



Central Marin Sanitation Agency

COMMISSION REGULAR MEETING AGENDA

Tuesday, January 14, 2020

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**

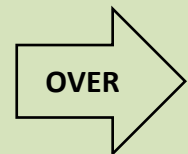
3. **Open Period for Public Participation**

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, but Board members may briefly respond to statements made or questions proposed by the public, ask for clarification from staff, refer the matter to staff, or request staff to report back to the body at a subsequent meeting concerning any matter, or take action to direct staff to place a matter of business on a future agenda.

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—December 10, 2019
- b) Treasurer's Report—Operating Account—December 2019
- c) Schedule of Investments and its Capital Reserve Summary—December 2019
- d) NPDES, Process, and Maintenance Report—December 2019
- e) Performance Metric Report—December 2019
- f) FY20 Asset Management Program 2nd Quarter Report
- g) FY20 Sodium Bisulfite Supply Contract – Amendment No. 1



5. **2019 Performance Metric Report**
Recommendation: Accept the Agency's 2019 Performance Metric Report.
6. **Administrative Specialist Series Job Descriptions**
Recommendation: Approve the Administrative Specialist Series job description and its compensation ranges.
7. **Biosolids Land Application Agreement with Synagro**
Recommendation: Approve the new 2-year Biosolids Land Application Agreement with Synagro West, and authorize the General Manager to execute the Agreement.
8. **Primary Sludge Tipping Fee Alternatives**
Recommendation: Review and discuss the primary sludge tipping fee alternatives, and provide direction to staff.
9. **Recycled Water Truck Fill Station Permitting Option**
Recommendation: Discuss the option of CMSA seeking a recycled water permit from the Regional Water Board for the truck fill station, and provide direction to staff, as appropriate.
10. **Reschedule the March 2020 Board Meeting**
Recommendation: Consider rescheduling the March 2020 Board meeting.
11. **January Informational Items**
Recommendation: Informational; provide comments or direction to the General Manager as appropriate.
12. **North Bay Watershed Association (NBWA) Report***
13. **Oral Reports by Commissioners/General Manager***
14. **Next Scheduled Meeting**
Tuesday, February 11, 2020 at 7:00 p.m. at the Agency office.

*Information not furnished with Agenda

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



Central Marin Sanitation Agency

**COMMISSION REGULAR MEETING MINUTES
Tuesday, December 10, 2019
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 video recording of the meeting.
Please contact CMSA at 415-459-1455 for information about receiving a copy of these records.

1. Call Meeting to Order/Pledge of Allegiance

Chair DiGiovanni called the meeting to order at 7:03 p.m. A quorum was present.

2. Roll Call

00:00:00

Present: Chair Dean DiGiovanni; Vice-Chair Michael Boorstein; Commissioners Maribeth Bushey, Eli Beckman, and Doug Kelly; and Alternate Commissioner Dan Hillmer

Absent: None

Staff present: Jason Dow, General Manager, and Kate Brouillet, Recording Secretary

Public present: None

3. Open Period for Public Participation

00:00:54

There were no members of the public present.

4. Consent Calendar

00:00:56

- a) Minutes—Regular Board Meeting—November 12, 2019
- b) Treasurer's Report—Operating Account—November 2019
- c) Schedule of Investments and its Capital Reserve Summary—November 2019
- d) NPDES, Process, and Maintenance Report—November 2019
- e) Performance Metric Report—November 2019
- f) CASA 2020 Winter Conference
- g) Hypochlorite Tank Motorized Operated Valve Procurement

Comments from the Public:

There were no members of the public present.

GM Dow said that on page three of the Disbursement Register included with item 4b, that the description for the stipend payment to Chair DiGiovanni on 11/26/2019 should be changed to read, "10/22/2019 ad hoc Space Evaluation Committee meeting."

ACTION: Alternate Commissioner Hillmer moved to approve Consent Calendar items #4a through #4g, with the correction to item 4b; second, Commissioner Kelly.

VOTE: The vote was passed unanimously.

ABSTAIN: None

5. FY19 Comprehensive Annual Financial and Popular Annual Financial Reports

00:02:08

GM Dow described the Agency's FY19 Comprehensive Annual Financial Report (CAFR) and Popular Annual Financial Report (PAFR), said they are in second draft form, and he can accept any comments or revisions from the Board that will be incorporated into the final version. He said that staff will submit the final CAFR and PAFR to the Government Finance Officers Association (GFOA) before December 31, 2019.

The Board commented favorably on both documents, and said they were well prepared, attractive, and easily communicate complex information.

Chair DiGiovanni recommended that the Agency's pension and OPEB liabilities should be more noticeably presented. He referred to GM Dow's handout entitled "Table of CalPERS Pension Contributions and Percentage of Revenue" and suggested that on page 50 of the CAFR, this or a similar table should be included in the text for clarity. Chair DiGiovanni said that for the PAFR, the Agency's pension and OPEB liabilities should be separated out from Salaries and Benefits in the graph on page 16.

The Board agreed on Chair DiGiovanni's recommendations.

Comments from the Public:

There were no members of the public present.

ACTION: Commissioner Kelly moved to accept the FY19 Comprehensive Annual Financial and Popular Annual Financial Reports with the above edits; second, Commissioner Boorstein.

VOTE: The vote was passed unanimously.

ABSTAIN: None

6. Agency Pension and OPEB Benefit Plans

00:13:56

GM Dow said that in September 2019, the Marin County Council of Mayors and Councilmembers released a report entitled "Marin County Local Government Reform of Pensions and Other Post-Employment Benefits." He said that in light of this report, Chair DiGiovanni suggested that staff prepare a summary of the CMSA pension and OPEB programs, and present it to the Board at a future meeting.

GM Dow referred to the staff memo and described the California Public Employee Retirement System (CalPERS) pension benefit and a medical after retirement benefit, an Other Post Employment Benefit (OPEB), provided to Agency retirees. He said that as of

June 30, 2019, the pension unfunded actuarial liability (UAL) was \$11,287,197, and the Agency's UAL payment amount from the CalPERS UAL amortization schedule has been incorporated into the Agency's 5-year revenue plan and 10-year financial forecast. He said that in March 2019, staff proposed and the Board approved an OPEB Funding Plan that will be updated annually, presented to the Board for review and discussion, and included in Agency budget documents. He said that careful analysis and attention has been paid to the Agency's pension and OPEB obligations, CMSA agrees with the recommendations of the Marin County Council of Mayors and Councilmembers, and the Agency makes its benefit obligations more sustainable through proper planning and previously negotiated reductions.

The Board discussed the report, and asked a few questions.

GM Dow responded to the Board's questions.

Chair DiGiovanni asked that the draft OPEB report be sent to the Finance Committee or the Chair for review prior to the April meeting.

Commissioner Kelly said that he recommends the "GovInvest" software that RVSD uses for managing their OPEB and pension liability funds.

GM Dow said that he would mention the GovInvest software at the next JPA managers meeting, and if they would be interested in seeing a presentation from the vendor. He said that for CMSA, he advises that the Agency's newly purchased financial software be put in place before evaluating GovInvest. The Board concurred.

Comments from the Public:

There were no members of the public present.

ACTION: Alternate Commissioner Hillmer moved to accept the Pension and OPEB Benefit Plans report; second, Commissioner Boorstein.

VOTE: The vote was passed unanimously.

ABSTAIN: None

DIRECTION: Staff to prepare the updated OPEB Funding Plan for the April 2020 meeting; with a final draft to be sent to the Chair prior to the meeting to determine if a Finance Committee meeting is warranted.

7. Summary of Impacts to Agency Operations During the October 2019 Public Safety Power Shut-offs **00:26:34**

GM Dow said that the recent multi-day PG&E Public Safety Power Shut-offs (PSPS) did not impact the CMSA treatment facilities and only had minor impacts on other aspects of Agency business and operations. He referred to the staff report and reviewed the effects on staff, operations, flows, and finances, and the lessons learned.

The Board had a brief discussion, including future use of the cogeneration system during a power shut-off, capacity of the new cogeneration system to be installed, diesel

generators, and potentially providing a public space for charging electronic devices during an emergency power shut-off.

GM Dow responded to the Board's questions.

Comments from the Public:

There were no members of the public present.

ACTION: Alternate Commissioner Hillmer moved accept the Summary of Impacts to Agency Operations During the October 2019 Public Safety Power Shut-offs staff report; second, Commissioner Kelly.

VOTE: The vote was passed unanimously.

ABSTAIN: None

DIRECTION: Staff to explore use of the Agency Board Room as a public space for charging electronic devices during a PSPS.

8. Nationwide 401(a) Deferred Compensation Plan

00:42:04

GM Dow referred to the staff memo and reviewed the Agency's current deferred compensation plans, and described the two new plans that were reviewed to address specific employee requests. He said that the Board Finance Committee met on December 3, discussed the Agency's current deferred compensation plans and the two proposed plans, and recommends the following for the Board's consideration: (1) continue to sponsor the Nationwide and ICMA 457 deferred compensation plans; (2) do not participate in the proposed CalPERS 457 deferred compensation plan; (3) participate in the proposed Nationwide 401a deferred compensation plan; and (4) if the Agency decides to sponsor an additional deferred compensation plan or change plan administrators, then staff and the Finance Committee will utilize an RFP-based plan selection process for a new plan administrator and plan features.

The Board had a brief discussion, and agreed to accept the Finance Committee's recommendations.

Comments from the Public:

There were no members of the public present.

ACTION: Commissioner Kelly moved to adopt Resolution #340 to join the Nationwide 401(a) retirement plan, and accept the Finance Committee's deferred compensation plan recommendations; second, Alternate Commissioner Hillmer.

VOTE: The vote was passed unanimously.

ABSTAIN: None

9. December Informational Items **00:48:47**

The Board asked when the CMSA Annual Holiday Pot-Luck will be held.

GM Dow said that the pot luck is scheduled for December 18, and all members of the Board are invited.

Comments from the Public:

There were no members of the public present.

10. North Bay Watershed Association (NBWA) Report **00:49:57**

Commissioner Boorstein reported that there were two presentations: *What's new at the Regional Water Quality Control Board*, from Mike Montgomery, Executive Officer RWQCB- 2, who provided an update of the current priorities of the San Francisco Bay Regional Water Quality Control Board, including a current lawsuit with CALTrans regarding homeless encampments, and PFAS pollution; and the *Deer Island Restoration Opportunity* from Roger Leventhal, Marin County Flood Control, who gave an overview and a visual tour of the Deer Island restoration project. Commissioner Boorstein said that the NBWA annual conference is scheduled to be held in April 2020.

11. Oral Reports by Commissioners/General Manager **00:54:45**

- GM Dow referred to his handout and reported that the total cost to purchase and install the used cogeneration engine was \$419,629, which was less than the budget estimate of \$425,000.
- GM Dow displayed several public education videos produced by RVSD and funded by local wastewater agencies, which feature proper disposal of FOG, wipes, and pharmaceuticals, and sump pump use.
- Chair DiGiovanni asked if the coroner was contacted regarding the deceased person who was recently found on the Andersen hillside, and as it is Agency property, the Board should be informed.
 - Commissioner Kelly said that he contacted the SRPD Chief and she reported that there was no foul play.
 - GM Dow said he would contact the coroner for more pertinent details.

12. Next Scheduled Meeting **01:00:48**

Tuesday, January 14, 2019 at 7:00 p.m. at the Agency office.

Vice-Chair Boorstein adjourned the meeting at 8:03 p.m.

Respectfully submitted,

Kate Brouillet, Recording Secretary

Eli Beckman, Secretary

**Central Marin Sanitation Agency
Treasurer's Report - Operating Account
For the Month of December 2019**

I. Accounts Summary: Bank & Investment Accounts

Summary of Bank & Money Market Accounts

Westamerica Bank - Account Activity shown below	\$ 484,396.44
Local Agency Investment Fund (LAIF) - Refer to Schedule of Investments	15,954,235.45
California Asset Management Program (CAMP) - Refer to Schedule of Investments	378,324.83
Total Bank & Investment Accounts: Ending Balance on December 31, 2019	<u>\$ 16,816,956.72</u>

II. Account Activity for Westamerica Bank

Beginning Balance on December 1, 2019 125,301.71


Cash Receipts (Deposits into Westamerica):

Transfers from LAIF	1,100,000.00
Capacity Charges: SRSD - FY20: 39 residential connections and 39 fixture units	240,339.36
Permit and Inspection Fees	4,774.01
Almonte FOG Program (FY20 1Q: July-September)	308.07
Revenue from Haulers & RVs	19,510.73
Revenue from Organic Waste Programs	23,804.21
County-wide Public Education Program-Annual billing (FY20: LGVSD, NSD)	11,854.41
SD 2 Operations & Maintenance Contract (FY20: October)	66,669.12
SQSP Wastewater Services Contract (FY20: October)	109,379.00
SQ Village Operations & Maintenance Contract (FY20: September-October)	1,382.53
Marin Airporter Property Use (FY20: December)	5,400.00
Interest Income: CalCARD Incentive Payment	483.54
Total Cash Receipts	<u>\$ 1,583,904.98</u>

Cash Disbursements (Withdrawals from WestAmerica):

December 2019 Operating account disbursements register (see attached)	\$828,737.47
Regular Payroll paid 12/6/19	158,132.60
Regular Payroll paid 12/20/19	158,332.09
Transfers to EFTPS Federal Payroll Taxes (12/06, 12/11, 12/24)	75,146.23
Bank Fee	72.11
Total Cash Disbursements	<u>\$1,224,810.25</u>
Ending Balance on December 31, 2019	<u>\$ 484,396.44</u>

Prepared by: 
Kenneth Spray, Administrative Services Manager

Reviewed by: 
Jason Dow, General Manager

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of December 2019

Check Number	Date	Vendor/Payee	Amount	Description
19220				Last check # from prior month's register
19221	12/03/19	Frye, Phillip	224.41	Reimbursement for retiree health benefits by check
19222	12/03/19	James L. Johnson	187.74	Reimbursement for retiree health benefits by check
19223	12/03/19	Jones, Byron	221.44	Reimbursement for retiree health benefits by check
19224	12/05/19	A & S Landscape Materials, Inc	368.42	Redwood chips
19225	12/05/19	Aquadyne Associates	380.97	Float switches
19226	12/05/19	ASCO Power Svcs Inc.	1,411.38	SD2 PS Maint: Transfer switch for Paradise PS (Note B)
19227	12/05/19	Automation Direct Co., Inc.	572.25	Control panel, switches, fuses, October 2019
19228	12/05/19	BWS Distributors, Inc.	289.30	Nitrogen and hydrogen sulfide compressed gas
19229	12/05/19	CAL-CARD	7,374.85	State of California Purchase Card, September-October 2019
19230	12/05/19	Cal Steam	319.65	Parts and equipment for pilot digester
19231	12/05/19	Caltest Analytical Laboratory	5,041.31	NPDES permit lab analyses, September-October 2019 (22 invoices)
19232	12/05/19	City Electric Supply	173.67	Terminals, adaptor plugs, October 2019 (2 invoices)
19233	12/05/19	Crump & Co., Inc	3,921.75	Check valves
19234	12/05/19	CWEA TCP	681.00	Membership renewal fees (4 employees)
19235	12/05/19	Environmental Express Inc.	429.82	Filters for laboratory
19236	12/05/19	FactoryMation	350.45	Breakers and relays
19237	12/05/19	Hagel Supply Co.	568.22	Utility cleaning and paper supplies, September-October 2019 (3 invoices)
19238	12/05/19	Horizon Dist. Inc	325.69	Herbicide
19239	12/05/19	IDEXX Distribution Inc	463.90	Microbiology supplies for laboratory
19240	12/05/19	Jackson's Hardware	1,423.67	Pump seals, piping, vinyl sheeting, silicone, safety shoes, ladder, & misc. parts and supplies (19 invoices)
19241	12/05/19	Atmospheric Analysis	1,625.00	Digester gas monitoring
19242	12/05/19	Bay Area Air Quality Mgt Distr	2,544.00	Permit application for new cogeneration engine
19243	12/05/19	Bartley Pump Inc	20,725.00	Primary Clarifiers Gates Rehabilitation Project, final payment
19244	12/05/19	Blaisdell's	385.77	Filing cabinet for Operations control room
19245	12/05/19	Brewer, Rebecca	185.00	Survey Monkey fee for Employee Safety Culture Survey
19246	12/05/19	CDW Government, Inc.	3,000.45	Annual VSAN license for maintenance and support
19247	12/05/19	Corner Office	674.71	Desk for ES Analyst new hire
19248	12/05/19	County of Marin	5,154.00	Annual CUPA permit for underground storage tank
19249	12/05/19	EPIC Compliance Systems, Inc.	1,239.22	Annual contract for monthly inspection of underground fuel storage tanks, October 2019
19250	12/05/19	Evoqua Water Tech LLC	21,133.79	Calcium Nitrate (1 delivery), Hydrogen peroxide (1 delivery), DI water for laboratory (1 delivery)
19251	12/05/19	Flyers Energy LLC	6,747.73	Diesel fuel for generators
19252	12/05/19	Foster Flow Control	5,139.80	SD2 PS Maint: General parts, supplies and equipment, November 2019 (Note B)
19253	12/05/19	Harrington Industrial Plastics	742.29	Pressure relief valves, pipes, and misc. parts, October 2019
19254	12/05/19	Home Depot Credit Services	1,414.36	Miscellaneous fixtures, piping, and equipment, October 2019
19255	12/05/19	IEDA, Inc.	837.00	Labor relations consulting, December 2019
19256	12/05/19	Inductive Automation	4,416.00	Annual SCADA software license renewal, 02/03/2020-02/02/2021
19257	12/05/19	Kaman Industrial Technologies	449.22	Bolts and bearings (2 invoices)

Central Marin Sanitation Agency
Operating Account Disbursements Register
For the Month of December 2019

Check Number	Date	Vendor/Payee	Amount	Description
19258	12/05/19	Ken Grady Co., Inc.	612.70	Headworks O2 sensor
19259	12/05/19	Kistenmacher, Peter	104.75	Employee Travel Expense Reimb: CALPELRA Annual Conference, November 2019
19260	12/05/19	Kone Inc	147.64	Elevator monthly maintenance, November 2019
19261	12/05/19	Kraft Power Corporation	4,975.00	Cogeneration engine extended warranty
19262	12/05/19	Lystek International LTD	12,360.35	Biosolids beneficial reuse fee, November 2019
19263	12/05/19	Marin Independent Journal	392.95	Newspaper subscription, November-December 2019
19264	12/05/19	McMaster-Carr Supply Co.	7,134.64	SBS pipe insulation, plastic and copper tubing, stainless steel hardware, and misc. plumbing and utility supplies, October 2019 (24 invoices)
19265	12/05/19	Pac Machine Co. Inc.	1,533.59	SD2PS Maint: Fifer emergency sewage pump (Note B)
19266	12/05/19	Peterson	44,771.86	Waukesha engine installation, final payment
19267	12/05/19	P.G.& E.	21,428.31	Electricity service, 10/16-11/14/2019 (3 invoices)
19268	12/05/19	Platt	2,897.17	Transformer, fan controller, and misc. electrical and maintenance supplies, October 2019 (10 invoices)
19269	12/05/19	Ricoh USA Inc	259.35	Lab copier lease, 11/09-12/08/2019
19270	12/05/19	Rockwell Solutions	151.80	O-rings
19271	12/05/19	Safety-kleen Systems, Inc	257.20	Parts washer service
19272	12/05/19	Sample Traps LLC	193.77	Sample containers for laboratory
19273	12/05/19	Spray, Kenneth	996.99	Employee Travel Expense Reimb: CALPELRA Annual Conference, November 2019
19274	12/05/19	Super Bright Leds, Inc	2,665.12	Facility lighting
19275	12/05/19	State Water Resources Ctrl Brd	125.00	OIT certification application fee (1 employee)
19276	12/05/19	Thomas Fish Company	145.75	Rainbow trout for monthly bioassay test, November 2019
19277	12/05/19	Toyota Material Handling	1,016.42	Replacement motor for Agency electric cart
19278	12/05/19	Univar USA Inc	29,000.55	Sodium hypochlorite (5 deliveries); Sodium bisulfite (2 deliveries)
19279	12/05/19	Underground Service Alert	1,001.65	Annual membership fee
19280	12/05/19	Valley Power Systems-North	2,382.70	Cogeneration engine spark plugs and spare parts (3 invoices)
19281	12/05/19	Wells Fargo Vendor	374.14	Maintenance copier lease, 11/13-12/12/2019
19282	12/05/19	Western Exterminator Co., Inc.	188.50	Pest control, November 2019
19283	12/05/19	Western Scientific FasServ	1,209.26	Laboratory autoclave maintenance
19284	12/05/19	Woodland Center Auto Supply	213.85	Brake repair tool
19285	12/05/19	Yamaha Golf Cars Of	120.00	Brake repair for Agency electric cart
19286	12/09/19	California Public Employee	3,584.00	Contribution to Retiree Health Benefits Trust Fund, December 2019 (Note C)
19287	12/09/19	California State Disbursement	250.50	EE Garnishment, PPE 11/30/2019 (Note A)
19288	12/09/19	ICMA Retirement Trust-457	2,450.00	Deferred compensation contributions, PPE 11/30/2019 (Note A)
19289	12/09/19	Navia Benefit Solutions	1,019.01	Flexible spending account, PPE 11/30/2019; monthly fee (2 invoices)
19290	12/09/19	SEIU Local 1021	1,119.14	Union dues, PPE 11/30/2019
19291	12/10/19	Bay Area Air Quality Mgt Distr	21,456.00	Annual Permit to Operate renewal, 02/01/2020-02/01/2021
19292	12/10/19	Brandon Tire	40.00	Agency vehicle flat tire repair
19293	12/10/19	County of Marin	312.00	SQPS Maint: Regulatory inspection fee (Note B)
19294	12/10/19	CWEA TCP	99.00	Membership renewal fee (1 employee)
19295		Void-lost check		
19296	12/10/19	Galco Industrial Electronics	1,282.44	Polymer pump encoder and cable

