



Central Marin Sanitation Agency

COMMISSION REGULAR MEETING AGENDA

Tuesday, July 10, 2018

at the Agency Office

7:00 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. 7:00 p.m.: Call Meeting to Order/Pledge of Allegiance

2. Roll Call

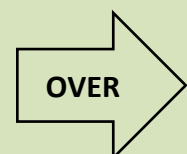
3. Open Period for Public Participation

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—June 12, 2018
- b) Treasurer's Report—Operating Account—June 2018
- c) Schedule of Investments—June 2018
- d) NPDES, Process, and Maintenance Report—June 2018
- e) Performance Metric Report—June 2018
- f) Regulatory Consulting Services Agreement with MMO Consulting
- g) Resolution of Appreciation for Kit Groves
- h) FY 2018 Asset Management Report—Annual Report
- i) Emulsion Polymer Supply Contract Extension



5. **FY 2018-19 Commission Officers, Finance Committee, and North Bay Watershed Association Board Appointments**
Recommendation: Nominate and select commissioners for the Commission Chair, Vice Chair, and Secretary offices, and appoint commissioners to the standing Finance Committee and NBWA Board of Directors.
6. **Participation in the MCE Deep Green Program**
Recommendation: Consider participating in the MCE Deep Green Program, and provide direction to staff, as appropriate.
7. **Proposed FY 19 Agency Business Plan**
Recommendation: Approve the FY 19 Agency Business Plan, and provide comments and/or direction to the General Manager, as appropriate.
8. **Reject All Bids for the Pavement Rehabilitation Project**
Recommendation: Reject all bids for the Pavement Rehabilitation Project, and provide comments or direction to the General Manager, as appropriate.
9. **Cancel September Board Meeting and Reschedule the August Board Meeting**
Recommendation: Consider cancelling the September 11 regular Board meeting, and rescheduling the August regular Board meeting to August 21 or 23.
10. **North Bay Watershed Association (NBWA) Report***
11. **Oral Reports by Commissioners/General Manager***
12. **Next Scheduled Meeting**
Tuesday, August 14, 2018 at 7:00 p.m. at the Agency office, unless rescheduled at this meeting.

*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.



Central Marin Sanitation Agency

**COMMISSION REGULAR MEETING MINUTES
Tuesday, June 12, 2018
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 www.cmsa.us.
The time stamps on these minutes refer to the items' start times on the audio 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/Pledge of Allegiance

Chair Furst called the meeting to order at 7:02 p.m. A quorum was present.

2. Roll Call

00:00:30

Present: Chair Diane Furst; Vice Chair Tom Gaffney; Commissioners Maribeth Bushey, Michael Boorstein, Dean DiGiovanni, and Dan Hillmer

Absent: None

Staff present: Jason Dow, General Manager; Mark Koekemoer, Lab Director; and Kate Brouillet, Recording Secretary

Public present: Betsy Clark, Larkspur resident; Sarah Loughran, San Rafael resident; Helene Marsh, Corte Madera resident; Tom Flynn, Larkspur resident; Katherine Da Silva Jain, Lucas Valley resident; Pat Carlone, San Geronimo resident; Felicia Newhouse of RVSD and one person who did not sign in.

3. Comments from the Public:

00:00:55

There were no comments from the public.

4. Consent Calendar

00:01:08

- a) Minutes—Regular Board Meeting—May 12, 2018
- b) Treasurer's Report—Operating Account—May 2018
- c) Schedule of Investments—May 2018
- d) NPDES, Process, and Maintenance Report—May 2018
- e) Performance Metric Report—May 2018
- f) Fiscal Year 2018-19 Schedule of Base Salaries by Job Classification
- g) Revised Agency Conflict of Interest Code—Resolution No. 329
- h) Biosolids Hauling Services Contract—CMSA Contract No. 18-36
- i) Laboratory Director Compensation Adjustment
- j) CASA 2018 Annual Conference

Chair Furst asked if there was a motion on the Consent Calendar, or if any items needed to be removed for discussion.

GM Dow stated that regarding item 4f, the Fiscal Year 2018-19 Schedule of Base Salaries by Job Classification, he had an updated handout of the salary schedule that included the new Associate Engineer job description, and removed the two Maintenance Repair classifications that are no longer in use. He distributed the handout and indicated it should be considered in lieu of the one included in the agenda packet.

Chair first asked for a motion on Consent Calendar items 4a-4j.

Comments from the Public:

There were no comments from the public.

ACTION: Commissioner Boorstein moved to approve the Consent Calendar items 4a-4j; second, Commissioner Hillmer.

Ayes: BOORSTEIN, BUSHEY, DIGIOVANNI, FURST, GAFFNEY, HILLMER

Nos: NONE

Abstentions: NONE

Commissioner Gaffney suggested that agenda item No. 6, regarding the Agency's participation in MCE's Deep Green program, be moved up to accommodate the members of the public present.

ACTION: Commissioner Gaffney moved for the Board to consider agenda item No. 5 ahead of item No. 6; second, Commissioner Boorstein.

Ayes: BOORSTEIN, BUSHEY, DIGIOVANNI, FURST, GAFFNEY, HILLMER

Nos: NONE

Abstentions: NONE

6. Participation in the MCE Deep Green Program

00:03:00

GM Dow stated that at the May Board meeting, during public open time, two members of the public spoke to the Board about the MCE Deep Green Program and asked the Board to consider authorizing CMSA's participation in FY 19. He stated that staff was directed to contact MCE to obtain a cost estimate to participate in its Deep Green Program. He said that staff did so and learned that moving the Agency's energy procurement from the Light Green Program to the Dark Green Program will cost, approximately, an additional \$3,162 per year. GM Dow referred to the staff report with the attachment showing MCE's cost estimate with a list of the Deep Green Program attributes and benefits.

Commissioner Bushey stated she asked staff to do some research on the basis of MCE's zero emissions, especially during periods of low renewable energy generation and peak CMSA energy demand.

GM Dow stated that he had a brief discussion with Chris Kubrick at MCE. He summarized their conversation and said that MCE's Deep Green Program is 50% wind/50% solar, but the time of maximum procurement does not necessarily coincide with the time of maximum demand, that intermittent power is added to the portfolio, and that they are compliant with various accounting and green certification requirements.

Commissioner Bushey said she would like several questions answered regarding MCE's Deep Green program, including an explanation of the breakdown of the renewable power percentages as noted on MCE's website, sources of the intermittent power, and availability of renewable power during peak CMSA energy demand periods. She said Ms. Kubrick could be invited to come to a Board meeting to answer her questions.

The Board had a brief discussion and concurred that they would like to have answers to the above questions.

GM Dow said he could contact Ms. Kubrick to invite her to come to the July Board meeting to address the Board's questions.

Chair Furst asked GM Dow to give a very brief description of the Agency's cogeneration system for the benefit of the public in attendance. GM Dow provided a concise overview of the cogeneration system.

Comments from the Public:

Ms. Helene Marsh thanked the Board for including this item on the agenda, and stated that she fully supports CMSA going to MCE's Deep Green program. She then handed out a list of the nineteen agencies in Marin that are part of the Deep Green Program.

Ms. Sarah Loughran stated that she fully supports CMSA taking the final step to purchase 100% renewable energy, and urges the Board to vote to join MCE's Deep Green Program.

Tom Flynn stated that he supports the questions from the Board, and his opinion is that the efforts by MCE have been very respectable in providing a green product, and that Deep Green largely a symbolic gesture in supporting green energy.

Ms. Katherine Da Silva Jain concurred with the previous comments, stated that she supports CMSA's participation in MCE's Deep Green Program, and urged the Board to support MCE.

The Board discussed MCE's Deep Green Program, including receiving answers to the above questions, the cost of the program, other agencies that are enrolled in the Deep Green Program, and the potential for the Agency to generate 100% renewable power.

GM Dow stated the Agency currently requires a minimal amount of purchased power to be used during preventative maintenance of the cogeneration engine. He said that there is a future planned CIP project to purchase an additional, more

efficient cogeneration system while maintaining the existing system as a back-up, which could potentially enable the Agency to generate 100% renewable power all of the time.

ACTION: Commissioner Boorstein moved to continue the discussion of this item to the July Board meeting; second, Commissioner DiGiovanni.

Ayes: BOORSTEIN, BUSHEY, DIGIOVANNI, FURST, GAFFNEY, HILLMER

Nos: NONE

Abstentions: NONE

Chair Furst thanked the members of the public for attending, and they then left the meeting.

5. Data Management System Project Status Report 00:37:15

GM Dow stated that in September the Agency purchased two information management systems, and since then the software has been installed, employees have received vendor training, and Mark Koekemoer, the Agency Lab Director, has led a project team to migrate laboratory and process data, design various reports, and implement other project activities. GM Dow said the project has been very successful, and then introduced Mr. Koekemoer to present the status of the project.

Mr. Koekemoer gave a Power Point presentation that described the WIMS database which allows all Agency departments to actively enter data, review data, conduct data analysis, and generate reports; and the LIMS database that is specific to laboratory operational requirements related to documenting sample handling, method analysis requirements, standard traceability, workload analysis, and automated NPDES permit regulatory documentation and notification. Mr. Koekemoer said that both systems interface with SCADA while maintaining the necessary firewall to prevent unauthorized access to the SCADA system. He said that the project came in at approximately 17% below the \$130,637 budget for both systems.

GM Dow stated that Mr. Koekemoer's experience and expertise with the software was beneficial in the efficient launching of the program and for in-house staff training.

The Board was pleased with the project's success and how it is streamlining processes, eliminating duplication of efforts, and increasing accuracy.

The Board asked a few questions including redundancy and backups, standard testing procedures, and systems used by other facilities. Mr. Koekemoer and GM Dow answered the Board's questions.

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

7. Fiscal Year 2017-18 Business Plan Year-End Report 01:00:10

GM Dow stated that in July 2017, the Board adopted the Agency's FY 2017-18 Business Plan (Plan) with Objectives and Actions to achieve a set of goals that align with the Agency's Mission, Vision, and Value Statements in its adopted 5-year Strategic Business Plan (SBP). He stated that the Plan provides a guide for maintaining and continuously improving the Agency's operations and services, sets organizational priorities, and guides fundamental decisions/actions that shape Agency activities into the future. GM Dow said the Agency Strategic Planning Committee (ASPC) developed implementation schedules to achieve the 20 Objectives and 82 strategic Actions associated with those Objectives. He stated that there were 61 Actions that were completed and 21 that are ongoing.

GM Dow highlighted the noteworthy completed Actions within each of the six Goals, and commended the staff on their good work on the Plan's activities.

Commissioner Gaffney suggested changing "On-going" to "Continuous," and use "In Progress" or similar words, to clarify the status terminology.

GM Dow said that these updates could be added to the next year's report, with an explanation of the terms in the Board report.

The Board commented that the Plan's results were impressive.

Comments from the Public:

There were no comments from the public.

ACTION: Commissioner Bushey moved to accept the FY 17-18 Business Plan Year-End Report with accolades; second, Commissioner DiGiovanni.

Ayes: BOORSTEIN, BUSHEY, DIGIOVANNI, FURST, GAFFNEY, HILLMER

Nos: NONE

Abstentions: NONE

8. Agency Representatives for the Westamerica Bank Signature Card 01:06:19

GM Dow stated that the Agency's checking account service is provided by Westamerica Bank, and two Agency representative signatures are required on all checks. He said that in March 2015, the Board discussed Agency representatives that could be authorized to sign Agency checks, and decided to fully delegate the check signing responsibility to staff. The Board approved the General Manager, the Treatment Plant Manager, the Environmental Services Manager, and the Technical Services Manager as Agency representatives.

He stated with the retirement of the Environmental Services Manager in October 2016 and the recent separation of the Technical Services Manager, the Agency now only has two check signers, and given the approximate four-month Technical Services Manager recruitment period and last year's reorganization that eliminated

the Environmental Services Manager position, staff recommends the Board reconsider authorizing one or two Commissioners as Agency check signers.

The Board asked a few questions regarding the check approval process, wire transfers and ACH transactions, and discussed Board members who would be available for checking signing. GM Dow answered the Board's questions.

Chair Furst stated that she may or may not be appointed to the CMSA Board of Commissioners after the Corte Madera Town Council's next election, and asked if Commissioner Gaffney would be available.

Commissioner Gaffney stated he would be willing to be the representative, and asked if a Public Official Bond would be required. GM Dow responded that he would need a bond, and staff would contact CSRMA to provide it.

Comments from the Public:

There were no comments from the public.

ACTION: Commissioner Bushey moved to nominate Commissioner Gaffney to be an Agency Representative for the Westamerica Bank Signature Card; second, Commissioner Boorstein.

Ayes: BOORSTEIN, BUSHEY, DIGIOVANNI, FURST, GAFFNEY, HILLMER

Nos: NONE

Abstentions: NONE

9. Proposed Budget for the Fiscal Year 2018-19

01:14:16

GM Dow stated that staff presented the preliminary Proposed Budget for FY 2018-19 at the May 12, 2018 Board meeting, there were no comments received or requested changes, and the Board directed staff to prepare the final Proposed Budget and bring it to the June meeting for review and consideration of adoption.

GM Dow stated that nearly all revenue and operating expense accounts remained unchanged in proposed FY 19 budget that was enclosed with the agenda packets. He explained a few minor changes in various accounts.

GM Dow stated that the budget document was prepared in the GFOA format, which includes additional demographic and narrative information, and allows the Agency to produce just one budget version instead of a basic version in June and the GFOA version later in the year. He stated the Agency will submit the adopted FY 19 Budget to the Government Finance Officers Association for consideration of the Distinguished Budget Presentation Award.

The Board agreed that producing one version of the budget was a time-saver, commented favorably on the presentation, and had no changes.

Comments from the Public:

There were no comments from the public.

ACTION: Commissioner Gaffney moved to adopt the final Proposed Budget for the Fiscal Year 2018-19 as presented; second, Commissioner DiGiovanni.

Ayes: BOORSTEIN, BUSHEY, DIGIOVANNI, FURST, GAFFNEY, HILLMER

Nos: NONE

Abstentions: NONE

10. North Bay Watershed Association (NBWA) Report **01:18:34**

Chair Furst stated she was unable to attend the June 8th North Bay Watershed Association Board meeting. She said she will review the minutes and report at the July Board meeting.

11. Oral Reports by Commissioners/General Manager **01:18:51**

GM Dow referred to his handouts and reported:

- Alan Burleigh was promoted to the new Assistant Operations Supervisor position; Amy Hwang was promoted to an Associate Engineer position; and Kunning Zhu was hired as a new Laboratory Analyst, and will start on July 16.
- CSRMA's Risk Control Survey results and recommendations to be implemented in FY 19.

12. Next Scheduled Meeting **01:22:20**

Tuesday, July 10, 2018 at 7:00 p.m. at the Agency office.

Chair Furst adjourned the meeting at 8:25 p.m.

Respectfully submitted,

Kate Brouillet, Recording Secretary

Tom Gaffney, Vice-Chair

Central Marin Sanitation Agency
Treasurer's Report - Operating Account
For the Month of June 2018

I. Accounts Summary: Bank & Investment Accounts

Summary of Bank & Money Market Accounts

Westamerica Bank - Account Activity shown below	\$ 1,639,442.79
Local Agency Investment Fund (LAIF) - Refer to Schedule of Investments	13,535,264.77
California Asset Management Program (CAMP) - Refer to Schedule of Investments	365,439.16
Total Bank & Investment Accounts: Ending Balance on June 30, 2018	<u>\$ 15,540,146.72</u>

II. Account Activity for Westamerica Bank

Beginning Balance on June 1, 2018 514,707.33

Cash Receipts (Deposits into Westamerica):

Transfers from LAIF	550,000.00
JPA Service Charges (FY18 Q4: RVSD)	1,390,512.57
TCSD - FOG Program (FY18 3Q: Jan-Mar)	568.94
Revenue from Haulers & RVs	16,004.59
Revenue from Organic Waste Programs	8,003.54
SD 2 Operations & Maintenance Contract (FY18: April & May)	101,645.05
SQSP Wastewater Services Contract (FY18: April)	89,908.83
SQ Village Operations & Maintenance Contract (FY18: April)	743.16
Misc Revenue: Proceeds from recycled batteries	210.04
Total Cash Receipts	<u>\$ 2,157,596.72</u>

Cash Disbursements (Withdrawals from WestAmerica):

June 2018 Operating account disbursements register (see attached)	\$684,348.59
Regular Payroll paid 06/08/18	132,906.54
Regular Payroll paid 06/22/18	127,781.34
Transfers to EFTPS Federal Payroll Taxes (06/02, 06/16)	55,786.80
Final Separation Pay (1)	31,992.29
Bank Fee	45.70
Total Cash Disbursements	<u>\$1,032,861.26</u>
Ending Balance on June 30, 2018	<u>\$ 1,639,442.79</u>

Prepared by: HLang
Heidi Lang, Financial Analyst

Reviewed by: JRD
Jason Dow, General Manager

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of June 2018

Check Number	Date	Vendor/Payee	Amount	Description
16891				Last check # from prior month's register
16892	06/01/18	Phillip Frye	212.97	Reimbursement for retiree health benefits by check
16893	06/01/18	James L. Johnson	183.34	Reimbursement for retiree health benefits by check
16894	06/01/18	Byron Jones	237.34	Reimbursement for retiree health benefits by check
16895	06/01/18	Katherine Brouillet	125.07	Employee Expense Reimb: CalPERS training; office supplies
16896	06/01/18	James Clark	436.86	Employee Expense Reimb: Pumping systems installation training
16897	06/01/18	Jacob Dellinger	199.24	Employee Expense Reimb: Pumping systems installation training
16898	06/01/18	Chris Finton	400.00	Commuter Reimbursement Program, May and June 2018
16899	06/01/18	JM Squared & Associates, Inc.	19,981.53	Process return sump pump replacements (2) (2 invoices)
16900	06/01/18	Monterey Mechanical	61,234.15	Headworks Odor Scrubber Fan Replacement Project, May 2018
16901	06/01/18	Synagro West, Inc.	1,443.75	Biosolids land application fee, April 2018
16902	06/05/18	BWS Distributors, Inc.	13,226.50	Safety Supplies: Hoist davit system
16903	06/05/18	City Electric Supply	129.25	Electrical supplies (2 invoices)
16904	06/01/18	Five Thousand Forms Inc	5,401.36	Pub Ed Program: Promotional items (Note B)
16905	06/01/18	Galco Industrial Electronics	444.29	Electrical supplies (2 invoices)
16906	06/01/18	Grainger	585.18	Maintenance parts & supplies (3 invoices)
16907	06/05/18	Lystek International LTD	10,906.50	Biosolids beneficial reuse fee, May 2018
16908	06/05/18	McMaster-Carr Supply Co.	1,049.46	Maintenance parts & supplies (3 invoices)
16909	06/01/18	Pacific Nurseries	599.50	Replacement tree for courtyard
16910	06/01/18	Platt	1,218.84	Electrical supplies (2 invoices)
16911	06/01/18	Univar USA Inc	5,120.23	Sodium Bisulfate (1 delivery)
16912	06/05/18	U.S. Bank Operations Center	2,425.00	Revenue Bond Trustee admin fee, 05/01/2018-04/30/2019
16913	06/07/18	AireSpring	775.54	Telephone service, May 2018
16914	06/07/18	Aramark Uniform Services	1,405.01	Uniform service, May 2018
16915	06/07/18	ASCO Power Svcs Inc.	1,160.00	SD2 PS Maint: Standby power switch for Paradise PS (Note B)
16916	06/07/18	Cal Steam	22.50	Maintenance parts & supplies
16917	06/07/18	Evoqua Water Tech LLC	27,380.33	Calcium Nitrate (1 delivery); Sodium Hypochlorite (2 deliveries)
16918	06/07/18	Fastenal Company	715.67	Maintenance parts & supplies (3 invoices)
16919	06/07/18	Fisher Scientific	450.80	Lab supplies
16920	06/07/18	Foster Flow Control	1,331.98	Port valve for Organic Waste Receiving Facility
16921	06/07/18	Galco Industrial Electronics	387.60	Maintenance parts & supplies
16922	06/07/18	Grainger	377.45	Maintenance parts & supplies (2 invoices)
16923	06/07/18	Hagel Supply Co.	54.77	Utility supplies
16924	06/07/18	Harrington Industrial Plastics	81.03	Maintenance parts & supplies
16925	06/07/18	Home Depot Credit Services	373.51	Maintenance parts & supplies, May 2018
16926	06/07/18	IEDA, Inc.	782.00	Labor relations consulting, June 2018
16927	06/07/18	Jackson's Hardware	765.08	Maintenance parts & supplies, May 2018
16928	06/07/18	Marin Office Supply	557.88	Office supplies, May 2018
16929	06/07/18	Metrix Instrument	203.02	Maintenance parts & supplies
16930	06/07/18	Navia Benefit Solutions	102.20	Monthly fee (2 invoices)
16931	06/07/18	Novato Sanitary District	4,307.92	Prof Svcs: Joint Health & Safety Program, May 2018
16932	06/07/18	Noel Rafalo	365.00	Employee Expense Reimb: SWB Grade V certificate
16933	06/07/18	Rockwell Solutions	4,100.37	Plant pump impeller and plate
16934	06/07/18	Roy's Sewer Service, Inc.	10,000.00	SD2 PS Maint: Annual wet well cleanings (Note B)
16935	06/07/18	Thatcher Company of	5,136.09	Ferric Chloride (1 delivery)
16936	06/07/18	TreeMasters Tree & Garden Care	2,770.00	Agency property tree pruning
16937	06/07/18	Univar USA Inc	2,871.59	Sodium Hypochlorite (1 delivery)
16938	06/07/18	Waste Management	6,887.33	Redwood Landfill biosolids reuse fee, May 2018

