



**Central Marin Sanitation Agency**

**COMMISSION REGULAR MEETING AGENDA**

**Tuesday, May 14, 2024**

**Hybrid Meeting**

**6:00 p.m.**

**NOTE:** This is a Hybrid Board meeting and will be held in-person at the Agency and via Zoom®.

If you would like to participate via Zoom, click the link below or copy and paste the address into your browser. You may also phone-in at the number below.

**Join Zoom Meeting**

**Online:**

<https://us06web.zoom.us/j/84364053274>

**Phone in:**

+1 253 215 8782

**Meeting ID:**

843 6405 3274

**Public Comment:** 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. Public comments can also be submitted via email to the Recording Secretary at [telam@cmsa.us](mailto:telam@cmsa.us).

The public comment period opens when the agenda is posted online and will close two hours prior to the start of the meeting. Include your name and the item you'd like to provide written comment on. Written comments submitted will be shared with the Board before the meeting, summarized during the Open Period for Public Participation, and included in the meeting proceedings.

To provide comments virtually during the meeting:

- If in the Zoom teleconference, use the “raise hand” feature. The Host will notify and unmute you when it is your turn to speak.
- If on a phone, press \*9 (“star + 9”), and the Host will notify and unmute you when it is your turn to speak.

If you experience an issue providing comments in the meeting, please email those comments to the Recording Secretary at [telam@cmsa.us](mailto:telam@cmsa.us).

***CONTINUED ON NEXT PAGE***

## **AGENDA**

1. **6:00 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**

- a) Minutes – Regular Board Meeting, April 9, 2024
- b) Treasurer's Report – April 2024
- c) April 2024 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report
- d) Performance Metric Report – April 2024
- e) Updated Resolution Authorizing Investment of Monies in the Local Agency Investment Fund
- f) FY24 Third Quarter Budget Status Report
- g) 2023/2024 Wastewater Flow Report
- h) Artificial Intelligence Use Policy
- i) Revised Treatment Plant Manager Job Description
- j) Rental Uniform Supply Agreement – Award to Prudential Overall Supply

5. **Direct Potable Reuse Regulatory Update**

*Recommendation: Receive the Direct Potable Reuse Regulatory Update presentation from Carollo Engineers, and provide comments or direction to the General Manager, as appropriate.*

6. **Primary Clarifier No. 1 Rehabilitation Project – Construction Contract Award**

*Recommendation: Award the construction contract for the Primary Clarifier No. 1 Rehabilitation Project to GSE Construction for \$524,500, and authorize the General Manager to execute the contract agreement.*

7. **Purchase of Grit Washing System for the Grit Classifiers Replacement Project**

*Recommendation: Authorize the General Manager to purchase two Coanda RoSF4 Size 3 Grit Washing Systems from Huber Technology, not to exceed \$850,000, excluding taxes.*

8. **Accept Completion of the Liquid Organic Waste Receiving and Biogas Treatment Upgrades Project**  
*Recommendation: Accept the Liquid Organic Waste Receiving and Biogas Treatment Upgrades Project as complete, and authorize the General Manager to file the Notice of Completion with Marin County.*
9. **FY25 Chemical Supply Contracts**  
*Recommendation: Authorize the General Manager to execute procurement agreements for the FY25 chemical supply contracts.*
10. **San Rafael Sanitation District Request for an Operational Service Agreement**  
*Recommendation: Discuss the May 1, 2024, letter from San Rafael Sanitation District and provide direction to the General Manager.*
11. **May Informational Items**  
*Recommendation: Informational, provide comments or direction to the General Manager, as appropriate.*
12. **North Bay Watershed Association (NBWA) Report\***
13. **Oral Reports by Commissioners\***
14. **Oral Reports by General Manager\***
15. **Next Scheduled Regular Meeting**  
*Tuesday, June 11, 2024, at 6:00 p.m.*

\*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, April 9, 2024 Via Hybrid Meeting

NOTE: The minutes are an official record of the Board meeting. There are also official audio and video recordings available on the Agency's website at [www.cmsa.us](http://www.cmsa.us). The time stamps on these minutes refer to the items' start times on the video recording of the meeting.

Please contact CMSA at 415-459-1455 for information about receiving a copy of these records.

#### 1. Call Meeting to Order/Pledge of Allegiance

Chair Kelly called the meeting to order at 6:00 p.m. A quorum was present.

#### 2. Roll Call

00:00:30

Present: Commissioners Eli Beckman, Michael Boorstein, Maribeth Bushey, Dean DiGiovanni, and Doug Kelly

Absent: None

Staff Present: Jason Dow, General Manager; Corey Spray, Administrative Services Manager; and Adrianna Iacoviello, Recording Secretary

Public Present: Ken Spray, Former CMSA Administrative Services Manager

#### 3. Open Period for Public Participation

00:00:41

There were no comments from members of the public.

#### 4. Resolution of Appreciation for Kenneth Spray

00:00:52

ASM Corey Spray read Resolution No. 360, A Resolution of Appreciation for Ken Spray aloud and presented Ken with the framed resolution.

Ken Spray thanked the Board, reminisced on the early days of his career at CMSA, and briefly discussed his plans for retirement.

#### 5. Consent Calendar

00:10:16

- a) Minutes – Regular Board Meeting, March 12, 2024
- b) Treasurer's Report – March 2024
- c) March 2024 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report
- d) Performance Metric Report – March 2024
- e) CASA Statewide Wastewater Air Toxics Pooled Emissions Study
- f) FY24 Asset Management Program 3rd Quarter Report
- g) Updated Resolution Authorizing Investment of Monies in the Local Agency Investment Fund (LAIF)

#### Comments from the Public

There were no comments from members of the public.

Chair Kelly asked for a motion on Consent Calendar items 4a through 4g.

**ACTION:** Commissioner DiGiovanni moved to approve Consent Calendar items 4a through 4g; second, Commissioner Boorstein.

**VOTE:** The item was passed unanimously.

**AYES:** Beckman, Boorstein, Bushey, DiGiovanni, Kelly

**NAYS:** None

**ABSTAIN:** None

**6. Request for Proposal – Consultant Services for the Nutrient Removal Alternatives Evaluation and Facilities Plan Project 00:10:37**

At the February 2024 Board meeting, GM Dow provided an oral report on the draft Nutrient Watershed Permit (Permit) status. He explained that the San Francisco Regional Water Quality Control Board recently issued the draft Permit which includes proposed interim and final nutrient limits on CMSA’s effluent. He mentioned that staff prepared a draft Request for Proposals (RFP) for consultant services for the Nutrient Removal Alternatives Evaluation and Facilities Plan Project (Project).

GM Dow said that if the Board approves issuing the RFP, staff intends to issue it mid-April. After having reviewed and evaluated the proposals in early July, a negotiated contract with the selected consultant will be brought to the Board for approval in August 2024. Contracts for subsequent phases of the Agency’s Nutrient Removal Program will be brought to the Board for consideration of approval in future years.

Commissioners DiGiovanni and Beckman asked clarifying process questions and GM Dow responded accordingly.

Commissioner Boorstein mentioned that the nutrient removal program will likely be located in the corporation yard requiring Airporter to leave the site. If a direct potable reuse facility is considered in the future, it will require more space than CMSA can offer. He posed the question if it would be beneficial to look into possibly using the property at 1281 Andersen as a resource for future Program expansion.

Commissioner Bushey asked about the significant projected design fees and asked about the scale of the total Project cost.

GM Dow responded that the Agency estimates that a nutrient removal facility could cost up to \$50 million, per a master planning study in 2017. The capital plan assumes the design and planning work is 10% of the construction cost. He also mentioned that the new Permit does not solely apply to the Agency but to all 37 wastewater/water agencies in the region. He concluded that staff will have a conceptual cost in a year or so.

Commissioners Beckman and Kelly asked if there can be any progress made on future Direct Potable Reuse (DPR) systems during the Nutrient Removal Project.

GM Dow responded that a DPR would be designed as a separate facility, but he will ask Carollo if a future DPR facility’s size and scope would be impacted by a separate nutrient removal facility.

Comments from the Public

There were no comments from members of the public.

**ACTION:** Commissioner Boorstein moved to approve issuance of Request for Proposals for Consultant Services for the Nutrient Removal Alternatives Evaluation and Facilities Plan Project; second, Commissioner Beckman.

**DIRECTION:** The Board asked staff to include an item regarding 1281 Andersen on a future agenda.

**VOTE:** The item was passed unanimously.

**AYES:** Beckman, Boorstein, Bushey, DiGiovanni, Kelly

**NAYS:** None

**ABSTAIN:** None

**7. FY24 Pavement Repair Project – Construction Contract Award 00:41:42**

GM Dow said that the Board adopted the FY24 Pavement Repair Project’s contract documents and authorized him to advertise the Project for public bidding at the February 2024 meeting. He mentioned that the Notice Inviting Sealed Bids was issued on February 14. He said that three contractors attended the non-mandatory pre-bid meeting on February 29, and four sealed bids were opened on March 19. He said that Always Paving, located in Hayward, CA was the lowest, responsive, and responsible bidder. He concluded that if the construction contract is awarded by the Board, construction is anticipated to be substantially completed by end of June 2024.

**ACTION:** Commissioner Bushey moved to award the construction contract for the FY24 Pavement Repair Project to Always Paving for the total bid amount of \$234,275, and authorize the General Manager to execute the contract agreement; second, Commissioner DiGiovanni.

**VOTE:** The item was passed unanimously.

**AYES:** Beckman, Boorstein, Bushey, DiGiovanni, Kelly

**NAYS:** None

**ABSTAIN:** None

**8. Resolution for the Marine Outfall Diffuser Cleaning Project 00:43:02**

GM Dow said that staff has nearly completed a Dredging-Dredged Material Reuse/Disposal Application for the Marine Outfall Diffuser Cleaning Project (Project). He explained that the Project involves removing settled solids from the 1,035-foot-long diffuser section of the Agency’s marine outfall, and disposing of the solids on the Bay floor around the diffuser section. He mentioned that once completed, the Application will be submitted for consideration of approval. He explained that staff has spoken with representatives of the regulatory agencies that will review the application about the scope of the Project, and based on those discussions, believes that the Project will be approved.

GM Dow said that the Application requires the governing board of a public agency to adopt a resolution designating a representative of the agency for the Project and authorizing the representative to sign the Application. He said that staff has prepared the attached resolution for the Board to approve. He concluded that once approved, the Application and its attachments will be submitted to the appropriate regulatory agencies.

Commissioner Beckman asked if this could be a standing item so a resolution does not have to be brought to the Board at future meetings.

Commissioner Bushey suggested that the resolution be modified to be specific to the current General Manager and not be a standing item.

Comments from the Public

There were no comments from members of the public.

**ACTION:** Commissioner DiGiovanni moved to adopt Resolution No. 361 to authorize the General Manager to represent the Agency on the Marine Outfall Diffuser Cleaning Project and sign the Dredging-Dredged Material Reuse/Disposal Application, after the GM name revision is completed; second, Commissioner Boorstein.

**DIRECTION:** The Board asked staff to revise the resolution to reflect the current General Manager at the time of scheduled outfall cleanings.

**VOTE:** The item was passed unanimously.

- AYES:** Beckman, Boorstein, Bushey, DiGiovanni, Kelly
- NAYS:** None
- ABSTAIN:** None

**9. April Informational Items 00:45:53**

**ACTION:** This item was informational no action was taken.

**10. North Bay Watershed Association (NBWA) Report 00:46:09**

Commissioner Boorstein reported that the NBWA Conference will be held on April 19 at Sonoma State University.

**11. Oral Reports by Commissioners 00:46:50**

Commissioner Boorstein said that RVSD will be celebrating their 125<sup>th</sup> Anniversary on May 28 from 1-3pm.

**12. Oral Reports by General Manager 00:47:36**

GM Dow referred to his handout and reported:

- The new Administrative Specialist will start on April 22.
- Engineering will have two interns this summer.

- Carollo will be giving a presentation regarding DPR at the May meeting.
- Staff plans to seek Board approval to pre-purchase two Huber grit washers at the May meeting.

**13. Next Scheduled Meeting**

**00:51:50**

The Board has scheduled a Regular meeting for Tuesday, May 14, 2024 at 6:00 p.m.

Chair Kelly adjourned the meeting at 6:52 p.m.

Respectfully submitted,

\_\_\_\_\_  
Adrianna Iacoviello, Recording Secretary

\_\_\_\_\_  
Dean DiGiovanni, Secretary



TREASURER'S REPORT  
As of the Month Ended April 30, 2024

Description	Account Type	Book Value	Market Value (1)	% Portfolio	Budget / Proj Year End
<b>Cash and Investments:</b>					
WestAmerica Bank (See Schedule 1 for Account Activity)	Operating Acct	\$ 2,762,279.58	\$ 2,762,279.58		
US Bank 2015 & 2020 Revenue Bonds (Restricted)	Debt Serv Acct	1,289.38	1,289.38		
US Bank 2022 Pension Oblig Bonds (Restricted)	Debt Serv Acct	53.06	53.06		
Keenan Benefit Trust (Restricted)	Pension Stab Trust	217,051.97	217,051.97		
CAMP Cash Reserve Pool: 5.44%	Investment Acct	416,116.69	416,116.69		
Local Agency Investment Fund (LAIF): 4.272%	Investment Acct	20,460,733.60	20,460,733.60		
<b>Total cash and investments</b>		<b>\$ 23,857,524.28</b>	<b>\$ 23,857,524.28</b>	<b>100.0%</b>	
<b>Designations of Cash and Investments:</b>					
Current Operating Fund (2)		2,143,493.51	2,143,493.51	9.0%	
Debt Service Accounts (Restricted)		1,342.44	1,342.44	0.0%	
Employee Benefit Trust (Restricted)		217,051.97	217,051.97	0.9%	
Capital Reserves (Restricted) (3) - See Schedule 2		1,125,252.20	1,125,252.20	4.7%	1,125,252
Operating Reserve (Unrestricted) (4)		4,003,033.75	4,003,033.75	16.8%	4,003,034
Capital Reserves (Unrestricted) (5) - See Schedule 2		15,867,350.41	15,867,350.41	66.5%	8,105,877
Contingency and Emergency Reserve (Unrestricted)		500,000.00	500,000.00	2.1%	500,000
<b>Total designations of cash and investments</b>		<b>\$ 23,857,524.28</b>	<b>\$ 23,857,524.28</b>	<b>100.0%</b>	

NOTES:

- (1) Market values are per the fiscal agent's respective monthly statements
- (2) Current operating fund is the residual of the other designations
- (3) Includes capacity charges and debt service coverage

- (4) Operating reserves calculated at 25% operating budget
- (5) Includes capital fee

Statement of Compliance

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

  
Corey Spray, CPA  
Administrative Services Manager





**Central Marin Sanitation Agency**  
**Schedule 1 - Operating Account Activity Schedule**  
**For the Month of April 2024**

Beginning Balance at April 1, 2024	\$ 809,730.52
 <i><u>Cash Receipts (Deposits into Westamerica):</u></i>	
Transfers from LAIF	\$ 1,500,000.00
JPA Service Charges (FY24 Q4: SRSD, SD#2)	1,724,221.30
Laboratory Services (County Marin <Dec, Jan, Feb>; Verily Life Sciences <Dec, Jan, Feb> )	10,534.00
Revenue from Septage Haulers & RVs	17,286.00
Revenue from Organic Waste Programs	28,737.84
Health & Safety Program Revenue (NSD: FY24 4Q Salary/Benefits) & 3Q expenses	24,026.68
County-wide Public Education Program (FY24 3Q: LGVSD, NSD, SD#5, SASM, SMCSO)	18,058.67
SD#2 Operations & Maintenance Contract (FY24 Jan)	75,906.15
Marin Airporter Property Use (FY24 Mar & Apr)	11,866.36
Marin Clean Energy electricity generation (FY24 Jan & Feb)	15,676.22
Navia Benefit Solutions reimburse Sec 125 2021 forfeitures	5,248.89
<b>Total Cash Receipts</b>	<b><u>\$ 3,431,562.11</u></b>
 <i><u>Cash Disbursements (Withdrawals from Westamerica):</u></i>	
April 2024 Operating account disbursements register (see Schedule 1a)	\$ 1,080,570.65
Regular Payroll paid 04/05/24	159,183.95
Regular Payroll paid 04/19/24	162,269.84
Board compensation reported as full stipend on Disbursement Register (paid April payroll)	(1,125.00)
Transfers to EFTPS Federal Payroll Taxes (04/05, 04/19)	77,866.42
Bank and Credit Card Fees	247.19
<b>Total Cash Disbursements</b>	<b><u>\$ 1,479,013.05</u></b>
<b>Ending balance at April 30, 2024</b>	<b><u><u>\$ 2,762,279.58</u></u></b>



