



Central Marin Sanitation Agency

COMMISSION REGULAR MEETING AGENDA

Tuesday, September 10, 2019

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—July 9, 2019
- b) Treasurer's Report—Operating Account—July 2019
- c) Treasurer's Report—Operating Account—August 2019
- d) Schedule of Investments and its Capital Reserve Summary—July 2019
- e) Schedule of Investments and its Capital Reserve Summary—August 2019
- f) NPDES, Process, and Maintenance Report—July 2019
- g) NPDES, Process, and Maintenance Report—August 2019
- h) Performance Metric Report—July and August 2019
- i) FY19 Green Business Report
- j) Biosolids Hauling Contract - Modification of Cost Adjustment Index
- k) Cogeneration System Installation Project – Sole Source Specification for Motorized Actuators and Electrical Pilot Devices

5. **Alternate Retirement Plan for Temporary and Part Time Employees**

Recommendation: Adopt Resolution No. 339 to authorize adoption of the PARS Trust Alternative Retirement Plan, and select the PARS contribution amount and allocation between Agency and employee.

OVER

6. **Tyler Technologies Financial System Software Procurement**
Recommendation: Approve the Tyler Technologies License and Services Agreement for the purchase of new financial system software, and provide comments and/or direction to the General Manager, as appropriate.
7. **Accept the Andersen Drive Landslide Repairs Project as Substantially Complete (CMSA Contract No. 19-13)**
Recommendation: Accept the Andersen Drive Landslide Repairs Project as substantially complete, and authorize the General Manager to file the Notice of Completion with the County of Marin.
8. **CMSA Fee Ordinance Revisions**
Recommendation: Review and provide comments on the proposed revisions to the Agency's Fee Ordinance, and schedule a public hearing for the Ordinance at the October 8 Board meeting.
9. **San Quentin Pump Station Motor Control Center and Control Panel Upgrade Project (CMSA Contract No. 20-01)**
Recommendation: Adopt the construction contract documents for the San Quentin Pump Station Motor Control Center and Control Panel Upgrade Project, and authorize the General Manager to advertise the contract for public bidding.
10. **August/September Informational Items**
Recommendation: Informational; provide comments or direction to the General Manager as appropriate.
11. **North Bay Watershed Association (NBWA) Report***
12. **Oral Reports by Commissioners/General Manager***
13. **Next Scheduled Meeting**
Tuesday, October 8, 2019 at 7:00 p.m. at the Agency office.
14. **Adjourn to Closed Session**
PUBLIC EMPLOYEE PERFORMANCE EVALUATION
California Government Code Section 54957
Title: General Manager
15. **Reconvene in Open Session**
Report on any action taken in Closed Session.

*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, July 9, 2019
at the Agency Office

1. Call Meeting to Order/Pledge of Allegiance

Vice-Chair Boorstein called the meeting to order at 7:12 p.m. A quorum was present.

2. Roll Call

00:00:23

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

Note: Commissioner Beckman arrived at 7:15 p.m. after the vote on the Consent Calendar.

Absent: Chair Dean DiGiovanni

Staff present: Jason Dow, General Manager; Chris Finton, Treatment Plant Manager; Amy Hwang, Associate Engineer; Kate Brouillet, Recording Secretary

Public present: Larry Leporte, Marin Transit

3. Open Period for Public Participation

00:00:40

There were no comments from the public.

GM Dow referred to his handout and commented that there was an article in the June issue of CWSA's *Clean Water* magazine honoring Amy Hwang, one of their 2019 Emerging Leaders in the water/wastewater industry.

The Board commented on the article and congratulated Ms. Hwang.

ACTION: Vice-Chair Boorstein moved that item #9, Draft License Agreement with Marin Airporter, be moved to after the Consent Calendar, as Larry Leporte, Marin Transit CEO, was in attendance; second, Commissioner Bushey.

VOTE: The vote was passed unanimously.

ABSTAIN: None

4. Consent Calendar

00:02:43

- a) Minutes—Regular Board Meeting—June 11, 2019
- b) Treasurer’s Report—Operating Account—June 2019
- c) Schedule of Investments and its Capital Reserve Summary—June 2019
- d) NPDES, Process, and Maintenance Report—June 2019
- e) Performance Metric Report—June 2019
- f) CASA 2019 Annual Conference
- g) Cogeneration System Installation Project – CEQA Notice of Exemption Filing

There was no discussion by the Board.

Comments from the Public:

There were no comments from members of the public.

ACTION: Alternate Commissioner Hillmer moved to approve Consent Calendar items #4a through #4g; second, Commissioner Bushey.

VOTE: The vote was passed unanimously.

ABSTAIN: None

9. Draft License Agreement with Marin Airporter

00:03:40

GM Dow said that at the May meeting, the Board authorized staff to prepare a draft Property Lease Agreement with Marin Airporter to park Marin Transit buses in a portion of the Agency’s corporation yard and Airporter employee and non-revenue vehicles in the Agency’s employee parking lot. He said that the Board also authorized the hiring of David Tattersal to prepare a property appraisal. He said that staff has worked with Larry Leporte, Marin Airporter CEO, and Bill McInerney, CMSA contract/construction attorney, to prepare a Site License Agreement, and have obtained a property appraisal from Mr. Tattersal. He said that the Board’s ad hoc Property Space Assessment Committee reviewed and accepted the final draft Agreement and the appraisal, and has recommended that the license fee be reduced from \$0.30 a square foot to \$0.27 sf. GM Dow reviewed his handout “Exhibit B” which detailed facility access protocols. He said that staff’s recommendation is to approve the License Agreement with Marin Airporter and authorize the General Manager to sign it.

Commissioner Bushey asked if there could be a termination clause in the agreement, if the space was needed in the future by the Agency.

GM Dow responded that a provision could be added as *Item 13(e)* that would state that if the Agency needed to utilize the space for Agency business, CMSA would provide notice in an agreed upon period of time (such as 120 days) to Marin Transit.

Alternate Commissioner Zahradnik said that he recommends that some provision be put in the agreement that addresses limiting the idling of diesel engines to five minutes due to potential air pollution.

Mr. Laporte said that all of the buses that would be parking at CMSA are hybrid buses, and as they are less than three years old, are equipped with SCR (Selective Catalytic Reduction) which significantly reduces pollution. He said that some idling is necessary in the morning to warm up the buses, and said that a five minute limit would be reasonable.

GM Dow said that he could put an item in the agreement under *Section 22-Miscellaneous* to address the idling limit.

GM Dow said that invoicing would not begin until the property improvements have been made, and Marin Transit has trained staff prior to the use of the CMSA parking area.

The Board commented that they are very much in favor of encouraging cooperation between public agencies, and welcome this partnership.

Comments from the Public:

There were no comments from members of the public.

ACTION: Commissioner Kelly moved to approve the License Agreement with Marin Airporter, with the additions as noted above, and authorize the General Manager to sign it; second, Commissioner Beckman.

VOTE: The vote was passed unanimously.

ABSTAIN: None

5. FY20 Commission Officer, Committee, and NBWA Board Appointments 00:14:22

GM Dow said that the Commission annually selects officers and makes appointments to its standing Finance Committee and the North Bay Watershed Association's (NBWA) Board of Directors, are for a one-year term, and are normally made at the July Board meeting. He then reviewed the latest appointments and the current slate of officers, Finance Committee members, and NBWA Board representatives.

Commissioner Kelly handed out a Town of San Anselmo Council policy and stated that he would like to recommend that a CMSA policy be drafted so officers are rotated instead of annually appointed. He said that the policy he recommends would retain the flexibility of also nominating new officers.

Commissioner Bushey said she feels that the stability and substantial industry knowledge base of a continuing officer is valuable, and doesn't agree with necessarily rotating officers.

The Board discussed the appointment term, including the flexibility of rotating appointments, consistency of continuing Board officers, and past practices.

GM Dow said that the CMSA Board rotated officers between 1979 and 2005 or 2006, and since then officers have been nominated for an additional term and/or new members

were nominated. He said it has worked for staff either with rotating Board officers or maintaining the same officers for multiple years.

Comments from the Public:

There were no comments from members of the public.

ACTION: Commissioner Kelly nominated Commissioner DiGiovanni for Chair for the next 12 months; second, Commissioner Boorstein.

Commissioner Beckman nominated Commissioner Boorstein for Vice Chair; second, Commissioner Bushey.

Commissioner Kelly nominated Commissioner Beckman for Secretary; second, Alternate Commissioner Hillmer.

Alternate Commissioner Hillmer nominated the current members of the Finance Committee, Tom Gaffney, Michael Boorstein, and Dean DiGiovanni; second, Commissioner Kelly.

Commissioner Kelly nominated Vice-Chair Boorstein for representative to the Northbay Watershed Association; second, Commissioner Beckman.

Alternate Commissioner Hillmer nominated Commissioner DiGiovanni for first alternate and GM Dow as the second alternate to the Northbay Watershed Association; second, Commissioner Bushey.

VOTE: The vote on the above slate was passed unanimously.

ABSTAIN: None

GM Dow said that he could act as second alternate for the North Bay Watershed Association representative. The Board concurred.

Commissioner Bushey asked if a commissioner not on the Finance Committee can attend Committee meetings. Commissioner Kelly said that it is a public meeting so anyone can attend, but the Brown Act requires that the commissioner attend only as an observer, and not participate in discussions, votes, or comments.

6. Asset Management Program Evaluation Presentation

00:34:12

GM Dow provided a brief background on current and past Agency asset management programs. He said that GHD is nearing completion of the Asset Management Evaluation Project, has identified future asset management best practices for consideration, and the Agency's project team has integrated some of the recommended practices into the proposed FY20 Business Plan. He then introduced Amy Hwang, Associate Engineer, and Chris Finton, Treatment Plant Manager, who gave a PowerPoint presentation that covered the Agency's past and current asset management programs, a high level summary of the Project and its findings, and the planned FY20 asset management activities.

The Board commented favorably on the presentation, and asked various questions regarding staff participation with the Nexgen software, and asset management procedures and cost-effectiveness.

GM Dow, Mr. Finton, and Ms. Hwang responded to the Board's questions. GM Dow said with the Nexgen software the Agency has reduced the instances of corrective maintenance and increased preventative maintenance, which has improved cost-effectiveness.

Comments from the Public:

There were no comments from members of the public.

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

Ms. Hwang and Mr. Finton left the meeting.

7. Proposed FY20 Agency Business Plan

00:57:40

GM Dow provided a brief background on the content and development of the Agency's Strategic Business Plan in 2016. He said that over the past several months, concurrent with developing the Agency's operating and capital budgets, the Agency's Strategic Planning Committee (ASPC) prepared the FY19 Business Plan Report and the proposed FY20 Business Plan. He said the Board accepted the FY19 Report last month and the proposed FY20 Business Plan is presented for the Board's consideration of approval.

The Board agreed that the Plan was well done and comprehensive, and had no questions or comments.

Comments from the Public:

There were no comments from members of the public.

ACTION: Commissioner Hillmer moved to approve the FY20 Agency Business Plan; second, Commissioner Bushey.

VOTE: The vote was passed unanimously.

ABSTAIN: None

8. Tyler Technologies Financial System Software Procurement

01:01:00

GM Dow said that the Agency's current financial system, Open Systems Accounting Software (OSAS), is over 30 years old and has been in place since the early 1980s. He said it is used only by the Administration Department's finance staff and is not available to users in other departments who rely on manually prepared reports supplied to them. He said that to address an Objective in the FY 19 Business Plan, staff performed and completed an extensive financial software identification, evaluation, and selection process that included six different financial software programs, with deep-dive demonstrations of the top three software packages. He said the evaluation team

included Administration and IT staff, department managers and supervisors, and the Agency Strategic Planning Committee, and they unanimously selected the Tyler Technologies product as the system that best fits the needs of the Agency. GM Dow said that he would be unable to answer any detailed questions, as the Administrative Services Manager, Ken Spray, who is most knowledgeable about this system, was unable to attend this meeting. GM Dow said that he became aware today of a concern by staff regarding the compatibility of the Tyler financial software with the Agency's existing asset management program, Nexgen, and recommends revisiting this item in the September meeting so that this question can be addressed.

The Board agreed that the compatibility of the Tyler software with the existing Nexgen system is important, and should be clarified. The Board also asked if the compatibility of this software with the Nexgen system was part of the original vendor evaluation criteria; if this is the most appropriate financial software for CMSA; if the maintenance support cost and the 24/7 availability is standard and appropriate for CMSA; and if Nexgen currently performs activity management functions.

GM Dow said that staff determined that the Tyler maintenance service contract was adequate, and that the work order function is currently performed by Nexgen. He said that Tyler has an Asset Management module, but staff decided that the financial component was top priority, and as it would be a significant cost, recommended considering the asset management module in the future.

Vice-Chair Boorstein asked for a motion on continuing this item to the next meeting, as it was not mission-critical.

Comments from the Public:

There were no comments from members of the public.

ACTION: Commissioner Bushey moved to continue this item to the next meeting; second, Commissioner Kelly.

VOTE: The vote was passed unanimously.

ABSTAIN: None

10. New Cogeneration System Prepurchase Evaluation Criteria

01:13:24

GM Dow said that in the June meeting, the Board approved a professional services agreement with Carollo Engineers to prepare the final design contract for the Cogeneration System Installation Project, including preparation of the prepurchase specifications and Request for Proposal (RFP) documents. He said that staff and Carollo Engineers developed the proposed evaluation criteria that will be included in the RFP documents issued to qualified suppliers. He said with the Board's concurrence on the proposed evaluation criteria components, the prepurchase documents are expected to be issued to qualified suppliers in early August 2019, and a cogeneration system purchase recommendation will be brought to the Board at either the September or

October 2019 Board meeting. GM Dow referred to the staff memo and reviewed the proposed prepurchase criteria.

The Board discussed the criteria, and asked various questions including vendor and repair facility location, proposed point ranges, vendor qualifications, and point weighting.

GM Dow responded to the Board's questions, and said that the final point weighting of each criterion would be finalized by staff only after the supplier proposals were received, so that CMSA can maintain the flexibility to adjust the final point weighting based on any new information that may be learned from the supplier's proposals.

Comments from the Public:

There were no comments from members of the public.

ACTION: Alternate Commissioner Hillmer moved to accept the proposed evaluation criteria for the prepurchase of the new cogeneration system; second, Commissioner Beckman.

VOTE: The vote was passed unanimously.

ABSTAIN: None

11. Primary Sludge Management Evaluation with the Sausalito Marin City Sanitary District 01:24:32

GM Dow said that Sausalito Marin City Sanitary District (SMCSD) and staff have engaged in preliminary discussions about CMSA accepting delivery of SMCSD's primary sludge for processing. He said that if receiving the sludge is determined to be feasible, allowed by the Regional Water Resources Control Board, and approved by the SMCSD and CMSA Boards, this arrangement will provide benefits to both agencies. He said that 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. He said that CMSA will receive a tipping fee for receiving and processing the SMCSD primary sludge.

The Board asked a few questions, including potential negative effects to the Agency of receiving SMCSD sludge, the timing of the project, staff resources, traffic on the plant roads, and digester capacity.

GM Dow responded to the Board's questions, and said that there are no expected negative effects from receiving the sludge, staff time requirements and traffic considerations are minimal, digester capacity is available, and the timing of the project will be determined by SMCSD's current construction schedule for process and equipment upgrades and expansion of its treatment capacity.

Commissioner Bushey and Commissioner Kelly said that they enthusiastically support inter-agency cooperation and consolidation efforts.

Comments from the Public:

There were no comments from members of the public.

ACTION: Alternate Commissioner Hillmer moved to authorize staff to evaluate CMSA receiving primary sludge from the Sausalito Marin City Sanitary District, and if feasible and viable for both agencies, to prepare a draft service agreement; second, Commissioner Boorstein.

VOTE: The vote was passed unanimously.

ABSTAIN: None

12. July Informational Items **01:35:45**

There was no discussion or action on any of the informational items.

13. North Bay Watershed Association (NBWA) Report **01:35:59**

Vice Chair Boorstein reported that the July North Bay Watershed Association Board meeting will be held on July 12, 2019, and he will report back in the next Board meeting.

14. Oral Reports by Commissioners/General Manager **01:36:04**

GM Dow referred to his handout and reported:

- Employee Appreciation BBQ will be held on 7/17 and Board members are invited to attend.
- Secondary Clarifier rehabilitation project design work has started, and a design consultant for the replacement work will be hired.

GM Dow reported that the cogeneration engine purchase order has been issued and rehabilitation work is in progress; Assistant Maintenance Supervisor, Kevin Lewis, will observe the start up and testing of the system on site at the vendor in Ohio, and proposals are being received for installation services.

The Board asked for the projected date of operation and the estimated energy procurement costs for the time the engine is offline.

GM Dow said his best estimate for project completion is one month from today; and the projected energy procurement cost is estimated to be approximately \$80,000 for an entire month during the current peak energy demand period. He said he will keep the Board informed via email prior to the September Board meeting.

Commissioner Beckman referred to the survey conducted by Tidal Marine, and asked for a description of the outfall diffuser work that was recently completed.

GM Dow provided a description of the project.

The Board discussed the hand-distribution to Board members of the agenda packets on the Friday before the meeting, which is routinely done if the packets are not able to be mailed on Thursday. They agreed that if this is the case, staff is to contact Board members on the Wednesday or Thursday prior to the meeting, and ask if they prefer to pick up their packet at the Agency office or have it hand-delivered on Friday, or if the online version and a paper copy at the meeting will suffice.

15. Next Scheduled Meeting

Tuesday, September 10, 2019 at 7:00 p.m. at the Agency office.

Vice-Chair Boorstein adjourned the meeting at 9:00 p.m.

Respectfully submitted,

Kate Brouillet, Recording Secretary

Eli Beckman, Secretary

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

I. Accounts Summary: Bank & Investment Accounts

Summary of Bank & Money Market Accounts

Westamerica Bank - Account Activity shown below	\$ 727,788.87
Local Agency Investment Fund (LAIF) - Refer to Schedule of Investments	17,700,238.38
California Asset Management Program (CAMP) - Refer to Schedule of Investments	375,093.56
Total Bank & Investment Accounts: Ending Balance on July 31, 2019	<u>\$ 18,803,120.81</u>

II. Account Activity for Westamerica Bank

Beginning Balance on July 1, 2019 268,465.30


Cash Receipts (Deposits into Westamerica):

Transfers from LAIF	1,900,000.00
JPA Service Charges (FY20 Q1: RVSD, SD#2)	1,734,665.77
Debt Service Charges (FY20 Q1: RVSD)	1,721,458.44
Permit and Inspection Fees	2,450.00
RVSD - FOG Program (FY19 4Q: April-June)	8,221.76
TCSD - FOG Program (FY19 4Q: April-June)	181.44
SD#2 FOG Program (FY19 4Q: April-June)	2,100.27
Almonte FOG Program (FY19 4Q: April-June)	65.14
Revenue from Haulers & RVs	9,082.51
Revenue from Organic Waste Programs	10,934.28
SD 2 Operations & Maintenance Contract (FY19: May)	48,256.95
SQSP: Reimburse GHD Engineering design work April 22 - May 17 and CMSA staff time	21,429.28
SQ Village Operations & Maintenance Contract (FY19: May)	1,009.17
Misc Revenue: Clean Water State Revolving Fund Disbursement #4	106,758.00
COBRA Health Benefit Payments from separated employees/retirees	89.44
Expense Reimbursement from Marin Airporter for property appraisal	4,500.00
Void PG&E check #18634 (replaced for same amount)	26,858.41
Total Cash Receipts	<u>\$ 5,598,060.86</u>

Cash Disbursements (Withdrawals from WestAmerica):

July 2019 Operating account disbursements register (see attached)	\$1,766,459.64
Regular Payroll paid 07/05/19	141,713.73
Regular Payroll paid 07/19/19	162,560.92
Transfers to EFTPS Federal Payroll Taxes (07/10, 07/24)	67,873.81
Transfers to LAIF (FY20 Q1: JPA Payments)	3,000,000.00
Bank Fee	129.19
Total Cash Disbursements	<u>\$5,138,737.29</u>
Ending Balance on July 31, 2019	<u>\$ 727,788.87</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 July 2019

Check Number	Date	Vendor/Payee	Amount	Description
18634				Last check # from prior month's register
18635	7/2/2019	Phillip Frye	224.41	Reimbursement for retiree health benefits by check
18636	7/2/2019	James L. Johnson	187.74	Reimbursement for retiree health benefits by check
18637	7/2/2019	Byron Jones	221.44	Reimbursement for retiree health benefits by check
18638	7/5/2019	California State Disbursement	250.50	EE Garnishment, PPE 06/29/2019 (Note A)
18639	7/5/2019	ICMA Retirement Trust-457	3,042.00	Deferred compensation contributions, PPE 06/29/2019 (Note A)
18640	7/5/2019	Navia Benefit Solutions	1,019.01	Flexible spending account, PPE 06/29/2019
18641	7/5/2019	SEIU Local 1021	1,054.85	Union dues, PPE 06/29/2019
18642	7/3/2019	BC Laboratories Inc	60.00	Pretreatment sample testing
18643	7/3/2019	CDW Government, Inc.	1,114.26	Annual VMware service and support renewal
18644	7/3/2019	CWEA TCP	188.00	Mechanical Technician certification renewal (1 employee)
18645	7/3/2019	DELL Marketing L.P.	8,573.95	Laptops (4) for Admin, Operations, Maintenance, PLC programming
18646	7/3/2019	EDIS	865.00	Dental program administration monthly fee, July 2019
18647	7/3/2019	Examintetics, Inc.	24.75	Audiometric test data (1 employee)
18648	7/3/2019	Harrington Industrial Plastics	2,868.44	Materials for outfall diffuser extensions
18649	7/3/2019	Ken Grady Co., Inc.	407.91	Membranes for process control
18650	7/3/2019	The Lab Depot	413.06	Materials for process control
18651	7/3/2019	Marin Resource Recovery Center	80.00	Debris box service
18652	7/3/2019	McInerney & Dillon, P.C.	770.00	Legal services, construction/contract law, June 2019
18653	7/3/2019	Marin Municipal Water District	46.57	SD2 PS Maint: water service, 04/10-06/07/2019 (Note B)
18654	7/3/2019	Nickell Fire Protection Inc	712.50	Third quarter sprinkler and hydrant inspection
18655	7/3/2019	P.G. & E.	52,359.22	Electricity service, 05/16-06/16/2019
18656	7/3/2019	Ricoh USA Inc	259.35	Lab printer/copier lease, 06/09-07/08/2019
18657	7/3/2019	Thatcher Company of	11,665.23	Ferric chloride (2 deliveries)
18658	7/3/2019	Wells Fargo Vendor	374.13	Maintenance printer/copier lease, 06/13-07/12/2019
18659	7/3/2019	Wiley Price & Radulovich	1,377.00	Prof Svcs: Employment law services, May 2019
18660	7/15/2019	Airgas USA, LLC	92.14	Welding supplies
18661	7/15/2019	Amazing Solutions, Inc.	1,425.00	Finance software support, June 2019
18662	7/15/2019	APGN Inc.	3,852.48	Aeration blower parts and air filters
18663	7/15/2019	Aquadyne Associates	16,814.29	SD2 PS Maint: Boardwalk A & B control panel upgrades (Note B)
18664	7/15/2019	Automation Direct Co., Inc.	932.52	Thermometers, circuit breakers, sensors, June 2019
18665	7/15/2019	Caltest Analytical Laboratory	2,486.77	Lab analyses, May 2019
18666	7/15/2019	Carollo Engineers, Inc.	33,658.32	Prof Svcs: New Cogeneration System Installation Project, June 2019
18667	7/15/2019	City Electric Supply	829.07	Digster Pilot Study electrical parts, misc. electrical parts, May-June 2019
18668	7/15/2019	David N Tattersall	4,500.00	Corporation yard appraisal fee, June 2019 (Note B)
18669	7/15/2019	Diamond Diesel and	4,957.86	Cogeneration engine upper-end overhaul turbocharge refurbishments
18670	7/15/2019	Evoqua Water Tech LLC	29,811.70	Hydrogen peroxide (3 deliveries)
18671	7/15/2019	FactoryMation	655.00	Electrical enclosures (2 invoices)
18672	7/15/2019	Fastenal Company	715.24	Maintenance vending machine supply replenishment (2 invoices)

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

Check Number	Date	Vendor/Payee	Amount	Description
18673	7/15/2019	Chris Finton	300.00	Commuter Reimbursement Program, May-June 2019
18674	7/15/2019	Forster & Kroeger	10,200.00	Andersen Drive hillside landscape maintenance
18675	7/15/2019	GHD Inc	11,843.25	Prof Svcs: Asset Management Program Evaluation, June 2019
18676	7/15/2019	Hach Company	818.50	Nutrient buffer solution, vials, chemicals, and volatile acids (5 invoices)
18677	7/15/2019	Hagel Supply Co.	267.73	Utility supplies, June 2019
18678		Void		
18679	7/15/2019	Home Depot Credit Services	1,545.04	Misc. maintenance parts and supplies, May-June 2019 (2 invoices)
18680	7/15/2019	Horizon Dist. Inc	28.34	Sprinkler flags
18681	7/15/2019	Hopkins Technical Products Inc	3,847.02	Chemical pump back pressure valves
18682	7/15/2019	IEDA, Inc.	837.00	Labor relations consulting, July 2019
18683	7/15/2019	Jackson's Hardware	1,245.92	Digester Pilot Study & misc. parts and supplies, May-June 2019 (5 invoices)
18684	7/15/2019	Koff & Associates, Inc.	6,140.00	Prof Svcs: ESA and OIT recruitments, Phase 2 (2 invoices)
18685	7/15/2019	Kone Inc	136.70	Elevator maintenance, June 2019
18686	7/15/2019	Lystek International LTD	10,904.36	Biosolids beneficial reuse fee, June 2019
18687	7/15/2019	Marin Sanitary Service	3,435.21	Rag box, landfill, and recycling disposal, June 2019 (2 invoices)
18688	7/15/2019	Marin Office Supply	437.06	Office supplies, June 2019
18689	7/15/2019	M-I-C Inc	13,928.51	Flame arrestor for biogas line
18690	7/15/2019	Petaluma Mechanical Inc	2,472.71	Annual gas dryer preventative maintenance
18691	7/15/2019	P.G.& E.	4,045.73	Electricity service, 05/21-06/19/2019 (2 invoices)
18692	7/15/2019	Platt	3,459.39	SD2 PS Maint: Lakeside motor conduit (Note B)
18693	7/15/2019	Ryan Herco Flow Solutions	349.79	Filters for laboratory
18694	7/15/2019	Ricoh USA Inc	317.99	Admin printer/copier lease, 06/23-07/22/2019
18695	7/15/2019	RMC	1,855.29	Admin printer/copier usage fee, 03/25-06/24/2019
18696	7/15/2019	Rockwell Solutions	1,807.30	Organic Waste Receiving Facility rocktrap grinder parts
18697	7/15/2019	Roy's Sewer Service, Inc.	5,200.00	2019 San Quentin Village Sewer Pipe and Wet Well Cleaning and CCTV Services project, final payment (Note B)
18698	7/15/2019	Synagro West, Inc.	2,957.85	Biosolids land application fee, May 2019
18699	7/15/2019	Russ Turnbull	755.00	Employee expenses eligible for Agency Delta Dental reimbursement, 06/07/2019
18700	7/15/2019	Univar USA Inc	18,023.03	Sodium hypochlorite (2 deliveries), sodium bisulfite (2 deliveries)
18701	7/15/2019	Van Bebbler Bros., Inc.	2,718.93	Tubing and stainless steel plating
18702	7/15/2019	Waste Management	3,073.96	Redwood Landfill biosolids reuse fee, June 2019
18703	7/15/2019	Water Components & Bldg. Supp.	268.35	Misc. maintenance parts and supplies, June 2019
18704	7/15/2019	Western Exterminator Co., Inc.	178.50	Pest control service, May 2019
18705	7/15/2019	Woodland Center Auto Supply	252.16	Agency vehicle parts and supplies, June 2019 (6 invoices)
18706	7/18/2019	Alliant Insurance Services	1,560.00	Agency vehicle physical damage insurance annual renewal
18707	7/18/2019	Aramark Uniform Services	891.49	Uniform service, June 2019
18708	7/18/2019	AT&T Dataplan	402.91	Fax and emergency phone service, 07/02-08/01/2019

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

Check Number	Date	Vendor/Payee	Amount	Description
18709	7/18/2019	BKF Engineers	3,880.00	SQVPS Maint: Land surveying for Heron Court, May-June 2019 (Note B)
18710	7/18/2019	Comcast	193.38	Internet service, 07/04-08/03/2019
18711	7/18/2019	CSRMA	420,092.00	Agency Property and Workers' Compensation insurance premiums, 07/01/2019-07/01/2020 (2 invoices)
18712	7/18/2019	CWEA TCP	240.00	CWEA Redwood Empire dinner meeting (6 employees)
18713	7/18/2019	DLT Solutions, Inc.	735.00	AutoCAD annual renewal, 08/08/2019-08/07/2020
18714	7/18/2019	Thomas Hansen	125.00	Employee expenses for reimbursement: Grade II Operator Certification
18715	7/18/2019	Heidi Lang	2,342.37	Employee travel expense reimbursement: GFOA Annual Conference
18716	7/18/2019	McMaster-Carr Supply Co.	4,882.26	Digester Pilot Study materials and equipment, and misc. parts and supplies (23 invoices)
18717	7/18/2019	S&S Trucking	11,962.79	Biosolids hauling fee, June 2019
18718	7/22/2019	California State Disbursement	250.50	EE Garnishment, PPE 07/13/2019 (Note A)
18719	7/22/2019	ICMA Retirement Trust-457	2,350.00	Deferred compensation contributions, PPE 07/13/2019 (Note A)
18720	7/22/2019	Navia Benefit Solutions	969.01	Flexible spending account, PPE 07/13/2019
18721	7/22/2019	SEIU Local 1021	1,058.63	Union dues, PPE 07/13/2019
18722	7/24/2019	AICPA (Payment-Dues)	285.00	Membership fee, one employee
18723	7/24/2019	Amazon	2,127.47	Electrical and computer supplies, June 2019
18724	7/24/2019	Archae Press	2,155.00	Biogas flow meter for Digester Pilot Study
18725	7/24/2019	Brandon Tire	1,736.23	Tires and auto supplies for Agency vehicles, June 2019
18726	7/24/2019	Rebecca Brewer	507.40	Employee expense reimb: Safety supplies and per diem for National Safety Council National Congress
18727	7/24/2019	Katherine Brouillet	236.43	Employee expense reimb: Employee Appreciation BBQ
18728	7/24/2019	Cal Steam	2,017.33	Water fountain, ferric chloride flow parts, and SD2 PS Maint: parts (Note B) (4 invoices)
18729	7/24/2019	Caltest Analytical Laboratory	3,251.10	Lab analyses, June 2019
18730	7/24/2019	Dee Consultants LLC	9,375.00	Prof Svcs: Construction management support, June 2019
18731	7/24/2019	Forster & Kroeger	1,800.00	Andersen Drive hillside trash disposal
18732	7/24/2019	Foster Flow Control	849.96	Digester blower check-valve rebuild kits (3)
18733	7/24/2019	Grainger	2,287.02	Steel rods, switches, valves, batteries, fan, conduit, first aid supplies, oil, & misc. parts and supplies, May-June 2019 (16 invoices)
18734	7/24/2019	Harrington Industrial Plastics	7,725.57	Materials for replacement ramps and outfall diffuser repairs (2 invoices)
18735	7/24/2019	JDH Corrosion Consultants, Inc.	6,997.50	Prof Svcs: Cathodic Protection Surveys for CMSA and SRSD Simms Street Force Main (Note B) (2 invoices)
18736	7/24/2019	Kaman Industrial Technologies	9,082.65	SQSP Maint: Pump Motor (Note B) and primary clarifier drive units (2 invoices)
18737	7/24/2019	The Lab Depot	985.29	Reagents for process control
18738	7/24/2019	Marin County Tax Collector	113.50	Legal services: General Counsel, April-June 2019
18739	7/24/2019	McInerney & Dillon, P.C.	1,039.50	Legal services, construction/contract law, July 2019
18740	7/24/2019	Pac Machine Co. Inc.	664.66	Hoses (2 invoices)

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

Check Number	Date	Vendor/Payee	Amount	Description
18741	7/24/2019	R.F. MacDonald Co.	6,362.35	Booster pump repair parts
18742	7/24/2019	RMC	291.08	Lab copier lease, 04/09-07/08/2019
18743	7/24/2019	Rockwell Solutions	15,754.18	Replacement sludge recirculation grinder
18744	7/24/2019	Ahn Ta	59.87	Employee expense reimb: Employee Appreciation BBQ
18745	7/24/2019	Thomas Fish Company	145.75	Rainbow trout for monthly bioassay test, June 2019
18746	7/24/2019	Abel Villarreal	294.00	Employee expenses eligible for Agency Delta Dental reimbursement, 06/27/2019
18747	7/24/2019	Western Exterminator Co.,Inc.	178.50	Pest control service, June 2019
18748	7/25/2019	California Public Employee	3,584.00	Contribution to Retiree Health Benefits Trust Fund, July 2019 (Note C)
18749	7/26/2019	CAL-CARD	12,099.60	State of California Purchase Card, May-June 2019

Payments by Automatic Clearing House:

7/1/2019	Payments to 25 retirees	6,993.96	Reimbursement for retiree health benefits
7/3/2019	CalPERS Medical ins	65,476.24	Medical insurance, July 2019
7/8/2019	CalPERS	33,334.02	Retirement pension contribution: Agency and employees, PPE 06/29/2019 (Note C)
7/23/2019	CalPERS	39,133.51	Retirement pension contribution: Agency and employees, PPE 07/13/2019 (Note C)
7/18/2019	CalPERS	724,668.00	Unfunded accrued pension liability, FY20
7/3/2019	Lincoln Life Ins	2,233.64	Life insurance, July 2019
7/3/2019	Vision Service Plan -(CA)	897.55	Vision insurance, July 2019
7/8/2019	EDD	12,520.17	State & SDI Taxes, PPE 06/29/2019
7/23/2019	EDD	14,550.97	State & SDI Taxes, PPE 07/13/2019
7/8/2019	NRS/PEHP-3 and Z	9,225.10	Deferred compensation and MARA contribution, PPE 06/29/2019
7/23/2019	NRS/PEHP-3 and Z	8,397.94	Deferred compensation and MARA contribution, PPE 07/13/2019
7/12/2019	Dean DiGiovanni	225.00	Stipend for 07/05/2019 Ad Hoc Property committee meeting
7/12/2019	Doug Kelly	450.00	Stipend for 07/09/2019 Board meeting and 07/05/2019 Ad Hoc Property Committee meeting
7/12/2019	Michael Owen Boorstein	225.00	Stipend for 07/09/2019 Board meeting
7/12/2019	Eli Beckman	225.00	Stipend for 07/09/2019 Board meeting
7/12/2019	Maribeth Bushey	225.00	Stipend for 07/09/2019 Board meeting
7/12/2019	Dan Hillmer	225.00	Stipend for 07/09/2019 Board meeting
7/12/2019	Alan Zahradnik	225.00	Stipend for 07/09/2019 Board meeting
7/25/2019	Hertz	746.93	Rental supplies
Grand Total		1,766,459.64	

Notes:

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

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

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

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

I. Accounts Summary: Bank & Investment Accounts

Summary of Bank & Money Market Accounts

Westamerica Bank - Account Activity shown below	\$ 375,178.06
Local Agency Investment Fund (LAIF) - Refer to Schedule of Investments	16,800,238.38
California Asset Management Program (CAMP) - Refer to Schedule of Investments	375,821.28
Total Bank & Investment Accounts: Ending Balance on August 31, 2019	<u>\$ 17,551,237.72</u>

II. Account Activity for Westamerica Bank

Beginning Balance on August 1, 2019 727,788.87


Cash Receipts (Deposits into Westamerica):

Transfers from LAIF	3,400,000.00
JPA Service Charges (FY20 Q1: SRSD)	1,269,084.48
Debt Service Charges (FY20 Q1: SD#2, SRSD)	1,969,719.12
Capacity Charges: SRSD - FY19: 1 Residential Connection and 38 Fixture Units	20,568.10
Permit and Inspection Fees	1,040.00
SRSD - FOG Program (FY19 4Q: April-June)	3,943.08
Revenue from Haulers & RVs	10,122.10
Revenue from Organic Waste Programs	13,408.90
SD 2 Operations & Maintenance Contract (FY19: June)	50,910.97
SQSP Wastewater Services Contract (FY19: June)	84,680.67
SQ Village Operations & Maintenance Contract (FY19: June)	13,351.63
Miscellaneous Reimbursements: CSRMA Health & Wellness Program, SRSD Annual Cathodic Protection Survey	5,419.60
Void check #18651 Marin Resource Recovery	<u>80.00</u>
Total Cash Receipts	<u>\$ 6,842,328.65</u>

Cash Disbursements (Withdrawals from WestAmerica):

August 2019 Operating account disbursements register (see attached)	\$980,393.71
Regular Payroll paid 08/02/19	148,433.45
Regular Payroll paid 08/16/19	149,615.17
Regular Payroll paid 08/30/19	149,747.02
Transfers to EFTPS Federal Payroll Taxes (08/01, 08/21)	66,213.93
Vacation Cash-Out (1)	2,445.18
Transfers to LAIF (FY19 Q2: JPA Payments)	2,500,000.00
Transfers to US Bank (JPA Debt Service Payments)	3,197,928.07
Bank Fee	<u>162.93</u>
Total Cash Disbursements	<u>\$7,194,939.46</u>
Ending Balance on August 31, 2019	<u>\$ 375,178.06</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 August 2019

Check Number	Date	Vendor/Payee	Amount	Description
18749				Last check # from prior month's register
18750	8/2/2019	Phillip Frye	224.41	Reimbursement for retiree health benefits by check
18751	8/2/2019	James L. Johnson	187.74	Reimbursement for retiree health benefits by check
18752	8/2/2019	Byron Jones	221.44	Reimbursement for retiree health benefits by check
18753	8/2/2019	BC Laboratories Inc	180.00	Pretreatment sampling (3 invoices)
18754	8/2/2019	Katherine Brouillet	70.54	Employee expense reimbursement: office supplies
18755	8/2/2019	Evoqua Water Tech LLC	10,890.70	Calcium nitrate (1 delivery); deionized water tank rental (2 invoices)
18756	8/2/2019	Hazen and Sawyer	1,151.49	Prof Svcs: Microscopic analysis, June 2019
18757	8/2/2019	Kids Speak Inc	4,000.00	Pub Ed Program: KidSpeak/Fast Forward annual sponsorship (Note B)
18758	8/2/2019	Miller Pacific	2,488.50	Prof Svcs: Landslide Geotechnical Investigation and Design Services, 06/17-07/14/2019
18759	8/2/2019	New York Life Insurance Co	455.11	Life Insurance annual premium
18760	8/2/2019	Novato Chamber	200.00	Pub Ed Program: Novato Scream-on-the-Green participation fee (Note B)
18761	8/2/2019	Ricoh USA Inc	259.35	Lab printer/copier lease, 07/09-08/08/2019
18762	8/2/2019	Thatcher Company of	7,739.15	Ferric Chloride (1 delivery)
18763	8/2/2019	Univar USA Inc	16,763.88	Sodium hypochlorite (3 deliveries), sodium bisulfite (1 delivery)
18764	8/2/2019	Water Environment Federation	263.00	Membership fee (1 employee)
18765	8/2/2019	Wells Fargo Vendor	374.13	Maint printer/copier lease, 07/13-08/12/2019
18766	8/2/2019	Woodland Center Auto Supply	687.86	Oil and filters for Agency vehicles (4 invoices)
18767	8/2/2019	California State Disbursement	250.50	EE Garnishment, PPE 07/27/2019 (Note A)
18768	8/2/2019	ICMA Retirement Trust-457	2,350.00	Deferred compensation contributions, PPE 07/27/2019 (Note A)
18769	8/2/2019	Navia Benefit Solutions	969.01	Flexible spending account, PPE 07/27/2019
18770	8/2/2019	SEIU Local 1021	1,058.63	Union dues, PPE 07/27/2019
18771	8/6/2019	Cropper Accountancy Corp.	5,000.00	Prof Svcs: Auditing services for FY18, first progress payment
18772	8/6/2019	Void	-	
18773	8/6/2019	Institute of Business	265.00	Safety Alert for Supervisors annual subscription renewal
18774	8/6/2019	The Lab Depot	33.79	Supply shelf
18775	8/6/2019	Lystek International LTD	12,859.14	Biosolids beneficial reuse fee, July 2019
18776	8/6/2019	Marin Municipal Water District	50.04	Water service for SD2 PS, 04/10-06/07/2019 (Note B)
18777	8/6/2019	P.G.& E.	76,643.96	Electricity service, 06/17-07/16/2019 (3 invoices)
18778	8/6/2019	Polydyne, Inc.	56,308.33	Clarifloc (1 delivery)
18779	8/6/2019	Praxair Distribution, Inc.	163.18	Oxygen tank refill
18780	8/6/2019	Quenvold's Safety Shoes	3,885.85	Safety shoe purchases from Shoemobile (20 employees)
18781	8/6/2019	Rock Steady Juggling	500.00	Pub Ed Program: Outreach at one school (Note B)
18782	8/6/2019	Anthony Smith	1,000.00	Employee expenses eligible for Agency Delta Dental reimb (04/12/2019)
18783	8/6/2019	Thomas Fish Company	145.75	Rainbow trout for monthly bioassay test, July 2019
18784	8/6/2019	TNT Enterprises	1,700.00	Traffic Control Refresher Training for CMSA, and NSD (Note B)
18785	8/6/2019	USA BlueBook	435.15	Volatile acid testing equipment
18786	8/14/2019	American Integrated Svcs Inc	370.00	Refund for duplicate permit payment
18787	8/14/2019	Aramark Uniform Services	1,165.87	Uniform service, July 2019
18788	8/14/2019	AT&T Dataplan	387.30	Fax and emergency phone service, 08/02-09/01/2019
18789	8/14/2019	Bartley Pump Inc	69,825.00	Primary Clarifiers Gates Rehabilitation project, payment #1, July 2019

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

Check Number	Date	Vendor/Payee	Amount	Description
18790	8/14/2019	Rebecca Brewer	350.00	Employee expense reimb: Associate Safety Professional exam fee
18791	8/14/2019	Comcast	193.38	Internet service, 08/04-09/03/2019
18792	8/14/2019	Dealers Industrial Equipment	1,345.90	Chemical pump VFDs (2 invoices)
18793	8/14/2019	Endress + Hauser, Inc	2,089.40	Radar level transmitters for chemical tanks
18794	8/14/2019	Evoqua Water Tech LLC	40,868.79	Calcium nitrate (2 deliveries); Hydrogen peroxide (2 deliveries); Lab tank rental (2 invoices)
18795	8/14/2019	Fisher Scientific	884.32	Sodium hydroxide, buffers, tubing, vials (8 invoices), June, 2019
18796	8/14/2019	GHD Inc	5,716.75	Prof Svcs: Asset Management Program Evaluation, July 2019; SQPS FY19 CIP - Design of Electrical, Instrumentation, and Mechanical Improvements, July 2019 (Note B) (2 invoices)
18797	8/14/2019	Hach Company	932.81	Nitrification inhibitors, vials, sensor cap, metal probe (4 invoices)
18798	8/14/2019	IDEXX Distribution Inc	983.19	Coliform test packs, July 2019 (5 invoices)
18799	8/14/2019	IEDA, Inc.	837.00	Labor relations consulting, August 2019
18800	8/14/2019	Justifacts Credential	472.75	OIT and ESA Recruitments: Background checks
18801	8/14/2019	Kaman Industrial Technologies	4,771.11	Spare blower motor, drive unit materials (2 invoices)
18802	8/14/2019	Marin Sanitary Service	3,562.15	Solid waste disposal and recycling (3 invoices)
18803	8/14/2019	Marin Office Supply	2,679.01	File cabinet, replacement break room chairs, and office supplies, July 2019
18804	8/14/2019	McInerney & Dillon, P.C.	3,811.50	Legal services, construction/contract law, July 2019 (2 invoices)
18805	8/14/2019	OCCUMETRIC	275.00	OIT Recruitment: Pre-hire medical evaluation
18806	8/14/2019	Ricoh USA Inc	317.99	Admin printer/copier lease, 07/23-08/22/2019
18807	8/14/2019	Waste Management	2,173.17	Redwood Landfill biosolids reuse fee, July 2019
18808	8/14/2019	Watson-Marlow Inc	16,837.81	Digester Pilot Study feed pump; Organic Waste Receiving Facility hose pump spare parts (2 invoices)
18809	8/19/2019	California Public Employee	3,584.00	Contribution to Retiree Health Benefits Trust Fund, August 2019 (Note C)
18810	8/19/2019	California State Disbursement	250.50	EE Garnishment, PPE 08/10/2019 (Note A)
18811	8/19/2019	ICMA Retirement Trust-457	2,400.00	Deferred compensation contributions, PPE 08/10/2019 (Note A)
18812	8/19/2019	Navia Benefit Solutions	969.01	Flexible spending account, PPE 08/10/2019
18813	8/19/2019	SEIU Local 1021	1,058.63	Union dues, PPE 08/10/2019
18814	8/19/2019	Allied Fluid Products Corp	823.88	Centrifuge housing sealing tape
18815	8/19/2019	A & S Landscape Materials, Inc	338.99	Redwood chips
18816	8/19/2019	Automation Direct Co., Inc.	445.29	SD2 PS Maint: Boardwalk A & B panel upgrades (Note B); wire and LED lighting retrofits (3 invoices)
18817	8/19/2019	Christopher J Wilson	218.89	CMSA window envelopes
18818	8/19/2019	CWEA TCP	375.00	Certification renewals and membership fee, 3 employees
18819	8/19/2019	Departmt of Ind Relations	350.00	Annual elevator inspection fee
18820	8/19/2019	Jason Dow	212.50	Employee per diem advance: CASA Annual Conference
18821	8/19/2019	Fisher Scientific	998.06	Sterile solutions, buffers, vials, aerogens (10 invoices), July 2019
18822	8/19/2019	Instrumart	14,426.71	Replacement secondary flow meter
18823	8/19/2019	Jackson's Hardware	1,423.23	Pressure washer and misc. hardware (8 invoices), July 2019
18824	8/19/2019	Kaman Industrial Technologies	1,496.39	Skimmer parts, grid classifier drive, pump reducers (3 invoices)
18825	8/19/2019	Koff & Associates, Inc.	3,750.00	Prof Svcs: ESA and OIT recruitments, Phase 3 (2 invoices)

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

Check Number	Date	Vendor/Payee	Amount	Description
18826	8/19/2019	Kone Inc	295.28	Elevator maintenance, July-August 2019 (2 invoices)
18827	8/19/2019	Lubrication Engineers, Inc.	1,823.79	Oil storage totes for containment system, grease (2 invoices)
18828	8/19/2019	McMaster-Carr Supply Co.	6,658.36	SD2 PS Maint: Boardwalk conduit (2 invoices) (Note B); Digester Pilot Study parts and equipment; lubrication system parts and fittings; misc. parts and supplies (20 invoices)
18829	8/19/2019	Muniquip, Inc.	7,625.64	Digester Pilot Study mixing pumps
18830	8/19/2019	Platt	994.41	Conduit, wire, tape, and misc. tools and supplies (7 invoices)
18831	8/19/2019	Safety-kleen Systems, Inc	1,382.28	Hazardous waste disposal (3 invoices)
18832	8/19/2019	Thomas Fish Company	145.75	Rainbow trout for monthly bioassay test, August 2019
18833	8/19/2019	Water Components & Bldg. Supp.	118.12	Misc. parts and supplies, July 2019
18834	8/19/2019	Watson-Marlow Inc	3,375.10	Digester Pilot Study feed pump
18835	8/19/2019	Western Exterminator Co. Inc.	198.50	Pest control, July 2019
18836	8/19/2019	Websoft Developers, Inc.	12,600.00	Mobile MMS annual subscription
18837-18849	8/27/2019	13 employees	2,600.00	Safety Incentive Program awards (13 employees)
18850	8/28/2019	All Star Rents	128.09	Sod cutter
18851	8/28/2019	Amazon	1,187.65	Computer and office supplies, July 2019
18852	8/28/2019	BC Laboratories Inc	240.00	Pretreatment sampling (2 invoices)
18853	8/28/2019	CAL-CARD	12,171.77	State of California Purchase Card, June-July 2019
18854	8/28/2019	Caltest Analytical Laboratory	3,348.76	Lab analyses, July 2019
18855	8/28/2019	Carollo Engineers, Inc.	72,152.00	Prof Svcs: Design-New Cogeneration System Installation Project, July 2019
18856	8/28/2019	City Electric Supply	19.00	Electrical conduit and supplies, July 2019
18857	8/28/2019	ChemStation of Northern Cal.	3,116.20	Odor control materials
18858	8/28/2019	Dee Consultants LLC	4,750.00	Prof Svcs: Construction management support, 07/01-08/12/2019
18859	8/28/2019	Evoqua Water Tech LLC	30,913.14	Calcium nitrate (2 deliveries), hydrogen peroxide (1 delivery), Lab tank rental (2 invoices)
18860	8/28/2019	So Yun Hwang	1,000.00	Employee expenses eligible for Agency Delta Dental reimb (06/12/2019)
18861	8/28/2019	Marin Fence Inc	6,993.00	Pedestrian gate installation for Marin Airporter parking area access (Note B)
18862	8/28/2019	Michael D Brown	8,239.00	Prof Svcs: Renewable Energy Generation Certification, final payment
18863	8/28/2019	Marin Municipal Water District	2,273.92	Water service (5 invoices)
18864	8/28/2019	Navia Benefit Solutions	51.10	Monthly fee, July, 2019
18865	8/28/2019	Nicola Franceschine	1,200.00	GASB 68 disclosure fee
18866	8/28/2019	Northern Tool & Equipment	998.39	Ground pressure washer, portable winches, misc. equipment (3 invoices), July 2019
18867	8/28/2019	S&S Trucking	12,015.65	Biosolids hauling fee, July 2019
18868	8/28/2019	Ahn Ta	79.02	Employee expense reimb: Break room and office supplies
18869	8/28/2019	Thatcher Company	7,190.17	Ferric chloride (1 delivery)
18870	8/28/2019	Univar USA Inc	16,837.36	Sodium hypochlorite (3 deliveries), sodium bisulfite (1 delivery)
18871	8/28/2019	Woodland Center Auto Supply	369.01	Gauge, motor oil, filter, and battery for Agency vehicles (4 invoices)
18872	8/30/2019	California State Disbursement	250.50	EE Garnishment, PPE 08/24/2019 (Note A)
18873	8/30/2019	ICMA Retirement Trust-457	2,400.00	Deferred compensation contributions, PPE 08/24/2019 (Note A)
18874	8/30/2019	Navia Benefit Solutions	969.01	Flexible spending account, PPE 08/24/2019

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

Check Number	Date	Vendor/Payee	Amount	Description
18875	8/30/2019	SEIU Local 1021	1,058.63	Union dues, PPE 08/24/2019
<u>Payments by Automatic Clearing House:</u>				
	8/2/2019	Lincoln Life Ins	2,184.78	Life insurance, August 2019
	8/2/2019	Vision Service Plan -(CA)	913.35	Vision insurance, August 2019
	8/2/2019	Payments to 26 retirees	7,535.32	Reimbursement for retiree health benefits
	8/2/2019	CalPERS Medical ins	65,301.82	Medical insurance, August 2019
	8/5/2019	NRS/PEHP-3 and Z	8,554.19	Deferred compensation and MARA contribution, PPE 07/27/2019
	8/6/2019	EDD	13,218.39	State & SDI Taxes, PPE 07/27/2019
	8/6/2019	CalPERS	39,204.16	Retirement pension contribution: Agency and employees, PPE 07/27/2019 (Note C)
	8/7/2019	Synagro	3,943.80	Biosolids land application fee, June 2019
	8/15/2019	Dean DiGiovanni	225.00	Stipend for 08/05/2019 Board Evaluation Committee meeting
	8/15/2019	Michael Owen Boorstein	225.00	Stipend for 08/05/2019 Board Evaluation Committee meeting
	8/17/2019	CalPERS	39,204.16	Retirement pension contribution: Agency and employees, PPE 08/10/2019 (Note C)
	8/20/2019	EDD	12,939.04	State & SDI Taxes, PPE 08/10/2019
	8/20/2019	NRS/PEHP-3 and Z	8,654.19	Deferred compensation and MARA contribution, PPE 08/10/2019
	8/28/2019	CF Contracting	146,075.00	Andersen Drive Landslide Repairs project, payment #2
	8/28/2019	Calpers	700.00	Fees for GASB-68 reports and schedules
		Grand Total	980,393.71	

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 July 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: 2.42% at 7/31/19				
b1. Operating Reserve (Unrestricted) (2)	\$ 25,093.56	\$ 25,093.56		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	\$ 375,093.56	\$ 375,093.56	2.1%	
II. Pooled Investments with Local Agency Investment Fund (LAIF)				
Money Market Funds (< 1 year in maturity)				
Local Agency Investment Fund (LAIF): 2.428% at 6/30/19				
a1. Current Operating Fund	\$ 3,172,541.94	\$ 3,172,541.94		
b1. Operating Reserve (Unrestricted) (2)	\$ 3,117,381.44	\$ 3,117,381.44		\$ 3,142,475
c1. Capital Reserves (Restricted) (3)	\$ 1,789,187.00	\$ 1,789,187.00		\$ 991,834
c2. Capital Reserves (Unrestricted) (4)	\$ 9,621,128.00	\$ 9,621,128.00		\$ 7,778,603
Total with LAIF	\$ 17,700,238.38	\$ 17,700,238.38	97.9%	
TOTAL INVESTMENTS	\$ 18,075,331.94	\$ 18,075,331.94	100.0%	

NOTES:

(1) Market values are per the fiscal agent's respective monthly statements

(3) includes capacity charges and debt service coverage

(2) Operating reserves calculated at 25% operating budget

(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 5 646, 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 July 31, 2019

	Monthly Amounts Received (Used)	YTD Amounts Received (Used)
Restricted Capital Reserves Sources and Uses	<u> </u>	<u> </u>
Capacity charges revenue	\$ -	\$ -
Debt coverage collection revenue	799,782	799,782
Total restricted capital reserve funding sources	<u>799,782</u>	<u>799,782</u>
Capacity charges usage for capital (1st)	-	-
Debt coverage usage for capital (2nd)	(3,897)	(3,897)
Total restricted capital reserve uses	<u>(3,897)</u>	<u>(3,897)</u>
Net change		795,885
Balance - beg of year		<u>993,302</u>
Balance - end of year		<u><u>\$ 1,789,187</u></u>
Unrestricted Capital Reserves Sources and Uses		
Capital fee revenue	\$ 255,250	\$ 255,250
Unrestricted operating-reserve-transfer-in	-	-
SRF/FEMA cost reimb proceeds received	106,758	106,758
Total unrestricted capital reserve funding sources	<u>362,008</u>	<u>362,008</u>
Capital fee usage to fund CIP (3rd)	-	-
Unrestricted capital reserve draw (4th)	-	-
Total unrestricted capital reserve uses	<u>-</u>	<u>-</u>
Net change		362,008
Balance - beg of year		<u>9,259,120</u>
Balance - end of year		<u><u>\$ 9,621,128</u></u>
Total capital reserve balances		<u><u>\$ 11,410,315</u></u>
Total approved CIP budget		\$ 3,900,626
Total CIP funded from capital reserve sources		<u>(3,897)</u>
Total approved capital budget remaining		<u><u>\$ 3,896,729</u></u>

CENTRAL MARIN SANITATION AGENCY
SCHEDULE OF INVESTMENTS
As of the Month Ended August 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: 2.28% at 8/31/19				
b1. Operating Reserve (Unrestricted) (2)	\$ 25,821.28	\$ 25,821.28		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	\$ 375,821.28	\$ 375,821.28	2.2%	
II. Pooled Investments with Local Agency Investment Fund (LAIF)				
Money Market Funds (< 1 year in maturity)				
Local Agency Investment Fund (LAIF): 2.379% at 7/31/19				
a1. Current Operating Fund	\$ 2,601,351.66	\$ 2,601,351.66		
b1. Operating Reserve (Unrestricted) (2)	\$ 3,116,653.72	\$ 3,116,653.72		\$ 3,142,475
c1. Capital Reserves (Restricted) (3)	\$ 1,461,105.00	\$ 1,461,105.00		\$ 991,834
c2. Capital Reserves (Unrestricted) (4)	\$ 9,621,128.00	\$ 9,621,128.00		\$ 7,778,603
Total with LAIF	\$ 16,800,238.38	\$ 16,800,238.38	97.8%	
TOTAL INVESTMENTS	\$ 17,176,059.66	\$ 17,176,059.66	100.0%	

NOTES:

(1) Market values are per the fiscal agent's respective monthly statements

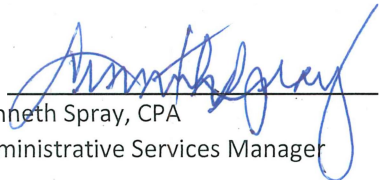
(2) Operating reserves calculated at 25% operating budget

(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 August 31, 2019

	Monthly Amounts Received (Used)	YTD Amounts Received (Used)
Restricted Capital Reserves Sources and Uses	<u> </u>	<u> </u>
Capacity charges revenue	\$ 20,568	\$ 20,568
Debt coverage collection revenue	-	799,782
Total restricted capital reserve funding sources	<u>20,568</u>	<u>820,350</u>
Capacity charges usage for capital (1st)	(20,568)	(20,568)
Debt coverage usage for capital (2nd)	(328,082)	(331,979)
Total restricted capital reserve uses	<u>(348,650)</u>	<u>(352,547)</u>
Net change		467,803
Balance - beg of year		<u>993,302</u>
Balance - end of year		<u><u>\$ 1,461,105</u></u>
Unrestricted Capital Reserves Sources and Uses		
Capital fee revenue	\$ -	\$ 255,250
Unrestricted operating-reserve-transfer-in	-	-
SRF/FEMA cost reimb proceeds received	-	106,758
Total unrestricted capital reserve funding sources	<u>-</u>	<u>362,008</u>
Capital fee usage to fund CIP (3rd)	-	-
Unrestricted capital reserve draw (4th)	-	-
Total unrestricted capital reserve uses	<u>-</u>	<u>-</u>
Net change		362,008
Balance - beg of year		<u>9,259,120</u>
Balance - end of year		<u><u>\$ 9,621,128</u></u>
Total capital reserve balances		<u><u>\$ 11,082,233</u></u>
Total approved CIP budget		\$ 3,900,626
Total CIP funded from capital reserve sources		<u>(352,547)</u>
Total approved capital budget remaining		<u><u>\$ 3,548,079</u></u>



BOARD MEMORANDUM

August 6, 2019

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager

Approved: Jason Dow, General Manager

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

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

I. NPDES Permit Compliance

Our NPDES permit testing for July 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 July 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 3.0 MPN, well below our monthly limit of 35 MPN.

II. Influent Flow

July in central Marin County was marked by periods of fog, wind, and for a few days this past month, periods of high heat. It remained very dry with no precipitation recorded by the Agency's rain gauge. The treatment plant's average daily influent flow was 8.8 MGD.

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

July Monthly Influent Flows	San Rafael (SRSD)	Ross Valley (RVSD)	San Quentin (SQSP)	Corte Madera (SD#2)	CMSA Plant Total
Average Daily (MGD)	3.4 MGD	4.0 MGD	0.47 MGD	0.99 MGD	8.8 MGD
Total for Month (MG)	105.2 MG	123.2 MG	14.5 MG	29.5 MG	272.8 MG
Percent of Flow	39.0 %	45.0 %	5.0 %	11.0 %	100 %

III. Treatment Process

Annual preventative maintenance was performed in the fourth and final secondary clarifier, and aeration basins were rotated to allow maintenance to replace two influent gates in Aeration Basin No. 1. The chlorine contact tanks (CCT) are the final major process tanks requiring maintenance and are set to receive their annual inspections and upkeep beginning in mid-August. Contact tanks Nos. 5 and 6 will remain offline after maintenance to undergo a pipe coating project that is tentatively scheduled to begin in late August and be completed by the end of October. As mentioned in last month's report primary clarifiers Nos. 6 and 7 are expected to remain in service for the majority of the dry weather season as the Primary Gates Rehabilitation Project, which affects Primary Clarifiers Nos. 1 – 5, gets underway. The contractor working on the project has been coordinating lock-out tagout and channel isolation work with the operations staff.

The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1,093 mg/l in July, a very slight decrease in inventory from last month. This aligned with our target biomass concentration range of 1,100 to 1,200 mg/L.

Graph No. 3 shows the coliform most probable number (MPN), which represents the effectiveness of the disinfection process. One of the thirteen coliform samples collected in July (7/6 = 130 MPN) was higher than our monthly KPI of 30 MPN, but well below our daily permit limit of 10,000 MPN. The higher than normal coliform sample on July 6 is most attributable to taking process tanks in and out of service for annual preventative maintenance. The total coliform monthly geometric mean for July was 2.1 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 July was 6.4 mg/l, which is 43.0% of our Key Performance Indicator (KPI) of 15 mg/l, and is 21.0% of our permit's monthly average limit of 30 mg/l.

IV. Maintenance Activities

The cogeneration system was out of service the entire month of July, a result of the catastrophic failure that occurred on May 30. MCE supplied all of the power required to operate the facility this past month, as indicated on Graph No. 8.

The majority of July's work activities were spent performing annual process equipment preventative maintenance. In addition, work included replacing the primary tank drain system cleanout access flange; replacing a broken flush water valve on the reclaimed water system; repairing a leaking camlock fitting on hypochlorite storage tank No. 1; repairing two flat tires on Agency vehicles and a sticking throttle on the telehandler; and technicians installed and tested mixing pumps, piping, and instruments on the pilot digester system. Maintenance technicians also completed the installation of all five new primary clarifier main drive gearboxes and motors.

Attachment:

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

NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

July 2019



Pilot Digester System
Technicians fine-tune equipment settings prior to full scale operation.

Monthly Compliance Summary Table

Central Marin Sanitation Agency

July, 2019

Final Effluent Monitoring

Parameter	Frequency	Units	Results	Limit
Carbonaceous BOD Highest Weekly Average	Weekly	mg/L	7.0	Maximum 40
Carbonaceous BOD Monthly Average	Monthly	mg/L	5.3	Maximum 25
Carbonaceous BOD Monthly Removal Rate	Monthly	%	98.5	Minimum 85
Total Suspended Solids Highest Weekly Average	Weekly	mg/L	6.9	Maximum 45
Total Suspended Solids Monthly Average	Monthly	mg/L	6.4	Maximum 30
Total Suspended Solids Monthly Removal Rate	Monthly	%	98.6	Minimum 85
Chlorine Residual Instant Limit	Instant	mg/L	ND	Maximum 0.0
Ammonia Monthly Average	Monthly	mg/L	37.8	Maximum 60
Ammonia Maximum Daily	Daily	mg/L	37.8	Maximum 120
pH Lower Limit	Continuous	SU	6.3	Minimum 6
pH Upper Limit	Continuous	SU	7.3	Maximum 9
Bacteriological Analysis				
Total Coliform Monthly Geometric Mean	3 X Week	MPN/100mL	2.1	Maximum 240
Total Coliform Daily Maximum	3 X Week	MPN/100mL	130.0	Maximum 10,000
Enterococcus Quarterly Geometric Mean	Quarterly	MPN/100mL	3.1	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	5.3	Maximum 85
Copper Monthly Average	Monthly	ug/L	5.3	Maximum 49
Cyanide Daily Limit	Monthly	ug/L	J1.6	Maximum 41
Cyanide Monthly Average	Monthly	ug/L	J1.6	Maximum 21
Mercury Weekly Average	Weekly	ug/L	0.0031	Maximum 0.072
Mercury Monthly Average	Monthly	ug/L	0.0031	Maximum 0.066
Mercury Monthly Loading	Monthly	kg/mo	0.00259	
Mercury Annual Loading (watershed permit)	Jan-Dec	kg/yr	0.07712	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	8.2	13.4	15.5	7.1
Influent Flow	9.6	12.2	20.5	8.8
# Days Blended				0

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

Glossary of Terms

NPDES Permit Compliance Summary Table

- **Ammonia:** CMSA's NPDES permit requires that we analyze the final effluent for ammonia due to its toxicity to aquatic organisms and potential for providing nutrients to algae in the San Francisco Bay. The permit has a maximum daily limit of 120 mg/L and a monthly average limit of 60 mg/L. The maximum daily limit is the number that cannot be exceeded on any sample and the monthly average applies to all samples collected in any month (although typically we are required to take only one sample).
- **Biochemical Oxygen Demand (BOD):** The amount of dissolved oxygen needed by microorganisms (biomass) to stabilize organic material in the effluent. The permit limits for our effluent require that removal of 85% influent BOD, and meet a weekly average of less than 40 mg/L and a monthly average of less than 25 mg/L BOD.
- **Chlorine Residual:** The secondary effluent is disinfected with hypochlorite (chlorine "bleach"), and then the residual chlorine is neutralized with sodium bisulfite to protect the Bay environment. The final effluent chlorine residual limit is 0.0 mg/l, which is monitored continuously.
- **Bacteria:** Coliform and enterococcus bacteria are the indicator organisms for the determination of the effectiveness of the disinfection process.
- **Dioxin - Total 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.