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of December 2019

Check Number	Date	Vendor/Payee	Amount	Description
19297	12/10/19	Hagel Supply Co.	381.68	Utility cleaning and paper supplies, October-November 2019 (5 invoices)
19298	12/10/19	Hansen, Thomas	295.00	Employee Expense Reimb: Operator Grade III certification
19299	12/10/19	Home Depot Credit Services	2,350.74	Cultivator/tiller, and misc. landscaping, electrical, and utility supplies, November 2019
19300	12/10/19	Horizon Dist. Inc	27.36	Fertilizer
19301	12/10/19	JPR Systems	564.67	Replacement thermostat for SBS piping
19302	12/10/19	Kaman Industrial Technologies	1,116.87	Headworks grit pump motor
19303	12/10/19	Ken Grady Co., Inc.	1,597.75	Replacement CL2 sensors
19304	12/10/19	Koekemoer, Mark	150.80	Employee Travel Expense Reimb: CALPELRA Annual Conference, November 2019
19305	12/10/19	Kone Inc	1,166.93	Elevator repairs
19306	12/10/19	Marin Office Supply	180.80	Office supplies, November 2019
19307	12/10/19	McMaster-Carr Supply Co.	2,921.44	Actuator, stainless steel hardware, and misc. plumbing supplies; SD2 PS Maint: Chain link fencing, fire extinguisher, stainless steel cabinet, "No Parking" sign, November, 2019 (Note B) (18 invoices)
19308	12/10/19	Medical Center of Marin	105.00	Audiometric testing (2 employees)
19309	12/10/19	Platt	1,100.34	Straps, florescent lamps, connectors, and misc. electrical supplies, November 2019 (10 invoices)
19310	12/10/19	Promium LLC	3,524.00	LIMS software annual maintenance fee, 12/01/2019-11/30/2020
19311	12/10/19	Ricoh USA Inc	635.98	Admin copier lease, 11/23-12/22/2019
19312	12/10/19	Rockwell Solutions	17,104.72	Sludge recirculation grinder, motor, and control panel.
19313	12/10/19	Schwarm, Jeremy	295.00	Employee Expense Reimb: SWRCB Grade III exam
19314	12/10/19	Calmat Co./Shamrock Materials	136.76	Propane
19315	12/10/19	State Water Resources Ctrl Brd	170.00	Grade III Certification fee (1 employee)
19316	12/10/19	Thatcher Company of	6,948.24	Ferric Chloride (1 delivery)
19317	12/10/19	The Cary Company	400.11	Sample containers for laboratory (2 invoices)
19318	12/10/19	Tidal Marine Construction Inc	35,975.00	Outfall Pipeline Diffusers Maintenance Project payment
19319	12/10/19	Water Components & Bldg. Supp.	1,494.27	Flanges, straw logs, tubing, November 2019 (5 invoices)
19320	12/10/19	Western Roofing Svc	1,107.00	Skylight repairs
19321	12/17/19	AT&T Dataplan	386.58	Fax and emergency phone service, 12/02/2019-01/01/2020
19322	12/17/19	Bay Area Air Quality Mgt Distr	1,644.00	Organic Waste Receiving Station permit fee
19323	12/17/19	Brouillet, Katherine	273.76	Employee Expense Reimb: Holiday Pot luck
19324	12/17/19	BWS Distributors, Inc.	409.30	H2S sensor
19325	12/17/19	Comcast	193.38	Internet service, 12/04/2019-01/03/2020
19326	12/17/19	CWEA TCP	370.00	Membership and electrical certification renewal fees (one employee)
19327	12/17/19	Drady, Tony	226.28	Employee expense reimb: Safety shoes
19328	12/17/19	Environmental Express Inc.	515.09	Chemicals for laboratory
19329	12/17/19	Finton, Chris	150.80	Employee Travel Expense Reimb: CALPELRA Annual Conference, November 2019
19330	12/17/19	Fisher Scientific	1,165.61	Chemicals, buffers, tubes, vials, and solutions for laboratory, November 2019 (6 invoices)
19331	12/17/19	Koff & Associates, Inc.	3,750.00	Assoc. Engineer Recruitment: Phase 4, final payment
19332	12/17/19	Marin County Tax Collector	2,043.00	Legal services: General Counsel, July-September 2019

Central Marin Sanitation Agency
Operating Account Disbursements Register
For the Month of December 2019

Check Number	Date	Vendor/Payee	Amount	Description
19333	12/17/19	S&S Trucking	16,620.47	Biosolids hauling, October-November 2019
19334	12/17/19	SPURR	15,091.72	Natural gas supply, 03/01-10/31/2019 (8 invoices)
19335	12/17/19	State Water Resources Ctrl Brd	225.00	Grade III certification fee (1 employee)
19336	12/17/19	Ta, Ahn	183.41	Employee Expense Reimb: Holiday pot luck supplies
19337	12/17/19	Khavarian Enterprises Inc	291.96	Radio holsters
19338	12/17/19	VWR International	680.11	Sampling containers and syringes for laboratory, November 2019 (2 invoices)
19339	12/17/19	Waste Management	14,186.81	Biosolids hauling, November 2019
19340	12/17/19	Wiley Price & Radulovich	1,503.00	Prof Svcs: Employment law services, November 2019
19341	12/19/19	Atmospheric Analysis	1,505.00	NPDES permit sampling and testing
19342	12/19/19	Amazing Solutions, Inc.	150.00	Finance software support, November 2019
19343	12/19/19	Amazon	1,434.98	Tablets for maintenance staff; aeration sump controller gateway modules
19344	12/19/19	Aramark Uniform Services	1,062.16	Uniform service, November 2019
19345	12/19/19	Automation Direct Co., Inc.	1,613.20	SD2 PS Maint: Boardwalk A/B light switches and Fifer control panel (Note B); Cogeneration engine PLC input card, October-November 2019
19346	12/19/19	Brouillet, Katherine	359.56	Employee Expense Reimb: Holiday Pot luck and meeting supplies
19347	12/19/19	Carbajal, Kyle	130.10	Employee Travel Expense Reimb: CWEA Grease Interceptor training
19348	12/19/19	Chemurgic Agricultural	10,793.90	Sodium Bisulfite (2 deliveries)
19349	12/19/19	Ernst, Claire	184.03	Employee expense reimb: Safety shoes
19350	12/19/19	Jackson's Hardware	826.58	Propane, fuel, tarp, and misc. hardware; SD2 PS Maint: Fasteners, piping; SQPS Maint: IUL safety shoes; Sausalito Pump replacement: piping (Note B) (25 invoices)
19351	12/19/19	Justifacts Credential	317.50	Assoc. Engineer Recruitment: Background check
19352	12/19/19	Marin Sanitary Service	6,167.57	Rag bin, recycling, dirt bin disposal, November 2019 (3 invoices)
19353	12/19/19	Marin Recycling HHWF	516.00	Yard waste disposal, November 2019 (3 invoices)
19354	12/19/19	North Bay Watershed Assoc.	2,500.00	Bi-annual NBWA conference sponsorship
19355	12/19/19	Schwarm, Jeremy	186.74	Employee Expense Reimb: Safety shoes
19356	12/19/19	Univar USA Inc	25,191.74	Sodium hypochlorite (4 deliveries); Sodium bisulfite (2 deliveries)
19357	12/20/19	California State Disbursement	250.50	EE Garnishment, PPE 12/14/2019 (Note A)
19358	12/20/19	ICMA Retirement Trust-457	2,450.00	Deferred compensation contributions, PPE 12/14/2019 (Note A)
19359	12/20/19	Navia Benefit Solutions	969.01	Flexible spending account, PPE 12/14/2019
19360	12/20/19	SEIU Local 1021	1,120.97	Union dues, PPE 12/14/2019
19361	12/30/19	CAL-CARD	7,080.02	State of California Purchase Card, October-November 2019
19362	12/30/19	Fremont Analytical	235.00	Spent carbon testing
19366	12/31/19	Finton, Chris	300.00	Commuter Reimbursement Program, November-December 2019
19367	12/31/19	Grainger	5,168.78	Submersible sewage pump, shelving, signage, motor starter, and misc. parts and equipment, December 2019 (18 invoices)
19368	12/31/19	McInerney & Dillon, P.C.	1,116.50	Legal services, construction/contract law, November 2019
19369	12/31/19	Marin Municipal Water District	712.29	Water service, 10/10-12/09/2019 (2 invoices)
19370	12/31/19	RMC	195.63	Maintenance copier lease, 09/17-12/16/2019

Central Marin Sanitation Agency
Operating Account Disbursements Register
For the Month of December 2019

Check Number	Date	Vendor/Payee	Amount	Description
Payments by Automatic Clearing House:				
	12/04/19	NRS/PEHP-3 and Z PPE 11/16/19	7,819.87	Deferred compensation and MARA contributions
	12/05/19	Lincoln Life Ins	2,333.69	Life insurance
	12/05/19	Vision Service Plan -(CA)	987.44	Vision insurance
	12/06/19	CalPERS Medical ins	66,544.33	Medical insurance
	12/06/19	Dean DiGiovanni	225.00	Duplicate stipend payment for 10/22/2019 Ad Hoc Space Evaluation committee meeting; to be applied to 01/14/2020 Board Meeting
	12/06/19	EDD PPE 12/03/19	255.57	State & SDI Taxes, PPE 12/03/2019
	12/06/19	Marc S Solomon	225.00	Stipend for 11/12/2019 Board meeting
	12/09/19	Calpers PPE 11/30/19	38,029.37	Retirement pension contribution: Agency and employees (Note C)
	12/09/19	EDD PPE 11/30/19	13,914.20	State & SDI Taxes, PPE 11/30/2019
	12/09/19	NRS/PEHP-3 and Z PPE 11/30/19	7,961.03	Deferred compensation and MARA contribution
	12/10/19	Nitel Inc	1,296.56	Primary telephone and internet service, December 2019
	12/10/19	Northeast-Western	99,055.00	Cogeneration System, payment #1
	12/10/19	Public Agency Retirement Svcs	28.06	Retirement pension contribution: part-time and internship employees, PPE 11/30/2019 (Note C)
	12/10/19	Synagro West, Inc.	1,314.60	Biosolids land application fee, October 2019
	12/11/19	ERA, A Waters Company	1,688.65	ELAP certification testing
	12/14/19	Calpers PPE 12/14/19	38,264.41	Retirement pension contribution: Agency and employees (Note C)
	12/18/19	Carollo Engineers, Inc.	10,811.00	Prof Svcs: Design-New Cogeneration System Installation Project, November 2019
	12/18/19	Dan Hillmer	225.00	Stipend for 12/10/2019 Board meeting
	12/18/19	Dean DiGiovanni	450.00	Stipend for 12/03/2019 Finance Committee meeting and 12/10/2019 Board meeting
	12/18/19	Douglas T Kelly	225.00	Stipend for 12/10/2019 Board meeting
	12/18/19	Eli H. Beckman	225.00	Stipend for 12/10/2019 Board meeting
	12/18/19	Maribeth Bushey	225.00	Stipend for 12/10/2019 Board meeting
	12/18/19	Michael Owen Boorstein	675.00	Stipends for 12/03/2019 Finance Committee meeting, 12/06/2019 NBWA Board meeting, and 12/10/2019 Board meeting
	12/18/19	Thomas E Gaffney	225.00	Stipend for 12/03/2019 Finance Committee meeting
	12/20/19	CF Contracting Inc	23,500.00	Andersen Drive Landslide Repairs project, release of retention
	12/20/19	Endress + Hauser, Inc	3,368.74	Flow meter upgrade
	12/24/19	EDD PPE 12/14/19	13,422.91	State & SDI Taxes, PPE 12/14/2019
	12/24/19	NRS/PEHP-3 and Z 12/14/19	6,736.40	Deferred compensation and MARA contributions
		Payments to 26 retirees	7,090.81	Reimbursement for retiree health benefits
		Grand Total	828,737.47	

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 the Month Ended December 31, 2019

Description	Book Value	Market Value (1)	% Portfolio	Projected Year End
I. Pooled Investments with California Asset Management Program (CAMP)				
Money Market Funds (< 1 year in maturity)				
CAMP Cash Reserve Pool: 1.80% at 12/31/19				
b1. Operating Reserve (Unrestricted) (2)	\$ 28,324.83	\$ 28,324.83		Sum b1. Below
b2. Emergency Reserve (Unrestricted)	250,000.00	250,000.00		\$ 250,000
b3. Insurance Reserve (Unrestricted)	100,000.00	100,000.00		\$ 100,000
Total with CAMP	\$ 378,324.83	\$ 378,324.83	2.3%	
II. Pooled Investments with Local Agency Investment Fund (LAIF)				
Money Market Funds (< 1 year in maturity)				
Local Agency Investment Fund (LAIF): 2.103% at 11/30/19				
a1. Current Operating Fund	\$ 2,431,197.28	\$ 2,431,197.28		
b1. Operating Reserve (Unrestricted) (2)	\$ 3,114,150.17	\$ 3,114,150.17		\$ 3,142,475
c1. Capital Reserves (Restricted) (3)	\$ 799,782.00	\$ 799,782.00		\$ 991,834
c2. Capital Reserves (Unrestricted) (4)	\$ 9,609,106.00	\$ 9,609,106.00		\$ 7,778,603
Total with LAIF	\$ 15,954,235.45	\$ 15,954,235.45	97.7%	
TOTAL INVESTMENTS	\$ 16,332,560.28	\$ 16,332,560.28	100.0%	

NOTES:

- (1) Market values are per the fiscal agent's respective monthly statements
(2) Operating reserves calculated at 25% operating budget

- (3) Includes capacity charges and debt service coverage
(4) Includes capital fee charges

Statement of Compliance

The above portfolio of investments is in compliance with the Agency's investments policy, adopted annually, and 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.



Kenneth Spray, CPA

Administrative Services Manager

CENTRAL MARIN SANITATION AGENCY
CAPITAL RESERVES SUMMARY FOR THE SCHEDULE OF INVESTMENTS

Year-to-Date as of the Month Ended December 31, 2019

	Monthly Amounts Received (Used)	YTD Amounts Received (Used)
Restricted Capital Reserves Sources and Uses		
Capacity charges revenue	\$ 240,339	\$ 343,786
Debt coverage collection revenue	-	799,782
	<u>240,339</u>	<u>1,143,568</u>
Total restricted capital reserve funding sources		
Capacity charges usage for capital (1st)	(240,339)	(343,786)
Debt coverage usage for capital (2nd)	-	(993,302)
	<u>(240,339)</u>	<u>(1,337,088)</u>
Total restricted capital reserve uses		
Net change		(193,520)
Balance - beg of year		993,302
Balance - end of month/year		<u>\$ 799,782</u>
Unrestricted Capital Reserves Sources and Uses		
Capital fee revenue	\$ -	\$ 510,500
Unrestricted operating-reserve-transfer-in	-	-
SRF/FEMA cost reimb proceeds received	-	106,758
	<u>-</u>	<u>617,258</u>
Total unrestricted capital reserve funding sources		
Capital fee usage to fund CIP (3rd)	(21,082)	(267,272)
Unrestricted capital reserve draw (4th)	-	-
	<u>(21,082)</u>	<u>(267,272)</u>
Total unrestricted capital reserve uses		
Net change		349,986
Balance - beg of year		9,259,120
Balance - end of month/year		<u>\$ 9,609,106</u>
Total capital reserve balances		<u>\$ 10,408,888</u>
Total approved CIP budget		\$ 3,900,626
Total CIP funded from capital reserve sources		<u>(1,604,360)</u>
Total approved capital budget remaining		<u>\$ 2,296,266</u>

BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager

Approved: Jason Dow, General Manager

Subject: December 2019 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

Recommendation: Accept the December 2019 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report.

I. NPDES Permit Compliance

Our NPDES permit testing for December 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 December 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. The enterococcus geometric mean this past quarter was 6.8 MPN, and the monthly geometric mean for December was 4.5 MPN, well below our monthly limit of 35 MPN.

II. Influent Flow

December is the start of winter with cold and wet weather conditions. Mother Nature delivered an early Christmas gift to central Marin County this year, with a significant rain event on December 1 followed by several smaller events throughout the month. A total of 9.9 inches of rain was recorded at the Agency's rain gauge and the treatment plant exceeded the maximum secondary capacity of 30 MGD during the month, and we reported six blend events on the Agency's website. The facility's average daily influent flow was 20.3 MGD.

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

December Monthly Influent Flows	San Rafael (SRSD)	Ross Valley (RVSD)	San Quentin (SQSP)	Corte Madera (SD#2)	CMSA Plant Total
Average Daily (MGD)	7.7 MGD	10.1 MGD	0.63 MGD	1.9 MGD	20.3 MGD
Total for Month (MG)	238.2 MG	312.0 MG	19.5 MG	59.9 MG	629.6 MG
Percent of Flow	37.8 %	49.6 %	3.1 %	9.5 %	100 %

Wet Weather Peak Flow*	San Rafael (SRSD)	Ross Valley (RVSD)	San Quentin (SQPS)	Corte Madera (SD2)	CMSA
12/02 Total Days Flow	20.2 MG	21.5 MG	1.1 MG	4.6 MG	47.4 MG
Peak Flow Rate	34.4 MGD	56.4 MGD	2.2 MGD	6.1 MGD	90.6 MGD

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

III. Treatment Process

Operators spent additional time this past month ensuring final effluent quality met NPDES permit requirements, especially after the first blend event of the season which carried a significant amount of material into the treatment plant from the collection systems. The septic conditions from the influent combined with the scheduled cleaning of the Organic Waste Receiving Facility affected the settling characteristics within the secondary clarifiers but this was quickly and effectively managed by adjusting air and wasting rates within the aeration basins. A total of 40 yards of grit, rocks, and sand, was removed from the Headworks in December. A portion of this material overwhelmed the grit removal equipment in one of the four separation basins and staff worked for several hours to remove grit from the basin's pump and conveyance piping.

The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1,178 mg/l in December, a slight increase in inventory from last month. The solids inventory was in alignment with our target Mean Cell Residence Time (MCRT) of 3.1 days.

Graph No. 3 shows the coliform most probable number (MPN), which represents the effectiveness of the disinfection process. One of the sixteen coliform samples collected in December (12/19 = 166.3 MPN) was higher than our monthly KPI of 30 MPN, but remained well below our daily permit limit of 10,000 MPN. The total coliform monthly geometric mean for December was 1.9 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 December was 7.5 mg/l, which is 50% of our Key Performance Indicator (KPI) of 15 mg/l, and is 25.0% of our permit's monthly average limit of 30 mg/l. The blend event on 12/02 contributed to the higher than normal TSS result.

IV. Maintenance Activities

The cogeneration system produced 97.1% of the Agency's power in December, and MCE supplied the balance. The generator, as indicated on Graph #8, was temporarily out of service on December 12 for a scheduled maintenance procedure.

The majority of December's work activities were spent performing annual process equipment preventative maintenance. In addition, technicians assisted Bay Area Air Quality Management District personnel with annual cogeneration system emissions testing, assisted Roy's Sanitary Service with quarterly OWRF cleaning, cleaned the reclaimed and plant water strainers after each of the four blend events, and replaced a broken flange on one of the hypochlorite bulk storage tanks. Utility staff also cleaned the storm drains, performed last minute brush removal, and stabilized some minor slope failures on the Andersen Hillside.

Attachment:

- December 2019 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report
December 2019



Operator A. Clark conducts performance testing on facility disinfection pumps in advance of an impending rain event.

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 Equivalents:** 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.

