: 2017 Facilities Master Plan Project, January 2017 |
| 14754 14755 | 02/28/17 | ConservationCorps North Bay | | | Prof Svcs: Hillside Clean-up, December 2016 |
| 14755 | 02/28/17 | Cresco | | | Submersible pump |
| 14756 14757 | 02/28/17 02/28/17 | CWEA TCP Fastenal Company | • • | | Membership fees (3 employees) |
| 14757 | 02/28/17 02/28/17 | Fisher Scientific | | | Maintenance parts & supplies (2 invoices) Lab supplies (3 invoices) |
| 14758 | 02/28/17 | Fisher Scientific Five Thousand Forms Inc | | | Public Education Program: 2017 Promotional items (Note B) |
| 14755 | <i></i> ,, | | | ,545,70 | |

| Check | - | | | · · · · |
|--------|----------|--------------------------------|--------------|---|
| Number | Date | Vendor/Payee | Amount | Description |
| 14760 | 02/28/17 | Galco Industrial Electronics | 211.90 | Electrical supplies |
| 14761 | 02/28/17 | Grainger | 2,369.84 | Maintenance parts & supplies (4 invoices) |
| 14762 | 02/28/17 | Hagel Supply Co. | 504.93 | Utility supplies, January 2017 |
| 14763 | 02/28/17 | Harrington Industrial Plastics | 110.09 | Maintenance parts & supplies |
| 14764 | 02/28/17 | Hoffmeyer Co. Inc. | 2,760.97 | Replacement auger for grit classifiers |
| 14765 | 02/28/17 | Holt of California | 1,377.63 | Annual forklift service |
| 14766 | 02/28/17 | Home Depot Credit Services | 101.19 | Maintenance parts & supplies, January 2017 |
| 14767 | 02/28/17 | Jackson's Hardware | 914.28 | Maintenance parts & supplies, January 2017 |
| 14768 | 02/28/17 | Konecranes, Inc. | 1,782.89 | Maintenance shop hoist repair |
| 14769 | 02/28/17 | Kone Inc | 126.35 | Elevator monthly service, February 2017 |
| 14770 | 02/28/17 | Lord and Sons Inc | 98.78 | Maintenance parts & supplies |
| 14771 | 02/28/17 | McMaster-Carr Supply Co. | 3,246.77 | Maintenance parts & supplies (10 invoices) |
| 14772 | 02/28/17 | Orchard Business/SYNCB | 427.91 | Electrical supplies Jan 2017 |
| 14773 | 02/28/17 | Praxair Distribution, Inc. | 237.84 | Welding gas (2 invoices) |
| 14774 | 02/28/17 | R & B Company | 535.09 | Maintenance parts & supplies (4 invoices) |
| | | | | Payments by Automatic Clearing House: |
| 201701 | 02/03/17 | Payments to 23 retirees | 6,517.06 | Reimbursement for retiree health benefits |
| 201708 | 02/08/17 | EDD | 12,171.66 | State & SDI Taxes, PPE 01/28/2017 |
| 201721 | 02/21/17 | EDD | 10,180.37 | State & SDI Taxes, PPE 02/11/2017 |
| 119663 | 02/24/17 | U.S. Bank Operations Center | 872,827.09 | Refunding Revenue Bonds Series 2015 interest only |
| | | Grand Total | 1 414 015 90 | |

Grand Total

1,414,015.90

Notes:

A: Not an Agency Expense. Expense funded through Payroll deduction.

B: Not an Agency Expense. CMSA will be reimbursed for this expense.

C: CMSA is partially reimbursed for this expense per Employee Labor Agreements.

| Central Marin Sanitation Agency Schedule of Investments As of Month Ending January 31, 2017 | gency ts 31, 2017 | | |
|---|--|--|--|
| Description (1) | Book Value (2) | Market Value (3) | Agency Reserve Target for |
| Investments managed by California Asset Management Program (CAMP) Money Market Funds (< 1 year in maturity) CAMP Cash Reserve Pool, 085% b1. Agency Unrestricted Reserve: Operating b2. Agency Unrestricted Reserve: Emergency b3. Agency Unrestricted Reserve: Insurance Total with CAMP | \$ 8,774.52 \$ 250,000.00 \$ 100,000.00 \$ 358,774.52 | \$ 8,774.52 \$ 250,000.00 \$ 100,000.00 \$ 358,774.52 | See LAIF \$ 250,000 \$ 100,000 |
| II. Investments managed by Local Agency Investment Fund (LAIF) Money Market Funds (< 1 year in maturity) Local Agency Investment Fund (LAIF), 0.55% (estimate) a. Current Year Operating b1. Agency Unrestricted Reserve: Operating c1. Capital Reserves (Restricted) c2. Capital Reserves (Unrestricted) Total with LAIF | \$ 1,743,411.09 \$ 2,755,527.48 \$ 1,322,781.42 \$ 9,406,760.00 \$ 15,228,479.99 | \$ 1,743,411.09 \$ 2,755,527.48 \$ 1,322,781.42 \$ 9,406,760.00 \$ 15,228,479.99 | \$ 2,764,302 \$ 992,023 \$ 6,128,566 |
| TOTAL INVESTMENTS Amount designated for Capital Reserves 1. CAMP 2. LAIF 7. LAIF | \$ 15,587,254.51 \$ \$ 10,729,541.42 \$ 10,729,541.42 | \$ 15,587,254.51 \$ 10,729,541.42 \$ 10,729,541.42 | \$ 7,120,589 \$ 7,120,589 |
| COLUMN DEFINITIONS: (1) Description - the issuer, type of security and interest rate (2) Book Value - The sum of Original Cost and Accumulated Amortization (3) Market Value - An estimate of the value at which the principal would be sold from a willing seller to a willing buyer as-of the close of the last business day of the mon Market values are per the fiscal agent's respective monthlystatements. | willing seller to a willing buye | ir as-of the close of the las | t business day of the mon |
| NOTES: Capacity connection fees collected each fiscal year are the initial source of funding for capital projects. Capital reserve restricted and unrestricted balances reflect amounts remaining after expenditures for CIP to date, including \$172,139.13 in capacity charges collected to date. Beginning balances for both reserves were determined by the FY 16-17 Adopted Budget. | apital projects. Capital reserv cluding \$172,139.13 in capacity Budget. | e restricted and / charges collected to | |
| Statement of Compliance The above portfolio of investments is in compliance with the Agency's investment policy, adopted at the July 22, 2015 Commission meeting, and California Government Section 53600. In addition, the Agency does have the financial ability to meet its cash flow requirements for the next six months. | y, adopted at the July 22, 201. Now requirements for the nex | 5 Commission meeting, an t six months. | d California Government |

4.d

StDept - Finance(INVESTMENTS)FY 17 INVEST-July 2016 to June 2017.xtsx

| Central Marin Sanitation Agency Schedule of Investments As of Month Ending February 28, 2017 | gency ts 28, 2017 | | |
|--|---|---|------------------------------|
| Description (1) | Book Value (2) | Market Value (2) | Agency Reserve Target for |
| Investments managed by California Asset Management Program (CAMP) Money Market Funds (< 1 year in maturity) CAMP Cash Researed Dool (0050) | | | /To? foe aunr |
| Ne: | | | See LAIF |
| b3. Agency Unrestricted Reserve: Insurance Transce | | | \$ 250,000 \$ 100,000 |
| | \$ 359,008.23 | \$ 359,008.23 | |
| Investments managed by Local Agency Investment Fund (LAIF) Money Market Funds (< 1 year in maturity) Local Agency Investment Fund (LAIF), 0.55% (estimate) | · | | |
| a. Current Year Operating b1. Agency Unrestricted Reserve: Operating | \$ 1,792,627.25 \$ 2.755.293.77 | \$ 1,792,627.25 \$ 3.755.303.77 | - |
| c1. Capital Reserves (Restricted) c2. Capital Reserves (Unrestricted) | 5 1,089,933.44 5 0 500 675 52 | | \$ 2,754,302 \$ 992,023 |
| Total with LAIF | \$ 15,228,479.99 | \$ 15,228,479.99 | \$ 6,128,566 |
| TOTAL INVESTMENTS | \$ 15,587,488.22 | \$ 15,587,488.22 | |
| Amount designated for Capital Reserves 1. CAMP 2. LAIF Total | \$ \$ 10,680,558.97 \$ 10,680,558.97 | \$ \$ 10,680,558.97 \$ 10,680,558.97 | \$ 7,120,589 \$ 7,120,589 |
| COLUMN DEFINITIONS: (1) Description - the issuer, type of security and interest rate (2) Book Value - The sum of Original Cost and Accumulated Amortization (3) Market Value - An estimate of the value at which the principal would be sold from a willing seiler to a willing buyer as-of the close of the last business day of the mon Market values are per the fiscal agent's respective monthlystatements. | willing seiler to a willing buy | er as-of the close of the la | st business day of the mon |
| NOTES: | • | · | • |
| Capacity connection fees collected each fiscal year are the initial source of funding for capital projects. Capital reserve restricted and unrestricted balances reflect amounts remaining after expenditures for CIP to date, including \$183,865.53 in capacity charges collected to date. Beginning balances for both reserves were determined by the FY 16-17 Adopted Budget. | apital projects. Capital resen luding \$183,865.53 in capacit 3udget. | /e restricted and y charges collected to | |
| Statement of Compliance The above portfolio of investments is in compliance with the Agency's investment policy, adopted at the July 22, 2015 Commission meeting, and California Government Section 53600. In addition, the Agency does have the financial ability to meet its cash flow requirements for the next six months. | y, adopted at the July 22, 203 low requirements for the ne | L5 Commission meeting, ar kt six months. | nd California Government |

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, StiDept - FinancellNVESTMENTS(FY 17 INVEST-July 2016 to June 2017,xfsx



BOARD MEMORANDUM

February 10, 2017

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager

Approved: Jason Dow, General Manager

Subject: January 2017 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

Recommendation: Accept the January 2017 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report.

I. NPDES Permit Compliance

Our NPDES permit testing for January showed that the CMSA treatment plant effluent was in compliance with all permit limits. The Monthly Compliance Summary Table shows the results by permitted parameter, the sample's frequency, the sample results, and the permit limit. We successfully passed the January 96-hour flow through bioassay test.

Enterococcus samples were collected during three blend events, the first beginning January 3, the second beginning January 7 and the third event beginning January 18. CMSA's NPDES permit specifies monitoring for enterococcus bacteria during dry weather months and for each wet weather blend event, to verify compliance with established effluent limits. The enterococcus geometric mean for January was 7.4 MPN, well below our monthly limit of 35 MPN.

II. Influent Flow

This was a January to remember, as central Marin County experienced a series of storm events (atmospheric rivers) in conjunction with King Tides, and multiple days of localized flooding. The storm events produced a total of 15.0 inches of rain as recorded in San Rafael, and the Agency measured a new record peak influent flow of 120.5 MGD on January 10. The treatment plant exceeded the maximum secondary capacity of 30 MGD during the month, and reported three blend events on the Agency's website. The facility's average daily influent flow was 30.7 MGD.

The CMSA treatment plant and each satellite collection agency's daily average and total monthly influent flows are shown in the table below:

| January Monthly Flows | San Rafael (SRSD) | Ross Valley (SD#1) | San Quentin (SQSP) | Corte Madera (SD#2) | CMSA Plant Total |
|---------------------------------|----------------------|-----------------------|-----------------------|------------------------|---------------------|
| Average Daily (MGD) | 10.9 MGD | 16.9 MGD | 0.50 MGD | 2.4 MGD | 30.7 MGD |
| Total for Month (MG) | 338.7 MG | 524.5 MG | 15.6 MG | 73.9 MG | 952.7 MG |
| Percent of Flow | 35.6 % | 55.1 % | . 1.6 % | 7.7 % | 100 % |

The following table shows the CMSA plant and each satellite collection agency's peak wet weather flows:

| Wet Weather Peak Flows* | San Rafael (SRSD) | Ross Valley (RVSD) | San Quentin | Corte Madera (SD#2) | CMSA |
|----------------------------|----------------------|-----------------------|-------------|------------------------|-----------|
| 01/10 Total Days | 32.6 MG | 44.7 MG | 1.2 MG | 5.6 MG | 84.1 MG |
| Flow | | | | | , |
| Peak Flow Rate | 53.0 MGD | 69.6 MGD | 2.8 MGD | 10.1 MGD | 120.5 MGD |

*The time for peak flows and maximum day's flow varies depending on an area's rainfall during the storm

III. Treatment Process

With very few dry days between storm events, treatment processes and equipment remained in a wet weather mode of operation. The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1,635 mg/l, a 13.8% increase in biomass from last month. The increase in biomass aligned with the process control decision to carry between 1,400 and 1,600 mg/L to treat larger volumes of influent during storm periods.

Graph #3 shows the Total Suspended Solids (TSS), which is a good indicator of the effluent quality. The TSS monthly average in January was 8.8 mg/l, which is 58.6% of our Key Performance Indicator (KPI) of 15 mg/l, and is 29.3% of our permit's monthly average limit of 30 mg/l. The higher than normal TSS values, 22.3 mg/l, 22.7 mg/l, and 22.3 mg/l, recorded on January 4, 10, and 19 respectively, were all attributed to storm events and the extremely large volume of wastewater treated.

Graph #4 shows the coliform most probable number (MPN), which represents the effectiveness of the disinfection process. Two of the twenty one coliform samples collected in January were above our KPI target of 30 MPN, (1/3 = 130 MPN, 1/18 = 120 MPN), but remained well below our daily limit of 10,000 MPN. The higher than normal samples were collected during the above mentioned storm events. The total coliform monthly geometric mean for January was 3.6 MPN, well below our permit's monthly limit of 240 MPN.

IV. Maintenance Activities

The cogeneration system was out of service the entire month of January for a major (In-Frame) maintenance procedure. This procedure is performed on-site by an outside contractor when the cogenerator registers approximately 20,000 hours of run time. During the work, the engine and generator are separated and the engine is disassembled down to the block; the cylinder heads and liners, pistons and piston rods, and all gasket materials are replaced; and the turbo chargers, oil pump and oil cooler, and pressure regulators are all refurbished. This work began on January 27 and the system is expected to return to service on February 10.

In addition to cogeneration maintenance, staff was also able to complete scheduled project work and monthly preventative maintenance tasks. Work included repairing a failed reclaimed water line outside the Administration building; installing a sample port at the Organic Waste Receiving Station for laboratory staff to grab samples of the material transported to the digesters; replacing a failed air compressor regulator on a centrifuge; and cleaning both reclaimed water strainers after the January 10 storm event.