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of June 2018

Check Number	Date	Vendor/Payee	Amount	Description
16939	06/07/18	Woodland Center Auto Supply	757.83	Maintenance parts & supplies, May 2018
16940	06/07/18	California Public Employee	4,127.45	Contribution to Retiree Health Benefits Trust Fund, PPE 06/02/2018 (Note C)
16941	06/07/18	California State Disbursement	250.50	EE Garnishment, PPE 06/02/2018 (Note A)
16942	06/07/18	Navia Benefit Solutions	607.68	Flexible spending account, PPE 06/02/2018
16943	06/07/18	SEIU Local 1021	1,026.65	Union dues, PPE 06/02/2018
16944	06/13/18	Aim Dynamics	14,645.53	Power monitoring devices (11)
16945	06/13/18	Alliant Insurance Services	625.00	Commercial Crime Insurance; 01/22/2018-07/01/2019
16946	06/13/18	Amazing Solutions, Inc.	75.00	Prof Svcs: Accounting software support, May 2018
16947	06/13/18	A & S Landscape Materials, Inc	481.24	Landscaping materials
16948	06/13/18	Paul Bruemmer	1,000.00	Employee expenses eligible for Agency dental reimbursement
16949	06/13/18	BWS Distributors, Inc.	110.65	Electrical supplies
16950	06/13/18	CAL-CARD	7,495.04	State of California Purchase Card, April-May 2018
16951	06/13/18	Carollo Engineers, Inc.	8,485.83	Prof Svcs: 2017 Facilities Master Plan Project, May 2018
16952	06/13/18	CDW Government, Inc.	2,453.91	Agency network firewall filtering software
16953	06/13/18	Comcast	191.20	Internet service, 06/03-07/03/2018
16954	06/13/18	Continental Control Systems	4,437.16	Power monitoring equipment
16955	06/13/18	Galco Industrial Electronics	101.09	Electrical supplies
16956	06/13/18	Harrington Industrial Plastics	7,387.95	Injection pumps for RV Peroxide Station
16957	06/13/18	Hoffmeyer Co. Inc.	29,064.85	Effluent storage pond gate and actuator replacement
16958	06/13/18	ICMA Retirement Trust-457	3,773.00	Deferred compensation contributions, PPE 06/02/2018 (Note A)
16959	06/13/18	Kone Inc	131.59	Elevator service
16960	06/13/18	Marin Independent Journal	297.45	Public Notices (2): Bid notices for Biosolids Hauling and Pavement Rehabilitation Project
16961	06/13/18	Bay Area News	309.75	Marin IJ subscription, 06/25-12/23/2018
16962	06/13/18	Marin Sanitary Service	4,437.26	Yard waste, rag box, and grit disposal, May 2018
16963	06/13/18	Marin Resource	345.00	Yard waste disposal
16964	06/13/18	Orchard Business/SYNCB	228.19	Maintenance parts & supplies, May 2018
16965	06/13/18	R2 Engineering, Inc	9,136.13	Primary scum pump
16966	06/13/18	Ricoh USA Inc	317.99	Admin copier lease, 05/23-06/22/2018
16967	06/13/18	Thomas Fish Company	138.50	Lab supplies
16968	06/13/18	Univar USA Inc	8,089.61	Sodium Bisulfate (1 delivery); Sodium Hypochlorite (1 delivery)
16969	06/13/18	Valley Power Systems-North	2,489.05	Mechanical parts (5 invoices)
16970	06/13/18	Wedge Roofing Inc	5,600.00	Administration Building Roof Repair
16971	06/25/18	California Public Employee	4,127.45	Contribution to Retiree Health Benefits Trust Fund, PPE 06/16/2018 (Note C)
16972	06/25/18	California State Disbursement	250.50	EE Garnishment, PPE 06/16/2018 (Note A)
16973	06/25/18	ICMA Retirement Trust-457	3,773.00	Deferred compensation contributions, PPE 06/16/2018 (Note A)
16974	06/25/18	Navia Benefit Solutions	607.68	Flexible spending account, PPE 06/16/2018
16975	06/25/18	SEIU Local 1021	1,026.65	Union dues, PPE 06/16/2018
16976	06/25/18	Alliant Insurance Services	1,229.00	Vehicle Program Policy annual renewal, 07/01/2018-07/01/2019
16977	06/25/18	Amazon	1,018.10	Computer parts & supplies, May-June 2018
16978	06/25/18	AT&T	369.21	Fax and emergency phone services, 06/07-07/06/2018
16979	06/25/18	AT&T Dataplan	408.30	Wireless service, 05/02-06/01/2018
16980	06/25/18	Borges & Mahoney	143.61	Maintenance parts & supplies
16981	06/25/18	Bob Bally	231.00	Employee expenses eligible for Agency dental reimbursement
16982	06/25/18	Carollo Engineers, Inc.	6,439.40	Prof Svcs: PG&E Interconnection Design Project Agreement, May 2018

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of June 2018

Check Number	Date	Vendor/Payee	Amount	Description
16983	06/25/18	ChemStation of Northern Cal.	3,116.20	Odor control materials
16984	06/25/18	CWEA TCP	180.00	Certificate renewal (1 employee)
16985	06/25/18	David Ernst	400.00	Commuter Reimbursement Program, Jan-May 2018
16986	06/25/18	Evoqua Water Tech LLC	9,712.55	Hydrogen Peroxide (1 delivery)
16987	06/25/18	Foster Flow Control	740.11	Port valve for Organic Waste Receiving Facility
16988	06/25/18	GFOA	870.00	Award program review fees, 2016 and 2017
16989	06/25/18	Golden Gate Petroleum	2,215.70	Coolant antifreeze for cogeneration engine
16990	06/25/18	Tuomas Groves	830.00	Employee expenses eligible for Agency dental reimbursement
16991	06/25/18	Harrington Industrial Plastics	11,563.26	Primary Clarifier rehabilitation parts and equipment
16992	06/25/18	Lubrication Engineers, Inc.	400.62	Lube oil
16993	06/25/18	Marin Resource Recovery Center	273.00	Yard waste disposal
16994	06/25/18	Meta! Service Center	1,602.30	Primary Clarifier rehabilitation parts
16995	06/25/18	Marin Municipal Water District	1,608.20	Water service, 04/11-06/10/2018 (5 invoices)
16996	06/25/18	Navia Benefit Solutions	792.00	Monthly fee (3 invoices)
16997	06/25/18	Northern Tool & Equipment	326.96	Hammer and pipe wrench set
16998	06/25/18	Pacific EcoRisk	304.25	NPDES Chronic Toxicity Testing
16999	06/25/18	Petaluma Mechanical Inc	1,820.86	Biogas dryer repair
17000	06/25/18	P.G.& E.	4,141.89	Interconnection Agreement Project, April 2018
17001	06/25/18	Pure Air Filtration	986.12	Filters
17002	06/25/18	RMC	147.48	Lab copier lease, 03/17-06/016/2018
17003	06/25/18	SHAPE Incorporated	21,685.55	SD2 PS Maint: Spare pumps and impellers (Note B)
17004	06/25/18	Thatcher Company of	4,904.86	Ferric Chloride (1 delivery)
17005	06/25/18	Univar USA Inc	2,751.13	Sodium Hypochlorite (1 delivery)
17006	06/25/18	Western Exterminator Co. Inc.	178.50	Pest control, May 2018
17007	06/28/18	Alan Burleigh	127.06	Employee Expense Reimb: Training (2 classes)
17008	06/28/18	Caltest Analytical Laboratory	6,057.86	Lab analyses, April and May 2018
17009	06/28/18	CDW Government, Inc.	4,417.20	Backup software
17010	06/28/18	City Electric Supply	584.48	Electrical supplies (3 invoices)
17011	06/28/18	Cummins Pacific	2,518.56	Coolant
17012	06/28/18	Evoqua Water Tech LLC	9,005.70	Calcium Nitrate (1 delivery)
17013	06/28/18	Fastenal Company	2,426.82	Spare parts cabinets (2)
17014	06/28/18	Fisher Scientific	665.69	Lab supplies (5 invoices)
17015	06/28/18	Five Thousand Forms Inc	221.58	Pub Ed Program: Promotional items (Note B)
17016	06/28/18	Flyers Energy LLC	2,801.36	Engine oil
17017	06/28/18	Frontier Analytical Lab.	1,800.00	NPDES Permit: Dioxin and PCB testing (2 invoices)
17018	06/28/18	Grainger	3,277.75	Safety and maintenance parts & supplies (8 invoices)
17019	06/28/18	Hach Company	3,094.00	WIMS data management system services
17020	06/28/18	Kaman Industrial Technologies	236.40	Maintenance parts & supplies
17021	06/28/18	Lord and Sons Inc	2,360.39	Process tank equipment (4 invoices)
17022	06/28/18	Marin Recycling HHWF	190.00	Hazardous waste disposal
17023	06/28/18	Marin Resource Recovery Center	76.00	Yard waste disposal
17024	06/28/18	McMaster-Carr Supply Co.	1,974.75	Maintenance parts & supplies (8 invoices)
17025	06/28/18	Monica Oakley	1,260.00	Prof Svcs: Regulatory consulting, 03/31-06/01/2018
17026	06/28/18	Pacific Nurseries	653.67	Replacement trees
17027	06/28/18	Petaluma Mechanical Inc	2,067.42	Maintenance parts & supplies
17028	06/28/18	P.G.& E.	71.50	SF Drake facility electricity service, 05/18-06/18/2018
17029	06/28/18	Platt	4,054.12	Conduit for inventory
17030	06/28/18	Polydyne, Inc.	14,240.46	Clarifloc Polymer (1 delivery)

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of June 2018

Check Number	Date	Vendor/Payee	Amount	Description
17031	06/28/18	Ryan Herco Flow Solutions	263.33	Lab supplies (2 invoices)
17032	06/28/18	Rock Steady Juggling	500.00	Pub Ed Program: Outreach at 1 school (Note B)
17033	06/28/18	Safety-kleen Systems, Inc	664.11	Hazardous waste disposal (2 invoices)
17034	06/28/18	SC Fuels	6,277.99	Gasoline and diesel fuel
17035	06/28/18	Calmat Co./Shamrock Materials	160.77	Propane (2 invoices)
17036	06/28/18	Teledyne Instruments Inc	1,752.18	Battery backup modules for Headworks and Final Vault
17037	06/28/18	Thomas Fish Company	142.50	Lab supplies
17038	06/28/18	Thatcher Company of	50.00	Ferric Chloride supply
17039	06/28/18	ULINE	496.56	Utility supplies
17040	06/28/18	Van Bebber Bros., Inc.	4,632.53	Aeration gates: pedestal reinforcement plates
17041	06/28/18	VWR International	106.45	Lab supplies
17042	06/28/18	Water Components & Bldg. Supp.	545.80	Maintenance parts & supplies (6 invoices)
17043	06/28/18	Wiley Price & Radulovich	715.00	Prof Svcs: Employment law services, May 2018

Payments by Automatic Clearing House:

6/4/2018	Payments to 25 retirees	7,614.27	Reimbursement for retiree health benefits
6/1/2018	CalPERS Medical ins	64,254.58	Medical insurance, June 2018
6/1/2018	Delta Dental	7,711.80	Dental insurance, June 2018
6/1/2018	Lincoln Life Ins	2,114.30	Life insurance, June 2018
6/1/2018	Vision Service Plan -(CA)	891.57	Vision insurance, June 2018
6/11/2018	CalPERS	34,193.51	Retirement Pension Contribution: Agency and Employees, PPE 06/02/2018 (Note C)
6/25/2018	CalPERS	32,984.62	Retirement Pension Contribution: Agency and Employees, PPE 06/16/2018 (Note C)
6/20/2018	CalPERS	2,683.20	FY 17-18 Survivors
6/2/2018	EDD	11,765.72	State & SDI Taxes, PPE 06/02/2018
6/16/2018	EDD	11,020.09	State & SDI Taxes, PPE 06/16/2018
6/11/2018	NRS/PEHP-3 and Z	8,191.20	Deferred compensation and MARA contribution, PPE 06/02/2018
6/25/2018	NRS/PEHP-3 and Z	11,115.19	Deferred compensation and MARA contribution, PPE 06/16/2018
6/15/2018	Michael Owen Boorstein	100.00	Stipend for 06/12/2018 Board meeting
6/15/2018	Maribeth Bushey	100.00	Stipend for 06/12/2018 Board meeting
6/15/2018	Dean DiGiovanni	100.00	Stipend for 06/12/2018 Board meeting
6/15/2018	Diane L. Furst	100.00	Stipend for 06/12/2018 Board meeting
6/15/2018	Thomas E Gaffney	100.00	Stipend for 06/12/2018 Board meeting
6/15/2018	Dan Hillmer	100.00	Stipend for 06/12/2018 Board meeting

Grand Total 684,348.59

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 June 30, 2018

Description	Book Value	Market Value	Agency Reserve Target for June 30, 2018
I. Investments managed by California Asset Management Program (CAMP)			
<u>Money Market Funds (< 1 year in maturity)</u>			
CAMP Cash Reserve Pool: 2.05% at 06/30/18			
b1. Agency Unrestricted Reserve: Operating	\$ 15,439.16	\$ 15,439.16	See LAIF
b2. Agency Unrestricted Reserve: Emergency	\$ 250,000.00	\$ 250,000.00	\$ 250,000
b3. Agency Unrestricted Reserve: Insurance	\$ 100,000.00	\$ 100,000.00	\$ 100,000
Total with CAMP	\$ 365,439.16	\$ 365,439.16	
II. Investments managed by Local Agency Investment Fund (LAIF)			
<u>Money Market Funds (< 1 year in maturity)</u>			
Local Agency Investment Fund (LAIF): 1.755% at 05/31/18			
a. Current Year Operating	\$ 3,050,093.02	\$ 3,050,093.02	
b1. Agency Unrestricted Reserve: Operating	\$ 2,850,210.84	\$ 2,850,210.84	\$ 2,865,650
c1. Capital Reserves (Restricted)	\$ 990,477.00	\$ 990,477.00	\$ 990,477
c1. Capital Reserves (Restricted-Capacity/Connection Fees)	\$ -	\$ -	
c2. Capital Reserves (Unrestricted)	\$ 6,644,483.91	\$ 6,644,483.91	\$ 6,175,485
Total with LAIF	\$ 13,535,264.77	\$ 13,535,264.77	
TOTAL INVESTMENTS	\$ 13,900,703.93	\$ 13,900,703.93	
<u>Amount designated for Capital Reserves</u>			
1. CAMP	\$ -	\$ -	
2. LAIF	\$ 7,634,960.91	\$ 7,634,960.91	\$ 7,165,962
Total	\$ 7,634,960.91	\$ 7,634,960.91	\$ 7,165,962

DEFINITIONS:

Description - the issuer, type of security and interest rate

Book Value - Original cost net of accumulated amortization

Market Value - Market values are per the fiscal agent's respective monthly statements

Statement of Compliance

The above of investments are in compliance with the Agency's investment policy adopted annually by the Board of Commissioners in accordance with California Government Code Section 53601, authorized investments, and 53646, investments policy. In addition, the Agency does have the financial ability to meet its cash flow requirements for the next six months.



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager *[Signature]*

Approved: Jason Dow, General Manager

Subject: **June 2018 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report**

Recommendation: Accept the June 2018 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report.

I. NPDES Permit Compliance

Our NPDES permit testing for June 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 June 96-hour flow through bioassay test.

CMSA’s NPDES permit specifies quarterly monitoring for enterococcus bacteria and for each wet weather blend event, to verify compliance with established effluent limits. No blend events were recorded in June allowing CMSA to forgo enterococcus sampling. The next quarterly sampling will be conducted in July.

II. Influent Flow

June in central Marin County was marked by periods of fog, wind, and for a few days this past month, periods of high heat. It remained very dry with no precipitation recorded by the Headwork’s rain gauge. The plant’s average daily influent flow was 8.6 MGD.

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

June Monthly Influent Flows	San Rafael (SRSD)	Ross Valley (SD#1)	San Quentin (SQSP)	Corte Madera (SD#2)	CMSA Plant Total
Average Daily (MGD)	3.4 MGD	3.9 MGD	0.47 MGD	0.90 MGD	8.6 MGD
Total for Month (MG)	102.2 MG	116.3 MG	13.9 MG	27.1 MG	259.5 MG
Percent of Flow	39.0 %	45.0 %	6.0 %	10.0 %	100 %

III. Treatment Process

Annual dry weather preventative maintenance continued through June with Operations transitioning process equipment in and out of service. Specifically, Primary Clarifiers Nos. 2 and 5 were removed from service, along with Secondary Clarifier No. 2; all three were locked and tagged out and turned over to the Maintenance Department. The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1,126 mg/l in June, a 3.0% increase from last month. The biomass inventory is at an optimal level based on present process conditions, and aligns with the process control decision to carry between 1,000 and 1,200 mg/L to manage our biomass and effectively meet our permit limits.

Graph No.3 shows the coliform most probable number (MPN), which represents the effectiveness of the disinfection process. All fourteen coliform samples collected in June were below our KPI of 30 MPN, and remained well below our daily limit of 10,000 MPN. The total coliform monthly geometric mean for June was 1.3 MPN, well below our permit's monthly limit of 240 MPN.

Graph No.4 shows the Total Suspended Solids (TSS), which is a good indicator of the effluent quality. The TSS monthly average in June was 3.9 mg/l, which is 26.0% of our Key Performance Indicator (KPI) of 15 mg/l, and is 13.0% of our permit's monthly average limit of 30 mg/l.

IV. Maintenance Activities

The cogeneration system produced 96.1% of the Agency's power in June, and MCE supplied the balance. The generator, as indicated on Graph No.8, was in service and produced green power for the entire month.

The peak power demand season began on May 1 and runs until October 31. Energy providers increase the time-of-use cost for purchasing power based on customer demand. The Agency's daily peak demand period is defined as 12:00 p.m. to 6:00 p.m., and partial peak periods are from 8:30 a.m. until 12:00 p.m. and again at 6:00 p.m. until 9:00 p.m., Monday through Friday.

The majority of June's work activities were spent performing annual process equipment preventative maintenance. In addition, project work included the replacement of effluent weirs in Primary Clarifier No. 1; replacement of a ruptured hose on a mixing pump; replacement of one of two process return sump pumps; replacement of the solids handling building's bulk ferric chloride storage tank, installing new piping, and rehabilitating the containment sump; and coating the floor in the repurposed DAFT equipment room, which will now store parts and equipment for the cogeneration system.

Attachment:

- June 2018 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

June 2018



Agency personnel removing the original storage tank.



New storage tank installed and ready for use.

Monthly Compliance Summary Table

Central Marin Sanitation Agency

June, 2018

Final Effluent Monitoring

Parameter	Frequency	Units	Results	Limit
Carbonaceous BOD Highest Weekly Average	Weekly	mg/L	5.6	Maximum 40
Carbonaceous BOD Monthly Average	Monthly	mg/L	4.6	Maximum 25
Carbonaceous BOD Monthly Removal Rate	Monthly	%	98.8	Minimum 85
Total Suspended Solids Highest Weekly Average	Weekly	mg/L	4.5	Maximum 45
Total Suspended Solids Monthly Average	Monthly	mg/L	3.9	Maximum 30
Total Suspended Solids Monthly Removal Rate	Monthly	%	99.1	Minimum 85
Chlorine Residual Instant Limit	Instant	mg/L	ND	Maximum 0.0
Ammonia Monthly Average	Monthly	mg/L	31.8	Maximum 60
Ammonia Maximum Daily	Daily	mg/L	32.5	Maximum 120
pH Lower Limit	Continuous	SU	7.2	Minimum 6
pH Upper Limit	Continuous	SU	7.7	Maximum 9
Bacteriological Analysis				
Total Coliform Monthly Geometric Mean	3 X Week	MPN/100mL	1.3	Maximum 240
Total Coliform Daily Maximum	3 X Week	MPN/100mL	4.5	Maximum 10,000
Enterococcus Monthly Geometric Mean	Monthly	MPN/100mL	*	Maximum 35
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	4.40	Maximum 85
Copper Monthly Average	Monthly	ug/L	4.40	Maximum 49
Cyanide Daily Limit	Monthly	ug/L	J1.50	Maximum 41
Cyanide Monthly Average	Monthly	ug/L	J1.50	Maximum 21
Mercury Weekly Average	Weekly	ug/L	0.0024	Maximum 0.072
Mercury Monthly Average	Monthly	ug/L	0.0024	Maximum 0.066
Mercury Monthly Loading	Monthly	kg/mo	0.00197	
Mercury Annual Loading (watershed permit)	Jan-Dec	kg/yr	0.03225	Maximum 0.11
Permit Analysis				
Dioxin - Total Equivalentents (TEQ) Daily Maximum	1/Permit Cycle	ug/L	ND	Maximum 2.8E-08
Dioxin - Total Equivalentents (TEQ) Monthly Average	1/Permit Cycle	ug/L	ND	Maximum 1.4E-08
Polychlorinated Biphenyls (PCBs) Daily Limit	1/Permit Cycle	ug/L	ND	Maximum 0.017
Polychlorinated Biphenyls (PCBs) Monthly Limit	1/Permit Cycle	ug/L	ND	Maximum 0.012
Quarterly Analysis				
Oil and Grease Daily Limit	Quarterly	mg/L	*	Maximum 20
Oil and Grease Monthly Average	Quarterly	mg/L	*	Maximum 10
Chronic Bioassay Toxicity	Quarterly	Tuc	*	Maximum 20
Chronic Bioassay Toxicity (3 sample median)	Quarterly	Tuc	ND	Maximum 10
Flow Analysis				
	Daily Max	Hourly Max	5 minute Max	Monthly Average
Effluent Flow	8.0	12.6	17.8	7.2
Influent Flow	9.2	13.6	45.5	8.6
# Days Blended				0

* Monitoring Not Required This Month ND = None Detected X = Data not available at report time J = Detected by not Quantified

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 to algae in the San Francisco Bay. The permit has a maximum daily limit of 120 mg/L and a monthly average limit of 60 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 typically we are required to take only 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 Equivalent:** These are 17 dioxin-like compounds that we analyze for twice per year which have permit limits.
- **Oils and Grease:** We are required to monitor our effluent for Oils and Grease quarterly.
- **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

June 2018

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:	<u>2.5</u>	%
Average Biosolids concentration was:	<u>26.4</u>	%
Average TSS of the Centrate was:	<u>263</u>	mg/l
Solids capture of the Centrifuge was:	<u>99.0</u>	%
Polymer use per Dry ton of biosolids was:	<u>12.47</u>	#/dry ton
Average polymer feed rate per run was:	<u>3.66</u>	gpm
Average concentration of the polymer batches was:	<u>0.328</u>	%
Average sludge feed rate per run was:	<u>57.8</u>	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 black graph line depicts the CMSA rain gauge recordings for the month.