Monthly Compliance Summary Table

Central Marin Sanitation Agency

December, 2019

Final Effluent Monitoring

Parameter	Frequency	Units	Results	Limit
Carbonaceous BOD Highest Weekly Average	Weekly	mg/L	10.7	Maximum 40
Carbonaceous BOD Monthly Average	Monthly	mg/L	7.4	Maximum 25
Carbonaceous BOD Monthly Removal Rate	Monthly	%	94.4	Minimum 85
Total Suspended Solids Highest Weekly Average	Weekly	mg/L	10.9	Maximum 45
Total Suspended Solids Monthly Average	Monthly	mg/L	7.5	Maximum 30
Total Suspended Solids Monthly Removal Rate	Monthly	%	95.5	Minimum 85
Chlorine Residual Instant Limit	Instant	mg/L	ND	Maximum 0.0
Ammonia Monthly Average	Monthly	mg/L	10.3	Maximum 60
Ammonia Maximum Daily	Daily	mg/L	15.1	Maximum 120
pH Lower Limit	Continuous	SU	6.2	Minimum 6
pH Upper Limit	Continuous	SU	7.1	Maximum 9
Bacteriological Analysis				
Total Coliform Monthly Geometric Mean	3 X Week	MPN/100mL	1.9	Maximum 240
Total Coliform Daily Maximum	3 X Week	MPN/100mL	166.3	Maximum 10,000
Enterococcus Quarterly Geometric Mean	Quarterly	MPN/100mL	6.8	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	3.6	Maximum 85
Copper Monthly Average	Monthly	ug/L	3.6	Maximum 49
Cyanide Daily Limit	Monthly	ug/L	ND	Maximum 41
Cyanide Monthly Average	Monthly	ug/L	ND	Maximum 21
Mercury Weekly Average	Weekly	ug/L	0.0065	Maximum 0.072
Mercury Monthly Average	Monthly	ug/L	0.0065	Maximum 0.066
Mercury Monthly Loading	Monthly	kg/mo	0.01659	
Mercury Annual Loading (watershed permit)	Jan-Dec	kg/yr	0.10177	Maximum 0.11
Permit Analysis				
Dioxin - Total Equivalents (TEQ) Daily Maximum	1/Permit Cycle	ug/L	*	Maximum 2.8E-08
Dioxin - Total Equivalents (TEQ) Monthly Average	1/Permit Cycle	ug/L	*	Maximum 1.4E-08
Polychlorinated Biphenyls (PCBs) Daily Limit	1/Permit Cycle	ug/L	*	Maximum 0.017
Polychlorinated Biphenyls (PCBs) Monthly Limit	1/Permit Cycle	ug/L	*	Maximum 0.012
Semiannual and Quarterly Analysis				
Oil and Grease Daily Limit	Semiannual	mg/L	ND	Maximum 20
Oil and Grease Monthly Average	Semiannual	mg/L	ND	Maximum 10
Chronic Bioassay Toxicity	Quarterly	Tuc	ND	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	45.4	68.7	74.9	20.3
Influent Flow	47.4	73.9	90.6	20.3
# Days Blended				6

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

EXECUTIVE SUMMARY PROCESS PERFORMANCE DATA
December 2019

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

PRIMARY CLARIFIER PERFORMANCE

Average Total Suspended Solids (TSS) in:	184.5	mg/l	<i>Expected removal efficiencies as outlined in Metcalf & Eddy Wastewater Engineering Manual.</i>
Average TSS out:	92.4	mg/l	
Average Percent Removal Achieved:	49.0	%	Design 50-70% Removal
Average Total Carbonaceous Biochemical Oxygen Demand (CBOD) in:	138.5	mg/l	
Average CBOD out:	64.9	mg/l	
Average Percent Removal Achieved:	53.2	%	Design 25-40% Removal
Average Plant Influent Flows:	20.3	MGD	

BIOTOWER PERFORMANCE

Average TSS out:	71.4	mg/l	
Average CBOD out:	33.3	mg/l	
Average Percent CBOD Removal Achieved:	31.6	%	Design 25-30% Removal

AERATION TANKS/ACTIVATED SLUDGE

Dissolved Oxygen set point:	2.09	mg/l
Average MLSS:	1,178.3	mg/l
Average MCRT:	3.57	Days
Average SVI:	180	

SECONDARY CLARIFIERS

Average WAS concentration:	7,500	mg/l
Average TSS out:	10.4	mg/l

FINAL EFFLUENT

Average Effluent TSS for the month:	7.5	mg/l	(Maximum Limit: 30mg/l)
Week #1 weekly average	10.9	mg/l	(Maximum Limit: 45mg/l)
Week #2 weekly average	7.3	mg/l	"
Week #3 weekly average	7.3	mg/l	"
Week #4 weekly average	5.4	mg/l	"
Week #5 weekly average	n/a	mg/l	"
Monthly average TSS removal efficiency through the plant:	95.5	%	(Minimum Limit: 85%)

Average Effluent CBOD:	7.4	mg/l	(Maximum Limit: 25mg/l)
Week #1 weekly average	8.7	mg/l	(Maximum Limit: 40mg/l)
Week #2 weekly average	6.0	mg/l	"
Week #3 weekly average	10.7	mg/l	"
Week #4 weekly average	4.5	mg/l	"
Week #5 weekly average	n/a	mg/l	"
Monthly average CBOD removal efficiency through the plant:	94.4	%	(Minimum Limit: 85%)

Disinfection Dosing Rate:	5.2	mg/l	monthly average
Total Coliform Monthly Geometric Mean:	1.9	MPN	(Maximum 240)
The Daily Maximum Total Coliform Count for the month:	166.3	MPN	(Maximum 10,000)
Enterococcus monthly Geometric Mean:	4.5	MPN	(Maximum 35 MPN)
Effluent pH for the month was:	Min	6.2	MPN (Min 6.0)
	Max	7.1	MPN (Max 9.0)

DIGESTER TREATMENT

Average Thickened Waste Concentration from the RDT:	7.18	%	
Average percent of Volatile Solids destroyed:	82.4	%	
Cubic feet of biogas produced:	9,222,650 (Total)		297,505 (Daily Average)
Average temperature of the digester:	102.0	degrees Fahrenheit	

EXECUTIVE SUMMARY PROCESS PERFORMANCE DATA

December 2019

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

DEWATERING

Average Centrifuge Feed concentration:	2.8	%
Average Biosolids concentration:	26.8	%
Average TSS of the Centrate:	172	mg/l
Solids capture of the Centrifuge:	99.45	%
Polymer use per Dry ton of biosolids:	12.40	#/dry ton
Average polymer feed rate per run:	3.89	gpm
Average concentration of the polymer batches:	0.328	%
Average sludge feed rate per run:	55.6	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. There were four recorded blend events in the month of December, occurring on 12/1, 12/7, 12/18, and 12/22.

Graph #2:

Depicts individual collection agency flows.

The Y-axis is the wet weather flow range of 0-25 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 1.9 MPN through December, which is less than our KPI median of 30 MPN and permit limit of 240 MPN. The blend event on 12/18 contributed to the 166.3 MPN coliform result.

Graph #4:

Depicts the total suspended solids in the effluent.

Our monthly average was 7.5 mg/l versus our KPI of 15 mg/l and permit monthly average limit of 30 mg/l. The high effluent suspended solids on 12/2, 12/8, and 12/18 are a result of high flows during blending events.

Graph #5:

Depicts the effluent CBOD which measures the oxygen demand of the wastewater.

The December effluent CBOD average was 7.5 mg/l, well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month. The higher CBOD numbers on 12/2 and 12/18 can be attributed to increased facility loading during blending events.

Graph #6:

Depicts the degree to which the biosolids have been dewatered.

Our biosolids % concentration met or exceeded our KPI of 25% throughout December. No dewatering operations occurred on 12/28.

Graph #7:

Depicts the amount of biogas that is produced in the digesters, measured by a flow meter, and then used to produce electricity.

Biogas production in December averaged 297,505 cubic feet per day, which exceeded our monthly KPI of 200,000 cubic feet per day. The apparent low biogas production depicted on 12/08 through 12/12 was most likely the result of water in the gas train interfering with flow information. The lines were thoroughly drained and a primary water trap was repaired.

Graph #8:

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

The green line represents power exported to the grid. In December, CMSA exported 43,146kWh. The reduction in power production on 12/12 was the result of the cogeneration system being offline for scheduled maintenance.

Glossary of Terms Process Performance Data Sheet

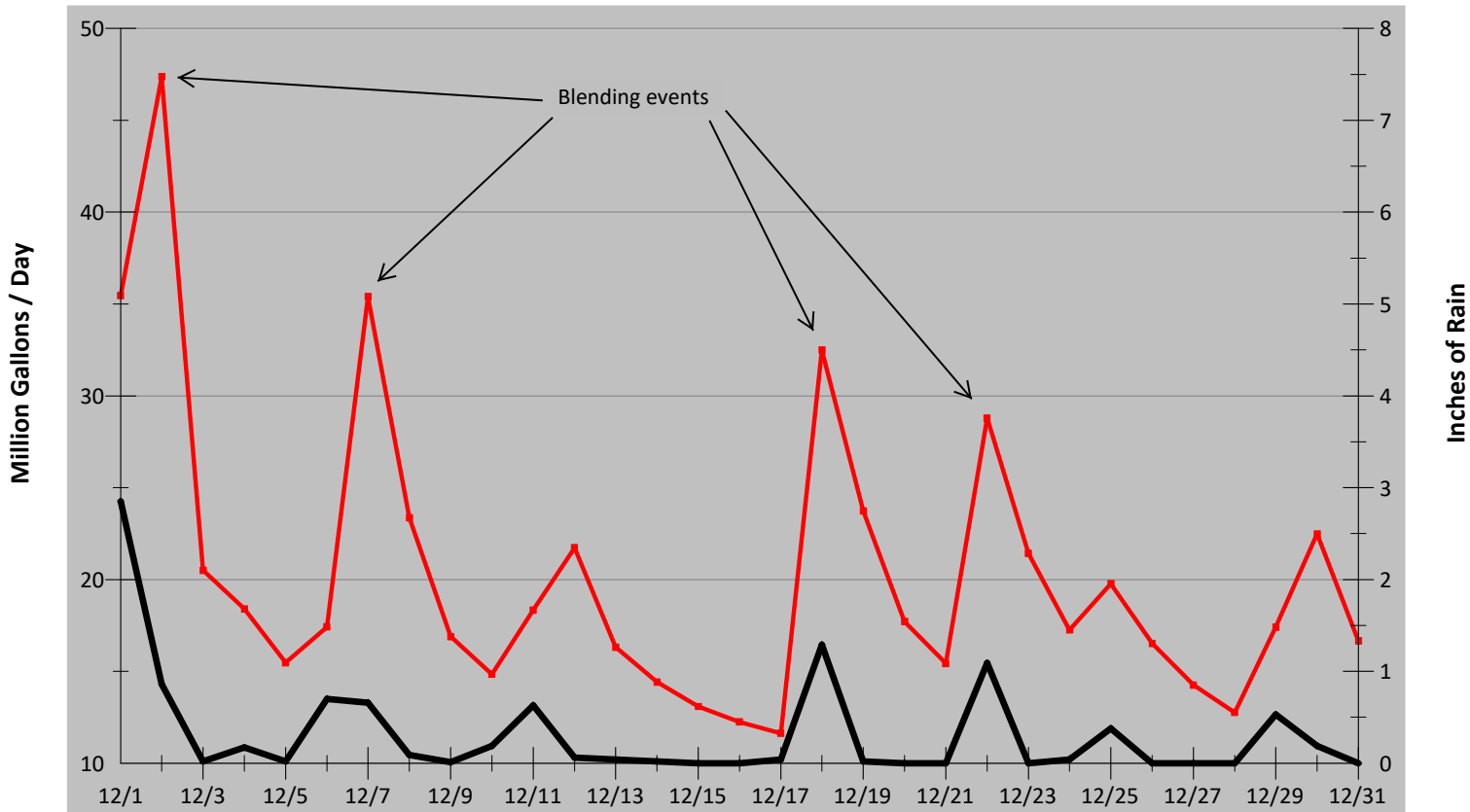
- **Aeration Tanks:** A biological process that takes place after the biotowers, where biomass (microorganisms) is mixed with the wastewater to feed on dissolved and suspended organic material. High speed blowers are used to provide compressed air to mix the tank contents.
- **Anaerobic Digesters:**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

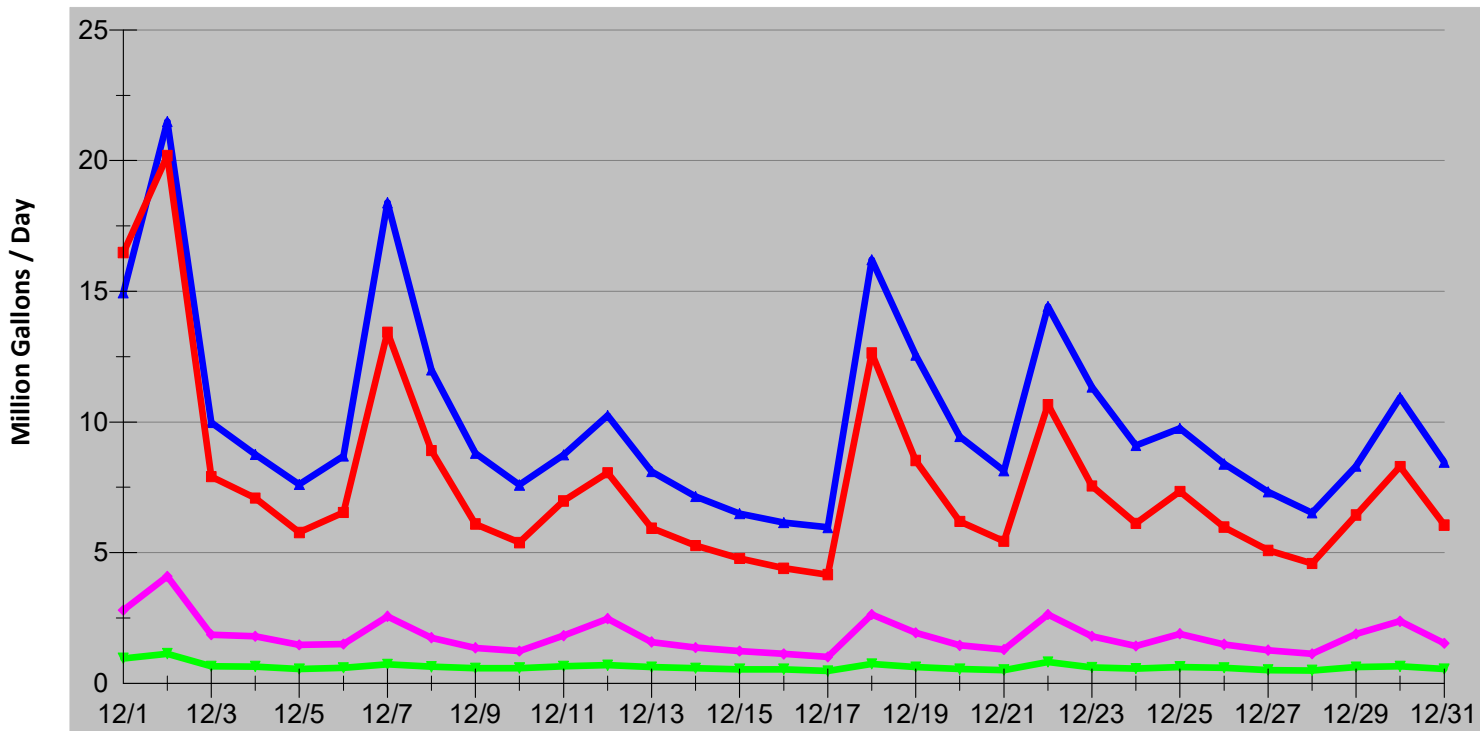


Date (12/1/2019 to 12/31/2019)

■ Flow (Daily Average) • Rainfall

(#1) CMSA Influent Flow

Graph #2: Collection System Influent Flows



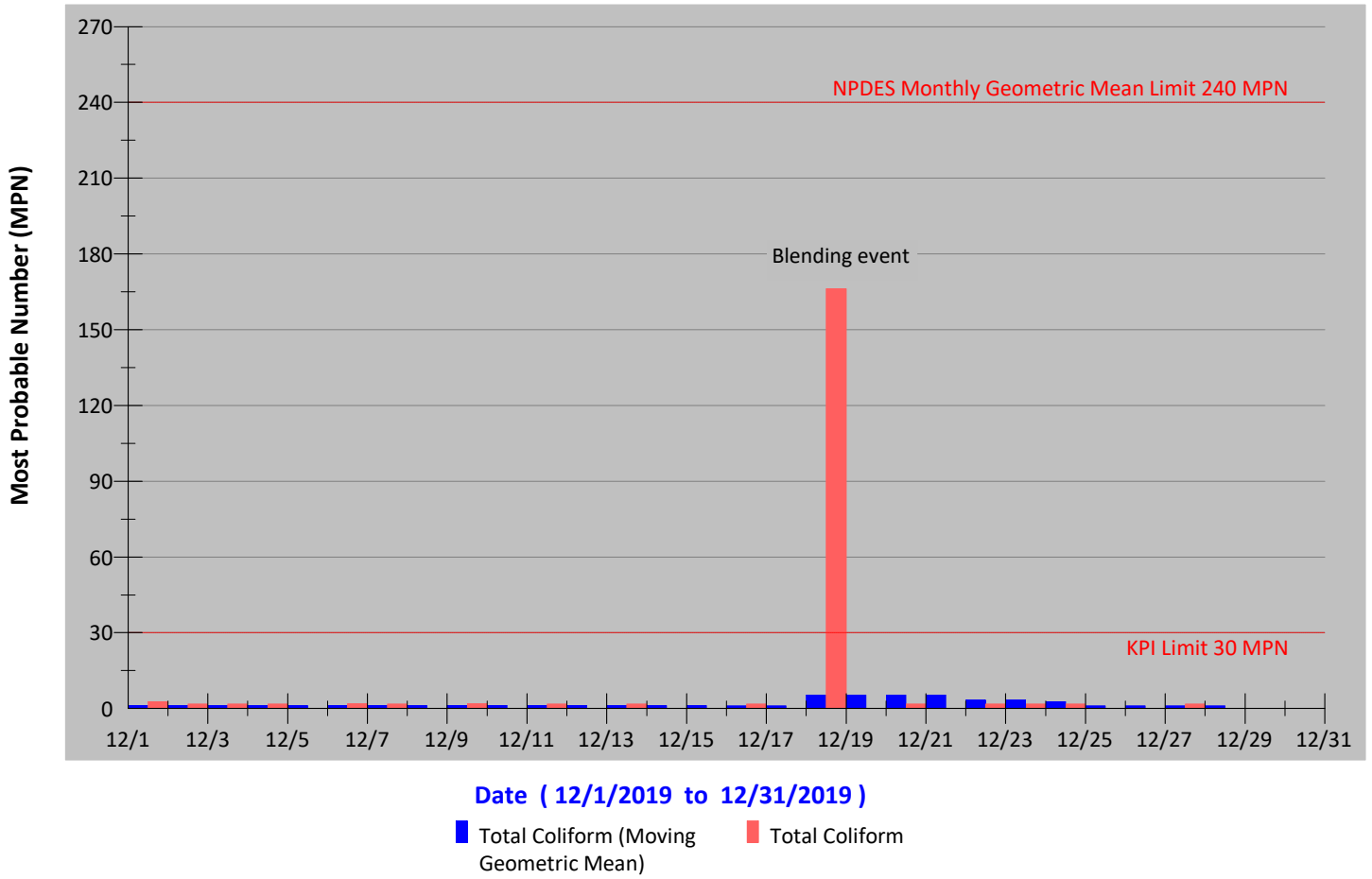
Date (12/1/2019 to 12/31/2019)

▲ RVSD Flow (Daily Average) ■ SRSD Flow (Daily Average) ▼ SQ Flow (Daily Average) ◆ SD#2 Flow (Daily Average -Par)