Attachment

January 2017 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report January 2017



Cleaning the Organic Waste Receiving Facility storage tank



The foodwaste slurry storage tank after cleaning

Organic Waste Receiving Facility Quarterly Clean-up

Monthly Compliance Summary Table

Central Marin Sanitation Agency

January 2017

Final Effluent Monitoring

| Parameter | Frequency | Units | Results | Limit |
|---|-------------|----------------|---------|-----------------|
| Carbonaceous BOD Highest Weekly Average | Weekly | mg/L | . 28 | Maximum 40 |
| Carbonaceous BOD Monthly Average | Monthly | mg/L | 13.08 | Maximum 25 |
| Carbonaceous BOD Monthly Removal Rate | Monthly | . % | 88.51 | Minimum 85 |
| Total Suspended Solids Highest Weekly Average | Weekly | mg/L | 12.6 | Maximum 45 |
| Total Suspended Solids Monthly Average | Monthly | mg/L | . 8.8 | Maximum 30 |
| Total Suspended Solids Monthly Removal Rate | Monthly | % | 94.1 | Minimum 85 |
| Chlorine Residual Instant Limit | Instant | mg/L | <0.1 | Maximum 0.0 |
| Ammonia Monthly Average | Monthly | mg/L | 8.8 | Maximum 60 |
| Ammonia Maximum Daily | Daily | mg/L | 18.5 | Maximum 120 |
| pH Lower Limit | Continuous | | 7.6 | Minimum 6 |
| pH Upper Limit | Continuous | | 6.6 | Maximum 9 · |
| * | | · | | |
| Bacteriological Analysis | | | | |
| Total Coliform Monthly Geometric Mean | 3 X Week | MPN/100mL | 3.6 | Maximum 240 , |
| Total Coliform Daily Maximum | 3 X Week | MPN/100mL | 130 | Maximum 10,000 |
| Enterococcus Monthly Geometric Mean | Monthly | MPN/100mL | 7.4 | Maximum 35 |
| | | 1 . | 1 | |
| Flow Through Bioassay | | | | |
| Acute Toxicity 11 Sample 90th Percentile | Monthly | % survival | 100 | Minimum 70 |
| Acute Toxicity 11 Sample Median | Monthly | % survival | 100 | · Minimum 90 |
| | | | ÷. | • |
| Metals Analysis | | - | | |
| Copper Daily Limit | Monthly | ug/L | 0.0 | Maximum 85 |
| Copper Monthly Average | Monthly | ug/L | 0.0 | Maximum 49 |
| yanide Daily Limit | Monthly | ug/L | 1.60 | Maximum 41 |
| yanidé Monthly Average | Monthly | ug/L | · 0.80 | Maximum 21 |
| Aercury Weekly Average | Weekly | , ug/L | 0.0170 | Maximum 0.072 |
| Aercury Monthly Average | Monthly | ug/L | 0.0170 | Maximum 0.066 |
| Aercury Monthly Loading | Monthly | kg/mo | 0.0175 | |
| Iercury Annual Loading (watershed permit) | · Jan-Dec | kg/yr | 0.0175 | Maximum 0.11 |
| | | | | |
| emi-Annual Analysis | | | • | |
| ioxin - Total Equivalents (TEQ) Daily Maximum | every 6-mos | ug/L | * | Maximum 2.8E-08 |
| ioxin - Total Equivalents (TEQ) Monthly Average | every 6 mos | ug/L | * | Maximum 1.4E-08 |
| nronic Bioassay Toxicity | every 3 mos | toxicity units | * | Maximum 20 |
| nronic Bioassay Toxicity (3 sample median) | every 3 mos | toxicity units | * | Maximum 10 |
| blychlorinated Biphenyls (PCBs) Daily Limit | every 6 mos | ug/L | ND | Maximum 0.017 |
| blychlorinated Biphenyls (PCBs) Monthly Limit | every 6 mos | ug/L | ND . | Maximum 0.012 |
| uarterly Analysis | | | * | |
| Land Cuanna Daily Lineit | Quarterly | mg/L | ND | Maximum 20 |
| l and Grease Daily Limit | | | | |
| and Grease Monthly Average | Quarterly | mg/L | ND | Maximum 10 |

| Flow Analysis | Daily Max | Hourly Max | 5 minute Max | Monthly Average |
|----------------|-----------|--------------------|--------------|-----------------|
| Effluent Flow | 80.7 | [,] 112.3 | . 113.4 | 29.1 |
| Influent Flow | 84.1 | 117.0 | | 30.7 |
| # Days Blended | | | ·. | 17 |

* Monitoring Not Required This Month

X Data not available at report time

ND = None Detected DNQ = Detected but Not Qualified

Glossary of Terms NPDES Permit Compliance Summary Table

- Ammonia: CMSA's NPDES permit requires that we analyze the final effluent for ammonia due to its toxicity to aquatic organisms and potential for providing nutrients for algae in the San Francisco Bay. The permit has a maximum daily limit of 60 mg/L and a monthly average limit of 120 mg/L. The maximum daily limit is the number that cannot be exceeded on any sample and the monthly average applies to all samples collected in any month (although usually we only are required to take one sample).
- Biochemical Oxygen Demand (BOD): The amount of dissolved oxygen needed by microorganisms (biomass) to stabilize organic material in the effluent. The permit limits for our effluent require that removal of 85% influent BOD, and meet a weekly average of less than 40 mg/L and a monthly average of less than 25 mg/L BOD.
- **Chlorine Residual:** The secondary effluent is disinfected with hypochlorite (chlorine "bleach"), and then the residual chlorine is neutralized with sodium bisulfite to protect the Bay environment. The final effluent chlorine residual limit is 0.0 mg/l, which is monitored continuously.
- **Bacteria:** Coliform and enterococcus bacteria are the indicator organisms for the determination of the effectiveness of the disinfection process.
- Dioxin Total Equivalents These are 17 dioxin-like compounds that we analyze for twice per year which have permit limits.
- Fats, Oil and Grease Quarterly we are required to monitor our effluent for Fats, Oils, and Grease.
- Flow Through Bioassay: A 96-hour test in which we test the toxicity of our effluent to young rainbow trout (15-30 days old) in a flow-through tank to determine their survivability under continuous exposure to CMSA effluent. The permit requires that we maintain a 90th percentile survival of at least 70% and an 11-sample median survival of at least 90%. In layman's terms, this means that out of the last 11 samples, only one bioassay may fall below 70% survival, and the middle value—when all 11 samples are placed in numerical order—must be at least 90%.
 - **Metals Analysis:** Our permit requires that we analyze our effluent for many different metals on a monthly basis. We have permit limits for three of the metals. The limits are stated as a maximum daily limit and a monthly average limit.
- **pH:** pH is a measurement of acidity, with pH 7.0 being neutral and higher pH values being basic and lower pH values being acidic. Our permit effluent pH must stay within the range of 6.0 to 9.0, which we monitor continuously.
- Total Suspended Solids (TSS): Measurement of suspended solids in the effluent. Our permit requires that we remove at least 85% of the influent TSS and that the effluent limit is less than 45 mg/L as a weekly average and less than 30 mg/L as a monthly average.

Executive Summary Process Performance Data January 2017

The removal efficiencies shown are based on the monthly average of the following treatment processes that were in service,

| Primary Clarifier Performance | | | | ed removal efficiencies as outlined in alf & Eddy Wastewater Engineering |
|---|-------------|--------------------|--------------|---|
| Average Total Suspended Solids (TSS) in: | 151 | mg/l | | Manual |
| Average TSS out: | 73 | mg/l | | |
| Average Percent Removal Achieved: | 51.4 | % | | Design 50-70% Removal |
| Average Total Biochemical Oxygen Demand (BOD) in: | 113 | mg/l | | |
| Average BOD out: | . 63 | mg/l | | • |
| Average Percent Removal Achieved: | 44.3 | % | | Design 25-40% Removal |
| Average Plant Influent Flows: | 30.7 | MGD | | , |
| | | | | |
| Biotower Performance | | | | |
| Average TSS out: | 70.5 | mg/l | | |
| Average BOD out: | 57 | mg/l | | |
| Average Percent BOD Removal Achieved: | 10 | % | | Design 25-30% Removal |
| | | | | |
| Aeration Tanks/Activated Słudge | | | | |
| Dissolved Oxygen set point: 2.0 mg/l | | | | |
| werage MLSS 1,635 mg/l | | | | |
| Werage MCRT 6.2 Days | | | | |
| werage SVI 358 | | | | |
| | | | | |
| | | | | |
| econdary Clarifiers | • | | | · · · |
| verage WAS concentration: 6,530 mg/i | • | | | |
| inal Effluent | | | | • |
| | | | | |
| verage Effluent TSS for the month was: | _ | 8.8 | _mg/l | (Maximum Limit: 30mg/l) |
| Week #1 weekly average | | 7.8 | _ | (Maximum Limit: 45mg/l) |
| Week #2 weekly average | | 12.6 | _ | |
| Week #3 weekly average | | 9.1 | - - · | |
| Week #4 weekly average | | 7.8 | - | |
| onthly average TSS removal efficiency through the plant was: | · | 94.1 | _% | (Minimum Limit: 85%) |
| verage Effluent BOD was: | | 13.1 | _mg/l | (Maximum Limit: 25mg/l) |
| Week #1 weekly average | | 28 | | (Maximum Limit: 40mg/l) |
| Week #2 weekly average | | 15 | | n . |
| Week #3 weekly average | _ | 4 | _ | H |
| Week #4 weekly average | | 5 | _ | fi |
| onthly average BOD removal efficiency through the plant was: | _ | 88.5 | % | (Minimum Limit: 85%) |
| | | | , | · · · |
| sinfection Dosing Rate: | | 8.8 | mg/l | monthly average |
| otal Coliform Monthly Geometric Mean: | | 3.6 | MPN | (Maximum 240) |
| aily Maximum Total Coliform Count for the month was: | •····· | 130 | MPN | (Maximum 10,000) |
| terococcus Monthly Geometric Mean: | • | 7.4 | MPN | · (Maximum 35 MPN) |
| fluent pH for the month was: Min | | 6.6 | | (Min 6.0) |
| Max | | 7.6 | | (Max 9.0) |
| gester Treatment | | | - | |
| area Thickoned Wate Concentration from the DDT was | · · | 67 | % | - , |
| verage Thickened Waste Concentration from the RDT was: | | <u>6.2</u> 54.0 | % % | |
| erage percent of Volatile Solids destroyed was: bic feet of biogas produced was: | | | % (Total) | 292,247 (Daily Average) |
| ANC REEL OF DIDEAS DIDGULEU WAS: | | 2000,600 | Corail | <u> </u> |
| verage temperature of the digester was: | | 100 | degrees F | abronhoit |

Executive Summary Process Performance Data January 2017

The removal efficiencies shown are based on the monthly average of the following treatment processes that were in service.

Dewatering

| | | and the second second |
|---|-------|-----------------------|
| Average Centrifuge Feed concentration was: | 2.5 | % |
| Average Biosolids concentration was: | 26.2 | % |
| Average TSS of the Centrate was: | 0.023 | % |
| Solids capture of the Centrifuge was: | 92.7 | % |
| Polymer use per Dry ton of biosolids was: | 18.86 | #/dry ton |
| Average polymer feed rate per run was: | 3.85 | gpm |
| Average concentration of the polymer batches was: | 0.37 | % |
| Average sludge feed rate per run was: | 60.1 | gpm |
| | | |

Comments:

The treatment plant has been running well with final effluent being of very good quality.

Graph #1:

Depicts the total influent flow (from all collection agencies) entering the treatment plant. The red graph line represents total influent flows; and the blue graph line depicts San Rafael rain gauge recordings for the month.

Graph #2:

Depicts individual collection member agency flows. The Y-axis is in the wet weather flow range of 0-100 MGD.

Graph #3:

Depicts the total suspended solids in the effluent.

Our monthly average was 8.8 mg/l vs our KPI of 15 mg/l and permit monthly average limit of 30 mg/l. The higher than normal TSS values, 22.3 mg/l, 22.7 mg/l, and 22.3 mg/l recorded on January 4, 10, and 19 respectively were all attributed to storm events and the extremely large volume of wastewater treated.

Graph #4:

Depicts the coliform most probable number (MPN) results which are an indication of the performance of the disinfection system. The monthly Total Coliform Geometric Mean was 3.6 MPN through January, which is less than our KPI median of 30 MPN and permit limit of 240 MPN. The higher than normal samples were all collected during storm events.

Graph #5:

Depicts the effluent BOD which is measuring the oxygen demand of the wastewater. The January effluent BOD average was 13.0 mg/l, well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month. The higher than normal BOD value of 28 mg/l was recorded during the January 4th storm event.

Graph #6:

Depicts the degree to which the biosolids have been dewatered. Our biosolids % concentration averaged 26.2% and exceeded our KPI of of 25% for the entire month of January.

Graph #7:

Depicts the amount of biogas that is produced in the digesters, and then used to produce electricity. Biogas production in January averaged 292,247 cubic feet per day, which exceeded our monthly KPI of 230,000 cubic feet per day.

Graph #8:

This graph depicts the amount of energy produced through cogeneration versus the energy purchased from Marin Clean Energy (MCE) for Agency operations. The cogeneration system was offline the entire month of January.

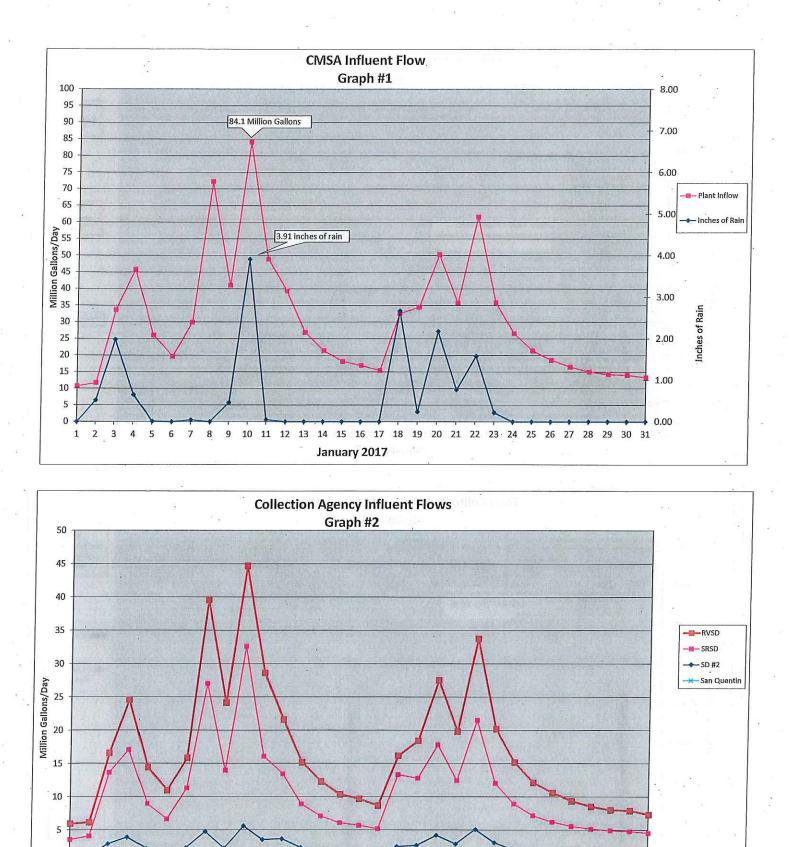
Glossary of Terms Process Performance Data Sheet

- Aeration Tanks: A biological process that takes place after the biotowers, where biomass (microorganisms) is mixed with the wastewater to feed on dissolved and suspended organic material. High speed blowers are used to provide compressed air to mix the tank contents.
- Anaerobic Digesters: In the anaerobic digestion process, organic material removed in the primary and secondary clarifiers is digested by anaerobic bacteria. The end products are methane, carbon dioxide, water, stabilized organic matter, and some inorganic material.
- **Biosolids:** Anaerobically digested solids that are removed from the two digesters, dewatered, and then beneficially reused. Beneficial reuse may include landfill alternate daily cover (ADC), land application in the summer as a soil amendment and fertilizer, or converted into a liquid fertilizer for agricultural applications.
- **Biotower:** A biological treatment process, occurring after the primary clarifiers and before the aeration tanks, in which the wastewater trickles over a biomass-covered media. The biomass feeds on the dissolved and suspended solids in the wastewater.
- Centrifuge: Process equipment used to dewater biosolids prior to beneficial reuse.
- Cogeneration System: A system comprised of a dual-fuel engine coupled to an electric generator that
 is used to produce energy to power the Agency facilities. Fuels the system uses are methane biogas
 produced in the anaerobic digesters and, when biogas is not available, purchased natural gas. As well
 as generating electricity, the system supplies heat for plant processes and building heating.
- Chlorine Contact Tanks (CCTs): The final treatment process is disinfection and de-chlorination. The CCTs allow contact time for injected chlorine solution to disinfect the wastewater. Sodium bisulfite, the de-chlorination chemical, is introduced at the end of the CCTs to neutralize any residual chlorine to protect the San Francisco Bay environment.
- Rotary Drum Thickener (RDT): Waste activated sludge removed from the secondary clarifiers is thickened in rotary drum thickeners before being transported to the anaerobic digesters. Thickening removes some of the sludge's water content, to decrease hydraulic loading to the digesters.
- Final Effluent: After all the treatment processes are completed, the final effluent is discharged into to central San Francisco Bay through a 10,000-foot-long deep-water outfall.
- Mean Cell Residence Time (MCRT): An expression of the average time that a microorganism will spend in the secondary treatment system.
- Mixed Liquor Suspended Solids (MLSS): The liquid in the aeration tanks is called MLSS and is a combination of water, solids, and microbes. Suspended solids in the MLSS measured in milligrams per liter (mg/l).