Graph #2:

Depicts individual collection member agency flows.

The Y-axis is in the dry weather flow range of 0-20 MGD.

Graph #3:

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 1.3 MPN through June, which is less than our KPI median of 30 MPN and permit limit of 240 MPN.

Graph #4:

Depicts the total suspended solids in the effluent.

Our monthly average was 3.9 mg/l versus our KPI of 15 mg/l and permit monthly average limit of 30 mg/l.

Graph #5:

Depicts the effluent CBOD which is measuring the oxygen demand of the wastewater.

The June effluent CBOD average was 4.6 mg/l, well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month.

Graph #6:

Depicts the degree to which the biosolids have been dewatered.

Our biosolids % concentration exceeded our KPI of 25% for the entire month of June.

Graph #7:

Depicts the amount of Biogas that is produced in the digesters, and then used to produce electricity.

Biogas production in June averaged 254,223 cubic feet per day, which exceeded our monthly KPI of 200,000 cubic feet per day. The lower than normal gas production values on June 10, and again on June 30 were the result of fewer organic waste loads deliveries.

Graph #8:

This graph depicts the amount of energy produced through cogeneration versus the energy purchased from MCE for Agency

The cogeneration engine was online for the entire month of June producing 96.1% of the facility's power needs.

Glossary of Terms Process Performance Data Sheet

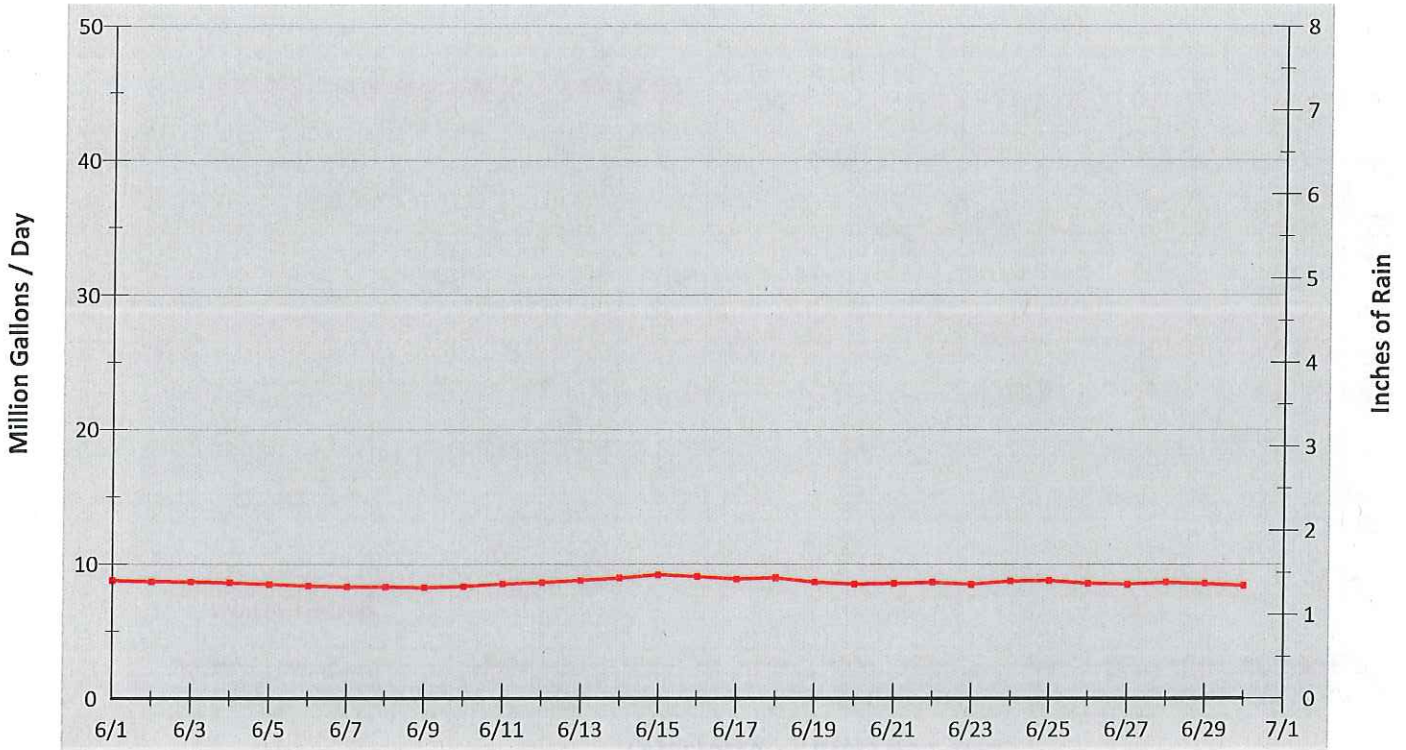
- **Aeration Tanks:** A biological process that takes place after the biotowers, where biomass (microorganisms) is mixed with the wastewater to feed on dissolved and suspended organic material. High speed blowers are used to provide compressed air to mix the tank contents.
- **Anaerobic Digesters:** 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.

Graph #1: CMSA Influent Flow

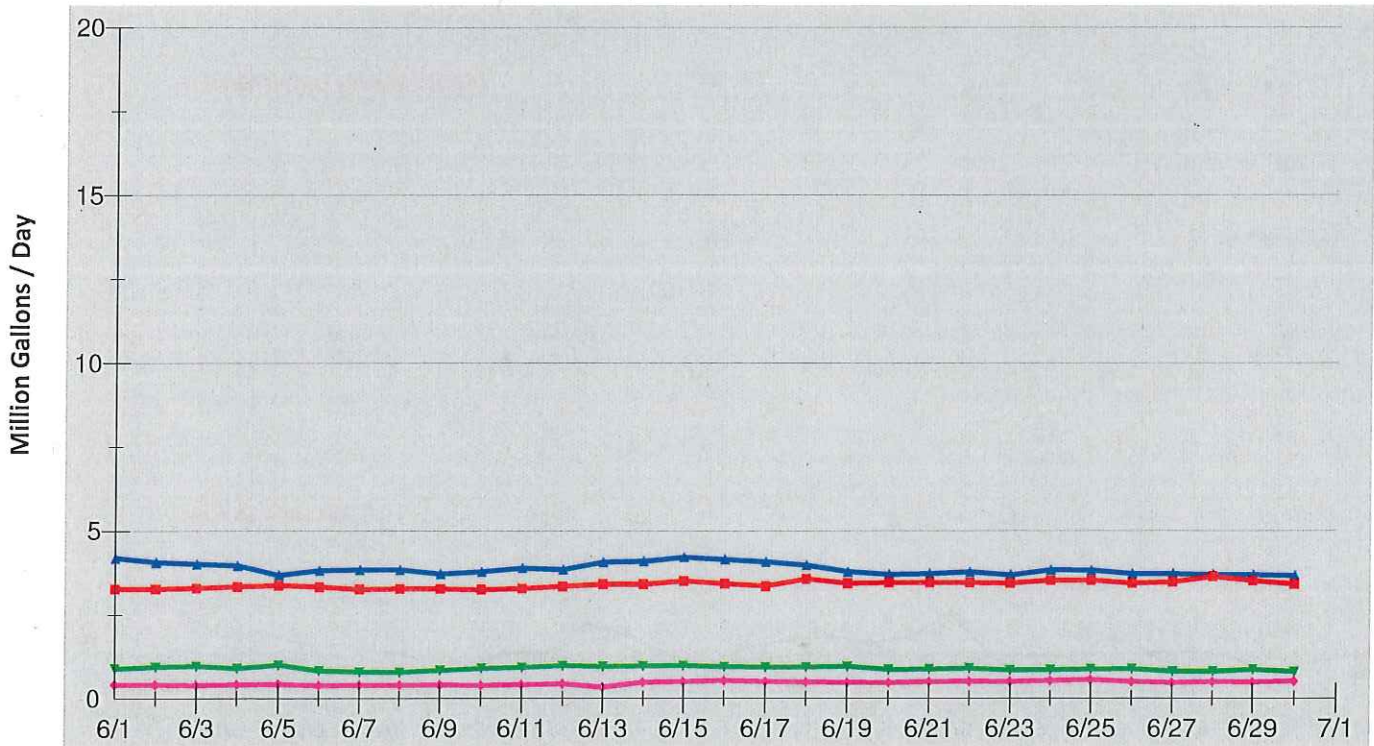


Date (6/1/2018 to 6/30/2018)

▪ Flow (Daily Average) • Rainfall

(#1) CMSA Influent Flow

Graph #2: Collection System Influent Flows

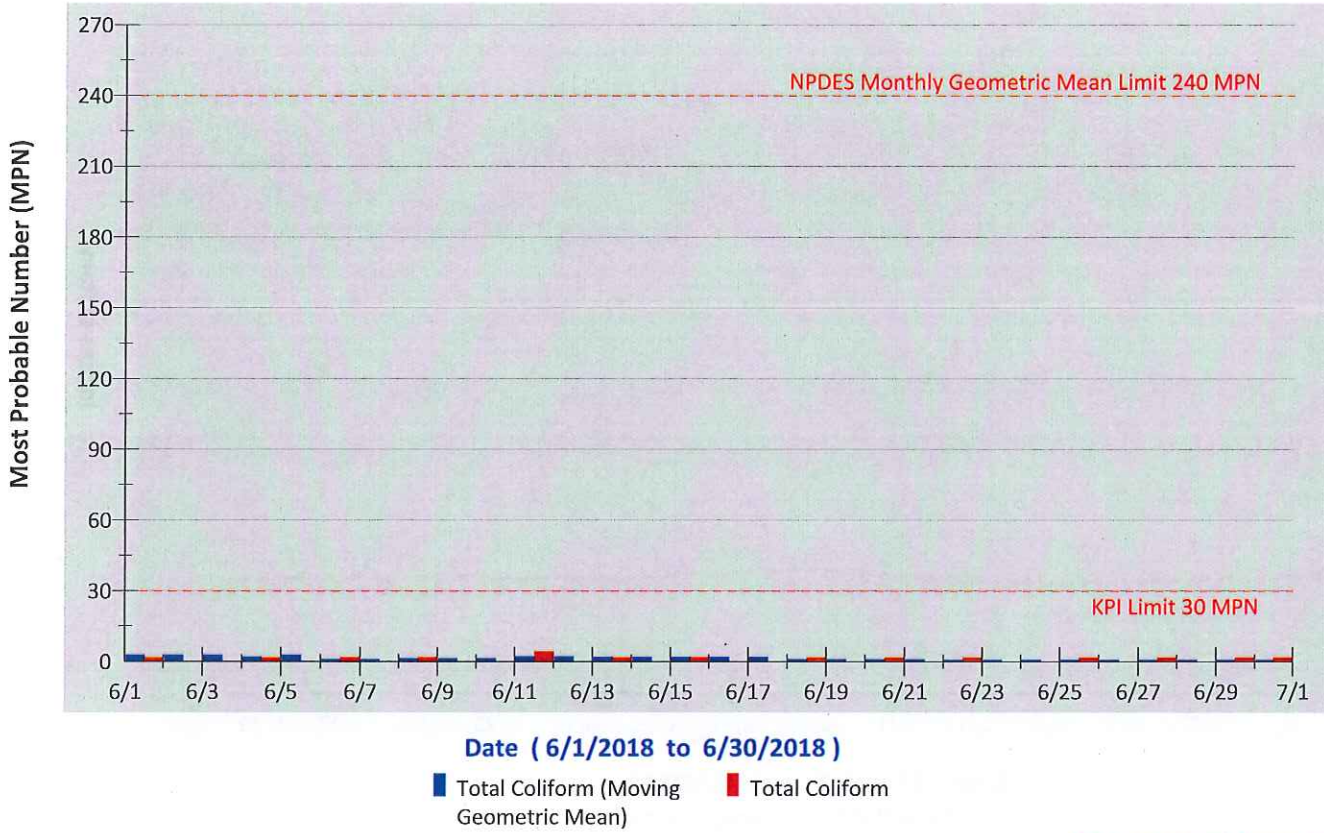


Date (6/1/2018 to 6/30/2018)

▲ RV Flow ■ SR Flow ▼ CM Flow ◆ SQ Flow

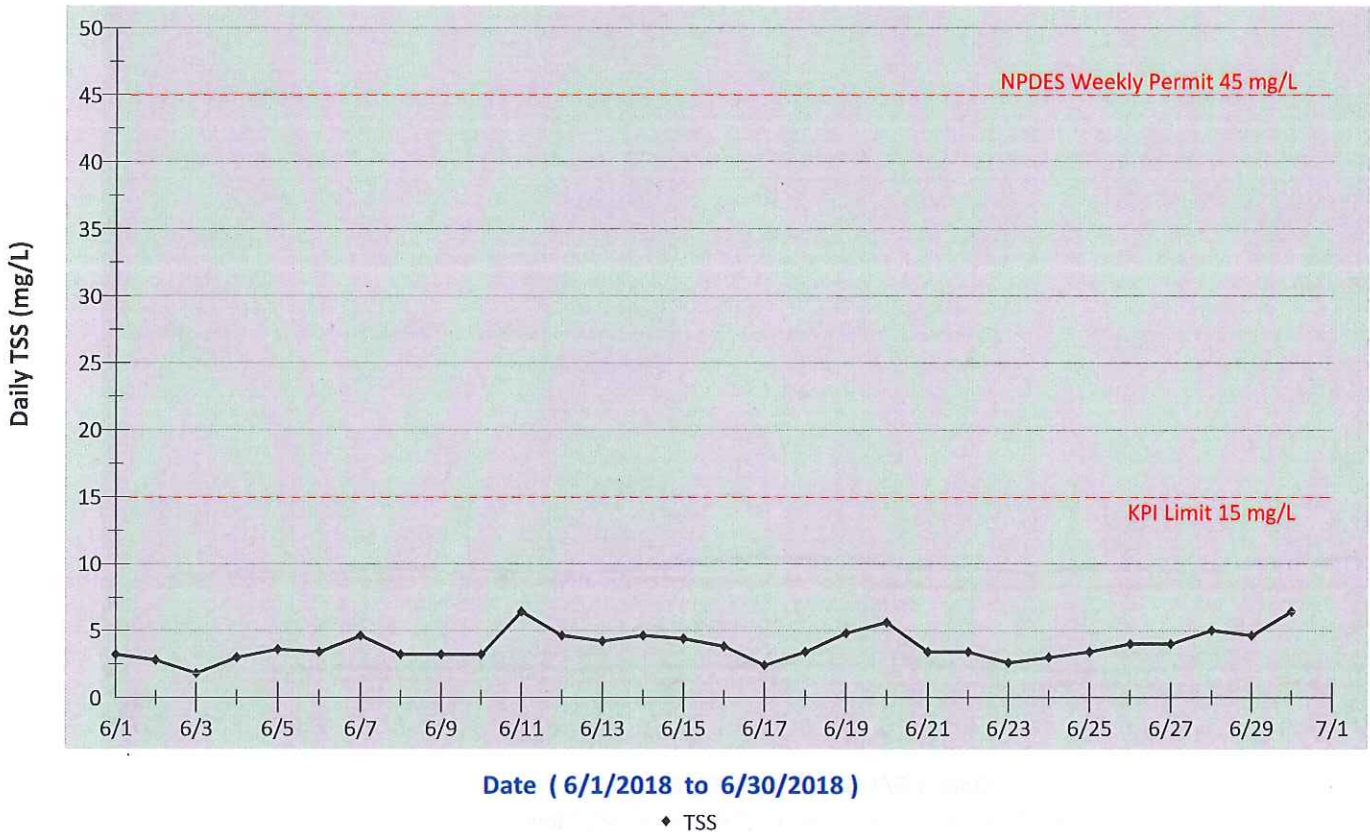
(#2) Collection System Influent Flows

Graph #3: Total Coliform & Monthly Geometric Mean



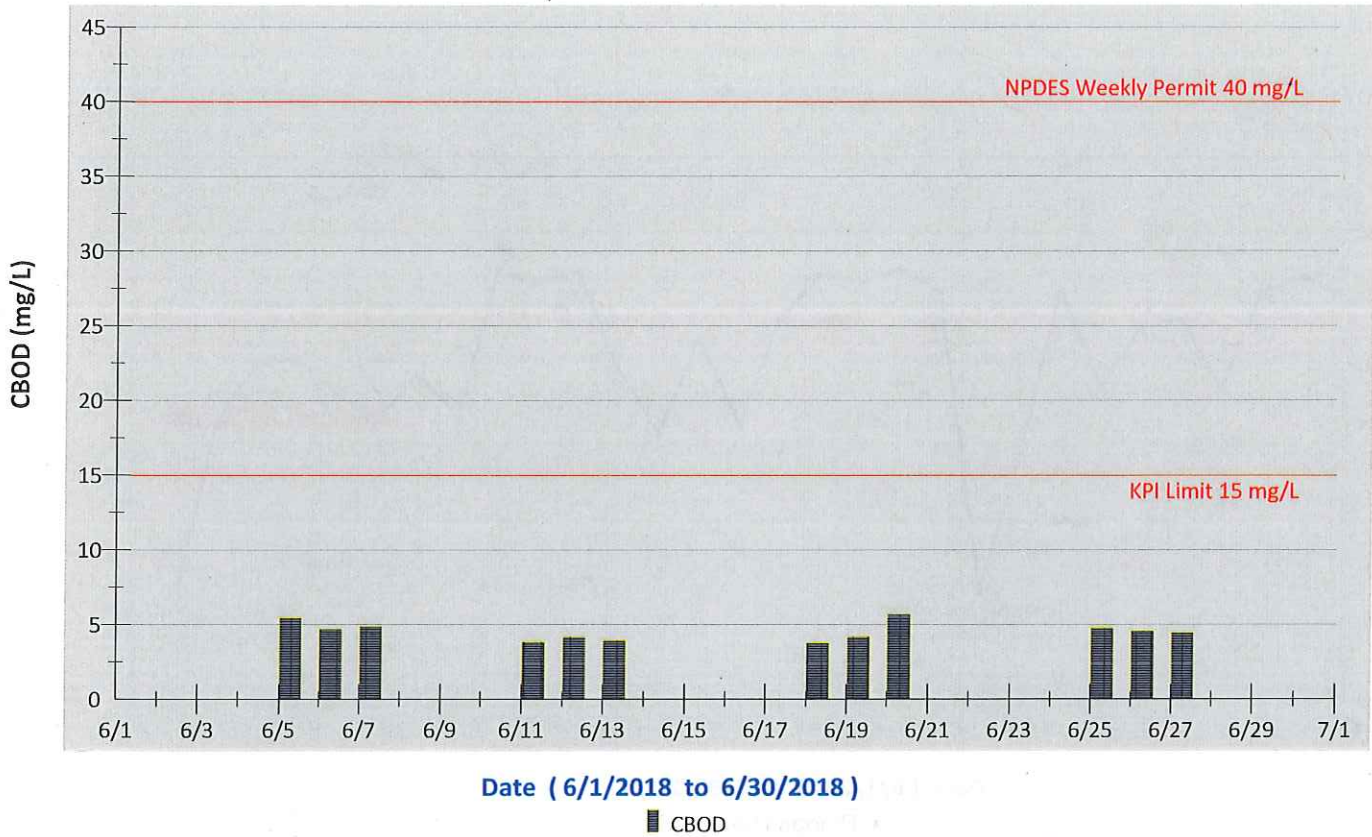
(#3) Total Coliform & Monthly Geometric Mean

Graph #4: Effluent Total Suspended Solids (TSS)