EXECUTIVE SUMMARY PROCESS PERFORMANCE DATA
July 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:	390.9	mg/l	<i>Expected removal efficiencies as outlined in Metcalf & Eddy Wastewater Engineering Manual.</i>
Average TSS out:	121.6	mg/l	
Average Percent Removal Achieved:	75.1	%	Design 50-70% Removal
Average Total Carbonaceous Biochemical Oxygen Demand (CBOD) in:	366.4	mg/l	
Average CBOD out:	179.8	mg/l	
Average Percent Removal Achieved:	50.6	%	Design 25-40% Removal
Average Plant Influent Flows:	8.8	MGD	

BIOTOWER PERFORMANCE

Average TSS out:	121.5	mg/l	
Average CBOD out:	63.3	mg/l	
Average Percent CBOD Removal Achieved:	64.7	%	Design 25-30% Removal

AERATION TANKS/ACTIVATED SLUDGE

Dissolved Oxygen set point:	2.2	mg/l
Average MLSS:	1,093	mg/l
Average MCRT:	3.20	Days
Average SVI:	180	

SECONDARY CLARIFIERS

Average WAS concentration:	6,440	mg/l
Average TSS out:	7.6	mg/l

FINAL EFFLUENT

Average Effluent TSS for the month:	6.4	mg/l	(Maximum Limit: 30mg/l)
Week #1 weekly average	5.4	mg/l	(Maximum Limit: 45mg/l)
Week #2 weekly average	5.9	mg/l	"
Week #3 weekly average	6.4	mg/l	"
Week #4 weekly average	6.9	mg/l	
Week #5 weekly average	N/A	"	
Monthly average TSS removal efficiency through the plant:	98.6	%	(Minimum Limit: 85%)

Average Effluent CBOD:	5.3	mg/l	(Maximum Limit: 25mg/l)
Week #1 weekly average	4.0	mg/l	(Maximum Limit: 40mg/l)
Week #2 weekly average	4.0	mg/l	"
Week #3 weekly average	5.7	mg/l	"
Week #4 weekly average	7.0	mg/l	"
Week #5 weekly average	N/A		
Monthly average CBOD removal efficiency through the plant:	98.5	%	(Minimum Limit: 85%)

Disinfection Dosing Rate:	3.9	mg/l	monthly average
Total Coliform Monthly Geometric Mean:	2.1	MPN	(Maximum 240)
The Daily Maximum Total Coliform Count for the month:	130.0	MPN	(Maximum 10,000)
Enterococcus Monthly Geometric Mean:	3.0	MPN	(Maximum 35 MPN)
Effluent pH for the month was:	Min	6.3	MPN (Min 6.0)
	Max	7.3	MPN (Max 9.0)

DIGESTER TREATMENT

Average Thickened Waste Concentration from the RDT:	6.7	%	
Average percent of Volatile Solids destroyed:	84.7	%	
Cubic feet of biogas produced:	7,187,420 (Total)		231.852 (Daily Average)
Average temperature of the digester:	102.0	degrees Fahrenheit	

EXECUTIVE SUMMARY PROCESS PERFORMANCE DATA

July 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:	2.7	%
Average Biosolids concentration:	26.0	%
Average TSS of the Centrate:	277	mg/l
Solids capture of the Centrifuge:	99.1	%
Polymer use per Dry ton of biosolids:	13.17	#/dry ton
Average polymer feed rate per run:	3.72	gpm
Average concentration of the polymer batches:	0.328	%
Average sludge feed rate per run:	52.1	gpm

Comments:

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

Graph #1:

Depicts the total influent flow (from all collection agencies) entering the treatment plant.

The red graph line represents total influent flows; and the black graph line depicts the CMSA Headworks rain gauge recordings for the month.

Graph #2:

Depicts individual collection member agency flows.

The Y-axis is in the dry weather flow range of 0-30 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 2.1 MPN through July, which is less than our KPI median of 30 MPN and permit limit of 240 MPN. The higher than normal value on July 6 was due to taking process tanks in and out of service for annual preventative maintenance.

Graph #4:

Depicts the total suspended solids in the effluent.

Our monthly average was 6.4 mg/l versus our KPI of 15 mg/l and permit monthly average limit of 30 mg/l.

Graph #5:

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

The July effluent CBOD average was 5.1 mg/l, well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month.

Graph #6:

Depicts the degree to which the biosolids have been dewatered.

Our biosolids % concentration exceeded our KPI of 25% for 26 days of the 31 days in July.

The lower % biosolids concentration results were attributed to staff conducting performance testing to determine if reducing ferric chloride affects biosolids concentration and/or centrate quality. No dewatering operation occurred on July 9 and July 16, as depicted on the graph.

Graph #7:

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

Biogas production in July averaged 231,852 cubic feet per day, which exceeded our monthly KPI of 200,000 cubic feet per day.

Biogas flow adjustments to the waste gas burner attributed the fluctuations in measured gas usage above and below our KPI indication line.

Graph #8:

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

The cogeneration engine was offline for the entire month of July as depicted on the graph.

Glossary of Terms Process Performance Data Sheet

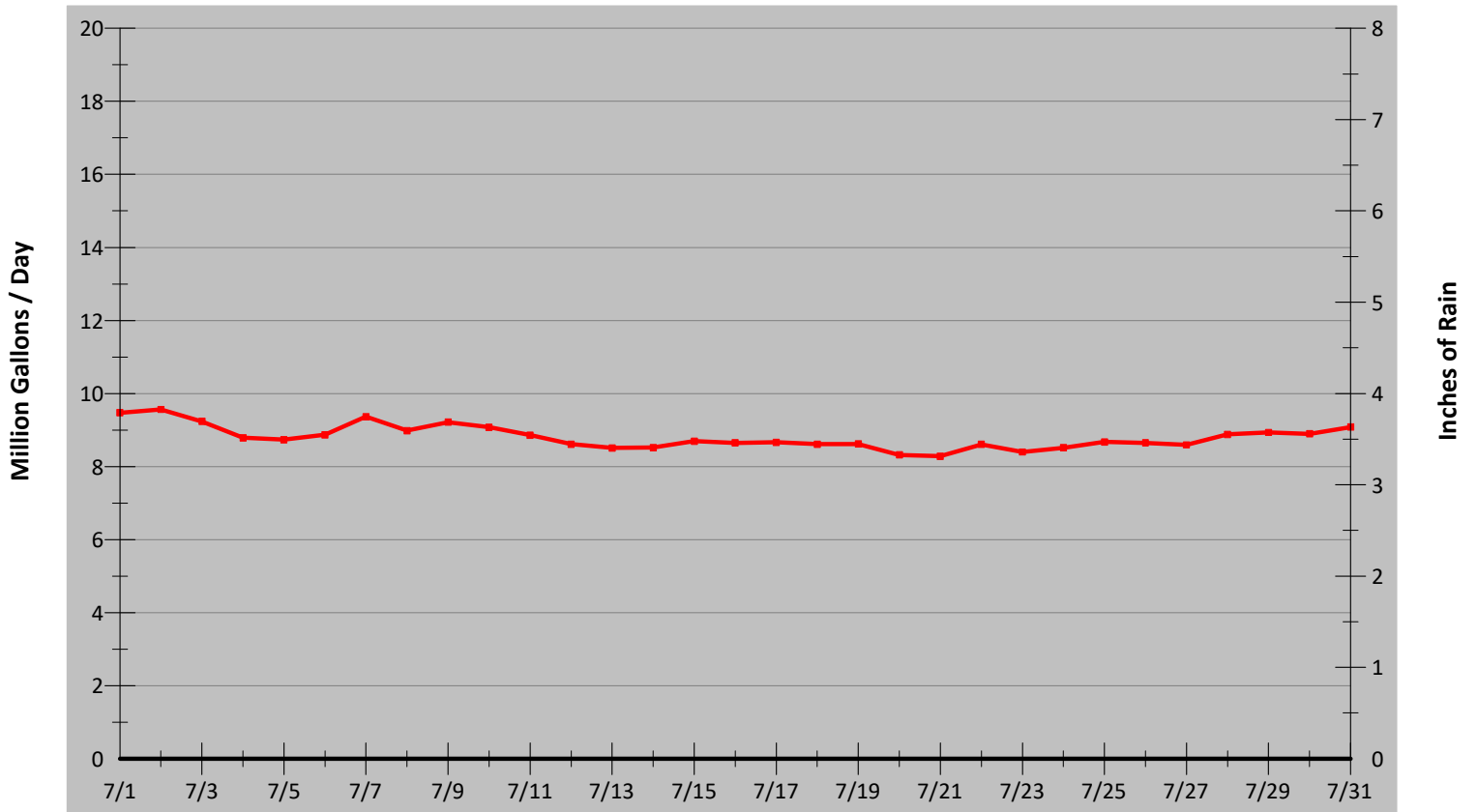
- **Aeration Tanks:** A biological process that takes place after the biotowers, where biomass (microorganisms) is mixed with the wastewater to feed on dissolved and suspended organic material. High speed blowers are used to provide compressed air to mix the tank contents.
- **Anaerobic Digesters:**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

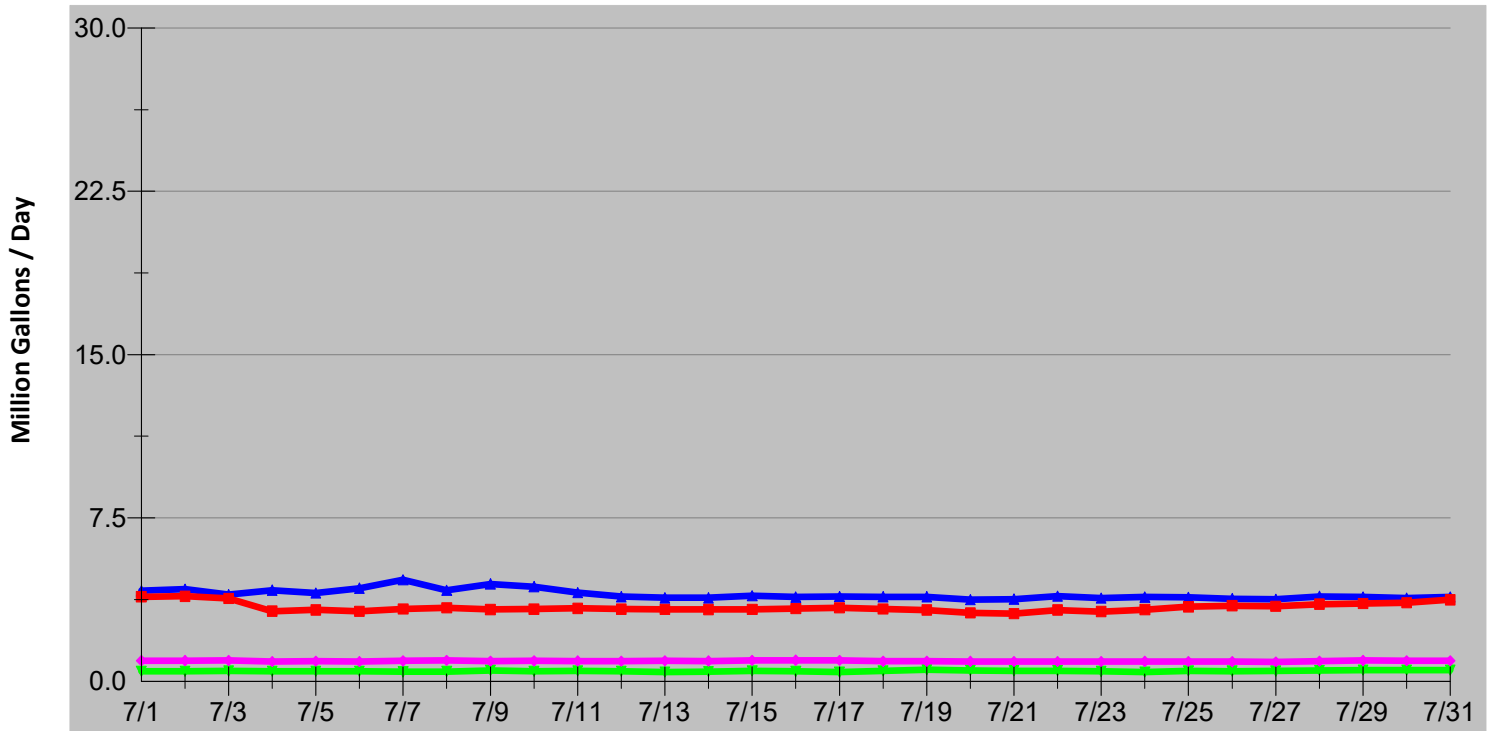


Date (7/1/2019 to 7/31/2019)

■ Flow (Daily Average) ◆ Rainfall

(#1) CMSA Influent Flow

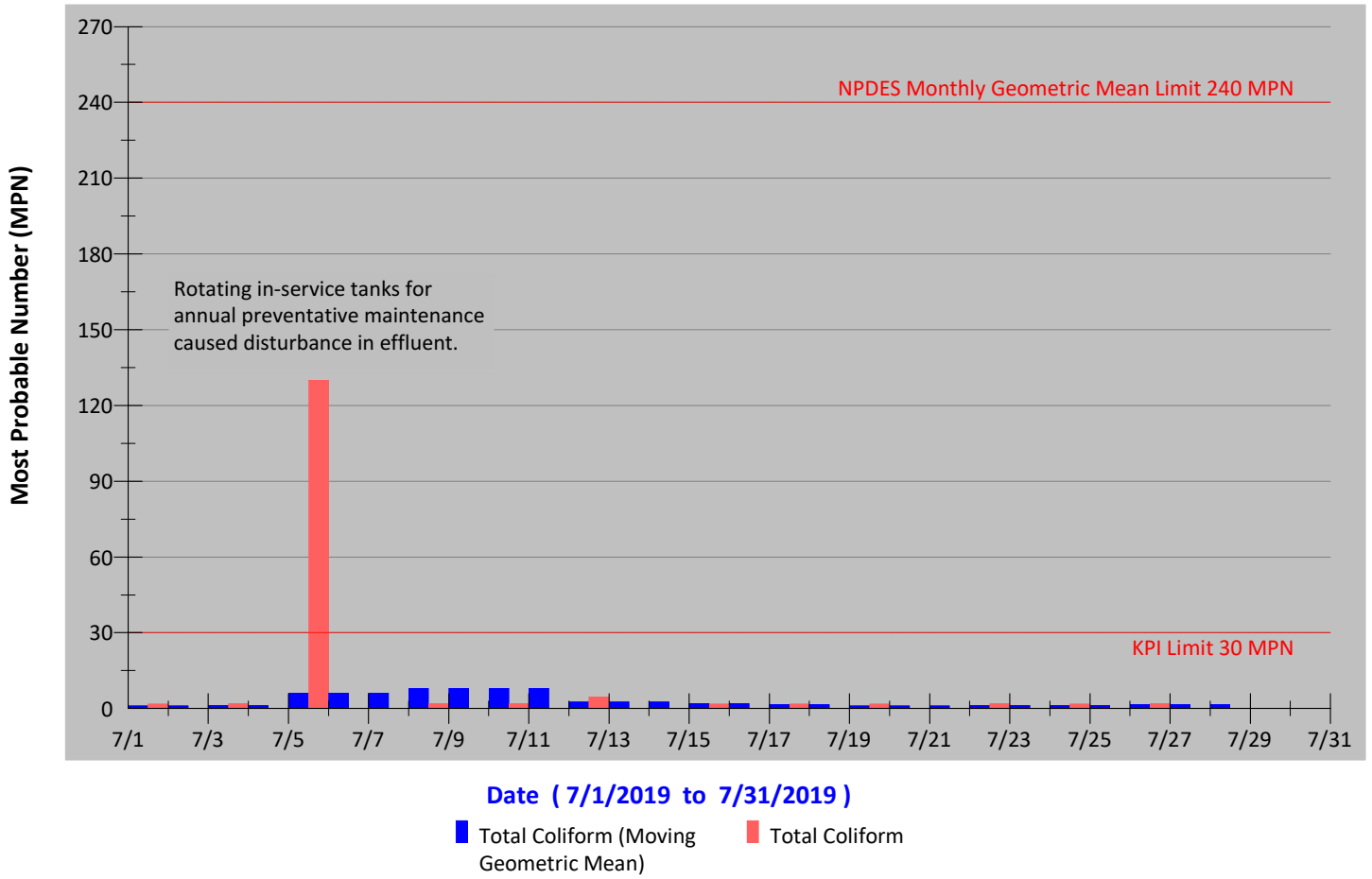
Graph #2: Collection System Influent Flows



Date (7/1/2019 to 7/31/2019)

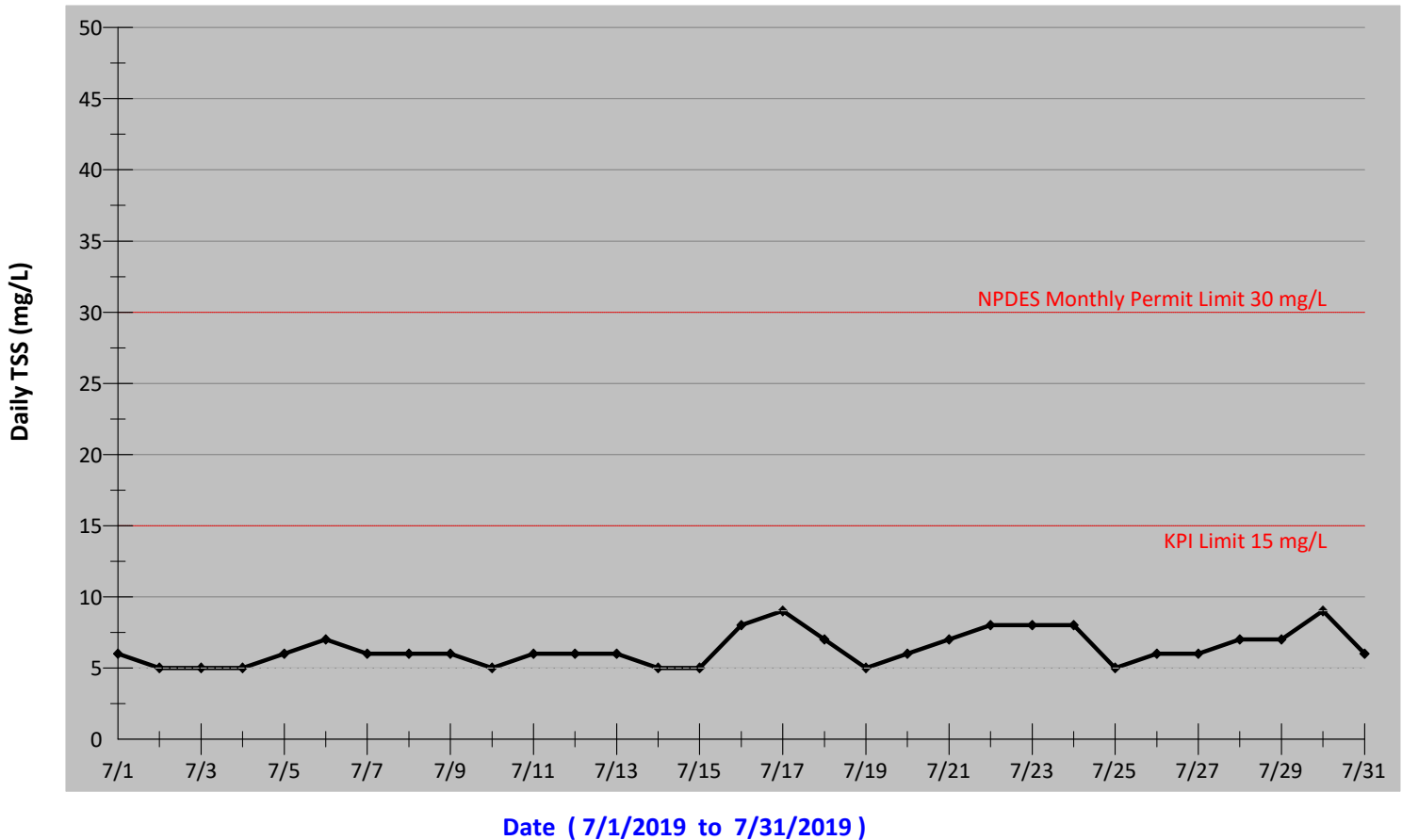
▲ RVSD Flow (Daily Average) ■ SRSD Flow (Daily Average) ▼ SQ Flow (Daily Average) ◆ SD#2 Flow (Daily Average -Par)

Graph #3: Total Coliform & Monthly Geometric Mean



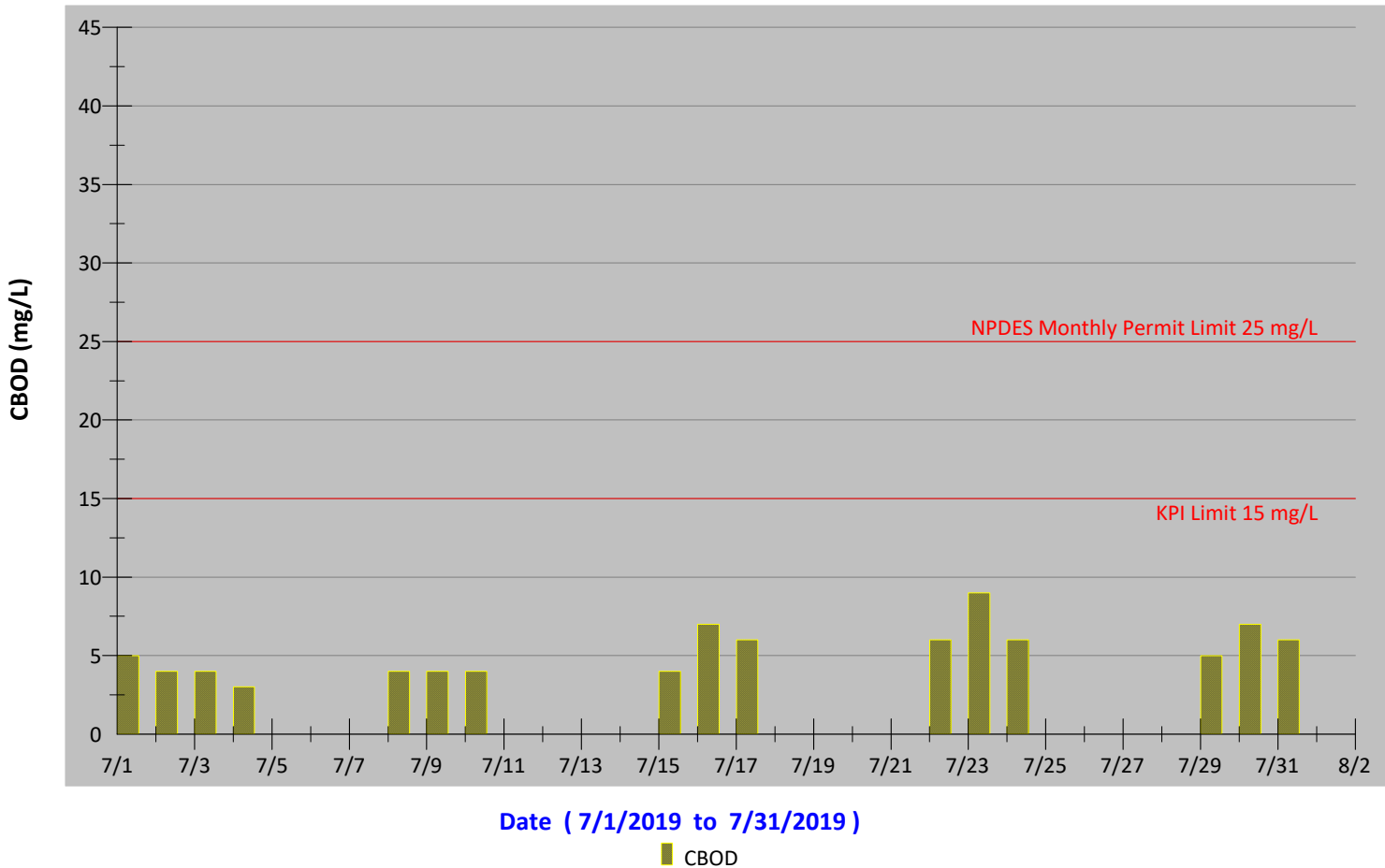
(#3) Total Coliform & Monthly Geometric Mean

Graph #4: Effluent Total Suspended Solids (TSS)



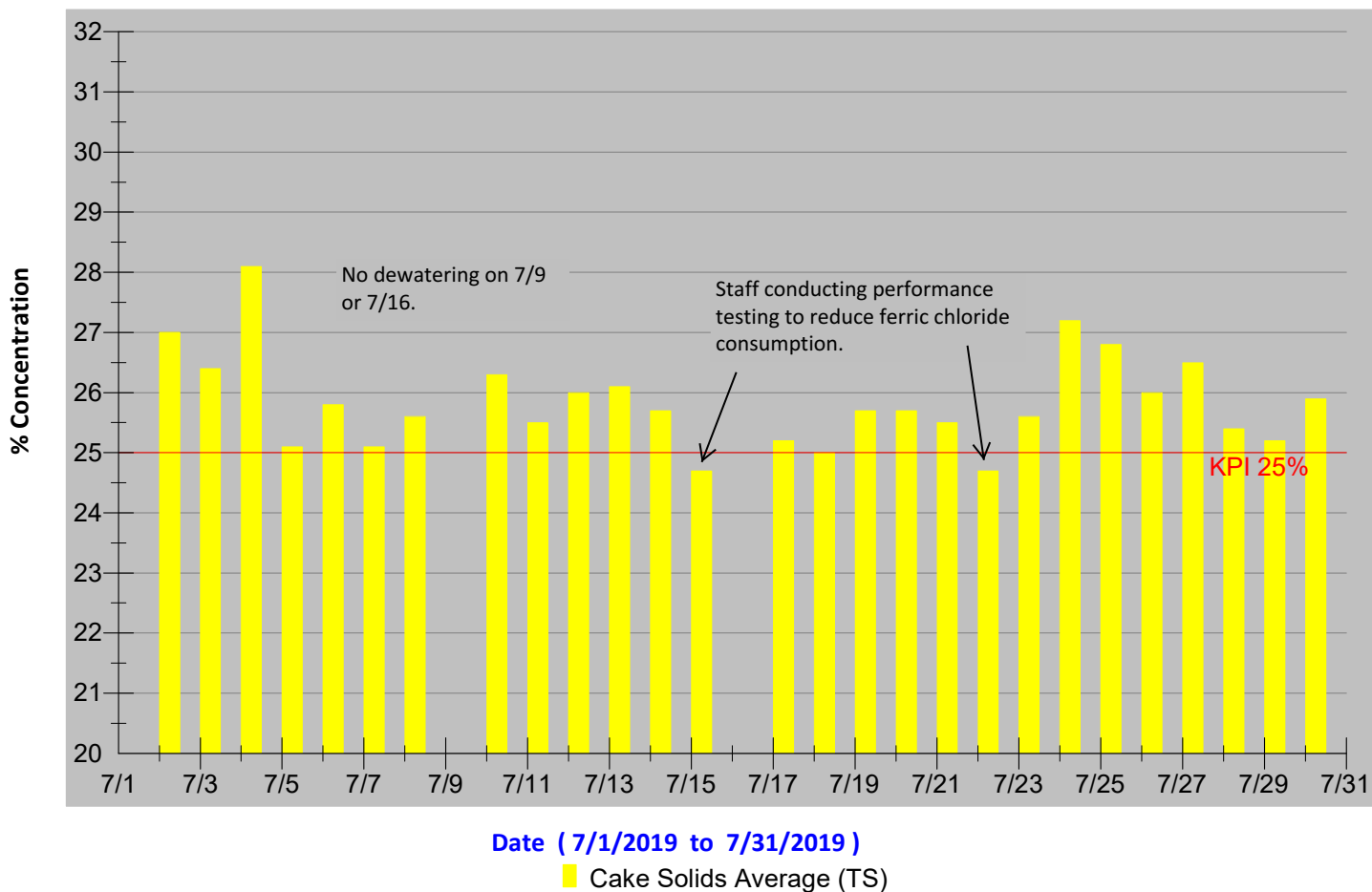
(#4) Effluent Total Suspended Solids (TSS)

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



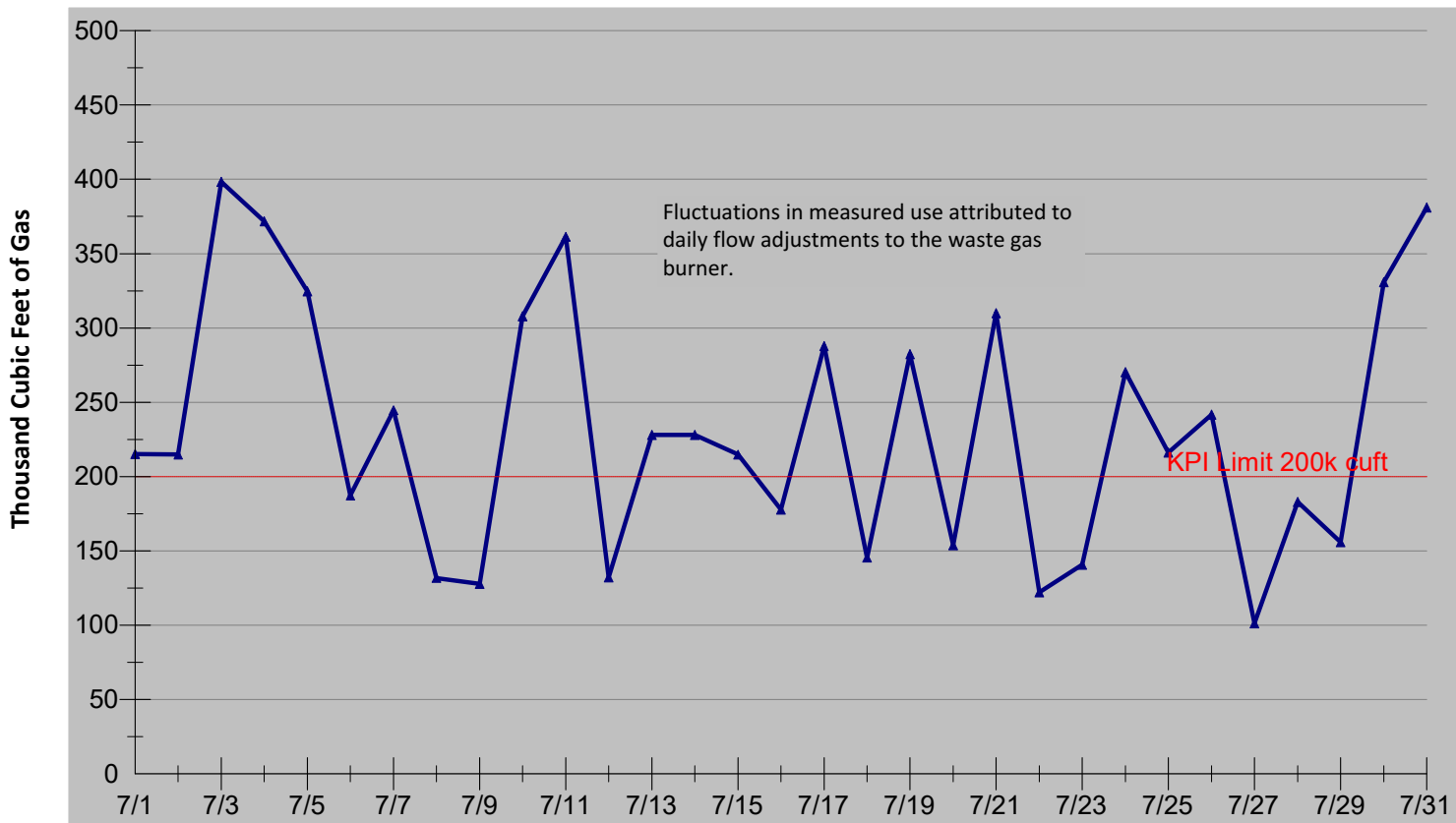
(#5) Effluent Carbonaceous Biological Oxygen Demand (CBOD)

Graph #6: Biosolids Concentration



(#6) Biosolids Concentration

Graph #7: Biogas Production (Measured Use)

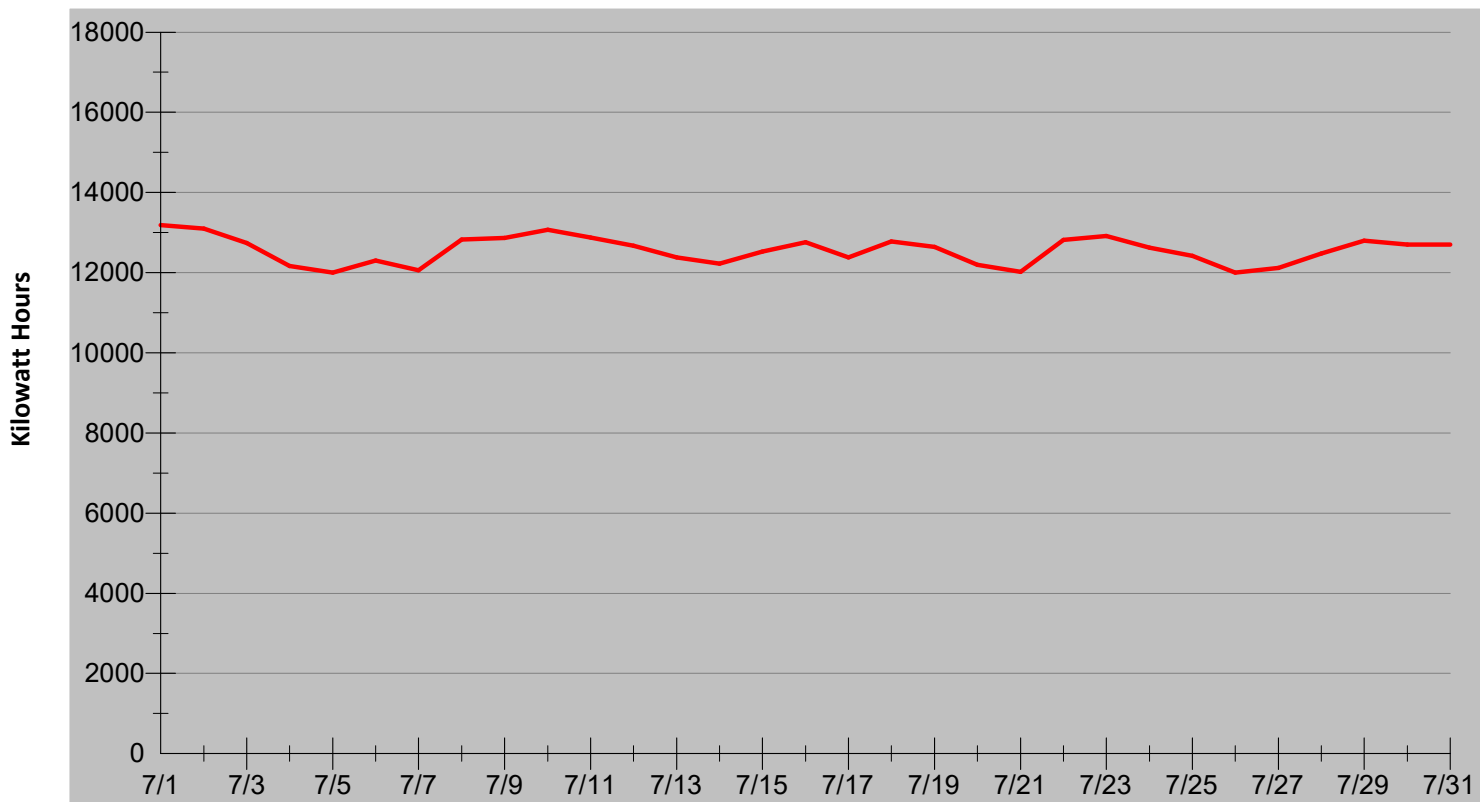


Date (7/1/2019 to 7/31/2019)

▲ Biogas Produced

(#7) Biogas Production

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



Date (7/1/2019 to 7/31/2019)

▲ Kilowatts Produced ▲ Utility Export ▲ Utility Import



BOARD MEMORANDUM

September 5, 2019

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager

Approved: Jason Dow, General Manager

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

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

I. NPDES Permit Compliance

Our NPDES permit testing for August 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 August 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 3.1 MPN, well below our monthly limit of 35 MPN.