Page 9 of 12

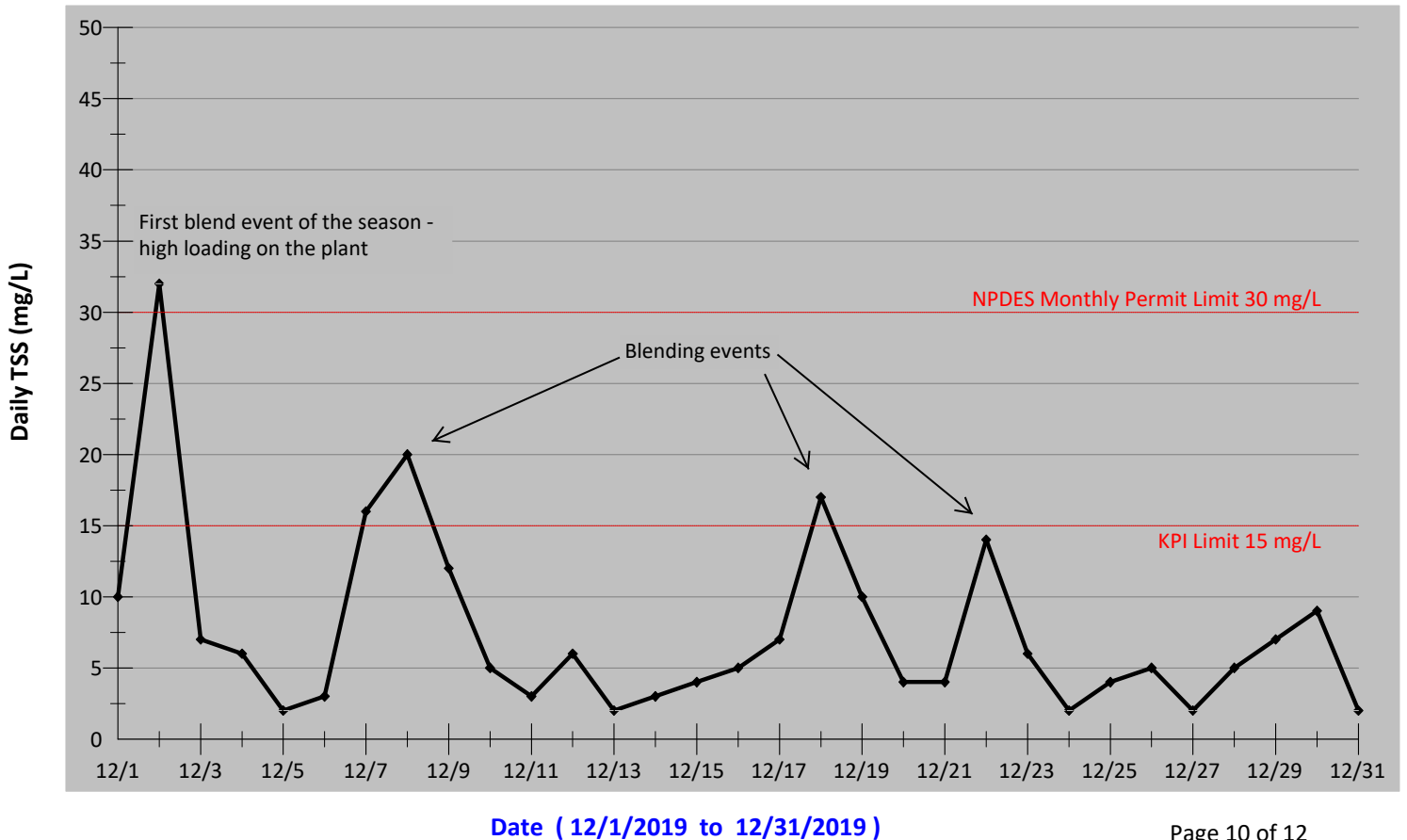
(#2) Collection System Influent Flows

Graph #3: Total Coliform & Monthly Geometric Mean



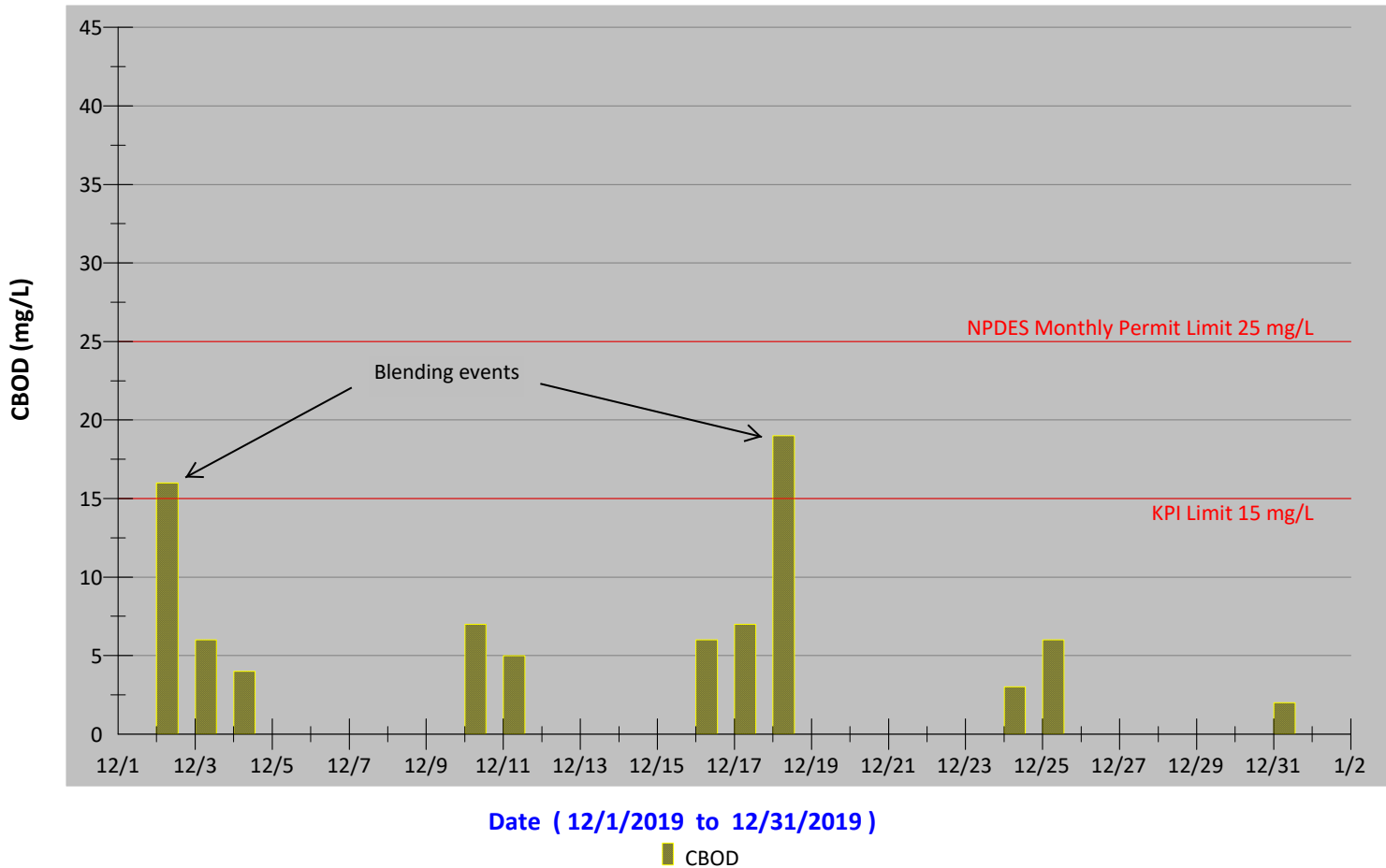
(#3) Total Coliform & Monthly Geometric Mean

Graph #4: Effluent Total Suspended Solids (TSS)



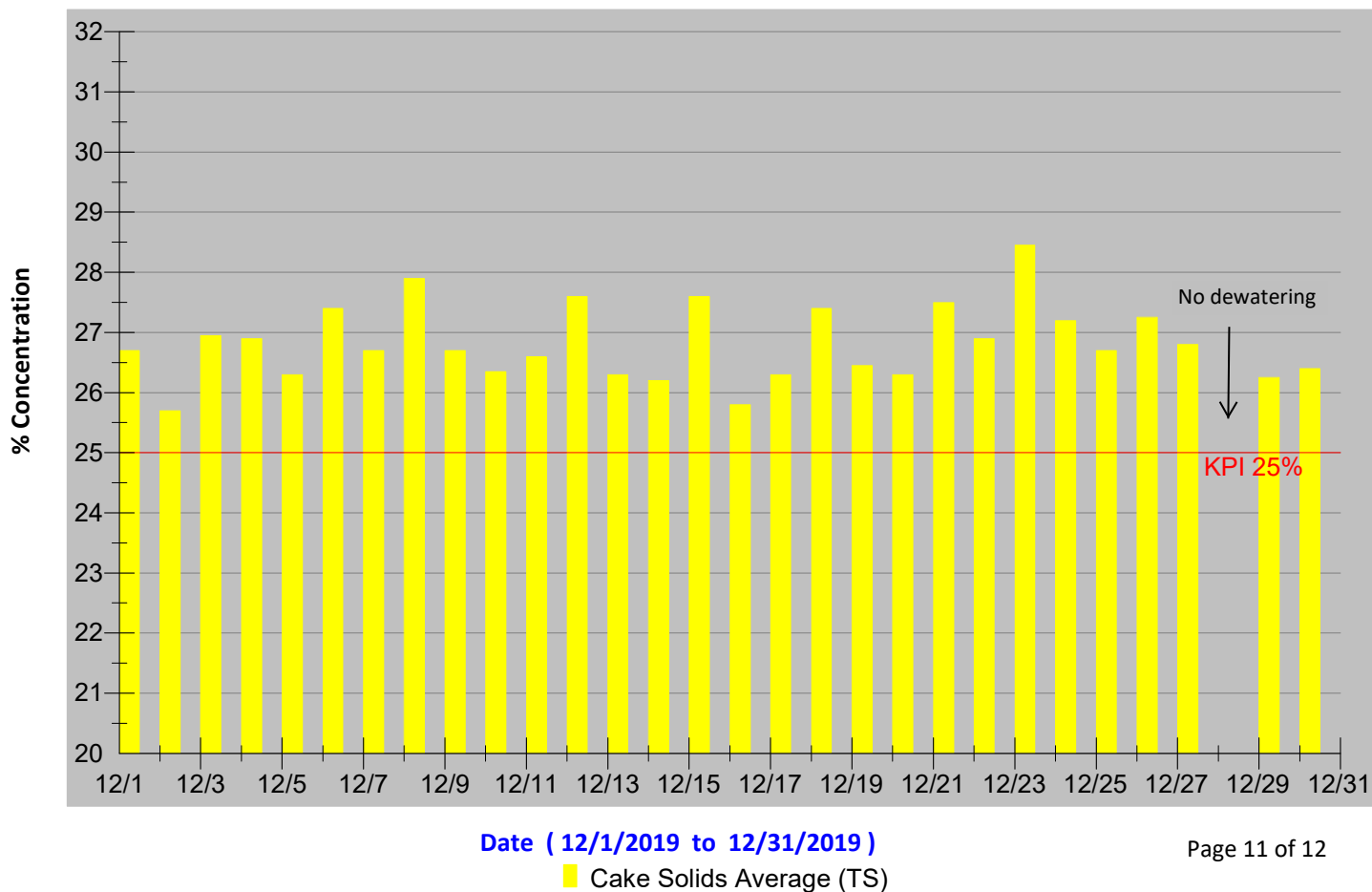
(#4) Effluent Total Suspended Solids (TSS)

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

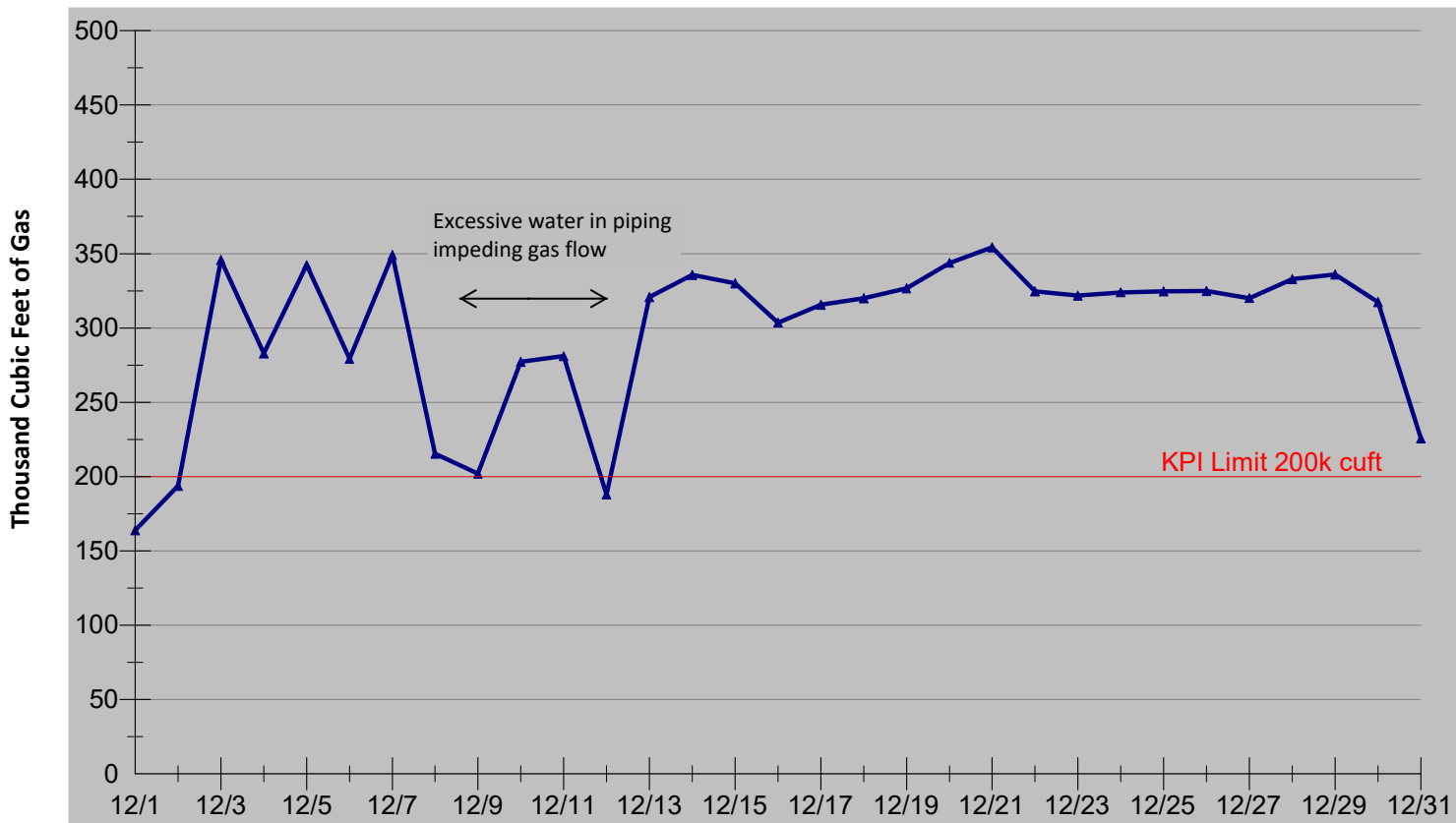


(#5) Effluent Carbonaceous Biological Oxygen Demand (CBOD)

Graph #6: Biosolids Concentration



Graph #7: Biogas Production (Measured Use)

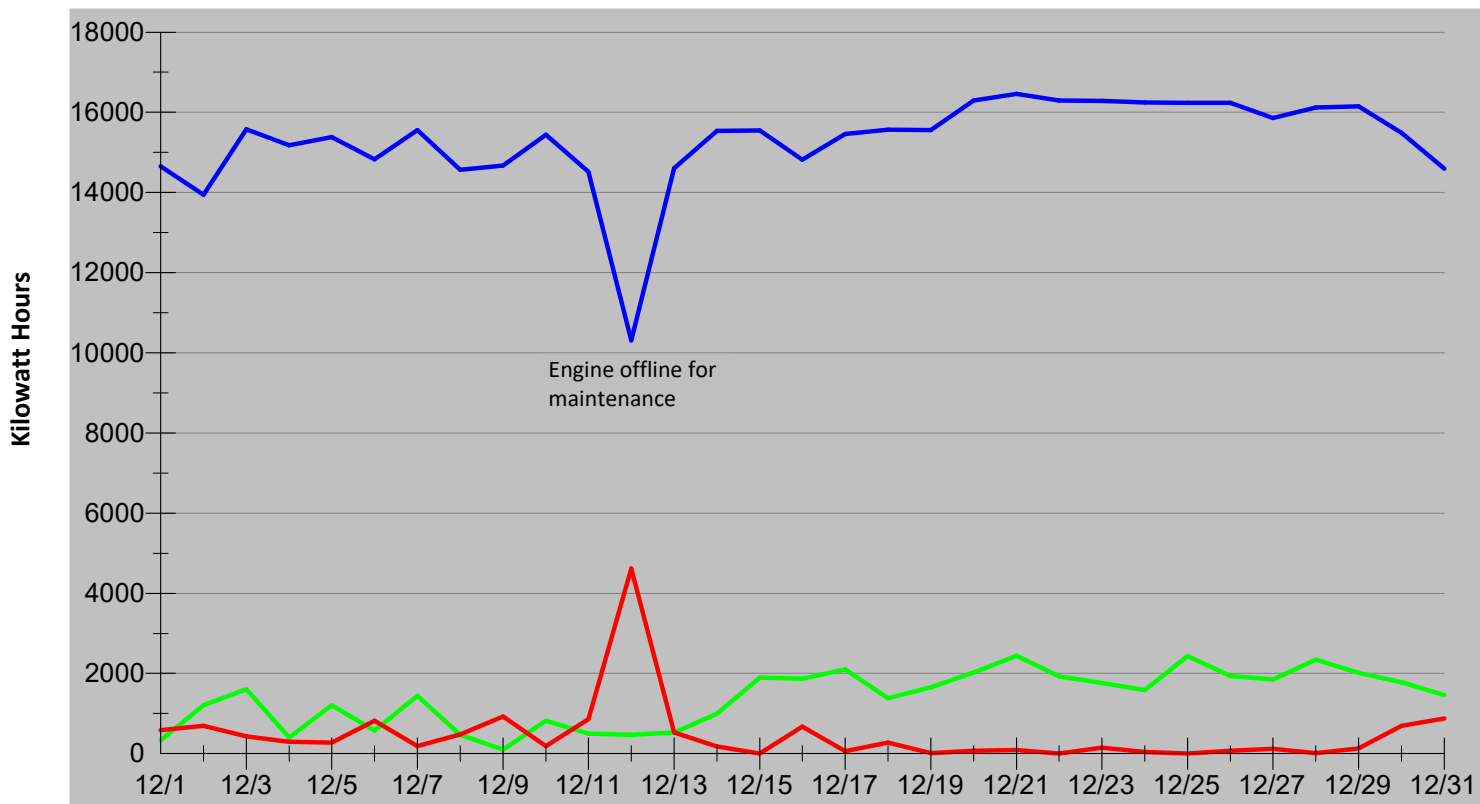


Date (12/1/2019 to 12/31/2019)

▲ Biogas Produced

(#7) Biogas Production

Graph #8: kW/hr Purchased vs. kW/hr Produced vs. kW/hr Exported



Date (12/1/2019 to 12/31/2019)

/ Kilowatts Produced
 / Utility Export
 / Utility Import

Page 12 of 12

(#8) Kilowatt Hours Purchased vs. Kilowatts Produced



BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Performance Metric Report – December 2019

Recommendation: Accept the December 2019 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 continues to exceed our performance targets, and the Agency did not have any NPDES permit exceedance in 2019. With the cogeneration running in baseload operation, we periodically export power to MCE. Supposedly, PG&E has resolved the CMSA export meter problem and has been transmitting correct power delivery data to MCE.

Table II – Employee Metrics

Preventative maintenance work orders, 874 hours closed, exceeded our KPI of 500 hours this past month. This is primarily due to staff reprioritizing work priorities to equipment preventative maintenance due the onset of the wet weather season.

On-site training included Forklift Certification training for selected Operations and Maintenance staff, web-based Blood Borne Pathogen and Fire Extinguisher safety training for several staff, new employee orientation and safety training for the three industrial utility workers, and classification specific development training.

Table III - Environmental and Regulatory Compliance Metrics

There weren’t any NPDES final effluent permit exceedances December, and all regulatory reports were submitted on schedule. Source control staff completed 85 inspections in the CMSA and contract agency service areas, and annual dental offices inspections have been completed.

Table IV - Public Outreach

There were nine odor alerts posted to the website over the past month, and the Agency did not receive any public odor complaints. Alerts were posted for taking process tanks out of service

after rain events, the quarterly cleaning of the Organic Waste Receiving Facility, and the monthly Chlorine Contact Tank preventative maintenance.

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.

Public Outreach Events

- None in December.

School Events – Juggler Show Presentations and Classroom Events

<u>Date</u>	<u>School</u>	<u>Attendees</u>
12/4	San Pedro Elementary in San Rafael	300
12/12	Hamilton K-8 School in Novato	255
12/20	Sun Valley Elementary in San Rafael	195

CMSA Tours

- None in December.

Attachment:

- December 2019 Performance Metric Report

CMSA CY19 PERFORMANCE METRICS – December 2019

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)	629.6 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)	385 wt 0 wt 175 wt	360 – 665 wt
3) Conventional Pollutant Removal	Removal of the conventional NPDES pollutants - Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) a. tons of TSS removed; % TSS removal b. tons of organics removed (BOD); % BOD removal	463.4 tons; 95.5% 322.9 tons ; 94.4%	> 85% > 85%
4) Priority Pollutants Removal	Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper	92.9% 81.1%	88 – 99% 84 – 98%
5) Biogas Production	Biogas generated in our anaerobic digesters, in million cubic feet (Mft ³) Natural gas (methane) equivalent of the biogas, in million cubic feet (Mft ³)	9.22 Mft ³ 5.90 Mft ³	6.0 to 9.5 Mft ³ 3.8 to 6.1 Mft ³
6) Power Produced	Power produced from cogeneration of generated biogas and purchased natural gas - in kilowatt hours. Power produced from cogeneration of generated biogas and exported to grid Cogeneration system runtime on biogas , <i>in hours (hrs.)</i> ; % <i>time during month</i> Biogas value (natural gas cost equivalent).	474,017 kWh 43,143 kWh 651 hrs; 87.5% \$29,999	380 to 480,000 kWh TBD 558 hrs.; 75% \$7,000 to \$24,000
7) Efficiency	The cost to operate and maintain the treatment plant per million gallons of wastewater treated, in dollars per million gallons. Energy used, kilowatt hours, per million gallons treated.	\$571 /Mg 776 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 = 605.5 External = 7	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);	874 hrs 606 hrs (86.9%) 91 hrs (9.4%) 1.25	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 normal hours worked; % <i>Year to date (YTD)</i>	79 hrs; (1,583 hrs) 1.1%; (1.8%)	< 5%

CMSA CY19 PERFORMANCE METRICS – December 2019

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	418	150-750
3) Process Control Analyses	# of analyses by the CMSA laboratory for process control monitoring	1,103	400-1,250
4) Contract Laboratory Analyses	# of analyses by contract laboratories for regulatory compliance reporting	92	0-50
5) Quality Control Testing	# of CMSA performed laboratory analyses for QA/QC purposes	360	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.)	121	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	85	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	2	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>	0; <i>(4,183)</i>	3,000/year
2) School Events	Participation or sponsorship in school outreach events; attendees; <i>(YTD)</i>	750; <i>(4,384)</i>	variable
3) Agency Tours	Tours given to students and the public; # of people, <i>(YTD)</i>	0; <i>(236)</i>	variable
4) Odor Notifications	Number of odor alerts posted to the Agency website	9	1-10
5) Odor Complaints	Number of odor complaints received from the public	0	0



BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates
From: Kevin Lewis, Assistant Maintenance Supervisor
Approved: Jason Dow, General Manager
Subject: FY20 Asset Management Program 2nd Quarter Report

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

Summary: Since February 2011, staff has provided the Board with periodic reports 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.