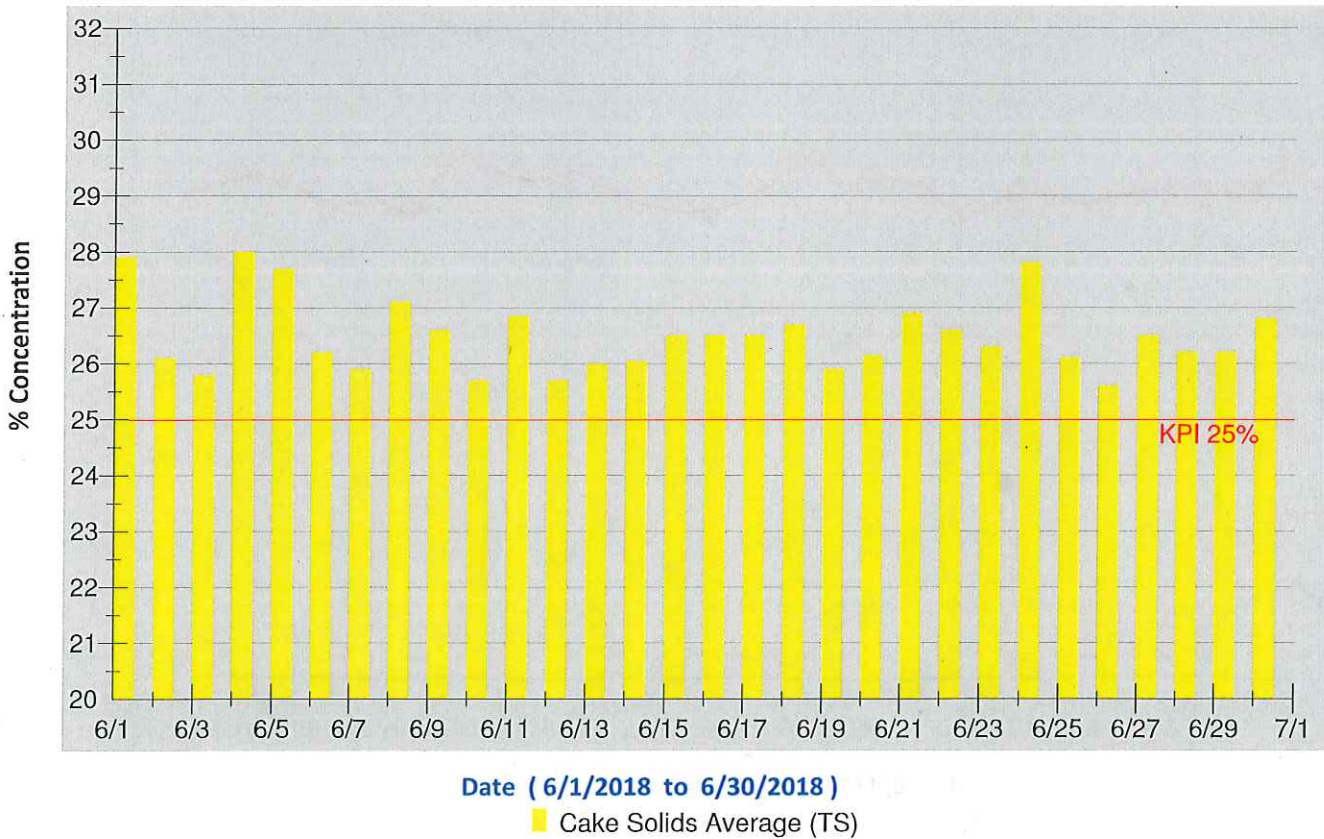
(#4) Effluent Total Suspended Solids (TSS)

Graph #5: Effluent Carbonaceous Biological Oxygen Demand (CBOD)



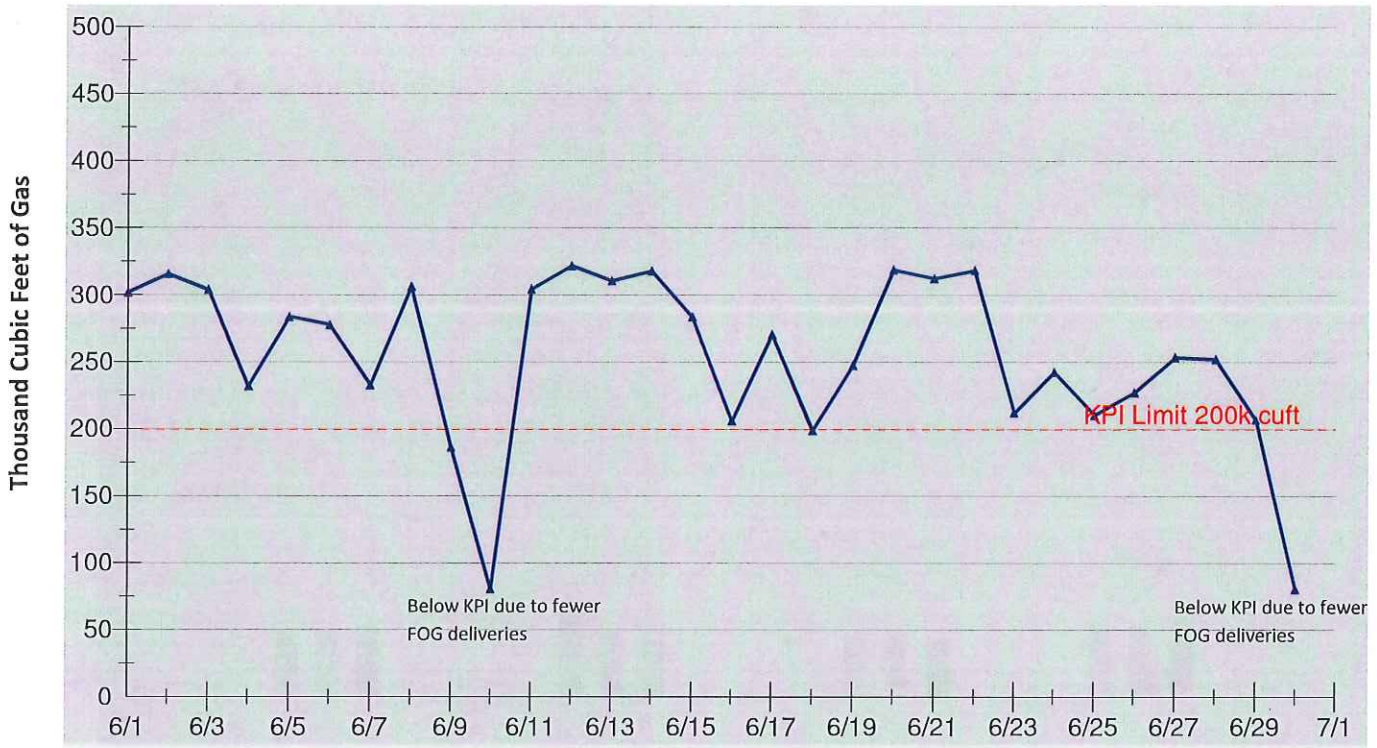
(#5) Effluent Carbonaceous Biological Oxygen Demand (C

Graph #6: Biosolids Concentration



(#6) Biosolids Concentration

Graph #7: Biogas Production

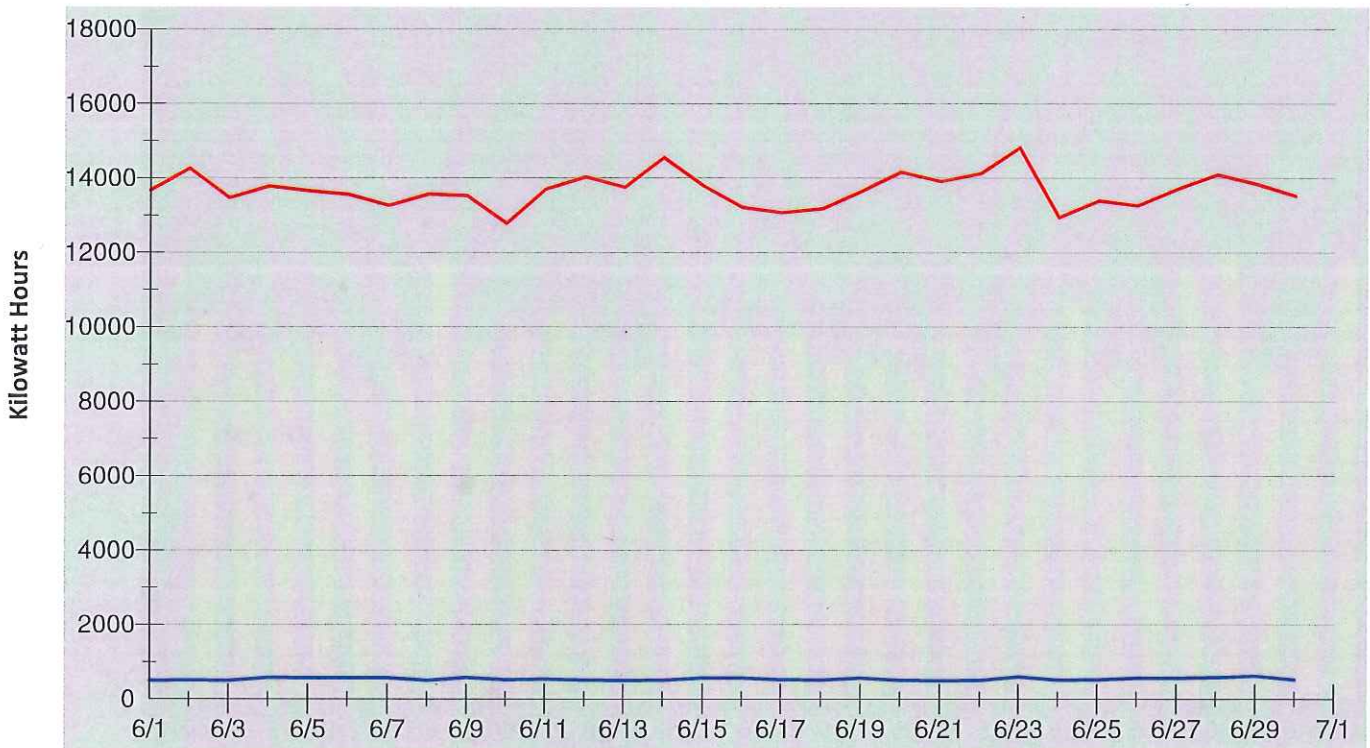


Date (6/1/2018 to 6/30/2018)

▲ Biogas Produced

(#7) Biogas Production

Graph #8: Kilowatt Hours Purchased vs. Kilowatts Produced



Date (6/1/2018 to 6/30/2018)

Utility Power

Kilowatts Produced

(#8) Kilowatt Hours Purchased vs. Kilowatts Produced



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager *JD*

Subject: Performance Metric Report – June 2018

Recommendation: Accept the June 2018 Performance Metric report.

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.

Table I – Treatment/Process Metrics

Final effluent quality was very good in June, and process tanks and equipment continue to be rotated out of service for annual preventative maintenance. During two period of the month, the Agency received fewer than normal FOG deliveries resulting in lower biogas production and power generation.

Table II – Employee Metrics

Training highlights included Heat Injury Prevention safety training for all staff; Fall Protection for most staff and Confined Space Entry refresher training for selected staff; CSRMA’s Nurse Triage training for management and supervisory staff; Laboratory Administrator attendance at an ELAP TNI training day; NFPA 70E – Arc Flash training for the Agency’s electrical/instrumentation staff; and several field staff received classification-specific training for personal development.

Table III - Environmental and Regulatory Compliance Metrics

There weren’t any NPDES permit exceedances in June, and all regulatory reports were submitted on schedule. FOG and source control inspections continue to be fewer than planned due to limited staff resources.

Table IV - Public Outreach

There were four odor alerts posted to the website, and the Agency did not receive any public odor complaints. Alerts were posted for removing two primary clarifiers and a secondary clarifier from service for annual preventative maintenance, and for the monthly cleaning of the chlorine contact tanks.

Monthly public education events may include staff attendance at public outreach events, school classroom and/or juggler show presentations, and Agency tours. Events over the past month are presented below with the event date and number of attendees. The May 18 school event wasn't reported by the Juggler until late June.

Public Outreach Events

<u>Date</u>	<u>Event</u>	<u>Attendees</u>
6/9-10	Fairfax EcoFest	380

School Events – Juggler Show Presentation

<u>Date</u>	<u>School</u>	<u>Attendees</u>
5/18/18	St. Hillary School in Tiburon	160

CMSA Tours

<u>Date</u>	<u>Group</u>	<u>Attendees</u>
6/11/18	City of Pheonix staff to see the organic waste facility	11

Attachment:

- June 2018 Performance Metric Report

CMSA CY18 PERFORMANCE METRICS – June 2018

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)	259.5 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) Bio-Fertilizer production at the Lystek facility, in wet tons (wt)	105 wt 297.5 wt 114.8 wt	360 – 665 wt
3) Conventional Pollutant Removal	Removal of the conventional NPDES pollutants - Total Suspended Solids (TSS) and Carbonaceous Biological Oxygen Demand (cBOD) a. tons of TSS removed; % TSS removal b. tons of organics removed (cBOD); % cBOD removal	512.6 tons; 99.6% 419.9 tons; 98.8%	> 85% > 85%
4) Priority Pollutants Removal	Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper	99.6% 94.6%	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)	7.62 Mft ³ 4.88 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)	410,629 kWh 591 hrs; 82.0% \$22,103	380 to 480,000 kWh 540 hrs.; 75% \$15,000 to \$30,000
7) Efficiency	The cost to operate and maintain the treatment plant per million gallons of wastewater treated, in dollars per million gallons Energy used, kilowatt hours, per million gallons treated	\$1,386 /Mg 1,646 kWh/Mg	\$451-\$1,830/Mg (wet - dry) 670 - 2,400 kWh/Mg

Table II – EMPLOYEE METRICS

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 = 96.5 External = 84.5	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);	546 hrs 474 hrs (84.0%) 87 hrs (14.0%) 0.84	300 – 500 hrs ≥ 70% total CM hrs ≤ 30% total hours ≥ 0.45
3) Overtime Worked	Monthly hours of OT worked; <i>Year to date hours of OT (YTD)</i> % of regular hours worked; % <i>Year to date (YTD)</i>	165 hrs; (791 hrs) 1.8%; (1.7%)	< 5%

CMSA CY18 PERFORMANCE METRICS – June 2018

Table III - ENVIRONMENTAL AND REGULATORY COMPLIANCE METRICS

Metric	Definition	Measurement	Range/Target/Goal
1) Permit Exceedances	# of NPDES permit exceedances	0	0
2) Regulatory Analyses	# of analyses by the CMSA laboratory for NPDES, Stormwater, and Biosolids regulatory compliance monitoring and reporting	513	150-750
3) Process Control Analyses	# of analyses by the CMSA laboratory for process control monitoring	708	400-1,250
4) Contract Laboratory Analyses	# of analyses by contract laboratories for regulatory compliance reporting	33	0-50
5) Quality Control Testing	# of CMSA performed laboratory analyses for QA/QC purposes	186	100-300
6) Water Quality Sample Analyses	# of ammonia, coliform (total and fecal), enterococcus, and/or sulfide analyses performed for the CMSA member agencies (SSOs, etc.)	38	as-needed
7) 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 – 255 businesses regulated	14	variable
8) FOG Program Inspections	Inspections of food service establishments (FSEs) in the Almonte, TCSD, SD2, RVSD, SRSD, and LGVSD service areas – approx. 316 FSEs are regulated and 63 FSEs have waivers.	0	20 – 50
9) Permits Issued/Renewed	Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge	0	variable

Table IV- PUBLIC OUTREACH

Metric	Definition	Measurement	Target/Goal
1) Public Education Events	Attendance at public education outreach events; # of booth visitors; <i>(YTD)</i>	381; <i>(536)</i>	3,500/year
2) School Events	Participation or sponsorship in school outreach events; attendees; <i>(YTD)</i>	160; <i>(1,146)</i>	variable
3) Agency Tours	Tours given to students and the public; # of people, <i>(YTD)</i>	11; <i>(182)</i>	variable
4) Odor Notifications	Number of odor alerts posted to the Agency website	4	1-10
5) Odor Complaints	Number of odor complaints received from the public	0	0



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates
From: Jason Dow, General Manager JD
Subject: Regulatory Consulting Services Agreement with MMO Consulting

Recommendation: Approve the Agreement with MMO Consulting for Regulatory Consulting Services.

Summary: CMSA's new National Pollutant Discharge Elimination System (NPDES) Permit was adopted by the Regional Water Board in January 2018, became effective on March 1, 2018, and expires on February 28, 2023. Monica Oakley of MMO Consulting assisted the Agency with the renewal of the current and last three NPDES Permits, and she has provided as-needed regulatory services to the Agency over the past twenty years. During the term of the current NPDES permit, staff and Ms. Oakley have prepared a list of potential activities that CMSA may require Ms. Oakley's regulatory consulting services. Attached is a new Regulatory Services Agreement with MMO consulting with a scope of work that includes the list of activities identified by staff and Ms. Oakley. Services under the agreement will be authorized with a Task Order that will include a detailed scope of work, fee estimate, and schedule.

Fiscal Impact: CMSA's FY 19 adopted budget includes a placeholder amount of \$10,000 for general regulatory consulting services.

Alignment with Strategic Plan: This activity supports Goal 1 – Objective 1.2 in the Agency's proposed FY 19 Strategic Business Plan as shown below.

Goal One: CMSA will continue to operate and maintain its wastewater facility to produce high quality effluent and biosolids, within a changing regulatory environment.

Objective 1.2: Develop and implement strategies to meet changing regulatory requirements.

Attachment:

- Regulatory Consulting Services Agreement with MMO Consulting

CENTRAL MARIN SANITATION AGENCY
REGULATORY CONSULTING SERVICES AGREEMENT

CMSA CONTRACT NO. 18-52

This Professional Services Agreement (hereinafter "Agreement") is made and entered into this ____ day of July, 2018 by and between the Central Marin Sanitation Agency (hereinafter referred to as "Agency") and MMO Consulting (hereinafter referred to as "Consultant").

RECITALS:

WHEREAS, the Agency desires to retain Consultant to perform the services (hereinafter referred to as "Services"), which include, but are not limited to,

Provide regulatory consulting services for the Agency's 2018-2023 NPDES Permit Regulatory Compliance activities, as described in each Task Order; and

WHEREAS, Consultant represents and warrants that it is qualified, competent, and ready to perform such Services;

NOW, THEREFORE, for and in consideration of the promises contained herein, and the payments to be made by Agency, the parties agree to the following:

1. CONSULTANT'S SCOPE OF SERVICES:

Consultant shall provide the Services described in in **Exhibit "A"** and other tasks requested by Agency, after a Task Order has been prepared, negotiated, and executed for each task. Task Orders authorized by the Agency will be incorporated into and made part of this Agreement.

2. AGENCY'S OBLIGATIONS:

The Agency shall:

- (A) Provide access to and make provisions for the Consultant to enter the Agency's facilities as needed by Consultant in order for it to perform the Services, subject only to Consultant providing the Agency with reasonable advance notice of its need for access to one or more of the Agency's facilities.
- (B) Make available to Consultant all pertinent data, contract documents, record drawings, reports, studies, and other records (hereinafter collectively "Information") requested by Consultant for its review and use, and reliance in its performance of the Services.
- (C) Provide review comments on project deliverables per the agreed upon activity and project schedules.

3. FEES:

The fees for furnishing the Services to be performed under this Agreement are set forth in the fee and task proposal for each approved Task Order.

If during the performance of the Services, Consultant makes a good faith determination that there will be a balance remaining in a task upon its completion, the Consultant, with the Agency's prior agreement, which shall not be unreasonably withheld, may reallocate that amount among other tasks that have not been completed but have exceeded or are estimated to exceed the amount originally allocated for those tasks.

4. PAYMENT:

The Agency shall pay Consultant for proper performance of the Services according to the fee schedule set forth in each Task Order. On a monthly basis, Consultant will provide the Agency with a written invoice setting forth the hours spent by Consultant's assigned personnel along with any reimbursable expenses incurred during that month together with supporting documentation as requested by the Agency. The fees for services under this Agreement shall be due within thirty (30) calendar days after approval by the Agency of the invoice covering the services and reimbursable expenses.

If no work was conducted in any particular month, no invoice will be provided.

5. AGREEMENT TIME:

All work required by this Agreement shall be completed and ready for acceptance no later than the agreed upon completion date in each authorized Task Order.

6. INSURANCE:

Consultant shall procure and maintain at all times during the performance of the Agreement at its expense the following insurances:

(A)(i) **Workers' Compensation and Employer's Liability Insurance** for protection of Consultant's employees as required by the State of California and as will protect Consultant from loss or damage because of personal injuries, including death to any of its employees. Employers Liability insurance shall be provided in amounts not less than:

\$1,000,000 each accident for bodily injury

\$1,000,000 each employee for bodily injury by disease

\$1,000,000 policy limit for bodily injury by disease

If Consultant has no employees, Worker's Compensation Insurance is not required under this Agreement.

- (A)(ii) **Comprehensive Automobile Liability Insurance** shall provide coverage for bodily injury and property damage liability. This policy shall protect Consultant against all liability arising out of the use of owned or leased automobiles both passenger and commercial. Automobiles, trucks, and other vehicles and equipment (owned, not owned, or hired, licensed or unlicensed for road use) shall be covered under this policy. Limits of liability for Comprehensive Automobile Liability Insurance shall not be less than \$1,000,000 per accident for bodily injury and property damage.
- (A)(iii) **Comprehensive General Liability Insurance** as will protect Consultant and the Agency from claims for damages or personal injuries, including death, which may be suffered by persons, or for damages to or destruction to the property of others, which may arise from the Consultant's Services under this Agreement. Said insurance shall provide a minimum of \$1,000,000 Combined Single Limit coverage for personal injury, bodily injury, and property damage for each occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately for this Agreement or the general aggregate limit shall be twice the required occurrence limit. Such insurance will insure Consultant and the Agency from any and all claims arising from the following:
1. Personal injury;
 2. Bodily injury;
 3. Property damage;
 4. Broad form property damage;
 5. Independent contractors;
 6. Blanket contractual liability.
- (A)(iv) **Professional Liability Insurance** shall protect Consultant from claims arising out of negligent acts, errors or omissions of Consultant in the performance of the Service in an amount of not less than \$1,000,000. The policy shall cover the indemnity provisions under this Agreement. Consultant shall maintain this insurance for twelve (12) months after the Services required under this Agreement have been completed.
- (B) Consultant agrees to procure and maintain such insurances at Consultant's expense in full force and effect with a company that is satisfactory to the Agency. All coverage shall remain in effect until completion of the Services.
- (C) Consultant will furnish the Agency with certificates of insurance issued by Consultant's insurance carrier(s) and countersigned by an authorized agent or representative of the insurance company. The certificates for liability insurance will show that liability assumed under this Agreement is included. *If the insurance is cancelled, Consultant shall notify Agency within 10 days of the cancellation date.*
- (D) Consultant hereby grants to CMSA a waiver of any right to subrogation which any insurer of said Consultant may acquire against CMSA by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the CMSA has received a waiver of subrogation endorsement from the insurer.