II. Influent Flow

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

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

August Monthly Influent Flows	San Rafael (SRSD)	Ross Valley (RVSD)	San Quentin (SQSP)	Corte Madera (SD#2)	CMSA Plant Total
Average Daily (MGD)	3.3 MGD	3.9 MGD	0.45 MGD	0.96 MGD	8.6 MGD
Total for Month (MG)	101.9 MG	122.2 MG	14.1 MG	29.7 MG	267.9 MG
Percent of Flow	38.0 %	46.0 %	5.0 %	11.0 %	100 %

III. Treatment Process

Annual preventative maintenance was performed in all of the chlorine contact basins, 25 defective membrane diffusers were replaced in Aeration Basin No. 3, and the Agency also diverted flow to the effluent storage pond while design engineers for the new cogeneration system inspected the standby generators electrical control cabinet. This allowed them to work safely and CMSA avoided any potential NPDES permit issues from potential power disruptions. Staff has also been learning how to operate the two pilot digesters and is creating operating procedures before full-scale testing is started.

The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1,016 mg/l in August, a very slight decrease in inventory from last month. This aligned with our target biomass concentration range of 1,100 to 1,200 mg/L.

Graph No. 3 shows the coliform most probable number (MPN), which represents the effectiveness of the disinfection process. All twelve coliform samples collected in August were below our monthly KPI of 30 MPN, and well below our daily permit limit of 10,000 MPN. The total coliform monthly geometric mean for August was 1.4 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 August was 4.5 mg/l, which is 30.0% of our Key Performance Indicator (KPI) of 15 mg/l, and is 15.0% of our permit's monthly average limit of 30 mg/l.

IV. Maintenance Activities

The cogeneration system was out of service the entire month of August, and MCE supplied all of the power required to operate the Agency's facilities, as indicated on Graph No. 8. A bit of good news, on August 26 Assistant Maintenance Supervisor Kevin Lewis flew to Columbus, Ohio to observe the operational testing of our cogeneration engine which was refurbished by Kraft Power Inc. After a successful test run, the cogeneration engine was loaded onto a truck transport and arrived at CMSA on August 28. Our staff, along with contractor Peterson Cat, is working to get this engine coupled to the generator and up-and-running by early September.

The majority of August's work activities were spent performing annual process equipment preventative maintenance. In addition, technicians replaced two influent gates in Aeration Basin No. 1; replaced one of the two secondary system flow meters; replaced two 30" diameter flexible couplers in the biotower basement; repaired a leaking mud valve in one of the chlorine contact tanks; and installed and tested feed pumps, piping, and instruments on the pilot digester system. Utility workers also completed coating all five new primary clarifier main drive gearboxes and motors.

Attachment:

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

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



Cogeneration engine being unloaded and inspected prior to installation.

Monthly Compliance Summary Table

Central Marin Sanitation Agency

August, 2019

Final Effluent Monitoring

Parameter	Frequency	Units	Results	Limit
Carbonaceous BOD Highest Weekly Average	Weekly	mg/L	6.0	Maximum 40
Carbonaceous BOD Monthly Average	Monthly	mg/L	4.3	Maximum 25
Carbonaceous BOD Monthly Removal Rate	Monthly	%	98.6	Minimum 85
Total Suspended Solids Highest Weekly Average	Weekly	mg/L	5.9	Maximum 45
Total Suspended Solids Monthly Average	Monthly	mg/L	4.5	Maximum 30
Total Suspended Solids Monthly Removal Rate	Monthly	%	98.9	Minimum 85
Chlorine Residual Instant Limit	Instant	mg/L	ND	Maximum 0.0
Ammonia Monthly Average	Monthly	mg/L	38.6	Maximum 60
Ammonia Maximum Daily	Daily	mg/L	38.6	Maximum 120
pH Lower Limit	Continuous	SU	6.6	Minimum 6
pH Upper Limit	Continuous	SU	7.4	Maximum 9
Bacteriological Analysis				
Total Coliform Monthly Geometric Mean	3 X Week	MPN/100mL	1.4	Maximum 240
Total Coliform Daily Maximum	3 X Week	MPN/100mL	7.8	Maximum 10,000
Enterococcus Quarterly Geometric Mean	Quarterly	MPN/100mL	3.1	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	3.9	Maximum 85
Copper Monthly Average	Monthly	ug/L	3.9	Maximum 49
Cyanide Daily Limit	Monthly	ug/L	J1.4	Maximum 41
Cyanide Monthly Average	Monthly	ug/L	J1.4	Maximum 21
Mercury Weekly Average	Weekly	ug/L	0.0024	Maximum 0.072
Mercury Monthly Average	Monthly	ug/L	0.0024	Maximum 0.066
Mercury Monthly Loading	Monthly	kg/mo	0.00189	
Mercury Annual Loading (watershed permit)	Jan-Dec	kg/yr	0.07901	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	7.7	12.5	15.3	6.8
Influent Flow	9.3	13.2	19.0	8.6
# Days Blended				0

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

Glossary of Terms

NPDES Permit Compliance Summary Table

- **Ammonia:** CMSA's NPDES permit requires that we analyze the final effluent for ammonia due to its toxicity to aquatic organisms and potential for providing nutrients to algae in the San Francisco Bay. The permit has a maximum daily limit of 120 mg/L and a monthly average limit of 60 mg/L. The maximum daily limit is the number that cannot be exceeded on any sample and the monthly average applies to all samples collected in any month (although typically we are required to take only one sample).
- **Biochemical Oxygen Demand (BOD):** The amount of dissolved oxygen needed by microorganisms (biomass) to stabilize organic material in the effluent. The permit limits for our effluent require that removal of 85% influent BOD, and meet a weekly average of less than 40 mg/L and a monthly average of less than 25 mg/L BOD.
- **Chlorine Residual:** The secondary effluent is disinfected with hypochlorite (chlorine "bleach"), and then the residual chlorine is neutralized with sodium bisulfite to protect the Bay environment. The final effluent chlorine residual limit is 0.0 mg/l, which is monitored continuously.
- **Bacteria:** Coliform and enterococcus bacteria are the indicator organisms for the determination of the effectiveness of the disinfection process.
- **Dioxin - Total 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.

EXECUTIVE SUMMARY PROCESS PERFORMANCE DATA
August 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:	451.1	mg/l	Expected removal efficiencies as outlined in Metcalf & Eddy Wastewater Engineering Manual.
Average TSS out:	123.1	mg/l	
Average Percent Removal Achieved:	71.1	%	Design 50-70% Removal
Average Total Carbonaceous Biochemical Oxygen Demand (CBOD) in:	328.4	mg/l	
Average CBOD out:	149.6	mg/l	
Average Percent Removal Achieved:	53.3	%	Design 25-40% Removal
Average Plant Influent Flows:	8.6	MGD	

BIOTOWER PERFORMANCE

Average TSS out:	108.2	mg/l	
Average CBOD out:	48.1	mg/l	
Average Percent CBOD Removal Achieved:	67.9	%	Design 25-30% Removal

AERATION TANKS/ACTIVATED SLUDGE

Dissolved Oxygen set point:	2.2	mg/l
Average MLSS:	1,016	mg/l
Average MCRT:	3.38	Days
Average SVI:	152	

SECONDARY CLARIFIERS

Average WAS concentration:	6,163	mg/l
Average TSS out:	6.3	mg/l

FINAL EFFLUENT

Average Effluent TSS for the month:	4.5	mg/l	(Maximum Limit: 30mg/l)
Week #1 weekly average	5.9	mg/l	(Maximum Limit: 45mg/l)
Week #2 weekly average	4.9	mg/l	"
Week #3 weekly average	4.6	mg/l	"
Week #4 weekly average	4.9	mg/l	"
Week #5 weekly average	4.1	mg/l	"
Monthly average TSS removal efficiency through the plant:	98.9	%	(Minimum Limit: 85%)

Average Effluent CBOD:	4.3	mg/l	(Maximum Limit: 25mg/l)
Week #1 weekly average	6.0	mg/l	(Maximum Limit: 40mg/l)
Week #2 weekly average	3.0	mg/l	"
Week #3 weekly average	3.7	mg/l	"
Week #4 weekly average	5.3	mg/l	"
Week #5 weekly average	5.3	mg/l	"
Monthly average CBOD removal efficiency through the plant:	98.6	%	(Minimum Limit: 85%)

Disinfection Dosing Rate:	3.2	mg/l	monthly average
Total Coliform Monthly Geometric Mean:	1.4	MPN	(Maximum 240)
The Daily Maximum Total Coliform Count for the month:	7.8	MPN	(Maximum 10,000)
Enterococcus Monthly Geometric Mean:	N/A	MPN	(Maximum 35 MPN)
Effluent pH for the month was:	Min	6.6	MPN (Min 6.0)
	Max	7.4	MPN (Max 9.0)

DIGESTER TREATMENT

Average Thickened Waste Concentration from the RDT:	6.6	%	
Average percent of Volatile Solids destroyed:	85.1	%	
Cubic feet of biogas produced:	8,015,320 (Total)		258,559 (Daily Average)
Average temperature of the digester:	102.0	degrees Fahrenheit	

EXECUTIVE SUMMARY PROCESS PERFORMANCE DATA

August 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:	26.2	%
Average TSS of the Centrate:	229	mg/l
Solids capture of the Centrifuge:	99.2	%
Polymer use per Dry ton of biosolids:	12.20	#/dry ton
Average polymer feed rate per run:	3.78	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 Headworks rain gauge recordings for the month.

Graph #2:

Depicts individual collection agency flows.

The Y-axis is in the dry weather flow range of 0-12 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 1.4 MPN through August, which is less than our KPI median of 30 MPN and permit limit of 240 MPN.

Graph #4:

Depicts the total suspended solids in the effluent.

Our monthly average was 4.5 mg/l versus our KPI of 15 mg/l and permit monthly average limit of 30 mg/l.

Graph #5:

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

The August effluent CBOD average was 4.3 mg/l, well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month.

Graph #6:

Depicts the degree to which the biosolids have been dewatered.

Our biosolids % concentration exceeded our KPI of 25% for the entire month of August. No dewatering operations occurred on August 25.

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 August averaged 258,559 cubic feet per day, which exceeded our monthly KPI of 200,000 cubic feet per day. The variances in biogas production depicted on Graph 7 are the result of daily flow adjustments to the waste gas burner while the cogeneration system is offline.

Graph #8:

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

The cogeneration system was offline for the entire month of August as depicted on the graph.

Glossary of Terms

Process Performance Data Sheet

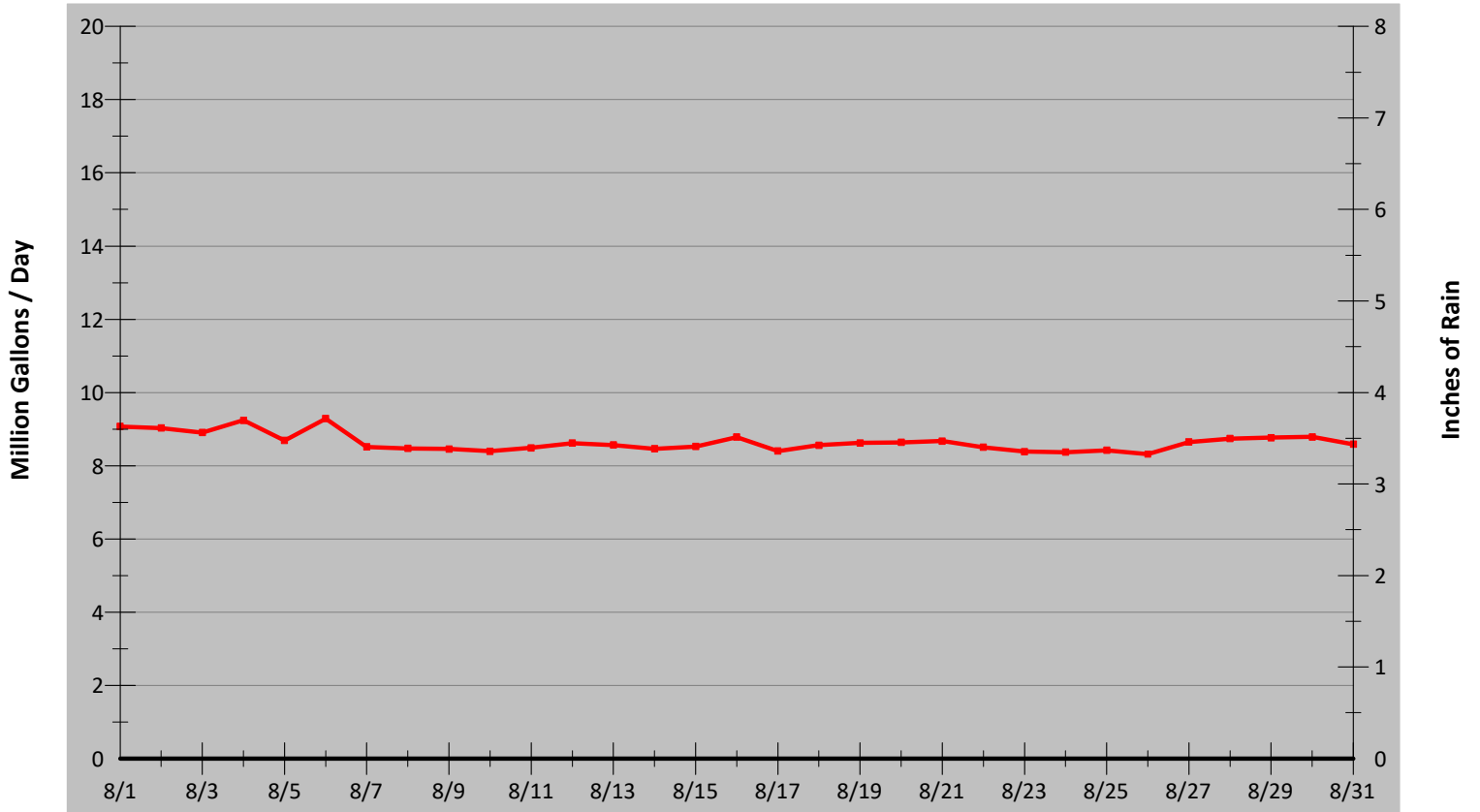
- **Aeration Tanks:** A biological process that takes place after the biotowers, where biomass (microorganisms) is mixed with the wastewater to feed on dissolved and suspended organic material. High speed blowers are used to provide compressed air to mix the tank contents.
- **Anaerobic Digesters:**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

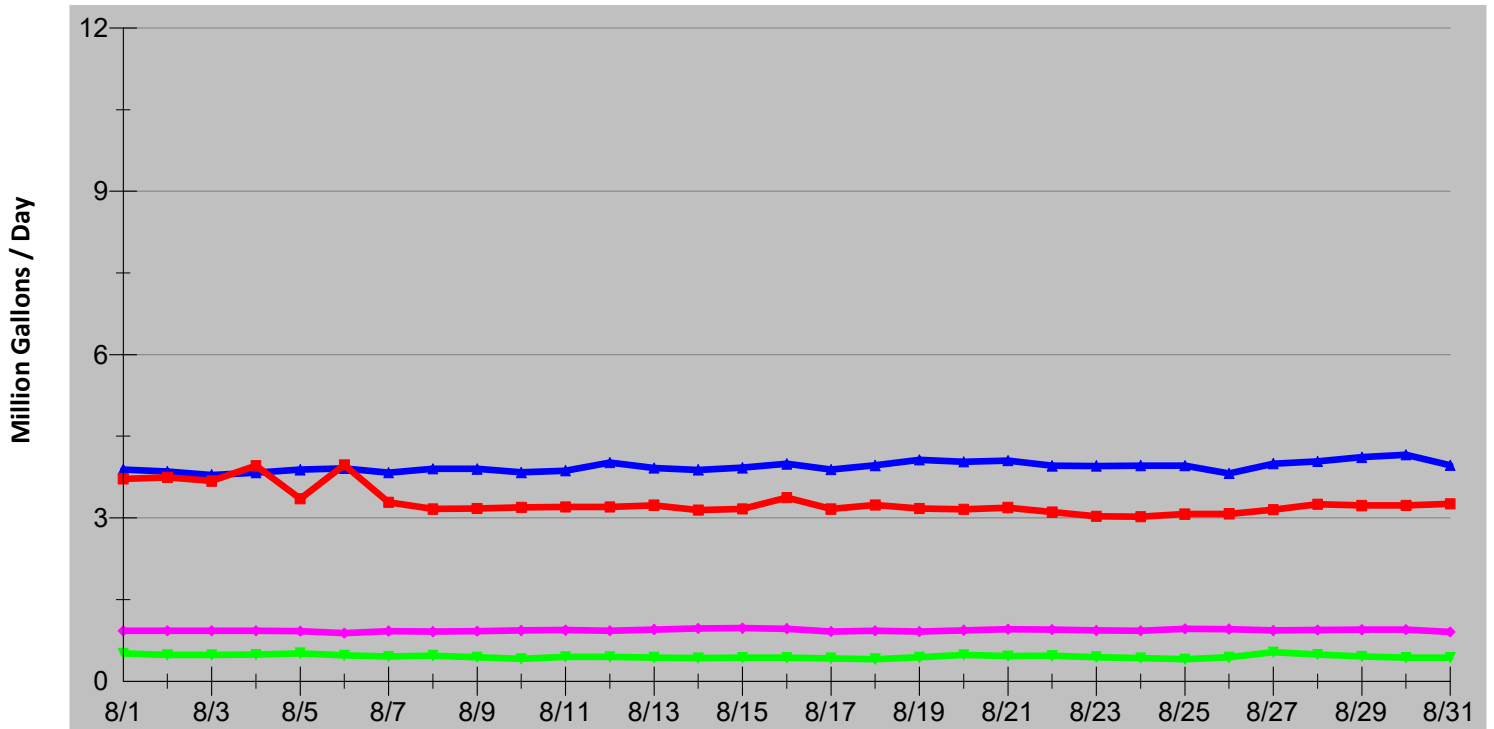


Date (8/1/2019 to 8/31/2019)

■ Flow (Daily Average) ◆ Rainfall

(#1) CMSA Influent Flow

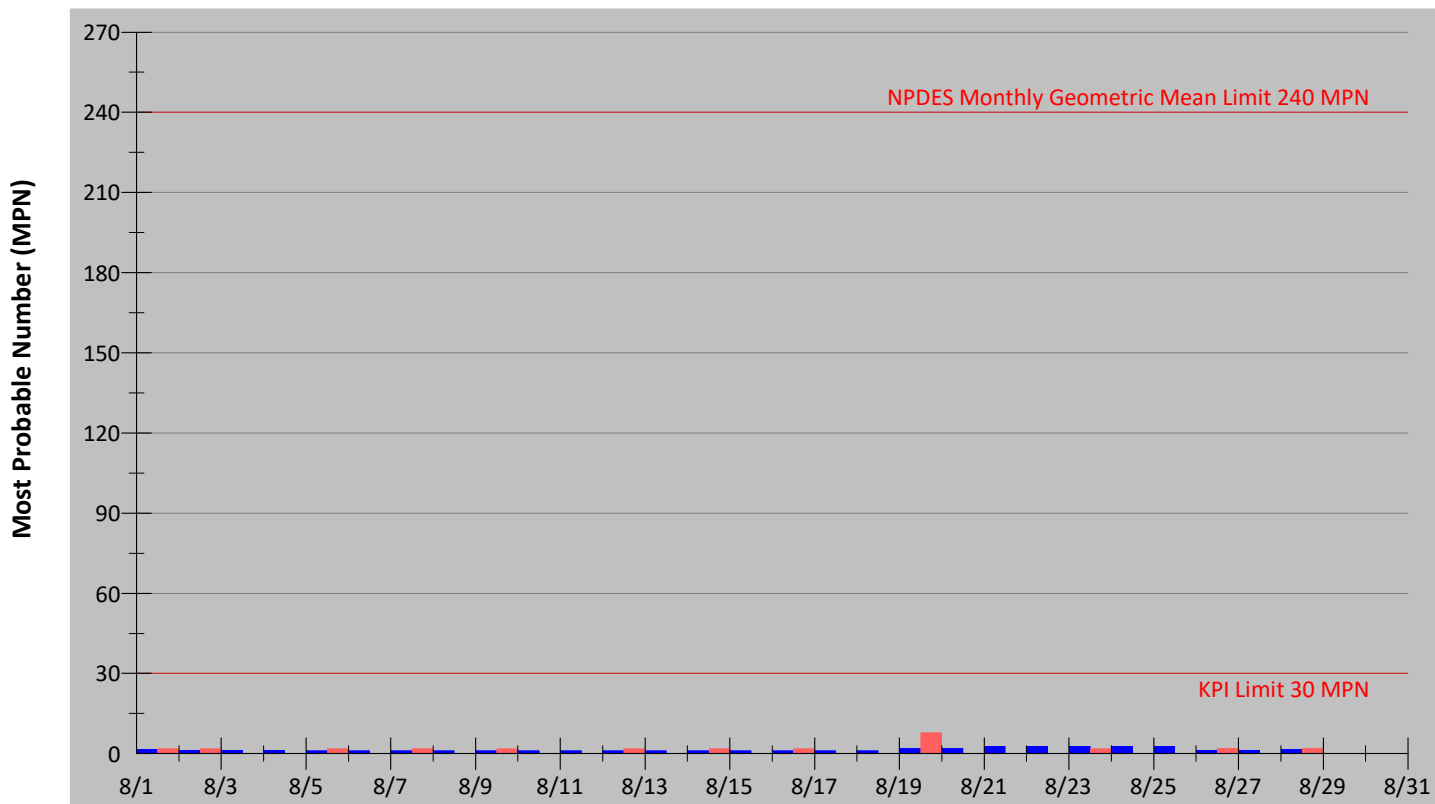
Graph #2: Collection System Influent Flows



Date (8/1/2019 to 8/31/2019)

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

Graph #3: Total Coliform & Monthly Geometric Mean

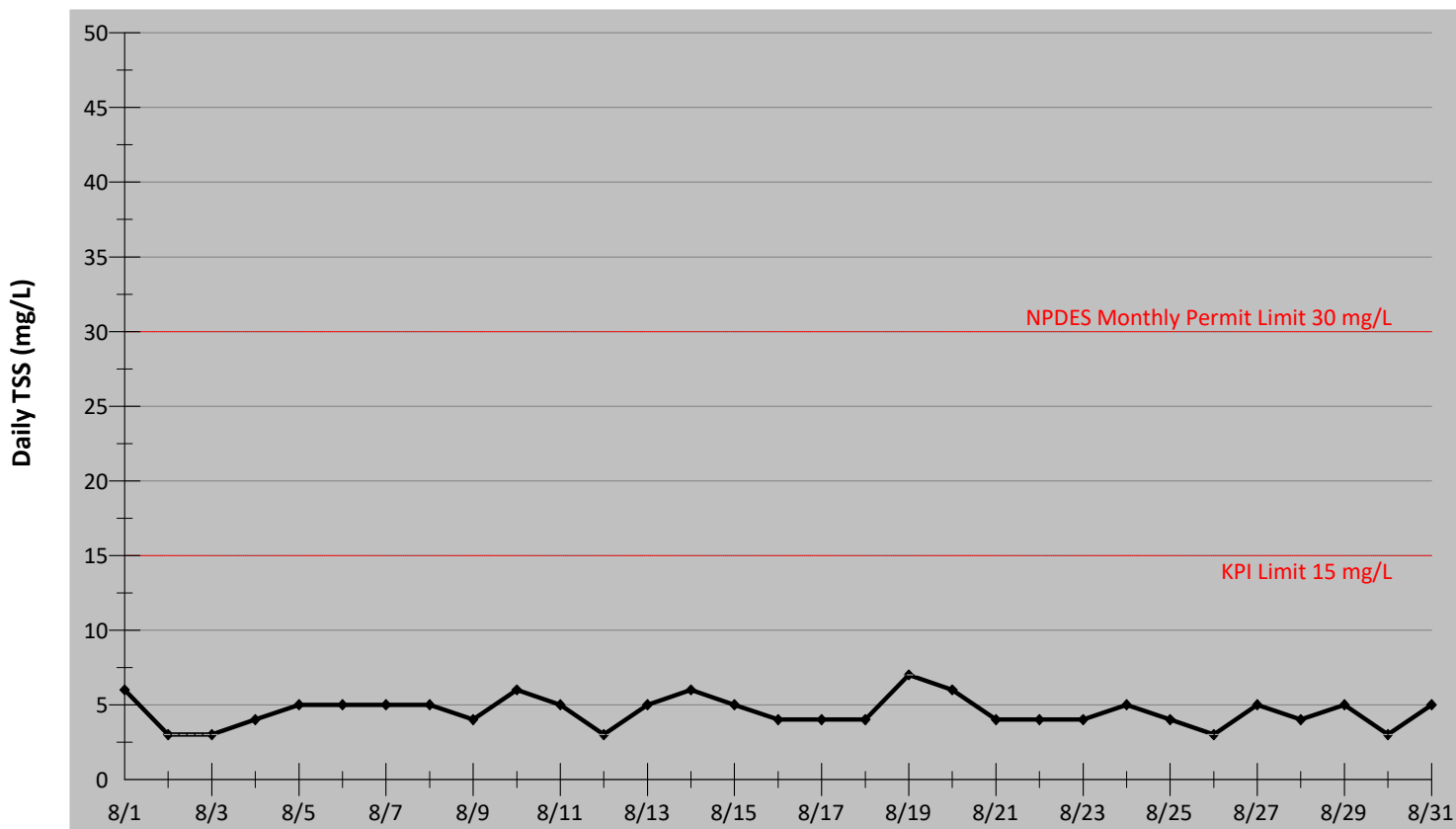


Date (8/1/2019 to 8/31/2019)

■ Total Coliform (Moving Geometric Mean) ■ Total Coliform

(#3) Total Coliform & Monthly Geometric Mean

Graph #4: Effluent Total Suspended Solids (TSS)

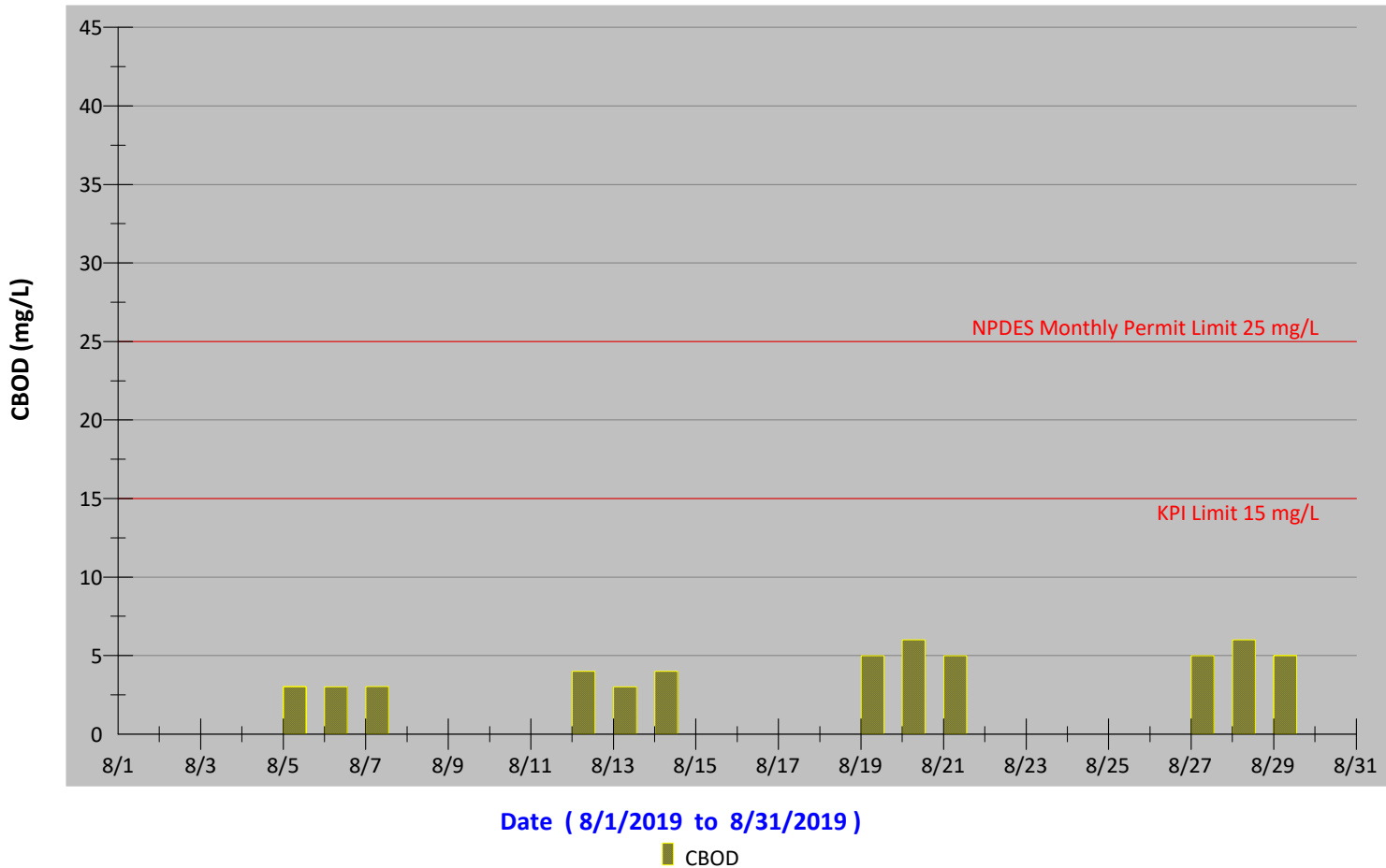


Date (8/1/2019 to 8/31/2019)

◆ TSS

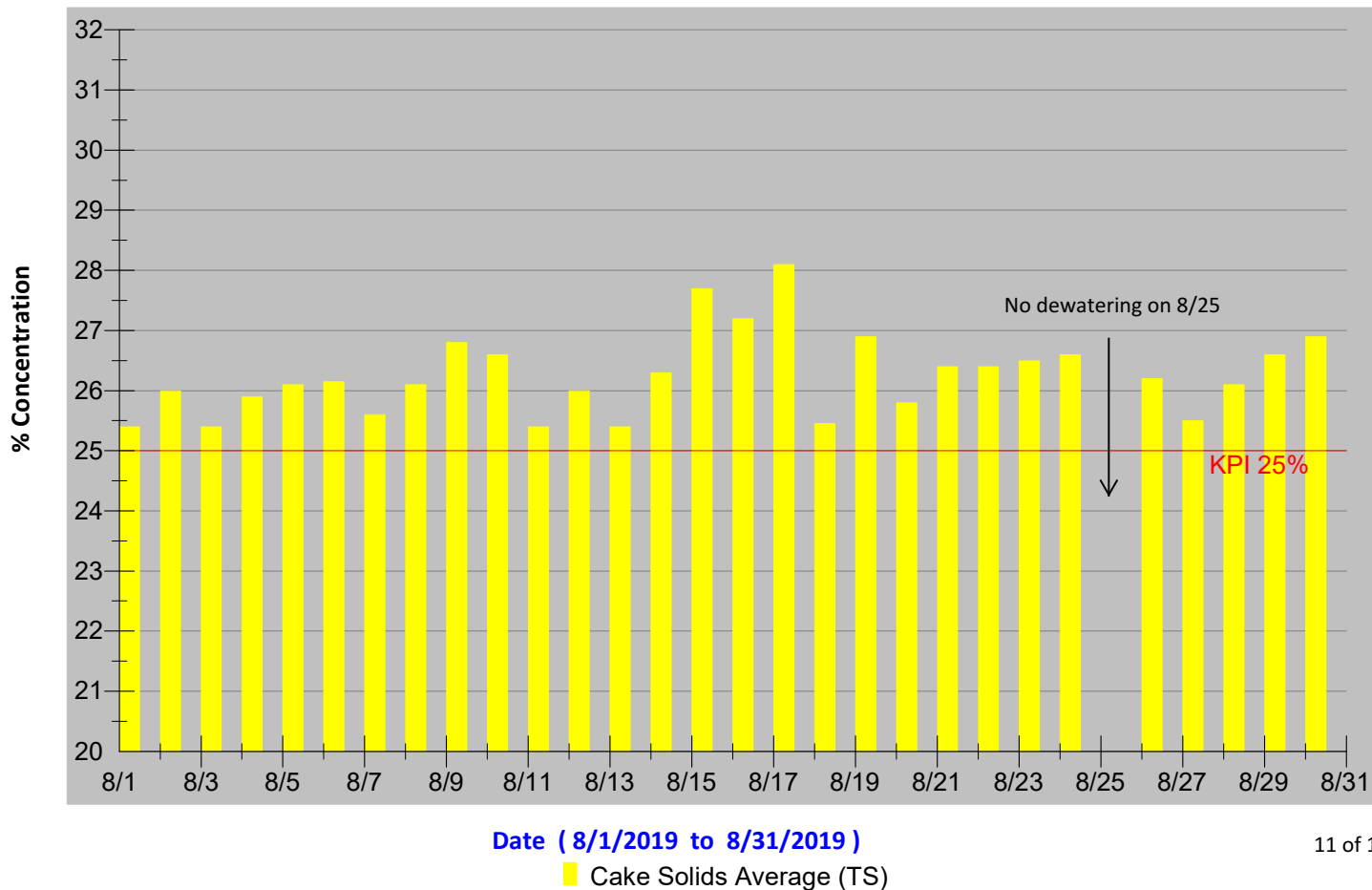
(#4) Effluent Total Suspended Solids (TSS)