- Most Probable Number (MPN): Concentrations, or number of colonies, of total coliform bacteria are reported as the "most probable number." The MPN is not the absolute count of the bacteria but a statistical estimate of their concentration.
- **Polymer:** Polymer is added to digested sludge prior to dewatering to improve solids coagulation and water separation.
- **Primary Clarifier:** A physical (as opposed to biological) treatment process where solids that settle or float are removed and sent to the digesters for further processing.
- **Return Activated Sludge (RAS):** The purpose of returning activated sludge (biomass) to the aeration tanks is to maintain a sufficient concentration of microbes to consume the wastewater's dissolved solids.
- Secondary Clarifiers: Provides settling for the biomass after aeration. Most of the settled biomass is returned to the aeration tank as return activated sludge (RAS) and some is sent to the RDT unit as waste activated sludge.
- **Sludge Volume Index (SVI):** This is a calculation used to indicate the settling ability of the biomass in the secondary clarifiers.
- **Thickened Waste Activated Sludge (TWAS):** Waste activated sludge is thickened in the RDTs, and then the TWAS product is pumped to the digester for processing.
- Volatile Solids: Organic content of the wastewater suspended solids.
- Waste Activated Sludge (WAS): Biomass that is removed from the secondary clarifiers pumped to the RDTs for thickening.

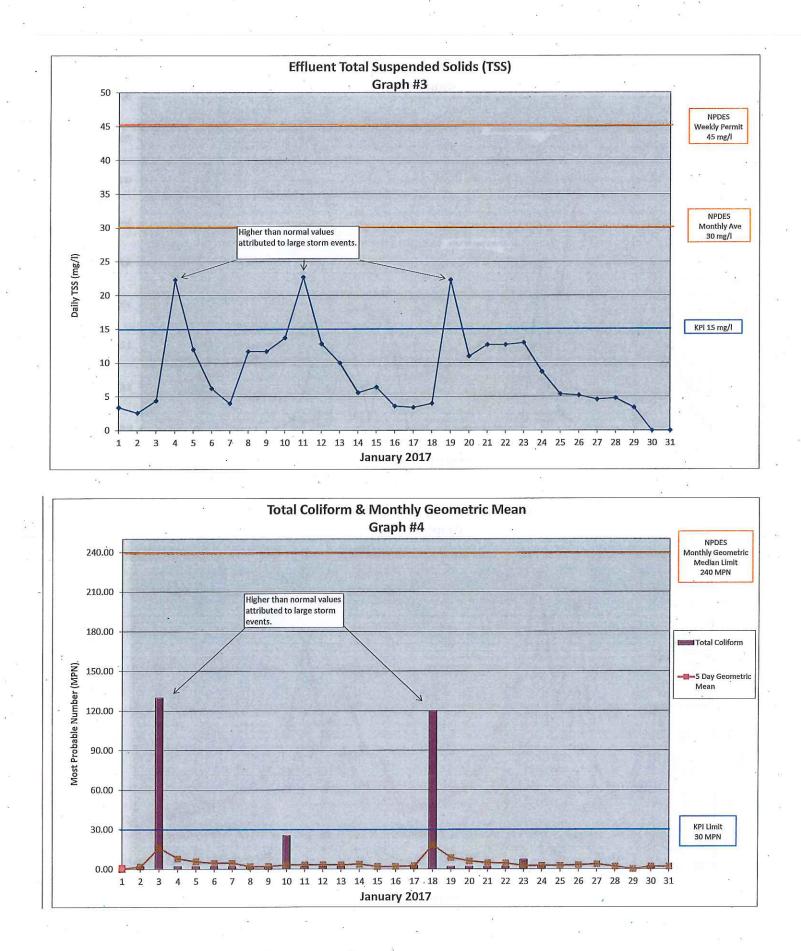
Units of Measurement

- kg/month (Kilograms per Month): 1 kilogram = 2.205 lbs.
- KPI (Key Performance Indicators): The Agency's process performance goals.
- Kwh (Kilowatt Hours): A unit of electric power equal to using 1 Kw for 1 hour.
- Milligrams per Liter (mg/L): A measure of the concentration by weight of a substance per unit volume. For practical purposes, one mg/L is equal to one part per million (ppm).
- MPN/100mL (Most Probable Number per 100 milliliters): Statistical estimate of a number per 100 milliliters of a given solution.
- Percent by Mass (% by mass): A measure of the combined mass of a solute + solvent.
- Percent by Volume (% by vol): A measure of the volume of a solution.
- ug/L (Micrograms per Liter of Solution): Mass per unit volume.

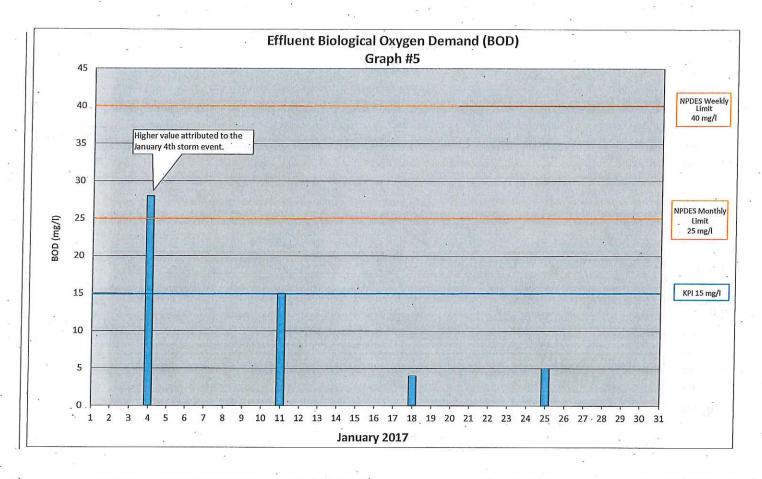


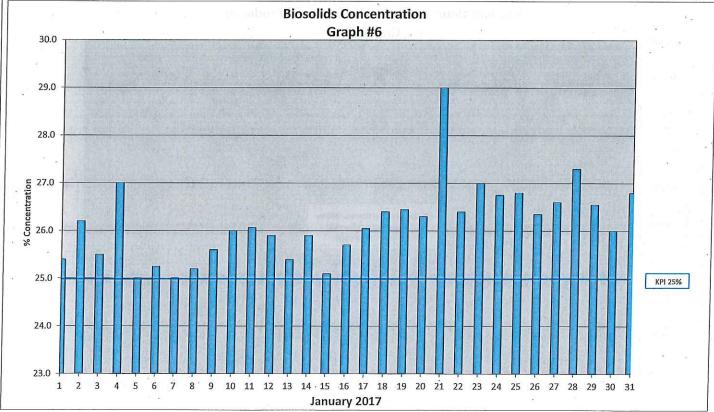
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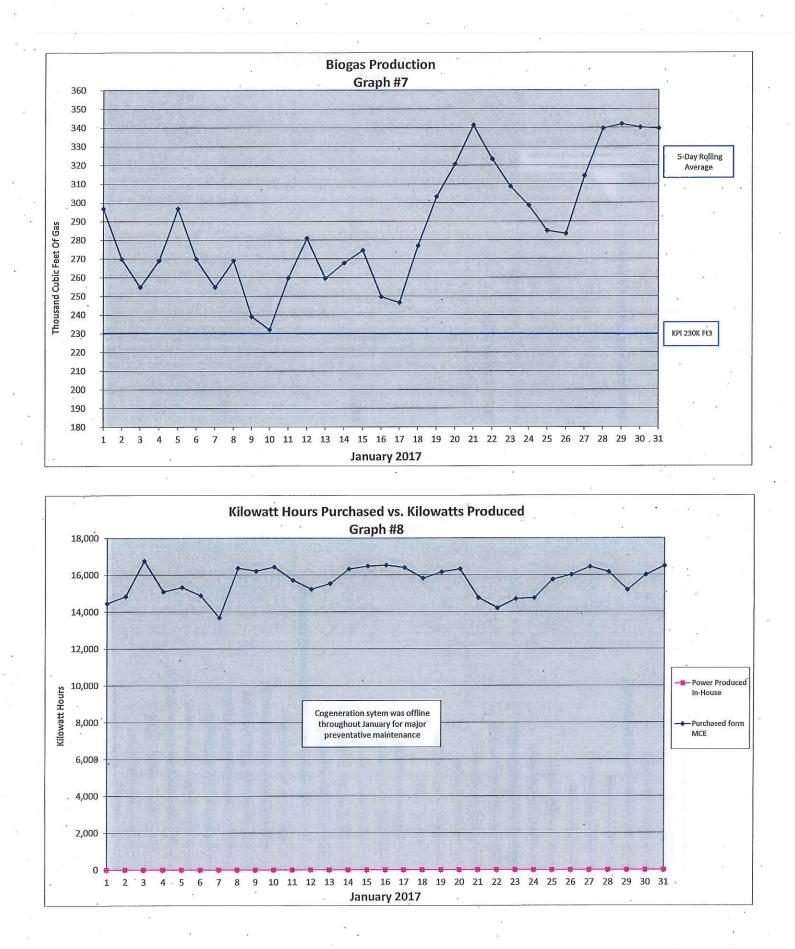


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BOARD MEMORANDUM

March 14, 2017

CMSA Commissioners and Alternates

From:

To:

Chris Finton, Treatment Plant Manager PCP

Approved: Jason Dow, General Manager

Subject: February 2017 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

Recommendation: Accept the February 2017 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report.

I. NPDES Permit Compliance

Our NPDES permit testing for February showed that the CMSA treatment plant effluent limit for Carbonaceous Biochemical Oxygen Demand (CBOD), a test to measure the depletion of dissolved oxygen by biological organisms, was measured at 81.8% removal and not in compliance with the minimum 85.0% removal limit. All other discharge requirements were met in February. The Monthly Compliance Summary Table shows the results by permitted parameter, the sample's frequency, the sample results, and the permit limit. We successfully passed the February 96-hour flow through bioassay test.

Enterococcus samples were collected during five blend events in February. CMSA's NPDES permit specifies monitoring for enterococcus bacteria during dry weather months and for each wet weather blend event, to verify compliance with established effluent limits. The enterococcus geometric mean for February was 2.6 MPN, well below our monthly limit of 35 MPN.

II. Influent Flow

February picked up where January left off, as central Marin County experienced a series of storm events (atmospheric rivers) in conjunction with high tides, and multiple days of localized flooding. These storm events produced a total of 16.4 inches of rain as recorded by the Agency's rain gauge, and the resulting influent flows exceeded the treatment plants maximum secondary capacity of 30 MGD several times during the month. Five blend events were posted on the Agency's website. The facility's average daily influent flow was 30.8 MGD.

influent flows are shown in the table below:FebruarySan RafaelRoss ValleySan QuentinCorte MaderaCMSA PlantMonthly Influent Flows(SRSD)(SD#1)(SQSP)(SD#2)Total

The CMSA treatment plant and each satellite collection agency's daily average and total monthly

| Monthly Influent Flows | (SRSD) | (SD#1) | (SQSP) | (SD#2) | Total |
|------------------------|----------|----------|----------|---------|-----------|
| Average Daily (MGD) | 11.1 MGD | 16.5 MGD | 0.52 MGD | 2.7 MGD | 30.8 MGD |
| Total for Month (MG) | 312.5 MG | 462.9 MG | 14.7 MG | 74.0 MG | .864.1 MG |
| Percent of Flow | 36.1 % | 53.6 % | 1.7 % | 8.6 % | 100 % |

The following table shows the CMSA plant and each satellite collection agency's peak wet weather flows:

| Wet Weather Peak Flows* | San Rafael (SRSD) | Ross Valley (RVSD) | San Quentin | Corte Madera (SD#2) | CMSA |
|----------------------------|----------------------|-----------------------|-------------|------------------------|-----------|
| 02/07 Total Days | 32.1 MG | 43.5 MG | 1.3 MG | 6.0 MG | 82.9 MG |
| Flow | | | | | |
| Peak Flow Rate | 52.8 MGD | 67.7 MGD | 3.3 MGD | 9.9 MGD | 120.1 MGD |

*The time for peak flows and maximum day's flow varies depending on an area's rainfall during the storm

III. Treatment Process

With very few dry days between storm events, treatment processes and equipment remained in a wet weather mode of operation. The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1,591 mg/l, a 2.7% decrease in biomass from last month. The decrease in biomass aligned with the process control decision to carry between 1,400 and 1,600 mg/L to treat larger volumes of influent during storm periods.

Graph #3 shows the Total Suspended Solids (TSS), which is a good indicator of the effluent quality. The TSS monthly average in February was 8.3 mg/l, which is 55.3% of our Key Performance Indicator (KPI) of 15 mg/l, and is 27.7% of our permit's monthly average limit of 30 mg/l. The higher than normal TSS values, 28.0 mg/l, 20.4 mg/l, and 20.7 mg/l, recorded on February 8, 10, and 21 respectively, were all attributed to storm events and the extremely large volume of wastewater treated.

Graph #4 shows the coliform most probable number (MPN), which represents the effectiveness of the disinfection process. All twenty coliform samples collected in February were below our KPI target of 30, and well below our daily limit of 10,000 MPN.

IV. Maintenance Activities

The cogeneration system was out of service until February 8 for a major (In-Frame) maintenance procedure. The procedure was performed on-site by a contractor, and the work included separating the engine from the generator; disassembly of the engine down to its block; replacement of the cylinder heads and liners, pistons and piston rods, and all gasket materials; and refurbishment of the turbo chargers, oil pump and oil cooler, and pressure regulators. This work was completed on February 8, and the cogeneration system was returned to service on that day.

In addition to cogeneration maintenance, staff was also able to complete scheduled project work and monthly preventative maintenance tasks. Work included replacing a failed Return Activated Sludge (RAS) flow meter; refurbishing a disinfection metering pump; and staff performed a confined space entry inside the Organic Waste Receiving Station's slurry tank to inspect the interior coating work.