- (E) The general liability and automobile liability insurance policies shall contain or be endorsed to contain the following provisions:
- (i) The Agency, its members including San Rafael Sanitation District, City of Larkspur, Ross Valley Sanitary District, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, their respective commissioners, directors, councilmembers, officers, officials, employees and volunteers are to be covered as additional insured as respects: liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied or used by the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the Agency, its members including San Rafael Sanitation District, City of Larkspur, Ross Valley Sanitary District, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, their respective commissioners, directors, councilmembers officers, officials, employees and volunteers.
 - (ii) For any claims related to this Agreement, the Consultant's insurance coverage shall be primary insurance as respects the Agency, its members including San Rafael Sanitation District, City of Larkspur, Ross Valley Sanitary District, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, their respective commissioners, directors, councilmembers, officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its members including San Rafael Sanitation District, City of Larkspur, Ross Valley Sanitary District, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, their respective commissioners, directors, councilmembers, officers, officials, employees and volunteers shall be excess of the Consultant's insurance and shall not contribute to it.
 - (iii) The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
 - (iv) Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party except after ten (10) days' prior written notice by mail, has been given to the Agency. Consultant agrees to provide notification to the Agency in the event the insurance policies are suspended, voided, or reduced in coverage or limits.
- (F) Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to CMSA.

Failure to provide and maintain the insurance required by this Agreement will constitute a material breach of this Agreement. In addition to any other available remedies, Agency may suspend payment to the Consultant for any services provided during any time that insurance

was not in effect and until such time as the Consultant provides adequate evidence that Consultant has obtained the required insurance coverage.

CMSA, at its discretion, may waive insurance requirements or reduce the above stated coverage limits based on the Consultant's scope of work and complexity of the associated tasks.

7. NONDISCRIMINATORY EMPLOYMENT:

Consultant and/or any permitted sub-consultant shall not unlawfully discriminate against any individual based on race, color, religion, nationality, sex, sexual orientation, age, condition of disability, or other protected category. Consultant and/or any permitted sub-consultant understands and agrees that Consultant and/or any permitted sub-consultant is bound by and will comply with the nondiscrimination mandates of all federal, state and local statutes, regulations and ordinances.

8. LICENSING AND PERMITS:

The Consultant shall procure and maintain as required the appropriate licenses and permits required to perform the Services throughout the life of this Agreement.

9. BOOKS OF RECORD AND AUDIT PROVISION:

Consultant shall maintain on a current basis complete books and records relating to this Agreement and the Services performed. Such records shall include, but not be limited to, documents supporting all billings to the Agency for the Services performed. The books and records shall include itemizing all debits and credits for the work on this Agreement. In addition, Consultant shall maintain detailed payroll records including all subsistence, travel and field expenses, and canceled checks, receipts and invoices for all items. These documents and records shall be retained for at least five years from the completion of this Agreement. Consultant will permit Agency to audit all books, accounts or records relating to this Agreement or all books, accounts or records of any business entities controlled by Consultant who participated in this Agreement in any way. Any audit may be conducted on Consultant's premises or, at Agency's option, Consultant shall provide all books and records within a maximum of fifteen (15) days upon receipt of written notice from Agency. Consultant shall refund any moneys erroneously charged.

10. TITLE TO INFORMATION & DOCUMENTS:

It is understood that any and all documents, including but not limited to Information, documents, and reports concerning this Agreement's Services prepared by and/or submitted to the Consultant, shall be the property of the Agency. The Agency may provide the Consultant's work product(s) to another person or entity in the future for a separate specific assignment. However, Consultant retains all intellectual property rights, including copyrights, applicable to its work. The Consultant may retain reproducible copies of the documents that it prepares as part of the Services. In the event of the termination of this Agreement, for any reason

whatever, Consultant shall promptly deliver all Information, including but not limited to writings, plans, reports and other documents to Agency without exception or reservation.

11. TERMINATION:

- (A) **Notice to Cure.** If Consultant at any time fails to properly and diligently perform the Services covered by the Agreement, or has committed a material breach of a provision of this Agreement, the Agency shall give Consultant written notice that within two (2) working days of its receipt of said notice, Consultant shall commence and continue satisfactory correction of such default or breach with diligence and promptness.
- (B) **Consultant Default.** If Consultant fails to commence, within two (2) working days after receipt from the Agency of the notice issued under the above paragraph (A) and diligently thereafter, to correct the default or breach, then the Agency may pursue any remedies available by common law, statute, or this Agreement, including, but not limited to, one or more of the following:
- (i) withhold any sums due or thereafter to become due to Consultant under the Agreement and during such period such withheld amounts shall not accrue interest; or
 - (ii) terminate the Agreement;

Within seven (7) business days of Consultant's correction of the default or breach, the Agency shall release to the Consultant any monies withheld.

- (C) **Termination for Convenience.** The Agency may for its convenience and at any time and for any reason terminate Consultant's Services and this Agreement. Termination shall be by service of written notice to Consultant at its address for notice set forth below. Upon receipt of such notice, Consultant shall, unless the notice directs otherwise, immediately discontinue performing the Services.

Upon such termination, sub-consultants shall be entitled to payment only for the Services completed as of the date of termination pursuant to the Agreement. Consultant shall not be entitled to any claim or claim for any additional compensation, lost profit, or other damages in the event of such termination.

The Consultant may for its convenience and at any time and for any reason terminate this Agreement. Termination shall be by service of written notice to Agency at its address for notice set forth below.

12. RELATIONSHIP BETWEEN THE PARTIES:

It is expressly understood that in the performances of the Services herein, the Consultant, and the agents and employees thereof, shall act as an independent contractor and not as officers, employees or agents of the Agency. Consultant shall be solely responsible to pay all required taxes, including but not limited to, all withholding social security, and worker's compensation for its employees.

13. AMENDMENT:

This Agreement may be amended or modified only by written agreement of all parties.

14. ASSIGNMENT OF SERVICES AND PERSONNEL:

The Consultant shall not subcontract or assign any portion of the Services required to be performed pursuant to this Agreement without the prior written approval of the Agency. Further, Consultant shall not substitute any personnel for those specifically named in its proposal unless personnel with substantially equal or better qualifications and experience are provided and are acceptable to Agency, as is evidenced in writing.

15. JURISDICTION AND VENUE:

This Agreement shall be construed in accordance with the laws of the State of California and the parties hereto agree that venue shall be in Marin County, California.

16. INDEMNIFICATION:

Consultant shall indemnify, defend, and hold harmless the Agency, its members including San Rafael Sanitation District, City of Larkspur, Ross Valley Sanitary District, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, and their respective commissioners, directors, councilmember, officers, officials, and employees from any and all liabilities claims and losses including, but not limited to, reasonable litigation costs and attorney's fees arising from Consultant's negligence and/or willful misconduct in the performance of the Services under this Agreement, except to the extent caused by the active negligence of the Agency, its members including San Rafael Sanitation District, City of Larkspur, Ross Valley Sanitary District, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, or their respective commissioners, directors, councilmember, officers, officials, and employees.

Notwithstanding the foregoing, for any claim alleging Consultant's negligent performance of professional services or willful misconduct, Consultant's obligations regarding Agency's or its member's defense under this section include only the reimbursement of Agency's and/or its member's reasonable defense costs incurred to the extent of Consultant's negligence or willful misconduct as expressly determined by a final judgment, arbitration, award, order, settlement, or other final resolution. The Consultant shall not be responsible for warranties, guarantees, fitness for a particular purpose, breach of fiduciary duty, loss of anticipated profits or for economic, incidental or consequential damages to Agency, its members, or any third party arising out of breach of contract, termination, or for any other reason whatsoever. Additionally, Consultant shall not be responsible for acts and decisions of third parties, including governmental agencies, other than Consultant's sub-consultants, that impact completion and/or success of the Services.

17. STANDARD OF CARE:

Consultant shall complete the services required hereunder in accordance with the prevailing standard of care by exercising the skill and ability ordinarily required to perform the same or similar services, under the same or similar circumstances, in the State of California. Consultant shall, at no cost to the Agency, re-perform any part of the services which fail to satisfy the foregoing standard of care.

18. ESTIMATES AND PROJECTIONS:

Consultant has no control over the cost of labor, materials, equipment or services furnished by others, over the incoming water quality and/or quantity, or over the way the Agency's facilities and/or associated processes are operated and/or maintained. Data projections and estimates are based on Consultant's opinion based on experience and judgment. Consultant cannot and does not guarantee that actual costs and/or quantities realized will not vary from the data projections and estimates prepared by Consultant and Consultant does not and will be not liable to and/or indemnify the Agency and/or any third party related to any inconsistencies between Consultant's data projections and estimates and actual costs and/or quantities realized by the Agency and/or any third party in the future.

19. THIRD PARTIES:

The services to be performed by Consultant are intended solely for the benefit of Agency and its members. No person or entity not a signatory to this Agreement shall be entitled to rely on Consultant's performance of its services hereunder, and no right to assert a claim against Consultant by assignment of indemnity rights or otherwise shall accrue to a third party as a result of this Agreement or the performance of Consultant's services hereunder.

20. FORCE MAJUERE:

Neither Consultant nor Agency shall be considered to be in default of this Agreement if delays in or failure of performance shall be due to uncontrollable forces, the effect of which, by the exercise of reasonable diligence, the nonperforming party could not avoid. The term "uncontrollable forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under this Agreement and which is beyond the control of the nonperforming party. It includes, but is not limited to, fire, flood, earthquake, storms, lightening, epidemic, war, riot, civil disturbance, sabotage, inability to procure permits, licenses, or authorizations from any state, local, or federal agency or person for any of the supplies, materials, accesses, or services required to be provided by either Consultant or Agency under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint.

21. COMPLIANCE WITH APPLICABLE LAWS:

In performance of the services, Consultant will comply with applicable regulatory requirements including federal, state, and local laws, rules, regulations, orders, codes, criteria, and standards.

22. WAIVER:

A waiver by either the Agency or Consultant of any breach of this Agreement shall not be binding upon the waiving party unless such waiver is in writing and executed by the waiving party. In the event of a written waiver, such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

23. SEVERABILITY:

The invalidity, illegality, or unenforceability of any provision of this Agreement, or the occurrence of any event rendering any portion or provision of this Agreement void, shall in no way affect the validity or enforceability of any other portion or provision of the Agreement. Any void provision shall be deemed severed from the Agreement and the balance of the Agreement shall be construed and enforced as if the Agreement did not contain the particular portion or provision held to be void.

24. INTEGRATION:

This Agreement supersedes all prior agreements, contracts, proposals, representations, negotiations, letters, or other communications between the Consultant and Agency pertaining to this Agreement and the Services to be performed, whether written or oral.

25. NOTICES AND DESIGNATED REPRESENTATIVES:

Mark Koekemoer is the designated representative for CMSA and will administer this Agreement for CMSA. **Monica Oakley** is the designated representative for Consultant. Changes in designated representatives shall occur only by advance written notice to the other party.

All invoices shall be submitted and approved by the designated Agency representative and all notices shall be given to Agency at the following location:

1301 Andersen Drive
San Rafael, CA 94901

Notices shall be given to Consultant at the following address:

MMO Consulting
P.O. Box 98
Orinda, CA 94563

IN WITNESS WHEREOF, the parties hereunto have executed this Agreement on the date first above written.

APPROVED BY:

CENTRAL MARIN SANITATION AGENCY:

Jason R. Dow, General Manager

CONSULTANT:

Monica M. Oakley, President

Exhibit A - Regulatory Consulting Services Agreement

GENERAL

The work generally described below and detailed in each approved Task Order shall be performed in accordance with the Regulatory Consulting Services Agreement executed between the Central Marin Sanitation Agency (Agency) and MMO Consulting (Consultant), dated July 11, 2018.

SCOPE OF SERVICE

Consultant will provide regulatory consulting services to the Agency after a Task Order for each activity has been prepared and executed by both parties. The Task Order will contain the task's detailed scope of work, fee, and schedule. Task Orders within the Agency's management signature authority will be authorized by the General Manager and Task Orders greater than that authority will be considered by the CMSA Board of Commissioners. The Agency and Consultant have identified several activities over the then term of the Agency's 2018 NPDES Permit (2018 – 2022) that the Agency may need regulatory consulting support services. A brief description of the regulatory services is presented below.

1) NPDES Permit Compliance

Consultant will provide assistance related to NPDES permit compliance issues, which could include activities related to treatment plant inspections, prevention activities related to compliance assurance, investigation of non-compliance with effluent limitations, answering questions related to conditions applicable to NPDES permit, information on current regulatory developments applicable to the NPDES permit, water quality objective analyses, comment letters on regulatory initiatives, and other activities, as desired.

2) Pretreatment and Pollution Prevention Assistance

Consultant will provide assistance with the pretreatment and pollution prevention programs. This task may include review of agency-prepared draft local limits review required in NPDES permit; activities related to pretreatment program inspections; reviewing pretreatment compliance inspection reports including responses; assistance related to the dental amalgam control program; assistance with development of the Annual Pollution Prevention Report; implementation of the Copper Action Plan and Cyanide Action Plan; and other pretreatment and local limits assistance.

3) Collection System Assistance

Consultant will provide assistance with CMSA's interaction with satellite collection system agencies, including developments regarding NPDES permit appeal, answering questions about regulatory requirements for collection system agencies, commenting on sanitary sewer overflow data and information, coordination of activities, assistance with enforcement issues that may arise, and other collection systems assistance, as desired and budget permits.



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates
From: Jason Dow, General Manager JD
Subject: Resolution of Appreciation for Kit Groves

Recommendation: Approve CMSA Resolution #330, a Resolution of Appreciation for Kit Groves.

Summary: Kit Groves, a long time Agency employee, retired on June 30, 2018, after 32 years of dedicated and exceptional service. Kit began his career at CMSA on June 30, 1986, approximately one year after CMSA began operation. Over the years, Kit performed many important functions for the Agency from installing and testing equipment and instrumentation to troubleshooting and programming the treatment plant's SCADA system. Kit also trained staff, supervised electricians and instrumentation technicians, and performed corrective and preventative electrical system maintenance on CMSA facilities, Sanitary District #2 pump station systems, and at San Quentin's main pump station. Additionally, Kit contributed during the design phase of nearly all of the Agency's capital improvement projects, and assisted during system and equipment start-up to ensure smooth and proper operation.

Kit is collaborative and engaging, very knowledgeable about many things, and an overall great person. His colleagues at the Agency have prepared the attached Resolution of Appreciation that does a fine job highlighting aspects of his tenure at CMSA.

Attachment:

- CMSA Resolution #330: Resolution of Appreciation for Kit Groves



CMSA Resolution No. 330

*Resolution of Appreciation for
Kit Groves*

WHEREAS, **Kit Groves** began his career with the Central Marin Sanitation Agency as an Electrical and Instrumentation Technician I on June 30, 1986 and advanced to his current position of Assistant Electrical and Instrumentation Supervisor in May 2014; and

WHEREAS, **Kit** was recognized on several occasions by the CWEA and his peers as a master electrician and instrument and data systems technician, and with 32 years with this Agency, there is not one piece of equipment that he has not touched; and

WHEREAS, **Kit** always represented the Agency in a professional manner in his interactions with vendors, customers, and the public; and

WHEREAS, we will all miss **Kit's** Yoda-like wisdom, patience, and advice, the majority of which was provided in the shop completing the many challenging repairs by making use of his decades-long experience and historical awareness that only he possessed; and

WHEREAS, **Kit** kept his office at a balmy 95 degrees, to limit the length of a visitor's stay; and

WHEREAS, **Kit's** Dutch Oven cooking was a highlight of annual holiday parties and not to be missed; and

WHEREAS, **Kit** knew his audience well and could explain OHMs law and power factor correction in a way that made it sound as simple as brushing your teeth, or confuse you so much that you would forget how to brush your teeth; and

WHEREAS, **Kit** was the only employee to start his career at CMSA driving an old pick-up truck and ending his career at the Agency driving the same truck; and

NOW, THEREFORE, BE IT RESOLVED that the Commissioners for the Central Marin Sanitation Agency do express their appreciation to **Kit** for his dedication to the Agency and wish him a happy and eventful retirement.

PASSED AND ADOPTED at the meeting of the Central Marin Sanitation Agency Commissioners, County of Marin, State of California, on July 10 2018, by the following vote:

AYES:

NAYS:

ABSTAIN:

ABSENT:

Diane Furst, Commission Chair

ATTEST:

By


Tom Gaffney, Commission Vice-Chair




BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates

From: Kevin Lewis, Assistant Maintenance Supervisor 

Approved: Jason Dow, General Manager 

Subject: FY 2018 Asset Management Program – Annual Report

Recommendation: Informational, provide comments or direction to the General Manager, as appropriate.

Summary: Since February 2011, staff has provided the Board with periodic presentations to highlight the progress made on implementing the Agency's Asset Management Program (Program). Staff publishes quarterly Asset Management (AM) reports in October, January, April, and the annual report is presented in July.

Annual Highlights

1. Aeration Tank Gate Replacement – This past year, staff worked to realign, adjust, and apply a spot repair to a large sluice gate that is used to isolate flow leaving Aeration Tank No. 4. But as water was still leaking back through the gate after the repair, technicians installed a spare gate from inventory at the same time Secondary Clarifier No. 4 was out of service for its annual maintenance. Completing both tasks at the same time allowed the Agency to avoid a process flow diversion as both the basin and clarifier are designed to work in conjunction as part of normal operations.
2. Sodium Bisulfite (SBS) Metering Pump Refurbishments – Over a five month period, the Agency dechlorinated approximately 3.1 billion gallons of water prior to discharge into San Francisco Bay. Our dechlorination system pumps are required to work under a wide range of flows to completely dechlorinate the final effluent, and they need to be periodically examined to verify operational and mechanical integrity. This task coincidentally aligned with an Agency improvement project to completely rehabilitate these pumps. Five SBS metering pumps were removed from their mounting bases, one at a time, and the pump heads were disassembled, inspected for wear and corrosion, and new replacement parts were installed. After rebuilding the heads, the pump housings were coated with chemical resistant coating, reassembled, and new lubricants added.

3. Aeration Fine Bubble Diffuser Replacements – The aeration system uses EPDM membranes (synthetic rubber) to diffuse fine bubbles of air into the aeration tanks. The diffusers have a service life of five years, after which they are replaced and properly disposed. Staff replaced a total of 720 diffusers or 180 diffusers per tank, along with inspecting the air supply piping and fittings. The tanks are now ready for another five years of service.
4. SQ Prison Pump Station Flow Meter Replacement – The originally installed San Quentin Prison (SQPS) pump station flow meter was recently replaced. Over the past year this meter had become less reliable and staff was spending additional maintenance time to keep the meter operating properly. The meter replacement was performed during the night, in coordination with San Quentin engineering staff and two specialty contractors, to limit disruptions to prison operations. Agency staff performed the removal and installation of the new meter as vacuum trucks removed water from the upstream collection system and the pump station's wet well. Once the old meter was removed, V&A Engineering performed wall thickness evaluations on the Forcemain piping within the pump station, and determined the pipe thickness was sound.
5. Secondary Clarifier Pipe Corrosion Repair – During the Facility's Master Plan condition assessment work, the assessment team discovered severe corrosion on the Return Activated Sludge (RAS), Scum, and Tank Drain pipes attached to Secondary Clarifier No. 3. All three pipes are located in an extremely small corner sump in the pump room below the clarifier. Corrosion experts from V&A Engineering were called in to evaluate the extent of the corrosion, and they recommended immediate corrective action. Pacific Infrastructure, a mechanical contractor, performed the rehabilitation work. The severely corroded metal was removed, and concrete around the outside of the pipes was chipped back and removed to expose sound metal for welding. Agency staff was charged with developing short- and long-term system operating plans and overseeing the work. The pipes were successfully repaired and the clarifier was returned to service.
6. Outfall Sluice Gate Electric Actuator Replacement – During high flow and high tide events, a sluice gate at the entrance to the 84" outfall closes and the chlorinated effluent is routed to the effluent pump station, allowing the Agency to discharge large volumes of treated water that exceed the capacity of the gravity outfall. Functional testing on this asset is performed twice annually due to the corrosive environment in which it operates. In FY 16 staff inspected the motor operated valve (MOV) that raises and lowers the sluice gate, and noted that the valve body required an industrial coating to prevent further oxidation, and internal electrical components were also showing signs of exposure to moisture. In FY 18, a new MOV was procured and installed by staff. The replaced unit was sent back to its original manufacturer for refurbishment, and once this work was completed, the rehabilitated MOV became the critical spare. Moving forward, this equipment will be placed on a two-year preventative maintenance cycle which includes a factory service.

7. Slurry Mixing Pumps – The organic waste receiving facility (OWRF) utilizes two pumps, typically one operating at a time, to mix the organic materials into slurry that can be pumped to the anaerobic digesters. This past year, during routine preventative maintenance, technicians noted that internal wear and tear on both pieces of equipment had reached the point that replacement was warranted. CMSA receives animal and plant based organic wastes that are taxing on processing equipment, requiring their regular maintenance. To address this, staff worked with the pump manufacturer to put develop an equipment specific “replacement assembly” that allows removal and replacement of targeted high wear sections of the pump, versus purchasing an entirely new pump and motor package. This cost-effective approach streamlines the equipment change-out process and reduces labor costs.
8. Piping Expansion Joint Replacement Project – Expansion joints are short sections of molded rubber that connect piping together at various intervals to allow for movement or expansion. A majority of the Agency’s expansion joints can be found in the underground galleries connected to long runs of piping, most were installed as part of the facility’s original construction, and all of these joints were assessed and found to be nearing the end of their service lives. In FY 17, a multi-year project began to replace these joints as part of routine annual facility maintenance work. This past year, nine expansion joints, all within the gallery system, were replaced. Each joint was custom made to ensure a proper fit and proper application. This project will be ongoing for the next several years to replace over 100 joints throughout the treatment plant.
9. New Influent and Effluent Samplers – The Agency utilizes samplers to collect treatment wastewater coming into the facility which is tested for various constituents. The challenging environment where this equipment is located, combined with technology obsolescence, typically limits the sampler’s useful life span to about ten years. Recently, staff completed a project which involved replacing the existing samplers, rehabilitating the sample delivery pumps, and removing the remains of previous generations of samplers, wiring, piping, and instrumentation. This project was performed in stages with the cooperation of several departments, resulting in uninterrupted facility operation. Staff also rebuilt the pumps providing water samples to these new units and replaced their original base frames with stainless steel to reduce corrosion.
10. Heat Exchanger Replacement – The facility’s cogeneration system is a combined heat and power system (CHP) and utilizes three separate heat exchangers for the system’s engine. The waste heat exchanger uses reclaimed water to draw heat away from the coolant that circulates through the engine. In May 2017, during a routine inspection, staff noted a pinhole leak developing on the discharge end of the exchanger. The leak was repaired, but staff noted several rust perforations after removing the insulated protective cover. In December, after the peak power demand season and prior to

shutting down the engine and isolating this system, staff installed lifting points in the ceiling above the heat exchanger and prepared the unit for removal. Advanced preparation for this work saved considerable time, and technicians replaced the exchanger and returned the cogeneration system to service in less than a day.