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



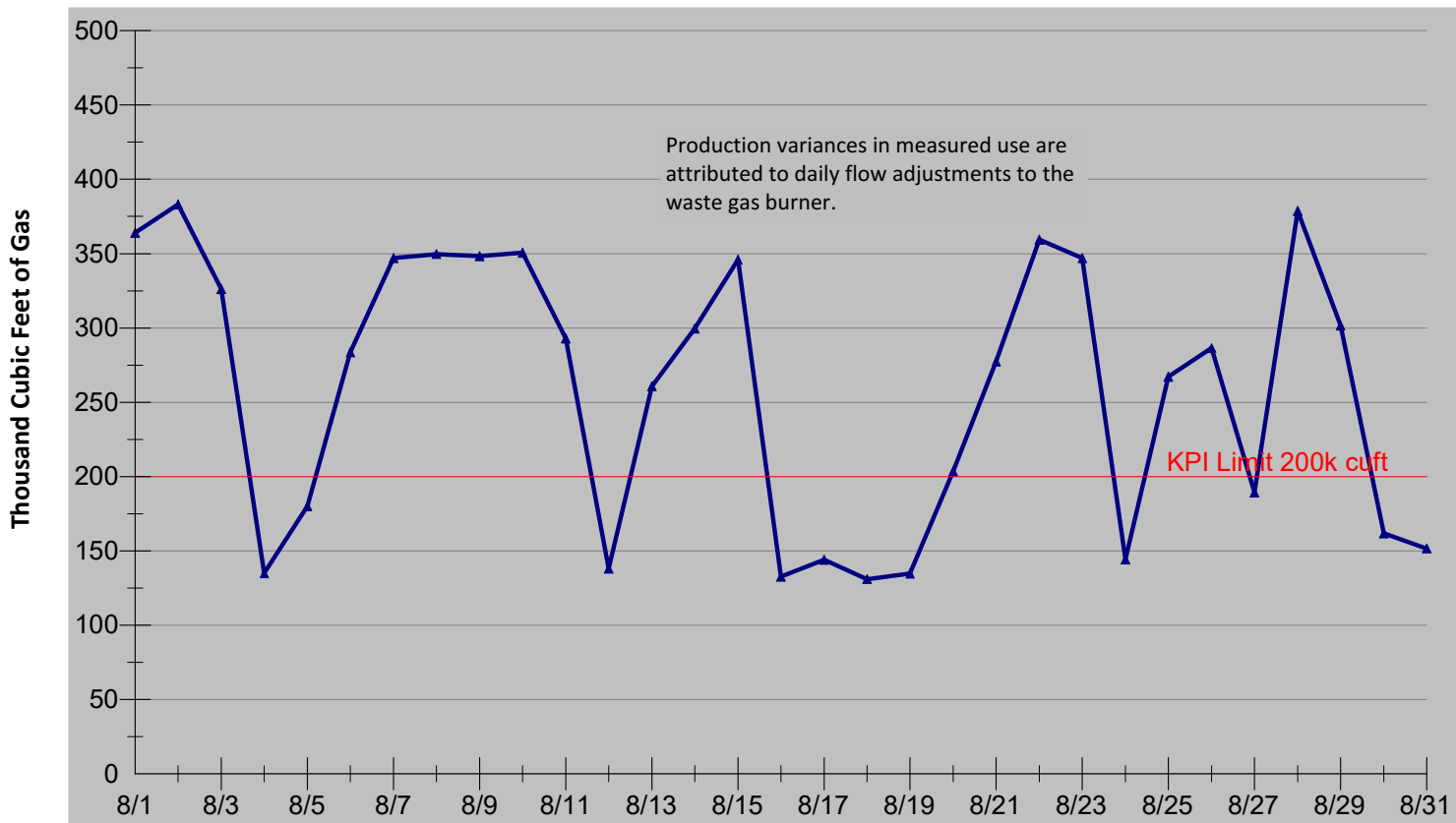
(#5) Effluent Carbonaceous Biological Oxygen Demand (CBOD)

Graph #6: Biosolids Concentration



(#6) Biosolids Concentration

Graph #7: Biogas Production (Measured Use)

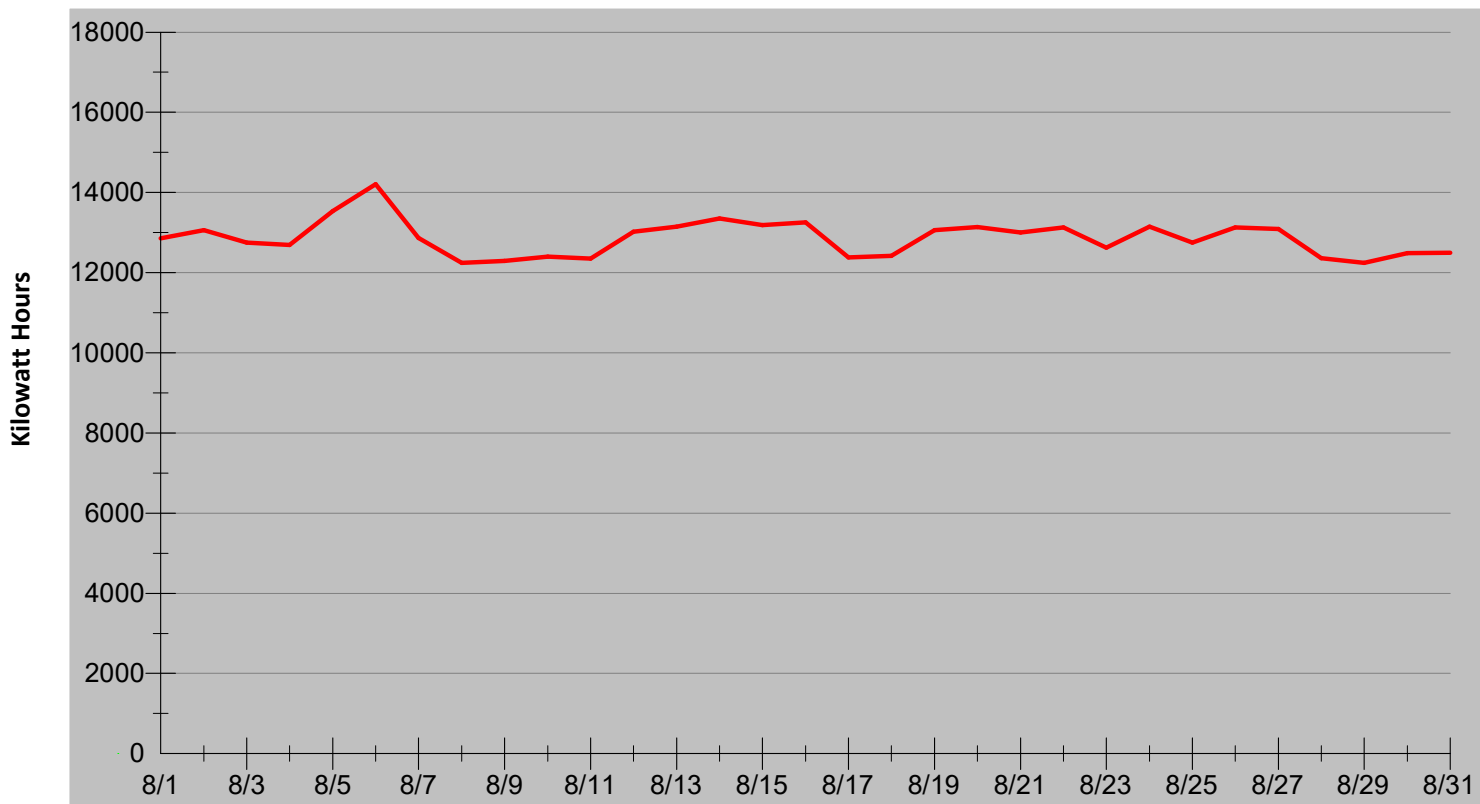


Date (8/1/2019 to 8/31/2019)

▲ Biogas Produced

(#7) Biogas Production

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



Date (8/1/2019 to 8/31/2019)

▲ Utility Import / ▲ Utility Export / ▲ Kilowatts Produced



BOARD MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Performance Metric Report – July and August 2019

Recommendation: Accept the July and August 2019 Performance Metric Reports.

Performance Summary: The Agency’s performance in operations and maintenance activities, regulatory and environmental compliance, and public education and outreach met or exceeded our metric goals/targets. Noteworthy metrics or variances are described below.

Table I – Treatment/Process Metrics

Over the past couple of months, staff has completed the annual preventative maintenance on the treatment plant’s process tanks and equipment. Final effluent quality remained very good while process tanks were rotated in and out of service for their maintenance work. The cogeneration system has been offline from May 30, during which time all power was procured through MCE. The used refurbished engine was delivered to CMSA on August 28, and is currently being installed by staff and Petersen Cat representatives.

Table II – Employee Metrics

On-site training included traffic/flagger safety training for employees that work in the service area; new hire orientation and safety training, web-based diversity training for a few staff, workplace ergonomics for all staff, and various tailgate health and safety trainings.

Staff that requires access to San Quentin Prison Property for the pump station operation and maintenance work or source control compliance activities received their annual security and access training from San Quentin representatives. GM Dow attended the annual CASA conference in San Diego, and at the conference was re-elected by the membership for a three year term on the CASA Board and was appointed by the Board as its Vice-President.

Table III - Environmental and Regulatory Compliance Metrics

There weren’t any NPDES final effluent permit exceedances in July and August, and all regulatory reports were submitted on schedule. Fifteen source control sampling inspections were performed at businesses that have Auto Repair Facility permits, and staff issued forty-seven FOG source control permits to restaurants and markets in the central Marin service area.

Table IV - Public Outreach

There were six odor alerts posted to the website over the past two months, and the Agency did not receive any public odor complaints. The alerts were posted for CCT monthly cleaning events, and annual preventative maintenance on a secondary clarifier and two aeration basins.

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 two months are presented below with the event date and number of attendees.

Public Outreach Events

<u>Date</u>	<u>Event</u>	<u>Attendees</u>
7/3-7	Marin County Fair	1,888
7/23	Novato Farmer's Market	33
8/6	Mill Valley's First National Night Out	70
8/20	Novato Farmer's Market	35

School Events – Juggler Show Presentations and Classroom Events

<u>Date</u>	<u>School</u>	<u>Attendees</u>
7/17	Hamilton School – Daycare Program	50

CMSA Tours

<u>Date</u>	<u>School/Group</u>	<u>Attendees</u>
7/18	Marin on the Bay – AP Summer Institute	17
7/22	Sonoma County Water Agency	1
7/23	CSRMA representatives	7
7/24	Colorado State University student	1
8/22	General Public	4

Attachment:

- July 2019 Performance Metric Report
- August 2019 Performance Metric Report

CMSA CY19 PERFORMANCE METRICS – July 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)	272.8 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)	70 wt 210 wt 175 wt	360 – 665 wt
3) Conventional Pollutant Removal	Removal of the conventional NPDES pollutants - Total Suspended Solids (TSS) and Carbonaceous Biological Oxygen Demand (cBOD) a. tons of TSS removed; % TSS removal b. tons of organics removed (cBOD); % cBOD removal	552.7 tons; 98.6% 407.5 tons; 98.5%	> 85% > 85%
4) Priority Pollutants Removal	Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper	97.9% 92.3%	88 – 99% 84 – 98%
5) Biogas Production	Biogas generated in our anaerobic digesters, in million cubic feet (Mft ³) Natural gas (methane) equivalent of the biogas, in million cubic feet (Mft ³)	7.18 Mft ³ 4.59 Mft ³	6.0 to 9.5 Mft ³ 3.8 to 6.1 Mft ³
6) Energy Produced	Energy produced from cogeneration of generated biogas and purchased natural gas - in kilowatt hours Cogeneration system runtime on biogas, <i>in hours (hrs.)</i> ; % time during month Biogas value (natural gas cost equivalent)	0 kWh 0 hrs; 0.0% \$29,318	380 to 480,000 kWh 540 hrs.; 75% \$15,000 to \$30,000
7) Efficiency	The cost to operate and maintain the treatment plant per million gallons of wastewater treated, in dollars per million gallons Energy used, kilowatt hours, per million gallons treated	\$1,319 /Mg 1,427 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 = 205.5 hrs External = 40 hrs	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);	409.5 hrs 210 hrs (87.0%) 32 hrs (7.0%) 1.7	300 – 500 hrs ≥ 70% total CM hrs ≤ 30% total hours ≥ 0.45
3) Overtime Worked	Monthly hours of OT worked; <i>Year to date hours of OT (YTD)</i> % of regular hours worked; % <i>Year to date (YTD)</i>	112 hrs; (1,008.75hrs) 1.6 %; (1.8%)	< 5%

CMSA CY19 PERFORMANCE METRICS – July 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	419	150-750
3) Process Control Analyses	# of analyses by the CMSA laboratory for process control monitoring	890	400-1,250
4) Contract Laboratory Analyses	# of analyses by contract laboratories for regulatory compliance reporting	23	0-50
5) Quality Control Testing	# of CMSA performed laboratory analyses for QA/QC purposes	302	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.)	118	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	2	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.	46	20 – 50
9) Permits Issued/Renewed	Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge	13	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>	1,921; <i>(2,714)</i>	3,500/year
2) School Events	Participation or sponsorship in school outreach events; attendees; <i>(YTD)</i>	50; <i>(1,618)</i>	variable
3) Agency Tours	Tours given to students and the public; # of people, <i>(YTD)</i>	26; <i>(224)</i>	variable
4) Odor Notifications	Number of odor alerts posted to the Agency website	3	1-10
5) Odor Complaints	Number of odor complaints received from the public	0	0

CMSA CY19 PERFORMANCE METRICS – August 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)	267.9 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)	87.5 wt 245.0 wt 140.0 wt	360 – 665 wt
3) Conventional Pollutant Removal	Removal of the conventional NPDES pollutants - Total Suspended Solids (TSS) and Carbonaceous Biological Oxygen Demand (cBOD) a. tons of TSS removed; % TSS removal b. tons of organics removed (cBOD); % cBOD removal	493.5 tons; 98.9% 359.4 tons; 98.6	> 85% > 85%
4) Priority Pollutants Removal	Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper	98.7% 95.9%	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)	8.02 Mft ³ 5.13 Mft ³	6.0 to 9.5 Mft ³ 3.8 to 6.1 Mft ³
6) Energy Produced	Energy produced from cogeneration of generated biogas and purchased natural gas - in kilowatt hours Cogeneration system runtime on biogas , <i>in hours (hrs.)</i> ; % <i>time during month</i> Biogas value (natural gas cost equivalent)	0 kWh 0 hrs; 0.0% \$32,695	380 to 480,000 kWh 540 hrs.; 75% \$15,000 to \$30,000
7) Efficiency	The cost to operate and maintain the treatment plant per million gallons of wastewater treated, in dollars per million gallons Energy used, kilowatt hours, per million gallons treated	\$1,343 /Mg 1,488 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 = 37.5 hrs External = 55.5 casa	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);	456 hrs 373 hrs (66.0%) 190 hrs (29.0%) 0.81	300 – 500 hrs ≥ 70% total CM hrs ≤ 30% total hours ≥ 0.45
3) Overtime Worked	Monthly hours of OT worked; <i>Year to date hours of OT (YTD)</i> % of regular hours worked; % <i>Year to date (YTD)</i>	72 hrs; (1,078.75hrs) 1.1 %; (1.8%)	< 5%

CMSA CY19 PERFORMANCE METRICS – August 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	435	150-750
3) Process Control Analyses	# of analyses by the CMSA laboratory for process control monitoring	1,085	400-1,250
4) Contract Laboratory Analyses	# of analyses by contract laboratories for regulatory compliance reporting	48	0-50
5) Quality Control Testing	# of CMSA performed laboratory analyses for QA/QC purposes	400	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.)	124	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	15	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.	7	20 – 50
9) Permits Issued/Renewed	Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge	47	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>	105; <i>(2,819)</i>	3,500/year
2) School Events	Participation or sponsorship in school outreach events; attendees; <i>(YTD)</i>	0; <i>(1,618)</i>	variable
3) Agency Tours	Tours given to students and the public; # of people, <i>(YTD)</i>	4; <i>(228)</i>	variable
4) Odor Notifications	Number of odor alerts posted to the Agency website	3	1-10
5) Odor Complaints	Number of odor complaints received from the public	0	0



BOARD MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: FY19 Green Business Report

Recommendation: Accept the Agency's FY19 Green Business Report.

Summary: After the close of the fiscal year, staff prepares a Green Business Report (Report) of our various recycling, disposal, product reuse, energy efficiency, and other green business activities. Agency staff members from different departments and work groups track the Agency's green business activities over the fiscal year and provide the metrics for the Report. The Report is posted on the Agency website, and is comprised of five distinct initiative areas that are briefly summarized below.

Table 1 - Agency Recycling: Materials and supplies that have been used by Agency staff or hired contractors, and are collected in separate containers for off-site recycling, such as paper and plastic products, green waste, aluminum, scrap metal, and cardboard. In prior years, aluminum and plastic materials were collected separately, and they are now collected together.

Table 2 - Reused Agency Products: Reclaimed water, biogas, and biosolids that are renewable resources from the wastewater treatment processes.

Table 3 - Hazardous Material Collection and Disposal: Materials that are classified as hazardous substances by regulatory agencies that should be handled and disposed of properly to protect the environment, such as pharmaceuticals, lubricants, mercury-containing devices, and herbicides. CMSA has minimized or discontinued the use of fungicides and pesticides, so they have been removed from the table.

Table 4 - Green Activities: Programs and initiatives that provide an environmental benefit – reducing greenhouse gas emissions, potable water and fossil fuel use, and vehicle use.

Table 5 - Energy Saving Activities: Agency programs and/or elements in completed or in-progress activities that save energy, increase energy efficiency, and expand power delivery.

Attachment: FY19 Green Business Report

GREEN BUSINESS REPORT – FY19

I. Agency Recycling

Item	Description	Recycling Measurement	Quantity
1) Paper	Paper cups, plates, printer paper, newspaper, magazines, and other paper based materials are separately disposed of in office containers, collected by staff and transferred to 64 gallon bins that are picked up and recycled weekly by Marin Sanitary Service.	# of 64 gallon bins	62 <i>FY18 - 52</i>
2) Aluminum and Plastic	Aluminum cans and plastic containers (labeled #1-#7) are deposited by employees in bins outside the Agency lunch room. The bin contents are picked up and recycled weekly by Marin Sanitary Service.	# of 64 gallon bins	40 <i>FY18 - 74</i>
3) Scrap Metal	Iron, steel, and related metals are collected in 20 yard bins and then recycled, typically four times per year, by Marin Sanitary Service.	lbs. of metal	120,000 <i>FY18 -122,790</i>
4) Cardboard	Waste cardboard boxes, packing, and similar material are collected in a 3-yard dumpster. Marin Sanitary Service picks up the dumpster and recycles the materials.	# of 3 yard bins	52 <i>FY18 - 53</i>
5) Green waste	Grass clippings, tree branches, and trimmings from pruning and landscaping activities are deposited in 3-yard dumpsters, and used by Marin Sanitary Service in a composting operation.	# of 3 yard bins	52 <i>FY18 - 63</i>

II. Reused Agency Products

Metric	Definition	Reuse Measurement	Quantity
1) Recycled water	Treated wastewater that is reused for Agency landscape irrigation, tank wash down, and cogeneration engine cooling, used offsite at the Remillard Pond, and delivered through the Agency's truck fill station.	million gallons/year % of effluent	403 9.3% <i>FY18 – 8.66%</i>
2) Biosolids	Treated biosolids that are beneficially reused as: - alternate daily cover at Redwood landfill - soil amendment/fertilizer for land application - biofertilizer production for agricultural use	wet tons/year wet tons/year wet tons/year	3,267.1 857.5 1,902.8
3) Biogas	Biogas generated in the Agency's anaerobic digesters is used for fuel in an engine-generator to produce on-site electricity.	Million ft ³ of biogas	100.7 <i>FY18 – 102.3</i>

CMSA GREEN BUSINESS REPORT – FY19

III. Hazardous Material Collection and Disposal

Metric	Description	Recycling Measurement	Quantity
1) Oils and Lubricants	Used oils and lubricants from CMSA equipment, vehicles, and engine-generators are collected and stored in a waste oil facility. The supplier periodically collects the materials for recycling.	gallons	Oil: 1,045 <i>FY18 – 625</i> Coolant: 640 <i>FY18 – 200</i>
2) Mercury	Collected mercury containing devices: - amalgam waste at dental offices is collected and disposed of by certified haulers - fluorescent tubes are collected by the public education program agencies - mercury thermometers exchanged for digital thermometers at CMSA	kg linear feet # of thermometers	16.22 91,398 0
3) Pharmaceuticals	Old or unused pharmaceuticals are brought to pharmacies and police stations by the public for proper disposal. CMSA and the Marin County public education program agencies fund the collection and disposal expenses, and the program is administered by the Marin County Environmental Health Department.	lbs. of pharmaceuticals	8,500 <i>FY18 – 7,871</i>
4) Batteries	Depleted, used, or damaged batteries collected by staff and brought to a Hazardous Waste facility and Interstate Battery. Sources of batteries include: - Agency vehicles - Devices (AA, C, D, 9V, etc.) and employee batteries brought from home	# of batteries lbs.	26 14
5) Electronic Waste	Electronic products that contain toxic materials, from Agency facilities and employees - cell phones, computers, computer monitors, process instrumentation, etc. – are collected and stored on-site, then periodically disposed of at the Marin Hazardous Household Waste Facility.	# of devices	227 <i>FY 18 - 291</i>
6) Herbicides	The Agency uses the same types of herbicides products utilized by the County of Marin as part of their Integrated Pest Management Program, and over the past year has minimized/eliminated the use of pesticides and fungicides. Waste products are disposed of at the Marin Sanitary Service Household Hazardous Waste Facility.	gallons/lbs	Herbicide: 1.78 <i>(liquid)</i> Herbicide: 40 lbs <i>(solid)</i>

CMSA GREEN BUSINESS REPORT – FY19

IV. Green Activities

Metric	Description	Environmental Benefit
1) Potable Water Conservation	High efficiency water fixtures have been installed in all Agency facilities and buildings. Staff records the Agency's daily potable water use.	Potable water use in FY19 was 185,512 gal <i>FY18 – 163,064 gallons</i>
2) Green Commuting	Programs encourage employees to use alternate commute methods such as carpool, biking, public transit, etc., when convenient and affordable for Agency employees. Administrative procedures are in place to assist in registering, tracking, and utilizing these modes of transportation.	During FY19, eight Agency employees participated in the program, which reduces the number of vehicles on roads during commute hours, emissions and fossil fuel use.
3) Spare the Air Days	Participation in the Bay Area Air Quality Management District's Spare the Air Day program. The Agency does not use gasoline fueled landscape maintenance equipment on these specified days.	13 days in FY19 that resulted in lower emissions and GHG reduction
4) Increased Digital Document Management	Digital and email correspondence to replace hard copy mailing. Many agency documents are now posted on the Agency website for viewing.	Reduced use of paper, toner, and postage
5) Green vehicle fleet	Agency staff use bicycles and electric carts to travel around Agency property and within the treatment plant, and 30% of Agency vehicles are alternate fuel – Hybrids.	Fuel savings and reduced GHG emissions

V. Energy Saving Activities

Project/Initiative	Description of Energy Saving Aspect of initiative
1) PG&E Interconnection Agreement Modification Project and Power Delivery	<p>CMSA's electrical cogeneration system currently powered the Agency's facilities for an average 22-23 hours per day with biogas as its fuel source. After many years of preparation work, CMSA reached a critical milestone in FY19 by receiving the official authority to interconnect to PG&E's grid and sell power back to Marin Clean Energy under its negotiated Power Purchase Agreement. For a very brief period, CMSA delivered power to Marin Clean Energy in FY19 until the unfortunate failure of the cogeneration engine in late May 2019. An identical refurbished cogeneration engine is being purchased in the summer of 2019, and in parallel CMSA is in the final design phase for a new and more efficient cogeneration system.</p> <p>In FY19, CMSA also completed significant planning and construction progress for the Digester Organic Loading Study, including purchasing the study equipment and finalizing the study plan. The study is being conducted in FY20 and is intended to answer the question about how much additional external organic waste can be accepted in CMSA's digestion system, an important consideration for CMSA's long-term planning of future phases its power delivery program.</p>

CMSA GREEN BUSINESS REPORT – FY19

VI. Energy Saving Activities, cont.

Project/Initiative	Description of energy saving aspect of initiative
2) Power Monitoring Equipment	Staff completed the installation of all the planned power monitoring devices, and in spring 2019 prepared automated routine monthly power monitoring reports that are reviewed by an Energy Efficiency Committee and shared with staff. The Committee also assisted in the planning of energy efficiency related studies for the digester mixing pumps and channel air blower operations, both of which are being conducted in FY20. The Committee will also evaluate the use of proactive power monitoring triggers in FY20 based on the data generated from the power monitoring program.
3) Lighting System Replacement	The Agency has a multi-year program to replace fluorescent, incandescent, and metal halide fixtures/bulbs throughout the Agency’s facilities with energy-efficient lighting – electronic ballast fluorescents or LEDs. In FY19, the Agency replaced a total of ninety-nine fixtures facility wide. Major fixture replacements took place in the Headworks chemical storage, air handling, and grit blower rooms, and in the facility’s maintenance annex. Specialty LED fixtures replaced gas tight metal halide units in the digester mixing room, and underground Galleries B, C, and L were retrofitted with new high-efficiency LED fixtures. These upgrades will save the Agency 41,522 kWh of electricity annually.
4) Energy Generation	<p>The Agency uses a cogeneration system comprised of an internal combustion engine coupled to a generator to produce over 95% of the Agency’s energy needs. The system is fueled by biogas generated in the Agency’s anaerobic digesters and purchased natural gas; a small amount of utility electricity is purchased to minimize system disruptions when energy demand instantaneously changes. For FY19, metrics for energy generation and the resulting electricity procurement savings are:</p> <ul style="list-style-type: none"> - Biogas generation (from Table 2): <i>100.7 million cubic feet or 65.5 million cubic feet of NG (equivalent gas)</i> - Natural gas purchase: <i>68,227 therms</i> - Annual energy costs without cogeneration: <i>\$ 1,032,008 (assumes purchasing all electricity)</i> - Electricity savings due to cogeneration: <i>\$ 718,497 (use of biogas and natural gas as cogeneration fuel)</i> - Electricity savings due to biogas use: <i>\$ 658,323 (value of biogas used as engine fuel)</i>



BOARD MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates

From: Jacky Wong, Assistant Engineer

Approved: Jason Dow, General Manager

Subject: Biosolids Hauling Contract - Modification of Cost Adjustment Index

Recommendation: Approve replacing the diesel Producer Price Index listed in the Biosolids Hauling Contract with the California diesel retail price index published by US Energy Information Administration.

Summary: The Biosolids Hauling Contract (Contract) was awarded to S&S Trucking in June 2018 for a two-year period. Payments are made based on a unit cost per wet ton of biosolids delivered to the beneficial reuse sites, and the Contract allows adjusting the unit costs for each six-month period based on US Bureau of Labor Statistics (USBOLS) indices. Staff recommends replacing the USBOLS diesel Producer Price Index (PPI) with US Energy Information Administration (USEIA) California diesel retail price index.

Discussion: The Contract contains unit cost adjustment provisions for each six-month period, and staff performed the cost analysis and adjustment calculations in December 2018 and again in June 2019. The Contract cost adjustment calculation is based on a fixed price component and two commodity price indices: the Bay Area Consumer Price Index (CPI) for the labor cost component and the USBOLS diesel PPI for the transportation cost component, published by the USBOLS. After staff sent out the second unit price adjustment letter in June 2019, S&S Trucking informed staff that the diesel fuel PPI, a national average diesel manufacturer pricing, results in a diesel retail price that is not comparable to California's costs. S&S suggested that the diesel retail price index published by the USEIA would be a more representative measure of the transportation cost component for regional hauling costs in California.

Staff evaluated both of the USBOLS and USEIA diesel indices. The USBOLS index shows that the diesel fuel PPI has decreased 5.3% between May 2018 and May 2019, whereas the USEIA diesel retail price in California has increased 1.3% over the same period. S&S Trucking has indicated that they are agreeable to the index changes (e-mail correspondence attached) and staff believes that, going forward, replacing the USBOLS diesel PPI with USEIA California retail price index would be appropriate and fair given the actual diesel fuel costs incurred by S&S Trucking. Staff and S&S Trucking also agreed to use the USEIA index to calculate cost adjustments

retroactively to July 1, 2019 to accurately and fairly reflect the actual cost incurred for purchase of diesel in California.

Fiscal Impact: If approved, the biosolids hauling price will increase by 1.07 percent from the executed contract unit price in June 2018. The summary table below shows each reuse site’s estimated annual delivery amount, the executed contract hauling unit price in June 2018, and the proposed new hauling unit price using the USEIA California retail price index.

Reuse Site	Estimated Annual Delivery Amount	Executed Contract Unit Price (June 2018)	Proposed New Unit Price using USEIA California Diesel Retail Price Index
Redwood Landfill	3,400 wet tons	\$9.90	\$10.006
Lystek OMRC	1,900 wet tons	\$23.00	\$23.245
Synagro Solano County land application sites	1,100 wet tons	\$29.00	\$29.309
Synagro Merced County Composting Facility	17.5 dry tons	\$29.00	\$29.309

Attachment:

- Email correspondence with S&S Trucking

Jacky Wong

From: Michael Sanchez <Michael@snsands.com>
Sent: Friday, July 19, 2019 2:03 PM
To: Jacky Wong; Peter Kistenmacher
Cc: Joy Bautista; Giovanni DeMichino; Frank Sanchez
Subject: RE: CMSA Contract 18-36 Unit Price Adjustment Letter
Attachments: PET_PRI_GND_DCUS_SCA_M (2).xls

Follow Up Flag: Follow up
Flag Status: Flagged

Jacky/Peter,

Thank you for response. Regarding the new cost factors, we believe that an index that reflects the diesel prices specifically in California would be a more accurate measure to be used in relation to determine the escalation for this project. We recommend using an index as provided by the US Energy Information Administration, https://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_sca_m.htm. This index would allow us to filter for California specifically and we believe it would reflect a more representative cost factor as based in California. Please advise.

Thanks,

Michael Sanchez
Michael@snsands.com
510-913-4735 Cell
510-383-3556 Office (Ext. 228)
510-383-2917 Fax





BOARD MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates

From: Peter Kistenmacher, Technical Services Manager

Approved: Jason Dow, General Manger

Subject: Cogeneration System Installation Project – Sole Source Specification for Motorized Actuators and Electrical Pilot Devices

Recommendations: Approve sole source specifications of Rotork motorized actuators and Eaton HT800 series electrical pilot devices for the Cogeneration System Installation Project.

Summary: The Agency has standardized on the use of Rotork actuators and Eaton HT800 series of electrical pilot devices to streamline repairs and maintenance, and simplify spare parts inventory. Staff has confirmed with our construction/contract legal counsel, Bill McInerney, that pursuant to the Public Contract Code, CMSA can sole source specify both items for the Cogeneration System Installation Project (Project) to match existing equipment.

Fiscal Impact: The Agency's FY20 - FY22 Capital Improvement Program has \$7,348,611 allocated for the design and installation of the new cogeneration system, including the prepurchase of the new cogeneration engine generator system.

Discussion: In May 2019, in order to expedite the Project timeline, the Board authorized staff to prepare a cogeneration engine generator system prepurchase contract and solicit proposals from qualified suppliers. The request for proposals was issued on August 28, 2019 and proposals are due on September 18, 2019. The request for proposals currently includes numerous valve actuator systems and electrical pilot devices, such as lights, switches, and pushbuttons on electrical devices. In accordance with the Public Contract Code Section 3400, the current specification lists at least two manufacturers, or equal, for these items.