Attachment

- February 2017 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report





Technicians Replacing the Agency's Return Activated Sludge (RAS) Flow Meter

Monthly Compliance Summary Table

Central Marin Sanitation Agency

February 2017

Final Effluent Monitoring

| Parameter | Frequency | Units | Results | Limit |
|--|---------------|------------------------|---------------------------------------|-----------------|
| Carbonaceous BOD Highest Weekly Average | Weekly | mg/L | 22.8 | Maximum 40 |
| Carbonaceous BOD Monthly Average | Monthly | mg/L | . 11 | Maximum 25 |
| Carbonaceous BOD Monthly Removal Rate | Monthly | % | · 81.8 | Minimum 85 |
| Total Suspended Solids Highest Weekly Average | · Weekly | mg/L | 1,4.3 | Maximum 45 |
| Total Suspended Solids Monthly Average | Monthly | mg/L | · · 8.3 | Maximum 30 |
| Total Suspended Solids Monthly.Removal Rate | Monthly | % | 88 | Minimum 85 |
| Chlorine Residual Instant Limit | Instant | mg/L | <0.1 | Maximum 0.0 |
| Ammonia Monthly Average | Monthly | mg/L | 12.0 | Maximum 60 |
| Ammonia Maximum Daily | Daily | mg/L | 17.9 | Maximum 120 |
| pH Lower Limit | Continuous | · · | 6.6 | Minimum 6 |
| pH Upper Limit | Continuous | | 7.6 | Maximum 9 |
| Bacteriological Analysis | | | | |
| Total Coliform Monthly Geometric Mean | 3 X Week | MPN/100mL | 2.9 | Maximum 240 |
| Total Coliform Daily Maximum | . 3 X Week | MPN/100mL | 11 | Maximum 10,000 |
| Enterococcus Monthly Geometric Mean | Monthly | MPN/100mL MPN/100mL | 2.61 | Maximum 35 |
| Enterococcus Monthly Geometric Mean | IVIOIILIIIY | MEN/ TOOLIT | 2.01 | |
| Flow Through Bioassay | - | | ····· | |
| Acute Toxicity 11 Sample 90th Percentile | Monthly | % survival | 100 | Minimum 70 |
| Acute Toxicity 11 Sample Median | Monthly | % survival | • 100 | Minimum 90 |
| Metals Analysis | | | | |
| Copper Daily Límit | Monthly | ug/L | 2.9 | Maximum 85 |
| Copper Monthly Average | Monthly | ug/L | 2.9 | Maximum 49 |
| Cyanide Daily Limit | Monthly | ug/L | ND | Maximum 41 |
| Cyanide Monthly Average | Monthly | ug/L | ND | Maximum 21 |
| Vercury Weekly Average | Weekly | ug/L | 0.0062 | Maximum 0.072 |
| Mercury Monthly Average | Monthly | ug/L | 0.0062 | Maximum 0.066 |
| Mercury Monthly Loading | Monthly | kg/mo | 0,0004 | |
| Mercury Annual Loading (watershed permit) | Jan-Dec | kg/yr | 0.0034 | Maximum 0.11 |
| emi-Annual Analysis | | | · · · · · · · · · · · · · · · · · · · | |
| Dioxin - Total Equivalents (TEQ) Daily Maximum | every 6 mos | ug/L | * | Maximum 2.8E-08 |
| Dioxin - Total Equivalents (TEQ) Monthly Average | every 6 mos | ug/L | * | Maximum 1.4E-08 |
| hronic Bioassay Toxicity | every 3 mos | toxicity units | * | Maximum 20 |
| hronic Bioassay Toxicity (3 sample median) | • every 3 mos | toxicity units | · * | Maximum 10 |
| olychlorinated Biphenyls (PCBs) Daily Limit | every 6 mos | ug/L | · * | Maximum 0.017 |
| olychlorinated Biphenyls (PCBs) Monthly Limit | every 6 mos | ug/L | * | Maximum 0.012 |
| 1 de Aughatia | | | | |
| uarterly Analysis | Quartarla | | · · | Maximum 20 |
| il and Grease Daily Limit | Quarterly | mg/L | * | Maximum 20 |
| il and Grease Monthly Average | Quarterly | mg/L | ጥ | Maximum 10 |

| Flow Analysis | Daily Max | Hourly Max | 5 minute Max | Monthly Average |
|----------------|-----------|------------|--------------|-----------------|
| Effluent Flow | 84.2 | 123.7 | 125.0 | 32.1 |
| Influent Flow | 82.9 | · 119.0 | | 30.8 |
| # Days Blended | | | | 5 |

* Monitoring Not Required This Month

X Data not available at report time

Glossary of Terms NPDES Permit Compliance Summary Table

- Ammonia: CMSA's NPDES permit requires that we analyze the final effluent for ammonia due to its toxicity to aquatic organisms and potential for providing nutrients for algae in the San Francisco Bay. The permit has a maximum daily limit of 60 mg/L and a monthly average limit of 120 mg/L. The maximum daily limit is the number that cannot be exceeded on any sample and the monthly average applies to all samples collected in any month (although usually we only are required to take one sample).
- Biochemical Oxygen Demand (BOD): The amount of dissolved oxygen needed by microorganisms (biomass) to stabilize organic material in the effluent. The permit limits for our effluent require that removal of 85% influent BOD, and meet a weekly average of less than 40 mg/L and a monthly average of less than 25 mg/L BOD.
- **Chlorine Residual:** The secondary effluent is disinfected with hypochlorite (chlorine "bleach"), and then the residual chlorine is neutralized with sodium bisulfite to protect the Bay environment. The final effluent chlorine residual limit is 0.0 mg/l, which is monitored continuously.
- **Bacteria:** Coliform and enterococcus bacteria are the indicator organisms for the determination of the effectiveness of the disinfection process.
- **Dioxin Total Equivalents** These are 17 dioxin-like compounds that we analyze for twice per year which have permit limits.
- Fats, Oil and Grease Quarterly we are required to monitor our effluent for Fats, Oils, and Grease.
- Flow Through Bioassay: A 96-hour test in which we test the toxicity of our effluent to young rainbow trout (15-30 days old) in a flow-through tank to determine their survivability under continuous exposure to CMSA effluent. The permit requires that we maintain a 90th percentile survival of at least 70% and an 11-sample median survival of at least 90%. In layman's terms, this means that out of the last 11 samples, only one bioassay may fall below 70% survival, and the middle value—when all 11 samples are placed in numerical order—must be at least 90%.

Metals Analysis: Our permit requires that we analyze our effluent for many different metals on a monthly basis. We have permit limits for three of the metals. The limits are stated as a maximum daily limit and a monthly average limit.

- **pH:** pH is a measurement of acidity, with pH 7.0 being neutral and higher pH values being basic and lower pH values being acidic. Our permit effluent pH must stay within the range of 6.0 to 9.0, which we monitor continuously.
- Total Suspended Solids (TSS): Measurement of suspended solids in the effluent. Our permit requires that we remove at least 85% of the influent TSS and that the effluent limit is less than 45 mg/L as a weekly average and less than 30 mg/L as a monthly average.

Executive Summary Process Performance Data February 2017

The removal efficiencies shown are based on the monthly average of the following treatment processes that were in service.

| the second se | | |
|---|-----------|--|
| Primary Clarifier Performance | | Expected removal efficiencies as outline |
| | | Metcalf & Eddy Wastewater Engineerin |
| Average Total Suspended Solids (TSS) in: 1 | 31 mg/l | Manual |
| Average TSS out: 8 | 10 mg/i | |
| <u> </u> | 3.7 % | Design 50-70% Removal |
| | 06mg/l | |
| Average BOD out:6 | 1mg/i | |
| | .2 % | Design 25-40% Removal |
| Average Plant Influent Flows: 30 |).8 MGD | |
| , · · · | | |
| | | |
| Biotower Performance | | |
| Average TSS out: 6 | 0 . | · |
| Average BOD out: 6 | | |
| Average Percent BOD Removal Achieved: 42 | | Design 25-30% Removal |
| | | |
| | | |
| Aeration Tanks/Activated Sludge | | |
| | | |
| Dissolved Oxygen set point: 2.0 mg/l | | |
| werage MLSS 1,591 mg/l | | · . |
| werage MCRT <u>6.2</u> Days | | |
| verage SVI178 | | |
| | | · . |
| | | |
| econdary Clarifiers | | |
| werage WAS concentration: 7,701 mg/l | | |
| | | |
| inal Effluent | • | |
| verage Effluent TSS for the month was: | 8.3 | mg/l (Maximum Limit: 30mg/l) |
| Week #1 weekly average | 7.7 | (Maximum Limit: 30mg/l) (Maximum Limit: 45mg/l) |
| Week #2 weekly average | 14.3 | |
| Week #3 weekly average | 3.7 | •• JI |
| Week #4 weekly average | • 7.5 | |
| verage TSS removal efficiency through the plant was: | 88.0 | 🦷 (Minimum Limit: 85%) |
| | <u> </u> | |
| verage Effluent BOD was: | 11 | mg/l (Maximum Limit: 25mg/l) |
| Week #1 weekly average | 7 | (Maximum Limit: 40mg/l) |
| Week #2 weekly average | 22.8 | |
| Week #3 weekly average | 3 | - |
| Week #4 weekly average | 11 | |
| verage BOD removal efficiency through the plant was: | 81.8 | % (Minimum Limit: 85%) |
| · · · · · · · · · · · · · · · · · · · | | |
| sinfection Dosing Rate: | 4.5 | mg/l monthly average |
| otal Coliform Monthly Geometric Mean: | 2.9 | MPN (Maximum 240) |
| e Daily Maximum Total Coliform Count for the month was: | 11.0 | MPN (Maximum 10,000) |
| terococcus Monthly Geometric Mean: | 2.61 | MPN (Maximum 35 MPN) |
| fluent pH for the month was: Min | 6.6 | (Min 6.0) |
| Max | 7.6 | (Max 9.0) |
| gester Treatment | | |
| <u>.</u> | | |
| erage Thickened Waste Concentration from the RDT was: | 5.3 | % |
| erage percent of Volatile Solids destroyed was: | | % |
| bic feet of biogas produced was: | 7,606,465 | (Total) 271,659 (Daily Average) |
| Die leee of pioBas broadleed was | | · · · · · · · · · · · · · · · · · · · |

Executive Summary Process Performance Data February 2017

The removal efficiencies shown are based on the monthly average of the following treatment processes that were in service.

| Dewatering | | |
|---|-------|-----------|
| Average Centrifuge Feed concentration was: | 2.5 | % |
| Average Biosolids concentration was: | 27.2 | % |
| Average TSS of the Centrate was: | 0.017 | % |
| Solids capture of the Centrifuge was: | 99.4 | % |
| Polymer use per Dry ton of biosolids was: | 18,9 | #/dry ton |
| Average polymer feed rate per run was: | 3.91 | gpm |
| Average concentration of the polymer batches was: | 0.369 | % |
| Average sludge feed rate per run was: | 61.8 | gpm |

Comments:

The CBOD removal efficiency for February was 81.8%, and the Agencys permit removal limit is 85.0%.

Graph #1:

Depicts the total influent flow (from all collection agencies) entering the treatment plant. The red graph line represents total influent flows; and the blue graph line depicts the CMSA Headworks rain gauge recordings for the month.

Graph #2:

Depicts individual collection member agency flows.

The Y-axis is in the wet weather flow range of 0-100 MGD.

Graph #3:

Depicts the total suspended solids in the effluent.

Our monthly average was 8.3 mg/l vs our KPI of 15 mg/l and permit monthly average limit of 30 mg/l. The higher than normal values as depicted on graph #3 were attributed to storm events and the large volumes of wastewater treated.

Graph #4:

Depicts the coliform most probable number (MPN) results which are an indication of the performance of the disinfection system.

The monthly Total Coliform Geometric Mean was 2.9 MPN through February, which is less than our KPI median of 30 MPN and permit limit of 240 MPN.

Graph #5:

Depicts the effluent BOD which is measuring the oxygen demand of the wastewater. The February effluent BOD average was 11.0 mg/l, well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month. The CBOD removal limit of 85.0% was not met in February, a result of a large volume of dilute influent flow during major rain events.

Graph #6:

Depicts the degree to which the biosolids have been dewatered.

Our biosolids concentration averaged 27.2% and exceeded our KPI of 25% for the entire month, no dewatering operations occurred on February 4.

Graph #7:

Depicts the amount of Biogas that is produced in the digesters, and then used to produce electricity. Biogas production in February averaged 271,659 cubic feet per day, which exceeded our monthly KPI of 230,000 cubic feet per day.

Graph #8:

This graph depicts the amount of energy produced through cogeneration versus the energy purchased from Marin Clean Energy (MCE) for Agency operations. The cogeneration engine produced 65.9% of the Agency's power in February. The cogeneration engine returned to service from in-frame major maintenance on February 8, as depicted on graph 8.

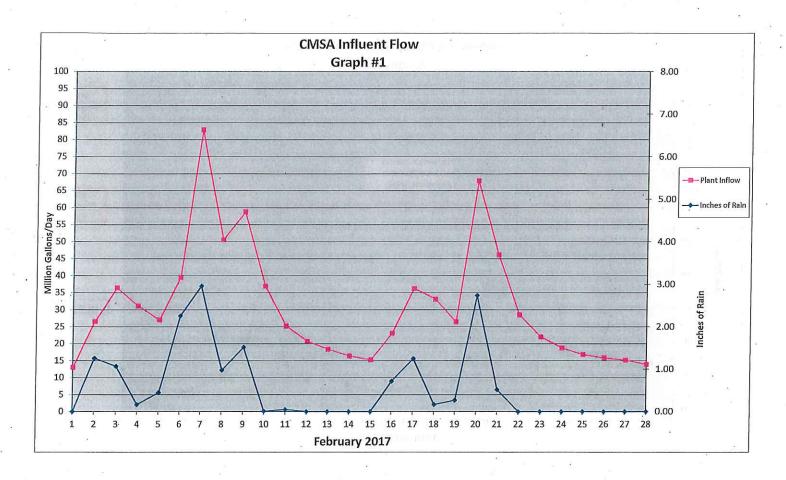
Glossary of Terms Process Performance Data Sheet

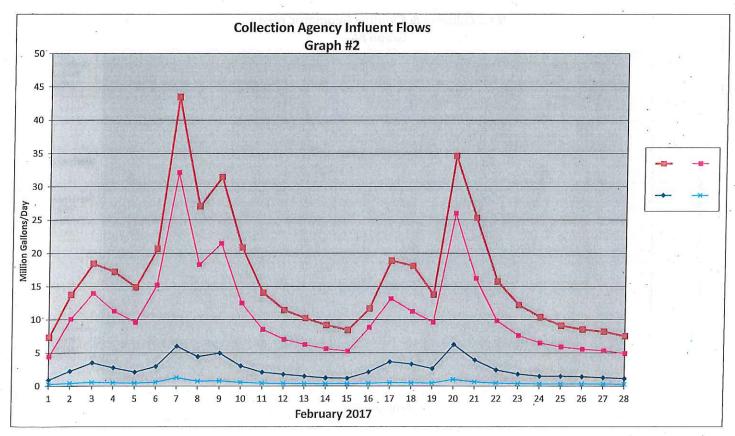
- Aeration Tanks: A biological process that takes place after the biotowers, where biomass (microorganisms) is mixed with the wastewater to feed on dissolved and suspended organic material. High speed blowers are used to provide compressed air to mix the tank contents.
- Anaerobic Digesters: In the anaerobic digestion process, organic material removed in the primary and secondary clarifiers is digested by anaerobic bacteria. The end products are methane, carbon dioxide, water, stabilized organic matter, and some inorganic material.
- **Biosolids:** Anaerobically digested solids that are removed from the two digesters, dewatered, and then beneficially reused. Beneficial reuse may include landfill alternate daily cover (ADC), land application in the summer as a soil amendment and fertilizer, or converted into a liquid fertilizer for agricultural applications.
- **Biotower:** A biological treatment process, occurring after the primary clarifiers and before the aeration tanks, in which the wastewater trickles over a biomass-covered media. The biomass feeds on the dissolved and suspended solids in the wastewater.
- **Centrifuge:** Process equipment used to dewater biosolids prior to beneficial reuse.
- **Cogeneration System:** A system comprised of a dual-fuel engine coupled to an electric generator that is used to produce energy to power the Agency facilities. Fuels the system uses are methane biogas produced in the anaerobic digesters and, when biogas is not available, purchased natural gas. As well as generating electricity, the system supplies heat for plant processes and building heating.
- Chlorine Contact Tanks (CCTs): The final treatment process is disinfection and de-chlorination. The CCTs allow contact time for injected chlorine solution to disinfect the wastewater. Sodium bisulfite, the de-chlorination chemical, is introduced at the end of the CCTs to neutralize any residual chlorine to protect the San Francisco Bay environment.
- Rotary Drum Thickener (RDT): Waste activated sludge removed from the secondary clarifiers is thickened in rotary drum thickeners before being transported to the anaerobic digesters. Thickening removes some of the sludge's water content, to decrease hydraulic loading to the digesters.
- Final Effluent: After all the treatment processes are completed, the final effluent is discharged into to central San Francisco Bay through a 10,000-foot-long deep-water outfall.
- Mean Cell Residence Time (MCRT): An expression of the average time that a microorganism will spend in the secondary treatment system.
- Mixed Liquor Suspended Solids (MLSS): The liquid in the aeration tanks is called MLSS and is a combination of water, solids, and microbes. Suspended solids in the MLSS measured in milligrams per liter (mg/l).