11. Hot Water Pump Replacement Project – Heated water from the cogeneration system’s primary heat exchanger is circulated through sludge heat exchangers to keep the facility’s anaerobically digested sludge temperature at an optimal 100°F. A condition assessment was performed in 2016 on the hot water loop’s equipment, and based on the assessment’s findings, a project was scheduled to replace key pieces of equipment and complete needed repairs. In February, both recirculation pumps were replaced along with four isolation valves and associated equipment. Once this work was completed, equipment and process pipe lines were painted with a rust-inhibiting coating.
12. Biogas Scrubber Vessel Media Replacement – Prior to biogas being used as a fuel in the cogeneration engine, it requires a level of cleaning in order to meet Bay Area air quality fuel standards. The first stage of the cleaning process is the removal of hydrogen sulfide gas (H₂S) utilizing a media scrubber. The media used in these scrubbers periodically require changing out as it removes H₂S from the gas stream. This past year, and prior to the peak power demand season, a contractor was hired to perform the media change-out. Work consisted of purging the vessel of methane, removing both vessel service ports, and completing a confined space entry to chip and vacuum out 22,000 pounds of media. Once the vessel was empty, new media was installed along with a new filter element which keeps loose media from entering the gas piping. This process took approximately two days to complete. The contractor then off-hauled the old media, and the unit was returned to service.
13. Solids Handling Building Ferric Chloride Tank Replacement – Ferric chloride has several uses in solids handling processes including pipeline struvite control, H₂S reduction in the anaerobic digesters, and as a flocculent/coagulant in centrifuge dewatering operations. This past year staff completed a project to rehabilitate the Solids Handling Building’s Ferric Chloride handling facility. To limit disruptions to area operations, staff installed a temporary ferric chloride storage and conveyance system utilizing a series of small, 250 gallon storage containers (“totes”) to supply product to equipment during the system rehabilitation work. This work included emptying and removing the old tank and its attached piping, rehabilitating and recoating the concrete containment structure, installing a new 6,500 gallon polyethylene tank, installing double-walled supply and discharge piping, and installing electronic level indicating equipment. Once the new tank was placed, staff tested it for leaks, installed earthquake restraints, and placed hazard ID placarding.

Asset Inventory

The Asset Parts Inventory is comprised of critical spare parts for Agency equipment, and consumable items designated for CMSA's contract collection agencies – Sanitary District No. 2 (Corte Madera), San Quentin State Prison, and San Quentin Village Sewer Maintenance District. Spare parts for CMSA and San Quentin Village are kept at CMSA site-specific parts rooms, Sanitary District No. 2 parts and equipment are stored at Paradise pump station, and San Quentin State Prison parts and equipment are stored at the San Quentin pump station.

Staff conducted a comprehensive review of Agency assets tracked within the computerized maintenance management systems (CMMS) asset tree. This quarterly exercise is performed to verify active assets within the system. As Agency-managed projects or regularly scheduled maintenance work is completed, both new and old assets must be accounted for in an asset inventory count. Along with entering new and removing obsolete assets from the asset tree, staff removed improperly grouped or classified assets, and removed additional non-critical assets valued under \$2,500, the Agency's established tracking limit for assets within the CMMS system. In all, a total of 328 items were entered, reclassified, or removed from the CMMS asset tree this past year.

Asset Locations	Total Assets
CMSA	2,332
Sanitary District #2	362
San Quentin Prison	30
San Quentin Village	5

Parts Inventory	Parts Quantity	Total Value
CMSA	24,871	\$1,429,855
Sanitary District #2	287	\$162,211
San Quentin Prison	38	\$63,354
San Quentin Village	2	\$1,124

Asset Improvements, Repairs, and Refurbishment Work

1) CMSA Capital Improvement Project Work

Projects in the table below are capital projects that were completed or were in progress over the past year. For some of the projects, CMSA staff performed work alongside contractors.

Project Name	CMSA Staff Cost	Total Cost	Status
LED lighting Upgrades	\$8,110	\$29,826	Complete
Maintenance Building Modifications	\$ 80,215	\$ 1,517,622	Complete
Secondary Clarifier Pipe Corrosion Repair	\$3,826	\$36,938	Complete
Headworks Odor Scrubber Fan Replacement	\$2,644	\$67,101	Complete

Project Name	CMSA Staff Cost	Total Cost	Status
Secondary Flow Control Valve Actuator Replacement	\$3,318	\$28,598	Complete
Secondary Effluent Suspended Solids Meter	\$6,321	\$12,037	Complete
Outfall Sluice Gate Actuator Replacement	\$1,917	\$35,145	Complete
Expansion Joint Replacement Project	\$7,690	\$27,713	Complete
Biogas Scrubber Media Replacement	\$109	\$32,842	Complete

2) CMSA Asset Management Improvements

Projects in the table below are considered routine, recurring, and usual maintenance work for the preservation and protection of Agency assets. CMSA labor and materials costs are included to determine the overall cost to perform a specific task.

Area	Equipment	Improvement	Total Cost	Comments
Facility-wide	Plant Sumps	Hatch cover replacements	\$4,423	Replaced two corroded covers with lightweight aluminum diamond plate. Prepared and coated metal frames.
Facility-wide	Area Lighting	LED conversion	\$29,826	Replaced 31 fixtures and 51 lamps in galleries B, E, and F, and disinfection and dechlorination chemical storage areas.
Facility -wide	Process Tanks	Replaced kickboards	\$21,310	Replaced original boards with pressure treated wood on all five original primary clarifiers, contact tank no. 1, and spot replacements near the secondary clarifiers.
Facility Influent Interceptors	SR and RV Junction Vaults	Sump pump control panel replacements	\$16,461	Purchased and installed duplex sump pump control panels.
Facility SR Influent Interceptor	48" Isolation Valve	Corrosion abatement and repairs	\$1,094	Replaced valve bonnet fasteners with stainless steel bolts and new coating.
Facility RV Meter Vault	Influent Flowmeter	Replaced insertion meter	\$13,077	Transducer failed, and was replaced.

Area	Equipment	Improvement	Total Cost	Comments
Facility-wide	Composite Samplers	Replaced samplers	\$53,203	Installed three samplers, decluttered piping, and moved pH meters. Refurbished sample pumps and bases, and installed motor VFDs.
Odor Control Site Peroxide Station	Metering Pumps	Installed one new pump and refurbished one existing pump	\$12,207	Installed gear pump, wiring, VFD, and controls. Refurbished pump no. 2 with new service kit.
Headworks	Vacuum Truck Receiving Sump Pump	Installed new pump	\$16,364	Installed new 10 HP submersible chopper pump.
Headworks	Influent Gates	Hydraulic controls replacement	\$6,423	Replaced valve control assemblies due to heavy corrosion.
Headworks	Channel Blower No. 4	Installed new drive motor	\$4,223	Bearing in motor failed.
Headworks	Site Sump Pump No. 1	Impeller and control switch replacements	\$3,193	Replaced worn pump impeller and level control float switches.
Headworks	Influent Screens	Annual preventive maintenance	\$11,652	Inspected plates, changed lubricants, and replaced missing retaining clips.
Headworks	Grit Blower No. 3	Motor replacement	\$3,281	Electric motor was replaced.
Headworks Grit Removal	Grit Classifier No. 1	Annual preventive maintenance	\$4,726	Replaced cable, auger, and specific wear parts as needed.
Headworks Grit Removal System	Grit Pumps and Piping	Condition assessments and inspections	\$6,882	Disassembled pumps and piping for measurements, photos, and inspection. Prepared report for capital planning.
Headworks Grit Removal System	Grit Separation Tanks	Annual preventive maintenance	\$7,394	Inspected equipment; and replaced lubricants and wear parts.
Primary Clarifiers	Primary Scum Pump	Installed new pump	\$12,581	New progressive cavity pump and hardware was installed with a new stainless pump base and supports.

Area	Equipment	Improvement	Total Cost	Comments
Primary Clarifiers	Clarifiers Nos. 6 and 7	Annual preventive maintenance	\$3,914	Inspected process equipment and changed-out lubricants.
Primary Clarifiers	Primary Clarifier No. 1	Effluent weirs	\$16,000	Installed new fiberglass V-notch weirs. Leveled weirs to process operating elevation.
Aeration	Fine Bubble Diffusers	New membranes for all four basins	\$33,336	Replaced EPDM diffusers, clamps, and leaking saddle O-rings.
Aeration	Effluent Isolation Sluice Gate	Gate replacement	\$8,685	Replaced failed cast iron gate with new stainless steel gate.
Secondary Clarifiers	All Four Process Tanks	Annual preventative maintenance	\$10,950	Replaced lubricants, wear parts, and inspected drive motors and gear boxes.
Secondary Clarifiers	Waste Activated Sludge Pumps	Upgraded variable frequency drives (VFDs)	\$11,700	Replaced VFDs with newer units to allow better communication and control with SCADA system.
Solids Handling	Biogas Membrane Covers	Level indicating instrument	\$4,010	Replaced failed unit with a more robust direct read laser level.
Solids Handling	Centrifuge Nos. 2 and 3	Replaced variable frequency drives	\$6,261	Replaced VFDs in both bowl drive assemblies.
Solids Handling	Centrifuge No. 1	Annual preventative maintenance	\$12,135	Removed rotating assemblies and inspected scrolls. Cleaned and assembled centrifuges with new bearings and seals.
Solids Handling	Centrifuge Feed Pump No. 2	Replaced pump	\$8,485	Replaced pump with a rebuilt unit.
Solids Handling	Primary Sludge Feed Line No. 2	Plug valve and actuator replacement	\$12,901	Replaced eccentric plug valve and electric operator.
Solids Handling	Odor Scrubber	Fan refurbishment	\$3,852	Replaced fan and bearings. Adjusted motor and belts, and modified noisy guard.
Solids Handling	TWAS Pump Nos. 1 and 2	Annual preventative maintenance	\$7,800	Replaced lobes, wear plates, cartridge seals, housings, and lubricants.

Area	Equipment	Improvement	Total Cost	Comments
Solids Handling	Ferric Chloride Pumps	Replaced pumps	\$12,861	Replaced three original pumps with gear pumps.
Solids Handling	Sludge Heating System	Replaced recirculation grinder	\$9,639	Replaced failed sludge grinder cartridge with a new unit.
Solids Handling	Sludge Feed Piping	Isolation valve replacement	\$3,832	Replaced 6" eccentric plug valves in two locations.
Solids Handling	Digester Heat Recirculation System	Replaced heating recirculation pumps	\$14,316	Replaced two recirculation pumps, two check valves, and four failed butterfly isolation valves.
Energy Generation	Cogenerator	Annual maintenance procedure	\$35,348	Replaced oil and air filters, sparkplugs and their holders, lubricants, water pumps, and thermostats. Completed valve adjustments.
Energy Generation	Cogenerator	Waste heat exchanger	\$21,746	Installed new tube-n-shell waste heat exchanger.
Energy Generation	Cogenerator Integration System	Annual preventative maintenance	\$4,446	Clover Engineering completed annual PM and tuning. Changed power factor from 0.92 to 0.83.
Energy Generation	Biogas Purification Filters	Replaced siloxane filter media	\$2,975	Replaced activated carbon siloxane filter media in vessel no. 2.
Energy Generation	Dolinger Filters	Replaced paper element filters	\$5,115	Replaced six filter elements.
Energy Generation	Biogas Purification Filters	Replaced H2S filter media	\$32,298	Replaced 22,000 pounds of filter media and the foam filter.
Energy Generation	Boiler No. 2	Level control switch replacement	\$2,942	Replaced failed level control safety switch.
Energy Generation	Boilers Nos. 1 and 2	Isolation valve replacements	\$5,011	Replaced six butterfly valves.
Energy Generation	Biogas Dryer	Annual preventative maintenance	\$5,412	Completed Annual PM, replaced faulty refrigerant pressure gauges, and repaired refrigerant leak.

Area	Equipment	Improvement	Total Cost	Comments
Organic Waste Receiving Station	Odor Scrubber	Bi-annual maintenance procedure	\$8,224	Replaced and disposed of spent media.
Organic Waste Receiving Station	Slurry Mixing Pumps	6-month maintenance procedure	\$ 21,809	Wet end replacements consisting of new impellers, cutting bar plates, and new bearings.
Organic Waste Receiving Facility	Digester Feed Pump	Installed new hoses	\$12,186	Replaced EPDM hoses, hose lubricants, and pressure switches.
Organic Waste Receiving Station	Rock Trap Grinder	Grinder refurbishment	\$15,761	Replaced knives, knife holder, shear plate, shear plate standoffs, mechanical seal, drive motor, and gearbox.
Chlorine Contact Tanks	Philadelphia Solution Mixer	Shaft replacement	\$3,501	Replaced failed shaft and propeller unit. Removed corroded metal and applied new coating.
Chlorine Contact Tanks	Sodium Bisulfite (SBS) Induction Mixer	Annual preventative maintenance	\$18,800	Replaced 10HP mixing unit and flexible chemical hose.
Chlorine Contact Tanks	Tanks and Effluent Pump Station	Annual preventative maintenance	\$3,700	Completed inspections and maintenance on mud valves, sluice gates, scum skimmers, area coatings, and piping; repaired sealants as needed.
Chlorine Contact Tanks	Contact Tank Nos. 1 through 4	Installed safe access gates	\$4,305	Removed sections of railing and installed gates for safe tank access.
Chlorine Contact Tanks	Scum Pump No. 2	Replaced pump	\$5,202	Installed new stainless pump base and supports, and new progressive cavity pump and hardware.
Chlorine Contact Tanks	Scum Pump No. 1	Refurbished pump	\$1,902	Installed new Isolation valve, check valve, new gaskets, and stainless steel hardware.
Disinfection and Dechlorination Bulk Chemical Storage	Hypochlorite Pump No. 215	Discharge piping replacement	\$1,110	Replaced tubing, piping and fittings on pump discharge.

Area	Equipment	Improvement	Total Cost	Comments
Disinfection and Dechlorination Bulk Chemical Storage	Area Lighting	Convert and automate exterior lighting	\$3,681	Replaced wiring, added new controller and sensors.
Disinfection and Dechlorination Bulk Chemical Storage	Sodium Bisulfite (SBS) Metering Pumps	Pump refurbishment	\$22,945	Replaced diaphragms, check balls, housings, seals, and lubricants. Applied chemically-resistant coatings and repaired piping leaks.
Disinfection and Dechlorination Bulk Chemical Storage	Sodium Bisulfite (SBS) Metering System	Replaced the supply line to contact tanks Nos. 6 and 7	\$21,191	New chemical hose, heat trace wiring, temperature controller, and improved valve access; reinsulated connections.
Outfall	84" Sluice Gate Motor Actuator	Annual preventative maintenance	\$18,547	Installed new electric actuator and old unit rebuilt. Improved data communications.
Outfall	Effluent Chlorine Residual Sample Pump	Pump and base refurbishment	\$3,665	Replaced base with stainless steel, fabricated new motor mounts, removed old basket strainer and piping, and installed a new supply line to the pump.
Storage Pond	Drain Pump	Equipment automation project	\$7,183	Replaced motor starter with a VFD, added a level transmitter, and programmed PLC for pump speed based on pond level.
Effluent Pump Station	Pump Drive Motors	Engine block heaters replaced	\$3,358	Replaced oversized and failing block heaters with properly sized units for electricity savings.

3) CMSA Maintained Assets (San Quentin Prison, Sanitary District #2, San Quentin Village)

Maintenance work performed over the year on collection agency assets by CMSA staff, an approved contractor, or service provider.

Asset Owner	Asset	Improvement	Total Cost	Comment
Sanitary District No. 2	All Pump Stations	Annual preventative maintenance	\$16,800	Clean and vacuum wet wells, check equipment and appurtenances, and test electrical controls and power distribution equipment.
Sanitary District No. 2	Fifer Pump Station	Temporary standby diesel powered pump	\$16,495	Instituted standby emergency sewage pump to manage wet weather high flows.
Sanitary District No. 2	Fifer Pump Station	Pump replacement	\$41,220	Both station pumps replaced.
Sanitary District No. 2	Pixley Pump Station	Check valve replacement	\$2,426	Replaced both station check valves.
Sanitary District No. 2	Lucky Pump Station	Check valve replacement	\$1,732	Pump No. 2 received new valve.
Sanitary District No. 2	Lucky Pump Station	Pump replacement	\$6,079	Pump No. 1 was replaced.
Sanitary District No. 2	Seawolf Pump Station	Impeller replacement	\$2,733	Pump No. 2 received a new impeller.
Sanitary District No. 2	Trailer Court Pump Station	Check valve replacement	\$4,239	Replaced both station check valves.
Sanitary District No. 2	Paradise Pump Station	Replaced surge tank level gauge	\$1,513	Replacement of corroded valves and fittings on sight gauge.
Sanitary District No. 2	Paradise Pump Station	VFD component replacement	\$8,981	Contractor replaced failed VFD No. 5's output board.
Sanitary District No. 2	Paradise Pump Station	Replaced VFD	\$5,146	Unit failure, replaced VFD on pump no. 3.
San Quentin Prison	Influent Channel Grinders	Replaced in-service cartridge	\$22,576	Installed factory-refurbished channel grinder.
San Quentin Prison	Influent Channel Grinders	Installed emergency stops	\$6,869	Two emergency stops were installed in the headworks area for both auger/ grinders. E-stop relays installed in each control panel for SCADA signaling.
San Quentin Prison	Effluent Flowmeter	Replaced meter	\$15,017	Flowmeter and piping drain valve replaced.

Asset Owner	Asset	Improvement	Total Cost	Comment
San Quentin Prison	Standby Emergency Generator	Annual service	\$3,389	Performed annual maintenance service, and replaced the water pump and front oil seal.
San Quentin Village	Collection System	Cleaning and foaming treatment	\$4,954	Hydro-flushed 6" and 8" sewer lines and applied root control treatment.
San Quentin Village	Collection System	Cleaning and CCTV inspection	\$7,500	Contractor cleaned gravity lines and lift station, and CCTV'd entire collection system. CCTV exploratory work on Penny Terrace.

Work Orders – Annual Summary FY 2018

A work order is a written request that a preventive, corrective, or unplanned corrective maintenance task or project be performed. Work orders are typically generated and sent internally from one department to another. Shown in the table below are the types of work orders prepared by staff, the annual work orders completed, and the total labor hours, by type, to complete the work orders.

Work Order Type	# of WO's	% of Total WO's	Labor Hrs.	% of Total Hrs.
Preventative Maintenance (PM)	909	42.68%	4,262.75	12.40%
Corrective-Planned	616	28.92%	5,680.75	16.53%
Corrective-Unplanned	217	10.19%	919.25	2.67%
Improvement Project Work	22	1.03%	1,396.00	4.06%
Coating Projects	7	0.33%	184.00	0.54%
Safety	71	3.33%	398.25	1.16%
Professional Development/Staff Meetings	90	4.23%	1,404.50	4.09%
Facilities Administration/Housekeeping	104	4.88%	3,854.00	11.21%
Process Control and Facility Operations	94	4.41%	16,269.30	47.34%
Total	2130	100%	34,368.80	100%



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates
From: Jacky Wong, Assistant Engineer
Approved: Jason Dow, General Manager 
Subject: **Emulsion Polymer Supply Contract Extension
CMSA Contract No. 16-17**

Recommendation: Approve a one-year extension of the Liquid Emulsion Polymer Supply Contract, and authorize the General Manager to sign the contract extension letter.

Summary: The Agency's Liquid Emulsion Polymer Supply Contract (Contract) with SNF Polydyne (Polydyne) expired on June 30, 2018. Polydyne has offered to extend the Contract for an additional year with a 48% unit cost increase for delivered polymer. Staff recommends the Board approve the contract extension based on findings listed in the Discussion section below. If approved, the total unit price, including sales tax, for emulsion polymer will be \$1.199 per wet pound.

Discussion: The Contract was awarded to Polydyne in July 2016 for a total unit price of \$0.787 per wet pound of delivered emulsion polymer. The Contract has a two-year term with one administrative extension available, upon mutual agreement.

In June 2018, staff contacted Polydyne requesting to exercise the contract extension. Polydyne offered to extend the Contract for one additional year at a new unit cost of \$1.199 per wet pound, which is a 48% increase from the current unit price of \$0.811 per wet pound.

In order to determine whether the Contract should be extended with the price increase or go through a competitive bidding process, staff first met with Polydyne to discuss the reasons and driving factors behind the significant price increase. Polydyne explained that not just CMSA, but every public agency has been impacted by the cost increase. The cost of polymer continues to increase due to the increased costs of propylene, diesel fuel, and freight, and a shortage of cationic polymer production capacity. At the meeting, Polydyne also presented graphs showing a propylene cost increase of 60% and diesel cost increase of 40% in the past two years. Staff subsequently verified the presented cost information is accurate.