Second Quarter Highlights

1. Cogeneration System Engine Overhaul – On May 31, 2019, the cogeneration engine experienced a catastrophic failure. The resulting damage to the engine’s block, crankshaft and connecting rods was unrepairable. A replacement engine was sourced, and the CMSA Board approved the procurement at their June 2019 meeting. This used engine was completely disassembled, inspected, and all wear parts were replaced. After reassembly, an Agency technician observed the start-up of the cogeneration engine in Ohio, which occurred without incident. The engine was then shipped to CMSA and arrived in late August. A cogeneration systems contractor, Peterson Cat, was hired to oversee equipment rigging (physical removal and installation) work, install ancillary equipment onto the engine with Agency technician assistance, and couple the generator to the engine. The contractor was also responsible for initial start-up and testing, and tuning of the cogeneration system. The engine was placed back in service on September 11 and emissions were certified by Bay Area Air Quality Management District staff in December.
2. Dechlorination “Storm” Pump – CMSA uses Sodium Bisulfite (SBS) to remove residual chlorine from treated effluent prior to being discharged into San Francisco Bay. Since the late 1990s the Agency has relied upon one 100-gallon per-hour (dry weather) and two 280-gallon per-hour (wet weather) pumps to do this work. Regulatory compliance modifications to the Agency’s NPDES permit triggered the need for a larger, higher

output SBS metering pump. A capital project was recently completed which included Technical Services staff assisting with the proper sizing of a new 400-gallon per-hour pump. The skid mounted pump system was designed to reliably handle extremely high storm flows with high chlorine residuals and its speed can be reduced to also act as a backup pump to any of the existing SBS metering pumps. Agency technicians built a stainless steel stand for the pump skid, installed and mounted the supply and discharge piping, completed all of the conduit and wiring, and connected it to the facility process control system. Our in-house IT analyst programmed the pump's operating and control strategies, and our Operations department tested its functionality.

3. Building Access Ramps and Stairs – CMSA's buildings and treatment plant facilities are pile supported due to the site's soil composition. Over the past 39 years, the site has experienced significant ground settling in non-supported areas such as facility roads, the corporation yard, and various treatment plant access points. Some of these access points into treatment areas had become unsafe for use due to the slope of the access ramps not being in compliance with Cal-OSHA safety requirements. Staff recently completed an in-house project in which new ramps were designed, fabricated, and installed in the required locations. These new access ramps were approved for use by the Agency's Safety Officer, were designed to be adjustable, and were constructed using stainless steel for durability.
4. Slurry Mixing Pumps – The Organic Waste Receiving Facility (OWRF) utilizes two pumps, typically one operating at a time, to mix the tank's content into slurry that can be easily pumped to the anaerobic digesters. This past quarter, during routine preventative maintenance, technicians noted substantial wear and tear to both pieces of equipment, and determined that they were approaching a point where replacement was warranted. There are many benefits to the Agency to receiving organic wastes, but the processing of it is hard on mechanical equipment. To address this, staff worked with the mixing pump's manufacturer to fashion a hybrid replacement assembly. Replacing the entire mixing pump was not necessary and can be expensive, so technicians targeted just high wear components that could be removed and replaced during scheduled maintenance procedures or while the facility was in use, allowing for daily operations to continue uninterrupted. This cost-effective collaborative approach streamlined the equipment change-out process and reduced Agency labor costs associated with this task.

Asset Inventory

Staff conducted a 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. In all, 325 items were entered, reclassified, or removed from the CMMS asset tree this past quarter.

Asset Locations	Total Assets
CMSA	3,393
Sanitary District No. 2	38
San Quentin Prison Pump Station	41
San Quentin Village Sewer Maintenance District	16

Parts Inventory

The parts inventory is comprised of critical spare parts and equipment, and consumable items for Agency and managed pump station assets – 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.

Parts Inventory	Parts Quantity	Total Value
CMSA	28,632	\$1,597,062
Sanitary District No. 2	315	\$158,218
San Quentin Prison	34	\$49,747
San Quentin Village	2	\$1,231

Asset Improvements, Repairs, and Refurbishment Work

1) CMSA Construction Project Work

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

Project Name	CMSA Staff Cost	Total Cost	Status
Cogeneration Engine Major Overhaul	\$39,721	\$251,975	Complete
SBS Storm Pump	\$15,039	\$52,931	Complete
Primary Influent Gate Operator Replacement	\$2,323	\$416,823	Complete

2) CMSA Asset Management Improvements

Projects in the table below are considered routine, recurring, and usual maintenance work for the preservation, protection, or replacement 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
Headworks	Site Sump	Annual cleaning	\$4,343	Removed debris from sump and flushed associated piping.
Headworks	Grit Pump No. 5	Pump replacement	\$16,984	Obsolete pump replaced with new make and model.
Headworks	Grit Line No. 2	Annual cleaning	\$3,818	Removed impacted debris, replaced failing pipe sections, and replaced two isolation valves.
Primary Clarifiers	Clarifier No. 5 Scum Collector	New drive installed	\$10,350	Installed newer style drive and motor.
Primary Clarifiers	Clarifier No. 1 Tank Drain Valves	Valve replacement	\$6,545	Installed new eccentric plug valves on both the A and B sides of the tank.
Secondary System - Biotowers	Flowmeter No. 1	Replaced existing flowmeter	\$20,102	New Modbus-enabled flowmeter and controls installed.
Chlorine Contact Tanks	Reclaimed Water Booster Pump	Pump rebuilt	\$7,833	Replaced shaft, impeller, cartridge seals, and lubricants.
Solids Handling	TWAS Pump No. 2	Annual preventative maintenance	\$4,003	Replaced lobes, wear plates, cartridge seals, housings, and lubricants.
Organic Waste Receiving Facility	Paddle Finisher Feed Pump	Hose replacements	\$4,503	Replaced EPDM hose, and replaced hose lubricant (twice).
Organic Waste Receiving Facility	Slurry Mixing Pumps	Installed new assemblies	\$17,327	Replaced both pump assemblies.
Gallery C	Sump Pump No. 1	Installed new pump	\$2,487	Replaced pump.
Plant Grounds	Andersen Hillside	Area improvements	\$3,302	Removed loose soil and debris from "V" ditches and storm drains. Cleared vegetation back from drain areas.

3) CMSA Maintained Assets (San Quentin Prison, Sanitary District No. 2, and San Quentin Village)

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

Asset Owner	Asset	Improvement	Total Cost	Comment
SD2	Sausalito PS	Replaced pumps Nos. 1 and 2	\$14,975	Scheduled improvement project.
SD2	Sewer Trunk Lines	Annual cleaning and inspection	\$7,612	Isolated and monitored three pump stations to allow access for SD2 contractors.
SD2	Paradise PS	Check Valve No. 5 repaired	\$2,464	Replaced rubber flapper element.

Work Orders – Second Quarter FY20

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)	348	46.65%	1500.50	11.26%
Corrective-Planned	192	25.74%	1990.00	14.93%
Corrective-Unplanned	47	9.25%	836.00	6.27%
Improvement Project Work	4	0.54%	100.25	0.75%
Coating Projects	7	0.94%	45.25	0.34%
Safety	33	4.42%	298.50	2.24%
Professional Development/Staff Meetings	23	3.08%	748.75	5.62%
Facilities Administration/Housekeeping	42	5.63%	2057.85	15.44%
Process Control and Facility Operations	28	3.75%	5,749.00	43.14%
Total	746	100%	13326.10	100%



BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates

From: Jacky Wong, Assistant Engineer

Approved: Jason Dow, General Manager

Subject: FY20 Sodium Bisulfite Supply Contract – Amendment No. 1

Recommendation: Ratify the decision by General Manager Dow and Board Chair DiGiovanni to approve Amendment No. 1 to the Sodium Bisulfite Supply Contract with Univar.

Discussion: In May 2019, after receiving competitive bids administered through the Bay Area Chemical Consortium, the Board approved entering into a Sodium Bisulfite Supply and Delivery Agreement with Univar for FY20 with up to three optional one-year extensions. Sodium Bisulfite (SBS) is a dechlorination chemical used to neutralize residual chlorine in the final effluent prior to discharging to the San Francisco Bay. The original Agreement incorporated all contractual requirements from the bid documents by reference, including requirements for SBS purity levels and that all deliveries must be received by CMSA no more than seven days after the order is placed.

Over the last several months, especially during high-flow wet weather events, staff has experienced complications with the SBS ordering process, such as delayed confirmation of order receipt and relatively lengthy delivery times. While the deliveries were still within the contractual 7-day timeframe, the dechlorination system uses substantial quantities of SBS during high-flow wet weather events. If such events extend over multiple days, CMSA could theoretically risk running low on SBS supplies. Therefore, staff is highly attuned to the re-ordering process prior to and during such events.

To prevent running low on SBS, staff and Univar agreed to amend the SBS Supply and Delivery Agreement with additional delivery requirements. Specifically, during wet weather situations Univar must now confirm all delivery requests via email within 8 hours of receipt of CMSA's request, and all urgent deliveries must be made within 24 hours of receipt of CMSA's request. On December 18, prior to forecasted wet weather events, GM Dow and Chair DiGiovanni approved the delivery response contract modifications, an attachment to Amendment No. 1.

Attachment: Amendment No. 1 to the FY20 Sodium Bisulfite Supply Contract



**Amendment No. 1 to Agreement for
Supply and Delivery of Sodium Bisulfite 25% (CMSA Contract 19-45)**

This Amendment to the Agreement is dated this ____ day of January, 2020, and is made by and between Central Marin Sanitation Agency (CMSA), a joint powers agency in Marin County, California and Univar USA, Inc. (Vendor).

RECITALS

- A. CMSA entered into an Agreement with Vendor, dated June 5, 2019, for Vendor to supply and delivery of 25% Sodium Bisulfite solution, a dechlorination chemical used to neutralize residual chlorine in the final effluent prior to discharging into the San Francisco Bay; and
- B. The contractual delivery timeline is within 7 days, and CMSA consumes substantial quantities of Sodium Bisulfite during high-flow wet weather events. In such events, CMSA could theoretically risk running low on the on-site Sodium Bisulfite.

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

- 1) Scope: Incorporate the delivery response requirements, as described in the attached Contract Modification Regarding Sodium Bisulfite Delivery Response, which supersede the related requirements in the original Agreement.

The unit price and all other terms and provisions of the Agreement dated June 5, 2019 remain unchanged.

IN WITNESS THEREOF, the parties have executed this Amendment and accept all terms and conditions this _____ day of January, 2020.

Univar USA, Inc.

Central Marin Sanitation Agency

Jennifer Perras, Municipal Specialist

Jason Dow, General Manager

Attachment: Contract Modification Regarding Sodium Bisulfite Delivery Response

Subject: Contract Modification Regarding Sodium Bisulfite Delivery Response

Introduction:

The Central Marin Sanitation agency (CMSA) is being supplied with Sodium Bisulfite from Univar BCS under the terms of the broader Bay Area Chemical Consortium (BACC) supply contract for which bids were due on April 2, 2019. An efficient, transparent and timely ordering and delivery process for Sodium Bisulfite is of utmost importance for CMSA Operations in order to remain compliant with its regulatory requirements. Per Section 4.6 of the Request for Proposal (RFP) documents the CMSA supply contract may be modified by mutual agreement between CMSA with Univar BCS.

CMSA and Univar BCS hereby agree to incorporate the following 'Delivery Response' requirements into the CMSA supply contract, effective of the date of signing this Contract Modification Document.

- Delivery requests from CMSA shall be made by email only and Jennifer Perras of Univar BCS (or an equivalent Univar BCS Municipal Specialist) shall be copied on all email delivery requests.
- Delivery requests must be confirmed by Univar BCS by email response with "reply to all" within 24 hours of receipt of CMSA delivery request email.
- Under routine conditions, deliveries shall be made within 48 hours from time of receipt of CMSA delivery request email, including weekends and Holidays.
- Under infrequent, non-routine conditions such as high demand, peak flow, low inventory, or any other critical-need situation, as defined by the Agency, deliveries shall be made within 24 hours of receipt of CMSA delivery request email and emailed delivery request confirmation must be provided to CMSA within 8 hours of receipt of CMSA delivery request email.
- The Univar BCS shall deliver the amount of sodium bisulfite solution requested by CMSA, including partial deliveries.
- Deliveries shall be made by Univar BCS who will employ delivery personnel thoroughly trained in the transport and handling of sodium bisulfite.
- Univar BCS shall use tank trailers specifically designed and dedicated to transporting sodium bisulfite solution.
- Univar BCS shall comply with all Federal, State, and Local regulations regarding the transport and delivery of sodium bisulfite solution.
- CMSA reserves the right to reject deliveries if the Univar BCS transport and delivery equipment, or delivery personnel appear to be acting in an unsafe manner.


Jason R. Dow
General Manager, CMSA


Univar BCS Representative



BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: 2019 Performance Metric Report

Recommendation: Accept the Agency's 2019 Performance Metric Report.

Summary: Staff prepares monthly and annual performance metric reports for the Agency's core business and other provided services. These reports present performance metrics with their definition, measurement, and goals and target ranges in the areas of treatment and process, employee, environmental and regulatory compliance, and public outreach. Monthly reports are included in the Board meeting agenda packet and the annual report is presented in January or February.

2019 Performance Highlights: The Agency's staff and business operations continue to perform at a high level, with the highlights and comparison tables of selected metrics over the past several years shown below.

- < CMSA met its NPDES permit requirements for twelve consecutive months, and is eligible for the NACWA Gold Peak Performance Award.
- < Approximately 5.01 billion gallons of wastewater was treated to a high level, with approximately 97% of the conventional pollutants removed. Annual wastewater volume variances are attributable to the number, duration, and intensity of wet weather events each year, which contribute a significant amount of stormwater and groundwater infiltration into the sewer collection system.

	2019	2018	2017	2016	2015	2014	2013	2012
Billion Gallons Treated	5.01	3.99	4.91	4.33	3.31	4.25	3.44	4.45

- < 6,318 wet tons of biosolids were produced and beneficially reused either as soil amendment and fertilizer, or as alternate daily cover material at the Redwood Landfill. Biosolids production variances can be due to the amount of settled material flushed from collection systems during major rain events, volume of organic waste materials received, dewatering system performance, and if there is digester draining and cleaning operations.

	2019	2018	2017	2016	2015	2014	2013	2012
Wet Tons of Biosolids	6,318	6,553	6,324	6,702	5,867	5,947	5,458	6,483

- < 101.1million cubic feet of biogas was produced and had an equivalent natural gas procurement value of approximately \$363,653. The increase in biogas production since 2014 is a direct result of the Agency receiving additional quantities of organic waste materials each year. The slight

increase in gas production in 2019 was due to reclaiming a portion of the fats, oils, and grease (FOG) deliveries that were being delivered to other liquid organic receiving facilities.

	2019	2018	2017	2016	2015	2014	2013	2012
Biogas Production – million ft ³	101.1	100.2	102.6	104.7	82.2	79.9	64.5	57.6

< Operations and Maintenance staff completed 11,627 hours of preventative (PM) and planned and unplanned corrective (CM) maintenance related work. 2013 was the first year of tracking maintenance work order labor hours. The work order hours decreased in 2019 primarily due to staff spending more time working on capital improvements, asset management, and maintenance specific projects. The PM/CM ratio increase in 2019 was due to the increase in corrective maintenance and an overall decrease in unscheduled corrective maintenance.

	2019	2018	2017	2016	2015	2014	2013
Work Order Hours	11,267	14,801	12,184	12,794	11,525	10,507	7,511
PM/CM ratio	0.92	0.61	0.87	0.78	0.84	0.69	0.69

< Overtime was only 1.8% of regular hours worked. Various factors affect overtime authorization during a year, including number of significant wet weather events requiring additional staff, responding to after-hours system and equipment mechanical problems, and maintaining minimum operational staffing.

	2019	2018	2017	2016	2015	2014	2013	2012
Overtime %	1.8%	1.8%	1.9%	1.6%	2.0%	2.4%	2.4%	2.3%

< CMSA employees received 3,159 hours of safety, process control, work practice, leadership, mechanical/technical equipment, project related, employment law, and industry specific training. The increases since 2014 are the result of additional tracking of department specific job training for new employees and for existing employees preparing to meet advancement criteria.

	2019	2018	2017	2016	2015	2014	2013	2012
Training Hours	3,159	2,965	2,439	3,099	2,354	1,898	1,965	1,569

< Environmental compliance staff performed 22,148 laboratory analyses for process control, NPDES permit reporting, quality assurance/quality control, and for member agency sanitary sewer overflows.

< Environmental compliance staff performed 783 field inspections of businesses for compliance under our pretreatment, pollution prevention, mercury reduction, and FOG programs. With environmental compliance staff vacancies filled, inspections increased in 2019.

	2019	2018	2017	2016	2015	2014	2013	2012
Source Control Inspections	783	311	321	982	1,031	971	874	843

< Our public education activities reached 8,800 people – elementary school students at our Schools Program presentations, students and stakeholder groups that tour the Agency, and members of the public who visit the public education booth at environmentally focused events

throughout the county. The decrease from 2017 to 2018 was due to the lower outreach booth attendance at county wide events and a reduction in the request for school events.

	2019	2018	2017	2016	2015	2014	2013	2012
Public Outreach – # of people	8,800	6,024	8,939	7,766	6,950	10,036	9,381	10,570

< Staff posted 49 odor alerts to our website, and the Agency did not receive any odor complaints.

2018/2019 Organizational and Staff Awards: CMSA and its staff continue to receive recognition from regional, state, and national industry associations.

National Association of Clean Water Agencies (NACWA) Gold Peak Performance Award - for meeting all final effluent NPDES permit requirements in 2018.

Government Finance Officers Association (GFOA) Certificate of Achievement for Excellence in Financial Reporting - for our FY 17/18 Comprehensive Annual Financial Report. CMSA has received this award for *seventeen* consecutive years.

GFOA Popular Annual Financial Reporting Award – for our FY 17/18 Popular Annual Financial Report. This is *nine* consecutive years the Agency has received this award.

GFOA Distinguished Budget Presentation Award – for our FY 18/19 Adopted Budget. This is the *sixth* consecutive year the Agency has received this award.

2019 CWEA Redwood Empire Section Awards:

- Treatment Plant of the Year
- Safety Program of the Year
- Mechanical Technician of the Year: *Abel Villarreal*
- P3S Person of the Year – *Eromosele Esoimeme*
- Operator-in-Training (OIT) of the Year – *Thomas Hansen*

Attachment:

- 2019 Performance Metric Report

CY 2019 ANNUAL PERFORMANCE METRICS

TABLE I. TREATMENT/PROCESS METRICS

Metric	Definition	Measurement	Target/Goal
1) Wastewater Treated	Volume of wastewater influent treated and disposed; in billion gallons (Bg)	5.01 Bg	1.98 – 9.84 Bg
2) Biosolids Production	Reused as Alternate Daily Cover at the Redwood Landfill, in wet tons (wt) Reused at Land Application sites, in wet tons (wt) Delivered to Lystek’s bio-fertilizer production facility (wt)	3,123.5 wt 1,295.0 wt 1,890 wt	4,320 – 7,980 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 b. % removal of solids (annual average) c. tons of organics removed (BOD) d. % removal of organics (annual average)	5,945.2 tons 97.8% 4,296.2 tons 96.7% tons	> 85% > 85%
4) Priority Pollutants Removal	Diversion of priority NPDES permit metals from discharge to the S.F. Bay: a. % Mercury (annual average) b. % Copper (annual average)	95.6% 88.5%	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)	101.1 Mft ³ 64.6 Mft ³	72 to 114 Mft ³ 45.6 to 73.2 Mft ³
6) Energy Produced	Energy produced from cogeneration of generated biogas and purchased natural gas - in megawatt hours (MWh) Cogeneration system runtime on biogas – <i>in hours (hrs)</i> Biogas value (natural gas cost equivalent)	3,564 MWh 4,964 hr \$363,653	4,560 to 5,760 MWh 6,480 hr \$180,000 to \$360,000
7) Efficiency	The cost to operate and maintain the treatment facilities per million gallons of wastewater treated - in dollars per million gallons Energy used at CMSA, kilowatt hours, per million gallons treated	\$1,020/MG 1,228 kWh/MG	\$451-\$1,830/MG (wet - dry) 670 - 2,400 kWh/MG

Table II – EMPLOYEE METRICS

1) Employee Training	Hours of internal training – safety, web-based, project, vender, etc. Hours of external training – employment law, technical, regulatory, etc.	Internal = 2,129.75 External = 1,029	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)	5,594 hrs. 4,586 hrs. (76.0 %) 1447 hrs. (21.0 %) 0.93	3,600 – 6,000 hrs. ≥ 70% total CM hrs. ≤ 30% total hours. ≥ 0.45
3) Overtime Worked	Overtime hours worked % of regular work hours	1,583 hrs 1.8 %	< 5%

CY 2019 ANNUAL PERFORMANCE METRICS

Table III - ENVIRONMENTAL AND REGULATORY COMPLIANCE METRICS

Metric	Definition	Measurement	Target/Goal
1) Permit Exceedances	# of NPDES permit exceedances	0	0
2) Regulatory Analyses	# of samples analyses by the CMSA laboratory for NPDES, Stormwater, and Biosolids regulatory compliance monitoring and reporting	5,501	1,800 – 9,000
3) Process Analyses	# of analyses by the CMSA laboratory for process control monitoring	10,993	4,800 – 15,000
4) Contract Laboratory Analyses	# of analyses by contract laboratories for regulatory compliance reporting	479	0-600
5) Quality Control Testing	# of CMSA performed laboratory analyses for QA/QC purposes.	3,632	1,800 – 3,600
6) Water Quality Sample Analyses	# of ammonia, coliform (total and fecal), enterococcus, and/or sulfide analyses performed for the CMSA member agencies (SSOs, etc.)	1,543	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	284	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 have waivers	330	240 – 600
9) Permits Issued/Renewed	Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge	169	variable

Table IV- Public Outreach

Metric	Definition	Measurement	Target/Goal
1) Public Education Events	Attendance at public education outreach events; # of booth visitors	4,183	3,500/year
2) School Events	Participation or sponsorship in school outreach events; # of attendees	4,384	variable
3) Agency Tours	Tours given to students and the public; # of people	233	variable
3) Odor Notifications	Number of odor alerts posted to the Agency website due to process or operational changes	46	12-120
4) Odor Complaints	Number of odor complaints received from the public	0	0



BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Administrative Specialist Series Job Description

Recommendation: Approve the Administrative Specialist Series job description and its compensation ranges.