**Central Marin Sanitation Agency**  
**Schedule 1a - Operating Account Disbursements Register**  
**For the Month of April 2024**

Number	Date	Vendor/Payee	Amount	Description
2025207				Last check from prior month's register
2025208	4/1/2024	Bally, Bob	167.79	Reimbursement for retiree health benefits
2025209	4/1/2024	Byron Jones	167.79	Reimbursement for retiree health benefits
2025210	4/1/2024	Phillip Frye	167.79	Reimbursement for retiree health benefits
2025211	4/2/2024	Alameda Electrical Dist Inc	6.58	Electrical supplies
2025212	4/2/2024	CWEA TCP	462.00	Membership fee (2 employees)
2025213	4/2/2024	Dee Consultants LLC	1,657.70	Prof Svcs: CM for Liquid Organic Waste Receiving and Biogas Treatment Upgrades Project, March 2024
2025214	4/2/2024	EDIS	20,736.52	Dental insurance monthly fee, April 2024
2025215	4/2/2024	Endress + Hauser, Inc	535.10	Mounting bracket
2025216	4/2/2024	Fastenal Company	715.96	Maintenance vending machine replenishment, February 2024
2025217	4/2/2024	Graybar	651.66	Dystor blower for manual switch
2025218	4/2/2024	GSE Construction Company Inc.	108,588.53	Liquid Organic Waste Receiving and Biogas Treatment Upgrades Project (payment #12) and extra work order (2 invoices)
2025219	4/2/2024	Kemira	15,498.27	Ferric chloride (1 delivery)
2025220	4/2/2024	Marin Resource Recovery Center	192.00	Trash disposal
2025221	4/2/2024	REXEL	392.11	Electrical supplies
2025222	4/2/2024	Shamrock Building Materials	94.30	Propane
2025223	4/2/2024	Shamrock Building Materials	6,165.46	Natural gas supply, February 2024
2025224	4/2/2024	Staples	57.38	Office supplies
2025225	4/2/2024	Univar USA Inc	19,461.85	Sodium bisulfite (2 deliveries)
2025226	4/5/2024	California State Disbursement	972.11	Garnishment for PPE 03/30/2024
2025227	4/8/2024	CAL-CARD	13,416.30	State of California Purchase Card, March-April 2024
2025228	4/8/2024	DC Frost Associates Inc	3,537.29	Thermal operated shut off valve replacement
2025229	4/8/2024	Draeger, Inc	144.00	Calibration sensor
2025230	4/8/2024	Earthly Goods Ltd	1,965.00	Public Ed Program: 3,000 personalized seed packets (Note B)
2025231	4/8/2024	Hasa Inc.	30,773.99	Sodium hypochlorite (2 deliveries)
2025232	4/8/2024	Hayes, Scott	250.00	Employee Exp Reimb: Safety boots
2025233	4/8/2024	Hendrick, Richard	192.00	Employee Exp Reimb: CWEA membership fee
2025234	4/8/2024	Home Depot Credit Services	1,395.87	Maintenance/electrical parts & supplies, March 2024
2025235	4/8/2024	Jackson's Hardware	929.53	Safety shoes (1 employee) and misc. hardware supplies, March 2024
2025236	4/8/2024	JDH Corrosion Consultants, Inc.	14,406.75	Prof Svcs: Aeration tank #2 pipeline expansion joint
2025237	4/8/2024	Justifacts Credential	42.75	Recruitment: Background check (1 employee)
2025238	4/8/2024	Linde Gas and Equipment	44.27	Propane
2025239	4/8/2024	Marin Recycling HHWF	111.00	Hazardous waste disposal
2025240	4/8/2024	McMaster-Carr Supply Co.	7,158.38	Lube, filters, and misc. screws, nuts, washers, pipes, and bearings, March 2024
2025241	4/8/2024	Motion Industries, Inc.	3,488.48	New plant pumps and hardware (3 invoices)
2025242	4/8/2024	P.G.E.	12,762.56	Electricity service, 02/20-03/18/2024
2025243	4/8/2024	Progent Corporation	99.95	IT support, April 2024
2025244	4/8/2024	Stiles, Robert	207.00	Employee Exp Reimb: Mechanical Tech exam fee
2025245	4/8/2024	Univar USA Inc	9,781.72	Sodium bisulfite (1 delivery)
2025246	4/8/2024	Water Components & Bldg. Supp.	448.34	Maintenance supplies, March 2024
2025247	4/8/2024	Western Exterminator Co., Inc.	257.75	Pest control, March 2024
2025248	4/8/2024	White Cap LP	87.64	Small tools
2025249		Void		
2025250	4/10/2024	Marin County Clerk Office	50.00	Marine outfall diffuser cleaning project - CEQA NOE filing fee
2025251		Void		
2025252	4/15/2024	Fastenal Company	754.98	Maintenance vending machine replenishment, March 2024
2025253	4/15/2024	Gallagher Benefit Svcs Inc	5,500.00	Recruitment for Accounting Technician and Admin Specialist
2025254	4/15/2024	Give Me Five LLC	1,156.07	Public Ed Program: 5,000 stickers (Note B)
2025255	4/15/2024	IDEXX Distribution Inc	1,542.42	Interolert and Colilert for lab, March 2024
2025256	4/15/2024	Maggiore & Ghilotti, Inc	45,560.81	Andersen hillside repair contract, payment #1
2025257	4/15/2024	Marin Fence Inc	650.00	Facility fence repair
2025258	4/15/2024	Northeast-Western	17,235.96	Jenbacher preventive maintenance, November-December 2023 (2 invoices) and March 2024 (1 invoice)
2025259	4/15/2024	Rock Steady Juggling	500.00	Public Ed Program: Presentation at one school (Note B)
2025260	4/15/2024	Rockwell Solutions	3,653.32	Headworks sump pump parts
2025261	4/15/2024	SF Bay Regional Water Board	2,985.00	Marine outfall application fee

**Central Marin Sanitation Agency**  
**Schedule 1a - Operating Account Disbursements Register**  
**For the Month of April 2024**

Number	Date	Vendor/Payee	Amount	Description
2025262	4/16/2024	A and S Landscape Materials, Inc	1,008.03	Redwood chips and plant soil mix
2025263	4/16/2024	Alameda Electrical Dist Inc	463.14	PVC piping
2025264	4/16/2024	Atmospheric Analysis	765.00	Biogas siloxanes analysis
2025265	4/16/2024	Bay Area Air Quality	28,672.00	Annual permit renewal, 05/01/2024-05/01/2025
2025266	4/16/2024	Caltest Analytical Laboratory	866.40	DI water for lab; Nutrients analyses, March 2024
2025267	4/16/2024	City Electric Supply	1,074.70	Small tools and electrical supplies, March 2024
2025268	4/16/2024	Comcast	212.98	Internet service, 02/04-03/03/2024
2025269	4/16/2024	East Bay Muni Utility District	1,198.80	BACC participation fee
2025270	4/16/2024	Hach Company	814.32	Vials and chemicals for lab, March 2024
2025271	4/16/2024	Hasa Inc.	14,654.99	Sodium hypochlorite (1 delivery)
2025272	4/16/2024	Hayes, Scott	56.10	Employee Exp Reimb: Mileage
2025273	4/16/2024	Horizon Dist. Inc	252.22	Groundskeeping supplies
2025274	4/16/2024	Kone Inc	191.33	Elevator monthly maintenance, March 2024
2025275	4/16/2024	Linde Gas and Equipment	288.99	Propane
2025276	4/16/2024	Luis Rubio	441.66	Employee Exp Reimb: Safety boots
2025277	4/16/2024	Lystek International LTD	7,605.39	Biosolids beneficial reuse fee, March 2024
2025278	4/16/2024	Marin Color Service	134.90	Paint and painting supplies
2025279	4/16/2024	Marin County Fair	2,000.00	Public Ed Program: Fair booth (Note B)
2025280	4/16/2024	Motion Industries, Inc.	51,655.23	Primary clarifier #1 rehabilitation parts and supplies
2025281	4/19/2024	California State Disbursement	972.11	Garnishment for PPE 04/13/2024
2025282	4/19/2024	Leveque, Cody	1,361.95	Employee Exp Reimb: CWEA Annual conference
2025283	4/19/2024	Aramark Uniform Services	4,100.77	Uniform service, March 2024
2025284	4/19/2024	AT&T Corp	375.66	Monthly internet fee
2025285	4/19/2024	Brian Carr	998.67	Employee Exp Reimb: CWEA Annual conference
2025286	4/19/2024	CWEA TCP	108.00	Membership fee (1 employee)
2025287	4/19/2024	Jacob Dellinger	237.00	Employee Exp Reimb: Mechanical Tech exam fee
2025288	4/19/2024	Reinholdt Engineering Construction	790.00	Monthly storage tank inspection
2025289	4/19/2024	Staples	242.93	Office supplies
2025290	4/19/2024	Waste Management	18,353.72	Biosolids disposal, March 2024
2025291	4/19/2024	Bay Conservation Development Comm	200.00	Marine outfall application fee
2025292	4/20/2024	Aramark Uniform Services	320.92	Uniform Service
2025293	4/24/2024	Airgas USA, LLC	71.79	Propane
2025294	4/24/2024	Aleshire & Wynder LLP	720.00	Legal Services: Employment Law, March 2024
2025295	4/24/2024	Alliant Insurance Services	2,560.96	Insurance policy renewal for pollution liability and one public official bond, 04/26/2024-04/26/2025
2025296	4/24/2024	Applied Air Filters	699.28	Engine room air filter replacements
2025297	4/24/2024	Automation Direct Co., Inc.	534.24	Auto parts, March 2024
2025298	4/24/2024	Dahl-Beck Electric	10,825.92	Motor refurbishment for Biotower pump No.4
2025299	4/24/2024	Denali Water Solutions	9,611.19	Biosolids hauling, March 2024
2025300	4/24/2024	Flyers Energy LLC	2,427.48	Diesel exhaust fluid for Jenbacher emissions control systems
2025301	4/24/2024	Frank A. Olsen Co	10,155.97	SD2 PS Maint: Isolation and check valve replacement (1 invoice), repair kit (1 invoice) (Note B)
2025302	4/24/2024	GHD Inc	3,513.74	Prof Svcs ESDC: Liquid organic waste storage and biogas treatment project, March 2024
2025303	4/24/2024	Grainger	4,979.48	Safety switches, surge protection device, trash bags, strainer screens, air filters, band saw blades, battery packs, and electrical supplies, March 2024
2025304	4/24/2024	Graybar	9,313.74	Electrical conduit for primary clarifier level transmitter project
2025305	4/24/2024	Harrington Industrial Plastics	182.87	PVC piping
2025306	4/24/2024	Hasa Inc.	15,271.05	Sodium hypochlorite (1 delivery)
2025307	4/24/2024	Kemira	16,169.25	Ferric chloride (1 delivery)
2025308	4/24/2024	Marin Sanitary Service - 0004321	1,219.75	Grit box disposal, March 2024
2025309	4/24/2024	Marin Sanitary Service - 0027511	5,237.97	Rag bins disposal, March 2024
2025310	4/24/2024	Medical Center of Marin	282.00	Pre-employment testing (1 new employee)
2025311	4/24/2024	Metal Service Center	550.68	Stainless steel bar for odor scrubber fan refurbishment
2025312	4/24/2024	MISCOwater	26,058.56	6,100-gallon hypochlorite storage tank
2025313	4/24/2024	PG&E	160.15	Renewable energy expansion, April 2024
2025314	4/24/2024	Thomas & Associates	913.15	Plant pump
2025315	4/24/2024	United initiators Canada Ltd.	27,202.50	Hydrogen peroxide (2 deliveries)
2025316	4/24/2024	Wells Fargo Vendor	757.22	Lease payment for three printer/copiers, 03/20-04/19/2024
2025317	4/24/2024	Western Exterminator Co.,Inc.	1,491.20	Pest control, September -December 2023

**Central Marin Sanitation Agency**  
**Schedule 1a - Operating Account Disbursements Register**  
**For the Month of April 2024**

Number	Date	Vendor/Payee	Amount	Description
2025318	4/24/2024	Woodland Center Auto Supply	469.13	Oil filters for mobile generators and compressors (Note B)
2025319	4/24/2024	GSE Construction Company Inc.	49,900.00	Replacement of nine facility doors, hardware, and frames
2025320	4/24/2024	Gutierrez, Christopher	192.00	Employee Exp Reimb: CWEA membership fee
2025321	4/24/2024	Joyce Cheung	930.16	Employee Exp Reimb: CWEA Annual conference
2025322	4/24/2024	Roy's Sewer Service, Inc.	3,600.00	Grit and pump station cleanings
2025323	4/24/2024	SPURR	4,975.74	Natural gas supply, March 2024
2025324	4/24/2024	Unison Solutions	36,435.53	Scrubber media replacement (1 invoice), Siloxane removal (1 invoice)
<b>TOTAL - CHECKS</b>			<b>745,610.64</b>	

**Payments by ACH:**

Date	Vendor/Payee	Amount	Description
4/5/2024	Amazon	894.13	Office supplies and computer equipment, April 2024
4/12/2024	Cal Dept of Tax Fee Adm	24,451.00	2023 California sales tax on chemicals from Canada
4/2/2024	Cal Public Medical	89,021.72	Medical insurance
4/5/2024	CalPERS	46,211.50	Retirement pension contribution: Agency and employees, PPE 03/30/2024 (Note C)
4/19/2024	CalPERS	46,238.23	Retirement pension contribution: Agency and employees, PPE 04/13/2024 (Note C)
4/15/2024	Carollo	17,985.00	Prof Svcs: Design - DPR regulatory update and grit classifiers replacement project (2 invoices)
4/5/2024	Employment Development Department	14,997.07	State and SDI Taxes, PPE 03/30/2024
4/19/2024	Employment Development Department	15,286.60	State and SDI Taxes, PPE 04/13/2024
4/5/2024	IEDA	960.89	Labor relations consulting
4/2/2024	Lincoln Financial Group	4,033.02	Life insurance
4/5/2024	Mission Square	1,550.00	Deferred compensation contributions, PPE 03/30/2024 (Note A)
4/19/2024	Mission Square	1,550.00	Deferred compensation contributions, PPE 04/13/2024 (Note A)
4/5/2024	Navia Benefit Solutions	898.09	Flexible spending account, PPE 03/30/2024
4/5/2024	Navia Benefit Solutions	200.00	Monthly fee
4/19/2024	Navia Benefit Solutions	898.09	Flexible spending account, PPE 04/13/2024
4/5/2024	Nationwide Retirement	26,140.53	Deferred compensation contributions, PPE 03/30/2024 (Note A)
4/19/2024	Nationwide Retirement	26,290.53	Deferred compensation contributions, PPE 04/13/2024 (Note A)
4/5/2024	Nitel Inc	1,494.84	Primary telephone and internet service, April 2024
4/1/2024	Payments to 32 retirees	10,174.11	Reimbursement for retiree health benefits
4/5/2024	Public Agency Retirement Svcs	373.24	Retirement pension contribution: Part-time employees, PPE 03/30/2024
4/19/2024	Public Agency Retirement Svcs	409.24	Retirement pension contribution: Part-time employees, PPE 04/13/2024
4/5/2024	SEIU Local 1021	1,552.02	Union dues, PPE 03/30/24
4/19/2024	SEIU Local 1021	722.17	Union dues, PPE 04/13/24
4/24/2024	Tyler	7.50	Transaction fee
4/2/2024	Vision Service Plan (CA)	1,495.49	Vision insurance
<b>TOTAL - ACH</b>		<b>333,835.01</b>	