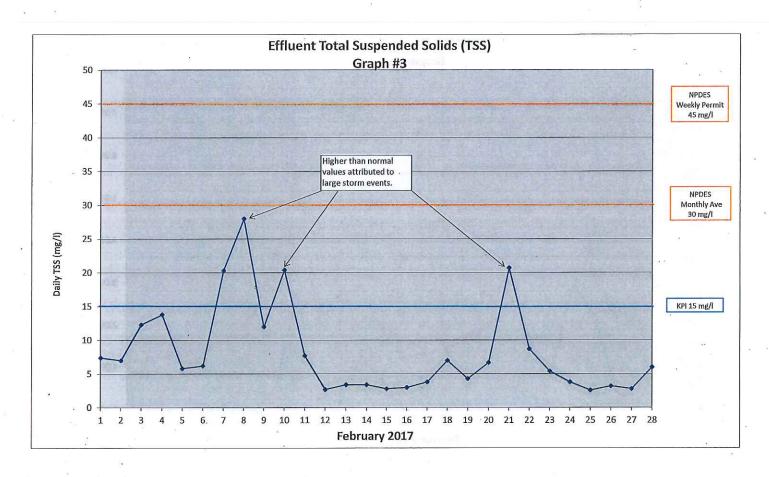
- Most Probable Number (MPN): Concentrations, or number of colonies, of total coliform bacteria are reported as the "most probable number." The MPN is not the absolute count of the bacteria but a statistical estimate of their concentration.
- **Polymer:** Polymer is added to digested sludge prior to dewatering to improve solids coagulation and water separation.
- **Primary Clarifier:** A physical (as opposed to biological) treatment process where solids that settle or float are removed and sent to the digesters for further processing.
- **Return Activated Sludge (RAS):** The purpose of returning activated sludge (biomass) to the aeration tanks is to maintain a sufficient concentration of microbes to consume the wastewater's dissolved solids.
- Secondary Clarifiers: Provides settling for the biomass after aeration. Most of the settled biomass is returned to the aeration tank as return activated sludge (RAS) and some is sent to the RDT unit as waste activated sludge.
- **Sludge Volume Index (SVI):** This is a calculation used to indicate the settling ability of the biomass in the secondary clarifiers.
- **Thickened Waste Activated Sludge (TWAS):** Waste activated sludge is thickened in the RDTs, and then the TWAS product is pumped to the digester for processing.
- Volatile Solids: Organic content of the wastewater suspended solids.
- Waste Activated Sludge (WAS): Biomass that is removed from the secondary clarifiers pumped to the RDTs for thickening.

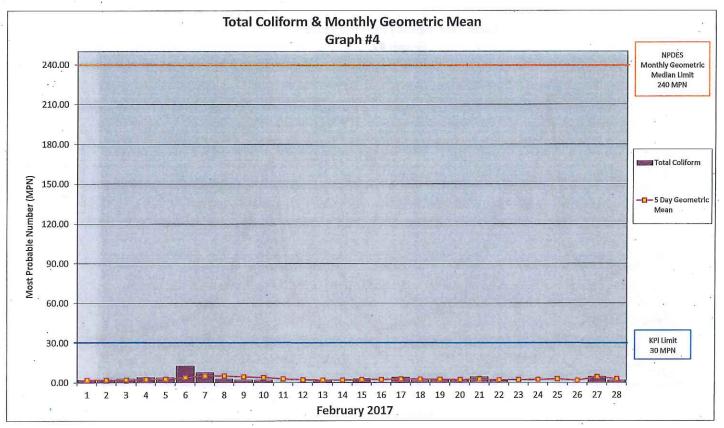
Units of Measurement

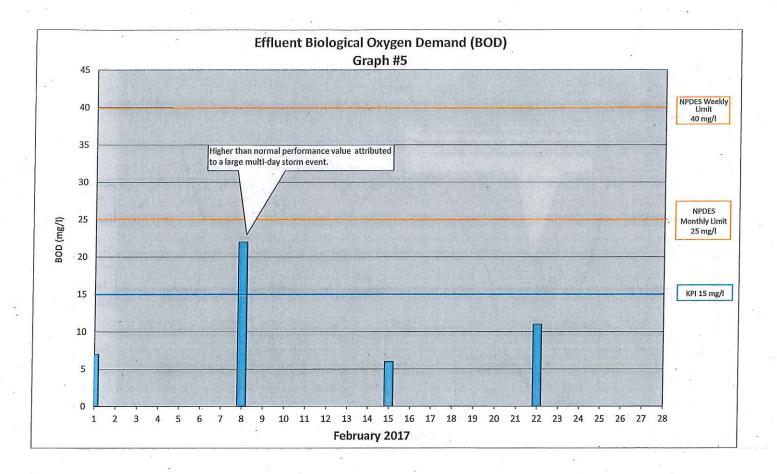
- kg/month (Kilograms per Month): 1 kilogram = 2.205 lbs.
- KPI (Key Performance Indicators): The Agency's process performance goals.
- Kwh (Kilowatt Hours): A unit of electric power equal to using 1 Kw for 1 hour.
- Milligrams per Liter (mg/L): A measure of the concentration by weight of a substance per unit volume. For practical purposes, one mg/L is equal to one part per million (ppm).
- MPN/100mL (Most Probable Number per 100 milliliters): Statistical estimate of a number per 100 milliliters of a given solution.
- Percent by Mass (% by mass): A measure of the combined mass of a solute + solvent.
- Percent by Volume (% by vol): A measure of the volume of a solution.
- ug/L (Micrograms per Liter of Solution): Mass per unit volume.

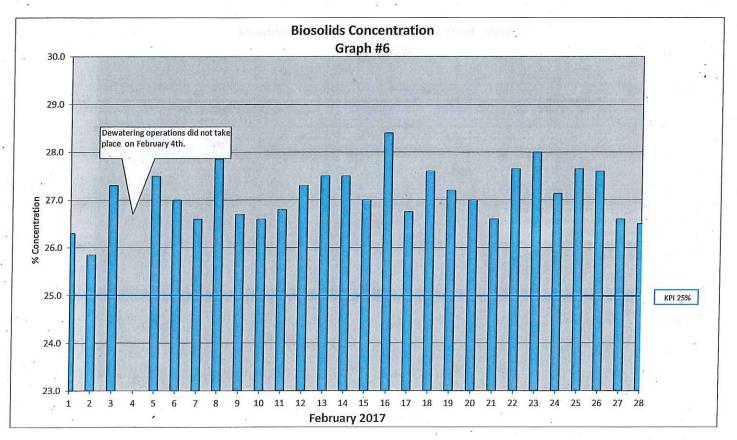




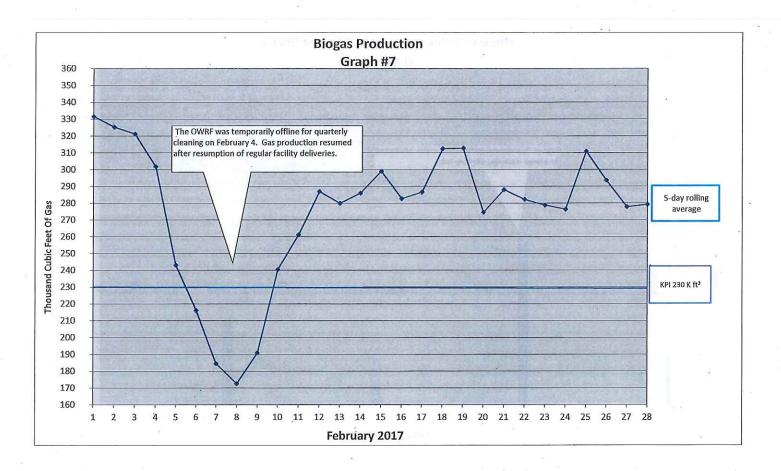


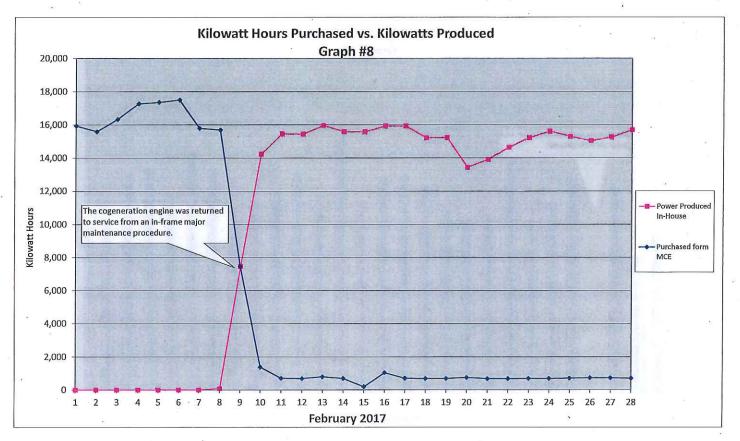






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BOARD MEMORANDUM

March 14, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Performance Metric Report – January and February 2017

Recommendation: Accept the January and February 2017 Performance Metric reports.

Performance Summary: The Agency's performance in operations and maintenance activities, regulatory and environmental compliance, and public education and outreach met or exceeded our metric goals/targets. Noteworthy metrics or variances are described below, and targets/goals that have been revised for 2017 are highlighted in yellow on each performance metric report.

Table I – Treatment/Process Metrics

Most process metrics were within normal ranges, and the treatment facilities were operated well during the numerous January and February rain events. Two unfortunate permit compliance exceedances occurred during two of the largest, high intensity rain events. As briefly mentioned in the NPDES/Process Report, for each month the Agency did not meet its 85% removal requirement for CBOD (Line 3b). The high influent flows each month are dilute and caused significant blending events, both resulting in a low CBOD removal rate.

Our cogeneration system was off-line from January 1 – February 8 for scheduled major preventative maintenance work, and during that time period the cogeneration system did not produce any power and biogas was flared. In early February, the organic waste receiving facility was taken out of service to inspect the state of its new internal coatings. During those few days, the Agency did not receive any organic loads, resulting in February's biogas production being about 15.5% less than January's production numbers.

With the expansion of the organic waste receiving programs and the increased biogas production, the following metrics have been changed:

| - Biogas Production: | Average biogas production in 2016 was 8.7 Mft3; target range increased |
|----------------------|--|
| | to 6.0 - 9.5 Mft3. |
| | |

Energy Production: Average energy produced in 2016 was 422 kWh and the cogeneration runtime on biogas was 87%; Energy production range increased to 380 to 480,000 kWh, and cogeneration runtime target increased to 75%.

<u>Table II – Employee Metrics</u>

Internally, employee training was comprised of office ergonomics for all staff, Office 365 for our transition away from Goggle for email and calendaring for all staff, and specific staff classification training and development. For external training, two employees attended hazardous waste management training, several employees attended LCW employment law training, and two Technical Services staff attended the CWEA Pollution Prevention (P3) conference, and the General Manager attended the CASA Winter Conference and DC Public Policy Forum.

In 2016, the preventative maintenance labor hours averaged 467 per month, so the metric range has been increased to 300 - 500 hours.

Table III - Environmental and Regulatory Compliance Metrics

There was one NPDES permit exceedances each month as described above, and laboratory and pollution prevention activities were performed as scheduled. The Agency's new Lab Director, Mark Koekemoer, began employment in mid-January and was supported by the contract interim laboratory director during a brief transition period. In late 2016, staff evaluated the manner in which several metric ranges were constructed and recommended the following revisions to improve each range's accuracy.

- NPDES Analyses: 40 - 100

- Process Analyses: 120 – 250

- Quality Control Testing: 90% average

Table IV - Public Outreach

There were three odor alerts posted to the Agency website in January and six in February, and the Agency did not receive any odor complaints. Eight of the alerts were posted as primary clarifiers were taken in and out of service to accommodate wet weather flows, and the last notice was posted for the membrane diffusers exchange work in aeration tank #4.

Over the past couple years, countywide public education events have been cancelled and there has been a reduction in the number of attendees visiting the public outreach booth at the Marin County Fair. Due to these situations, the public education event metric has been reduced to 3,000 visitors per year.

Attachments:

- January 2017 Performance Metric Report

- February 2017 Performance Metric Report

CMSA CY17 PERFORMANCE METRICS – January 2017

TABLE I - TREATMENT/PROCESS METRICS

| · Metric | Definition | Measurement | Range/Target/Goal |
|--------------------------------------|--|--|--|
| 1) Wastewater Treated | Volume of wastewater influent treated and disposed, in million gallons (Mg) | 952.7 Mg | 165 – 820 Mp |
| 2) Biosolids Reuse | Alternate Daily Cover (ADC) at the Redwood Landfill, in wet tons (wt) Fertilizer and soil amendment at land application sites, in wet tons (wt) Bio-Fertilizer production at the Lystek facility, in wet tons (wt) | 478.7 wt 155.5 wt | 360 – 665 wt |
| 3) Conventional Pollutant Removal | Removal of the conventional NPDES pollutants - Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) a. tons of TSS removed; % TSS removal b. tons of organics removed (BOD); % BOD removal | 548.5 tons, 88.5% 389.8 tons, 83.9% | > 85% > 85% |
| 4) Priority Pollutants Removal | Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper | 83.9% 96.4% | 88 – 99% 84 – 98% |
| 5) Biogas Production | Biogas generated in our anaerobic digesters, in million cubic feet (Mft ³) Natural gas (methane) equivalent of the biogas, in million cubic feet (Mft ³) | 9.05 Mft ³ 5.79 Mft ³ | 6.0 to 9.5 Mft ³ 3 8 to 6 1 Mft ³ |
| 6) Energy Produced | Energy produced from cogeneration of generated biogas and purchased natural gas - in kilowatt hours Cogeneration system runtime on biogas , <i>in hours (hrs.); % time during month</i> Biogas value (natural gas cost equivalent) | 0.0 kWh 0 hrs; 0.0% | 380 to 480,000 kWh 540 hrs.; 75% \$7.000 to \$24 000 |
| 7) Efficiency | The cost to operate and maintain the treatment plant per million gallons of wastewater treated, in dollars per million gallons | \$378/Mg | \$451-\$1,830/Mg (wet - drv) |
| | Energy used, kilowatt hours, per million gallons treated | 509 kWh/Mg | 670 - 2,400 kWh/Mg |
| Table II – EMPLOYEE METRICS | KICS | | 4 |
| Metric | Definition | Measurement | Target/Goal |
| 1) Employee Training | Hours of internal training – safety, web-based, project, vendor, etc. Hours of external training – employment law, technical, regulatory, etc. | Internal = 135.25 External = 65.5 | variable |
| 2) Work Orders | Preventative maintenance (PM) labor hours Planned corrective maintenance (CM) labor hours; % of CM+UCM hrs. Unplanned corrective maintenance (UCM) labor hours; % of CM+PM hrs. Ratio of PM to total corrective maintenance (CM + UCM); | 554 595 (81.0%) 141 (25.0%) 0.75 | 300 - 500 hrs ≥ 70% total CM hrs ≤ 30% total hours > 0.45 |
| | | | |

< 5%

2.9%; (3.0%)

Monthly hours of OT worked; Year to date hours of OT (YTD) % of normal hours worked; % Year to date (YTD)