Summary: The Administrative Assistant position has gradually grown from its original job functions to encompass more skilled and technical tasks. To address succession planning and future recruiting for this position, staff proposes to retitle the position and create three levels for job development and growth, each with specific job functions and a two-step compensation range.

Discussion: The current Administrative Assistant position has grown gradually from its original essential functions of general office work, administrative support, and serving as Board Secretary. The position now encompasses three broad areas, (1) general office and administrative support and Board Secretary, (2) human resources and payroll functions, and (3) more technical tasks such as the design and maintenance of the Agency website and Facebook pages, production of various publications, and managing the Agency’s document management system. This position plays a vital role at the Agency, so a successful recruitment to find the best qualified candidate is critical to maintain continuity in many administrative and financial support tasks. For these reasons, staff recommends replacing the Administrative Assistant classification with an Administrative Specialist Series. This approach increases flexibility to attract a broader range of applicants, and provides the Agency the ability to hire a qualified candidate based on their background and experience.

The current Administrative Assistant salary range consists of five steps. One additional salary step would be added, with two steps per level. Proposed Bi-weekly salary ranges are as follows:

Administrative Specialist I	\$3,524.01 to \$3,700.21
Administrative Specialist II	\$3,885.22 to \$4,079.48
Administrative Specialist III	\$4,283.46 to \$4,497.63

A limited compensation survey of local agencies confirmed the ranges are reasonable and competitive.

Attachment:

- Administrative Specialist Series Job Description



CENTRAL MARIN SANITATION AGENCY

1301 Andersen Drive | San Rafael, CA 94901 | 415.459.1455 | FAX: 415.459.3971

JOB DESCRIPTIONS

Administrative Specialist Series: I, II, III (Confidential)

SUMMARY

Under general direction from the Administrative Services Manager (ASM), provides varied confidential secretarial and office administrative support for the Administrative Services Manager, General Manager, management team, and Agency staff; prepares agenda packets, minutes, and other materials for the Agency Board of Commissioners; administers assigned personnel and employee benefits functions, and various accounting clerk activities; and performs related work as required. Advancements in this classification is determined by satisfactory performance, and with department manager approval.

Administrative Specialist I (AS I)

The Administrative Specialist I is the entry-level position in the Administrative Specialist Series (I, II, III) that allows the incumbent to develop the essential knowledge, skills, and abilities necessary. Under direct supervision, incumbents perform the full array of essential duties associated with the AS I position. This classification is distinguished from the AS II classification by the level of supervision received, and assignment and complexity of tasks expected to be performed.

Administrative Specialist II (AS II)

The AS II is responsible for performing the full scope of assigned AS I and AS II essential functions with general supervision. This position requires a high level of initiative and organizational skills, and ability to appropriately establish priorities. This classification is distinguished from the AS III classification by the level of oversight received and assignment and complexity of tasks expected to be performed.

Administrative Specialist III (AS III)

The AS III classification is self-directed, and responsible for independently establishing priorities and performing the full scope of AS Series duties with minor supervision.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Duties may include but are not limited to the following:

Administrative Specialist I

- Acts as primary front desk contact, answering phones and greeting visitors; sorts mail; handles deliveries and small shipments.
- Communicates activities among on- and off-site Agency staff and JPA member staff to monitor critical activities via telephone and two-way radio; coordinates with outside organization for use of site.
- Prepares a variety of correspondence, procedures, proposals, memos, newsletters, forms, and other written materials from drafts, prior information, or brief notes; proofreads memos, reports, and correspondence for others for standard templates and grammar.
- Arranges for maintenance and repair of office equipment and furniture, and orders and maintains inventory of office supplies.
- Maintains staff schedules and emergency contact list.

- Maintains Agency documents and contracts, and other administration files; publishes public notices.
- Oversees and manages the Agency's long-term document storage area.
- Understands the structure and retention schedules of the electronic document management system.
- Updates the Agency's website and Facebook pages monthly and as needed.
- Prepares Agency resolutions and ordinances, and is familiar with the applicable laws and regulations.
- Acts as Board Secretary and ensures appropriate legal noticing of the Board of Commissioners meetings according to the Brown Act; coordinates preparation of the meeting agenda packets with the General Manager, and distributes agenda packets and associated documents to Commission members, managers, and other interested parties.
- Attends Commission meetings, normally held after regular business hours; drafts and publishes meeting minutes from audio recordings and notes.
- Participates in the Agency Strategic Planning Committee and development of the Agency's annual business plans.
- Serves as secretary for the Safety and Security Committee, and assists Safety Officer with safety and wellness activities.
- Maintains Agency online employee training programs; schedules required trainings, and coordinates with employees for compliance; coordinates Agency-wide events.
- Attends industry-specific conferences and trainings to further knowledge base.

Administrative Specialist II

- Assists finance staff with employee insurance and other benefit programs; enrolls employees, explains benefits and follows-up on problems; conducts trainings and tailgates on HR-related topics.
- Assists finance staff with A/P and payroll processing.
- Coordinates Agency staff recruitments with the hiring manager and/or the HR consultant, including advertising, communicating with applicants, background checks, and scheduling pre-employment testing.
- Drafts Conditional Offer Letters and Employment Agreements, and other HR documents.
- Coordinates Agency personnel functions such as new employee onboarding and employee correspondence, and maintains confidential employee personnel, medical, and Workers' Compensation files.

Administrative Specialist III

- Designs, creates content, edits, and formats Agency publications such as the annual Strategic Business Plans, financial annual reports, and various booklets, brochures, training documents, presentations, and handouts as needed.
- Manages Agency website; designs and writes content; recommends updates and improvements; coordinates with IT Analyst for best practices and compliance.
- Drafts new or revised policies and procedures for management review; finalizes and publishes.
- Fully manages the Agency document management system in collaboration with managers and supervisors; coordinates records retention schedules.
- Takes initiative to research applicable programs or procedures to improve Agency processes.

SUPERVISORY RESPONSIBILITIES

This job has no supervisory responsibilities.

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

Education and/or Experience

Associate degree (A.A.) or equivalent from two-year college or technical school; or five years related experience and/or training; or equivalent combination of education and experience.

Interpersonal and Other Skills

Ability to interact with others (co-workers, supervisors, customers, vendors, and members of the public) in a professional manner; to accept constructive criticism from supervisors, peers, to recognize the need for, and to seek assistance or clarification as needed; to work independently; to handle work-related stress in a professional manner; to prioritize assignments and meet deadlines; to prevent personal problems from adversely impacting work for self or others; to arrive at work as scheduled and to work the hours as agreed upon and scheduled.

Ability to maintain a high level of integrity and confidentiality when dealing with sensitive and complex human resource issues.

Language Skills

Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations. Ability to write reports, business correspondence, and procedure manuals. Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the general public.

Mathematical Skills

Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals. Ability to compute rate, ratio, and percent and to draw and interpret bar graphs.

Reasoning Ability

Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form.

CERTIFICATES, LICENSES, REGISTRATIONS

No certificates, licenses, or registrations are required for this position.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

While performing the duties of this job, the employee is regularly required to use hands and arms, handle, feel, and talk or hear in person or on the telephone or radio. An employee is required to sit for periods of time. An employee is frequently required to walk, kneel, and crouch. The employee must be able to lift and/or move up 10 pounds, to shoulder height. Specific vision ability required by this job

include close vision, color vision, peripheral vision, and ability to adjust focus. Examples of the physical demands for this position, including their activity and duration, are available from Administration.

WORK ENVIRONMENT

The noise level in the work environment is usually moderate and typical of a business office with computers and printers operating.

SPECIAL REQUIREMENTS

There are no special requirements for this job.

RIGHT TO WORK DOCUMENTATION

Before being hired, all new employees will be required to show documentation as proof of authorization to work in the United States.

Job Title:	Administrative Specialist Series: I, II, III
Department:	Administration
Report to:	Administrative Services Manager
FLSA Status:	Non-Exempt
Revision Dates:	January 2020

BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates**From:** Peter Kistenmacher, Technical Services Manager
Jason Dow, General Manager**Subject:** **Biosolids Land Application Agreement with Synagro****Recommendation:** Approve the new 2-year Biosolids Land Application Agreement with Synagro West, and authorize the General Manager to execute the Agreement.**Summary:** CMSA's 2014 contract with Synagro West, LLC (Synagro) for land application of biosolids during the dry weather season expired on December 31, 2019. Staff has negotiated a new 2-year Biosolids Land Application Agreement with similar terms to the 2014 Agreement. Key new provisions include: removing Synagro's Sonoma County land application site and its disposal fee of \$28.00 per wet ton, increasing the disposal fee to \$27.50 per wet ton at Synagro's Solano County land application site due to higher market prices and regulatory compliance costs, and removing the requirement of one annual truck load delivery to Synagro's Central Valley Composting (CVC) Facility.**Fiscal Impact:** Under the new Agreement, the tipping fee increases from \$18.78/wet ton to \$27.50/wet ton. CMSA's adopted FY20 Operating Budget has approximately \$25,400 allocated for land application fees, and proposed tipping fee increase is estimated to result in a \$4,400 budget overage, since the land application period will only start in mid-April during the dry weather season. For FY21, the budget exceedance is \$12,000. Staff will transfer operating funds to the Biosolids Reuse Fee account to cover the exceedances, if needed.**Discussion:** CMSA's biosolids are beneficially reused as alternate daily cover (ADC) at the Redwood Landfill in Novato, used in the production of a liquid biofertilizer at the Lystek facility in Fairfield, and as a soil amendment and fertilizer at Synagro's land application site in Solano County. CMSA has contracts with the Redwood Landfill for year-round ADC, with Lystek for year-round biosolids management, and with Synagro for land application during the dry weather season, typically April - October.

CMSA produced approximately 6,300 wet tons of biosolids in 2019 that had an average of concentration of 26.4% (73.6% water weight). In 2019, about 3,000 tons of biosolids were sent to Redwood Landfill, about 2,000 tons of biosolids were sent to Lystek, and about 1,300 tons were sent to the Synagro land application site in Solano County.

When staff updated the Agreement with Synagro in 2014, Synagro reported that their Sonoma County land application site was reaching its capacity and the disposal fee at the Sonoma site would be \$28.00 per wet ton. In that Agreement, Synagro added an alternate land application site in Solano County that would accept CMSA's biosolids at a reduced price of \$16.50 per wet ton to offset the increased transportation cost due to the longer hauling distance. Ultimately, Synagro's Sonoma County land application site stopped accepting biosolids and closed in 2017.

Synagro's Solano County Land Application site, 60 miles from CMSA, is the closest site that accepts biosolids, and accepts biosolids from multiple Bay Area wastewater treatment plants. Synagro's proposed tipping fee increase to \$27.50 is lower than their fee of \$28.00 per wet ton in the 2014 Agreement for their Sonoma County site location. Compared to the price of \$16.50 per wet ton offered to CMSA in December 2014, the new \$27.50 per wet ton price in 2020 represents an approximately 10 percent compounded annual rate of increase. For comparison purposes, the tipping fee at Redwood Landfill is \$37.88/wet ton, and is \$75.46 at Lystek.

In a limited survey of other wastewater treatment plants, staff found that Synagro's proposed tipping fee for CMSA at the Solano County site is lower than a few recently executed agreements. For example, in September 2019, the City of Petaluma executed a contract with Synagro with a tipping fee of \$38.54 per wet ton to dispose of their biosolids in Solano County and in Sacramento County, and in June 2018, the City of Palo Alto executed an agreement with Synagro with a tipping fee of \$35 per wet ton to dispose their biosolids at Synagro's CVC Facility.

EBMUD has an agreement with another biosolids management company for a combined transport and disposal cost that appears lower than CMSA's combined hauling and tipping fees. EBMUD staff shared that they expect their current fee to substantially increase during its next contract negotiation, as the management company told them they were losing money under the current pricing structure. When seeking proposals for our new Agreement, EBMUD's biosolids management company was not responsive.

When staff requested a new longer term agreement with Synagro, they responded that a term longer than 2-years would require a thorough review by their corporate staff and would most likely incur an additional \$10 per wet ton tipping fee, due to various California biosolids related regulatory changes that are expected between 2020 and 2025. These changes include: as of January 1, 2020, biosolids and green waste are no longer considered landfill diversion when used as ADC, and SB 1383 requires a 75% reduction in organics disposal to landfills by 2025.

Alignment with Strategic Plan: This Agreement supports Goal 4 - Objective 4.1 in the Agency's FY20 Business Plan as shown below.

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.

Attachment: Proposed Synagro Biosolids Land Application Agreement, CMSA Contract 20-19

**Biosolids Land Application Agreement
Between
Central Marin Sanitation Agency and Synagro West, LLC.**

This Biosolids Management Agreement (“AGREEMENT”) made and entered into this _____ day of **January 2020** and shall be effective February 1, 2020 (the EFFECTIVE DATE) by and between **Central Marin Sanitation Agency** (“AGENCY”) and **Synagro West, LLC** (“CONTRACTOR”).

WITNESSETH:

In consideration of the following covenants and agreements, the AGENCY and the CONTRACTOR hereby agree as follows:

SECTION 1 DEFINITIONS

For purposes of this AGREEMENT, the following terms shall have the meanings set forth below. Capitalized terms not specifically defined in this Section 1 shall have the meanings ascribed to them elsewhere in this AGREEMENT.

1.1 “AUTHORIZATIONS” means all governmental authorizations, including but not limited to permits, applications, notices of intent, registrations, variances, and exemptions, required for the removal, transportation, land application and/or other beneficial reuse of BIOSOLIDS in compliance with all applicable LEGAL REQUIREMENTS.

1.2 "BIOSOLIDS" means sewage sludge meeting Class B pathogen requirements, vector attraction reduction requirements and pollutant concentrations (as defined by Title 40 Code of Federal Regulations (C.F.R.), Part 503 and State of California requirements for land application) that have been dewatered at AGENCY'S expense to a minimum of 20% solids concentration. Biosolids do not include any HAZARDOUS MATERIALS or substance and must be suitable for either land application or beneficial reuse under all applicable laws.

1.3 "LEGAL REQUIREMENT" means any governmental requirement, including but not limited to any applicable federal, state, or local law, rule, regulation, ordinance, order, decision, principle of common law, AUTHORIZATIONS, consent decree or order, of any GOVERNMENTAL AUTHORITY, now or hereafter in effect, including without limitation, ENVIRONMENTAL LAWS.

1.4 "ENVIRONMENTAL LAWS" means any applicable federal, state, or local law, rule, regulation, ordinance, order, decision, AUTHORIZATIONS, principle of common law, consent decree or order, of any GOVERNMENTAL AUTHORITY, now or hereafter in effect relating to HAZARDOUS MATERIALS, BIOSOLIDS, or the protection of the environment, health and safety, or a community's right to know, including but not limited to , the Comprehensive

Environmental Response, Compensation, and Liability Act, the Resource Conservation and Recovery Act, the Safe Drinking Water Act, the Clean Water Act, the Clean Air Act, the Emergency Planning and Community Right to Know Act, the Hazardous Materials Transportation Act, the Occupational Safety and Health Act, and any analogous state or local law.

1.5 "GOVERNMENTAL AUTHORITY" means any governmental authority, including but not limited to foreign governments, the United States of America, any State of the United States of America, any local authority, and any political subdivision of any of the foregoing, and any agency, department, commission, board, bureau, court, tribunal or any other governmental authority having jurisdiction over this AGREEMENT, BIOSOLIDS, AGENCY, CONTRACTOR or any of their respective assets, properties, sites, facilities or operations.

1.6 "HAZARDOUS MATERIALS" means any "petroleum," "oil," "hazardous waste," "hazardous substance," "toxic substance," and "extremely hazardous substance" as such terms are defined, listed, or regulated under ENVIRONMENTAL LAWS, or as they become defined, listed, or regulated under ENVIRONMENTAL LAWS.

1.7 "REMEDIAL WORK" means environmental work, including but not limited to investigations, monitoring, clean-up, containment, removal, storage, remedial or restoration work associated with HAZARDOUS MATERIALS and/or BIOSOLIDS.

SECTION 2 SCOPE OF SERVICES

The CONTRACTOR shall provide biosolids management services to the AGENCY that include land application and/or other beneficial reuse in accordance with the terms of this AGREEMENT (hereinafter called SERVICES) of the AGENCY'S BIOSOLIDS generated by the AGENCY at its Wastewater Treatment Plant located in San Rafael, California (the PLANT).

SECTION 3 CONTRACTOR OBLIGATIONS

The CONTRACTOR shall:

3.1 Within one (1) week after receipt of notice from the AGENCY, receive for land application or other beneficial reuse the AGENCY'S BIOSOLIDS and, in connection with such activities, maintain AUTHORIZATIONS and landowner agreements required of CONTRACTOR for agricultural land application and/or disturbed land reclamation in accordance with all applicable LEGAL REQUIREMENTS which are currently in effect, or which take effect during the term of this AGREEMENT.

3.2 Will accept BIOSOLIDS from the AGENCY at the Solano County Site located at the Hwy 12 and Lambie Road site (collectively "Disposal Site") during the term of this AGREEMENT.

3.3 At the written request of AGENCY, and as applicable, provide any AUTHORIZATIONS which are issued by applicable GOVERNMENTAL AUTHORITIES for all land approved for BIOSOLIDS land application and/or beneficial reuse.

3.4 Notify in writing the AGENCY within two (2) working days of its receipt of any notice of negative event, including but not limited to any violation, legal action, lawsuit, claim, citation, fine or other legal proceeding against CONTRACTOR relating to any aspect of the AGENCY's BIOSOLIDS managed pursuant to this AGREEMENT or CONTRACTOR's SERVICES.

3.5 For BIOSOLIDS which are land applied, employ land application methods approved or allowed by applicable GOVERNMENTAL AUTHORITIES and any private property owner, whose land is accepting the BIOSOLIDS, whichever is stricter.

3.6 Provide monitoring, record keeping, and reporting programs as required by applicable LEGAL REQUIREMENTS, and as set forth in Section 9 of this AGREEMENT.

3.7 Procure and maintain throughout the entire term of this Agreement the insurances set forth in Section 8 of this AGREEMENT.

3.8 Indemnify, defend, and hold harmless the AGENCY, its members including San Rafael Sanitation District, the 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, councilmembers, officers, officials, and employees (collectively "Indemnitees") from any and all claims for damages including, but not limited to money, expenses, and/or losses (collectively "Claim") to the extent Claim arises from CONTRACTOR'S negligence, recklessness, and/or willful misconduct in the performance of the Service under this Agreement. Notwithstanding the foregoing, for any Claim alleging CONTRACTOR'S negligence, recklessness, and/or willful misconduct, CONTRACTOR'S obligations and liability for costs of the Indemnitees' defense shall not exceed the Contractor's proportionate percentage of fault for the Claim.

3.9 Comply with all LEGAL REQUIREMENTS applicable to CONTRACTOR's provision of the SERVICES.

3.10 CONTRACTOR's obligations to receive for land application or for beneficially reuse BIOSOLIDS shall be suspended during a Force Majeure event.

SECTION 4 AGENCY OBLIGATIONS

The AGENCY shall:

4.1 Provide to CONTRACTOR for land application and/or beneficial reuse at least eighty percent (80%) of the volume of BIOSOLIDS generated at the PLANT during the period April 16

and October 31 of each year that this AGREEMENT is in effect, providing CONTRACTOR has available capacity during that time.

4.2 AGENCY shall have the right, but not obligation on a random basis, to have access to the Disposal Sites or any other location the CONTRACTOR uses for BIOSOLIDS storage, land application or beneficial reuse for inspection. The purpose of the inspections is to ensure all applicable regulations are being satisfied, including site restrictions as specified by the LEGAL REQUIREMENTS, including but not limited to Title 40 CFR, Part 503, and any conditions that may present a public nuisance or adversely affect the storage, land application or reuse of the AGENCY's BIOSOLIDS. The CONTRACTOR's on-site manager will be notified of the inspections in advance to allow access. Any findings of the inspection that AGENCY considers to be either a regulatory compliance issue or a reason for concern, will be sent to CONTRACTOR for review, comment and correction, if required.

4.3 Provide CONTRACTOR written notice of the concentration of total nitrogen (as N on a dry weight basis) in the BIOSOLIDS which AGENCY provides, plus all other information which CONTRACTOR may request to facilitate its compliance with applicable LEGAL REQUIREMENTS, including but not limited to 40 C.F.R. Part 503 and Title 22, California Code of Regulations (CCR), Division 4.5. Information which CONTRACTOR may obtain shall include, without limitation, the monthly average concentrations (in milligrams per kilogram) of arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc per 40 C.F.R. Part 503 or other potentially HAZARDOUS MATERIALS present in the BIOSOLIDS as defined in Title 22, CCR, Division 4.5, the level of pathogen reduction which AGENCY has achieved, and the method of vector attraction reduction which AGENCY has applied. The methods and procedures by which AGENCY samples and analyzes concentrations of potentially HAZARDOUS MATERIALS, pathogen reduction, and vector attraction reduction, shall comply with methods and procedures prescribed by applicable LEGAL REQUIREMENTS, including without limitation 40 C.F.R. Part 503 and Title 22, CCR, Division 4.5. AGENCY shall provide CONTRACTOR with a certification regarding concentrations of HAZARDOUS MATERIALS, pathogen reduction, and vector attraction reduction, as well as certification that all methods and procedures used by customer for the sampling and analysis of BIOSOLIDS comply with requirements of 40 C.F.R. Part 503, Title 22, CCR, Division 4.5, and any other applicable LEGAL REQUIREMENTS. The form of certification, and the type of information which the CONTRACTOR may request from AGENCY may include the form of certification or the type of information which AGENCY must maintain under 40 C.F.R. § 503 .17. CONTRACTOR shall have the undisputed right to rely upon any information or certification provided by AGENCY, and shall not have any independent duty to investigate or inquire regarding the subject matter of the AGENCY's certification or of the information which AGENCY provides to CONTRACTOR.