**Board Member Compensation:**

Date	Vendor/Payee	Amount	Description
4/19/2024	Beckman, Eli	225.00	Stipend for 04/09/2024 Board Meeting
4/19/2024	Boorstein, Michael	225.00	Stipend for 04/09/2024 Board Meeting
4/19/2024	Bushey, Maribeth	225.00	Stipend for 04/09/2024 Board Meeting
4/19/2024	Dean DiGiovanni	225.00	Stipend for 04/09/2024 Board Meeting
4/19/2024	Doug Kelly	225.00	Stipend for 04/09/2024 Board Meeting
<b>TOTAL - BOARD MEMBER COMPENSATION</b>		<b>1,125.00</b>	

<b>GRAND TOTAL</b>	<b>1,080,570.65</b>
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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 2 - CAPITAL RESERVES ACTIVITY SCHEDULE**

**Year-to-Date as of the Month Ended April 30, 2024**

	Monthly Amounts Received (Used)	YTD Amounts Received (Used)
<b>Restricted Capital Reserves Sources and Uses</b>		
Capacity charges revenue	\$ -	\$ 783,717
Debt coverage collection revenue	-	1,125,252
<b>Total restricted capital reserve funding sources</b>	<b>-</b>	<b>1,908,969</b>
Capacity charges usage for capital (1st)	-	(783,717)
Debt coverage usage for capital (2nd)	-	(1,130,508)
<b>Total restricted capital reserve uses</b>	<b>-</b>	<b>(1,914,225)</b>
Net change		(5,256)
Balance - beg of year		1,130,508
Balance - end of month/year		\$ 1,125,252
<b>Unrestricted Capital Reserves Sources and Uses</b>		
Capital fee revenue	\$ 156,393	\$ 1,104,807
Cal Recycle grant proceeds received	-	1,556,349
Unrestricted operating-reserve-transfer-in	-	1,117,975
<b>Total unrestricted capital reserve funding sources</b>	<b>156,393</b>	<b>3,779,130</b>
Capital fee usage to fund CIP (3rd)	-	(948,413)
Unrestricted capital reserve draw (4th)	(264,369)	(1,783,413)
<b>Total unrestricted capital reserve uses</b>	<b>(264,369)</b>	<b>(2,731,826)</b>
Net change		1,047,304
Balance - beg of year		14,820,046
Balance - end of month/year		\$ 15,867,350
<b>Total capital reserve balances</b>		<b>\$ 16,992,603</b>
<b>Total approved CIP budget</b>		\$ 8,892,401
<b>Total CIP funded from capital reserve sources</b>		(4,646,050)
<b>Total approved capital budget remaining</b>		<b>\$ 4,246,350</b>





## BOARD MEMORANDUM

May 9, 2024

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager

Approved: Jason Dow, General Manager

Subject: **April 2024 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report**

**Recommendation:** Accept the April 2024 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report.

### **I. NPDES Permit Compliance**

Our NPDES permit testing for April 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. CMSA's NPDES permit specifies monitoring the six-week rolling geometric mean of enterococcus bacteria which shall be calculated weekly. The rolling enterococcus geometric mean was 3.6 MPN, which is significantly lower than our permit limit of 255 MPN. The average ammonia concentration for the month was 29.3 mg/L, which is less than CMSA's monthly limit of 60 mg/L.

### **II. Influent and Effluent Flows**

What a difference a month makes! CMSA experienced a 39.3% drop in influent flows, central Marin County experienced mild precipitation, and weather conditions ranged from scattered clouds to sunny with temperatures averaging in the mid-60's all the way up to 81 degrees. The Agency reported a total of 1.13 inches of rain at its onsite rain gauge and the treatment plant recorded zero blend events. Table 1 shows CMSA's daily influent and effluent flows and Table 2 denotes the CMSA treatment plant and each satellite collection agency's daily average and total monthly influent flows.

**Table 1: CMSA Influent and Effluent Flow Summary**

Flow Location	Daily Maximum	Hourly Maximum	5 Minute Maximum	Daily Average
Influent	15.3 MG	21.2 MG	24.6 MG	12.0 MGD
Effluent	13.2 MG	17.7 MG	21.1 MG	10.2 MGD

**Table 2: Satellite Collection Agency and Total Flow Summary**

Flow Type	SRSD	RVSD	San Quentin	SD2	CMSA Totals
Average Daily (MGD)	4.4 MGD	5.7 MGD	0.71 MGD	1.2 MGD	12.0 MGD
Total for Month (MG)	131.8 MG	172.4 MG	21.4 MG	35.2 MG	360.8 MG
Percent of Flow	36.5%	47.8%	5.9%	9.8%	100%

### **III. Treatment Process**

The treatment plant is currently operating in a dry weather mode but on one occasion, had to quickly bring process equipment online to account for a short duration storm event. As weather has improved, staff has been systematically removing process equipment from service as influent flows allowed. On April 6 and again on April 22, two of the four aeration basins were removed from service. On April 10 staff began removing primary clarifiers from service, and on April 16, the first secondary clarifier was removed from service. On April 15, staff locked and tagged out the Organic Waste Receiving Station and turned it over to GSE Construction to allow them to replace the facilities 8-foot-wide access hatch with a 10-foot-wide model, which allows CMSA more flexibility in receiving foodwastes. Operations continued to receive FOG during this project, into the new storage tank, which assisted with continued biogas production. The entire facility returned to full service on April 30.

The Mixed Liquor Suspended Solids inventory averaged 882 mg/l in April, a 5.2% increase in inventory from last month. The solids inventory is in alignment with our target Mean Cell Residence Time of 3.0 days.

Graph #3 shows the enterococcus MPN, which represents the effectiveness of the disinfection system's performance. The enterococcus rolling average in April was 3.6 MPN/100mL, well below the Agency KPI average of 35 MPN and well below the permit limit of 255 MPN.

Graph #4 shows the Total Suspended Solids (TSS), which is a good indicator of the effluent quality. The TSS monthly average in April was 5.7 mg/l, which is 38.0% of our KPI of 15 mg/l and 16.0% of our permit's monthly average limit of 30 mg/l.

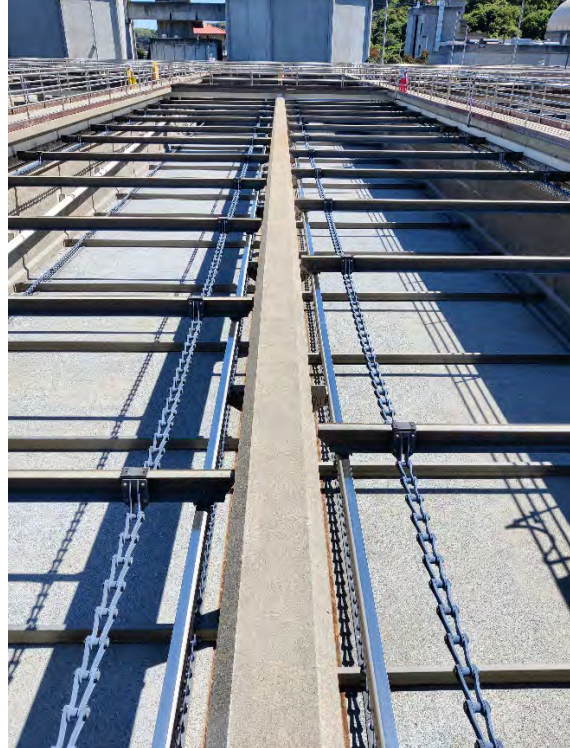
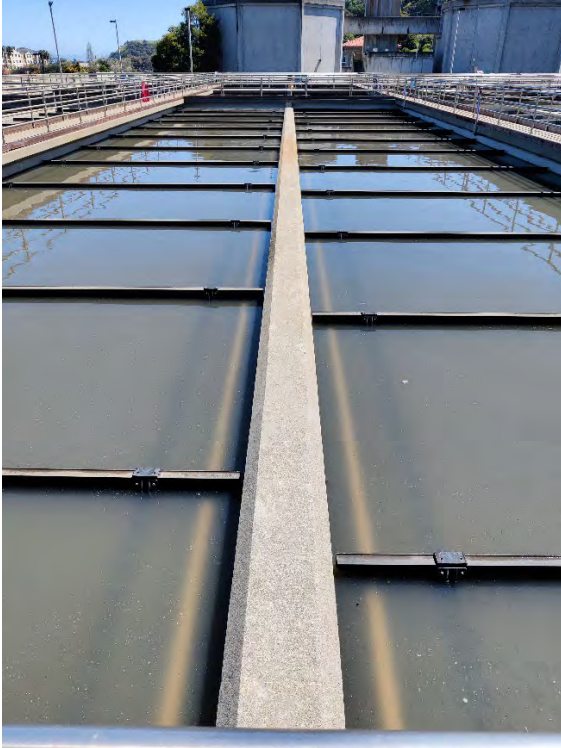
### **IV. Maintenance Activities**

The cogeneration systems produced approximately 95.2% of the Agency's power in April, and MCE supplied the balance, as depicted on Graph #8.

Most of April's work activities were spent performing process equipment preventative maintenance. Technicians replaced hypochlorite storage tank No. 4, replaced the siloxane media in vessel No. 1, replaced leaking freeze plugs in the standby generator at Sanitary District No. 2's Goldenhind pump station, repaired a leak in the ferric chloride supply line in the Headworks, repaired a leak and recoated the roof on a facility storage container, installed a test turbidimeter into the secondary effluent line, installed a new four-gas monitoring control cabinet in the Headworks, moved and reinstalled two laboratory incubators for Technical Services, and repaired a broken portable gate operator for Operations. Technicians cleaned-up control cabinet wiring in the chemical and solids handling buildings and replaced street and deck lighting throughout the facility. The utility staff has been busy trying to get ahead of all the blooming foliage, trimming trees on and around the effluent storage pond, aerating the administration building lawns, and repairing irrigation in several locations.

### **Attachment:**

- April 2024 NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report



In April, several storms necessitated filling primary clarifiers, followed by draining and cleaning as flows subsided.



**Monthly Compliance Summary Table**

**Central Marin Sanitation Agency**

**April, 2024**

**Final Effluent Monitoring**

Parameter	Limit Type	NPDES Monitoring Frequency	CMSA Monitoring Frequency	Results	Units	Limit
Carbonaceous Biochemical Oxygen Demand (cBOD)	Weekly Average	1/Week	3/Week	4.7	mg/L	Maximum 40
	Monthly Average	1/Week	3/Week	4.1	mg/L	Maximum 25
cBOD Removal	Monthly Average	1/Week	3/Week	97	%	Minimum 85
Total Suspended Solids (TSS)	Weekly Average	2/Week	3/Week	6.0	mg/L	Maximum 45
	Monthly Average	2/Week	3/Week	5.7	mg/L	Maximum 30
TSS Removal	Monthly Average	2/Week	3/Week	96	%	Minimum 85
Chlorine Residual	Hourly Average	Continuous	Continuous	ND	mg/L	Maximum 0.56
Ammonia	Monthly Average	2/Month	1/Week	29.3	mg/L	Maximum 60
	Daily Maximum	2/Month	1/Week	29.4	mg/L	Maximum 120
pH	Instantaneous	Continuous	Continuous	6.8	SU	Minimum 6
	Instantaneous	Continuous	Continuous	7.2	SU	Maximum 9
<b>Bacteriological Analysis</b>						
Enterococcus	6-Week Geomean	2/Week	3/Week	3.6	MPN/100mL	Maximum 255
	10% Maximum	2/Week	3/Week	8.4	MPN/100mL	Maximum 1,055
<b>Metals Analysis</b>						
Copper	Daily Maximum	Monthly	Monthly	5.5	ug/L	Maximum 84
	Monthly Average	Monthly	Monthly	5.5	ug/L	Maximum 48
Cyanide	Daily Maximum	Monthly	Monthly	ND	ug/L	Maximum 37
	Monthly Average	Monthly	Monthly	ND	ug/L	Maximum 21
<b>Semiannual and Quarterly Analysis</b>						
Mercury	Weekly Average	Quarterly	Quarterly	0.0049	ug/L	Maximum 0.072
	Monthly Average	Quarterly	Quarterly	0.0049	ug/L	Maximum 0.066
	Annual Load	Quarterly	Quarterly	0.02	kg/yr	Maximum 0.11
Chronic Toxicity	Pass/Fail	Semiannual	Semiannual	*	Pass/Fail	Pass Minimum
	Effect	Semiannual	Semiannual	*	%	50% Maximum
	Survival	Semiannual	Semiannual	*	%	50% Maximum
<b>Permit Analysis</b>						
Dioxin - TEQ Sum	Daily Maximum	1/Permit	1/Permit	*	ug/L	Maximum 2.8E-08
	Monthly Average	1/Permit	1/Permit	*	ug/L	Maximum 1.4E-08
PCB Aroclor Sum	Sum	1/Permit	1/Permit	*	ug/L	Maximum 0.012

\* 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:** 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 110 mg/L and a monthly average limit of 60 mg/L.
- **Carbonaceous Biochemical Oxygen Demand (cBOD):** The amount of dissolved oxygen needed by microorganisms (biomass) to reduce organic material in the effluent. Effluent permit limits require removal of 85% influent cBOD, a monthly average of concentration of less than 25 mg/L cBOD and a weekly average concentration of less than 40 mg/L.
- **Chlorine Residual:** The secondary effluent is disinfected with hypochlorite (chlorine), and then the residual chlorine is neutralized with sodium bisulfite to protect the Bay environment. The final effluent chlorine residual hourly average limit is 0.56 mg/L, which is monitored continuously.
- **Chronic Bioassay:** A 7-day test of *Mysida* shrimp's exposure to final effluent in a static renewed tank to determine their survivability. The permit requires that we maintain a less than a 50 percent survival effect.
- **Copper:** Our permit requires monitoring of the final effluent for a variety of different metals and has limits for Copper and Mercury. The Copper monthly average limit is 48 ug/L, and the daily maximum limit is 84 ug/L. The remaining metals are monitored only.
- **Cyanide:** A byproduct of potential source control activities and is also a by-product of the disinfection process, and our permit requires monthly sampling and analysis. The Cyanide monthly average limit is 21 ug/L, and the daily maximum limit is 37 ug/L.
- **Dioxin:** Our permit requires monitoring of 17 dioxin-like compounds once per permit cycle. It has a limit for the weighted sum of these 17 dioxin compounds, referred to as the Dioxin Toxic Equivalency (TEQ). The Dioxin TEQ monthly average limit is 0.014 pg/L and daily maximum limit is 0.028 pg/L.
- **Enterococcus:** Enterococcus bacteria are the indicator organisms for the determination of the effectiveness of the disinfection process. The Enterococcus six-week rolling geometric mean limit is 255 MPN/100mL and the Enterococcus 10 percent monthly maximum limit is 1,055 MPN/100mL.
- **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 effluent pH must stay within the range of 6.0 to 9.0, which we monitor continuously.
- **Mercury:** Our permit requires monitoring of the final effluent for a variety of different metals, and has limits for Copper and Mercury. The Mercury monthly average limit is 0.066 ug/L, the weekly average limit is 0.072 ug/L, and the annual average loading limit is 0.11 kg/yr. The remaining metals are monitored only.
- **Total Suspended Solids (TSS):** Measurement of suspended solids in the effluent. Our permit requires removal 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

April 2024

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

### PRIMARY CLARIFIER PERFORMANCE

Total Suspended Solids (TSS) in:	150.4	mg/l	<i>Expected removal efficiencies as outlined in Metcalf &amp; Eddy Wastewater Engineering Manual.</i>
TSS out:	83.0	mg/l	
Percent Removal Achieved:	64.0	%	<b>Design 50-70% Removal</b>
Total Biochemical Oxygen Demand (BOD) in:	193.5	mg/l	
BOD out:	141.5	mg/l	
Percent Removal Achieved:	27.1	%	<b>Design 25-40% Removal</b>
Plant Influent Flows:	12.0	MGD	

### SECONDARY SYSTEM PERFORMANCE

#### AERATION TANKS/ACTIVATED SLUDGE

Dissolved Oxygen set point:	2.3	mg/l
MLSS:	822	mg/l
MCRT:	3.0	Days
SVI:	204	

#### SECONDARY CLARIFIERS

WAS concentration:	5,087	mg/l
TSS out:	10.0	mg/l
Secondary System TSS Removal	88.0	%

#### FINAL EFFLUENT

Effluent TSS for the month:	5.7	mg/l	(Maximum Limit: 30mg/l)
Week #1 weekly average	5.5	mg/l	(Maximum Limit: 45mg/l)
Week #2 weekly average	3.7	mg/l	"
Week #3 weekly average	5.3	mg/l	"
Week #4 weekly average	6.0	mg/l	"
Week #5 weekly average	n/a	mg/l	"
Monthly average TSS removal efficiency through the plant:	96.0	%	(Minimum Limit: 85%)

Effluent CBOD:	4.1	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	3.7	mg/l	"
Week #4 weekly average	4.7	mg/l	"
Week #5 weekly average	n/a	mg/l	"
Monthly average CBOD removal efficiency through the plant:	97.0	%	(Minimum Limit: 85%)

Disinfection Dosing Rate:	3.4	mg/l	monthly average
Ammonia Monthly Average:	29.3	mg/l	(Maximum 120)
Enterococcus six-week Geometric Mean:	3.6	MPN	(Maximum 255)
Enterococcus 10% Maximum:	8.4	MPN	(Maximum 1,055 MPN)
Effluent pH for the month:	Min	6.8	(Min 6.0)
	Max	7.2	(Max 9.0)

#### DIGESTER TREATMENT

Thickened Waste Concentration from the RDT:	6.1	%
Volatile Solids destroyed:	85.1	%
Cubic feet of biogas produced:	7,349,050 (Total)	244,968 (Daily Average)
Temperature of the digesters:	101.8	degrees Fahrenheit

## EXECUTIVE SUMMARY PROCESS PERFORMANCE DATA

April 2024

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

### DEWATERING

Centrifuge feed concentration:	2.2	%
Biosolids concentration:	25.6	%
TSS of the centrate:	247	mg/l
Centrifuge solids capture:	98.99	%
Polymer use per dry ton of biosolids:	19.02	#/dry ton
Polymer feed rate per run:	3.38	gpm
Concentration of the polymer batches:	0.328	%
Sludge feed rate per run:	52.8	gpm

### Comments:

The treatment plant performed well, and all equipment remained online and operating without incident.