3) Overtime Worked

CMSA CY17 PERFORMANCE METRICS – January 2017

Table III - ENVIRONMENTAL AND REGULATORY COMPLIANCE METRICS

9

| | | | • |
|--|--|---------------|----------------------------------|
| Metric | Definition | Measurement | Range/Target/Goal |
| 1) Permit Exceedances | # of NPDES permit exceedances | 1 | ō |
| 2) NPDES Analyses | # samples analyzed by the CMSA laboratory for NPDES compliance monitoring | 99 | 40 - 100 |
| 3) Process Analyses | # samples analyzed by the CMSA laboratory for process control reporting and monitoring | 184 | <mark>120 - 250</mark> |
| 4) Quality Control Testing | # of CMSA performed laboratory analyses for QA/QC purposes Accuracy of QA/QC tests | 27 96.3% | 10 - 40 <mark>> 90%</mark> |
| 5) Water Quality Sample Analyses | # of ammonia, coliform (total and fecal), enterococcus, and/or sulfide analyses performed for the CMSA member agencies (SSOs, etc.) | H | as-needed |
| 6) Pollution Prevention Inspections | Inspections of industrial and commercial businesses in the Agency's pretreatment and pollution prevention programs and Novato Sanitary District's Mercury Reduction Program – 277 businesses regulated | 22 | variable |
| 7) FOG Program Inspections | Inspections of food service establishments (FSEs) in the Almonte, TCSD, SD2, RVSD, SRSD, and LGVSD service areas – approx. 500 FSEs are in programs; 310 are regulated – either permitted or have waivers. | N | <mark>20 - 50</mark> |
| 8) Permits Issued/Renewed | Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge | ω. | variable |
| Table IV- PUBLIC OUTREACH | | | |
| Metric | Definition | Measurement | Target/Goal |
| 1) Public Education Events | Attendance at public education outreach events; # of booth visitors; (YTD) | 92; (92) | 3,000/year |
| 2) School Events | Participation or sponsorship in school outreach events; attendees; (YTD) | 215; (215) | variable |
| 3) Agency Tours | Tours given to students and the public; # of people, (YTD) | 6; <i>(6)</i> | variable |
| 3) Odor Notifications | Number of odor alerts posted to the Agency website due to process or operational changes | m | 1-10 |
| | | | |

0

0

Number of pdor complaints received from the public

4) Odor Complaints

CMSA CY17 PERFORMANCE METRICS – February 2017

TABLE I - TREATMENT/PROCESS METRICS

| Metric | Definition | Measurement | Range/Target/Goal |
|---|--|---|--|
| 1) Wastewater Treated | Volume of wastewater influent treated and disposed, in million gallons (Mg) | 899.2 Mg | 165 – 820 Mg |
| 2) Biosolids Reuse | Alternate Daily Cover (ADC) at the Redwood Landfill, in wet tons (wt) Fertilizer and soil amendment at land application sites, in wet tons (wt) | 407.52 wt | 360 – 665 wt |
| | bio-relinited production at the Lystek facility, in wet tons (wt) | 147.44 wt | |
| 3) Conventional Pollutant Removal | Removal of the conventional NPDES pollutants - Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) | A STREET | |
| 11. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | a. tons of TSS removed; % TSS removal b. tons of organics removed (BOD); % BOD removal | 487.2; 93.9% 393.9; 81.8% | > 85% > 85% |
| 4) Priority Pollutants Removal | Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper | 91.6% 84.8% | 88 - 99% 84 - 98% |
| 5) Biogas Production | Biogas generated in our anaerobic digesters, in million cubic feet (Mft ³) Natural gas (methane) equivalent of the biogas, in million cubic feet (Mft ³) | 7.60 Mft ³ 4.86 Mft ³ | 6.0 to 9.5 Mft ^a 3.8 to 6.1 Mft ^a |
| 6) Energy Produced | Energy produced from cogeneration of generated biogas and purchased natural gas - in kilowatt hours | 296,298 kWh | 380 to 480,000 kWh |
| | Cogeneration system runtime on biogas , in hours (hrs.); % time during month Biogas value (natural gas cost equivalent) | 421 hrs; 62.6% \$25,092 | <mark>540 hrs.; 75%</mark> \$7,000 to \$24,000 |
| 7) Efficiency | The cost to operate and maintain the treatment plant per million gallons of wastewater treated, in dollars per million gallons | \$400/Mg | \$451-\$1,830/Mg (wet - dry) |
| ar an an an an an ar | Energy used, kilowatt hours, per million gallons treated | 500 kWh/Mg | 670 - 2,400 kWh/Mg |
| Table II – EMPLOYEE METRICS | RICS | | |
| Metric | Definition | Measurement | Target/Goal |
| 1) Employee Training | Hours of internal training – safety, web-based, project, vendor, etc. Hours of external training – employment law, technical, regulatory, etc. | Internal = 103 External = 158 | variable |
| 2) Work Orders | Preventative maintenance (PM) labor hours Planned corrective maintenance (CM) labor hours; % of CM+UCM hrs. Unplanned corrective maintenance (UCM) labor hours; % of CM+PM hrs. Ratio of PM to total corrective maintenance (CM + UCM); | 291 hrs 659 hrs (84.2%) 125 hrs (13.1%) 0.37 | 300 - 500 hrs ≥ 70% total CM hrs ≤ 30% total hours > 0.45 |
| | | | 1 |

< 5%

2.3%; (2.7%)

Monthly hours of OT worked; Year to date hours of OT (YTD) % of normal hours worked; % Year to date (YTD)

3) Overtime Worked

CMSA CY17 PERFORMANCE METRICS – February 2017

Table III - ENVIRONMENTAL AND REGULATORY COMPLIANCE METRICS

| Metric | Definition | Measurement | Range/Target/Goal |
|--|--|-------------|----------------------------------|
| 1) Permit Exceedances | # of NPDES permit exceedances | Ч | o |
| 2) NPDES Analyses | # samples analyzed by the CMSA laboratory for NPDES compliance monitoring | 74 | 40 - 100 |
| 3) Process Analyses | # samples analyzed by the CMSA laboratory for process control reporting and monitoring | 283 | 120 - 250 |
| 4) Quality Control Testing | # of CMSA performed laboratory analyses for QA/QC purposes Accuracy of QA/QC tests | 61 | 10 - 40 <mark>> 90%</mark> |
| 5) Water Quality Sample Analyses | # of ammonia, coliform (total and fecal), enterococcus, and/or sulfide analyses performed for the CMSA member agencies (SSOs, etc.) | 7 | as-needed |
| 6) Pollution Prevention Inspections | Inspections of industrial and commercial businesses in the Agency's pretreatment and pollution prevention programs and Novato Sanitary District's Mercury Reduction Program – 277 businesses regulated | 51 | variable |
| 7) FOG Program Inspections | Inspections of food service establishments (FSEs) in the Almonte, TCSD, SD2, RVSD, SRSD, and LGVSD service areas – approx. 500 FSEs are in programs; 310 are regulated – either permitted or have waivers. | . ~ | <mark>50 -</mark> 20 |
| 8) Permits Issued/Renewed | Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge | 7 | variable |
| Table IV- PUBLIC OUTREACH | | 5 5 5 | |
| Metric | Definition | Measurement | Target/Goal |
| 1) Public Education Events | Attendance at public education outreach events; # of booth visitors; (YTD) | 0; (92) | <mark>3,000/year</mark> |
| 2) School Events | Participation or sponsorship in school outreach events; attendees; (YTD) | 180; (395) | variable |
| 3) Agency Tours | Tours given to students and the public; # of people, (YTD) | 1; (7) | variable |
| 4) Odor Notifications | Number of odor alerts posted to the Agency website due to process or operational changes | G | 1-10 |
| | | | |

0

0

Number of odor complaints received from the public

5) Odor Complaints



BOARD MEMORANDUM

March 14, 2017

CMSA Commissioners and Alternates

From: Jason Dow, General Manager 과

Subject: CMSA Investment Policy

Recommendation: Approve the Agency's Investment Policy, Financial Policy #531.

Summary: The California Government Code requires a legislative body to annually adopt its investment policy if it delegates the investment authority. CMSA's Policy does delegate the investment of surplus funds to the Agency's Treasurer.

CMSA's Policy, Financial Policy #531, was last approved in March 2016. Staff intends to bring this Policy to the Board annually in March for consideration of approval.

Attachments

To:

- Government Code Section 53607: Investment of Surplus
- CMSA Financial Policy #531: Investments



State of California GOVERNMENT CODE

Section 53607

53607. The authority of the legislative body to invest or to reinvest funds of a local agency, or to sell or exchange securities so purchased, may be delegated for a one-year period by the legislative body to the treasurer of the local agency, who shall thereafter assume full responsibility for those transactions until the delegation of authority is revoked or expires, and shall make a monthly report of those transactions to the legislative body. Subject to review, the legislative body may renew the delegation of authority pursuant to this section each year.

(Amended by Stats. 1996, Ch. 749, Sec. 6. Effective January 1, 1997.)

| POLICY #: | 531 |
|-----------|-----------------------------|
| SECTION: | FINANCIAL – TREASURY |
| SUBJECT: | Investments |
| DATE: | 03/08/2016 |

PURPOSE

The purpose of the Investment Policy is to provide guidelines for prudent investment of the Agency's cash. This Policy covers all funds and investment activities under the direction of Agency in accordance with California Government Code Sections 53600, et seq.

STATEMENT OF INVESTMENT POLICY

Every June, the Treasurer/Controller shall submit to the Agency's Board this Investment Policy, where the Board shall review any changes in the policy and approve it at a public meeting.

OBJECTIVES

The Agency shall design and manage investments with a high degree of professionalism worthy of the public trust. The primary objectives, in order of priority of the Agency's investment activities, shall be:

I. Safety

Safety of principal is the foremost objective. Investments of Agency shall be made in a manner that seeks to ensure preservation of capital.

II. Liquidity

The investment portfolio shall remain sufficiently liquid to enable Agency to meet cash flow requirements which might be reasonably anticipated.

III. Yield

Investment return becomes a consideration only after the basic measurements of safety and liquidity have been met.

PRUDENCE

The Agency shall follow Section 53600.3 of the California Government Code that identifies as trustees those entities, i.e. California Asset Management Program (CAMP) and Local Agency Investment Fund (LAIF), authorized to make investment decisions on behalf of a local agency. As a trustee, the standard of prudence shall be the prudent investor standard. Investments shall be made with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the Agency, that a prudent person acting in a like capacity and familiarity with those matters



would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of Agency.

DELEGATION OF AUTHORITY

The Board of Commissioners shall delegate authority to invest Agency's funds for a one-year period to the Treasurer/Controller, who shall thereafter assume full responsibility for those transactions until the delegation of authority is revoked or expires. Subject to review, the Board may renew the delegation of authority each year. No person may engage in an investment transaction except as provided under the limits of this Policy.

The Treasurer/Controller may delegate day-to-day investment decision-making and execution authority to an investment advisor. The advisor shall follow this Policy and such other written instructions as are provided.

The Treasurer/Controller and the delegated staff acting in accordance with Policy and associated procedures and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and appropriate action is taken to control adverse developments.

INTERNAL CONTROLS

The Treasurer/Controller shall establish a system of controls to regulate the activities of internal staff and any external investment advisors, and be responsible for all transactions undertaken by these persons. No person may engage in an investment transaction except as provided under the terms of this Policy, other Treasury and Internal Controls policies, and the associated procedures established by the Treasurer/Controller and General Manager.

ETHICS AND CONFLICTS OF INTEREST

All participants in the investment process shall seek to act responsibly as custodians of the public trust according to this Policy and Policy # 503, *Ethics*. Officers and employees involved in the investment process shall refrain from personal business activities that could conflict with proper execution of the investment program, or which could impair their ability to make impartial investment recommendations and decisions.

AUTHORIZED INVESTMENTS

The Agency shall be governed by California Government Code Sections 53600, et seq. Within the investments permitted by the Government Code, the Agency seeks to further restrict eligible investments to those listed below. In the event an apparent discrepancy is found



between this Policy and the Government Code, the more restrictive parameters shall take precedence.

The Agency's portfolio shall be diversified by security type and institution to avoid incurring unreasonable and avoidable risks regarding specific security types or individual financial institutions. Where this section specifies a percentage limitation for a particular category of investment, that percentage is applicable only at the date of purchase.

I. United States Treasury Issues

United States Treasury notes, bonds, bills, or certificates of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest. There is no limitation as to the percentage of the portfolio that may be invested in this category.

II. Federal Agency Obligations

Federal Agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises. There is no limitation as to the percentage of the portfolio that may be invested in this category; however, not more than 30 percent of the portfolio shall be placed in any one Agency. Furthermore, purchases of callable Federal Agency obligations are limited to a maximum of 20 percent of the portfolio. In addition, purchases of Federal Agency mortgage-backed securities issued by or fully guaranteed as to principal and interest by government agencies are limited to a maximum of 20 percent of the portfolio.

III. Medium-Term Notes

Medium-term notes, defined as all corporate and depository institution securities with a maximum remaining maturity of five years or less, issued by corporations organized and operating within the United States or depository institutions licensed by the United States or any state and operating within the United States. Eligible investment shall be rated AAA by one or more nationally recognized rating service. A maximum of 30 percent of the portfolio may be invested in this category. The amount invested in medium-term notes with any one issuer in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

IV. Municipal Securities

Bonds, notes, warrants, or other evidences of indebtedness issued by the State of California or any California local agency. Securities eligible for purchase shall be rated AAA, as rated by one or more nationally recognized statistical-rating organization. A maximum of 30 percent of the Agency's portfolio may be invested in this category.



V. Negotiable Certificates of Deposit

Negotiable certificates of deposit (NCD) issued by a nationally or state chartered bank, a savings association or a federal association, a state or federal credit union, or a statelicensed branch of a foreign bank. No investments shall be made in a bank or credit union if a member of the Board, or any person with investment decision making authority also serves on the board of directors, or any committee appointed by the board of directors of the bank or credit union issuing the NCD. Purchases are limited to institutions which have long-term debt rated AA or higher with a nationally recognized rating service; and/or have short-term debt rated at least AA-1 with a nationally recognized rating service. NCD may not exceed two years in maturity. A maximum of 30 percent of the portfolio may be invested in this category. The amount invested in NCD with any one financial institution in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

VI. Banker's Acceptances

Banker's Acceptances, otherwise known as bills of exchange or time drafts, are those which are drawn on and accepted by a commercial bank. Purchasers are limited to issuers whose short-term debt is rated A-1/P-1. Banker's Acceptances cannot exceed a maturity of 180 days. A maximum of 25 percent of the portfolio may be invested in this category. Furthermore, the amount invested in Banker's Acceptances with any one financial institution in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

VII. Commercial Paper

Commercial paper of prime quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized statistical-rating organization. The entity that issues the commercial paper shall meet all of the following conditions in either paragraph (A) or paragraph (B):

- A. The entity meets the following criteria:
 - 1) Is organized and operating in the United States as a general corporation.
 - 2) Has total assets in excess of five hundred million dollars (\$500,000,000).
 - 3) Has debt other than commercial paper, if any, that is rated AA or higher by a nationally recognized statistical-rating organization.
- B. The entity meets the following criteria:
 - 1) Is organized within the United States as a special purpose corporation, trust, or limited liability company.

2) Has program-wide credit enhancements including, but not limited to, over collateralization, letters of credit, or surety bond.



3) Has commercial paper that is rated AA-1 or higher, or the equivalent, by a nationally recognized statistical-rating organization.

Eligible commercial paper shall have a maximum maturity of 270 days or less and not represent more than 10 percent of the outstanding paper of an issuing corporation. A maximum of 25 percent of the portfolio may be invested in this category. Furthermore, the amount invested in commercial paper with any one issuer in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

VIII. Repurchase Agreements

- A. Repurchase agreements are to be used solely as short-term investments not to exceed 30 days. The Agency may enter into repurchase agreements with primary government securities dealers rated AA or better by two nationally recognized rating services. Counterparties should also have:
 - 1) A short-term credit rating of at least A-1/P-1;
 - 2) Minimum assets and capital size of \$25 billion in assets and \$350 million in capital;
 - 3) Five years of acceptable audited financial results; and
 - 4) A strong reputation among market participants.