CMSA has standardized on the use of Rotork motorized actuators, and approximately 50 units have been installed on the facility's gates and valves to date. The Agency has also standardized on the Eaton HT800 series of electrical pilot devices which are installed throughout most of the electrical equipment in the facility, and are the only type of pilot devices maintained in the Agency's spare parts inventory. If the Board approves the sole source recommendation, staff will amend the request for proposals documents prior to the proposal due date to specify the Rotork and Eaton equipment.

Alignment with Strategic Plan: This activity is a strategic action to support Goal 3 – Objective 3.1 in the Agency’s FY20 Business Plan as shown below.

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

Objective 3.1: Implement steps to deliver extra power.

Action: Finish the design phase of the Cogeneration System Installation Project.



MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates

From: Kenneth Spray, Administrative Services Manager

Approved: Jason Dow, General Manager

Subject: **Alternate Retirement Plan for Temporary and Part Time Employees**

Recommendation: Adopt Resolution No. 339 to authorize adoption of the PARS Trust Alternative Retirement Plan, and select the PARS contribution amount and allocation between Agency and employee.

Summary: After CMSA was formed and began to hire employees, the Board decided that the Agency would participate in the California Public Employee Retirement System (PERS) and not in Social Security. At CMSA, all probationary and full-time employees are enrolled in PERS, as well as unrepresented part-time employees hired to work greater 20 hours/week for over a year. Temporary employees and part-time employees who work less than 20 hours per week are not eligible for PERS and are subject to Social Security. Staff has learned about an alternate retirement program through the Public Agency Retirement System (PARS) for the temporary and the part time employees that is beneficial to them, and proposes the Agency join PARS for those employment categories.

Discussion: The Internal Revenue Code, as amended by the Omnibus Budget Reconciliation Act of 1990, requires that all public employees be covered by Social Security or an alternate plan if not covered by their employer's existing retirement system. The Agency recently began hiring college and high school interns as temporary employees, and both the Agency and the employee contribute 6.2% of their gross pay to Social Security for a total contribution of 12.4%.

PARS offers an alternative to Social Security, called the PARS Trust Alternative Retirement Plan, that allows participating agencies and their eligible employees to contribute amounts in any combination such that total contributions meet or exceed 7.5% of gross earnings. According to PARS, the most common combinations are 6.2%/1.3% and 7.5%/0.0% for employer and employee contributions, respectively. Plan contributions are made to a trust that is qualified under Section 401(a) and tax exempt under Section 501(a) of the Internal Revenue Code. Plan contributions are pre-tax to the employee thereby allowing them to compound at a faster rate over time. At separation, the employee can withdraw the total contributions made, subject to tax, or can rollover the account into another retirement vehicle such as a 401(k).

Costs of the plan are minimal to the Agency at 2% of total assets under management that may be offset partially or fully by savings from not paying the otherwise required employer share of Social Security. When an employer participates in Social Security, its contribution is fixed at 6.2% of subject wages, whereas when participating in PARS employer contributions are variable in any percentage determined by the Agency. Staff believes that the Plan is more advantageous to temporary and non-PERS eligible part-time employees, and can save the Agency and the employee retirement contribution funds.

PARS Funding Selection: If the Board chooses to participate in PARS, it needs to select the total funding amount and the allocation between the employee and Agency. As mentioned above, the minimum PARS funding amount is 7.5%. Staff recommends funding at the minimum level, which is common according to PARS, and either sharing the retirement funding amounts, 3.75% each, or using a 6.2% employee, 1.3% Agency contribution formula. However, the Board can fund PARS at any amount greater than 7.5%, and discuss and select another contribution allocation formula. Attachment 3 shows several additional formulas for Board consideration.

Fiscal Impact: A savings to the Agency, if the employer PARS contribution with administrative fee is less than 6.2% of the employee's gross pay.

Attachments:

- 1) Resolution No. 339 Authorizing the Adoption of the PARS Trust Alternative Retirement Plan
- 2) Draft PARS Agreement for Administrative Services
- 3) PARS Funding Alternatives



CMSA Resolution No. 339

***RESOLUTION OF CENTRAL MARIN SANITATION AGENCY
AUTHORIZING THE ADOPTION OF THE PARS TRUST
ALTERNATIVE RETIREMENT PLAN***

WHEREAS, it is determined to be in the best interest of the Central Marin Sanitation Agency (CMSA) and its employees to provide a qualifying retirement system for its employees not currently eligible for such a qualifying retirement system, thereby meeting the requirements of Section 11332 of the Omnibus Budget Reconciliation Act (OBRA '90) and Section 3121(b)(7)(F) of the Internal Revenue Code; and

WHEREAS, PARS has made such a system available to the CMSA and its eligible employees and qualifies under OBRA 90 Section 11332, Internal Revenue Code Sections 3121(b)(7)(F) and 457(b), and meets the meaning of the term "retirement system" as given by Section 218(b)(4) of the Federal Social Security Act.

NOW THEREFORE, BE IT RESOLVED THAT

The Board of Commissioners hereby adopts the PARS Trust, including the PARS Section 457(b) Alternative Retirement Plan, effective September 10, 2019; and

The Board of Commissioners hereby appoints the General Manager, or his/her successor or his/her designee as CMSA's Plan Administrator for the PARS Section 457(b) Alternative Retirement Plan/Trust; and

CMSA's Plan Administrator is hereby authorized to implement the plan(s), execute the PARS legal and administrative documents on behalf of CMSA and to take whatever additional actions are necessary to maintain the CMSA's participation in PARS and to maintain PARS compliance of any relevant regulation issued or as may be issued; therefore, authorizing him/her to take whatever additional actions are required to administer the CMSA's PARS plan(s).

ADOPTED at the meeting of the Central Marin Sanitation Agency Commissioners, County of Marin, State of California, on September 10, 2019, by the following vote.

AYES:

NAYS:

ABSTAIN:

ABSENT:

Dean DiGiovanni, Commission Chair

ATTEST:

By _____
Eli Beckman, Commission Secretary

AGREEMENT FOR ADMINISTRATIVE SERVICES

This Agreement for Administrative Services (“Agreement”) is made this ____ day of _____, 2019, between Phase II Systems, a corporation organized and existing under the laws of the State of California, doing business as Public Agency Retirement Services and PARS (hereinafter “PARS”) and the Central Marin Sanitation Agency (“Agency”).

WHEREAS, Agency is desirous of retaining PARS, as Trust Administrator, to provide administrative services with respect to the Central Marin Sanitation Agency PARS Section 457(b) Alternative Retirement Plan and Trust (“Plan”);

WHEREAS, by written resolution and pursuant to Sections 1.1 and 2.1 of the Trust, the Agency’s governing body has appointed by position or title a Plan Administrator to act on its behalf in all matters relating to the Plan and PARS Trust (“Plan Administrator”);

WHEREAS, pursuant to Section 3.3 of the Trust, the Agency has the power to delegate certain duties related to the Plan, and PARS accepts those duties pursuant to the terms contained in the Agreement, and that this Agreement represents the entire delegation of duties to PARS from the Agency with regards to the Plan;

WHEREAS, PARS accepts the terms of this Agreement with the understanding by the Agency and Plan Administrator that PARS does not hold custody of any assets of the Plan, and does not have any independent authority or discretion for the investment, distribution or escheatment of Plan assets without the express consent of, and direction from the Plan Administrator.

NOW THEREFORE, THE PARTIES AGREE:

1. **Services.** PARS will provide the services pertaining to the Plan as described in the exhibit attached hereto as “Exhibit 1A” (“Services”) in a timely manner, subject to the further provisions of this Agreement.
2. **Fees for Services.** PARS will be compensated for performance of the Services as described in the exhibit attached hereto as “Exhibit 1B”.
3. **Payment Terms.** Payment for the Services will be remitted directly from Plan assets unless the Agency chooses to make payment directly to PARS. In the event that the Agency chooses to make payment directly to PARS, it shall be the responsibility of the Agency to remit payment directly to PARS based upon an invoice prepared by PARS and delivered to the Agency. If payment is not received by PARS within thirty (30) days of the invoice delivery date, the balance due shall bear interest at the rate of 1.5% per month. If payment is not received from the Agency within sixty (60) days of the invoice delivery date, payment plus accrued interest will be remitted directly from Plan assets, unless PARS has previously received written communication disputing the subject invoice that is signed by a duly authorized representative of the Agency.
4. **Fees for Services Beyond Scope.** Fees for services beyond those specified in this Agreement will be billed to the Agency at the rates indicated in the PARS standard fee schedule in effect at the time the services are provided and shall be payable as

described in Section 3 of this Agreement. Before any such services are performed, PARS will provide the Agency with a detailed description of the services, terms, and applicable rates for such services. Such services, terms, and applicable rates shall be agreed upon in writing and executed by both parties.

5. **Information Furnished to PARS.** PARS will provide the Services contingent upon the Agency providing PARS the information specified in the exhibit attached hereto as “Exhibit 1C” (“Data”). It shall be the responsibility of the Agency to certify the accuracy, content and completeness of the Data so that PARS may rely on such information without further audit. It shall further be the responsibility of the Agency to deliver the Data to PARS in such a manner that allows for a reasonable amount of time for the Services to be performed. Unless specified in Exhibit 1A, PARS shall be under no duty to question Data received from the Agency, to compute contributions made to the Plan, to determine or inquire whether contributions are adequate to meet and discharge liabilities under the Plan, or to determine or inquire whether contributions made to the Plan are in compliance with the Plan or applicable law. In addition, PARS shall not be liable for non performance of Services to the extent such non performance is caused by or results from erroneous and/or late delivery of Data from the Agency. In the event that the Agency fails to provide Data in a complete, accurate and timely manner and pursuant to the specifications in Exhibit 1C, PARS reserves the right, notwithstanding the further provisions of this Agreement, to terminate this Agreement upon no less than ninety (90) days written notice to the Agency.
6. **Suspension of Contributions.** In the event contributions are suspended, either temporarily or permanently, prior to the complete discharge of PARS’ obligations under this Agreement, PARS reserves the right to bill the Agency for Services under this Agreement at the rates indicated in PARS’ standard fee schedule in effect at the time the services are provided, subject to the terms established in Section 3 of this Agreement. Before any such services are performed, PARS will provide the Agency with written notice of the subject services, terms, and an estimate of the fees therefore.
7. **Plan Distributions.** The Plan Administrator is responsible for notifying PARS of any Participant’s eligibility for a distribution, and PARS accepts the Plan Administrator’s contractual delegation of distribution processing and certain escheatment responsibilities. PARS is entitled to rely on, and is under no duty whatsoever to audit the efficacy of the Agency’s procedures for identifying an employee’s change-in-status or eligibility for a distribution.
8. **Non-Contribution Reports.** PARS prepares and submits a periodic Non-Contribution report to the Plan Administrator which includes all Participants who have received no new contributions for a period of time, as specified by the Plan Administrator. PARS is not obligated by law or otherwise to provide a Non-Contribution report and this report in no way obligates PARS to generate distributions without specific instruction from the Agency’s Plan Administrator as outlined in Section 7.
9. **Escheatment of Unclaimed Accounts.** PARS will administer the escheatment of Participant accounts which are deemed unclaimed pursuant to applicable state and

federal laws, under the conditions further described in the provisions of this Agreement. It is acknowledged by the Agency and Plan Administrator that any escheatment duties that PARS has arise only as a result of contractual, not statutory, obligations that PARS accepts as a delegatee of the Plan Administrator, as contained in this Agreement. For the purposes of determining the timing of distributability under any unclaimed property law, a Participant account becomes “payable or distributable” as of the date on which the Plan Administrator notifies PARS, in an acceptable form of notification, of a change-in-status together with the proper authorization to commence the distribution process.

10. **Records.** Throughout the duration of this Agreement, and for a period of five (5) years after termination of this Agreement, PARS shall provide duly authorized representatives of Agency access to all records and material relating to calculation of PARS’ fees under this Agreement. Such access shall include the right to inspect, audit and reproduce such records and material and to verify reports furnished in compliance with the provisions of this Agreement. All information so obtained shall be accorded confidential treatment as provided under applicable law.
11. **Confidentiality.** Without the Agency’s consent, PARS shall not disclose any information relating to the Plan except to duly authorized officials of the Agency, subject to applicable law, and to parties retained by PARS to perform specific services within this Agreement. The Agency shall not disclose any information relating to the Plan to individuals not employed by the Agency without the prior written consent of PARS, except as such disclosures may be required by applicable law.
12. **Independent Contractor.** PARS is and at all times hereunder shall be an independent contractor. As such, neither the Agency nor any of its officers, employees or agents shall have the power to control the conduct of PARS, its officers, employees or agents, except as specifically set forth and provided for herein. PARS shall pay all wages, salaries and other amounts due its employees in connection with this Agreement and shall be responsible for all reports and obligations respecting them, such as social security, income tax withholding, unemployment compensation, workers’ compensation and similar matters.
13. **Indemnification.** PARS and Agency hereby indemnify each other and hold the other harmless, including their respective officers, directors, employees, agents and attorneys, from any claim, loss, demand, liability, or expense, including reasonable attorneys’ fees and costs, incurred by the other as a consequence of, to the extent, PARS’ or Agency’s, as the case may be, negligent acts, errors or omissions with respect to the performance of their respective duties hereunder.
14. **Compliance with Applicable Law.** The Agency shall observe and comply with federal, state and local laws in effect when this Agreement is executed, or which may come into effect during the term of this Agreement, regarding the administration of the Plan. PARS shall observe and comply with federal, state and local laws in effect when this Agreement is executed, or which may come into effect during the term of this Agreement, regarding Plan administrative services provided under this Agreement.

15. **Applicable Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of California. In the event any party institutes legal proceedings to enforce or interpret this Agreement, venue and jurisdiction shall be in any state court of competent jurisdiction.
16. **Force Majeure.** When a party's nonperformance hereunder was beyond the control and not due to the fault of the party not performing, a party shall be excused from performing its obligations under this Agreement during the time and to the extent that it is prevented from performing by such cause, including but not limited to: any incidence of fire, flood, acts of God, acts of terrorism or war, commandeering of material, products, plants or facilities by the federal, state or local government, or a material act or omission by the other party.
17. **Ownership of Reports and Documents.** The originals of all letters, documents, reports, and data produced for the purposes of this Agreement shall be delivered to, and become the property of the Agency. Copies may be made for PARS but shall not be furnished to others without written authorization from Agency.
18. **Designees.** The Plan Administrator of the Agency, or their designee, shall have the authority to act for and exercise any of the rights of the Agency as set forth in this Agreement, subsequent to and in accordance with the written authority granted by the Governing Body of the Agency, a copy of which writing shall be delivered to PARS. Any officer of PARS, or his or her designees, shall have the authority to act for and exercise any of the rights of PARS as set forth in this Agreement.
19. **Notices.** All notices hereunder and communications regarding the interpretation of the terms of this Agreement, or changes thereto, shall be effected by delivery of the notices in person or by depositing the notices in the U.S. mail, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:
- (A) To PARS: PARS; 4350 Von Karman Avenue, Suite 100, Newport Beach, CA 92660; Attention: President
- (B) To Agency: Central Marin Sanitation Agency; 1301 Andersen Drive, San Rafael, CA 94901; Attention: _____ [Plan Administrator Title]
- Notices shall be deemed given on the date received by the addressee.
20. **Term of Agreement.** This Agreement shall remain in effect for the period beginning _____, 2019 and ending _____, 2022 ("Term"). This Agreement will continue unchanged for successive twelve month periods following the Term unless either party gives written notice to the other party of the intent to terminate prior to ninety (90) days before the end of the Term.
21. **Amendment.** This Agreement may not be amended orally, but only by a written instrument executed by the parties hereto.
22. **Entire Agreement.** This Agreement, including exhibits, contains the entire understanding of the parties with respect to the subject matter set forth in this Agreement. In the event a conflict arises between the parties with respect to any term, condition or provision of this Agreement, the remaining terms, conditions and provisions shall remain in full force and legal effect. No waiver of any term or

condition of this Agreement by any party shall be construed by the other as a continuing waiver of such term or condition.

23. **Attorneys Fees.** In the event any action is taken by a party hereto to enforce the terms of this Agreement the prevailing party herein shall be entitled to receive its reasonable attorney's fees.

24. **Counterparts.** This Agreement may be executed in any number of counterparts, and in that event, each counterpart shall be deemed a complete original and be enforceable without reference to any other counterpart.

25. **Headings.** Headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.

26. **Effective Date.** This Agreement shall be effective on the date first above written, and also shall be the date the Agreement is executed.

AGENCY:

BY: _____
Plan Administrator Name

TITLE: _____

DATE: _____

PARS:

BY: _____
Tod Hammeras

TITLE: Chief Financial Officer

DATE: _____

EXHIBIT 1A

SERVICES

PARS will provide the following services for the Central Marin Sanitation Agency PARS 457(b) Alternative Retirement Plan:

1. Plan Installation Services:

- (A) Meeting with appropriate Agency personnel to discuss plan provisions, implementation timelines, benefit communication strategies, data reporting and contribution submission requirements;
- (B) Providing the necessary analysis and advisory services to finalize these elements of the Plan;
- (C) Providing the documentation needed to establish the Plan to be reviewed and approved by Agency legal counsel. Resulting final Plan document must be approved by the Agency prior to the commencement of PARS Plan Administration Services outlined in Exhibit 1A, paragraph 2 below.

2. Plan Administration Services:

- (A) Monitoring the receipt of Plan contributions made by the Agency to the trustee of the PARS Trust ("Trustee"), based upon information received from the Agency and the Trustee;
- (B) Performing periodic accounting of Plan assets, including the allocation of employer and employee contributions, distributions, investment activity and expenses (if applicable) to individual Participant accounts, based upon information received from the Agency and/or Trustee;
- (C) Acting as ongoing liaison between the Participant and the Agency in regard to distribution payments, which shall include use by the Participants of toll-free telephone communication to PARS;
- (D) Coordinating the processing of Participant distribution payments pursuant to authorized written Agency certification of distribution eligibility, authorized direction by the Agency, the provisions further contained in this Agreement, and the provisions of the Plan;
- (E) Directing Trustee to make Participant distribution payments, pursuant to the Agency authorization provisions in this Agreement, and producing required tax filings regarding said distribution payments;
- (F) Notifying the Trustee of the amount of Plan assets available for further investment and management, or, the amount of Plan assets necessary to be liquidated in order to fund Participant distribution payments;
- (G) Coordinating actions with the Trustee as directed by the Plan Administrator within the scope of this Agreement;
- (H) Preparing and submitting a periodic Non-Contribution report which includes all Participants who have received no new contributions for a period of time as specified by the Plan Administrator, unless directed by the Agency otherwise. PARS is not obligated by law or otherwise to provide a Non-Contribution report and this report in

no way obligates PARS to generate distributions without specific instruction from the Agency Plan Administrator as outlined in Section 7 of this Agreement;

- (I) Preparing and submitting a monthly report of Plan activity to the Agency, unless directed by the Agency otherwise;
 - (J) Preparing and submitting an annual report of Plan activity to the Agency;
 - (K) Preparing individual annual statements and mailing in bulk to the Agency, unless directed by the Agency otherwise.
3. Plan Compliance Services: Preparing draft amendments and other associated documents to the Plan or Trust, as required by federal and state regulatory agencies, to be reviewed and approved by Agency's legal counsel.
 4. PARS is not licensed to provide and does not offer tax, accounting, legal, investment or actuarial advice.

DRAFT

EXHIBIT 1B
FEES FOR SERVICES

1. PARS will be compensated for performance of Services, as described in Exhibit 1A based upon the following schedule:

(A) A distribution fee equal to \$20.00 per terminated Participant (“Distribution Fee”), which shall be deducted solely from the terminating Participant’s account or paid by the Agency.

Distribution Fee Payment Option (Please select one option below):

- Distribution Fee shall be paid solely from the terminating Participant’s account.
- Distribution Fee shall be paid by the Agency.

(B) An annual asset fee paid by the Agency or from Plan assets based on the following schedule (“Asset Fee”):

<u>For Plan Assets from:</u>	<u>Annual Rate:</u>
\$1 to \$500,000	2.00%
\$500,001 to \$2,500,000	1.50%
\$2,500,001 to \$5,000,000	1.25%
\$5,000,001 to \$10,000,000	1.00%
\$10,000,001 and above	0.75%

Annual rates are prorated and paid monthly. The annual Asset Fee shall be calculated by the following formula [Annual rate divided by 12 (months of the year) multiplied by the Plan asset balance at the end of the month within each asset range]. If the Asset Fee is taken from Plan assets, the total Asset Fees due in a given month shall be allocated proportionately among Participants of the Agency’s Plan in that month, based on account balance. Trustee and Investment Management Fees are not included.

(C) The annual asset fee referenced above shall be paid as follows:

Annual Asset Fee Payment Option (Please select one option below):

- Annual Asset Fee shall be invoiced to and paid by the Agency.
- Annual Asset Fee shall be paid from Plan assets.

(D) A fee equal to any IRS application fees and or legal fees incurred related to any federal or state required Plan compliance changes. Such fees will not be charged to the Agency without prior authorization by the Plan Administrator.

(E) A fee equal to the out of pocket costs charged to PARS by an outside contractor for formatting contribution data to a suitable electronic format, charged only if the contribution data received by PARS from the Agency is not sent electronically (Excel, CSV, TXT, or other approved format) (“Data Processing Fee”).

EXHIBIT 1C
DATA REQUIREMENTS

PARS will provide the Services under this Agreement contingent upon receiving the following information:

1. Contribution Data – transmitted to PARS electronically (Excel, CSV, TXT, or other approved format) containing the following items of employee information related to the covered payroll period:
 - (A) Agency name
 - (B) Employee’s legal name
 - (C) Employee’s social security number
 - (D) Payroll date
 - (E) Employer contribution amount
 - (F) Employee contribution amount
2. Distribution Data – written Plan Administrator’s (or authorized Designee’s) direction to commence distribution processing, which contains the following items of Participant information:
 - (A) Agency name
 - (B) Participant’s legal name
 - (C) Participant’s social security number
 - (D) Participant’s address
 - (E) Participant’s phone number
 - (F) Participant’s birthdate
 - (G) Participant’s condition of eligibility
 - (H) Participant’s effective date of eligibility
 - (I) Signed certification of distribution eligibility from the Plan Administrator, or authorized Designee
3. Executed Legal Documents:
 - (A) Certified Resolution
 - (B) Plan Document
 - (C) Trust Agreement
 - (D) Trustee Investment Forms
4. Other information pertinent to the Services as reasonably requested by PARS.

CENTRAL MARIN SANITATION AGENCY
TOTAL ANNUAL COST OF PARS PROGRAM

Below are 9 scenarios of possible cost sharing allocations between the employer (Er) and the employee (Ee). The Agency budgeted \$45,000 annual amount for gross salary for temporary employees and the Ee share and the Er share are in direct relation to the amount of gross salary. Scenarios 1 through 5 are total 7.5% plan contributions, scenario 6 is 12.4%, and scenarios 7 through 9 are 10% total contributions. The scenarios show total dollar cost impact to both the Er and the Ee. Doing nothing and remaining in social security will be a 6.2% cost impact to the employer in the amount of \$2,790. The total Er cost for each of the scenarios is shown in the far right column that includes the contribution percentage plus the asset management fee. Scenarios with total Er cost less than \$2,790 are those with savings from social security.

Scenario 1	Er (a)	\$ 45,000	0.00%	\$ -	Total Er Cost a + b
7.5% Ee	Ee	\$ 45,000	7.50%	\$ 3,375	
	Total % contribution		<u>7.50%</u>		
				<u>Assets under management</u>	<u>\$ 3,375</u>
				(b) Management fee to CMSA at 2%	<u>\$ 68</u>
					<u>\$ 68</u>
Scenario 2	Er (a)	\$ 45,000	7.50%	\$ 3,375	Total Er Cost a + b
7.5% Er	Ee	\$ 45,000	0.00%	\$ -	
	Total % contribution		<u>7.50%</u>		
				<u>Assets under management</u>	<u>\$ 3,375</u>
				(b) Management fee to CMSA at 2%	<u>\$ 68</u>
					<u>\$ 3,443</u>
Scenario 3	Er (a)	\$ 45,000	6.20%	\$ 2,790	Total Er Cost a + b
6.2 / 1.3	Ee	\$ 45,000	1.30%	\$ 585	
	Total % contribution		<u>7.50%</u>		
				<u>Assets under management</u>	<u>\$ 3,375</u>
				(b) Management fee to CMSA at 2%	<u>\$ 68</u>
					<u>\$ 2,858</u>
Scenario 4	Er (a)	\$ 45,000	1.30%	\$ 585	Total Er Cost a + b
1.3 / 6.2	Ee	\$ 45,000	6.20%	\$ 2,790	
	Total % contribution		<u>7.50%</u>		
				<u>Assets under management</u>	<u>\$ 3,375</u>
				(b) Management fee to CMSA at 2%	<u>\$ 68</u>
					<u>\$ 653</u>

CENTRAL MARIN SANITATION AGENCY
TOTAL ANNUAL COST OF PARS PROGRAM

Scenario 5	Er (a)	\$ 45,000	3.75%	\$ 1,688		
3.75 / 3.75	Ee	\$ 45,000	3.75%	\$ 1,688		Total
	Total % contribution		<u>7.50%</u>			Er Cost
						a + b
				<u>\$ 3,375</u>		
				<u>\$ 68</u>	<u>\$ 1,755</u>	
Scenario 6	Er (a)	\$ 45,000	6.20%	\$ 2,790		Total
6.2 / 6.2	Ee	\$ 45,000	6.20%	\$ 2,790		Er Cost
	Total % contribution		<u>12.40%</u>			a + b
				<u>\$ 5,580</u>		
				<u>\$ 112</u>	<u>\$ 2,902</u>	
Scenario 7	Er (a)	\$ 45,000	6.20%	\$ 2,790		Total
6.2 / 3.8	Ee	\$ 45,000	3.80%	\$ 1,710		Er Cost
	Total % contribution		<u>10.00%</u>			a + b
				<u>\$ 4,500</u>		
				<u>\$ 90</u>	<u>\$ 2,880</u>	
Scenario 8	Er (a)	\$ 45,000	3.80%	\$ 1,710		Total
3.8 / 6.2	Ee	\$ 45,000	6.20%	\$ 2,790		Er Cost
	Total % contribution		<u>10.00%</u>			a + b
				<u>\$ 4,500</u>		
				<u>\$ 90</u>	<u>\$ 1,800</u>	
Scenario 9	Er (a)	\$ 45,000	5.00%	\$ 2,250		Total
5.0 / 5.0	Ee	\$ 45,000	5.00%	\$ 2,250		Er Cost
	Total % contribution		<u>10.00%</u>			a + b
				<u>\$ 4,500</u>		
				<u>\$ 90</u>	<u>\$ 2,340</u>	



BOARD MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates

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

Subject: **Tyler Technologies Financial System Software Procurement**

Recommendation: Approve the Tyler Technologies License and Services Agreement for the purchase of new financial system software, and provide comments and/or direction to the General Manager, as appropriate.

Summary: At the last Board meeting in July, staff described the financial software identification, evaluation, and selection process that was completed as part of the FY19 Business Plan, and presented the organizational benefits of procuring and installing the proposed financial system software. At the conclusion of the discussion, staff informed the Board about a couple recent internal asset management software module compatibility questions that need to be addressed before making a procurement decision. The Board decided to continue the discussion at the September meeting.

Key internal staff have met since the July Board meeting and resolved the compatibility questions. Bill McInerney, CMSA's Contract attorney, has reviewed, commented, and approved the attached Tyler Technologies License and Services Agreement. Its several exhibits are not attached, and can be viewed at the Agency's office.

Fiscal Impact: The cost of the Tyler system is \$135K for licensing and installation support services. Ongoing system maintenance includes annual software upgrades and 24/7 customer support, which is currently priced at approximately \$20K beginning in FY21. Funding for the system procurement is provided in the FY20 CIP's IT Hardware and Software account.

Alignment with Strategic Plans: Financial software procurement supports four strategic actions for Goal 2 - Objective 2.2 in the Agency's adopted FY20 Business Plan as shown below.

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

Objective 2.2 Procure and implement new financial system software.

Discussion: Over the past few years the Agency has either replaced or upgraded mission critical software to improve operations, business process efficiency, and data management and reporting. These have included updating the asset management software (NEXGEN), replacing the laboratory information management system (LIMS), and implementing a new enterprise based data management system (WIMS). As reported in the FY19 Business Plan Annual Report at the June Board meeting, staff completed a comprehensive evaluation of financial software systems. Procurement of a new system was accepted by the Board's Finance Committee and funding is included in the FY20 Capital Improvement Program (CIP) budget.

The Agency's current financial system, Open Systems Accounting Software (OSAS), is over 30 years old and has been in place since the early 1980s. OSAS is Microsoft DOS-based using function and arrow keys for input and operation. It is used only by the Administration Department's finance staff and is not available to users in other departments who rely on manually prepared reports supplied to them. Additionally, OSAS is not user friendly and its report writing capability is cumbersome and limited. CMSA's original investment in OSAS was approximately \$8K and staff believes it has out-served its useful life and a system upgrade is highly recommended.

Staff performed and completed an extensive financial software identification, evaluation, and selection process. Six different financial software programs were evaluated, including deep-dive demonstrations of the top three software packages. Our internal evaluation process included Administration and IT staff, department managers and supervisors, and the Agency Strategic Planning Committee, all of whom unanimously selected the Tyler Technologies product as the system that best fits the needs of the Agency. The software will reside on the CMSA network, backed up daily with offsite storage in Virginia.

The system will provide tremendous time and cost savings to all users; managers and supervisors for authorized access and reporting, administrative staff for accounting and support services, and all employees will enter electronic time sheets and utilize the employee portal to access authorized information and make personnel related initial requests. Access to all aspects of the system will be controlled and authorized by system security. Users can view data, print reports, create reports, prepare budgets, manage projects, perform accounting and purchasing, and utilize remote capability for approvals and requests. The system will largely eliminate paper through electronic approval, notifications, and document management.

Tyler Technologies is very popular and successful, and it wasn't difficult to find other public agency users of their system. Staff checked references with West County Wastewater District, Sewer Authority Mid-Coastside, Coastside County Water District, and West Valley Sanitation District. All responses were enthusiastically positive, with respondents saying the software functions seamlessly and Tyler Support will "bend over backwards" to help with any concern you may have.

Attachment: Tyler Technologies License and Services Agreement (not including exhibits)



LICENSE AND SERVICES AGREEMENT

This License and Services Agreement is made between Tyler Technologies, Inc. and Client.

WHEREAS, Client selected Tyler to license the software products and perform the services set forth in the Investment Summary and Tyler desires to perform such actions under the terms of this Agreement;

NOW THEREFORE, in consideration of the foregoing and of the mutual covenants and promises set forth in this Agreement, Tyler and Client agree as follows:

SECTION A – DEFINITIONS

- **“Agreement”** means this License and Services Agreement.
- **“Business Travel Policy”** means our business travel policy. A copy of our current Business Travel Policy is attached as Schedule 1 to Exhibit B.
- **“Client”** means Central Marin Sanitation Agency.
- **“Defect”** means a failure of the Tyler Software to substantially conform to the functional descriptions set forth in our written proposal to you, or their functional equivalent. Future functionality may be updated, modified, or otherwise enhanced through our maintenance and support services, and the governing functional descriptions for such future functionality will be set forth in our then-current Documentation.
- **“Developer”** means a third party who owns the intellectual property rights to Third Party Software.
- **“Documentation”** means any online or written documentation related to the use or functionality of the Tyler Software that we provide or otherwise make available to you, including instructions, user guides, manuals and other training or self-help documentation.
- **“Effective Date”** means the date on which your authorized representative signs the Agreement.
- **“Force Majeure”** means an event beyond the reasonable control of you or us, including, without limitation, governmental action, war, riot or civil commotion, fire, natural disaster, or any other cause that could not with reasonable diligence be foreseen or prevented by you or us.
- **“Investment Summary”** means the agreed upon cost proposal for the software, products, and services attached as Exhibit A.
- **“Invoicing and Payment Policy”** means the invoicing and payment policy. A copy of our current Invoicing and Payment Policy is attached as Exhibit B.
- **“Maintenance and Support Agreement”** means the terms and conditions governing the provision of maintenance and support services to all of our customers. A copy of our current Maintenance and Support Agreement is attached as Exhibit C.
- **“Statement of Work”** means the industry standard implementation plan describing how our professional services will be provided to implement the Tyler Software, and outlining your and our roles and responsibilities in connection with that implementation. The Statement of Work is attached as Exhibit D.
- **“Support Call Process”** means the support call process applicable to all of our customers who have licensed the Tyler Software. A copy of our current Support Call Process is attached as Schedule 1 to Exhibit C.

- **“Third Party Terms”** means, if any, the end user license agreement(s) or similar terms for the Third Party Software, as applicable.
- **“Third Party Hardware”** means the third party hardware, if any, identified in the Investment Summary.
- **“Third Party Products”** means the Third Party Software and Third Party Hardware.
- **“Third Party Software”** means the third party software, if any, identified in the Investment Summary.
- **“Third Party Services”** means the third party services, if any, identified in the Investment Summary.
- **“Tyler”** means Tyler Technologies, Inc., a Delaware corporation.
- **“Tyler Software”** means our proprietary software, including any integrations, custom modifications, and/or other related interfaces identified in the Investment Summary and licensed by us to you through this Agreement.
- **“we”, “us”, “our”** and similar terms mean Tyler.
- **“you”** and similar terms mean Client.