### Graph #1:

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

The red graph line represents total influent flows; and the blue bars depict the CMSA rain gauge recordings for the month.

### Graph #2:

*Depicts individual collection agency flows.*

The Y-axis is in the flow range of 0-9 MGD.

### Graph #3:

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

The enterococcus average for the month of April was 3.6 MPN, well below the Agency KPI of 35 MPN and permit limit of 255 MPN.

Enterococcus remained week below the Agency KPI for the entire month.

### Graph #4:

*Depicts the total suspended solids in the effluent.*

Our monthly average was 5.7 mg/l versus our KPI of 15 mg/l and permit monthly average limit of 30 mg/l. The effluent suspended solids remained below the Agency KPI for the entire month.

### Graph #5:

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

The effluent CBOD average was 4.1 mg/l, below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month. The effluent CBOD remained below the Agency KPI of 15mg/l for the entire month.

### Graph #6:

*Depicts the degree to which the biosolids have been dewatered.*

Our biosolids % concentration met or exceeded our KPI of 25% for 23 out of 28 days. For five days the concentration was below the KPI; the Department is currently training three new staff members on centrifuges and dewatering operations. Average concentration for the month met the Agency KPI at 25.6%. No dewatering operations were performed two days in April.

### 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 April averaged 244,968 cubic feet per day, above our monthly KPI of 200,000 cubic feet per day.

### Graph #8:

*This graph depicts the amount of energy produced through cogeneration versus the energy purchased from MCE for Agency operations, and the green line represents power exported to the grid. In April, total power exported was 38,737 kWh.*



## Glossary of Terms Process Performance Data Sheet

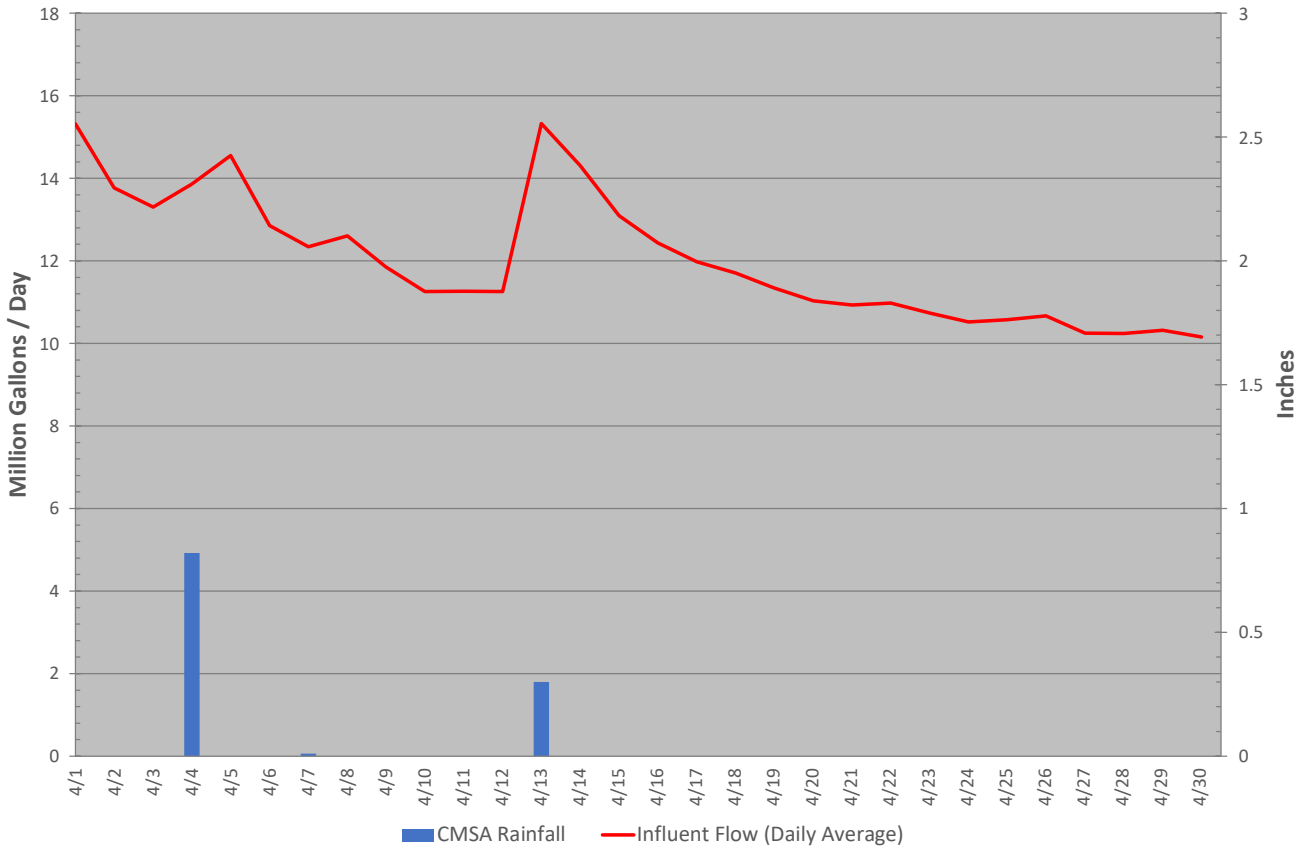
- **Aeration Tanks:** A biological process that takes place after the biotowers, where biomass (microorganisms) is mixed with the wastewater to feed on dissolved and suspended organic material. High speed blowers are used to provide compressed air to mix the tank contents.
- **Anaerobic Digesters:**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

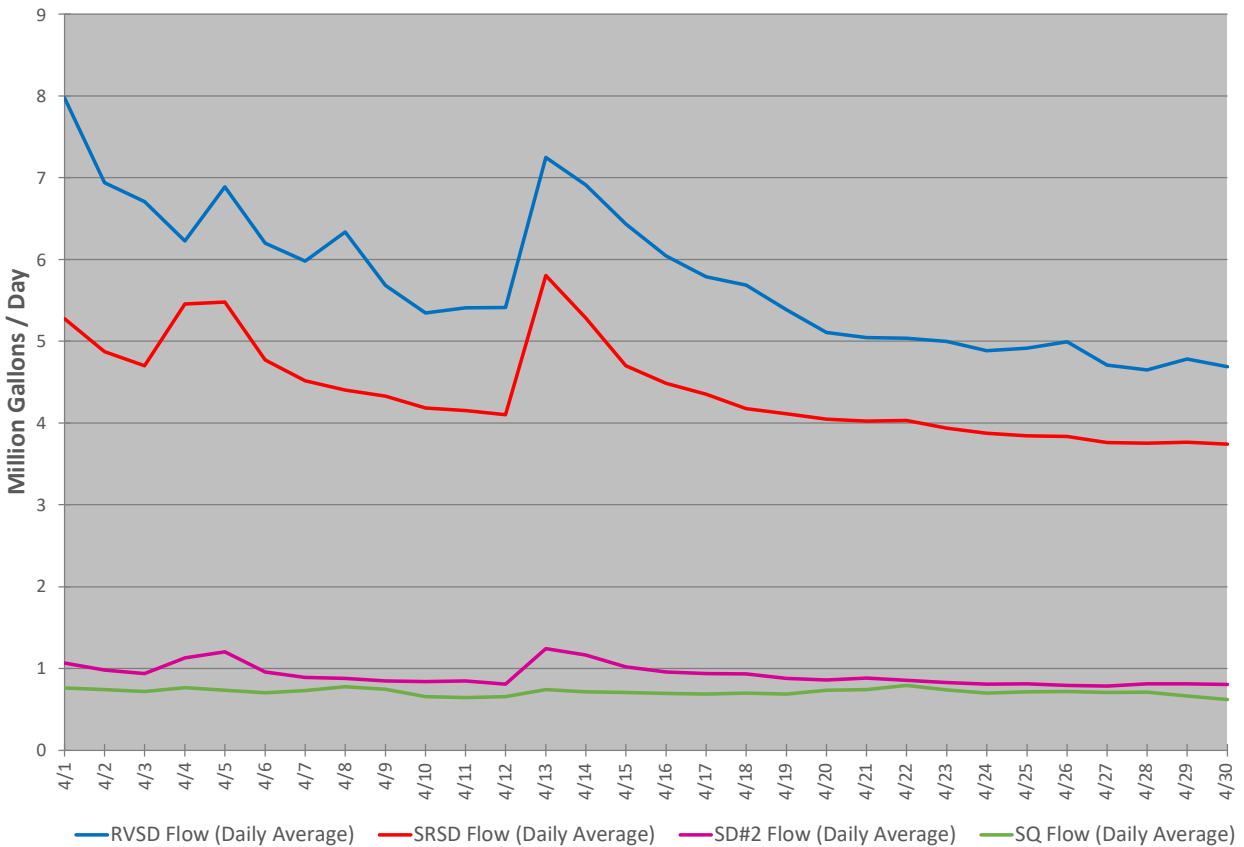
### Units of Measurement

- 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.

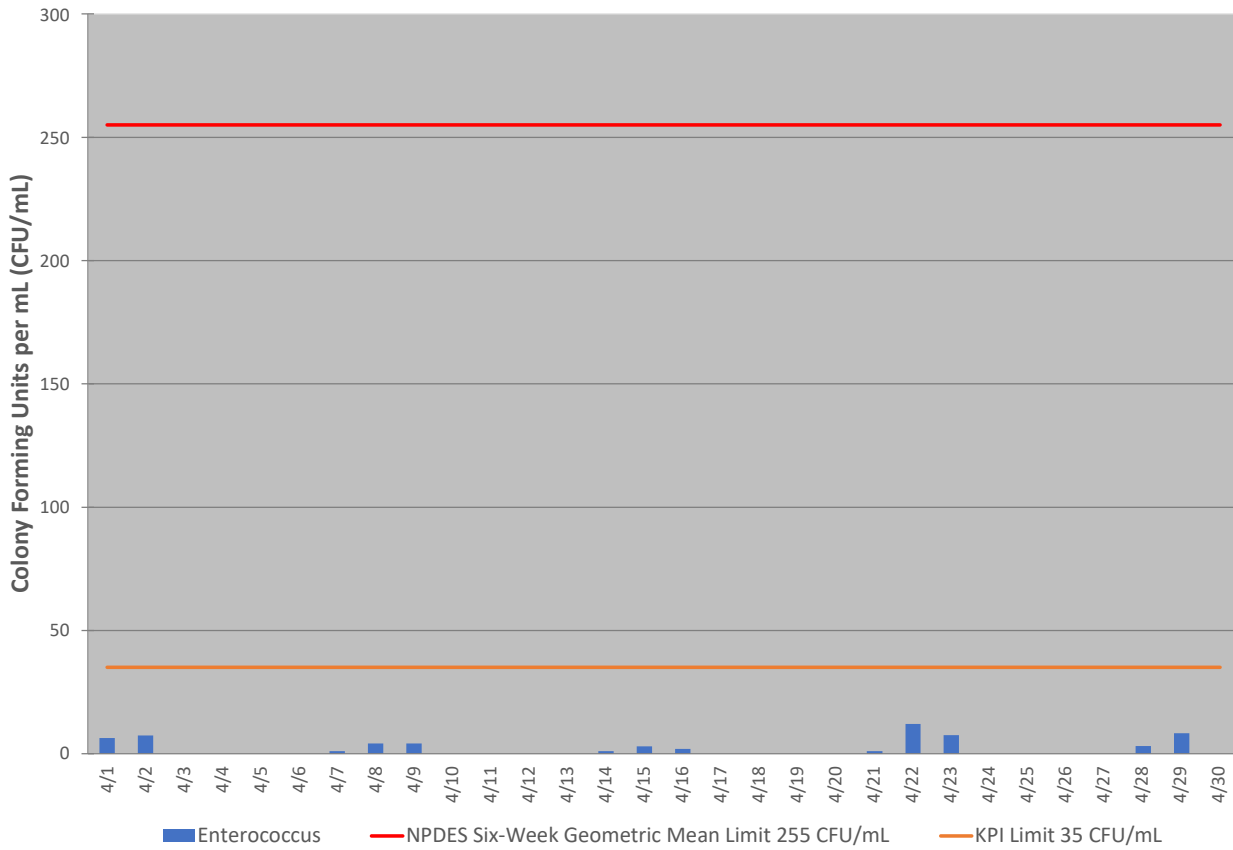
**Graph #1: CMSA Influent Flow and Rainfall**