B. The following collateral restrictions shall be observed:

- Only U.S. Treasury securities or Federal Agency securities are acceptable collateral. All securities underlying repurchase agreements shall be delivered to the Agency's custodian bank versus payment or be handled under a properly executed tri-party repurchase agreement.
- 2) The total market value of all collateral for each repurchase agreement shall equal or exceed 102 percent of the total dollar value of the money invested by the Agency for the term of the investment.
 - For any repurchase agreement with a term of more than one day, the value of the underlying securities shall be reviewed on an on-going basis according to market conditions. Market value shall be calculated each time there is a substitution of collateral.
- 4)

3)

The Agency or its trustee shall have a perfected first security interest under the Uniform Commercial Code in all securities subject to repurchase agreement. The Agency shall have properly executed a PSA agreement with each counter party with which it enters into repurchase agreements. A maximum of 25 percent of the portfolio may be invested in this category.



IX. Time Certificates of Deposit

Time Certificates of Deposit (TCDs) placed with commercial banks and savings and loans. The purchase of TCDs from out-of-state banks or savings and loans is prohibited. The amount on deposit shall not exceed the shareholder's equity the financial institution. To be eligible for purchase, the financial institution shall have received a minimum overall satisfactory rating for meeting the credit needs of California Communities in its most recent evaluation, as provided Government Code Section 53635.2. TCDs are required to be collateralized as specified under Government Code Section 53630, et seq.

The Agency, at its discretion, may waive the collateralization requirements for any portion that is covered by federal insurance. The Agency shall have a signed agreement with the depository per Government Code Section 53649. TCDs may not exceed one year in maturity. A maximum of 20 percent of the portfolio may be invested in this category. Furthermore, the amount invested in TCDs with any one financial institution in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

X. Passbook Savings Accounts

Passbook savings accounts placed with commercial banks and savings and loans. To be eligible to receive deposits, the financial institution shall have received a minimum overall satisfactory rating for meeting the credit needs of California Communities in its most recent evaluation, as provided Government Code Section 53635.2. Passbook savings accounts are required to be collateralized as specified under Government Code Section 53630 et. seq.

The Agency, at its discretion, may waive the collateralization requirements for any portion that is covered by federal insurance. The Agency shall have a signed agreement with the depository per Government Code Section 53649. A maximum of 20 percent of the portfolio may be invested in this category. Furthermore, the amount invested in passbook savings accounts with any one financial institution in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

XI. Money Market Funds

Shares of beneficial interest issued by diversified management companies that are money market funds registered with the Securities and Exchange Commission under the Investment Company Act of 1940 (15 U.S.C. Sec. 80a-1, et seq.).

A. The company shall have met either of the following criteria:

1) Attained the highest ranking or the highest letter and numerical rating provided by not less than two nationally recognized statistical rating organizations.

2) Retained an investment adviser registered or exempt from registration



with the Securities and Exchange Commission with not less than five years' experience managing money market mutual funds with assets under management in excess of five hundred million dollars (\$500,000,000).

A maximum of 10 percent of the portfolio may be invested in this category.

XII. California Asset Management Program

Shares of beneficial interest issued by a joint powers authority organized pursuant to Government Code Section 6509.7 that invests in the securities and obligations authorized in subdivisions (a) to (n), inclusive of to Government Code Section 53601. There is no limitation as to the percentage of the portfolio that may be invested in this category.

XIII. State of California Local Agency Investment Fund (LAIF)

There is no limitation as to the percentage of the portfolio that may be invested in this category. However, the amount invested may not exceed the maximum allowed by LAIF.

TERM OF INVESTMENTS

It is the objective of the Agency to accurately monitor and forecast revenues and expenditures so that the Agency can invest funds to the fullest extent possible. Funds of the Agency shall be invested in accordance with sound treasury management principles.

Where this Policy does not specify a maximum remaining maturity at the time of the investment, no investment shall be made in any security, other than a security underlying a repurchase agreement, that at the time of the investment has a term remaining to maturity in excess of five years, unless the Board has granted express authority to make that investment either specifically or as a part of an investment program approved by the Board no less than three months prior to the investment.

PROHIBITED INVESTMENTS

Any investment in a security not specifically listed above, but otherwise permitted by the California Government Code, is prohibited. Section 53601.6 of the Government Code specifically disallows investments in invoice floaters, range notes, or interest-only strips that are derived from a pool of mortgages. In addition to the limitations in Government Code Section 53601.6, this Policy further restricts investments as follows:

I. No investment shall be made that has either (a) an embedded option or characteristic which could result in a loss of principal if the investment is held to maturity, or (b) an embedded option or characteristic which could seriously limit accrual rates or which could result in zero accrual periods.



- II. No investment shall be made that could cause the portfolio to be leveraged.
- III. Any security that could result in zero interest accrual if held to maturity shall not be made.

BANKS AND SECURITIES DEALERS

The Treasurer/Controller, with the concurrence of the General Manager, is authorized to make investments based on the recommendations of the Board approved investment advisor. For investments made by an investment advisor, the Board authorizes the investment advisor to use broker/dealers and financial institutions that the investment advisor has reviewed and approved for investment purposes. The investment advisor's approved list shall be made available to the Agency upon request.

PURCHASE, PAYMENT, DELIVERY, AND SAFEKEEPING

A competitive bid process shall be used to place all investment transactions. All security transactions entered into by or on behalf of Agency shall be conducted on a delivery vs. payment basis. All securities shall be held in Agency's name by a third party custodian designated by the Treasurer/Controller.

The only exception to the foregoing shall be depository accounts and securities purchases made with:

Local government investment pools;

II. Time certificates of deposit, and,

III. Money market mutual funds, since the purchased securities are not deliverable.

Evidence of each of these investments shall be held by the Treasurer/Controller.

PERFORMANCE

The Agency seeks to attain market rates of return on its investments throughout economic cycles, consistent with constraints imposed by its safety objectives and cash flow consideration. The Treasurer/Controller shall continually monitor and evaluate the portfolio's performance.

REPORTING

The Treasurer/Controller shall submit a monthly investment report to the Board. The report shall include the following information for each individual investment: description of investment instrument, issuer name, maturity date, credit rating, yield to maturity, purchase price, par value, current market value and the source of the valuation.



The report also shall:

- I. State compliance of the portfolio to the statement of investment policy, or manner in which the portfolio is not in compliance,
- II. Include a description of any of the Agency's funds, investments or programs that are under the management of contracted parties, including lending programs, and
- III. Include a statement denoting the ability of the Agency to meet its expenditure requirements for the next six months, or provide an explanation as to why sufficient money may or may not be available.

The report shall include a list of monthly investment transactions. This monthly report shall be submitted with the Board's monthly meeting agenda for public review.





BOARD MEMORANDUM

March 14, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Agency Internship Program Guidelines

Recommendation: Approve Administrative Policy/Procedure #18 - Agency Internship Program Guidelines.

Summary: CMSA has provided student internship opportunities since the early-1990s, and has primarily worked with students in the Santa Rosa Junior College's water/wastewater technical certificate program. Occasionally, the Agency has provided internships to students from other schools. Several current Agency employees started their wastewater careers as CMSA interns in the Santa Rosa Program, including Treatment Plant Manager Chris Finton, Operations Supervisor Jean St. Louis, Lead Operator David Ernst, and Operators Abraham Clark and Noel Rafalo.

A strategic action in the Agency's FY17 Strategic Business Plan is to "Draft an administrative procedure to outline and promote Agency internship opportunities." Staff has prepared the draft procedure, and met and reviewed its provisions with SEIU's Lead Steward. Several of the Steward's suggested changes have been incorporated into the draft procedure and it is now ready for Board review and consideration of approval.

Attachment:

Draft Administrative Policy/Procedure #18 - Agency Internship Program Guidelines.

| POLICY/PROCEDURE# | 18 |
|-------------------|---------------------------------------|
| SECTION: | ADMINISTRATIVE – GENERAL |
| SUBJECT: | Student Internship Program Guidelines |
| DATE: | 3/16/2017 |

PURPOSE

CMSA provides internships for students seeking careers in the water or wastewater industry. Internships are an opportunity for students to gain exposure in a public sector environment and to enhance their academic training.

ELIGIBILITY

Student interns must be currently enrolled in an undergraduate or graduate degree, Career Technical Education (CTE), Regional Occupational Program (ROP), or similar program. Internship opportunities for interested students less than 18 years of age may be granted with approval from the Agency's General Manager.

EMPLOYMENT STATUS

<u>Un-paid Internships</u> - Student interns typically receive program credit or time-in-service credit that is applied towards licensing and/or certification. Assignments will not exceed 1,000 hours or one (1) school semester, whichever is less, for any participant, and unpaid interns are not eligible for Agency Benefits. Workers' compensation insurance must be provided by the student's educational program.

<u>Paid Internships</u> - Student interns for projects and assignments that provide valuable work experience for the student and useful services to the Agency may be eligible for a paid internship. Assignments will not exceed 1,000 hours or one (1) school semester, whichever is less, for any participant, and paid interns are not eligible for Agency benefits (except workers' compensation and state disability insurance).

PROCEDURE

- I. Work Assignments
 - A. Department managers may request student interns by submitting a request (Exhibit A) to the General Manager/designee for approval. Requests must include:
 - 1) Anticipated starting and ending dates.
 - 2) Anticipated working hours.
 - 3) A description, or draft learning plan, of the projects and/or tasks to be performed and how they will be integrated into other on-going Agency programs and activities.

- 4) How the student intern will benefit from the training and experience of such work assignments.
- 5) The academic major(s) most closely related to acceptable performance of the task or project.
- 6) A statement specifying "how this internship would benefit the Agency"
- 7) The internship experience is solely for the benefit of the intern.
- 8) A statement, if a paid internship is awarded, that funds are budgeted to pay the Student Intern.
- B. An Agency employee, currently in a lead or supervisory role, will be designated as the student intern's mentor/supervisor and is responsible for the intern's day-to-day training, supervision, and evaluation.
- II. Intern Request and Selection
 - A. Intern requests may include advertising of internship opportunities through junior college, college, and university placement and counseling offices, academic departments, student associations, career/job fairs, and recognized internship programs.
 - B. Applicants interested in student internships with the Agency are required to meet with their academic advisor to determine internship eligibility, and provide:
 - 1) A completed CMSA job application form and/or current resume.
 - 2) Proof of current enrollment in an authorized program.
 - 3) Proof of Workers Compensation Insurance coverage (unpaid interns).
 - 4) Current references whom the Agency can contact regarding the applicant's skills, knowledge, and work abilities.
 - C. The selection process shall be conducted jointly by the manager and designated staff. Selection criteria shall include but is not exclusive of, evaluation of applicable job-related experience, core academic course work and program tenure, and job application and/or personal resume.
 - D. Department manager and mentor/supervisor shall meet (phone conferences acceptable) with the student intern and their work experience counselor/student advisor to review the following:
 - 1) Grade/credit expectations
 - 2) Work experience desired
 - 3) Potential hours and schedule

III. Introduction and Orientation

A. During the first week of the internship, the student intern will meet with their mentor/supervisor to develop and review the internship learning plan. The

learning plan will identify learning objectives and specific strategies for meeting each objective. Learning objectives must be related to the following areas:

- <u>Academic Learning and Application</u>: Related to the ideas, concepts, or theories of the student's major or minor field(s) of study. Work should include a variety of pre-professional tasks on a variety of projects and assignments.
- <u>Skills Development</u>: Skills specific to the student's academic/major or occupation, and/or general skills such as oral and written communication, critical thinking, organization, problem-solving, decision-making, interpersonal relationships, etc.
- 3) <u>Personal Development</u>: Self-confidence, self-awareness, self-management, and sensitivity.
- B. Student Interns shall receive an Agency orientation during their first week of employment that will include the following:
 - 1) Organization overview mission, culture, structure.
 - 2) Conduct expectations work rules, communication, and harassment prevention.
 - 3) Safety training employee safety training checklist completed by Safety Coordinator and/or Safety Director.
 - 4) Facility tour.
 - 5) Work Schedule.
 - 6) Paid internship On the first day of scheduled work, terms of compensation and payroll/time records must be completed.
 - 7) Workers Compensation Proof of Workers Compensation through sponsoring institution.

C. Guidelines for the mentor/supervisor:

- 1) Agency Vacancies Student interns are not authorized to perform as, occupy, or cover for Agency positions.
- 2) Avoid skipping or compressing the onboarding process.
- 3) Do not leave interns unsupervised.
- 4) Integrate socialization and networking opportunities.
- 5) Provide feedback and recognition on a regular basis.
- 6) Explain the significance or contribution made to the Agency while assigning projects.
- 7) Do not let the student's performance "slide," remedy as appropriate.
- 8) Avoid over-accommodating student's needs, and instead give him/her opportunities to take the initiative where appropriate. Document student's activities if required as part of their educational program.

- IV. Evaluation
 - Mentors/supervisors are expected to evaluate intern progress on a continuous, on-going basis.
 - B. Mentor/supervisor will seek out staff feedback on intern's work habits, and communication and language skills, personality traits, and friendliness.
 - C. Mentor/supervisor must verify Monthly Time Records (Exhibit B).
 - D. Extension of Ending Date
 - Department managers wishing to extend a student intern's assignment beyond the original ending date must obtain approval from the sponsoring institution and the General Manager/designee.
 - 2) Paid internships A personnel action form shall be provided to the General Manager describing the terms for this extended period.

V. Conclusion of Internship

- A. At the end of the internship, the mentor/supervisor shall conduct an oral interview with the intern to test their learning of the established objectives in their learning plan.
- B. Mentor/supervisor shall meet with the student intern and work experience counselor/ student advisor at the conclusion of the internship to review and provide the following:
 - 1. Grade/credit information to intern and work experience counselor and/or college.
 - 2. If the internship is for wastewater treatment plant operator-intraining (OIT) experience, provide documents (time records, duty statement) verifying the experience to chief plant operator for signature.

Exhibits

A - Internship Request Form

B - Monthly Time Record



BOARD MEMORANDUM

March 14, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Amendment #1 to the Commercial Food Waste Processing and Disposal Services Agreement

Recommendation: Approve Amendment #1 to the CMSA and MSS Commercial Food Waste Processing and Disposal Services Agreement.

Summary: CMSA and MSS entered into a Commercial Food Waste Processing and Disposal Services Agreement (Agreement) in May 2013 to support the Central Marin Food-to-Energy Program (Program). In January 2014, MSS began delivering pre-processed food waste to CMSA's organic waste receiving facility two days per week for pilot testing, and within a few months, began delivering food waste six days per week. Currently, CMSA is receiving upwards of 8 tons of food waste per day and 178 restaurants and markets in the MSS service area participate in the Program. The Program has been very successful, is the primary element in the Agency's organic waste receiving program, and has contributed to tripling of the Agency's biogas production. Currently, CMSA's cogeneration system is producing over 23 hours per day of renewable power.

During a recent Program tour for County of Marin staff, MSS and CMSA representatives discussed the Agreement term and several potential revisions to align with current Program practices and to address minor issues. We were surprised to discover the original Agreement term had expired in May 2016. Staff proposed and MSS agreed with extending the Agreement term to September 30, 2017 to provide adequate time to revise the agreement, then bring it to the CMSA Board for discussion and later approval.

Attachment:

 Amendment #1 to the CMSA and MSS Commercial Food Waste Processing and Disposal Services Agreement



CENTRAL MARIN SANITATION AGENCY

Jason R. Dow P.E. General Manager

1301 Andersen Drive, San Rafael, CA 94901-5339

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AMENDMENT #1

COMMERCIAL FOOD WASTE PROCESSING and DISPOSAL SERVICES AGREEMENT

This Amendment to the Agreement is dated this March 17, 2017, and is made by and between Central Marin Sanitation Agency (hereinafter CMSA), a joint powers agency in Marin County, California and Marin Sanitary Service, Inc. (hereinafter MSS).