SECTION B – SOFTWARE LICENSE

1. License Grant and Restrictions.

- 1.1 We grant to you a license to use the Tyler Software for your internal business purposes only, in the scope of the internal business purposes disclosed to us as of the Effective Date. You may make copies of the Tyler Software for backup and testing purposes, so long as such copies are not used in production and the testing is for internal use only. Your rights to use the Tyler Software are perpetual but may be revoked if you do not comply with the terms of this Agreement.
- 1.2 The Documentation is licensed to you and may be used and copied by your employees for internal, non-commercial reference purposes only.
- 1.3 You may not: (a) transfer or assign the Tyler Software to a third party; (b) reverse engineer, decompile, or disassemble the Tyler Software; (c) rent, lease, lend, or provide commercial hosting services with the Tyler Software; or (d) publish or otherwise disclose the Tyler Software or Documentation to third parties.
- 1.4 The license terms in this Agreement apply to updates and enhancements we may provide to you or make available to you through your Maintenance and Support Agreement.
- 1.5 The right to transfer the Tyler Software to a replacement hardware system is included in your license. You will give us advance written notice of any such transfer and will pay us for any required or requested technical assistance from us associated with such transfer.
- 1.6 Where applicable with respect to our applications that take or process card payment data, we are responsible for the security of cardholder data that we possess, including functions relating to storing, processing, and transmitting of the cardholder data and affirm that, as of the Effective Date, we comply with applicable requirements to be considered PCI DSS compliant and have performed the necessary steps to validate compliance with the PCI DSS. We agree to supply the current status of our PCI DSS compliance program in the form of an official Attestation of Compliance, which can be found at <https://www.tylertech.com/about-us/compliance>, and in the event of any change in our status, will comply with applicable notice requirements.

1.7 We reserve all rights not expressly granted to you in this Agreement. The Tyler Software and Documentation are protected by copyright and other intellectual property laws and treaties. We own the title, copyright, and other intellectual property rights in the Tyler Software and the Documentation. **The Tyler Software is licensed, not sold.**

2. License Fees. You agree to pay us the license fees in the amounts set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy.
3. Escrow. We maintain an escrow agreement with a third party under which we place the source code for each major release of the Tyler Software. You may be added as a beneficiary to the escrow agreement by completing a standard beneficiary enrollment form and paying the annual beneficiary fee set forth in the Investment Summary. You will be responsible for maintaining your ongoing status as a beneficiary, including payment of the then-current annual beneficiary fees. Release of source code for the Tyler Software is strictly governed by the terms of the escrow agreement.
4. Limited Warranty. We warrant that the Tyler Software will be without Defect(s) as long as you have a Maintenance and Support Agreement in effect. If the Tyler Software does not perform as warranted, we will use all reasonable efforts, consistent with industry standards, to cure the Defect as set forth in the Maintenance and Support Agreement.

SECTION C – PROFESSIONAL SERVICES

1. Services. We will provide you the various implementation-related services itemized in the Investment Summary and described in the Statement of Work.
2. Professional Services Fees. You agree to pay us the professional services fees in the amounts set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy. You acknowledge that the fees stated in the Investment Summary are good-faith estimates of the amount of time and materials required for your implementation. We will bill you the actual fees incurred based on the in-scope services provided to you. Any discrepancies in the total values set forth in the Investment Summary will be resolved by multiplying the applicable hourly rate by the quoted hours.
3. Additional Services. The Investment Summary contains, and the Statement of Work describes, the scope of services and related costs (including programming and/or interface estimates) required for the project based on our understanding of the specifications you supplied, including, but not limited to the number of employees, the amount of data to convert, small vehicle fleet. If additional work is required, or if you use or request additional services, we will provide you with an addendum or change order, as applicable, outlining the costs for the additional work. The price quotes in the addendum or change order will be valid for thirty (30) days from the date of the quote.
4. Cancellation. We make all reasonable efforts to schedule our personnel for travel, including arranging travel reservations, at least two (2) weeks in advance of commitments. Therefore, if you cancel services less than two (2) weeks in advance (other than for Force Majeure or breach by us), you will be liable for all (a) non-refundable expenses incurred by us on your behalf, and (b) daily fees associated with cancelled professional services if we are unable to reassign our personnel. We will make all reasonable efforts to reassign personnel in the event you cancel within two (2) weeks of scheduled commitments.
5. Services Warranty. We will perform the services in a professional, workmanlike manner, consistent with industry standards. In the event we provide services that do not conform to this warranty, we will re-

perform such services at no additional cost to you.

6. Site Access and Requirements. At no cost to us, you agree to provide us with full and free access to your personnel, facilities, and equipment as may be reasonably necessary for us to provide implementation services, subject to any reasonable security protocols or other written policies provided to us as of the Effective Date, and thereafter as mutually agreed to by you and us. You further agree to provide a reasonably suitable environment, location, and space for the installation of the Tyler Software and any Third Party Products, including, without limitation, sufficient electrical circuits, cables, and other reasonably necessary items required for the installation and operation of the Tyler Software and any Third Party Products.
7. Client Assistance. You acknowledge that the implementation of the Tyler Software is a cooperative process requiring the time and resources of your personnel. You agree to use all reasonable efforts to cooperate with and assist us as may be reasonably required to meet the agreed upon project deadlines and other milestones for implementation. This cooperation includes at least working with us to schedule the implementation-related services outlined in this Agreement. We will not be liable for failure to meet any deadlines and milestones when such failure is due to Force Majeure or to the failure by your personnel to provide such cooperation and assistance (either through action or omission).

SECTION D – MAINTENANCE AND SUPPORT

This Agreement includes the period of free maintenance and support services identified in the Invoicing and Payment Policy. If you have purchased ongoing maintenance and support services, and continue to make timely payments for them according to our Invoicing and Payment Policy, we will provide you with maintenance and support services for the Tyler Software under the terms of our standard Maintenance and Support Agreement.

If you have opted not to purchase ongoing maintenance and support services for the Tyler Software, the Maintenance and Support Agreement does not apply to you. Instead, you will only receive ongoing maintenance and support on the Tyler Software on a time and materials basis. In addition, you will:

- (i) receive the lowest priority under our Support Call Process;
- (ii) be required to purchase new releases of the Tyler Software, including fixes, enhancements and patches;
- (iii) be charged our then-current rates for support services, or such other rates that we may consider necessary to account for your lack of ongoing training on the Tyler Software;
- (iv) be charged for a minimum of two (2) hours of support services for every support call; and
- (v) not be granted access to the support website for the Tyler Software or the Tyler Community Forum.

SECTION E – THIRD PARTY PRODUCTS

To the extent there are any Third Party Products set forth in the Investment Summary, the following terms and conditions will apply:

1. Third Party Hardware. We will sell, deliver, and install onsite the Third Party Hardware, if you have purchased any, for the price set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy.

2. Third Party Software. Upon payment in full of the Third Party Software license fees, you will receive a non-transferable license to use the Third Party Software and related documentation for your internal business purposes only. Your license rights to the Third Party Software will be governed by the Third Party Terms.
 - 2.1 We will install onsite the Third Party Software. The installation cost is included in the installation fee in the Investment Summary.
 - 2.2 If the Developer charges a fee for future updates, releases, or other enhancements to the Third Party Software, you will be required to pay such additional future fee.
 - 2.3 The right to transfer the Third Party Software to a replacement hardware system is governed by the Developer. You will give us advance written notice of any such transfer and will pay us for any required or requested technical assistance from us associated with such transfer.
3. Third Party Products Warranties.
 - 3.1 We are authorized by each Developer to grant or transfer the licenses to the Third Party Software.
 - 3.2 The Third Party Hardware will be new and unused, and upon payment in full, you will receive free and clear title to the Third Party Hardware.
 - 3.3 You acknowledge that we are not the manufacturer of the Third Party Products. We do not warrant or guarantee the performance of the Third Party Products. However, we grant and pass through to you any warranty that we may receive from the Developer or supplier of the Third Party Products.
4. Third Party Services. If you have purchased Third Party Services, those services will be provided independent of Tyler by such third-party at the rates set forth in the Investment Summary and in accordance with our Invoicing and Payment Policy.
5. Maintenance. If you have a Maintenance and Support Agreement in effect, you may report defects and other issues related to the Third Party Software directly to us, and we will (a) directly address the defect or issue, to the extent it relates to our interface with the Third Party Software; and/or (b) facilitate resolution with the Developer, unless that Developer requires that you have a separate, direct maintenance agreement in effect with that Developer. In all events, if you do not have a Maintenance and Support Agreement in effect with us, you will be responsible for resolving defects and other issues related to the Third Party Software directly with the Developer.

SECTION F – INVOICING AND PAYMENT; INVOICE DISPUTES

1. Invoicing and Payment. We will invoice you for all fees set forth in the Investment Summary per our Invoicing and Payment Policy, subject to Section F(2).
2. Invoice Disputes. If you believe any delivered software or service does not conform to the warranties in this Agreement, you will provide us with written notice within thirty (30) days of your receipt of the applicable invoice. The written notice must contain reasonable detail of the issues you contend are in dispute so that we can confirm the issue and respond to your notice with either a justification of the invoice, an adjustment to the invoice, or a proposal addressing the issues presented in your notice. We will work with you as may be necessary to develop an action plan that outlines reasonable steps to be taken by each of us to resolve any issues presented in your notice. You may withhold payment of the amount(s) actually in dispute, and only those amounts, until we complete the action items outlined in the plan. If we are unable to complete

the action items outlined in the action plan because of your failure to complete the items agreed to be done by you, then you will remit full payment of the invoice. We reserve the right to suspend delivery of all services, including maintenance and support services, if you fail to pay an invoice not disputed as described above within fifteen (15) days of notice of our intent to do so.

SECTION G – TERMINATION

1. For Cause. If you believe we have materially breached this Agreement, you will invoke the Dispute Resolution clause set forth in Section I(3). You may terminate this Agreement for cause in the event we do not cure, or create a mutually agreeable action plan to address, a material breach of this Agreement within the thirty (30) day window set forth in Section I(3). In the event of termination for cause, you will pay us for all undisputed fees and expenses related to the software, products, and/or services you have received, or we have incurred or delivered, prior to the effective date of termination.
2. Lack of Appropriations. If you should not appropriate or otherwise receive funds sufficient to purchase, lease, operate, or maintain the software or services set forth in this Agreement, you may unilaterally terminate this Agreement effective on the final day of the fiscal year through which you have funding. You will make every effort to give us at least thirty (30) days written notice prior to a termination for lack of appropriations. In the event of termination due to a lack of appropriations, you will pay us for all undisputed fees and expenses related to the software and/or services you have received, or we have incurred or delivered, prior to the effective date of termination. Any disputed fees and expenses must have been submitted to the Invoice Dispute process set forth in Section F(2) at the time of termination in order to be withheld at termination. You will not be entitled to a refund or offset of previously paid license and other fees.
3. Force Majeure. Neither party will be liable, you or we may terminate this Agreement if a Force Majeure event suspends performance of scheduled tasks for a period of forty-five (45) days or more. In the event of termination due to Force Majeure, you will pay us for all undisputed fees and expenses related to the software and/or services you have received, or we have incurred or delivered, prior to the effective date of termination. Any disputed fees and expenses must have been submitted to the Invoice Dispute process set forth in Section F(2) at the time of termination in order to be withheld at termination. You will not be entitled to a refund or offset of previously paid license and other fees.

SECTION H – INDEMNIFICATION, LIMITATION OF LIABILITY AND INSURANCE

1. Intellectual Property Infringement Indemnification.
 - 1.1 We will defend you against any third party claim(s) that the Tyler Software or Documentation infringes that third party's patent, copyright, or trademark, or misappropriates its trade secrets, and will pay the amount of any resulting adverse final judgment (or settlement to which we consent). You must notify us promptly in writing of the claim and give us sole control over its defense or settlement. You agree to provide us with reasonable assistance, cooperation, and information in defending the claim at our expense.
 - 1.2 Our obligations under this Section H(1) will not apply to the extent the claim or adverse final judgment is based on your: (a) use of a previous version of the Tyler Software and the claim would have been avoided had you installed and used the current version of the Tyler Software, and we provided notice of that requirement to you; (b) combining the Tyler Software with any product or device not provided,

contemplated, or approved by us; (c) altering or modifying the Tyler Software, including any modification by third parties at your direction or otherwise permitted by you; (d) use of the Tyler Software in contradiction of this Agreement, including with non-licensed third parties; or (e) willful infringement, including use of the Tyler Software after we notify you to discontinue use due to such a claim.

1.3 If we receive information concerning an infringement or misappropriation claim related to the Tyler Software, we may, at our expense and without obligation to do so, either: (a) procure for you the right to continue its use; (b) modify it to make it non-infringing; or (c) replace it with a functional equivalent, in which case you will stop running the allegedly infringing Tyler Software immediately. Alternatively, we may decide to litigate the claim to judgment, in which case you may continue to use the Tyler Software consistent with the terms of this Agreement.

1.4 If an infringement or misappropriation claim is fully litigated and your use of the Tyler Software is enjoined by a court of competent jurisdiction, in addition to paying any adverse final judgment (or settlement to which we consent), we will, at our option, either: (a) procure the right to continue its use; (b) modify it to make it non-infringing; (c) replace it with a functional equivalent; or (d) terminate your license and refund the license fees paid for the infringing Tyler Software, as depreciated on a straight-line basis measured over seven (7) years from the Effective Date. We will pursue those options in the order listed herein. This section provides your exclusive remedy for third party copyright, patent, or trademark infringement and trade secret misappropriation claims.

2. General Indemnification.

2.1 We will indemnify and hold harmless you and your agents, officials, and employees from and against any and all third-party claims, losses, liabilities, damages, costs, and expenses (including reasonable attorney's fees and costs) for (a) personal injury or property damage to the extent caused by our negligence or willful misconduct; or (b) our violation of PCI DSS requirements or a law applicable to our performance under this Agreement. You must notify us promptly in writing of the claim and give us sole control over its defense or settlement. You agree to provide us with reasonable assistance, cooperation, and information in defending the claim at our expense.

2.2 To the extent permitted by applicable law, you will indemnify and hold harmless us and our agents, officials, and employees from and against any and all third-party claims, losses, liabilities, damages, costs, and expenses (including reasonable attorney's fees and costs) for personal injury or property damage to the extent caused by your negligence or willful misconduct; or (b) your violation of a law applicable to your performance under this Agreement. We will notify you promptly in writing of the claim and will give you sole control over its defense or settlement. We agree to provide you with reasonable assistance, cooperation, and information in defending the claim at your expense.

3. **DISCLAIMER. EXCEPT FOR THE EXPRESS WARRANTIES PROVIDED IN THIS AGREEMENT AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, WE HEREBY DISCLAIM ALL OTHER WARRANTIES AND CONDITIONS, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES, DUTIES, OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

4. **LIMITATION OF LIABILITY. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, OUR LIABILITY FOR DAMAGES ARISING OUT OF THIS AGREEMENT, WHETHER BASED ON A THEORY OF CONTRACT OR TORT, INCLUDING NEGLIGENCE AND STRICT LIABILITY, SHALL BE LIMITED TO YOUR ACTUAL**

DIRECT DAMAGES, NOT TO EXCEED (A) PRIOR TO FORMAL TRANSITION TO MAINTENANCE AND SUPPORT, THE TOTAL ONE-TIME FEES SET FORTH IN THE INVESTMENT SUMMARY; OR (B) AFTER FORMAL TRANSITION TO MAINTENANCE AND SUPPORT, THE THEN-CURRENT ANNUAL MAINTENANCE AND SUPPORT FEE. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE PRICES SET FORTH IN THIS AGREEMENT ARE SET IN RELIANCE UPON THIS LIMITATION OF LIABILITY AND TO THE MAXIMUM EXTENT ALLOWED UNDER APPLICABLE LAW, THE EXCLUSION OF CERTAIN DAMAGES, AND EACH SHALL APPLY REGARDLESS OF THE FAILURE OF AN ESSENTIAL PURPOSE OF ANY REMEDY. THE FOREGOING LIMITATION OF LIABILITY SHALL NOT APPLY TO CLAIMS THAT ARE SUBJECT TO SECTIONS H(1) AND H(2).

5. **EXCLUSION OF CERTAIN DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**
6. Insurance. During the course of performing services under this Agreement, we agree to maintain the following levels of insurance: (a) Commercial General Liability of at least \$1,000,000; (b) Automobile Liability of at least \$1,000,000; (c) Professional Liability of at least \$1,000,000; (d) Workers Compensation complying with applicable statutory requirements; and (e) Excess/Umbrella Liability of at least \$5,000,000. We will add you as an additional insured to our Commercial General Liability and Automobile Liability policies, which will automatically add you as an additional insured to our Excess/Umbrella Liability policy as well. We will provide you with copies of certificates of insurance upon your written request.

SECTION I – GENERAL TERMS AND CONDITIONS

1. Additional Products and Services. You may purchase additional products and services at the rates set forth in the Investment Summary for twelve (12) months from the Effective Date, and thereafter at our then-current list price, by executing a mutually agreed addendum. If no rate is provided in the Investment Summary, or those twelve (12) months have expired, you may purchase additional products and services at our then-current list price, also by executing a mutually agreed addendum. The terms of this Agreement will control any such additional purchase(s), unless otherwise specifically provided in the addendum.
2. Optional Items. Pricing for any listed optional products and services in the Investment Summary will be valid for twelve (12) months from the Effective Date.
3. Dispute Resolution. You agree to provide us with written notice within thirty (30) days of becoming aware of a dispute. You agree to cooperate with us in trying to reasonably resolve all disputes, including, if requested by either party, appointing a senior representative to meet and engage in good faith negotiations with our appointed senior representative. Senior representatives will convene within thirty (30) days of the written dispute notice, unless otherwise agreed. All meetings and discussions between senior representatives will be deemed confidential settlement discussions not subject to disclosure under Federal Rule of Evidence 408 or any similar applicable state rule. If we fail to resolve the dispute, then the parties shall participate in non-binding mediation in an effort to resolve the dispute. If the dispute remains unresolved after mediation, then either of us may assert our respective rights and remedies in a court of competent jurisdiction. Nothing in this section shall prevent you or us from seeking necessary injunctive relief during the dispute resolution procedures.
4. Taxes. The fees in the Investment Summary do not include any taxes, including, without limitation, sales, use, or excise tax. If you are a tax-exempt entity, you agree to provide us with a tax-exempt certificate. Otherwise, we will pay all applicable taxes to the proper authorities and you will reimburse us for such taxes.

If you have a valid direct-pay permit, you agree to provide us with a copy. For clarity, we are responsible for paying our income taxes, both federal and state, as applicable, arising from our performance of this Agreement.

5. Nondiscrimination. We will not discriminate against any person employed or applying for employment concerning the performance of our responsibilities under this Agreement. This discrimination prohibition will apply to all matters of initial employment, tenure, and terms of employment, or otherwise with respect to any matter directly or indirectly relating to employment concerning race, color, religion, national origin, age, sex, sexual orientation, ancestry, disability that is unrelated to the individual's ability to perform the duties of a particular job or position, height, weight, marital status, or political affiliation. We will post, where appropriate, all notices related to nondiscrimination as may be required by applicable law.
6. E-Verify. We have complied, and will comply, with the E-Verify procedures administered by the U.S. Citizenship and Immigration Services Verification Division for all of our employees assigned to your project.
7. Subcontractors. We will not subcontract any services under this Agreement without your prior written consent, not to be unreasonably withheld.
8. Binding Effect; No Assignment. This Agreement shall be binding on, and shall be for the benefit of, either your or our successor(s) or permitted assign(s). Neither party may assign this Agreement without the prior written consent of the other party; provided, however, your consent is not required for an assignment by us as a result of a corporate reorganization, merger, acquisition, or purchase of substantially all of our assets.
9. Force Majeure. Except for your payment obligations, neither party will be liable for delays in performing its obligations under this Agreement to the extent that the delay is caused by Force Majeure; provided, however, that within ten (10) business days of the Force Majeure event, the party whose performance is delayed provides the other party with written notice explaining the cause and extent thereof, as well as a request for a reasonable time extension equal to the estimated duration of the Force Majeure event.
10. No Intended Third Party Beneficiaries. This Agreement is entered into solely for the benefit of you and us. No third party will be deemed a beneficiary of this Agreement, and no third party will have the right to make any claim or assert any right under this Agreement. This provision does not affect the rights of third parties under any Third Party Terms.
11. Entire Agreement; Amendment. This Agreement represents the entire agreement between you and us with respect to the subject matter hereof, and supersedes any prior agreements, understandings, and representations, whether written, oral, expressed, implied, or statutory. Purchase orders submitted by you, if any, are for your internal administrative purposes only, and the terms and conditions contained in those purchase orders will have no force or effect. This Agreement may only be modified by a written amendment signed by an authorized representative of each party.
12. Severability. If any term or provision of this Agreement is held invalid or unenforceable, the remainder of this Agreement will be considered valid and enforceable to the fullest extent permitted by law.
13. No Waiver. In the event that the terms and conditions of this Agreement are not strictly enforced by either party, such non-enforcement will not act as or be deemed to act as a waiver or modification of this Agreement, nor will such non-enforcement prevent such party from enforcing each and every term of this Agreement thereafter.

14. Independent Contractor. We are an independent contractor for all purposes under this Agreement.
15. Notices. All notices or communications required or permitted as a part of this Agreement, such as notice of an alleged material breach for a termination for cause or a dispute that must be submitted to dispute resolution, must be in writing and will be deemed delivered upon the earlier of the following: (a) actual receipt by the receiving party; (b) upon receipt by sender of a certified mail, return receipt signed by an employee or agent of the receiving party; (c) upon receipt by sender of proof of email delivery; or (d) if not actually received, five (5) days after deposit with the United States Postal Service authorized mail center with proper postage (certified mail, return receipt requested) affixed and addressed to the other party at the address set forth on the signature page hereto or such other address as the party may have designated by proper notice. The consequences for the failure to receive a notice due to improper notification by the intended receiving party of a change in address will be borne by the intended receiving party.
16. Client Lists. You agree that we may identify you by name in client lists, marketing presentations, and promotional materials.
17. Confidentiality. Both parties recognize that their respective employees and agents, in the course of performance of this Agreement, may be exposed to confidential information and that disclosure of such information could violate rights to private individuals and entities, including the parties. Confidential information is nonpublic information that a reasonable person would believe to be confidential and includes, without limitation, personal identifying information (e.g., social security numbers) and trade secrets, each as defined by applicable state law. Each party agrees that it will not disclose any confidential information of the other party and further agrees to take all reasonable and appropriate action to prevent such disclosure by its employees or agents. The confidentiality covenants contained herein will survive the termination or cancellation of this Agreement. This obligation of confidentiality will not apply to information that:
- (a) is in the public domain, either at the time of disclosure or afterwards, except by breach of this Agreement by a party or its employees or agents;
 - (b) a party can establish by reasonable proof was in that party's possession at the time of initial disclosure;
 - (c) a party receives from a third party who has a right to disclose it to the receiving party; or
 - (d) is the subject of a legitimate disclosure request under the open records laws or similar applicable public disclosure laws governing this Agreement; provided, however, that in the event you receive an open records or other similar applicable request, you will give us prompt notice and otherwise perform the functions required by applicable law.
18. Business License. In the event a local business license is required for us to perform services hereunder, you will promptly notify us and provide us with the necessary paperwork and/or contact information so that we may timely obtain such license.
19. Governing Law. This Agreement will be governed by and construed in accordance with the laws of your state of domicile, without regard to its rules on conflicts of law.
20. Multiple Originals and Authorized Signatures. This Agreement may be executed in multiple originals, any of which will be independently treated as an original document. Any electronic, faxed, scanned, photocopied, or similarly reproduced signature on this Agreement or any amendment hereto will be deemed an original signature and will be fully enforceable as if an original signature. Each party represents to the other that the signatory set forth below is duly authorized to bind that party to this Agreement.

21. Cooperative Procurement. To the maximum extent permitted by applicable law, we agree that this Agreement may be used as a cooperative procurement vehicle by eligible jurisdictions. We reserve the right to negotiate and customize the terms and conditions set forth herein, including but not limited to pricing, to the scope and circumstances of that cooperative procurement.

22. Contract Documents. This Agreement includes the following exhibits:

- | | |
|-----------|---|
| Exhibit A | Investment Summary |
| Exhibit B | Invoicing and Payment Policy
Schedule 1: Business Travel Policy |
| Exhibit C | Maintenance and Support Agreement
Schedule 1: Support Call Process |
| Exhibit D | Statement of Work |

IN WITNESS WHEREOF, a duly authorized representative of each party has executed this Agreement as of the date(s) set forth below.

Tyler Technologies, Inc.

Central Marin Sanitation Agency

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Address for Notices:

Tyler Technologies, Inc.
One Tyler Drive
Yarmouth, ME 04096
Attention: Chief Legal Officer

Address for Notices:

Central Marin Sanitation Agency
1301 Andersen Drive
San Rafael, CA 94901-5339
Attention: _____



BOARD MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates

From: Amy Hwang, Associate Engineer

Approved: Jason Dow, General Manger

Subject: Accept the Andersen Drive Landslide Repairs Project as Substantially Complete (CMSA Contract No. 19-13)

Recommendation: Accept the Andersen Drive Landslide Repairs Project as substantially complete, and authorize the General Manager to file the Notice of Completion with the County of Marin.

Summary: The Andersen Drive Landslide Repairs Project (Project) scope of work included constructing soldier pile retaining walls to stabilize the upper portion of each landslide area and reducing the slopes to conform to adjacent grades, thereby stabilizing the hillside. The Project is substantially complete, with only site re-grading, erosion control, and general clean-up work remaining as of the date of this staff report. If the Board approves the staff recommendation, staff will file the Notice of Completion after all Project work has been completed and accepted.

Background: During the February 2017 storms, five landslides occurred on the Andersen Drive hillside and staff hired a contractor to make emergency repairs to stabilize the hillside. Staff later applied to Federal Emergency Management Agency (FEMA) and the California Governor's Office of Emergency Services (Cal OES) for funding assistance for the emergency repairs, and to design and construct permanent improvements to prevent future landslides.

In July 2017, Cal OES informed the Agency that the funding assistance request had been approved by FEMA. CMSA hired Miller Pacific Engineering Group (MPEG) in August to evaluate various permanent improvements for the hillside repairs. In October 2018, FEMA and Cal OES authorized proceeding with the soldier pile retaining wall design and to formally bid the Project, and on November 13, 2018, staff received the Notice of Obligation to provide funding assistance for Project design and construction. The Project plans and technical specifications were prepared by MPEG, and accepted by the Agency's project team and FEMA.

At the December 2018 meeting, the Board adopted the Project's contract documents, and at the February 2019 meeting, the Board awarded the construction contract to CF Contracting. Construction began in April 2019 and, after four months, the project is substantially complete. The FEMA/Cal OES deadline to complete the project is October 1, 2019. Pending Board

approval to accept substantial completion of the Project, staff will submit a reimbursement request to FEMA/Cal OES.

To date, the Agency has received \$64,787 from FEMA and Cal OES for the emergency repair work (\$36K), geotechnical evaluation of permanent repair alternatives (\$19.7K), and a portion of the design and construction of permanent repairs (\$9K).

Project Photos: Shown below are some pictures taken during construction of the Project.



Biggest landslide near digesters (before)



Biggest landslide near digesters (after)



Landslides near front entrance (before)



Landslides near front entrance (after)



Contractor installing the I-beams



New swale and drop inlet behind the biggest landslide

Fiscal Impact: The Project will be mostly funded by FEMA and Cal OES. The Notification of Obligation from FEMA and Cal OES obligates \$510,850 to cover the design and construction costs for the Project. The Project’s construction contract was awarded to CF Contracting for a lump sum cost of \$412,450. The current total Project expenditures are estimated to be \$560,782, leaving approximately \$49,932 to be paid by the Agency. The estimated Project economic summary is detailed below.

Total FEMA/Cal OES Obligated Funds	\$510,850
Project Expenditures	\$560,782
Emergency landslide stabilization (Maggiora & Ghilotti)	\$32,042
Geotechnical repair assessment (MPEG)	\$20,500
Geotechnical design services (MPEG)	\$7,500
Project management support services (DEE Consultants)	\$16,920
Professional services for CEQA review (ESA)	\$3,594
Geotechnical inspection and testing services (MPEG)	\$36,000
Construction management services (DEE Consultants)	\$25,000
Original construction contract (CF Contracting)	\$412,450
Construction contract change order – 1.6% of original construction contract (CF Contracting)	\$6,776
Expected CMSA Cost	\$49,932

Alignment with Strategic Plan: This activity is a strategic action to support Goal 1 – Objective 1.3 in the Agency’s FY20 Business Plan as shown below.

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

Objective 1.3: Deliver Critical and High Priority Agency Projects.

Action: Construct the landslide repairs on the Andersen Drive hillside.

BOARD MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates**From:** Jason Dow, General Manager**Subject:** **CMSA Fee Ordinance Revisions**

Recommendation: Review and provide comments on the proposed revisions to the Agency's Fee Ordinance, and schedule a public hearing for the Ordinance at the October 8 Board meeting.

Summary: Staff has reviewed the Agency's 2016 Fee Ordinance and proposes several revisions, including adjusting specific fees to recover actual staff and treatment costs, adding capacity charges for the expansion of current sewer user fixture units, and adding the industrial permit fee categories from the Agency's Sewer Use Ordinance. Legal Counsel Jack Govi has reviewed the draft Ordinance, provided comments and suggested revisions, and approved it as to form. If the proposed revisions are approved by the Board, staff recommends setting the public hearing on the proposed Fee Ordinance 2019-1 for the October 8 Board meeting. Staff will publish a Notice of Hearing in the Marin Independent Journal newspaper prior to and after the hearing.

Details: Draft Ordinance 2019-1 is attached to this staff report, and the noteworthy proposed changes are presented below.

- 1) Simplified definition of Member Agency by removing each Member's name. (Section 1)
- 2) Capacity charge payment added when an existing sewer user installs additional fixture units. For example, if a home remodel adds a new bathroom or a restaurant kitchen expansion with more sinks and floor drains. (Section 3)
- 3) Capacity charges updated with July 1, 2019 fees. (Section 3)
- 4) Annual capacity charge base index removed. (Section 4)
- 5) Accessory Dwelling Unit replaces Second Units in Section 5 title.
- 6) EDU rate definition revised with current method CMSA uses to determine the average service area EDU rate. (Section 6)

- 7) Monitoring Fee increased from \$15 per load to \$75 per load, to reflect current laboratory analyst cost to grab and analyze a wastewater sample, and language added stating sampling is at discretion of CMSA. (Section 6 and 7)
- 8) Language added to provide staff and the Board with flexibility to adjust the FOG tipping fee to attract additional FOG haulers. (Section 7)
- 9) Permit Fee adjustments made each fiscal year based on the SF Bay Area CPI. (Section 9)
- 10) Permit Fee table added with fees for new and renewal permits based on actual cost of staff performing the work. (Section 9)
- 11) Monitoring Fee provision revised to align with Sewer Use Ordinance language, and groundwater flow charge removed as it is now part of the Member Agency's regional charge calculation. (Section 9)
- 12) FOG and Organic Waste Hauler references removed from Section 10, because these fees are designed to attract private haulers to bring additional organic waste to CMSA to increase biogas production and expand the Agency's power delivery program. (Section 10)

In the past, CMSA has not collected samples from septage haulers, so we changed the language in Sections 6 and 7 in the proposed Fee Ordinance to state sample collection is discretionary. Beginning on September 3, laboratory staff will analyze a wastewater sample from each different septage hauler on monthly basis. These sample analyses results will be used to build a septage hauler wastewater strength database for use when updating the service unit figure in Section 6 in the future.

Attachment

- Draft Fee Ordinance 2019-1



CENTRAL MARIN SANITATION
AGENCY

**AN ORDINANCE RELATING TO FEE SCHEDULES
FOR CAPACITY CHARGES, WASTE HAULERS,
AND INDUSTRIAL MONITORING**

ORDINANCE No. 2019 - 1

September 2019

CENTRAL MARIN SANITATION AGENCY

Ordinance No. 2019-1

**AN ORDINANCE RELATING TO FEE SCHEDULES
FOR CAPACITY CHARGES, WASTE HAULERS,
AND INDUSTRIAL MONITORING**

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CENTRAL MARIN SANITATION AGENCY

Ordinance No. **2019-1**

AN ORDINANCE RELATING TO FEE SCHEDULES FOR CAPACITY CHARGES, WASTE HAULERS, FATS, OILS AND GREASE (FOG) HAULERS, AND INDUSTRIAL MONITORING

The Commission of the Central Marin Sanitation Agency does ordain as follows:

SECTION 1 - DEFINITIONS

Agency: Agency means Central Marin Sanitation Agency, a joint exercise of powers agency formed on October 15, 1979.

Member Agency: A Member Agency means one of the ~~four~~ signatories of the Central Marin Sanitation Agency joint exercise of powers agreement, ~~namely: the City of Larkspur, San Rafael Sanitation District, Ross Valley Sanitary District, Sanitary District No. 1 of Marin County, or Sanitary District No. 2 of Marin County.~~

Plumbing Fixture Unit: A plumbing fixture unit, or fixture unit, evaluates the wastewater load resulting from average use of various kinds of plumbing fixtures. As used herein, a plumbing fixture unit means a plumbing fixture unit as defined by the most recent version of the Uniform Plumbing Code (UPC). There are 16 plumbing fixture units in a service unit.