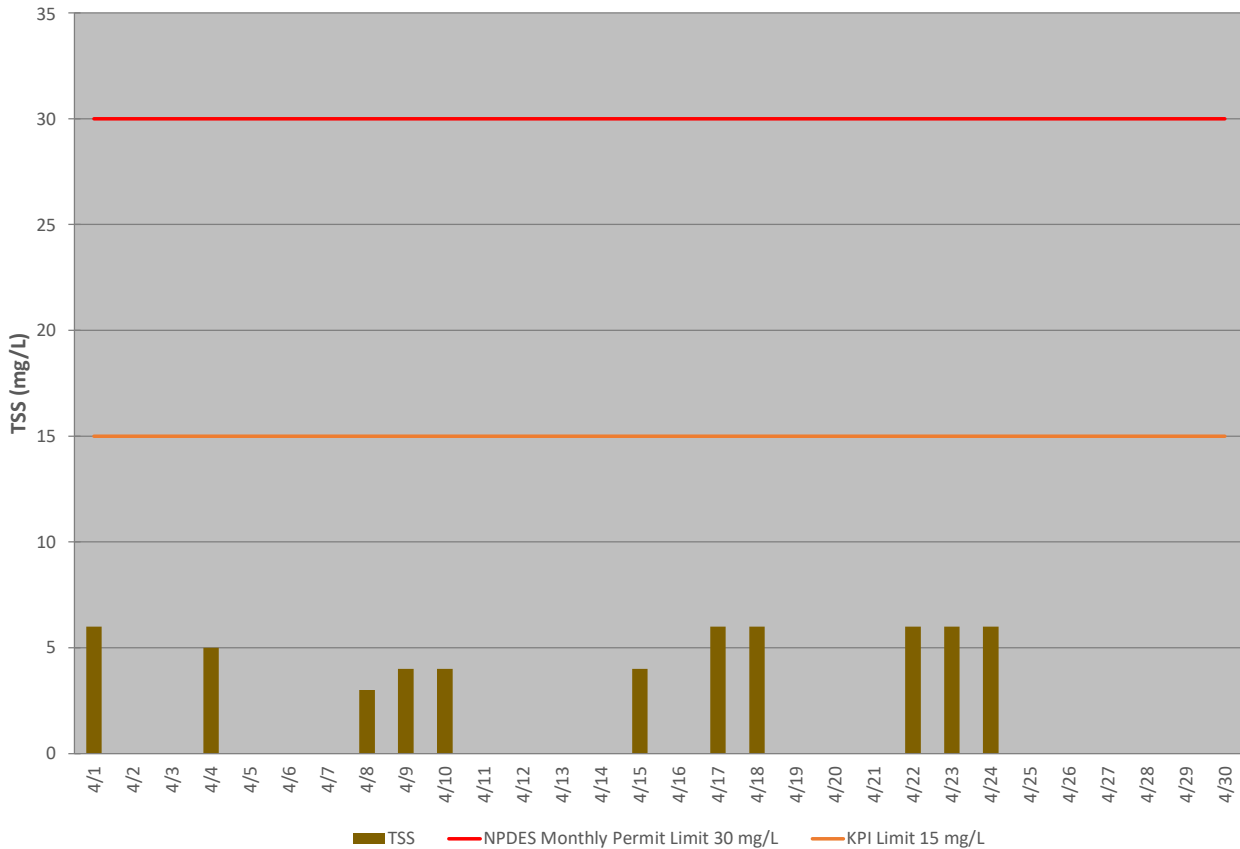
**Graph #2: Collection System Influent Flows**



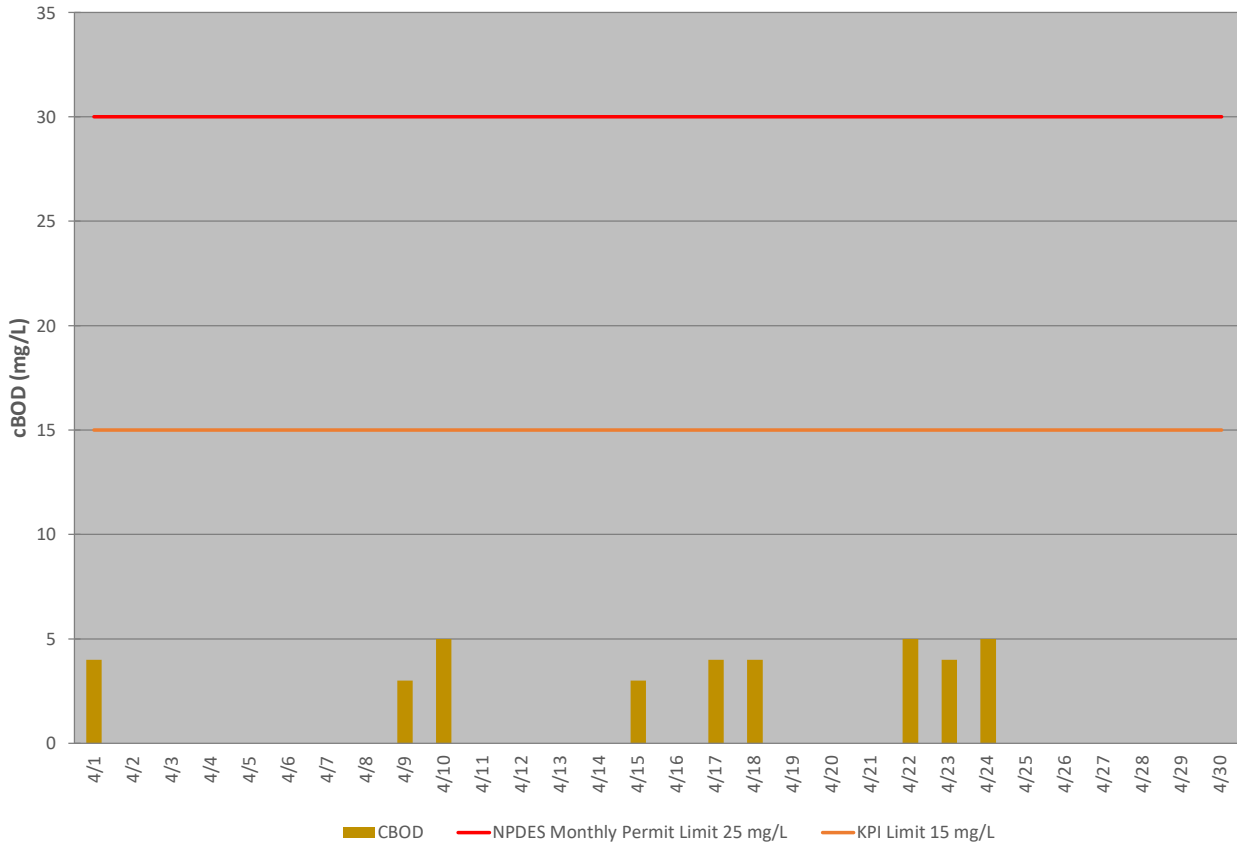
**Graph #3: Enterococcus**



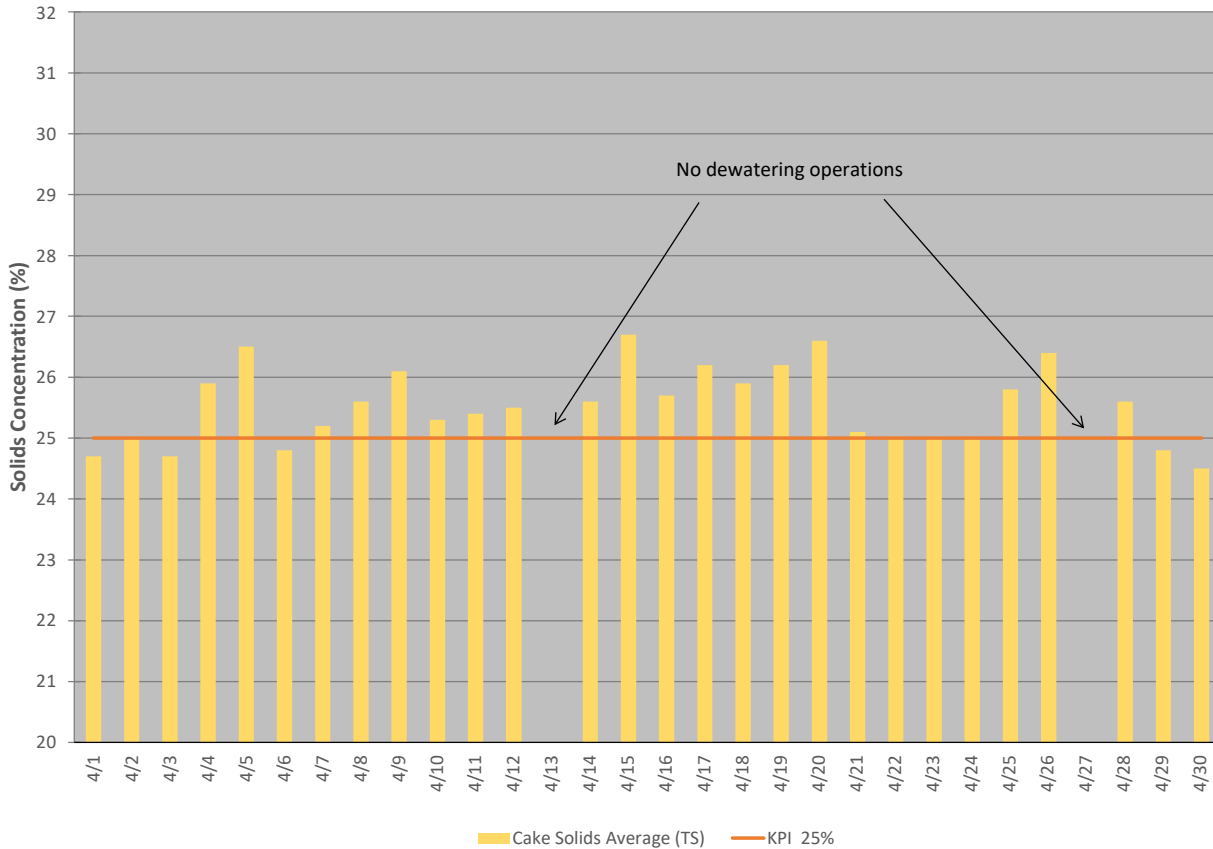
**Graph #4: Final Effluent Total Suspended Solids**



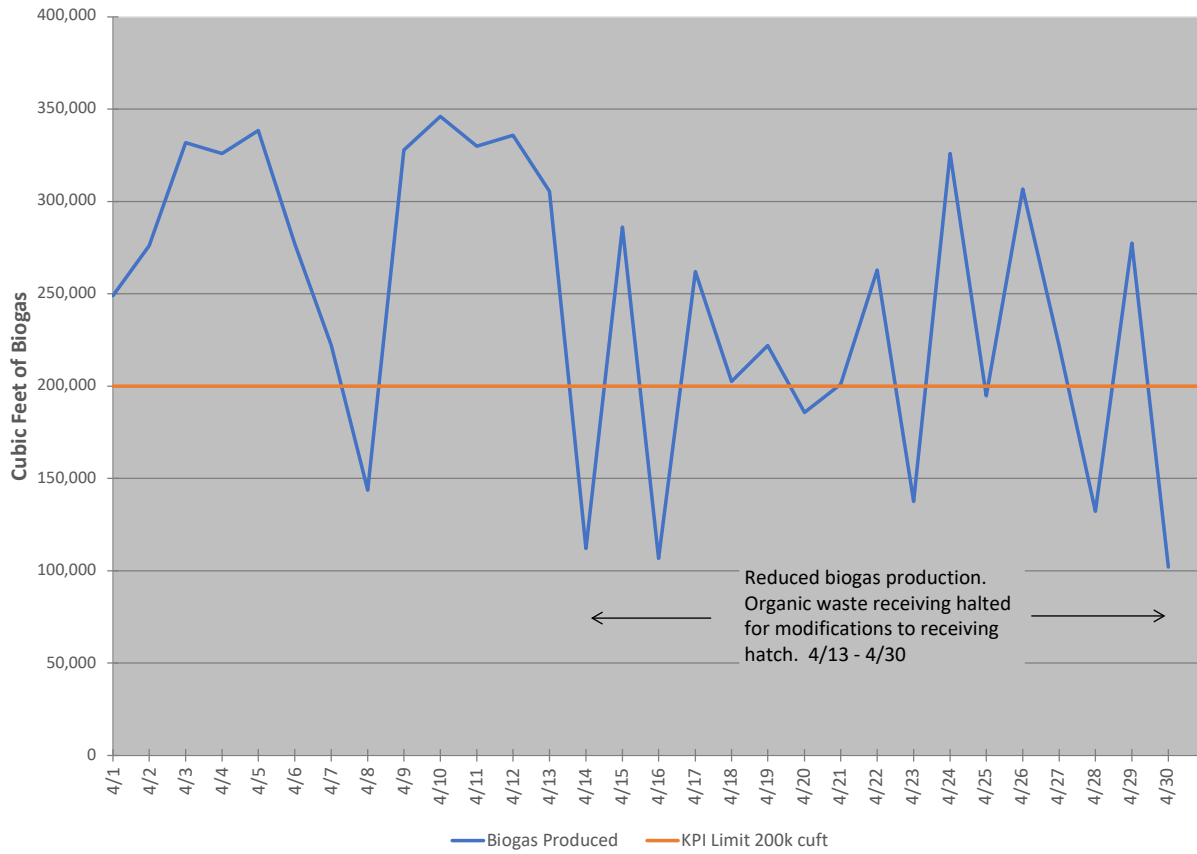
**Graph #5: Carbonaceous Biochemical Oxygen Demand (cBOD)**



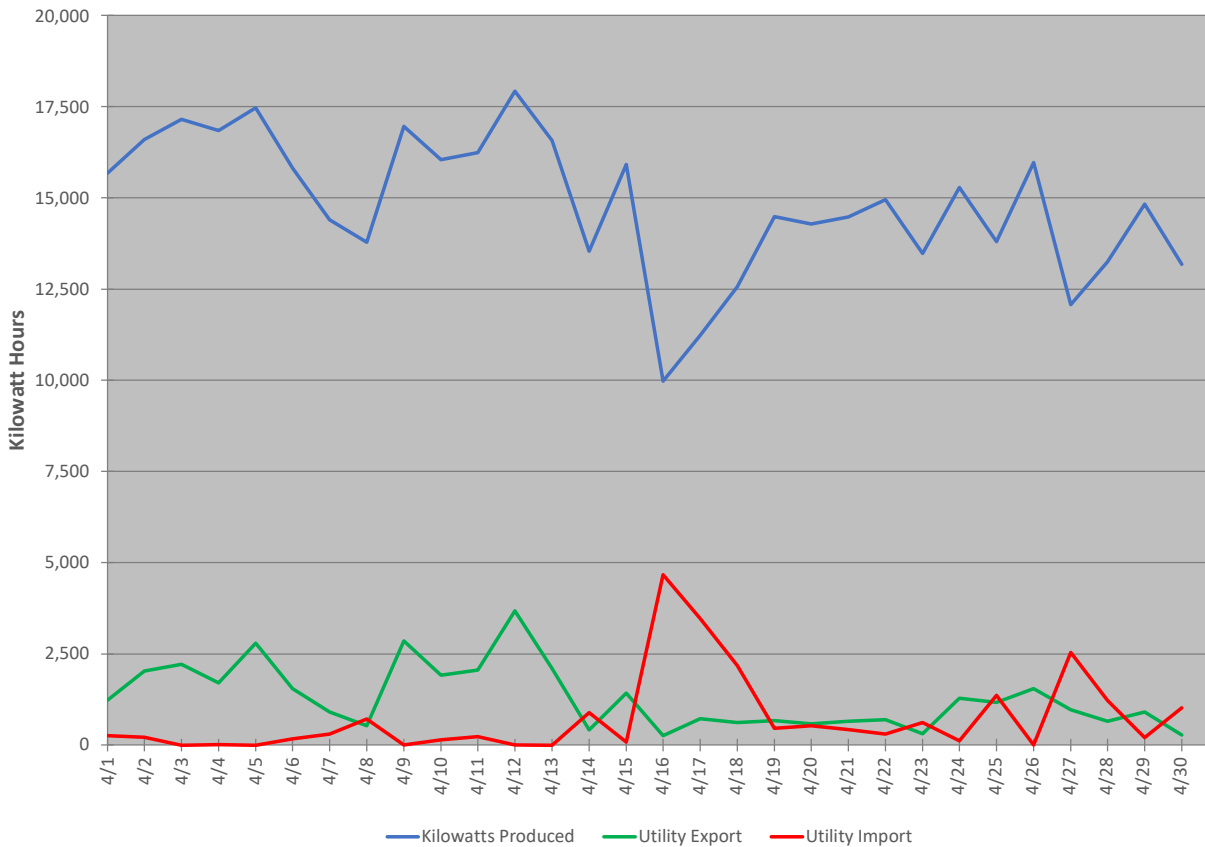
**Graph #6: Biosolids Solids Concentration**



**Graph #7: Biogas Production**



**Graph #8: Power Distribution**






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**BOARD MEMORANDUM**

May 9, 2024

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

**Subject: Performance Metric Report – April 2024**

**Recommendation:** Accept the April 2024 Performance Metric Report.

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

Table I – Treatment/Process Metrics

The treatment facilities were in the dry weather mode of operation for most of the month, and effluent quality continues to be very good. For over two weeks we did not receive food waste from Marin Sanitary Service at the organic waste receiving facility which resulted in less biogas production in the digesters and a reduced number of Power Production metrics (Item 7).

Table II – Employee Metrics

Operations and Maintenance received Lock-Out-Tag-Out safety training, and most staff took Ergonomics and Heat Illness Prevention safety training. Several employees received job development training.