RECITALS

- A. CMSA entered into a Commercial Food Waste Processing and Disposal Services Agreement with MSS, dated May 20, 2013, for MSS to collect, pre-process, and deliver commercial food waste to CMSA for the central Marin Food-to-Energy Program; and
- B. CMSA and MSS now desire to amend the Agreement to extend the term of the Agreement.

NOW, THEREFORE, in consideration of the recitals and mutual promises contained herein, CMSA and MSS agree to amend the above referenced Agreement as follows:

1) <u>Term</u>: Extend the term of the Agreement, pursuant to Article 4.02a, from May 20, 2016 to September 30, 2017.

All other terms and provisions of the Commercial Food Waste Processing and Disposal Services Agreement dated May 20, 2013 remain unchanged.

IN WITNESS THEREOF, the parties have executed this Amendment and accept all terms and conditions this _____ day of March, 2017.

Marin Sanitary Service, Inc.

Central Marin Sanitation Agency

Patty Garbarino, President

Jason Dow, General Manager



BOARD MEMORANDUM

March 14, 2017

To: CMSA Commissioners and Alternates

From: Brian Thomas, Technical Services Manager Jason Dow, General Manager

Subject: Maintenance Facility Modifications Project – Construction Contract Award (CMSA Contract No. 17-06)

Recommendation: Award the construction contract for the Maintenance Facility Modifications Project to Buhler Commercial, and authorize the General Manager to execute the contract agreement.

Summary: Public bids were opened for the Maintenance Facility Modification Project's construction contract (Project) on March 3, 2017. Buhler Commercial (Buhler) was the lowest, responsive, responsible bidder with a bid of \$1,015,000. If the construction contract is awarded by the Board, the Project's Notice to Proceed with the construction work will be issued no later than March 30, 2017, and construction should be substantially completed in November 2017.

Background: The Board adopted the Project's contract documents and authorized staff to advertise the Project for public bidding at the September 2016 Board meeting. Due to a high bid amount (\$1,447,750) and lack of bidders (only one bid was received), the Board accepted a staff recommendation at the November 2016 meeting to reject all bids and authorized staff to re-advertise the Project for public bidding in early 2017. Staff and FME Architecture & Design subsequently prepared revised construction contract documents to include contract addenda and other minor changes, and FME revised their engineer's estimate of the probable construction cost to \$1,004,000. The Project's Notice Inviting Bids was issued on January 27, 2017, and bids were opened on March 3. Six bids were received, opened, and reviewed by staff as shown in attached Bid Opening Results Form. Buhler's low bid exceeded the revised engineer's estimate and the Project's adopted FY17 capital budget of \$925,000.

The Project's scope of work includes modifications to the Maintenance Building to create additional office space, remodel existing restrooms, and enclose the open side of the building for additional storage, and to construct a new storage building adjacent to the Maintenance Annex. Grading improvements between the Administration Building and the Maintenance Building for better access and to comply with ADA accessibility requirements are also included in the Project's scope of work. During the course of construction, maintenance and electrical/instrumentation staff will work out of a temporary office building that will be placed near the chlorine contact tanks and chemical storage building. The green areas in Figure 1, below, show the improvement areas in the Maintenance Building.

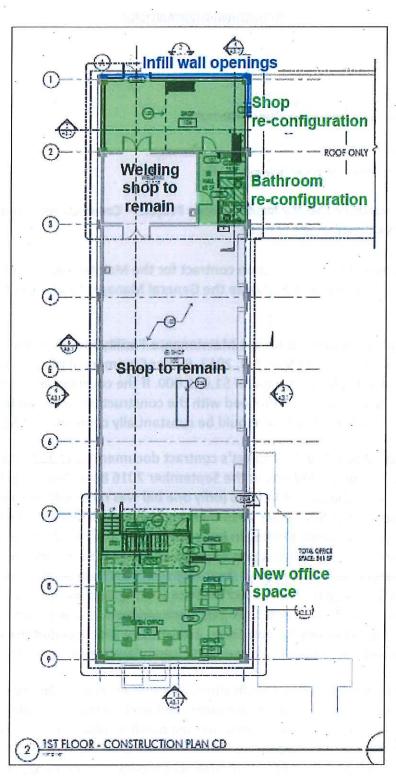


Figure 1: Planned Modifications to the Maintenance Building

Page 2 of 3

Figure 2, below, shows the approximate location of the new storage building that will be behind the existing Final Effluent Sampling Building, at the east end of the Agency property.



Figure 2: New Storage Shed Location

Fiscal Impact: The Project's adopted FY 17 Capital Improvement Program (CIP) budget is \$925,100, and includes funds to complete the Project's design and its various construction activities. The total project cost is estimated to be \$1,274,870. Staff will re-allocate funds during the FY 18 CIP budget development process to provide adequate funds for the Buhler construction contract work (\$1,015,000), potential construction change orders (10% of construction contract; \$101,500), FME's engineering services during construction (\$35,490), Dee Consultant's construction management support services (\$88,780), temporary office building rental (\$10,100), and other expenses for soils testing and office furniture (\$24,000).

Alignment with Strategic Plan: This project is a strategic action to support Goal 5 – Objective 5.3 in the Agency's FY17 Strategic Business Plan as shown below.

Goal Five: CMSA will attract and retain high quality employees by providing a work environment that motivates staff, fosters professional development, values diversity, and promotes a culture of safety.

Objective 5.3: Enhance the employee work culture.

Action: Create a new storage area and modern work space by completing the maintenance facility modification project.

Attachment:

- Bid Opening Results Form

Central Marin Sanitation Agency Maintenance Facility Modifications Project CMSA Contract No. 17-06 **Bid Opening Results** March 3, 2017

| Bidder | Bid Amount |
|---|---------------------------------------|
| EF Brett. | 半 1,198,410 |
| | |
| Southwest Construction & Property Manager | nent, & 1,447,750 |
| | |
| CWS Construction Group Inc. | \$ 1,072,000 |
| | |
| Buhler Commercial | \$1,015,000 |
| | |
| Argotti & Reilly | 年 1,487,660 |
| 7 | |
| WMB General Contractors | \$1,27(,500 |
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BOARD MEMORANDUM

March 14, 2017

To: CMSA Commissioners and Alternates

From: Brian Thomas, Technical Services Manager

Approved: Jason Dow, General Manager

Subject: Construction Management Services Task Order with Dee Consultants

Recommendation: Approve Task Order #4 with Dee Consultants for construction management services for the Maintenance Facility Modifications Project, and authorize the General Manager to execute the Task Order.

Summary: Dee Consultant's (Consultant) scope of work in Task Order #4 includes construction management activities related to schedule management and coordination, construction activity observation and documentation, construction document processing, review of contractor progress payment requests, and, if necessary, construction contract change order negotiation and documentation. The estimated fee allowance of \$88,780 assumes the Consultant will work three days per week for the Project duration of 225 calendar days. Agency staff will conduct daily construction inspections and other project management activities with Consultant oversight.

Discussion: At their June 2014 meeting, the Board approved a task order based Professional Services Agreement with Consultant to provide construction management services for various Capital Improvement Program projects. The intent of the agreement is to provide the Agency with a resource to perform specialty construction management and inspection services and act as an extension of staff during on-site construction activities.

Engineering staff will have the opportunity to learn from Isaac Dee, who has the necessary skill set and technical experience to manage and inspect building construction. Mr. Dee began his construction management career working for Harris & Associates on the Central Marin Wastewater Grant Program in the early 1980's, and was actively involved with the construction of CMSA and several JPA member agency pump stations and forcemains.

Attachment:

Task Order #4 with Dee Consultants, LLC

Task Order No. 4

Construction Management Services for Maintenance Facility Modifications Project (Contract No. 17-19)

General

The work described below shall be performed in accordance with the Task Order Based Professional Services Agreement between the Central Marin Sanitation Agency ("Agency") and Dee Consultants, LLC ("Consultant"), dated June 11, 2014.

Construction Management Services

Isaac Dee will serve as the construction manager and Agency staff will provide inspection services and project management support during construction.

Consultant will provide as-needed construction management services to support the Agency's engineering staff for the Maintenance Facility Modifications Project. These services include, but are not limited to:

- Observe the construction activity and notify the Agency of any incidents or issues.
- When on-site, prepare daily reports of the Contractor's activities, staffing, equipment usage, and working conditions using the Agency's inspection form.
- Coordinate contractor activities with Agency staff.
- Lead weekly construction progress meetings. Agency staff will prepare meeting agendas and minutes under guidance from the Consultant.
- Coordinate and prepare responses to Contractor Requests for Information (RFIs).
- Coordinate review of Contractor submittals and prepare responses for selected submittals that do not require designer review.
- Review progress payments and recommend that the Agency either approve the payment or direct the Contractor to modify the payment request to reflect the appropriate level of work.
- Review the initial construction schedule and subsequent schedule updates to track critical path activities, and review and comment on the Contractor's proposed schedule changes.
- Review submittals, RFIs, and other construction-related correspondences and determine when the designer or its sub-consultants will need to be involved.
- Ensure responses are completed in a timely manner in accordance with the contract documents.

- Serve as the Agency's point of contact with the San Rafael Building and Fire Department inspectors.
- Oversee inspections by the Agency engineers, provide guidance for technical inspections, and determine when the designer needs to perform specialty inspections.
- Manage change order negotiations and documentation as well as cost and schedule impact verification. Prepare the appropriate documentation for each change order.

Estimated Budget

The fees for furnishing the Services to be performed under this Agreement are estimated to be:

Isaac C. Dee,

772 hours* @ \$115/hour = **\$88,780**

Senior Project Manager

*Estimated based on working approximately 8 hours per day and 3 days per week, spent between working on-site and working from home for project duration of 225 calendar days

Accepted this _____ day of March, 2017

Jason R. Dow General Manager Isaac C. Dee Senior Project Manager



To:

BOARD MEMORANDUM

March 14, 2017

CMSA Commissioners and Alternates

From: Brian Thomas, Engineering Manager Jason Dow, General Manager 🖚

Subject: PG&E Interconnection Agreement Modification Project Update

Recommendation: Informational, receive a report from staff regarding the PG&E Interconnection Agreement Modification Project status, and provide comments and/or direction to staff, as appropriate.

Summary: Additional deliveries of organic feed stocks have significantly increased biogas generation in the anaerobic digesters. CMSA's electrical cogeneration system currently powers the Agency's facilities for an average of 23 hours per day with biogas as its fuel source. CMSA expects there will be sufficient biogas generation in the future to meet the facility's power demand and regularly supply power to the electrical grid. However, PG&E's Interconnection Agreement (IA) currently prohibits CMSA from supplying power to the grid.

In July 2016, the Board authorized the General Manger to submit an IA Modification Application to PG&E and a Clean Water State Revolving Fund (CWSRF) Planning Grant Application. As part of the IA modification process, staff also submitted a Renewable Energy Certification request to the California Energy Commission (CEC) and began the process to obtain a Western Renewable Energy Generation Information System (WREGIS) identification number. In accordance with Board direction in October 2016, power sale applications have been submitted to Marin Clean Energy (MCE) and PG&E.

Application Status: The following is a status update of the various applications that have been submitted for this project.

<u>PG&E IA Modification Application</u> – The IA application was submitted to and accepted by PG&E on September 21, 2016. PG&E used information in the IA application to conduct an Initial Review to determine how CMSA's power generation would affect their electrical distribution grid. PG&E completed the Initial Review in November 2016 and staff reported at the December 2016 Board meeting that the Agency did not pass several of its screening elements, requiring a more detailed Supplemental Review to determine the specific power distribution system upgrades that are required before CMSA can connect to the power grid. The Supplemental Review report was finalized in January 2017 and identified an estimated \$75,000 in PG&E distribution grid improvements that must be paid for by CMSA. The Supplement Review also identified other CMSA power system improvements that may be necessary. These CMSA specific improvements require further design analysis by our energy consultant. Using information from the Initial and Supplemental Review Reports, PG&E prepared and delivered a draft Interconnection Agreement to CMSA for review and comment in February. Staff submitted several comments and questions to PG&E that have been addressed. PG&E is currently preparing the final draft version of the Interconnection Agreement, and staff expects to bring the agreement to the Board for consideration at the April meeting.

<u>WREGIS Identification Number</u> – WREGIS is an independent tracking system for renewable energy generation units, and staff submitted a WREGIS application last fall. CMSA is now a WREGIS account holder which is sufficient status for the CEC to process CMSA's Renewable Energy Certification application. A WRGIS identification number cannot be issued until a new Interconnection Agreement is executed and a power sale agreement is negotiated.

<u>CEC Renewable Energy Certification</u> – Renewable Energy Certification from the CEC is required before CMSA can net meter and sell renewable power to either MCE or PG&E. The CEC has accepted CMSA's application and staff has been told that the Renewable Energy Certification will not be issued until the end of the power sale agreement negotiation process with either MCE or PG&E.

<u>MCE Feed-In-Tariff Application</u> – MCE is currently offering their standard Feed-In-Tariff (FIT) pricing of \$0.10 per kWh for a term of 20 years. Staff submitted the MCE FIT application to MCE on March 8, 2017. It may be possible to obtain better pricing if CMSA's power could be "dispatchable" (i.e. the ability to send a specific amount of power to MCE within a specific timeframe upon request from MCE) or through a sell all/buy all power agreement. All of these power sale options require further analysis and economic modeling to determine the most cost effective alternative. Staff has scheduled and appointment with MCE to discuss these potential power sale options and to define the underlying assumptions that will be used in the economic modeling.

<u>PG&E E-BioMAT Feed-In-Tariff Application</u> – The E-BioMAT FIT currently offers the best power sale rate at \$0.128 per kWh. An E-BioMAT FIT application was submitted on March 10, 2017 and is currently under review by PG&E. After PG&E deems the E-BioMAT FIT application complete, CMSA must wait for the next Program Period (bi-monthly auction) to begin in which PG&E will offer Power Purchase Agreements (PPA) to projects in the queue. If CMSA is offered a PPA, CMSA has 10 business days to accept or reject the price. If CMSA accepts the price, CMSA will enter into a 10, 15, or 20 year PPA. If CMSA is not offered a PPA, CMSA can wait for the next Program Period. However, the offer price may change in the next Program Period based on the participation level in the auction.

<u>CWSRF Planning Grant Application</u> – The CWSRF has a Green Project Reserve (GPR) program that offers planning and design/construction loans for green infrastructure, water efficiency energy efficiency, and environmentally innovative activities and projects. For planning activities, 75% of the costs are "forgiven" and the remaining costs are funded by a 1.7% interest rate on a

20 year loan. Staff submitted a GRP application in September 2016 and has been in constant contact with CWSRF staff to determine its review status. Our application's Plan of Study includes \$630,000 in planning activity costs, most of which are from Agency's Interconnection Agreement Modification and Facilities Master Plan projects.

While the CWSRF staff had previously indicated that the application was under final review, CMSA received a request on March 10, 2017 to verify information in the original application packet. Staff has responded to that request and has been told that the next step will be for the CWSRF staff to proceed with approval of the financing. After that process is complete, the application will be routed for final approval. No specific information was given for the timeline to complete these approvals.

CWSRF staff has indicated that CMSA cannot seek reimbursement for Plan of Study costs that are incurred before the GRP application is approved. In response to this information, CMSA has delayed several activities in the Plan of Study that are from the 2017 Agency Facilities Master Plan project, such as tasks for the Biogas Utilization, Organic Waste Receiving Facility, Solar Power Generation, and Biosolids Management Alternatives.

Alignment with Strategic Plan: This project is a strategic action to support Goal 3 – Objective 3.1 in the Agency's FY17 Strategic Business Plan as shown below.

| Goal Five: | CMSA will further incorporate green business principles and consider renewable resource opportunities in its short- and long-term planning. |
|----------------|---|
| Objective 3.1: | Investigate and implement steps to supply the Agency's extra power. |
| Action: | Develop a new Interconnection Agreement with PG&E. |
| Action: | Determine and implement any improvements to supply power to the PG&E utility grid. |
| Action: | Negotiate power sale agreements. |