Staff then conducted a market survey of other agencies using liquid emulsion polymer for treatment, including the Union Sanitary District and the City of Merced. Both agencies recently went through the competitive bidding process for liquid emulsion polymer instead of extending

existing supply contracts, and their bid results showed that Polydyne and other polymer vendors increased their delivered unit prices by at least 50%.

Finally, when staff compared the Agency's 2016 polymer bid results, Polydyne's bid price was approximately 26% lower than the other two polymer vendors' bid prices.

Based on discussions with Polydyne and the current market conditions for liquid emulsion polymer, staff found that Polydyne's extension offer price is competitive when compared to other facilities and to other polymer vendors.

Attachments:

- 1) SNF Polydyne contract extension letter, dated July 2, 2018
- 2) Cost increase graphs from Polydyne



RE: 2018/2019 Polymer market price increase.

July 02, 2018

Jacky Wong
Assistant Engineer
Central Marin Sanitation Agency
1301 Andersen Drive
San Rafael, CA 94901
Tel: (415) 459-1455 x 130
Email: jwong@cmsa.us

Dear Jacky:

I wanted to take the opportunity to thank you for considering Polydyne to continue to furnish the **Central Marin Sanitation Agency** with the polymers for your next fiscal year.

I would also like to state first and foremost The **Central Marin Sanitation Agency** has consistently been an important customer for SNF Polydyne and we greatly value our partnership. In addition, we will always commit to doing what is in the City's best interest and plan to continue our efforts in providing both excellent support and products to your Wastewater Treatment Plant.

Per your request, I am writing you this formal letter explaining the reasons we are increasing our polymer costs at this time. With much experience, I can share there are many variables which have led to a nationwide increase in price. The more obvious have come from increases in labor costs, manufacturing energy costs, and material costs; these three derivatives have influenced the price of polymer to increase substantially. In addition, another component is the shipping aspect which in turn has experienced not only labor and fuel cost increases, but also a shortage in long distance specialty chemical truck drivers which in turn has increased the shipping costs to higher than usual.

I understand increasing the price may resort in your department recommending you go out to trial, which we at Polydyne understand. In this case Polydyne will participate in your bid process and put forth the current market price which in no doubt higher than the extension price I am offering without a trial; knowing the market, I am confident Polydyne will win this bid under the circumstances.

At this time Polydyne will continue to support and accommodate your polymer needs and provide you with your current products along with extended prices described below;

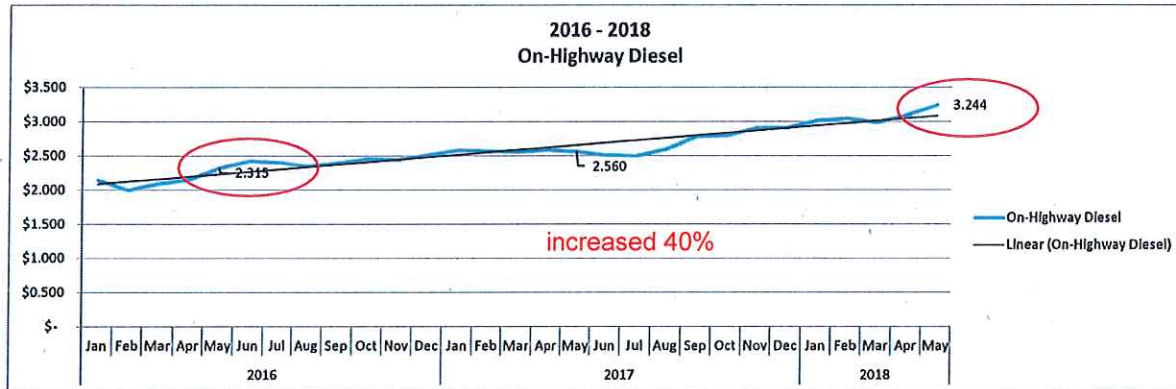
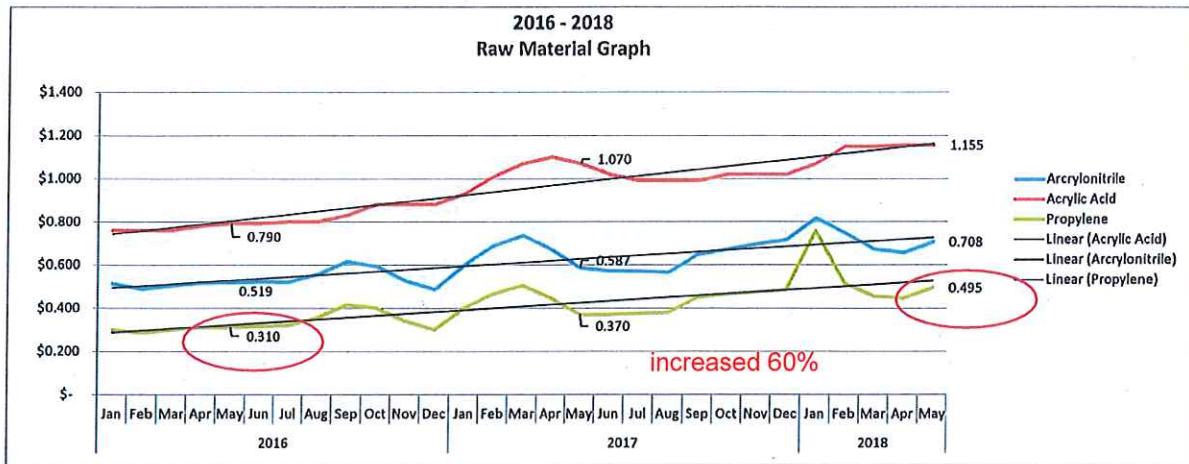
Polymer Name	Polymer Type	Current Price	New Contract Price	Date of effect
Clarifloc WE-1196®	Cationic Emulsion Blend	\$0.7440 /lb	\$1.100 /lb	July 01, 2018

Please note, as always the **\$1.100 /lb** price does include delivered freight costs to your facility although local sales and other applicable sales taxes are not included in this price. I will say although the price increase is approximately **48%**, Polydyne has been affected by the increased cost variables for almost a year, causing us to be at a financial loss. However in good faith, Polydyne has adhered to our obligation with the **Central Marin Sanitation Agency** and protected your current price to end of your contract period.

Finally, I would like to emphasize once again the **Central Marin Sanitation Agency** is considered a close partner and advocate of SNF Polydyne which will always resort in putting our customers first. Thanks for your business!

Best Regards,

Jason Rai
Technical Sales Representative






BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager 

Subject: **FY 2018-19 Commission Officers, Finance Committee, and North Bay Watershed Association Board Appointments**

Recommendation: Nominate and select commissioners for the Commission Chair, Vice Chair, and Secretary offices, and appoint commissioners to the standing Finance Committee and NBWA Board of Directors.

Discussion: The Commission annually selects officers and makes appointments to its standing Finance Committee and the North Bay Watershed Association’s (NBWA) Board of Directors. These appointments are for a one-year term, and are normally made at the July Board meeting. The current slate of officers and Committee/NBWA Board members are:

Officers

Commission Chair: Diane Furst, Sanitary District #2
 Commission Vice-Chair: Tom Gaffney, Ross Valley Sanitary District
 Commission Secretary: Albert Boro, San Rafael Sanitation District

Standing Finance Committee: Tom Gaffney (RVSD), Michael Boorstein (RVSD),
Dean DiGiovanni (SRSD)

NBWA Board of Directors: Diane Furst (SD2), GM Jason Dow (alternate)

I met with alternate Commissioner Boro a few months ago to discuss his Conflict of Interest Form, and at that time he indicated his intention to resign from the CMSA Board.

Background: The JPA does not include a process or guidance for rotating or nominating officers. Below is an excerpt from Section 7, item B, of the 2018 JPA pertaining to membership and officers.

Each commissioner may be an elected official of the governing body of the City or District he/she represents, or may be such other resident of the City or District as selected by the Member. A commissioner shall serve in such a manner and for such term as each Member

may determine, and may be removed at the pleasure of the Member appointing such person. The Commission shall annually choose commissioners to serve as Chair, Vice-Chair, and Secretary. Each Member shall determine its method of selection of the person representing the City or District. An elected official or resident of the City or District may be designated by the Member to serve as an alternate to any commissioner.



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates
From: Jason Dow, General Manager *JD*
Subject: **Participation in the MCE Deep Green Program**

Recommendation: Consider participating in the MCE Deep Green Program, and provide direction to staff, as appropriate.

Discussion: Participation in the MCE Deep Green Program (Program) will cost the Agency an additional \$0.01/kWh, or approximately \$3,200 per year based on the CMSA's energy procurement profile from April 2017 to April 2018. At the June meeting, the Board discussed several aspects of the Program, including its power procurement costs, energy generation sources, renewable certification, and actual real time greenhouse gas emissions for energy delivered to Program participants. A key question raised and considered by Board members was: "How does MCE guarantee that its Program power is 100% renewable at any time, given the daily and seasonal variations in its renewable generation profile?" At the conclusion of the Board discussion and public comment period, the Board decided to continue the Program item to the July meeting and directed staff to seek responses to several questions. Board member questions are below and MCE's responses are attached to this staff report.

- 1) Why does the MCE website list Deep Green as only 73% renewable?
- 2) What is "intermittent energy"?
- 3) How much does, or has, MCE invested in local renewable projects?
- 4) How does the MCE customer energy demand profile relate to the renewable energy procurement profile?

A member of the public that attended the June Board meeting informed MCE about the Board discussion pertaining to the Program renewables being listed as 73% on the MCE website. MCE staff later informed me that the Program information on the Green-e website was incorrect, and the day following the Board meeting the information was corrected to state the Program power is derived from 50% wind and 50% solar. MCE provided the attached 2018 Prospective MCE Deep Green Product Content Label.

Background: At the May Board meeting, during public open time, Helene Marsh and Jody Timms spoke to the Board about the Program and asked the Board to consider authorizing CMSA's participation in FY 19. In response to their request, the Board directed staff to agendize a discussion on participating in the Program for the June Board meeting. Staff contacted MCE about participating in its Program, and learned that moving the Agency's energy procurement from the current Light Green Program to the Deep Green Program will cost, approximately, an additional \$3,162 per year as shown in the attached cost estimate provided by MCE

Many private businesses and public agencies in the county participate in the MCE Deep Green Program. Public agencies include the County of Marin, the eleven cities and towns in the county, Marin Municipal Water District, North Marin Water District, Ross Valley Sanitary District, and the Sewerage Agency of Southern Marin. Since the June meeting, Las Gallinas Valley Sanitary District joined the Program.

On two prior occasions, the Board considered participating in the Program and chose both times to remain in Light Green. First, in April 2014, as part of a discussion to reduce the Agency's greenhouse gas emissions, the Board decided to postpone deciding on participating until the Agency's food-to-energy and other organic waste receiving programs matured and staff could report on the increase in renewable energy generation. In April 2015, the Board had the follow-up discussion, and again made the decision to not join primarily due to the Agency's future plan to become energy self-sufficient and deliver renewable energy to the local electricity grid.

Attachments:

- 1) MCE responses to the June meeting Board questions
- 2) MCE Deep Green Participation Cost Estimate, dated 5/3/18
- 3) 2018 Prospective MCE Deep Green Product Content Label
- 4) Email from Helene Marsh and Sarah Loughran, dated 6/29/18, regarding Deep Green for CMSA



1) Why does the MCE website list Deep Green as only 73% renewable?

MCE's [website](#) states Deep Green is 100% California Green-e certified renewable electricity in the form of 50% solar and 50% wind.

2) What is "intermittent energy"?

Variable Energy Resources (VERs), such as wind and solar, provide intermittent delivery of energy supply. Intermittent delivery refers to non-dispatchable power that is generated in on-and-off cycles during 24 hour periods and varies seasonally. Intermittent power sources typically do not contain stored potential energy although the incorporation of interconnected storage with these projects is beginning.

3) How much does, or has, MCE reinvest in local renewable projects?

From [MCE's 2018 Integrated Resources Plan \(IRP\)](#): "MCE continues to provide direct support for the development of local renewable energy projects through the ongoing administration of its Net Energy Metering ("NEM") and Feed-In tariff ("FIT") programs. Notable achievements in this area include the following:

- In 2017, MCE served approximately 14,700 NEM customers; the smaller-scale renewable generating projects that have been installed by such customers represent more than 128,000 kW (128 MW) of local renewable generating capacity; upon expansion of its service area in 2018, MCE expects to serve nearly 25,000 NEM customers with approximately 200,000 kW (200 MW) of installed, behind-the-meter capacity;
- Via partnership with Grid Alternatives, MCE has contributed \$155,000 to low-income residential solar installations since 2012; benefitting customers have saved an estimated \$1,018,000;
- In addition to rooftop generating capacity, MCE is planning to develop or purchase energy from up to 45* MW of locally constructed (within MCE's service area), utility-scale renewable generating capacity by 2021.
- MCE continues to administer one of California's most generous FIT programs for locally situated, smaller-scale renewable generating resources that supply wholesale electricity to MCE. This program utilizes a standard offer (i.e. non-negotiable) contract that is available on a first-come, first-served basis for up to 45 MW of qualifying renewable energy projects within MCE's service area. Specific terms and conditions for the FIT program, of which approximately 30 MW remain are available on [MCE's website](#). " MCE FIT projects producing power in MCE's service area are:

Local Renewable Energy Projects

Project	Online	Type	Size
1 San Rafael Airport	2012	FIT	1 MW, rooftop solar
2 Buck Institute	2016	PPA	1 MW, airport solar shade structure
3 Cost Plus Plaza	2016	FIT	0.265 MW, rooftop solar
4 Freethy Industrial Park	2016	FIT	2 MW, ground mounted solar
5 Cooley Quarry	2017	FIT	1 MW, ground mounted solar
6 Redwood Landfill	2017	PPA	3.6 MW, bioenergy plant
7 MCE Solar One	2017	PPA	10.5 MW, ground mounted solar



19+ MW powering 10,000 homes

- “MCE offers a voluntary 100 percent renewable energy option, known as Deep Green service, to all customers. The Deep Green supply portfolio relies exclusively on bundled renewable energy resources produced by California-based generators. Customer participation in Deep Green service directly impacts the quantity of incremental renewable energy volumes that MCE must procure to ensure that its broader supply portfolio includes sufficient renewable energy volume to support Light Green and Deep Green participation. Additionally, half of the premium charged to Deep Green customers is allocated to the Local Renewable Energy Reserve Fund. This fund is used to cover the pre-development and other costs of local projects, such as for the MCE Solar One 10.5 MW solar PV project in Richmond, California. As a result, increased participation in Deep Green not only reduces a customer’s electricity-related GHG emissions, but also supports local project development and, by extension, creates economic benefits and associated local green-collar jobs within MCE’s service area.” The Local Renewable Energy Reserve fund provided over \$1,049,000 to support the pre-development of the MCE Solar One project now comprising part of MCE’s Deep Green service offering.
- “Toward the goal of 45 MW more of local renewable energy development, MCE may consider direct project investment or ownership of generation assets and has historically utilized long-term PPAs to secure renewable energy supplies at stable costs for its customers. MCE considers asset ownership to offer similar benefits to contracting via long-term PPAs and, therefore, does not have an explicit bias toward either PPAs or asset ownership. MCE examines opportunities for asset ownership – as it does for its contracted resources – on a case-by-case basis, considering such factors as risk allocation, asset location, technology, and, most critically, impact on MCE’s customers’ rates. Current federal tax policy generally favors private versus public ownership of renewable assets due to the tax credits that are uniquely available to the private sector. For this reason, MCE’s experience has been that PPAs with privately owned renewable generation facilities are typically more cost-effective than development or ownership by MCE. However, MCE has secured optional buyout provisions in some of its renewable PPAs, which provide a potential path to MCE asset ownership after the tax benefits have been exhausted by the private developer. Assessing a generation project’s operational risk becomes more important for assets owned by MCE because MCE could be at risk for production shortfalls and for cost over-runs, which are risks typically absorbed by the developer under a PPA structure. Direct generation investment may become an increasingly viable option during the Planning Period as MCE expects to gain additional operational experience and more robust access to credit markets. As part of this approach, MCE may also consider joint ventures and turnkey development approaches to ensure appropriate allocation of project risks.”

4) How does the MCE customer energy demand profile relate to the renewable energy procurement profile?

MCE endeavours to match its customer load profile with its energy supply profile. As a generation provider, MCE meets our customers' aggregate demand profile with matching supply quantities delivered onto the grid through a combination of long term, medium term, and short term supply including resource adequacy requirements. Depending upon the MCE service the customer selects and purchases through their monthly utility bill, MCE matches their energy and demand service requirements through the procurement of this power in matched quantities and certified annually through Green-e.

From the MCE 2018 IRP: **Electric Load Forecast:** MCE's long-term load forecast is primarily influenced by structural or "macro" variables, which impact the number of customers that MCE expects to serve. These macro variables include current customer count, classifications, energy usage, and expected customer participation rates. Primarily, macro variables drive the load forecast and tend to overshadow the effects of typical "micro" variables related to weather, economic cycles, population growth, and changes in customer consumption patterns. The long-term load forecast for resource planning incorporates macro variables and the seasonal electricity consumption patterns of MCE's customer base, while most other micro variables are considered in MCE's shorter-term load forecasts used for scheduling and portfolio optimization.

Baseline Customer and Consumption Forecast:

MCE's electricity demand forecast starts with a forecast of customers by end-use classification (residential, commercial, etc.). Class-typical monthly energy consumption estimates, derived from historical data, are applied to yield a monthly energy forecast by customer class. Hourly class-specific load profiles are then used to break down the monthly energy forecast into more granular time-of-use and peak demand values. Certain adjustments are incorporated in the base forecast to account for factors not reflected in the historical data. MCE also makes explicit adjustments to this forecast to account for the load impacts of its DER programs and emerging market factors such as growing electricity demand related to electric vehicle ("EV") charging.

Existing Resource Commitments:

MCE currently has more than ninety unique power purchase commitments to ensure requisite conventional, renewable, and GHG-free energy supply. MCE's contract portfolio includes a variety of suppliers, term lengths, product types, quantities, generation technologies, and resource locations. (See Table 3 in MCE 2018 IRP for list of contracts)

Resource Needs:

Beyond its current contractual commitments, MCE will procure additional energy products, as necessary, to ensure that the future energy needs of its customers are met in a clean, reliable, and cost effective manner. MCE has established proportionate procurement targets for overall GHG-free energy content, including subcategories for various renewable energy products, and has also established targets for necessary capacity reserves. To the extent that MCE's energy needs are not fulfilled through the use of GHG-free generating resources, it should be assumed that such supply will be sourced from conventional energy sources, such as natural gas generating technologies or system power, which describes "generic" energy purchases from the wholesale market that are not directly associated with specific generators.

Renewable Resources:

MCE has committed to providing all of its Light Green customers with energy that is at least 57 percent renewable; incremental renewable energy quantities will also be procured on behalf of Deep Green program participants to ensure that such customers are provided with 100 percent renewable energy.

Deep Green Service:

MCE offers a voluntary 100 percent renewable energy option, known as Deep Green service, to all customers. The Deep Green supply portfolio relies exclusively on bundled renewable energy resources produced by California-based generators. Customer participation in Deep Green service directly impacts the quantity of incremental renewable energy volumes that MCE must procure to ensure that its broader supply portfolio includes sufficient renewable energy volume to support Light Green and Deep Green participation.”

*Updated July 2018: MCE plans 45 MW of expected local development from the FIT program (15 MW from closed FIT program and 30 MW available in the new FIT and FIT Plus programs). MCE added a specific RFO for local projects (within the service area) for up to 20 MW to Open Season which MCE expects to continue in future Open Season cycles.

MCE 7/5/18 CK/LS

To: Central Marin Sanitation Agency
 From: Chris Kubik, Katelyn Heflin MCE
 Date: 5/3/18



Central Marin Sanitation Agency	Last 12 months usage (kWh)	MCE Light Green emissions factor**	lbs of CO2			Annual Deep Green cost -- + \$.01/kWh	Cost per MT of CO2e reduced: MCE Light Green to Deep Green
			Emissions associated with MCE Light Green (57% Renewable)	Emissions associated with Deep Green (100% Renewable)	Emission Savings going from Light Green to Deep Green		
Total	316,239	285	90,128	0	90,128	\$ 3,162	\$ 77.36
				Monthly cost:		\$ 264	

**lbs of CO2/MWh 2016 published factor

Metric tons*

41

*The EPA equivalent 9 passenger vehicles driven for one year

MCE Deep Green delivers:

- 100% Green-e certified California bundled renewable electricity: 50% solar and 50% wind
- 2 points towards Bay Area Green Business certification
- 6 credits toward LEED Green Power purchasing
- Zero Scope 2 emissions as of our customer's next billing cycle
- Reduction in carbon intensity of energy supply supporting the communities' Climate Action Plan 2020 targets, the state plans, and Drawdown:Marin
- No contract or term requirement
- No charge to the demand (kW) side of the bill
- At \$.01/kWh, our customers pay for what they use and pay less as they implement self-generation and energy efficiency
- No customer management required. As usage changes, the charge for Deep Green automatically adjusts on the monthly PG&E bill
- 50% of the Deep Green premium is invested in our Local Renewable Energy Fund, which funded the Solar One 10.5 MW solar array on the Chevron brownfield site in Richmond
- Opportunity to participate in our complimentary marketing program: Deep Green Champions



Transparency is important to us. MCE's 100% renewable Deep Green product is Green-e Energy certified, and meets the environmental and consumer-protection standards set forth by the nonprofit Center for Resource Solutions. Learn more at www.green-e.org. In 2018, all of our generation sources are in California.

2018 PROSPECTIVE MCE DEEP GREEN PRODUCT CONTENT LABEL¹

MCE'S 100% renewable Deep Green product covers 100% of your electricity usage.