Five employees attended the annual California Water Environment Association Training (CWEA) in Sacramento. Maintenance Supervisor Abel Villareal and Assistant Operation Supervisor Alan Burleigh completed their Sonoma Marin Leadership Academy training in April and graduated from the program.

Table III – Public Outreach

Four odor notifications were posted to the Agency website and there were no public odor complaints. The notifications were to remove two aeration basins from service (4/6 and 4/22), removing a primary clarifier from service (4/10), and to remove a secondary clarifier from service (4/16).

Monthly public education events may include staff attendance at public outreach events, school classroom and/or juggler show presentations, and Agency tours, as presented below.

Public Outreach Events

There were no events in April.

School Events – Juggler Show Presentations and Classroom Events

Rock Steady Juggling provides elementary school outreach presentations.

Date	School	Attendees
4/22	Wade Thomas Elementary School in San Anselmo	360

CMSA Tours

Date	Group	Attendees
4/10	San Francisco Wastewater Instrumentation group staff	4
4/15	CDC and Marin County Health Services staff	12

Table IV – Environmental and Regulatory Compliance Metrics

There were no final effluent or air permit exceedances in April. FOG source control inspections increased over the month to achieve program target levels.

**Attachment:**

- April 2024 Performance Metric Report



TABLE I - TREATMENT/PROCESS METRICS

Metric	Definition	Measurement	Range/Target/Goal
<b>1) Wastewater Treated</b>	Volume of wastewater influent treated in million gallons (Mg); <i>Year to date in billion gallons (Bg)</i>	360.8 Mg; 2.14 Bg	165 – 820 Mg/month
<b>2) Recycled Water Use</b>	Volume of recycled water produced and used on-site, in million gallons (Mg) Volume delivered at the truck fill station, in thousand gallons (Kg)	30.8 Mg 56.3 Kg	25 - 40 Mg variable
<b>3) Biosolids Reuse</b>	Disposal or reuse 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)	262.5 wt 0 wt 122.5 wt	360 – 665 wt
<b>4) Conventional Pollutant Removal</b>	Removal of the conventional NPDES pollutants - Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) a. tons of TSS removed; % TSS removal b. tons of BOD removed; % BOD removal	217.3 tons; 96% 232.3 tons; 97%	> 85% > 85%
<b>5) Priority Pollutants Removal</b>	Diversion of priority NPDES metals from discharge to the San Francisco Bay: a. % Mercury, for current quarter b. % Copper	93% 82%	88 – 99% 84 – 98%
<b>6) Biogas Production</b>	Biogas generated in our anaerobic digesters, in million cubic feet (Mft <sup>3</sup> ) Natural gas equivalent of the biogas, in million cubic feet (Mft <sup>3</sup> )	7.35 Mft <sup>3</sup> 4.70 Mft <sup>3</sup>	7.0 - 10.5 Mft <sup>3</sup> 4.5 - 6.7 Mft <sup>3</sup>
<b>7) Power Produced</b>	Power produced from cogeneration of biogas and purchased natural gas - in kilowatt hours. (kWh) Power produced from cogeneration of biogas and delivered to the MCE Cogeneration system runtime on biogas, <i>in hours (hrs.); % time during month</i> Agency power demand supplied by renewable power, % Cogeneration system uptime, <i>in hours; % time during month</i> Biogas value (natural gas cost equivalent).	444,610 kWh 38,737 kWh 499 hrs; 45.0% 72.2% 700 hrs; 97.2 % \$34,010	380 - 480,000 kWh 40,000 - 70,000 kWh 600 hrs; 80% 80 - 100% 650 hrs; 87% \$30,000 - \$60,000
<b>8) Efficiency</b>	The cost to operate and maintain the treatment facilities per million gallons of wastewater treated, in dollars per million gallons. (\$/Mg) Energy used, kilowatt hours, per million gallons treated. (kWh/Mg)	\$3,063/Mg 1,294 kWh/Mg	\$2,500 - \$5,400/Mg (wet - dry) 670 - 2,400 kWh/Mg

## CMSA CY24 PERFORMANCE METRICS – April 2024

**Table II – EMPLOYEE METRICS**

Metric	Definition	Measurement	Target/Goal
<b>1) Employee Training</b>	Hours of internal training – safety, virtual, project, vendor, etc. Hours of external training – employment law, technical, regulatory, etc.	Internal = 59.5 External = 278.5	variable
<b>2) Work Orders</b>	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);	1,551 hrs 547 hrs (98.2%) 10 hrs (6.4%) 2.78	800 - 1,100 hrs ≥ 70% total CM hrs ≤ 30% total hours ≥ 0.45
<b>3) Overtime Worked</b>	Monthly hours of overtime worked; <i>Year to date hours of overtime (YTD)</i> % of regular hours worked; % <i>Year to date (YTD)</i>	78 hrs; (536.5 hrs) 1.1%; (2.0%)	< 5%
<b>4) Internship Program</b>	Number of high school and college student interns work hours; (YTD)	56 hrs; (148 hrs)	Variable

**Table III- PUBLIC OUTREACH**

Metric	Definition	Measurement	Target/Goal
<b>1) Public Education Events</b>	Attendance at public education outreach events; # of booth visitors; (YTD)	0; (300)	3,000/year
<b>2) School Events</b>	Participation or sponsorship in school outreach events; attendees; (YTD)	360; (1,531)	variable
<b>3) Agency Tours</b>	Tours given to students and the public; # of people, (YTD)	16; (195)	variable
<b>4) Odor Notifications</b>	Number of odor alerts posted to the Agency website	4	1-10
<b>5) Odor Complaints</b>	Number of odor complaints received from the public	0	0

## CMSA CY24 PERFORMANCE METRICS – April 2024

**Table IV - ENVIRONMENTAL AND REGULATORY COMPLIANCE METRICS**

Metric	Definition	Measurement	Range/Target/Goal
<b>1) Permit Exceedances</b>	# of NPDES permit exceedances # of BAAQMD permit exceedances	0 0	0 0
<b>2) Regulatory Analyses</b>	# of analyses by the CMSA laboratory for NPDES, stormwater, and biosolids regulatory compliance monitoring and reporting.	265	200-500
<b>3) Process Control Analyses</b>	# of analyses by the CMSA laboratory for process control monitoring	645	400-900
<b>4) Contract Laboratory Analyses</b>	# of analyses by contract laboratories for regulatory compliance reporting, and source control program monitoring.	88	25-150
<b>5) Quality Control Testing</b>	# of CMSA performed laboratory analyses for QA/QC purposes.	828	500-1,500
<b>6) Water Quality Sample Analyses</b>	# of ammonia, total and fecal coliform, enterococcus, and/or sulfide analyses performed for the CMSA member agencies, and occasionally source control monitoring analyses.	94	50-500
<b>7) Source Control Inspections</b>	Inspections of industrial and commercial businesses in the Agency’s and LGVSD’s source control programs and Novato Sanitary District’s Mercury Reduction Program – 199 businesses and 100 dental offices.	3	10-30
<b>8) FOG Program Inspections</b>	Inspections of food service establishments (FSEs) in the Almonte, TCSD, SD2, RVSD, SRSD, and LGVSD service areas – approx. 314 FSEs are regulated.	72	30 – 50
<b>9) Permits Issued/Renewed</b>	Permits issued for the source control programs – pretreatment, pollution prevention, food service establishments, and ground water discharge.	4	variable





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**BOARD MEMORANDUM**

May 9, 2024

**To:** CMSA Commissioners & Alternates

**From:** Corey Spray, Administrative Services Manager

**Approved:** Jason Dow, General Manager

**Subject:** **Updated Resolution Authorizing Investment of Monies in the Local Agency Investment Fund**

**Recommendation:** Adopt Resolution No. 359 to update persons authorized to make changes to the Agency's Local Agency Investment Fund account.

**Discussion:** At the April 2024 meeting, the Board approved Resolution No. 359 which lists authorized Agency representatives that can approve changes to the Local Agency Investment Fund (LAIF) account. After submission of the resolution to LAIF, a LAIF representative informed staff that the resolution does not comply with the format required by the State Treasury. LAIF provided a template resolution, and staff revised Resolution No. 359 to comply with its specific requirements.

The clarifying language within the revised Resolution No. 359 as such replaces Resolution No. 288 and will be filed with State of California Treasurer's Office for full compliance of the account update.

**Attachments:**

1. Resolution No. 359
2. California State Treasurer's Office LAIF Authorization for Transfer of Funds





**Central Marin Sanitation Agency  
CMSA Resolution No. 359**

***RESOLUTION FOR AUTHORIZING INVESTMENT OF  
MONIES IN THE LOCAL AGENCY INVESTMENT FUND***

**WHEREAS**, the Local Agency Investment Fund is established in the State Treasury under Government Code section 16429.1 et. Seq. for the deposit of money of a local agency for purposes of investment by the State Treasurer; and

**WHEREAS**, the Board of Commissioners hereby finds that the deposit and withdrawal of money in the Local Agency Investment Fund in accordance with Government Code section 16429.1 et. Seq. for the purpose of investment as provided therein is in the best interests of the Agency.

**NOW, THEREFORE, BE IT RESOLVED** that the Board of Commissioners authorizes the deposit and withdrawal of Agency monies in the Local Agency Investment Fund in the State Treasury in accordance with Government Code section 16429.1 et. Seq. for the purpose of investment as provided therein.

**BE IT FURTHER RESOLVED**, as follows:

Section 1. The following Agency officers holding the title(s) specified hereinbelow or their successors in office are each hereby authorized to order the deposit or withdrawal of monies in the Local Agency Investment Fund and may execute and deliver any and all documents necessary or advisable in order to effectuate the purposes of this resolution and the transactions contemplated hereby:

Eli Beckman – CMSA Commissioner  
Michael Boorstein – CMSA Commissioner  
Maribeth Bushey – CMSA Commissioner  
Dean DiGiovanni – CMSA Commissioner  
Doug Kelly – CMSA Commissioner  
Jason Dow – General Manager

Section 2. This resolution shall remain in full force and effect until rescinded by the Board of Commissioners by resolution and a copy of the resolution rescinding this resolution is filed with the State Treasurer's Office.

***PASSED AND ADOPTED*** at the meeting of the Central Marin Sanitation Agency Board of Commissioners, County of Marin, State of California, on May 14, 2024.

AYES:

NAYS:

ABSTAIN:

ABSENT:

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Douglas T. Kelly, Commission Chair

ATTEST:

By \_\_\_\_\_  
Dean DiGiovanni, Commission Secretary





**California State Treasurer's Office  
Local Agency Investment Fund (LAIF)  
Authorization for Transfer of Funds**

**Attachment 2**

Effective Date \_\_\_\_\_

Agency Name \_\_\_\_\_

LAIF Account # \_\_\_\_\_

Agency's LAIF Resolution # \_\_\_\_\_ or Resolution Date \_\_\_\_\_

**ONLY** the following individuals whose names appear in the table below are hereby authorized to order the deposit or withdrawal of funds in LAIF. ***This authorization REPLACES AND SUPERSEDES all prior authorizations on file with LAIF for the transfer of funds.***

Name	Title

**Two authorized signatures required.** Each of the undersigned certifies that he/she is authorized to execute this form under the agency's resolution, and that the information contained herein is true and correct.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Phone Number

Please provide email address to receive LAIF notifications.

Name	Email

**Please email the completed form for review to [laif@treasurer.ca.gov](mailto:laif@treasurer.ca.gov) and allow 2 days for a response. **DO NOT** mail the original form until you receive approval.**

Mail the approved form to: CA State Treasurer's Office  
Local Agency Investment  
Fund P.O. Box 942809  
Sacramento, CA 94209-0001

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**BOARD MEMORANDUM**

May 9, 2024

To: CMSA Commissioners and Alternates

From: Corey Spray, Administrative Services Manager

Approved: Jason Dow, General Manager

**Subject: FY24 Third Quarter Budget Status Report**

**Recommendation:** Review and accept the Third Quarter Budget Status Report for FY24.

**Discussion:** We are pleased to present the budget status report for the third quarter ended March 31, 2024. Tables for revenues by source, expenses by function, and Capital Improvement Program (CIP) by major classes of capital projects are reflected below with analytical information for each.

**Highlights for the third quarter ended March 31, 2024 are as follows:**

- Third quarter total revenues are at 88.3% of budget.
- Sewer service charges are at 75% as billed.
- Debt service contributions are at approximately 98% collected for the third quarter for debt service billed-as-due for JPA members and billed monthly for San Quentin State Prison.
- Debt service contributions include 25% coverage required by revenue bond indenture provisions, used as a financing source for the capital program.
- Capacity charges are collected at approximately 1,806% of budget for the third quarter through March 31, 2024.
- Total operating expenses incurred are at approximately 66.6% of budget.
- Tables for expenses by function and department are shown on page 4 of this report.
- The CIP consists of 37 different projects classified within four categories with a total FY24 budget of approximately \$8.9M and actual spent or encumbered of \$6.2M.

Description	FY24 Budget	YTD Act+Encum <sup>(1)</sup>	Amount (Over) Under	% Coll Spent
Total Revenues	\$22,410,977	\$19,792,471	\$2,618,505	88.3%
Total Operating Expenses	16,955,778	11,292,154	5,663,624	66.6
Total Debt Service Payments	4,501,006	3,874,766	626,240	86.1
Total Capital Expenditures	8,892,401	6,217,370	\$2,675,031	69.9

<sup>(1)</sup> Encumbrances apply to operating expenses and capital expenditures only.

**Revenues by Source**

Description	FY24 Budget	YTD Actual	Amount (Over) Under	% Coll
Sewer Service Charges	\$13,941,551	\$10,456,163	\$3,485,388	75.0%
Contributions for Debt Service	5,626,258	5,530,758	95,500	98.3
Contract Services	1,955,780	1,393,299	562,481	71.2
Program Revenues	146,288	79,588	66,700	54.4
Haulers, Permits, & Inspection Fees	281,500	370,144	(88,644)	131.5
Other Non-Operating Revenues	20,000	818,123	(798,123)	4,090.6
Interest Income	400,720	442,138	(41,418)	110.3
Capacity Charges	38,880	702,258	(663,378)	1,806.2
<b>Total Revenues &amp; Financing Sources</b>	<b>\$22,410,977</b>	<b>\$19,792,471</b>	<b>\$2,618,505</b>	<b>88.3%</b>

**Sewer Service Charges:** Sewer service charges are billed at the beginning of each quarter to the JPA member agencies for operating and capital funding and are due upon receipt. Sewer service charges are the largest revenue source.

**Contributions for Debt Service:** Debt service contributions, including coverage, are billed to the JPA member agencies in August and February, prior to each debt service payment. San Quentin’s contributions are billed monthly and have been received through March.

**Contract Services and Program Revenues:** These revenues have separate tables and analytical information for each as shown on the following page.

**Haulers, Permits, and Inspection Fees:** Revenue from haulers is at approximately 131.5%. This revenue type represents septic receiving-facility-use-charges, organic waste disposal tipping fees, industrial waste discharge permit fees, reimbursement of costs for source control program discharger permits, and other related services.

**Other Non-Operating Revenues:** Other non-operating revenues consists of small dollar items, infrequent cost reimbursements, grant proceeds, and insurance dividends. The Agency is applying for reimbursement of project costs under the CalRecycle program, of which \$804k was collected fiscal year-to-date making the total collection \$1.7M between FY23 and FY24.

**Interest Income:** California Asset Management Program (CAMP) posts interest monthly and is currently at 5.48% and the Local Agency Investment Fund (LAIF) posts interest quarterly and is currently at 4.23% of applicable account balances. Investments in LAIF have become subject to market value adjustment that is reflected as an increase or decrease to interest income.

**Capacity Charges:** Budgeted capacity charges are a placeholder for five residential new connections from the JPA members. Actual capacity charges received represent new connections and increased fixture units for existing connections. Fiscal year-to-date, a total of 49 new and existing parcels (18 from SRSD and 31 from RVSD) increased their wastewater capacity by adding 1,356 (1,062 from SRSD and 294 from RVSD) drainage fixture units.