Service Unit: A service unit, or equivalent dwelling unit (EDU), means a unit of a wastewater discharge with volume and strength estimated to equal that of an average single-family residential unit.

SECTION 2 - NO FREE SERVICE

No facilities or services of the Agency's wastewater system shall be furnished to any user free of charge.

SECTION 3 - CAPACITY CHARGE

A regional capacity charge shall be used by CMSA only for capital improvement purposes. It shall be paid for each new sewer user connecting to a public sewer within or being served by one of CMSA’s Member Agencies, **or for an expansion by an existing sewer user already connected to the sewer system**. Such charge shall be collected by the Member Agency in the same manner in which the Member Agencies now collect their own local sewer connection fee. Member Agencies shall forward the regional capacity charges collected on behalf of CMSA within 45 days of receipt of such funds. Nothing contained herein is intended to reduce or interfere with a Member Agency's local sewer connection and other fees.

The amount of such regional capacity charge as of July 1, 2019 is as follows:

1	<p>New sewer connections for residential units, whether in single-family or multiple-family configuration.</p> <p style="text-align: right;"><i>Per service unit:</i> \$6,252.73</p>	
2	<p>Other new sewer user connections, including commercial, public agency, non-profit and all others users, except industrial and high strength users.</p> <p style="text-align: right;"><i>Per plumbing fixture unit, as defined in the UPC:</i> \$390.79*</p> <p style="text-align: center;">Residential fee [1] divided by standard number of plumbing fixtures per unit ($\\$6,252.73 \div 16$)</p>	
3	<p>Expansion of any existing sewer connection fixture unit count, except industrial and high strength users.</p> <p style="text-align: right;"><i>Per new or additional plumbing fixture unit, as defined in the UPC:</i> \$390.79*</p> <p style="text-align: center;">Residential fee (1) divided by standard number of plumbing fixtures per unit ($\\$6,252.73 / 16$)</p>	
4	<p>New High Strength User connection and/or expansion of existing High Strength User connection fixture units, including restaurants and bakeries. Commercial fee times high strength factor (2.34).</p> <p style="text-align: right;"><i>Per plumbing fixture unit, as defined in the UPC:</i> \$914.46*</p> <p style="text-align: center;">Commercial fee [2] multiplied by the high strength factor ($\\$380.89 \times 2.34$)</p>	
5	<p>New industrial structures and/or those new sewer users which, as determined by the Agency's general manager, discharge special volumes or strengths of wastewater shall be charged a regional capacity charge established by Board action in each individual case.</p>	

*But not less than **\$6,252.73** per **new** connection, the minimum fee if a **new** connection is added.

SECTION 4 - ANNUAL ADJUSTMENT OF CAPACITY CHARGE

Each year, commencing on July 1 and continuing thereafter on each July 1, the connection fee shall be adjusted by an increment based on the most recent annual change (April to April) in the Engineering News-Record Construction Cost Index (ENR Index) for San Francisco.

However, the CMSA Board of Commissioners may at its option determine, by resolution adopted prior thereto, that such adjustment shall not be effective for the next succeeding year, or may determine other amounts as appropriate.

SECTION 5 – ACCESSORY DWELLING UNITS, SENIOR CITIZEN, AND AFFORDABLE HOUSING

Those residential construction projects which a Member Agency designates and determines are qualified for reduced local sewer connection fees shall also automatically qualify for a reduced regional capacity charge. However, the Agency's regional capacity charge shall be reduced only by the same proportionate amount as the Member Agency's connection fee.

SECTION 6 - WASTE HAULER CHARGES

A wastewater facilities use charge shall be paid by septage haulers, other trucks hauling chemical toilet and/or domestic strength wastewater, and recreational vehicles discharging directly in the Agency's treatment and disposal facilities. Each type and volume of hauled waste is assigned a Service Unit (Equivalent Dwelling Unit, EDU)

TYPE OF VEHICLE	SERVICE UNITS (EDU)
Septage and Chemical Toilet Waste Haulers: Truck volume per 1,000 gallons or portion of	0.270
Recreational Vehicle and Other Domestic-Strength Waste Haulers: Minimum charge is \$10.00	0.025
Other Tank Truck Wastes: As determined by the Agency's General Manager, on a case-by-case basis.	

Each year, commencing on July 1 and continuing thereafter on each July 1, the annual service charge "EDU Rate" for each service unit "EDU" will be established in the CMSA Adopted Budget. The Agency's EDU Rate will be **based on the total of billed revenues to JPA members divided by the total number of reported Equivalent Dwelling Units in the JPA Members' service area for the current fiscal year.**

Each waste hauler shall pay a waste disposal fee based on the following formula:

Septage and Chemical Toilet Trucked Waste Disposal Fee = (Total volume / 1,000) x (0.27 x EDU Rate) + Per Load Monitoring Fee.

Recreational Vehicle Disposal Fee = 0.025 x EDU Rate

A **seventy five dollar (\$75.00)** Per Load Monitoring Fee is charged to recover the cost of sample collection and analysis, **if a sample is collected at the discretion of CMSA.**

The charges determined above shall be rounded to the nearest five cents (\$0.05).

SECTION 7 – FATS, OILS AND GREASE (FOG) HAULER CHARGES

A wastewater facilities use charge shall be paid by haulers of fats, oils and grease (FOG) discharging directly in the Agency's treatment and disposal facilities.

Tipping Fee Tiers (gallons per day)	Charge per Tier (\$/gallon)
0 – 1,500	0.06
1,501 – 3,000	0.05
3,001 - 5,000	0.03
5,001 – 10,000	0.02
10,001 – 15,000	0.01
15,001+	No charge

The Agency may also charge a **\$75.00** Per Load Monitoring Fee to waste haulers to recover the actual cost of any required sample collection and analysis, **if a sample is collected at the discretion of CMSA.**

The Agency may establish a per gallon FOG disposal fee that is lower than the fee described above to be competitive with the FOG disposal fees charged by other wastewater treatment or similar disposal facilities, **or to obtain desirable FOG delivery terms that would be financially advantageous for CMSA's power delivery program.** Under these circumstances, the General Manager may recommend a reduction in the FOG fee and request the Board of Commissioners to make the reduction through a Board action at a properly agendized Board meeting OR the fee may be reduced to an appropriate level at the discretion of the General Manager, who shall notify the Board of such fee reduction at its next regular meeting. Any new rate change under this section would become effective immediately either upon the date of the Board action or upon the date that the General Manager makes the decision for a reduction.

SECTION 8 – LIQUID ORGANIC WASTE HAULER CHARGES

Liquid wastes from food and beverage manufacturing and/or production facilities are accepted at the Agency's Organic Waste receiving facility. The Agency's fee to receive and process each type of liquid waste will be negotiated with the generator of the waste material, and will consider the expected delivery volume and frequency, and its contamination level and organic content. The General Manager has the authority to establish the initial tipping fee for each type of liquid waste material and adjust the fee to remain competitive in the marketplace.

SECTION 9 - INDUSTRIAL MONITORING AND PERMIT FEES

CMSA shall assess and collect fees for the recovery of costs associated with the discharge of industrial wastes to the sanitary sewers. These fees are permit fees, monitoring fees, and noncompliance fees, as described in CMSA’s Sewer Use Ordinance. Permit and monitoring fees are shown below and are adjusted each Fiscal year based on the San Francisco Bay Area Consumer Price Index (CPI).

User/Permit Class	User/Permit Description	New Permit Fee	Renewal Permit Fee
I	Significant/Categorical Industrial User (SIU/CIU)	\$1,200	\$600
II	Manufacturing, mass transit, etc.	\$600	\$300
III	Business activity, radiator repair shops, auto service facilities, etc.	\$600	\$300
IV	Groundwater discharger, CIPP lining, construction runoff, etc.	\$400	\$200

Note: See CMSA Sewer Use Ordinance for detailed description of User/Permit Classes.

Monitoring Fee

All routine monitoring events, pursuant to verifying compliance with a Wastewater Discharge Permit or as follow-up to an instance of non-compliance detected during a previous monitoring event, shall be assessed one of the monitoring fees listed below.

Grab Sample(s)

The sum of: 1) One hour labor at the current weighted salary of a CMSA Environmental Services Analyst II (B Step); 2) 60% overhead assessed on the labor charge; and 3) The cost of any analytical work performed on the sample(s) by CMSA’s in-house analytical laboratory and/or the currently contracted analytical laboratory, per their invoice to CMSA.

24-hour Composite Sample(s)

Identical to the Grab Sample fee, except that two hours of labor will be charged.

SECTION 10 – DETERMINATION THAT FEES DO NOT EXCEED COST OF SERVICE

CMSA has determined that the fees for Capacity Charges (Section 3), Waste Hauler Charges (Section 6), ~~Fats, Oils, and Grease (FOG) Hauler Charges (Section 7), Organic Liquid Waste Hauler Charges (Section 8)~~, and Industrial Monitoring Fees (Section 9) do not exceed the cost of providing the services that CMSA provides.

SECTION 11 - SEVERABILITY

If any provision of this ordinance or the application thereof to any person or circumstances is held invalid, no other provision of this ordinance shall be affected thereby.

SECTION 12 - REPEALS

All prior Ordinances of CMSA relating to fees are hereby repealed.

SECTION 13 - EFFECTIVE DATE

This ordinance shall be effective thirty (30) days after its passage. Before the expiration of fifteen (15) days after its passage, it shall be published once, with the names of the members voting for and against it, in the Marin Independent Journal, a newspaper of general circulation published within the Agency boundaries.

PASSED AND ADOPTED on **Date**, 2019 by the following vote:

AYES:

NOES:

ABSENT:

Attest:

Dean DiGiovanni – Commission Chair

Eli Beckman – Commission Secretary



BOARD MEMORANDUM

September 6, 2019

To: CMSA Commissioners and Alternates

From: Amy Hwang, Associate Engineer

Approved: Jason Dow, General Manager

Subject: **San Quentin Pump Station Motor Control Center and Control Panel Upgrade Project (CMSA Contract No. 20-01)**

Recommendation: Adopt the construction contract documents for the San Quentin Pump Station Motor Control Center and Control Panel Upgrade Project, and authorize the General Manager to advertise the contract for public bidding.

Summary: Staff has worked with GHD to finalize the design and prepare the bid documents for the FY20 San Quentin Pump Station Motor Control Center and Control Panel Upgrade Project (Project). Staff has also acquired approval from the California Department of Corrections and Rehabilitation (CDCR) to advertise the Project for public bidding.

If approved by the Board, staff will issue the public bid advertisement in the near future and bring a construction contract award recommendation to the November meeting for Board consideration of approval. The Project's contract documents are available at the Agency's administrative office for Board member and public review.

Fiscal Impact: At the June 2019 meeting, the Board approved executing an amendment to the existing Wastewater Service Agreement with CDCR for a 12-month term extension. The amendment includes a FY20 Extra Services budget of \$718,807, which will fund the remaining amount of GHD's FY19 design and bid period assistance fees and the construction of this Project, estimated at \$321,000.

Discussion: At the January 2019 meeting, the Board approved a Professional Services Agreement with GHD for the design of electrical, instrumentation, and mechanical improvements as part of the scheduled FY19 Extra Services work at the San Quentin Pump Station (SQPS). Staff and GHD identified various electrical, instrumentation, and mechanical projects that should be grouped together in the same year for efficiency. The design package will be split into two bid packages, with the first package intended for construction during FY20 (this Project) and the second package intended for construction during FY21.

The Project involves replacing components that have reached the end of their useful life, including both electrical system motor control centers, as well as replacing the controls with a PLC-driven system. Improvements planned for FY21 construction involve replacing additional aging components including the emergency generator and supply and exhaust fans.



Existing Control Panel



Existing Exhaust Fan

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

Objective 4.2: Promote interagency coordination on capital projects.

Action: Construct the Motor Control Center and Control Panel Upgrade Project for San Quentin Pump Station.



BOARD MEMORANDUM

September 6, 2019

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

Subject: August and September Informational Items

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

- A. Notice of Completion letter dated July 2, 2019 from Xia Lao, California Regional Water Quality Control Board
Re: Clean Water State Revolving Fund (CWSRF)
- B. Letter dated July 24, 2019 to Anna Gallagher, California Regional Water Quality Control Board
Re: Monthly Self-Monitoring Report (SMR) – June 2019
- C. Letter dated July 26, 2019 FROM Mikyung Pustelnik, Marin Municipal Water District
Re: Capital Maintenance Fee Payment Plan for Local Governmental Agencies
- D. Letter dated July 29, 2019 from Karen Mogus, California Regional Water Quality Control Board
Re: Water Code Section 13267 and 13383 to Amend Monitoring and Reporting Programs for Recycled Water
- E. Letter dated August 8, 2019 from Jason Klumb, SEIU Local 1021
Re: Joel Evans-Fudem, SEIU Local 1021 Field Representative
- F. Letter dated August 13, 2019 from Jeff Carson, Dublin San Ramon Services District
Re: BACC Coordinator
- G. Letter dated August 26, 2019 from Michele Mark Levine, Government Finance Officers Association
Re: Popular Financial Report FY17-18 Award
- H. Letter dated August 28, 2019 to Anna Gallagher, California Regional Water Quality Control Board
Re: Monthly Self-Monitoring Report (SMR) – July 2019



GAVIN NEWSOM
GOVERNOR



JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

NOTICE OF COMPLETION

July 2, 2019

Mr. Jason Dow
General Manager
Central Marin Sanitation Agency
1301 Andersen Drive
San Rafael, CA 94901-5339

Dear Mr. Dow:

CLEAN WATER STATE REVOLVING FUND (CWSRF); CENTRAL MARIN SANITATION AGENCY; CWSRF PROJECT NO. C-06-8285-110; CONTRACT NO. D17-01005

Congratulations on the completion of your project.

Your Request for Disbursement (Form 260) Number 4, dated May 2, 2019, was your final payment. Our records indicate that after paying the final invoice, all funds have been expended.

Per your Finance Agreement, your agency is required to retain records a minimum of 36 years from the date of Project Completion for audit purposes.

If you have any questions, please contact me at (916) 319-0163 or xia.lao@waterboards.ca.gov

Sincerely,

Xia Lao
CWSRF Program Analyst
Division of Financial Assistance
State Water Resources Control Board

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov

**STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
INVOICE (REQUEST FOR REIMBURSEMENT)**

INVOICE DATE:	5/2/2019	MAIL TO:	STATE WATER RESOURCES CONTROL BOARD
INVOICE NO.:	4-D1701006		DIVISION OF FINANCIAL ASSISTANCE
CONTRACT NO.:	SWRCB000000000D170100600		ATTN: DISBURSEMENT UNIT
PROJECT NO.:	C-06-8205-110		POST OFFICE BOX 944212
[REDACTED]			SACRAMENTO, CA 94244-2120
		STREET ADDRESS:	1001 I STREET, 16TH FLOOR SACRAMENTO, CA 95814

AGREEMENT LOAN and/or GRANT RECIPIENT: CENTRAL MARIN SANITATION AGENCY

STREET/P.O. BOX: 1301 ANDERSEN DRIVE

CITY AND ZIP CODE: SAN RAFAEL, CA 94901-5339

AUTHORIZED REPRESENTATIVE: JASON DOW TITLE: GENERAL MANAGER

STATE USE ONLY				STATE USE ONLY		
ACTIVITY	AGREEMENT/GRANT AMOUNT	(3) AMOUNT INCURRED TO DATE	(4) AMOUNT CLAIMED FOR PAYMENT THIS PERIOD	AMOUNT APPROVED FOR PAYMENT TO DATE	AMOUNT PREVIOUSLY PAID	APPROVED PAYMENT THIS REQUEST
Development of Technical Memo	\$41,818	\$228,097	\$141,744	\$193,112	\$86,354	\$106,758
Develop Organic Waste Receiving Facility Report	\$33,590	\$43,549	\$0	\$43,549	\$43,549	\$0
Develop Solar Power Generation Analysis Report	\$17,352	\$28,392	\$0	\$28,392	\$28,392	\$0
Biosolids Management Alternative Analysis Report	\$49,276	\$45,942	\$0	\$45,942	\$45,942	\$0
Power/Biogas Sales Opportunities Analysis Report	\$37,114	\$6,265	\$0	\$6,265	\$6,265	\$0
Economic Modeling Analysis	\$11,809	\$63,772	\$0	\$63,772	\$63,772	\$0
CEAQ/NEPA Environmental Review Determination Analysis	\$70,105	\$13,880	\$7,236	\$6,644	\$6,644	\$0
Air Quality and Other Permit Analysis	\$66,918	\$13,949	\$9,307	\$4,642	\$4,642	\$0
Financing Plan Analysis	\$11,809	\$10,152	\$10,152	\$0	\$0	\$0
PG&E Interconnection Agreement Modification	\$77,321	\$117,380	\$17,419	\$99,902	\$99,902	\$0
Obtain CEC Renewable Portfolio Standards (RPS) Certification for the District	\$11,809	\$250	\$0	\$250	\$250	\$0
Prepare Report of Findings, Conclusions, Recommendations & Action Plan	\$15,895	\$29,242	\$21,712	\$7,530	\$7,530	\$0
Draft and Final Report for CWSRF on the Recommended District	\$55,184	\$14,620	\$14,620	\$0	\$0	\$0
TOTAL	\$500,000	\$615,490	\$222,190	\$500,000	\$393,242	\$106,758

COMMENTS (STATE USE ONLY):
*Difference exists due to reaching agreement budget.

STATE USE ONLY: APPROVAL FOR PAYMENT

All Quarterly Reports have been submitted to date.

Draft deliverables submitted for disbursement >70% of total financing amount (Grants Only)

Draft deliverables submitted for disbursement >90% of total financing amount (Grants Only)

Water Code 5103 Compliant Yes, No, N/A

Project Manager Signature: [Signature] Title: Project Manager Date: 5/31/2019

Reviewer Signature: [Signature] Title: Payments Analyst Date: 5/31/19



July 24, 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) – June 2019**

The June 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.

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 June met established quality assurance acceptance criteria.

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



MARIN MUNICIPAL WATER DISTRICT

220 Nellen Avenue Corte Madera CA 94925-1169
marinwater.org

JD 8/1/19 C
July 26, 2019

CENTRAL MARIN SANITATION AGENCY
1301 ANDERSEN DR, SAN RAFAEL
CA 94901-5339



Re: Capital Maintenance Fee Payment Plan for Local Governmental Agencies

Dear Sir/Madam:

Marin Municipal Water District (MMWD) approved new rates beginning July 1, 2019. Included in these rates is a newly created Capital Maintenance Fee (CMF) to fund the District's capital improvement needs which are necessary for the system to remain capable of supplying high quality water to all customers. This fee is based on the meter size and will be charged on the bimonthly bill beginning in August 2019. To obtain more information on this fee please visit www.marinwater.org/rates.

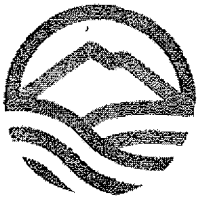
With the understanding that local governmental agencies often have approved budgets with little flexibility for unexpected costs, Marin Municipal Water District (MMWD) has created a plan to allow your agency to defer a portion of, or all, payments for Capital Maintenance Fee (CMF) charges for the first two years (FY 2020 and FY 2021) and establish a payment schedule to repay deferred amounts over a subsequent five year period with interest charged at the LAIF rate, at time of application, + 1%.

Attached is Board Policy No. 52 explaining the conditions of the deferral and repayment. Also attached is a listing of services for your agency corresponding to the above billing address. The attached list of compiled services may not be inclusive of all services associated with your agency. Please verify this information against your most recent Marin Municipal Water District invoice(s) to ensure your request is accurate and complete.

If you are interested in applying for a deferral please complete the form on page three of this letter and return it to:

Marin Municipal Water District
c/o Mikyung Pustelnik
220 Nellen Ave
Corte Madera, CA 94925-1169

Alternatively, you may also contact us by email at mpustelnik@marinwater.org.



MARIN MUNICIPAL WATER DISTRICT

220 Neffien Avenue Corte Madera CA 94925-1169
marinwater.org

July 26, 2019

CENTRAL MARIN SANITATION AGENCY
1301 ANDERSEN DR
SAN RAFAEL, CA 94901-5339

Please apply deferral to all listed below:
Or

Please check the box to the left of the account number to apply a CMF deferment for the water service.

	<u>Account</u>	<u>Service</u>	<u>Meter</u>	<u>2019 CMF</u>	<u>Service address</u>
<input type="checkbox"/>	304679	59517	3/4"	\$245.25	5 DRAKE BL
<input type="checkbox"/>	508069	59518	5/8"	\$163.50	E DRAKE BL

Total: \$408.75



SUBJECT: CAPITAL MAINTENANCE FEE PAYMENT PLAN FOR LOCAL GOVERNMENTAL AGENCIES

The Board of Directors, recognizing that local public agencies often have multi-year budgeting processes, is establishing a Payment Plan Program during the initial implementation phase of the Capital Maintenance Fee (CMF). The initial implementation phase of the CMF shall be from July 1, 2019 through June 30, 2021, and during that period local public agencies may request a deferral of the CMF. The General Manager shall have the authority to extend CMF deferrals up to an additional two years if the agency can demonstrate they are working on efforts to downsize their meter sizing or similar efforts that may reduce the CMF fee.

Between July 1, 2019 and June 30, 2021, requests by local governmental agencies for CMF deferrals or payment plans may be approved by the General Manager, or his/her designee, providing the following conditions are met:

1. Local public agencies request to defer payments for CMF charges, for Fiscal Years 2020 and 2021 only. Requests will be made in writing and stipulate the requested length of deferral and length of time for repayment.
2. Payments plans shall not exceed five years. An applicant may elect to make payments over a shorter time period.
3. The agency requesting a deferral shall execute a payment plan agreement with the District and commit to a repayment schedule.
4. At the end of the deferral period, an agency will then pay the total deferred amount, with interest, according to the amortization schedule established in writing in the payment plan agreement.
5. Interest will accrue and will be charged from the time the deferred payments are owed until the time all deferred amounts are paid.
6. Interest will be charged on the unpaid balance at a rate that is 1% above that which the District receives on its Local Agency Investment Fund (LAIF).
7. If payments are late by more than 10 working days the District may cancel the payment plan and bill the agency for all amounts owed on the agency's next bi-monthly bill.

Marin Municipal Water District
Attention: Mikyung Pustelnik, Finance Dept.
220 Nellen Ave
Corte Madera, CA 94925-1169

CMF DEFERRAL REQUEST

Date: _____

Agency Name: _____

The above agency wishes to defer CMF payments for all accounts listed for this billing address, on the enclosed sheet, beginning with the next water bill through June 30, 2021

The above agency wishes to defer CMF payments for some accounts, identified on the enclosed sheet, beginning with the next water bill through June 30, 2021

Please include Agency Contact information:

(1) Contact Name _____

(2) Telephone _____

(3) Email _____

(4) Mailing Address _____

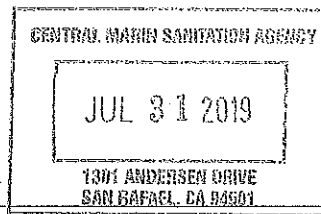
CMF Deferral Amortization Period: (Please check only one box)

- : 12-month Amortization
- : 24-month Amortization
- : 36-month Amortization
- : 48-month Amortization
- : 60-month Amortization

By signing below, I formally request that the CMF payments on the accounts listed above be deferred.

Name, Title, and Date

Once this form is received MMWD staff will be in touch with you to complete the process



State Water Resources Control Board

July 29, 2019

Central Marin San. Agcy. WWTP
1301 Andersen Dr
San Rafael, CA 94901-5339

WATER CODE SECTION 13267 AND 13383 ORDER TO AMEND MONITORING AND REPORTING PROGRAMS CONSISTENT WITH THE REQUIREMENTS OF THE WATER QUALITY CONTROL POLICY FOR RECYCLED WATER

On July 23, 2019, the State Water Resources Control Board (State Water Board) Executive Director issued water quality orders to update permit monitoring and reporting requirements pursuant to the Water Quality Control Policy for Recycled Water (Recycled Water Policy). The purpose of the Recycled Water Policy is to encourage the safe use of recycled water in a manner that is protective of public health and the environment. The Recycled Water Policy was approved by the State Water Board on December 11, 2018 and became effective on April 8, 2019.

The enclosed water quality order is issued to implement the Recycled Water Policy requirements pursuant to Water Code sections 13267 and 13383. Dischargers covered by National Pollutant Discharge Elimination System (NPDES) permits, Waste Discharge Requirements (WDRs), master recycling permits, Water Reclamation Requirements (WRRs) are subject to the provisions in this order and associated attachments. This Order will not replace existing monitoring and reporting provisions in all cases; however, this Order will remove conflicting or duplicative requirements wherever possible. This Order will be in effect for each discharger until the applicable regional water quality control board reissues or otherwise amends the discharger's monitoring and reporting program to incorporate the requirements of this Order, at which time this Order will no longer be applicable to that discharger.

Order WQ 2019-0037-EXEC: Volumetric reporting of wastewater and recycled water

This Order applies to all recipients pursuant to 13267 and 13383 and is effective immediately. Recipients of this order are Dischargers with a facility design flow of more than 20,000 gallons per day that treat wastewater or recycled water from sources that contain domestic waste, in whole or in part. All Dischargers are required to annually report volumetric data on wastewater and, if applicable, recycled water consistent with requirements in section 3 of the Recycled Water Policy. The Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. As applicable, dischargers are additionally required to annually report recycled water use by volume and category of reuse. A summary of the volumetric reporting requirements is below:

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

Annual Volumetric Reporting	Wastewater Treatment Plants <i>without</i> Recycling	Water Recycling Treatment Plants
Influent (monthly)	X	
Production (monthly)	X	X
Discharge (monthly)	X	X
Reuse (monthly)		X
Reuse by Category (annually)		X

Volumetric reporting does not replace flow monitoring required through an NPDES permit; however, duplicate reporting requirements for other permit types are superseded by this Order. Annual reports are due by April 30 of each year and must include data for the previous calendar year, beginning with calendar year 2019. For calendar year 2019, data is required to be reported for months January through December 2019. Dischargers are required to submit the volumetric data to GeoTracker. Additional information and guidance on data entry in GeoTracker will be available by January, 2020.

If you have general questions regarding this Order, please contact the State Water Board at: recycledwater@waterboards.ca.gov or Rebecca Greenwood by phone at (916) 341-5858.

Enclosures (3):

- 1) Order Number WQ 2019-0037-EXEC
- 2) WQ 2019-0037-EXEC Attachment I – monitoring and reporting program
- 3) WQ 2019-0037-EXEC Attachment II – applicable Dischargers

Sincerely,



Karen Mogus
Deputy Director, Division of Water Quality



Stronger Together

Joseph Bryant
President

Akbar Bibb
VP Region A (North Central)

Mary Sandberg
VP Region B (North Coast)

Yeon Park
VP Region C (East Bay)

Theresa Rutherford
VP Region D (San Francisco)

Marcus Williams
VP Region E
(Amador/Calaveras/San Joaquin)

Mary Duncan
Secretary

Amos Eaton
Treasurer

Sandra Lewis
VP of Representation

Gary Jimenez
VP of Politics

Ramses Teon-Nichols
VP of Organizing

Executive Board

- Pete Albert
- Tazamisha Alexander
- John Arantes
- Derrick Boutte
- Lorraine Bowser
- Monique Chaney-Williams
- Felipe Cuevas
- Evelyn Curiel
- Sasha Cuttler
- Nathan Dahl
- Brandon Dawkins
- Joel Evans-Fudem
- Karla Faucett
- Geneva Haines
- Dellfinia Hardy
- Cynthia Landry
- Todd Nosanow
- Harold Powell
- Mercedes Riggelman
- Robert Taylor
- Richard Thoele
- Taffie Walter
- Angel Valdez
- Sandra Wall
- Jim Wise

Executive Board & Budget & Finance Committee

- Aaron Cramer
- Rhea Davis
- Tina Diep
- Julie Meyers
- Tom Popenuck
- Sunny Santiago
- Rachal Valtakis

JD 8/14/19

E



August 8, 2019

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

Subject: Joel Evans-Fudem, SEIU Local 1021 Field Representative

Dear Mr. Dow,

Effective August 8, 2019, Joel Evans-Fudem will be the Field Representative between the Central Marin Sanitation Agency represented employees and SEIU Local 1021, working to develop worksite leadership. He will also conduct all Union business, including grievances, arbitrations and disciplinary appeals, and negotiate union contracts.

Joel's contact information is as follows:

Office: 707-380-5804
 Email: Joel.Evans-Fudem@SEIU1021.org
 Mailing Address: 600 B St. Santa Rosa, CA 95401

If you have any questions, please contact me at your convenience.

Sincerely,

Jason Klumb
Regional Director
707-293-2879



**Dublin San Ramon
Services District**
Water, wastewater, recycled water

Regional Wastewater Treatment Facility
7399 Johnson Drive
Pleasanton, CA 94588-3862

main (925) 846-4565
fax (925) 462-0658
www.dsrscd.com

F

August 13, 2019

To: Bay Area Chemical Consortium (BACC) Member Agencies

Subject: BACC Coordinator

Dear BACC Member Agencies:

At the BACC meeting last year, we have discussed the possibility of going to a third party consultant if no other BACC agency volunteers to be the next coordinator. DSRSD has had discussions with Bay Area Clean Water Agency (BACWA) about the BACC program and I am happy to announce that BACWA Executive Committee has approved for BACWA to take on the BACC program and all of its elements from DSRSD. BACWA is currently developing a timeline and cost schedule. DSRSD will be providing transition support to BACWA.

When DSRSD started BACC in 2010, there was one bid for sodium hypochlorite among 9 Bay Area agencies. Since then, BACC bids topped at 20 chemicals in 2014, and with as many as 65 agencies participating in 2016. On average, each year BACC bid 14 chemicals among 52 participating agencies. It has been a successful program with huge savings benefitted by all participating agencies and DSRSD is very proud of its involvement from the inception of the program. But the program has grown too big for DSRSD to manage, given that we are a small size agency with limited staff resources. The decision for DSRSD to withdraw from its role as the BACC program coordinator is solely based on DSRSD needs and staffing assignment priorities to meet the mission of the District.

We can discuss more during the 2019 bid wrap-up meeting that will be scheduled in early to mid-September. BACWA will be invited to attend the meeting to address BACC member agencies questions.

Sincerely,

Jeff Carson
Operations Manager

cc: David Williams, BACWA Executive Director
Dan McIntyre, DSRSD General Manager
Gemma Lathi, DSRSD Administrative Analyst II



Government Finance Officers Association
203 North LaSalle Street, Suite 2700
Chicago, Illinois 60601-1210
312.977.9700 fax: 312.977.4806

JD 9/3/19

G



August 26, 2019

Jason Dow & Kenneth Spray
General Manager and Administrative Services Manager
Central Marin Sanitation Agency
1301 Andersen Drive
San Rafael, California 94901

Dear Mr. Dow & Mr. Spray:

A panel of independent reviewers has completed its examination of your Popular Annual Financial Report (PAFR) submitted to Government Finance Officers Association (GFOA). We are pleased to notify you that your PAFR for the fiscal year ended June 30, 2018, has substantially met the requirements of the PAFR Program. In the absence of authoritative standards governing the presentation, these requirements are based on an evaluation of information presented, reader appeal, understandability, distribution, and other elements (such as whether the PAFR is a notable achievement for the government given the government's type and size, and the PAFR's creativity and usefulness). The report received a weighted average score of 75.00 percent or above from three of the four highest individual reviews.

Each entity submitting a report to the PAFR Program is provided with confidential comments and suggestions for possible improvements in the subsequent year's presentation. Your comments and suggestions, as well as a "Summary of Grading" form, are enclosed. We urge you to carefully consider the suggestions offered by our reviewers as you prepare your next PAFR.

Continuing participants will find a Certificate and brass medallion enclosed with these results. The brass medallion may be mounted on your ten-year plaque. First-time recipients will find a Certificate enclosed with these results and will receive a plaque in approximately 10 weeks. We hope that appropriate publicity will be given to this notable achievement. A sample news release has been enclosed.

A current holder of a PAFR Award may include a reproduction of the Certificate in its immediately subsequent PAFR. A camera-ready copy of your Certificate is enclosed for that purpose. If you reproduce your Certificate in your next report, please refer to the enclosed instructions.

Jason Dow & Kenneth Spray
August 26, 2019
Page 2

The PAFR Award is valid for one year. To continue your participation in the program, it will be necessary for you to submit your next PAFR to GFOA within six months of the end of your entity's fiscal year. A Popular Annual Financial Reporting Award Program Application is posted on GFOA's website at www.gfoa.org.

Over the course of the year, we are anticipating some changes to our application process. We will still be asking governments for the same documents we asked for in the past, but we are encouraging electronic submissions to pafr@gfoa.org and expect to be making other changes going forward. We will keep members informed of any changes via email, and application instructions will be updated on our website.

We appreciate your participation in this program, and we sincerely hope that your example will encourage others in their efforts to achieve and maintain a well-presented PAFR. If we can be of further assistance, please do not hesitate to contact the PAFR Program staff in the Technical Services Center at (312) 977-9700.

Sincerely,

A handwritten signature in cursive script that reads "Michele Mark Levine".

Michele Mark Levine
Director, Technical Services Center

Enclosures



August 28, 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) – July 2019**

The July 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 changed CMSA nutrient monitoring from twice per month to once per month and removed 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 July 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