4.4 Not provide to CONTRACTOR any BIOSOLIDS which contain HAZARDOUS MATERIAL or are hazardous in accordance with 40 C.F.R. Part 261, other federal law, state law, or which contains a concentration of polychlorinated biphenyls equal to or greater than 50 milligrams per kilogram of total solids (on a dry weight basis).

4.5 Provide CONTRACTOR with at least one (1) week advance notice of when AGENCY will require the CONTRACTOR to receive BIOSOLIDS generated at the PLANT at the Disposal Site.

4.6 Indemnify, defend, and hold harmless CONTRACTOR from and against all claims, damages, losses, costs, suits, settlements, causes of action, liabilities (INCLUDING WITHOUT LIMITATION STRICT LIABILITIES) fines, penalties, costs, and expenses (including but not limited to, investigation and legal expenses, and costs and expenses associated with REMEDIAL WORK) (collectively, CLAIMS) arising out of or in connection with any acts or omissions of AGENCY, or its employees, officers, directors, representatives, contractors, subcontractors, agents, or affiliates, or any licensee or invitee of the PLANT (other than CONTRACTOR), or AGENCY'S breach of any of its obligations under this AGREEMENT, or any violation of any applicable LEGAL REQUIREMENT by AGENCY or its employees, officers, directors, representatives, contractors, subcontractors, agents, or affiliates, or any discrepancy in the character or composition of the BIOSOLIDS from the PLANT compared to analytical results, certifications or other information provided by AGENCY to CONTRACTOR.

4.7 AGENCY will not haul or authorize disposal of the AGENCY'S BIOSOLIDS at any other site owned or operated by CONTRACTOR, unless mutually agreed upon in writing in advance.

4.8 Notify the CONTRACTOR of operating changes or any other conditions that would reasonably be expected to affect the BIOSOLIDS handled by CONTRACTOR under this AGREEMENT.

SECTION 5 TERM

This AGREEMENT shall be effective from the EFFECTIVE DATE until December 31, 2021 (the INITIAL TERM). At the end of this INITIAL TERM, this AGREEMENT shall terminate unless it is extended on a yearly or longer basis as mutually agreed in writing by both parties.

SECTION 6 AGREEMENT PRICE

6.1 Except as otherwise provided in this AGREEMENT, AGENCY will pay the following fixed prices for CONTRACTOR'S SERVICES hereunder for the duration of the INITIAL TERM of this Agreement:

Year 1	\$27.50 per wet ton at Solano site
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6.2 Each truck load received at the CONTRACTOR'S approved disposal site shall be considered 17.5 wet tons for accounting and billing purposes. The AGENCY and the CONTRACTOR may negotiate a different tonnage once each anniversary year. The CONTRACTOR shall provide the AGENCY with an accounting of the truck loads received from the AGENCY'S PLANT.

6.3 After Year 1, if there are documented increases in CONTRACTOR'S costs due to changes in LEGAL REQUIREMENTS, CONTRACTOR may no more than once each anniversary year, request an increase in the fixed price per wet ton per site set forth above, which shall be negotiated by the parties in good faith and be effective at the beginning of the next anniversary of the EFFECTIVE DATE. In addition, the CONTRACTOR'S stated prices shall be increased each anniversary consistent with the All Urban Consumers Price Index for the San Francisco-Oakland-San Jose, CA, 82-84=100 (CPI-U) provided that the adjustment shall not be greater than five percent in any one year over the rate in effect the preceding year. CPI adjustments shall automatically become effective on the anniversary date of the EFFECTIVE DATE.

SECTION 7 PAYMENT

7.1 The CONTRACTOR shall submit an invoice to the AGENCY once each month for SERVICES provided by CONTRACTOR the prior month, using the rates and the amounts agreed in Section 6 of this AGREEMENT. The AGENCY shall pay all invoices within thirty (30) days after receipt of the invoice.

7.2 It is agreed that in the event of any dispute concerning invoice amount, AGENCY will pay CONTRACTOR the undisputed portion of the invoice amount within thirty (30) days after receipt of the invoice.

SECTION 8 INSURANCE

The CONTRACTOR shall procure and maintain throughout the term of this AGREEMENT the following insurance policies:

8.1 Worker's Compensation meeting at least the minimum requirements of the laws of the State of California, and Employer's Liability with a minimum single limit of \$1,000,000. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the AGENCY for all work performed by the CONTRACTOR.

8.2 Commercial General Liability and Automobile Liability Insurance to include premises, operations, and subcontractors. Completed Operations and Contractual Liability are to be included under the Commercial General Liability coverage. The insurance policies will have limits of no less than \$1,000,000 per occurrence and \$2,000,000 aggregate.

8.3 The insurances required by this AGREEMENT may be contained in one or more policies issued by one or more insurers; provided, however, that such insurers shall be authorized to sell insurance in California, and otherwise be reasonably acceptable to the AGENCY.

8.4 Each insurance policy shall provide that no cancellation, non-renewal, reduction in coverage or substantial modification shall occur without the insurer giving at least 30 days' advance written notice to AGENCY. Upon AGENCY's receipt of any such notice, CONTRACTOR

shall file with AGENCY a copy of the required new or renewed policy, or a certificate evidencing the procurement of such policy if the AGENCY so elects in its sole discretion, at least ten days before the effective date of the scheduled cancellation, non-renewal, reduction or other modification.

8.5 Within ten days after execution of this AGREEMENT and from time to time thereafter upon the AGENCY's request, CONTRACTOR shall deliver to the AGENCY certificates of insurance evidencing that all required insurance coverages are in full force and effect (provided that the AGENCY may require copies of all required insurance policies and endorsements).

8.6 AGENCY and the AGENCY INDEMNITEES shall be named as additional insureds under the liability and automobile insurance policies described above. These policies shall provide coverage for all the additional insureds against direct or contingent loss or liability for bodily and personal injury, death or property damage, arising out of, in connection with or incident to this AGREEMENT or the SERVICES provided by CONTRACTOR, and shall cover all supervisory acts and other activities performed by for or on behalf of CONTRACTOR.

SECTION 9 RECORD KEEPING

The CONTRACTOR shall maintain records and submit a summary report to the AGENCY after each hauling event (as requested by AGENCY) and on an annual, cumulative basis. Reports shall include information regarding, but not be limited to:

9.1 Number of loads transported and applied with identification of disposal site(s).

9.2 Such other information as will reasonably allow AGENCY to fulfill its recordkeeping and reporting requirements under applicable LEGAL REQUIREMENTS.

SECTION 10 NOTICES

10.1 Except as otherwise provided herein, any notice, demand or other communication shall be in writing and shall be personally served, sent by commercial courier service or prepaid registered or certified mail, or sent by telephonic facsimile delivery with confirmation thereof. Any such notice shall be deemed communicated upon receipt.

10.2 The following address is hereby designated as the legal address of the CONTRACTOR. Such address may be changed at any time by notice in writing delivered to AGENCY.

Synagro West, LLC
3110 Gold Canal Drive, Suite E.
Rancho Cordova, CA 95670
Attn: Regional General Manager
Phone: (916) 862-9300

With a copy to:
Diana Floyd, General Counsel
Synagro Technologies, Inc.
435 Williams Court, Suite 100
Baltimore, MD 21220

Fax: (916) 863-2065

Phone: (443) 489-9000

Fax: (443) 489-9042

10.3 The following address is hereby designated as the legal address of the AGENCY. Such address may be changed at any time by notice in writing delivered to CONTRACTOR.

Name: Central Marin Sanitation Agency
Street Address: 1301 Andersen Drive
Mailing Address: San Rafael, CA 94901
Phone Number: (415) 459 -1455
Fax Number: (415) 459-3971
Contact Person: Jason Dow, General Manager

SECTION 11 FORCE MAJEURE

Wherever the word "Force Majeure" is used, it should be understood to mean:

11.1 acts of God, landslides, lightning, earthquakes, hurricanes, tornadoes, blizzards and other adverse and inclement weather, fires, explosions, floods, acts of a public enemy, wars, blockades, insurrections, riots or civil disturbances;

11.2 labor disputes, strikes, work slowdowns, or work stoppages;

11.3 orders or judgments of any Federal, State or local court, administrative agency or governmental body, if not the result of willful or negligent action of the party relying thereon;

11.4 power failure and outages affecting the PLANT or Disposal Sites; and

11.5 any other similar cause or event, including a change in law, regulation, ordinance or permit, provided that the foregoing is beyond the reasonable control of the party claiming Force Majeure.

If, because of Force Majeure event any party's cost is increased by more than 15% or any party hereto is rendered unable, wholly or in part, to carry out its obligations under this AGREEMENT, then such party shall give to the other party prompt written notice of the Force Majeure event with sufficient details and documentation evidencing the event; thereupon the obligation of the party giving the notice, so far as they are affected by the Force Majeure event, shall be suspended during, but no longer than, the continuance of the Force Majeure event. The affected party shall use all possible diligence to remove the Force Majeure event as quickly as possible, but its obligation shall not be deemed to require the settlement of any strike, lockout, or other labor difficulty contrary to the wishes of the party involved. If, because of a Force Majeure event, CONTRACTOR'S cost is increased then AGENCY agrees to increase the price paid to CONTRACTOR to cover those increased costs for the duration of the Force Majeure event.

However, if because of Force Majeure CONTRACTOR'S cost is increased by more than 15% then AGENCY may suspend performance for the duration of the Force Majeure event.

SECTION 12 RIGHT OF TERMINATION

12.1 AGENCY may terminate this AGREEMENT upon (10) days prior written notice to CONTRACTOR and have no further obligation to CONTRACTOR as follows:

12.1.1 If either (i) the CONTRACTOR fails to observe or perform any material covenant or agreement contained in this AGREEMENT for ten (10) business days after written notice thereof has been given to the CONTRACTOR or (ii) at any time upon the insolvency of CONTRACTOR, or the institution by or against the CONTRACTOR of any proceeding in bankruptcy or insolvency or for the appointment of a receiver or trustee or for an assignment for the benefit of creditors.

12.2 CONTRACTOR may terminate this AGREEMENT upon written notice to AGENCY and have no further obligation to AGENCY if:

12.2.1 The CONTRACTOR is unable to utilize the BIOSOLIDS due to a change in any LEGAL REQUIREMENTS that renders the SERVICES illegal, or place such restrictions or requirements thereon so as to make the provision of the SERVICES cost prohibitive or to otherwise frustrate the commercial intent of this AGREEMENT.

12.2.2 The BIOSOLIDS become unsuitable for land application by the CONTRACTOR by reason of (i) the act or omission of any third party or AGENCY, and through no fault of CONTRACTOR, or (ii) the condition of the BIOSOLIDS is materially inconsistent with the description and analysis, certifications or other information the AGENCY has provided to the CONTRACTOR regarding the BIOSOLIDS, including analytical results attached in **Exhibit A**, or (iii) AGENCY breaches its obligations hereunder regarding the quality of the BIOSOLIDS.

12.2.3 In the event of any change in federal, state or local law or regulation, or any change in any one of CONTRACTOR'S permits, which is implemented during the INITIAL TERM of this AGREEMENT or any extension and which results in a significant increase or decrease in the cost of performing the SERVICES, and the AGENCY and CONTRACTOR are unable to negotiate a mutually agreeable adjustment to the payment terms specified in this AGREEMENT. .

12.2.4 If either (i) the AGENCY fails to observe or perform any material covenant or agreement contained in this AGREEMENT for ten (10) business days after written notice thereof has been given to the AGENCY or (ii) at any time upon the institution by or against the AGENCY of a Chapter 9 proceeding.

SECTION 13 ASSIGNMENT

The AGENCY and/or CONTRACTOR shall have the right to assign this AGREEMENT in writing to any successor in interest, subject to the written approval of the other party, which approval shall not be unreasonably withheld.

SECTION 14 GENERAL PROVISIONS

14.1 Governing Law. This AGREEMENT and all the rights and duties of the parties arising from or relating in any way to the subject matter of this AGREEMENT or the SERVICES contemplated by it, shall be governed by, construed, and enforced in accordance with the laws of the state of California.

14.2 Costs and Fees. The prevailing party in any legal proceeding brought by or against the other party to enforce any provision or term of this AGREEMENT shall be entitled to recover against the non-prevailing party the reasonable attorneys' fees, court costs and other expenses incurred by the prevailing party.

14.3 No Special Damages. Neither party will be liable to the other party for indirect, special, incidental, punitive, or consequential damages (including without limitation, damages resulting from loss of profits), even if such party has been notified of the possibility or likelihood of such damages.

14.4 Consent to Breach Not Waiver. No term or provision hereof shall be deemed waived and no breach excused, unless such waiver or consent is in writing and signed by the party claimed to have waived or consented. No consent by any party to, or waiver of, a breach by the other party shall constitute consent to, waiver of, or excuse of any other different or subsequent breach.

14.5 Severability. If any term or provision of this AGREEMENT should be declared invalid by a court of competent jurisdiction, (i) the remaining terms and provisions of this AGREEMENT shall be unimpaired, and (ii) the invalid term or provision shall be replaced by such valid term or provision as comes closest to the intention underlying the invalid term or provision.

14.6 Entire Agreement. This agreement hereto constitute the complete and exclusive statement of the agreement between the parties with regard to the matters set forth herein, and it supersedes all other agreements, proposals, and representations, oral or written, express or implied, with regard thereto.

14.7 Amendments. This AGREEMENT may be amended from time to time only by an instrument in writing signed by the parties to this AGREEMENT.

14.8 Counterparts. This AGREEMENT may be executed in counterparts, which together shall constitute one and the same contract. The parties may execute more than one copy of this AGREEMENT, each of which shall constitute an original.

IN WITNESS WHEREOF, the parties of this AGREEMENT have hereunto set their hands and seals, dated as of the day and year first herein written.

Central Marin Sanitation Agency ("Agency")

By: _____

ATTEST: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Synagro West, LLC ("CONTRACTOR")

By: _____

ATTEST: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Exhibit A
Analytical Testing

Frequency of Monitoring - Land Application

Table 1 of 40 CFR Part 503 Section 503.16

AMOUNT OF SEWAGE SLUDGE* (Metric tons per 365 day period)	FREQUENCY
Greater than zero but less than 290	Once per year
Equal to or greater than 290 but less than 1,500	Once per quarter (four times per year)
Equal to or greater than 1,500 but less than 15,000	Once per 60 days (six times per year)
Equal to or greater than 15,000	Once per month (12 times per year)

*Amount of sewage sludge placed on an active sewage sludge unit (dry weight basis)

Per CFR Part 503 (Frequency determined by dry tons land-applied per year, see table above)

503 Metals (As, Cd, Cu, Pb, Hg, Mo, Ni, Se, Zn, reported in mg/kg, dry weight basis)
Organic Nitrogen
Ammonia-Nitrogen
Nitrate-Nitrogen
Percent Solids
Signed NANI form from Generator

Per CA Title 22 (to be conducted 2/year, based on Agency's NPDES permit requirements)

PARAMETER	EPA TEST NUMBER
Cyanide	EPA 9012N9020B/9014
pH	EPA 9045
Ec	EPA 9050/120.1
Semivolatile Organic Compounds	EPA 8270

Volatile Organic Compounds	EPA 8260B
Chlorinated Pesticides & PCBs	EPA 8081/8082
Title 22 Metals	EPA 6010B/7471A
Total Solids	EPA 160.3/SM20-2540B

Per Synagro policy and County regulation (to be conducted with EPA Part 503 testing)

Phosphorous, as P	Reported in mg/kg, dry weight basis
Potassium	Reported in mg/kg, dry weight basis



BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Primary Sludge Tipping Fee Alternatives

Recommendation: Review and discuss the primary sludge tipping fee alternatives, and provide direction to staff.

Discussion: Over the past year, Sausalito Marin City Sanitary District (SMCSD) and Agency staff have discussed the feasibility of SMCSD delivering primary sludge to CMSA's digesters for processing. At the July 2019 meeting, staff presented and Board discussed the concept, and staff noted that the SMCSD sludge will not impact digester health and will increase biogas and renewable power production. The Board supported the idea and authorized staff to continue the discussions with SMCSD, and if both agencies determine the idea is feasible, to develop a draft service agreement for Board consideration.

Later this spring, after most of its treatment plant construction is completed, SMCSD will plan and schedule a pilot sludge delivery program to better approximate their sludge management costs and savings. A key cost component for SMCSD to consider is the sludge receiving tipping fee CMSA will charge to recover its additional operating costs to process, dewater, and beneficially reuse the SMCSD sludge.

Tipping Fee Alternatives: Staff has prepared seven tipping fee alternatives, assuming 5,000 gallons of SMCSD sludge is delivered six days per week, for discussion and consideration.

Alt #	Description	Estimated \$/gallon
1	Match existing FOG pricing	\$0.045
2	Match existing septage pricing	\$0.093
3	Match existing food waste pricing (per gallon basis)	\$0.083
4	Match published EBMUD sludge pricing	\$0.060
5	Match Lystek pricing (per gallon basis)	\$0.283
6	Match existing strength and load pricing	\$0.164
7	Estimated attributed portion of CMSA operating cost	\$0.090

At the Board meeting, staff will summarize how each of the alternatives was developed.

Background: SMCSD’s wastewater treatment plant is located in the City of Sausalito, perched over the San Francisco Bay, next to Ft. Baker. The treatment plant is currently under construction for significant process and equipment upgrades and expansion of its treatment capacity. A planned future capital improvement project is to retrofit its primary digester and sludge handling facility, with an estimated capital cost of about \$1 million.

SMCSD and CMSA staff have met to discuss the possibility of CMSA receiving the SMCSD primary sludge, approximately 5,000 gallons per day, for anaerobic digestion, sludge dewatering, and biosolids reuse. CMSA easily has the digestion and dewatering capacity to accept the SMCSD sludge. In 2019, CMSA produced 26,071 gallons of primary sludge per day, and fed the two digesters with 55,548 gallons of wastewater sludge and organic slurry each day. Given the current digesters loading volume and their maximum processing capacity, they are approximately operating at 55% capacity. Assuming the SMCSD sludge is similar strength to the CMSA material, it will require an additional 5% of digester capacity, leaving about 40% capacity for increased future organic waste loading.

For the potential sludge receiving service, CMSA will incur additional biosolids management fees, but the digesters will produce additional biogas for cogeneration to produce renewable power for internal use and eventually sale to MCE. Additionally, the ratio of wastewater solids to organic waste loading for digestion will increase, allowing CMSA to increase the to-be-determined volatile solids loading limit from delivered organic materials.

If feasible, benefits to SMCSD include avoiding the future capital expenditure for the digestion and solids handling capital work, and possibly lower solids management costs.

Alignment with Strategic Plan: This activity is a strategic action to support Goal 4 – Objective 4.2 in the Agency’s FY20 Business Plan as shown below.

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

Objective 4.2: Promote interagency coordination of projects and initiatives.

Action: Explore feasibility of accepting sludge from local wastewater treatment plants.



BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Recycled Water Truck Fill Station Permitting Option

Recommendation: Discuss the option of CMSA seeking a recycled water permit from the Regional Water Board for the truck fill station, and provide direction to staff, as appropriate.

Summary: In May 2017, CMSA began providing recycled water from the truck fill station to the JPA member agencies for sewer line flushing, and more recently to the Ross Valley Sanitary District (RVSD) for dust control at their Larkspur Landing remediation project. Operation of the fill station is authorized by the Regional Water Board through the 1989 MMWD Recycled Water Permit. Due to specific limitations in the MMWD permit provisions, staff is considering the option to seek a CMSA recycled water permit for the truck fill station from directly from the Regional Water Board.

Discussion: Through 2014 and 2015, the Marin Municipal Water District (MMWD) and CMSA collaborated on the development of a Recycled Water Feasibility Study (Study) and a Recycled Water Title 22 Engineering Report for a truck filling program, to use CMSA recycled water in the central Marin service area. A recycled water truck fill station was constructed at CMSA near its chlorine contact tanks and delivery of Title 22 – Secondary 23 recycled water began in May 2017. Each day that recycled water is available for use, staff would analyze a water sample to confirm its compliance with the recycled water quality requirements in the MMWD permit. Occasionally, sample results did not meet the 3.0 mg/L dissolved oxygen (DO) requirement, and on those days water delivery was not available.

In September 2017, CMSA requested a variance from MMWD from the DO requirement since the recycled water was exclusively used for sewer line flushing. In correspondence with the Regional Water Board, MMWD received the variance and a suggestion that their permit be updated in the future to align with the State's Recycled Water General Permit and requirements in more recent recycled water permits issued in the region. To date, the Regional Water Board has not started the process to update the MMWD permit.

In early 2019, RVSD began a project to remediate contaminated soil at its Larkspur Landing property, the site of its former wastewater treatment plant. RVSD requested the use of CMSA's

recycled water for dust control during the excavation and backfilling work. CMSA subsequently requested from MMWD a second variance from the DO requirement that was granted by the Regional Water Board. During discussion of the recycled water use with the RVSD manager, Steve Moore, he asked about installing a fill station on property adjacent to Sir Francis Drake Blvd. where CMSA has odor control facilities that use recycled water. Upon review of the Title 22 Engineering Report, we learned that the Regional Water Board only authorized the water delivery from the CMSA truck fill station. This limitation led Mr. Moore, who worked for the S.F. Bay Regional Board in the 1990's, was recently on the State Water Board, and has a significant understanding of the State's Recycled Water Permit, to ask if it's more efficient for CMSA to have its own permit for the truck fill program.