**Contract Service Revenues**

Description	FY24 Budget	Total Revenue	Actual Expenses	Invoice Frequency
Marin Airporter Property Use	\$ 71,817	\$53,399	NA	Monthly
Marin Clean Energy	41,704	21,932	NA	NA
SQSP Wastewater Services	815,000	611,250	611,250	Monthly
SQSP Pump Station Maintenance	437,065	327,799	268,467	Monthly
SQ Village Wastewater Services	20,000	7,665	6,278	Monthly
SD2 Pump Stations	489,901	339,938	278,409	Monthly
LGUSD – FOG & Pollution Prevention	14,605	6,856	5,619	Quarterly
RVSD – FOG	22,624	6,408	5,825	Quarterly
SRSD – FOG	28,671	9,124	8,294	Quarterly
TCSD – FOG	1,440	1,412	1,158	Quarterly
SD2 – FOG	7,408	2,040	1,855	Quarterly
Almonte SD – FOG	1,205	1,333	1,093	Quarterly
NSD – Dental Amalgam	4,340	4,144	3,397	Quarterly
<b>Total Contract Service Revenues</b>	<b>\$1,955,780</b>	<b>\$1,393,299</b>	<b>\$1,191,645</b>	

**Contract Services:** The Agency provides services to sanitary districts and other government entities for wastewater treatment, collection system operations and maintenance, pump station maintenance, and source control program services. Contract service revenues in total are at approximately 71% of budget for the third quarter. The Agency contracts with San Quentin State Prison (SQSP) for wastewater treatment services and pump station operation and maintenance, San Quentin Village (SQV) for collection system operation and maintenance, and SD2 for pump station and force main operation and maintenance. FOG and pollution prevention program activities completed through the third quarter have been billed to the respective contract agencies, and we anticipate payments in May.

Contract service revenues are billed to participating entities for the direct costs of materials, total compensation for employee staff time where applicable, plus overhead rates for the use of Agency equipment and supplies where applicable. Overhead rates are in accordance with contract provisions and range from 10%-22.1% depending upon the contract. Wastewater treatment services for SQSP are based on flow and strength of the prison’s wastewater as a proportion of the total cost of CMSA operation plus capital.

**Program Revenues**

Description	FY24 Budget	Total Revenue	Actual Expenses	Invoice Frequency
Revenue for Health & Safety Program	\$94,714	\$70,813	\$67,441	Quarterly
Countywide Education Program	51,574	8,775	7,630	Quarterly
<b>Total Contract Service Revenues</b>	<b>\$146,288</b>	<b>\$79,588</b>	<b>\$75,071</b>	

**Program Revenues:** The Agency administers joint venture programs for Health and Safety (H&S) with the Novato Sanitary District (NSD) and a Countywide Education Program (CWP) with five participating wastewater agencies in Marin County. Costs of the H&S program are allocated between the Agency and NSD for salary and benefits, incidental program expenses, and outside safety training costs. The Agency administratively manages the H&S program and charges an administrative fee to NSD, accordingly. Revenue for the H&S program is at approximately 54%.

CWP participants plan their programs as a group and budget respective annual shares of program costs based upon percentages established in the CWP agreement at the beginning of each fiscal year. The Agency purchases program materials on behalf of CWP participants and recognizes revenue for reimbursed expenditures plus an administrative fee. The CWP revised its bylaws to simplify the process to purchase program materials directly. This change was effective with the start of the current fiscal year that began on July 1, 2023.

**Expenses by Function**

Description	FY24 Budget	YTD Act+Encum	Amount (Over) Under	% Spent + Encum
Salaries and Benefits	\$10,915,934	\$7,238,097	\$3,677,837	66.3%
Biosolids Management	489,814	314,702	175,112	64.2
Chemicals and Fuel	2,145,656	1,477,851	667,805	68.9
Permit Testing and Monitoring	268,361	177,048	91,313	66.0
Repairs and Maintenance	1,108,460	509,933	598,527	46.0
Insurance	558,246	574,354	(16,108)	102.9
Utilities	442,420	316,913	125,507	71.6
General and Administrative	1,026,887	683,257	343,630	66.5
<b>Total Expenses by Function</b>	<b>\$16,955,778</b>	<b>\$11,292,154</b>	<b>\$5,663,624</b>	<b>66.6%</b>

**Expenses by Department**

Description	FY24 Budget	YTD Act+Encum	Amount (Over) Under	% Spent + Encum
Administration	\$3,923,157	\$2,282,276	1,640,881	58.3%
Health and Safety	279,171	192,231	86,940	68.9
Technical Services	3,183,768	2,341,713	832,425	73.6
Operations	5,408,076	3,732,783	1,675,293	69.0
Maintenance	4,161,606	2,743,784	984,733	65.9
<b>Total Expenses by Department</b>	<b>\$16,955,778</b>	<b>\$11,292,786</b>	<b>\$5,662,992</b>	<b>66.6%</b>

**Salary and Benefits:** Salary and benefit expenses include 20 of 26 payrolls that, in total, are at 66% for the third quarter. Benefit costs include pension obligation bond debt service plus a provision to the employee benefits trust to assist the Agency with managing its pension related obligations with CalPERS.

**General Purchasing Information:** Expenses and capital disbursements follow purchasing procedures established by policies to ensure protection of public assets, fairness in the purchasing process, and transparency to the public. Purchases are recognized as expenses or additions to capital projects when the goods are received or the services performed.

**General and Administrative (G&A):** Expenditures are tracking at 66.5% of budget reflecting strong purchasing across all account classifications within general and administrative. The G&A expense category includes professional services (legal, financial, regulatory, etc.), operating permits, memberships in local, state, and national wastewater organizations, employee certifications, conferences, safety supplies, training, and office expenses.

**Insurance:** Insurance is at 102.9% spent for the third quarter reflecting annual premiums that are paid at the beginning of the fiscal or calendar year. General liability is the only premium that is paid on a calendar year basis and prorated between fiscal years. The schedule below provides the payment status for insurance coverage. Insurance premiums are paid before the beginning of the fiscal year when policies are renewed, and expenses are charged for the current fiscal year. Workers’ Compensation insurance saw a 27% increase due to market and economic conditions with no adverse experience adjustments. Property continues to climb with a 39% increase this year, due to a continuing hard market and global catastrophic conditions.

Description	FY24 Premium	Status
General Liability and Auto	86,815	FY24 paid in full (½ calendar '23 + ½ cal '24)
Pollution Liability	0	FY24 paid in April 2024 (\$1,685.96)
Officers Fidelity Bonds	0	FY24 (3-yr staggered terms – none billed Q3)
Commercial Crime Insurance	3,049	FY24 paid in full
Workers Compensation	240,930	FY24 paid in full
Property Insurance	243,560	FY24 paid in full

**Repairs and Maintenance:** Expenditures for repairs and maintenance are at approximately 46% of the year’s budget spent. Repairs and maintenance expenditures are for planned maintenance on pumps, gates, process equipment, and purchasing air purification media. Expenditures alone do not necessarily reflect the quality or quantity of repair and maintenance activities taking place. For example, periods of high expenditures reflect the purchasing of materials and supplies to prepare for upcoming planned maintenance, while periods of low expenditures can relate to staff performing planned maintenance utilizing available parts inventory. Parts inventory is extensive, at approximately \$2.1M total value at the end of the third quarter.

**Chemicals and Fuel:** The current budget for chemicals and fuel is at 68.9% in total for this fiscal year. Fuel prices have not seen the typical winter season drop in pricing. This may be a product of inflation or California refinery issues. Chemical usage varies throughout the year depending upon differing weather conditions. For example, calcium nitrate and hydrogen peroxide odor control chemicals are used during warmer weather, and disinfection and dechlorination chemical use increases during rain events when flows increase. The FY24 third quarter experienced welcomed wet weather which allowed CMSA to reduce its use of odor control

chemicals while seeing higher usage rates of sodium hypochlorite and bisulfite to treat the elevated volume of wastewater entering the Facility. Fuel is used generally equally throughout the year for vehicles.

**Table of Chemical Purchases:**

Description	% Budget	Number of Deliveries
Ferric Chloride	84.6%	9 delivery(s) through Mar 2024
Polymer	51.7%	1 delivery(s) through Mar 2024
Calcium Nitrate (odor control)	62.0%	16 delivery(s) through Mar 2024
Hydrogen Peroxide (odor control)	72.9%	19 delivery(s) through Mar 2024
Sodium Hypochlorite (disinfection)	73.0%	38 delivery(s) through Mar 2024
Sodium Bisulfite (dichlorination)	89.3%	27 delivery(s) through Mar 2024

**Biosolids Management:** Expenditures were at 64.2% of budget for the third quarter. Management expenses vary and are primarily dependent upon seasonal weather-related circumstances: (1) land application and alternate daily cover at the Redwood Landfill results in lower hauling and reuse tipping fee costs when compared to biofertilizer production at the Lystek facility, and (2) the volume for beneficial reuse is lower during the warmer weather spring and summer months.

**Permit Testing and Monitoring:** Permit testing and monitoring are at approximately 66% for costs associated with purchases of lab supplies and equipment rentals, NPDES and source control monitoring, and other types of monitoring/testing that were approximated at the beginning of the fiscal year to cover the entire fiscal year. Costs for this area are on track at third quarter of the year through to the end of the year.

**Utilities:** The FY24 budget for electricity is currently at approximately 80.1% which is closely in line with expected use for the year. Natural gas (NG) is at 70.3% which is due in part to an increase in organic deliveries for more biogas production and a decline in the cost per therm of delivered natural gas. Both commodities are directly affected by NG pricing as the majority of electricity produced in California is produced utilizing NG. Expenditures for utilities in total are at approximately 71.6% of budget.



**Debt Service Payments**

Description	FY24 Budget	YTD Actual	Amount Remaining	% Spent	Debt Invoice
Principal	\$3,175,000	\$3,175,000	\$0	100.0%	JPA-Annual SQSP-Monthly
Interest	1,326,006	1,326,766	0	100.0%	Same
<b>Total Debt Service Payments</b>	<b>\$4,501,006</b>	<b>\$3,874,766</b>	<b>\$0</b>	<b>100.0%</b>	

The debt service amounts shown above consist of full annual principal and interest for the 2015 and 2020 revenue bonds. The first installment paid on September 1 for each issue, contains full principal and partial interest, and the second installment paid on March 1 is interest only. Both debt service payments have been made and annual debt service for FY24 is approximately 100% paid. The 2022 Pension Obligation Bond’s debt service is paid in lieu of the required annual UAL cost paid to CalPERS following the Agency’s pension funding plan.

Debt service amounts are invoiced to the JPA members approximately one month in advance of when the debt service payments are due. San Quentin Prison is invoiced monthly for its proportionate share.

**Capital Improvement Program**

Description	FY24 Budget	YTD Actual	Encum	Amount (Over) Under	% Spent + Encum
Facility Improvements	2,204,603	427,729	152,261	1,624,613	26.3
General Equipment	655,022	349,328	85,537	220,158	66.4
Liquids Treatment Equipment and Systems	2,799,604	1,073,884	729,380	996,340	64.4
Solids Treatment and Energy Generation Equip and Systems	3,233,172	2,247,469	1,151,783	(166,080)	105.1
<b>Total Cap Improv Program</b>	<b>\$8,892,401</b>	<b>\$4,098,410</b>	<b>\$2,118,960</b>	<b>\$2,675,031</b>	<b>69.9%</b>

Total capital program expenditures amount to approximately \$4.1M through the third quarter, with encumbrances for outstanding contracts in the amount of approximately \$2.1M. There are payments made for numerous projects with each of the capital improvement program categories (1) Facility Improvements, (2) General Equipment, (3) Liquids, Treatment Equipment, and Systems, and (4) Solids Treatment and Energy Generation Equipment and Systems. Salaries and benefits for in-house staff are charged through time-entry to projects, where applicable, for cost reimbursement purposes such as those financed through grants or certain federal programs. Lastly, the Solids Treatment and Energy Generation Equipment and Systems capital program budget is expected to receive \$231,450 transferred from the Facility Improvements capital program budget savings going into the fourth quarter.

**Attachment:**

- Third Quarter Capital Program Budget Report





Central Marin Sanitation Agency, CA

**Capital Program Budget Report**  
FY24 Q3

**Status**

		Original Total Budget	Current Total Budget	Period Activity	Fiscal Activity	Encumbrances	Variance Favorable (Unfavorable)	Percent Used	
<b>Facility Improvements</b>									
<a href="#">100-0230-550-8203</a>	Industrial Coatings/Concrete Rehabilitation	458,200.00	458,200.00	21,648.00	56,943.00	3,350.00	397,907.00	13.16	Coating repairs in the OWRF slurry pit were completed under an extra work order.
<a href="#">100-0230-550-8204</a>	Outfall Inspection & Repairs	483,500.00	483,500.00	-	102,716.16	-	380,783.84	21.24	No account activity during this period. Staff coordinated with regulatory entities for permitting guidance for the outfall solids removal project, and submitted the regulatory application for the project.
<a href="#">100-0230-550-8205</a>	Facility Improvements	393,900.00	416,900.00	23,971.00	83,657.85	57,470.00	275,772.15	33.85	Concrete repairs were completed at the rotary drum thickener area and biotower stairs.
<a href="#">100-0230-550-8206</a>	Facility Paving/Site Work	305,000.00	305,000.00	-	-	-	305,000.00	0.00	No account activity during this period. Always Paving was awarded the pavement repair construction contract for \$234,275 in April 2024. The work is anticipated to be completed by Q4.
<a href="#">100-0230-550-8207</a>	Hillside Repairs	110,000.00	281,852.56	142,758.75	184,411.91	91,440.65	6,000.00	97.87	Forster & Kroeger completed most of the v-ditch maintenance work, and Maggiora & Ghilotti has completed (May) the landslide repairs. The current total budget was increased by \$6,852 to address field modifications such as extending the retaining wall and injecting pressure grout to voids under the v-ditch.
<a href="#">100-0230-550-8208</a>	Facility Roofs Rehabilitation	26,200.00	26,200.00	-	-	-	26,200.00	0.00	No account activity during this period.
<a href="#">100-0230-550-8209</a>	SHB Elevator Control Replacement	232,950.00	232,950.00	-	-	-	232,950.00	0.00	No account activity during this period.
	<b>Facility Improvements Total:</b>	<b>2,009,750.00</b>	<b>2,204,602.56</b>	<b>188,377.75</b>	<b>427,728.92</b>	<b>152,260.65</b>	<b>1,624,612.99</b>	<b>26.3%</b>	
<b>General Equipment</b>									
<a href="#">100-0110-550-8301</a>	Process control	72,200.00	72,200.00	859.79	6,507.09	-	65,692.91	9.01	Staff purchased process control equipment (HMIs, remote IO modules, and voice radios), PLC network equipment, and power supply equipment.
<a href="#">100-0110-550-8302</a>	Security/Fire Systems	12,600.00	12,600.00	-	25,224.53	1,995.00	(14,619.53)	216.03	No account activity during this period. Emergency repair and programming of the Administration building fire panel was completed in the prior quarter. Staff will prepare a budget transfer.
<a href="#">100-0350-550-8303</a>	Fuel Storage Tanks	140,100.00	108,822.11	24,750.00	35,892.50	2,368.50	70,561.11	35.16	Armer/Norman & Associates was retained to replace the fuel piping for the unleaded underground storage tank system. The remaining budget is not anticipated to be used, and the current total budget was decreased by \$31,278 to reallocate funds to the Hillside Repairs and the Liquid Organic Waste Receiving Projects.
<a href="#">100-0110-550-8304</a>	IT Hardware/Communication Equipment	49,200.00	49,200.00	894.13	7,515.29	-	41,684.71	15.27	Multiple phones were replaced, a core network switch was replaced, gate access electronics were purchased, desktops for new hires were purchased, multiple UPS systems were purchased, and voice radio parts were purchased.
<a href="#">100-0350-550-8305</a>	Agency Vehicle Replacement	42,500.00	42,500.00	-	32,481.26	-	10,018.74	76.43	A new 2024 Honda CRV Hybrid was purchased and received to replace the 2013 Toyota Prius.
<a href="#">100-0230-550-8306</a>	Laboratory Equipment	55,500.00	101,675.03	-	61,450.66	-	40,224.37	60.44	No account activity during this period. A budget transfer was completed in a prior quarter to account for the Skalar ammonia and phosphorous analyzer previously scheduled for purchase in FY24.
<a href="#">100-0350-550-8307</a>	Electrical Equipment	56,400.00	56,400.00	2,405.85	18,875.14	12,695.14	24,829.72	55.98	Consumable electric components (conduit, various gauge wires, outlets and electrical boxes) were purchased to replenish inventory.
<a href="#">100-0350-550-8309</a>	Process Instrumentation	66,300.00	66,300.00	15,242.45	39,396.26	14,929.16	11,974.58	81.94	A new portable hydrogen sulfide meter was purchased to replace an existing outdated unit. Primary clarifier level indicating instrumentation was purchased and is currently being installed.
<a href="#">100-0350-550-8310</a>	Electrical Distribution System Rehabilitation	118,000.00	145,325.00	-	121,985.15	53,548.70	(30,208.85)	120.79	Staff has shipped four out of six main switchgear breakers off-site for servicing, the remaining two breakers will be sent in Q4. A budget transfer has been prepared to cover the additional cost.
	<b>General Equipment Total:</b>	<b>612,800.00</b>	<b>655,022.14</b>	<b>44,152.22</b>	<b>349,327.88</b>	<b>85,536.50</b>	<b>220,157.76</b>	<b>66.4%</b>	