A percentage of this product's renewable content, listed below, is satisfied by renewable portfolio standard (RPS) state-mandated renewables that also meet Green-e Energy eligibility rules, up to the 29% renewables that MCE must provide you under the State's RPS rules. 100% of the product's renewable electricity content is Green-e Energy certified.

In 2018, MCE's Deep Green product is projected to be made up of the following new renewable resources averaged annually.

Green-e Energy Certified New² Renewables in MCE's Deep Green Product

Resource Type	Voluntary Renewables	Voluntary Resource Location	Mandated Renewables	Mandated Resource Location
Solar	21%	CA	29%	CA
Wind	50%	CA		
Total Green-e Energy Certified Renewables				100%

1. These figures reflect the renewables that MCE has contracted to provide. Actual figures may vary according to resource availability. MCE will annually report to you before August 1 of next year, in the form of a Historical Product Content Label, the actual resource mix of the electricity you purchased.

2. New renewables come from generation facilities that first began commercial operation within the past 15 years.

For comparison, the 2016 average mix of resources supplying PG&E includes: Renewables (33%), Nuclear (24%), Natural Gas (17%), Large Hydroelectric (12%), and Unspecified (14%). This resource mix was prepared in accordance with the California Energy Commission.

The average home in MCE's service area uses 451 kWh per month.

For specific information about this electricity product, please contact MCE at 1 (888) 632-3674 or via email at customerservice@mceCleanEnergy.org.

2016 HISTORIC MCE DEEP GREEN PRODUCT CONTENT LABEL³

MCE'S 100% renewable Deep Green product covers 100% of your electricity usage.

A percentage of this product's renewable content, listed below, is satisfied by renewable portfolio standard (RPS) state-mandated renewables that also meet Green-e Energy eligibility rules, up to the 25% renewables that MCE must provide you under the State's RPS rules. 100% of the product's renewable electricity content is Green-e Energy certified.

In 2016, MCE's Deep Green product was made up of the following new renewable resources averaged annually.

Green-e Energy Certified New⁴ Renewables in MCE's Deep Green Product

Resource Type	Voluntary Renewables	Voluntary Resource Location	Mandated Renewables	Mandated Resource Location
Biogas	25%	CA		
Solar			25%	CA
Wind	50%	CA ⁵		
Total Green-e Energy Certified Renewables				100%

3. These figures reflect the power delivered to MCE Deep Green customers in 2016.

4. New renewables come from generation facilities that first began commercial operation within the past 15 years.

5. On Deep Green's 2016 prospective content label, it was stated that wind energy was to be sourced from CA, WA, and ID. However MCE was able to procure greater supply from in-state (CA), allowing MCE to allocate 100% in-state resources to Deep Green.

For comparison, the 2015 average mix of resources supplying PG&E includes: Renewables (30%), Nuclear (23%), Natural Gas (25%), Large Hydroelectric (6%), and Unspecified (17%). This resource mix was prepared in accordance with the California Energy Commission.

The average home in MCE's service area uses 445 kWh per month.

For specific information about this electricity product, please contact MCE at 1 (888) 632-3674 or via email at customerservice@mceCleanEnergy.org.

Jason Dow

From: sarahloughran@comcast.net
Sent: Friday, June 29, 2018 1:30 PM
To: CMSA Board; Jason Dow
Cc: 'Helene Marsh'; sarahloughran@comcast.net
Subject: Deep Green for CMSA - Update on Power Source Question

Dear CMSA Board members,

Thank you for considering the opportunity to purchase MCE Deep Green at your Board Meeting on June 12.

We are grateful for Board Member Bushey's due diligence in looking up MCE on the Green-e Certification Website. When Board Member Bushey looked at the site, it indicated that MCE's Deep Green product was 50% wind and 23% solar. We found the same thing and sent a screen shot to MCE. We learned that the information on the Green-e Certification website was incorrect and, in fact, it was corrected to 50% wind and 50% solar by the end of the business day on June 13. See

<https://www.green-e.org/certified-resources>

We hope that you will now be in a position to vote in favor of purchasing 100% renewable electricity for the small amount of power that you buy.

Since your last meeting, Las Gallinas Valley Sanitary District voted to buy Deep Green, joining Sanitary District #2, Ross Valley Sanitary District, and Sewerage Agency of Southern Marin. Each of these districts is showing the environmental leadership that is crucially important and that CMSA embodies.

Thank you for your consideration.

Helene Marsh & Sarah Loughran



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates

From: Kenneth Spray, Administrative Services Manager
Jason Dow, General Manager *JD*

Subject: **Proposed FY 19 Agency Business Plan**

Recommendation: Approve the FY 19 Agency Business Plan, and provide comments and/or direction to the General Manager, as appropriate.

Discussion: Over the past several months, concurrent with developing the Agency's FY 19 budget and updating its 10-year Capital Improvement Program, the Agency's Strategic Planning Committee (ASPC) prepared the FY 18 Business Plan Report and the proposed FY 19 Business Plan. Last month, the Board accepted the FY 18 Report, and the proposed FY 19 Business Plan is attached for the Board's consideration of approval.

New Objectives in the FY 19 Business Plan are:

- a) Deliver projects from the Agency Facilities Master Plan
- b) Evaluate financial software replacement alternatives
- c) Plan and prepare for debt issuance in FY 20
- d) Align asset management practices and asset inventory between Finance and Maintenance
- e) Perform a Digester Volatile Solids Loading Pilot Study
- f) Implement the updated Environmental Laboratory Accreditation Standard
- g) Explore opportunities for CMSA to become a service contract laboratory

At the July 10 Board meeting, staff will briefly review the new Objectives prepared by the ASPC, and will highlight several noteworthy new Actions within existing Objectives.

Background: In July 2016, the Board adopted a new 5-year Strategic Business Plan (SBP) for the Agency that is comprised of Vision, Mission, and Value statements, with supporting Goals, Objectives, and Actions. The Agency's SBP provides a guide for maintaining and continuing to improve the Agency's operations and services. It also sets individual, departmental, and organizational priorities, and guides fundamental decisions and actions that will shape the Agency into the future.

The SBP's format is for the higher level strategic statements to be applicable over its 5-year term, while the supporting Objective and Actions are evaluated and updated on an annual basis. Each July, staff will present an annual business plan that includes the SBP's Goals, updated Objectives, and new or continuing Actions. These Actions are projects, initiatives, and activities that are designed to achieve the SBP Goals while aligning with its Vision, Mission, and Values. At year-end, staff will report on business plan accomplishments for the year, as well as prepare a new business plan for the coming year.

Staff recommends that the Board review and adopt the Agency's FY 19 Business Plan. Following Board adoption, the ASPC will develop the business plan implementation schedule.

Attachment:

- FY 19 Agency Business Plan



CENTRAL MARIN SANITATION AGENCY



CMSA Business Plan

FY 2018 - 2019

DRAFT



Agency's Mission, Vision, and Values



MISSION

MISSION

WHAT THE AGENCY DOES

Central Marin Sanitation Agency will protect the environment and public health by providing wastewater, environmental, and resource recovery services of exceptional quality and value to its customers.



VISION

VISION

WHERE THE AGENCY WANTS TO BE IN THE FUTURE

Central Marin Sanitation Agency will be an industry leader by providing innovative, efficient, and sustainable wastewater services, capturing and utilizing renewable resources, and delivering renewable power.



VALUES

VALUES

KEY STATEMENTS THAT DESCRIBE THE IDEALS OF THE AGENCY

CMSA values...

- Consistent and continuous regulatory compliance to protect San Francisco Bay.
 - Sound financial practices to safeguard the Agency's assets.
 - Effective asset management through appropriate short- and long-term planning and sustainable practices.
 - A safe and healthy workplace for its employees and stakeholders.
 - Professional growth, teamwork, and job satisfaction within a diverse workforce.
 - Quality public outreach and education to promote environmental stewardship.
 - Partnerships which further common water quality and resource recovery interests.
-

AGENCY GOALS

- ▲ GOAL ONE
- ▲ GOAL TWO
- ▲ GOAL THREE
- ▲ GOAL FOUR
- ▲ GOAL FIVE
- ▲ GOAL SIX



GOAL ONE

CMSA will continue to operate and maintain its wastewater facilities to produce high quality effluent and biosolids, within a changing regulatory environment.

Objective 1.1 Maintain the high performance of the treatment facility's operational processes

- Action: Comply with all Agency regulatory requirements
- Action: Apply for the National Association of Clean Water Agencies (NACWA) Gold Award
- Action: Prepare an automation and process instrumentation study
- Action: Conduct Ferric Chloride and Sodium Bisulfite use optimization studies

Objective 1.2 Develop and implement strategies to meet changing regulatory requirements

- Action: Review, update, and implement CMSA's Enforcement Response Plan
- Action: Develop and implement an NPDES Permit Compliance schedule
- Action: Develop and implement a local limit assessment review
- Action: Review, update, and implement CMSA's Sewer Use Ordinance

Objective 1.3 Manage the Agency's assets

- Action: Hire a consultant to evaluate the Asset Management Program and recommend improvements
- Action: Construct high-priority Agency paving improvements
- Action: Perform a major overhaul of the cogeneration engine
- Action: Repair the landslides on the Andersen Drive hillside

Objective 1.4 Deliver Projects from the Agency Facilities Master Plan

- Action: Conduct an Influent Flow Meter Alternatives Study
- Action: Repair the epoxy coatings in the Chemical Storage Facility
- Action: Design and construct the Process Tank Crack Repair Project
- Action: Replace the Primary Clarifier hydraulic gate units
- Action: Begin the design phase of the Secondary Clarifier Rehabilitation Project

AGENCY GOALS

- ▲ GOAL ONE
- ▲ **GOAL TWO**
- ▲ GOAL THREE
- ▲ GOAL FOUR
- ▲ GOAL FIVE
- ▲ GOAL SIX



GOAL TWO

CMSA will continually improve financial management practices to ensure transparency, financial sustainability, and sound fiscal principles.

Objective 2.1 Regularly evaluate existing fiscal practices and develop new procedures as necessary

Action: Manage and review monthly transactions to ensure a clean FY 18-19 audit

Action: Provide Agency staff with quarterly refresher training on financial procedures for purchase orders, travel reports, timesheets, and invoice authorization

Action: Evaluate banking services for possible service improvements

Action: Review and update the Business Continuity Plan's essential vendors for emergencies

Objective 2.2 Evaluate financial software replacement alternatives

Action: Perform an internal financial software needs assessment

Action: Hire a consultant with expertise in financial software applications for public agencies

Action: Evaluate financial software to meet the needs assessment findings

Action: Prepare a proposed financial system recommendation for Board consideration

Objective 2.3 Prepare transparent financial documents

Action: Prepare the Agency's Budget document in the Government Finance Officers Association (GFOA) format and submit to the GFOA for review

Action: Prepare quarterly budget reports for the Board of Commissioners

Action: Prepare the Agency's Comprehensive Annual Financial Report (CAFR), and submit to the GFOA for review

Action: Prepare the Agency's Popular Annual Financial Report (PAFR), and submit to the GFOA for review

AGENCY GOALS

- ▲ GOAL ONE
- ▲ **GOAL TWO**
- ▲ GOAL THREE
- ▲ GOAL FOUR
- ▲ GOAL FIVE
- ▲ GOAL SIX



GOAL TWO, continued

CMSA will continually improve financial management practices to ensure transparency, financial sustainability, and sound fiscal principles.

Objective 2.4 Plan and prepare for a Bond issuance in FY 20

- Action: Update the 10-Year CIP to identify projects to be included in a debt issuance, and determine when funds will be required
- Action: Convene the Finance Committee to review the debt issuance schedule, projects for financing, and the financing team
- Action: Present the debt issuance plan to the CMSA Board for consideration of approval

Objective 2.5 Align asset management practices and asset inventory between Maintenance and Finance

- Action: Reconcile financial system fixed assets for consistency with asset management system
- Action: Conform names and asset numbers for consistency
- Action: Ensure accuracy of inventory between systems
- Action: Revise and update Administrative and Financial policies and procedures

AGENCY GOALS

- ▲ GOAL ONE
- ▲ GOAL TWO
- ▲ **GOAL THREE**
- ▲ GOAL FOUR
- ▲ GOAL FIVE
- ▲ GOAL SIX



GOAL THREE

CMSA will further incorporate green business principles and consider renewable resource opportunities in its short- and long-term planning.

Objective 3.1 Implement steps to supply the Agency's extra power

- Action: Construct facility improvements for delivering Agency power
- Action: Obtain Commercial Operations Date from PG&E
- Action: Obtain Renewable Power Certification from CEC
- Action: Identify potential organic waste sources within the region to increase biogas production

Objective 3.2 Perform a Digester Volatile Solids Loading Pilot Study

- Action: Develop a digester VSL study plan and timeline
- Action: Engage Carollo Engineers to review the plan
- Action: Construct bench scale digesters
- Action: Conduct the Digester VSL Pilot Study
- Action: Assess the study results, prepare report, and determine feasibility for publication

Objective 3.3 Increase the Agency's energy efficiency through implementation of the Power Monitoring Program

- Action: Identify optimum energy control mechanisms for facility equipment to achieve maximum energy efficiency and process stability
- Action: Replace lighting fixtures with high-efficiency LEDs in areas per the FY 19 plan
- Action: Conduct the Headworks Blower Efficiency Study

AGENCY GOALS

- ▲ GOAL ONE
- ▲ GOAL TWO
- ▲ GOAL THREE
- ▲ **GOAL FOUR**
- ▲ GOAL FIVE
- ▲ GOAL SIX



GOAL FOUR

CMSA will lead or actively participate in collaborative efforts to address local and regional environmental opportunities and challenges.

Objective 4.1 Collaborate with stakeholders on programs to comply with CALRecycle's regulations on diverting organics from landfills

Action: Serve as the Bay Area Biosolids Coalition lead agency

Action: Participate in the Bay Area Biosolids Coalition to evaluate year-round biosolids management alternatives

Action: Verify Redwood Landfill's intention to comply with AB 1383, and determine possible impacts on Agency biosolids management

Objective 4.2 Promote interagency coordination on capital projects

Action: Support rehabilitation of the Sanitary District No. 2 Fifer, Trinidad 2, and Paradise pump stations.

Action: Support integration of the Ross Valley Sanitary District pump station telemetry to CMSA SCADA

Action: Administer the FY 19 Capital Improvement Program for the main pump station at San Quentin State Prison

Action: Attend newly-formed quarterly treatment plant manager meetings with Marin County wastewater agencies

Objective 4.3 Implement the updated Environmental Laboratory Accreditation Standard

Action: Develop a TNI compliant Quality Assurance Manual

Action: Develop the required TNI policy requirements

Action: Begin development of TNI compliant Standard Operating Procedures

Action: Conduct a cost-benefit analysis of NELAC certification

Objective 4.4 Explore opportunities for CMSA to become a service contract laboratory

Action: Assess laboratory analytical resources, capabilities, and staffing requirements

Action: If assessment determines feasibility, conduct a cost-benefit analysis of providing laboratory services

Action: If cost-benefit results are positive, develop and produce a lab brochure price list, and initiate contract laboratory services

AGENCY GOALS

- ▲ GOAL ONE
- ▲ GOAL TWO
- ▲ GOAL THREE
- ▲ GOAL FOUR
- ▲ **GOAL FIVE**
- ▲ GOAL SIX



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 5.1 Promote a culture of leadership and professional growth

- Action: Organize and conduct informal seminars on the Agency's SBP, asset management program and inventory, and contracting and procurement policies
- Action: Institute P3 training program for Technical Services staff
- Action: Conduct Administration and Finance department cross-training
- Action: Encourage sharing of knowledge from employee training participation
- Action: Provide onsite coaching and development training for supervisors

Objective 5.2 Support efforts to attract and develop qualified and skilled employees

- Action: Complete the succession plan for key employee classifications
- Action: Update department-specific classification progression requirements
- Action: Utilize the Agency Facebook page to feature Agency workplace culture and to promote recruitments
- Action: Evaluate developing a high school job shadowing program

Objective 5.3 Enhance employee work culture

- Action: Hold an Agency barbeque and holiday party
- Action: Submit applications for industry awards
- Action: Build a new Operations Control Room in the Administration Building
- Action: Explore further development of the Agency Wellness Program
- Action: Encourage staff participation in Agency committees and work teams

AGENCY GOALS

- ▲ GOAL ONE
- ▲ GOAL TWO
- ▲ GOAL THREE
- ▲ GOAL FOUR
- ▲ **GOAL FIVE**
- ▲ GOAL SIX



GOAL FIVE, continued

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 5.4 Maintain a safe and secure work environment

Action: Hire a new Safety professional

Action: Inspect the Agency's fire protection systems and make recommended improvements

Action: Replace the Agency's hazardous waste containment system

Action: Install safe access gates in Primary Clarifiers 6 and 7, CCTs 5 and 6, and Secondary Clarifiers

Action: Perform a safety culture survey

AGENCY GOALS

- ▲ GOAL ONE
- ▲ GOAL TWO
- ▲ GOAL THREE
- ▲ GOAL FOUR
- ▲ GOAL FIVE
- ▲ **GOAL SIX**



GOAL SIX

CMSA will enhance its internal and external communications.

Objective 6.1 Educate employees on currently available Agency benefits

Action: Provide training on Agency health benefits for the open enrollment period

Action: Coordinate 457 plan provider training on the Agency's deferred compensation

Action: Prepare program's training schedule and begin staff trainings

Objective 6.2 Improve Agency documents and file management

Action: Complete the organization of Agency department files

Action: Audit and update all Agency forms and ensure file paths are correct

Action: Assess Source Control Program data management systems

Action: Create a master forms list with correlation to Agency policies

Action: Create redundant Agency data backups to cloud storage

Objective 6.3 Improve methods of communication

Action: Launch and maintain an Agency Facebook presence

Action: Perform a comprehensive review of the Agency's website and propose changes to improve appearance, functionality, and usefulness

Action: Improve Agency internet service via installation of fiber optic cables

Action: Update the CMSA brochure, and produce printed and online versions



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates
From: Jacky Wong, Assistant Engineer
Approved: Jason Dow, General Manager *JD*
Subject: Reject All Bids for the Pavement Rehabilitation Project

Recommendation: Reject all bids for the Pavement Rehabilitation Project, and provide comments or direction to the General Manager, as appropriate.

Summary: Bid proposals for the Pavement Rehabilitation Project (Project) were opened on June 19. One bid proposal was received by Ghilotti Bros. Inc. (GBI) for \$412,413, which is 117% greater than the construction cost estimate of \$190,000. The bid proposal significantly exceeds the current project budget in the FY19 Capital Improvement Plan, and staff recommends that all bids be rejected.

Discussion: Most of the treatment facility roadways were constructed in the early 1980s and several areas are due for rehabilitation. The Project work will fix these failing asphalt roadway sections by rehabilitating approximately 16,000 square feet of roadway in four primary locations. Improvements will address significantly worn and damaged paving, improve drainage, and pave gravel surfaces that experience frequent traffic with heavy equipment.

The Board adopted the Project's construction contract documents and authorized advertising the Project for public bidding at their May 2018 meeting. Advertisement began on May 11, two contractors attended the pre-bid meeting on May 31, and GBI was the only contractor to submit a bid on June 19. After the bid opening, staff contacted several contractors on the Project's plan holders list and discussed the project costs with GBI's estimator. Staff learned that some contractors decided to prepare and submit bids on larger paving projects that opened on the same day as our project. GBI informed staff that they were the lone bidder on several recent municipal paving projects in Marin County, and on each project their bid amount exceeding the Engineer's Estimate.

Based on the current competitive bid climate, staff plans to informally bid the Agency's high priority paving work and re-bid the remaining paving work this winter after the construction season ends. High priority paving work includes replacement of the failed paving near the Ross Valley Interceptor (Photo 1) and to rehabilitate pavement sections around the perimeter of the Maintenance Building (Photo 2). The remaining two pavement repair/rehabilitation areas will be re-evaluated and re-advertised in early 2019, for a bid opening by April 2019.

Alignment with Strategic Plan: This project is a strategic action supporting Goal 1 - Objective 1.3 in the Agency's FY19 Strategic Business Plan.

Goal One: CMSA will continue to operate and maintain its wastewater facilities to produce high quality effluent and biosolids, within a changing regulatory environment.

Objective 1.3: Manage the Agency's assets.

Action 1.3.b: Construct the high-priority Agency paving improvements

Project Area Photos: Photos of the Project's four pavement rehabilitation areas are shown below.



Photo 1 - Asphalt pavement with cracks and potholes by the Ross Valley Interceptor



Photo 2 - Sinkholes and pavement settlement along the Maintenance Building



Photo 3 - Gravel surfaces with drainage improvements needed by the Maintenance Annex




Photo 4 - Excess wear and road pavement failure by the Solids Handling Building and Digesters



BOARD MEMORANDUM

July 6, 2018

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager 

Subject: **Cancel September Board Meeting and Reschedule the August Board Meeting**

Recommendation: Consider cancelling the September 11 regular Board meeting, and rescheduling the August regular Board meeting to August 21 or 23.

Discussion: The Board periodically cancels a regular Board meeting if staff informs the Board that there is not any new, priority, or time sensitive business items planned for the regular meeting agenda. If the Board cancels the meeting, staff includes that month's routine business items – the prior meeting minutes, Treasurer's and Investment Reports, Performance Metric Report, and NPDES/Process/Maintenance Activity Report on the subsequent month's Board meeting agenda.

Over the past several years, the Board has cancelled its August meeting. This year, due to staff vacation schedules and to accommodate the Facilities Master Plan presentation by Carollo Engineers, staff is proposing to cancel the September meeting and reschedule the August meeting to either Tuesday, 8/21, or Thursday, 8/23. I have contacted most Board members, and each has indicated their availability for the proposed August meeting dates.