To answer that question, Mr. Moore, MMWD's manager, and I met last month to discuss the idea. MMWD's manager, Ben Horenstein, was supportive of the idea and did not have any concerns about CMSA working directly with the recycled water users and the Regional Water Board. Mr. Horenstein suggested that CMSA and MMWD could have an agreement under which MMWD, as the water purveyor, would authorize CMSA to deliver recycled water in the MMWD service area through a permit issued by the Regional Water Board. CMSA would then perform the monitoring and reporting responsibilities in its regional recycled water permit, as well as train and permit recycled water users.



CMSA Recycled Water Truck Filling Station

Attachments:

- 1) Recycled Water Uses in California from the Title 22: California Code of Regulations
- 2) MMWD's 1989 Recycled Water Permit Order

RECYCLED WATER USES* ALLOWED IN CALIFORNIA

This summary is prepared by WaterReuse Association of California, from the December 2, 2000, Title 22 adopted Water Recycling Criteria, and supersedes all earlier versions.

Recycled Water Use	Treatment Level			
	Disinfected Tertiary Recycled Water	Disinfected Secondary 2.2 Recycled Water	Disinfected Secondary 2.3 Recycled Water	Undisinfected Secondary Recycled Water
Irrigation for:				
Food crops where recycled water contacts the edible portion of the crop, including all root crops	ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Parks and playgrounds				
School grounds				
Residential landscaping				
Unrestricted-access golf courses				
Any other irrigation uses not specifically prohibited by other provisions of the <i>California Code of Regulations</i>				
Food crops, surface-irrigated, above-ground edible portion, not contacted by recycled water		ALLOWED		
Cemetaries			ALLOWED	
Freeway landscaping				
Restricted-access golf courses				
Ornamental nursery stock and sod farms with unrestricted public access				
Pasture for milk animals for human consumption				
Nonedible vegetation with access control to prevent use as a park, playground or school grounds				
Orchards with no contact between edible portion and recycled water				ALLOWED
Vineyards with no contact between edible portion and recycled water				
Non food-bearing trees, including Christmas trees not irrigated less than 14 days before harvest				
Fodder and fiber crops and pasture for animals not producing milk for human consumption				
Seed crops not eaten by humans				
Food crops undergoing commercial pathogen-destroying processing before consumption by humans				
Ornamental nursery stock, sod farms not irrigated less than 14 days before harvest				
Supply for impoundment:				
Nonrestricted recreational impoundments, with supplemental monitoring for pathogenic organisms	ALLOWED ²	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Restricted recreational impoundments and publicly accessible fish hatcheries	ALLOWED	ALLOWED		
Landscape impoundments without decorative fountains			ALLOWED	
Supply for cooling or air conditioning:				
Industrial or commercial cooling or air conditioning involving cooling tower, evaporative condenser, or spraying that creates a mist	ALLOWED ³	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Industrial or commercial cooling or air conditioning not involving cooling tower, evaporative condenser, or spraying that creates a mist	ALLOWED	ALLOWED	ALLOWED	

Prepared by Bahman Sheikh and edited by EBMUD Office of Water Recycling, who acknowledge this is a summary and not the formal version of the regulations referenced above.

RECYCLED WATER USES* ALLOWED IN CALIFORNIA

This summary is prepared by WaterReuse Association of California, from the December 2, 2000, Title 22 adopted Water Recycling Criteria, and supersedes all earlier versions.

Recycled Water Use	Treatment Level			
	Disinfected Tertiary Recycled Water	Disinfected Secondary 2.2 Recycled Water	Disinfected Secondary 2.3 Recycled Water	Undisinfected Secondary Recycled Water
Other Uses:				
Groundwater Recharge	ALLOWED under special case-by-case permits by the RWQCB ⁴			
Flushing toilets and urinals	ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Priming drain traps				
Industrial process water that may contact workers				
Structural fire fighting				
Decorative fountains				
Commercial laundries				
Consolidation of backfill material around potable water pipelines				
Artificial snow making for commercial outdoor use				
Commercial car washes, not heating the water, excluding the general public from the washing process				
Industrial process water that will not come into contact with workers		ALLOWED	ALLOWED	
Industrial boiler feed				
Nonstructural fire fighting				
Backfill consolidation around nonpotable piping				
Soil compaction				
Mixing concrete				
Dust control on roads and streets				
Cleaning roads, sidewalks and outdoor work areas				
Flushing sanitary sewers				ALLOWED

* Refer to the full text of the December 2, 2000 version Title 22: **California Water Recycling Criteria**. This chart is only an informal summary of the uses allowed in this version. Adapted for use in Site Supervisor Training Workshops by **South Bay Water Recycling**, San Jose, California. October 29, 2002. Jerry Brown, Coordinator, Site Supervisor Training. The complete and final 12/02/2000 version of the adopted criteria can be downloaded from:

http://dhs.ca.gov/ps/ddwenm/publications/regulations/recycleregs_index.htm

² With "Conventional tertiary treatment". Additional monitoring for two years or more is necessary with direct filtration.

³ Drift eliminators and/or biocides are required if public or employees can be exposed to mist.

⁴ Refer to Groundwater Recharge Guidelines, available from the California Department of Health Services.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 89-126

WATER RECLAMATION REQUIREMENTS FOR:

MARIN MUNICIPAL WATER DISTRICT

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Many of the municipal wastewater treatment plants in Marin County produce treated municipal wastewater of sufficient quality to allow its reuse for certain applications as prescribed in this Order.
2. Treated wastewater may be made available from treatment plants providing at least secondary treatment to the Marin Municipal Water District (District), or Users operating under this Order. The reclaimed water prior to application must meet the quality criteria set under this Order. Additional treatment by the District may be necessary to meet the intended use. The District will be responsible for monitoring wastewater use.
3. Wastewater will be picked up by tank truck and sprayed or flooded on the use area. In some limited cases water may be applied through a fixed irrigation system that is an expansion of an existing project under active water reclamation requirements. Uses may include roadway landscaping, selective golf courses irrigation, dust control, soil compaction, street cleaning, etc. There will be no use pursuant to this Order on residential landscaping, parks, playgrounds, school yards and other areas where the public has similar unrestricted access or exposure.
4. California Water Code Section 13512 declares it is the intention of the Legislature that the State undertake all possible steps to encourage development of water reclamation facilities so that reclaimed water may be made available to help meet the growing water demands of the State.
5. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The water quality goals to be used in regulating water quality factors as set forth in the Basin Plan include maximum feasible reclamation or reuse of municipal, industrial, and agricultural wastewaters.
6. Section 13523 of the California Water Code provides that a Regional Board, after consultation with and reception of recommendations from Department of Health Services (DOHS), and if it determines such action to be necessary to protect the public health, safety, or welfare, shall prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water.
7. These water reclamation requirements are in conformance with the statewide reclamation criteria established by DOHS as prescribed in Title 22, Sections 60031-60335, California Administrative Code.
8. This action is being taken by the Board for the protection of natural resources, and involves no significant effect on the environment, and is thus categorically exempt from the provisions of the California Environmental Quality Act in accordance with Title 14, California Administrative Code, Chapter 3, Section 15307.
9. The Board has notified the District and interested agencies and persons of its intent to prescribe water reclamation requirements.

10. The Board, in a public meeting, heard and considered all comments pertaining to this matter.

IT IS HEREBY ORDERED, that the Marin Municipal Water District, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereafter, shall comply with the following:

A. Prohibitions

1. The treatment, storage, distribution, or reuse of reclaimed water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. No wastewater shall be applied to the use areas during periods of rainfall or when soils are saturated.
3. No constituent of reclaimed water shall be allowed to escape from the designated use area via surface flow or airborne spray, mist, or aerosol.
4. Reclaimed water shall not be applied so as to cause saturated conditions within 100 feet of any water body or wetland.
5. Reclaimed water shall not be used as a domestic or animal water supply. There shall be no cross-connection between potable water supply and piping containing reclaimed water. Supplementing reclaimed water with water used for domestic supply shall not be allowed except through an air-gap separation. An air-gap or reduced pressure principle device shall be provided at all domestic water service connections to reclaimed water use areas.
6. The use of reclaimed water shall not cause the degradation of groundwater used for domestic purposes or cause any change in a quality parameter which would make the groundwater unsuitable for irrigation use.

B. Reclaimed Water Uses

1. The reclaimed wastewater applications in this Order are restricted to the following types of uses and areas:
 - a. Reclaimed water used for irrigation of golf courses without contiguous residential development (evening application), cemeteries, freeway landscapes, and landscapes in other areas where the public has restricted access or exposure and there is no contiguous residential development.
 - b. Water for street cleaning, sewer flushing, soil compaction, and dust control.
 - c. Small scale expansion of irrigation projects already regulated under existing water reclamation requirements, with the written approval of the Executive Officer.
2. If applied at a landscape area used by the public (e.g. golf courses/cemeteries), reclaimed water of the quality cited in the Specifications section below must be:
 - a. Applied only in evening or night hours when the area is not in use;
 - b. Applied without airborne drift or surface runoff into residential areas or other areas frequented by the public;
 - c. Allowed to dry on vegetation and infiltrate into soil before the area is used again, so wastewater will not be the cause of any wetness remaining on vegetation at the start of the next use.

3. This Order does not apply to projects involving irrigation of land where there is a high probability of direct public contact such as parks, playgrounds, schoolyards, golf courses with contiguous residential development, or other areas where the public has similar access or exposure (unless specifically approved by the Executive Officer in writing, after consultation with the State and County Health Departments on a case-by-case basis).
4. For large scale and long term projects involving agricultural applications and any other food crop irrigation, a detailed Report of Waste Discharge application must be filed directly with the Regional Board for review and consideration of separate water reclamation requirements.

C. Reclaimed Water Use Specifications

1. The District shall assure that the reclaimed water is at all times an adequately oxidized, disinfected wastewater that meets the following quality limits prior to application to any use area.

In any composite sample:

a. 5-day BOD	30 mg/l	(30 day ave)
	60 mg/l	(daily max)

In any grab sample:

b. Dissolved Oxygen	3.0 mg/l	minimum
c. Dissolved Sulfide*	0.1 mg/l	maximum

* To be measured if D.O. falls below 2.0 mg/l

At any point downstream of the disinfection facilities where adequate contact with disinfectant is assured:

- d. The median number of total coliform organisms shall not exceed 23 MPN/100 ml as determined from the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform organisms shall not exceed 240 MPN/100 ml in any two consecutive samples.
2. The District shall discontinue use of reclaimed water during any period in which there is reason to believe that the limits specified in C.1 above are not being met. The delivery of reclaimed water shall not be resumed until all conditions which caused the limits in C.1. to be violated have been corrected.

User

3. Reclaimed water shall not be used for public consumption.
4. Adequate measures shall be taken to minimize public contact with reclaimed wastewater and to inform the public that reclaimed water containing potential infectious micro-organisms is being used. Conspicuous warning signs with proper wording of sufficient size to be clearly read shall be posted at adequate intervals around the use area, unless public access is otherwise restricted.
5. All reclaimed water distribution lines and sprinkler systems shall be appropriately tagged with conspicuous warning signs with proper wording of sufficient size (at controller valves,

outlets, etc) to warn the public that the water is not safe for drinking or direct contact. Tank trucks used for carrying or spraying reclaimed wastewater shall be identified as such with clearly read warning signs.

6. Reclaimed wastewater shall not be applied where it could contact walkways, passing vehicles, buildings, drinking water facilities, or enter areas where food is handled or eaten or areas not under control of the user.
7. There shall be at least a 10-foot horizontal and 1-foot vertical separation (with the domestic water above the reclaimed pipeline) between all pipelines transporting reclaimed water and those transporting domestic water.
8. Use or installation of hose bibbs on any reclaimed irrigation system, regardless of hose bibb construction or identification, shall not be permitted.
9. Irrigation shall be practiced during periods when grounds will have maximum opportunity to dry before use by the public.
10. Irrigated areas shall be properly graded to minimize ponded water.

D. District/User Agreements

1. The District shall require a User (defined as any person or company not employed by or under contract to the District) to fill out and sign a Reclaimed Water Use Permit, as shown in Attachment B, herein made a part of this Order. The District may use a modified permit format upon approval of the Executive Officer.
2. The District should contact the appropriate treatment plant to make sure that water will be made available to them. The District shall be directly responsible for the effluent quality and the application of the reclaimed water
3. A copy of the Reclaimed Wastewater Permit and this Order must be provided to the User by the District. The User must have these available at all times for inspection by the Regional Board staff, Producer, or State/County Health Officers.
4. No wastewater shall be provided to a User unless the truck driver presents the authorized signed User Permit as issued by the District, unless the User is operating under Order 89-085, as adopted by this Board.

E. Provisions

1. The District shall track and monitor all Use Permits and all reclaimed water use, either by the District or permitted Users, and comply with the self-monitoring program as adopted by this Board and as may be amended by the Executive Officer.
2. The District shall establish with each treatment plant (producer) procedures to track actual water deliveries from each plant to the District and to each permitted user. A brief description of the tracking program shall be included with the proposed inspection program (see Section IV, Self-Monitoring Program). The attached Reclaimed Water Release Form or its equivalent, shall be used to track deliveries.
3. The District shall develop an inspection program, subject to approval of the Executive Officer, to monitor User(s) compliance with this Order.
4. The District and any major User shall provide employee training to assure compliance with this Order.

5. The District & Users shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed or as modified to achieve compliance with this Order.
6. The District & Users, shall permit the Board or its authorized representatives, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
 - b. Access to and copy of, at reasonable times, any records that must be kept under the conditions of this Order;
 - c. Inspection, at reasonable times, of any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; or
 - d. To photograph, sample or monitor, at reasonable times, for the purpose of assuring compliance with this Order.
7. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - a. Violation of any term or condition contained in this Order;
 - b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized reuse;
 - d. Endangerment to public health or environment that can only be regulated to acceptable levels by Order modification or termination.
8. This Order supersedes Orders 76-36 & 81-39. Order s 76-36 & 81-39 are hereby rescinded.
9. Any Use Permit issued by the District may be revoked by the District or the Executive Officer upon a finding of non-compliance with this Order.
10. The Board will review this Order periodically and may revise the requirements when necessary.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on July 19, 1989.


STEVEN R. RITCHIE
Executive Officer

Attachments:

- A. Reclaimed Water Use Permit/Release Form
- B. Self-Monitoring Program

[Originator/RJC] [Reviewer/TCW]
File No.: 2159.5102

RECLAIMED WATER USE PERMIT

This Use Permit must be available for inspection at all times. The reclaimed water Distributor shall carry a copy in the tanker truck at all times and must present it to the Producer for water pickups. This Permit is subject to all Prohibitions, Specifications and Provisions of RWQCB ORDER NO. 89-126.

NAME OF PRODUCER _____

ADDRESS _____

EFFECTIVE DATE OF PERMIT _____ EXPIRATION DATE _____

PRODUCER INFORMATION

LEVEL OF TREATMENT: SECONDARY ADVANCED SECONDARY/TERTIARY

VOLUME OF RECLAIMED WATER AUTHORIZED PER DAY _____

METHOD OF WATER DISTRIBUTION: TANKER TRUCK OTHER _____

USER INFORMATION

NAME OF USER _____ PHONE: _____

ADDRESS _____

DISTRIBUTOR INFORMATION

DISTRIBUTOR (If different from above) _____ PHONE: _____

ADDRESS _____

*A Reclaimed Water Release Form must be filled out on each water pickup and retained at the application site or distribution vehicle.

Users and Distributors should also follow the attached *Guidelines for Worker Protection*.

TYPE OF RECLAIMED WATER USAGE

APPLICATION METHOD: Tank Truck Spray Wash Water Other _____

USE OF THE WATER _____

WHERE APPLIED: COUNTY _____ CITY _____

CERTIFICATION

I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE INFORMATION PROVIDED IN THIS APPLICATION AND IN ANY ATTACHMENTS IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE. I ALSO CERTIFY THAT I HAVE READ AND AGREE TO ABIDE BY RWQCB ORDER NO. 89-126,

SIGNATURE OF PRODUCER _____ TITLE _____ DATE _____

SIGNATURE OF USER _____ TITLE _____ DATE _____

SIGNATURE OF DISTRIBUTOR _____ TITLE _____ DATE _____

**BOARD MEMORANDUM**

January 9, 2020

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: **Reschedule the March 2020 Board Meeting**

Recommendation: Consider rescheduling the March 2020 Board meeting.

Discussion: Staff is in the process of planning the agendas for the next several Board meetings, and after reviewing schedules for upcoming training events and other activities I propose to reschedule the March 2020 Board meeting.

I serve on the California Sanitation Risk Management Authorities' (CSRMA) Executive Board, and annually in March the Board and staff participate in a long range planning retreat. This year it is scheduled in Santa Barbara between Sunday, 3/1 and Tuesday, 3/3. If I attend, due to the location, I will not be back to the Agency until Wednesday, 3/3. For the regular Board meeting, the agenda needs to be published and mailed by Friday, 3/6. Rescheduling the meeting to Thursday, March 12 or another date the following week will provide additional time to prepare the meeting agenda packet.

Prior to the January Board meeting, I will check on Board member availability for a rescheduled March meeting.



BOARD MEMORANDUM

January 9, 2020

To: CMSA Commissioners and Alternates
From: Kate Brouillet, Administrative Assistant
Approved: Jason Dow, General Manager
Subject: January Informational Items

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

- A. Letter dated December 6, 2019 from James E. Dunbar, Lystek
Re: Lystek OMRC Facility Update (2019)
- B. Letter dated December 20, 2019 to Anna Gallagher, California Regional Water Quality Control Board
Re: Monthly Self-Monitoring Report (SMR) – November 2019



December 6, 2019

Jason Dow
General Manager
Central Marin Sanitation Agency
1301 Andersen Drive
San Rafael, CA 94901

Subject: **LYSTEK OMRC FACILITY UPDATE (2019)**

Dear Jason Dow:

Lystek International is proud to be a continuing service provider to the Central Marin Sanitation Agency (CMSA) for the acceptance, treatment, and beneficial use of biosolids material.

I want to take this opportunity to update you on our current year (2019) activities and accomplishments at the Lystek OMRC facility in Fairfield.

- Since opening in August 2016 (and through the end of 2019), Lystek has received and processed almost 125,000 wet tons of biosolids. In 2019 alone, incoming volumes were 40% above prior year incoming material. During this same period, Lystek has land applied its Class A LysteGro biofertilizer product (more than 40 million gallons) to more than 10,000 acres in Solano County. In 2019, we land applied more material than we had in the prior two years (2017 + 2018). Lystek also received approval (unrestricted use) from Yolo County for the use of our LysteGro product on agriculture lands in that County,
- In 2019, Lystek was successful in securing additional contracts from Bay Area wastewater treatment plant agencies for delivery of biosolids. Interest amongst other regional agencies to participate with Lystek remains strong for the safe/secure diversion of biosolids due to pending organics restrictions at landfills.



- In 2019, Lystek made operational improvements including the following:
 - Completion of an alternate receiving pit for the separate processing of biosolids (primarily undigested materials) or to be used as a contingency for current receiving of biosolids,
 - Switching to the use of liquid KOH (potassium hydroxide) as our alkali material (from prior use of quick-lime, dry material). This has improved our chemical additive processing and provides an increased nutrient value to the LysteGro end-product.
- Lystek continues with its research and development of end product management. Next year will see the start of an anaerobic digester feed program for increased biogas generation and digester optimization. And our demonstration level project of receiving, processing, and digesting source-separated organics (SSO) continues at the Goleta Sanitary District (mid-California coastal region).

As was highlighted last year, we are very pleased to have CMSA as a continuing partner/customer in 2019 at the Lystek Fairfield plant. Your participation with Lystek is very much appreciated and your support allows us to offer quality service to the wastewater community across the San Francisco Bay Area.

If you have any questions or need additional information, please contact me at jdunbar@lystek.com or 707-419-0084.

Sincerely,



James E. Dunbar, P.E.
General Manager
California Operations





December 20, 2019

California Regional Water Quality Control Board
 San Francisco Bay Region
 1515 Clay Street, Suite 1400
 Oakland, CA 94612

Attention: Anna Gallagher

Subject: **Monthly Self-Monitoring Report (SMR) – November 2019**

The November 2019 monthly self-monitoring report for the Central Marin Sanitation Agency (CMSA) treatment plant has been submitted using the eSMR /California Integrated Water Quality System (CIWQS). This SMR conforms to CMSA's NPDES Permit Order #R2-2018-003, Alternate Monitoring and Reporting Requirements Order #R2-2016-0008 and the Mercury and PCBs Order #R2-2017-0041. Additionally, effective July 1, 2019, Order #R2-2019-0017 removed CMSA influent nutrient monitoring requirements. The results provided in this report comply with these new requirements.

Violations

There are no reportable NPDES Permit violation(s) for this reporting period.

Blending Events

The CMSA treatment facility did not exceed the maximum secondary capacity of 30 MGD. No blending events occurred during this monitoring period.

Data Validation

All regulatory daily, weekly, and monthly quality control calibrations/checks conducted during the month of November met established quality assurance acceptance criteria, except those data results indicated within the attached Quality Assurance report.

If there are any questions please contact me at (415) 459-1455, extension 101. Quality assurance data are available for all test results cited in this report. Values reported are measured values and each are subject to analytical variability. CMSA reserves the right to question data in an enforcement proceeding.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations (40 CFR 122.22(d)).

Loren C. Finton
 Treatment Plant Manager