## Capital Program Budget Report FY24 Q3

## Status

		Original Total Budget	Current Total Budget	Period Activity	Fiscal Activity	Encumbrances	Variance Favorable (Unfavorable)	Percent Used	
<b>Liquids Treatment Equipment and Systems</b>									
<a href="#">100-0350-550-8402</a>	Plant Pumps	95,000.00	95,000.00	886.20	88,711.65	1,374.00	4,914.35	94.83	A tank drain pump to replace an originally installed pump was ordered and received. Consumable materials to upgrade the primary clarifier tank drain were purchased and received.
<a href="#">100-0350-550-8403</a>	Chemical Pumps	72,800.00	102,800.00	3,832.89	6,678.08	95,081.00	1,040.92	98.99	Replacement parts for seven hypochlorite and four sodium bisulfite metering pumps were ordered and received. Two new polymer activation units were ordered and are awaiting delivery.
<a href="#">100-0350-550-8404</a>	Gates Rehabilitation	493,300.00	448,300.00	-	2,387.20	162,122.62	283,790.18	36.70	Three 72 inch by 60 inch chlorine contact tank influent gates were ordered and are awaiting delivery.
<a href="#">100-0350-550-8405</a>	Headworks Equipment	192,600.00	263,034.00	18,217.86	49,304.11	196,058.08	17,671.81	93.28	Progress was made for the grit classifier replacement design during this period, and the layout and equipment specifications were developed.
<a href="#">100-0350-550-8408</a>	Primary Clarifier Rehabilitation	818,700.00	818,700.00	-	277,000.00	99,848.44	441,851.56	46.03	The baffle system and chain and flights were purchased for primary clarifier No. 1. The bid documents for the primary clarifier No. 1 rehabilitation contract were prepared and issued in Q3, and GSE Construction is expected to begin work in Q4.
<a href="#">100-0350-550-8409</a>	Secondary Clarifiers Rehabilitation	796,030.00	546,969.84	-	546,504.84	465.00	-	100.00	The rehabilitation of the secondary clarifiers was completed in Q1. Unspent budget of \$61k was transferred to the Liquid Organic Waste Receiving Project.
<a href="#">100-0350-550-8411</a>	Aeration System Rehabilitation	42,000.00	42,000.00	-	39,144.74	-	2,855.26	93.20	No account activity during this period. Membrane diffusers in all four aeration basins were replaced in Q1.
<a href="#">100-0230-550-8412</a>	Process piping inspection/repairs/rehabilitation	130,000.00	130,000.00	-	-	89,172.85	40,827.15	68.59	JDH was retained to perform a corrosion assessments and inspection of two buried expansion joints, and GSE was retained to excavate the expansion joints and then backfill and compact the sites after inspection. The work is expected to be completed and processed in Q4.
<a href="#">100-0350-550-8413</a>	Chemical Tanks	46,100.00	61,100.00	-	2,747.52	58,788.87	(436.39)	100.71	One hypochlorite tank was ordered and installed. One sodium bisulfite tank was ordered and is awaiting delivery.
<a href="#">100-0350-550-8414</a>	Piping-Valves-Operators	69,700.00	69,700.00	4,293.02	29,490.08	13,740.60	26,469.32	62.02	Four 4-inch isolation plug valves and two 10-inch isolation plug valves were ordered and received.
<a href="#">100-0230-550-8416</a>	Influent Flow Meter Improvement	122,000.00	122,000.00	-	31,915.90	3,168.65	86,915.45	28.76	No account activity during this period. The RVSD flow meter will be purchased in FY25.
<a href="#">100-0230-550-8418</a>	Recycled Water	100,000.00	100,000.00	-	-	9,560.00	90,440.00	9.56	Carollo Engineers prepared a Direct Potable Reuse Regulatory Update Memorandum, and will give the Board a presentation on 5/14.
<b>Liquids Treatment Equipment and Systems Total:</b>		<b>2,978,230.00</b>	<b>2,799,603.84</b>	<b>27,229.97</b>	<b>1,073,884.12</b>	<b>729,380.11</b>	<b>996,339.61</b>	<b>64.4%</b>	
<b>Solids Treatment and Energy Generation Equipment and Systems</b>									
<a href="#">100-0350-550-8503</a>	Centrifuge Replacement	678,000.00	820,000.00	18,656.00	293,630.11	599,916.73	(73,546.84)	108.97	The design phase of the centrifuge replacement project is ongoing and will continue into FY25. Fiscal activity includes design consultant fees for centrifuge layout options and sizing. Fund transfer of unused budget from FY23 to FY24 was approved by the Board on November 13, 2023, which increased the original budget by \$142k. Approximately \$74k is expected to be incurred in FY25 and therefore a negative variance is shown.
<a href="#">100-0350-550-8504</a>	Waukesha Cogeneration Maintenance	-	344,160.61	-	344,160.61	-	-	100.00	No account activity during this period. Prior activity was rehabilitation of engine after major failure.
<a href="#">100-0230-550-8505</a>	New Cogeneration System	170,000.00	347,118.00	10,105.00	70,720.95	408,760.00	(132,362.95)	138.13	Payment was made for emission testing on the Jenbacher engine. A budget transfer has been made to cover the unbalanced budget. The remaining encumbered amount is for the Jenbacher engine supplier to complete installing the exhaust pre-cooler unit.
<a href="#">100-0350-550-8506</a>	Hot Water Systems	34,700.00	34,700.00	-	1,759.65	31,830.00	1,110.35	96.80	A hot water insulation contract was awarded and replacement of hot water piping insulation is scheduled for May.
<a href="#">100-0350-550-8510</a>	Biosolids Hoppers-Maintenance	15,000.00	15,000.00	37.32	5,271.72	3,268.64	6,459.64	56.94	No account activity during this period.
<a href="#">100-0350-550-8511</a>	Organic Waste Receiving Facility	65,100.00	65,100.00	-	-	55,821.10	9,278.90	85.75	Two new mixing pump assemblies were ordered and received. Wear part replacements for the rock track were ordered and are awaiting delivery.
<a href="#">100-0230-550-8512</a>	PG&E Inter-Connect Agreement Modification	-	-	-	8,500.00	-	(8,500.00)	0.00	No account activity during this period.
<a href="#">100-0350-550-8513</a>	Jenbacher Cogeneration Maintenance	79,200.00	79,200.00	11,484.23	74,495.29	-	4,704.71	94.06	Routine Long-Term-Service-Agreement operating hour payments were processed.
<a href="#">100-0230-550-8514</a>	Liquid Org Waste Storage & Biogas Trmt Upg	679,300.00	1,527,893.40	8,485.63	1,448,930.58	52,186.37	26,776.45	98.25	The current total budget was increased by \$85k to cover the field modifications, including the OWRF hatch pre-purchase and installation.
<b>Solids Treatment and Energy Generation Equipment and Systems Total:</b>		<b>1,721,300.00</b>	<b>3,233,172.01</b>	<b>48,768.18</b>	<b>2,247,468.91</b>	<b>1,151,782.84</b>	<b>(166,079.74)</b>	<b>105.1%</b>	
<b>Report Total:</b>		<b>7,322,080.00</b>	<b>8,892,400.55</b>	<b>308,528.12</b>	<b>4,098,409.83</b>	<b>2,118,960.10</b>	<b>2,675,030.62</b>	<b>69.9%</b>	




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**BOARD MEMORANDUM**

May 9, 2024

**To:** CMSA Commissioners and Alternates

**From:** Mark Koekemoer, Regulatory Compliance Manager  
Chris Finton, Treatment Plant Manager

**Approved:** Jason Dow, General Manager

**Subject:** **2023/2024 Wastewater Flow Report**

**Recommendation:** Review the report and provide comments or direction to the General Manager, as appropriate.

**Summary:** This annual report is prepared to summarize specific flow and process data and other information for CMSA and each JPA member agency. Below are the report highlights:

- CMSA had 66 rain days during the wet weather season, with 29.5" of rain measured at the Agency's rain gauge.
- CMSA treated approximately 4.532 billion gallons of wastewater over the past year, of which 1.443 billion gallons were attributed to storm water inflow/infiltration (I/I) into the sanitary sewer collection system.
- Thirteen blending calendar days occurred during the wet weather season, as influent flows exceeded the 30 MGD capacity of the secondary treatment system.
- The CMSA peaking factor, average dry weather flow compared to peak wet weather flow, was 11.5 for the largest wet weather event on February 4, 2024, when 2.74 inches of rain was recorded at the Agency.
- The JPA member agency peaking factors ranged from 5.4 to 19.9, indicating that each system receives I/I during rain events. San Quentin had the lowest peaking factor of 5.4.

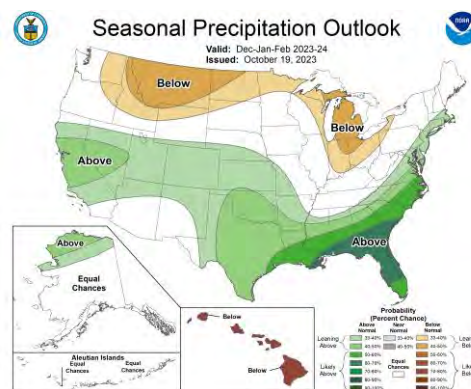
#### **I. NPDES Permit Compliance**

There were no permit exceedances during the wet weather season. Total Suspended Solids (TSS) in the final effluent averaged 7.2 mg/L and the Carbonaceous Biochemical Oxygen Demand (CBOD) averaged 5.9 mg/L for the year. Both are well under our NPDES requirements of 30 mg/L and 25 mg/L, respectively. The average percent removal for TSS was 96% and CBOD was 97%, well above NPDES permit's 85% removal requirements. The average mercury concentration in the final effluent was 0.0042 ug/L. CMSA's average was substantially lower

than the 0.066 ug/L average monthly effluent limit, included in San Francisco Bay’s Mercury and PCBs Watershed Permit.

## II. Rainfall and Wastewater Flows

The National Oceanic and Atmospheric Association (NOAA) produces seasonal outlook reports to help communities prepare for upcoming weather events and to minimize the impact on lives and livelihoods. Forecasters at the NOAA Climate Prediction Center issued the United States Winter Outlook report on October 19, 2023, that predicted warmer than average temperatures for much of the United States and wetter than average conditions for portions of the west coast. The moderate *La Niña* climate pattern did influence our winter but, the predicted dryer than average conditions for areas of northern and central California skipped the Bay Area. The United States Drought Monitor also stated that large areas of the United States were expected to see drought improvements over the wet weather period.



This past wet weather season started in November with early season storms producing a total of 2.62” of rain for the month, and the last recorded rain event occurred on April 8, 2024. There was a combined total of 29.5” of rain this season, which was a decrease from the 2023 season’s 43.3” of rain, but still above San Rafael’s average annual rainfall of 28.0”.

CMSA blended over 13 calendar days during the past season, as wet weather flows exceeded the secondary process maximum capacity of 30 MGD. Blending occurs when a portion of the primary effluent flow is passively diverted around the secondary treatment process, then combines with the secondary effluent prior to disinfection and discharge to the San Francisco Bay. The following table shows the monthly rainfall in inches and the total for the season.

**TABLE 1 - 2023/2024 Monthly Rainfall in Inches**

May 23	Jun 23	Jul 23	Aug 23	Sept 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	Total
1.28"	0.17"	0.00"	0.01"	0.03"	0.09"	2.62"	4.3"	6.95"	7.78"	5.16"	1.13"	29.52"

The table below illustrates the CMSA, JPA member agencies, and San Quentin total monthly influent flow volumes from May 2023 to April 2024. CMSA treated approximately 4.532 billion gallons of wastewater over this reporting period.

**TABLE 2 - Monthly Flows in million gallons (MG)**

Monitoring Period <sup>a</sup>	SRSD	RVSD	SQ	SD #2	Total CMSA Plant Influent	Blend Events
	MG	MG	MG	MG	MG	#
May-22	117.33	152.12	19.56	34.13	323.14	0
Jun-22	101.47	126.04	20.05	29.88	277.44	0
Jul-22	106.41	113.52	20.87	30.44	271.24	0
Aug-22	101.27	110.90	20.13	30.62	262.91	0
Sep-22	95.33	105.78	22.19	29.49	252.78	0
Oct-22	103.80	104.31	23.02	31.64	262.77	0
Nov-22	110.16	118.28	22.11	37.05	287.61	0
Dec-22	177.74	195.24	23.98	53.91	450.87	3
Jan-23	229.35	297.83	27.78	65.53	620.49	5
Feb-23	246.89	325.43	29.29	57.61	659.22	5
Mar-23	186.12	242.75	25.74	48.10	502.72	0
Apr-23	131.78	172.40	21.40	35.22	360.82	0
<b>Total</b>	<b>1,707.67</b>	<b>2,064.60</b>	<b>276.12</b>	<b>483.61</b>	<b>4,532</b>	<b>13</b>
<b>Percent of Flow</b>	<b>37.7%</b>	<b>45.6%</b>	<b>6.1%</b>	<b>10.7%</b>	<b>100%</b>	

Of the total 4.532 billion gallons treated, the expected dry weather portion of the flow for the year was approximately 3.089 billion gallons, which indicates that CMSA treated approximately 1.443 billion gallons of I/I wet weather flow. February had the highest total rainfall of 7.78". CMSA had its 5-minute peak influent flow of 97.9 MG on January 21, 2024, and its daily peak influent flow of approximately 62.6 MGD during the storm on February 4, 2024. When compared to the 2023 three-month Average Dry Weather (ADW) influent flow of 8.5 MGD, the peaking factor equals 11.5. In Metcalf & Eddy's *Wastewater Engineering: Collection and Pumping of Wastewater*, the common range for an I/I peaking factor is 1 to 4. The CMSA facility and the satellite collection systems generally experience significant peaking factors during the wet weather months.

**TABLE 3 - Influent Peak Flows and Peaking Factors**

RAIN <sup>b</sup>	SRSD	RVSD	San Quentin	SD2	CMSA
<b>ADW Flow<sup>c</sup> (MGD)</b>	3.3	3.5	0.7	1.0	8.5
<b>Peak Daily Flow<sup>d</sup> (MG)</b>	24.3	30.6	2.0	5.7	62.6
<b>Peak Flow Rate<sup>e</sup> (MGD)</b>	43.1	69.7	3.8	10.9	97.9
<b>Peaking Factor<sup>f</sup></b>	<b>13.1</b>	<b>19.9</b>	<b>5.4</b>	<b>10.9</b>	<b>11.5</b>

<sup>a</sup> Reported flows have been rounded.

<sup>b</sup> Peak flows based on rainfall events in January and February 2024.

<sup>c</sup> Average Dry Weather Influent Flow calculated based upon influent flow from August 2023 to October 2023.

<sup>d</sup> Peak Daily flow dependent on area's rainfall. Value is defined as the Agency Daily Maximum Flow for the reporting period.

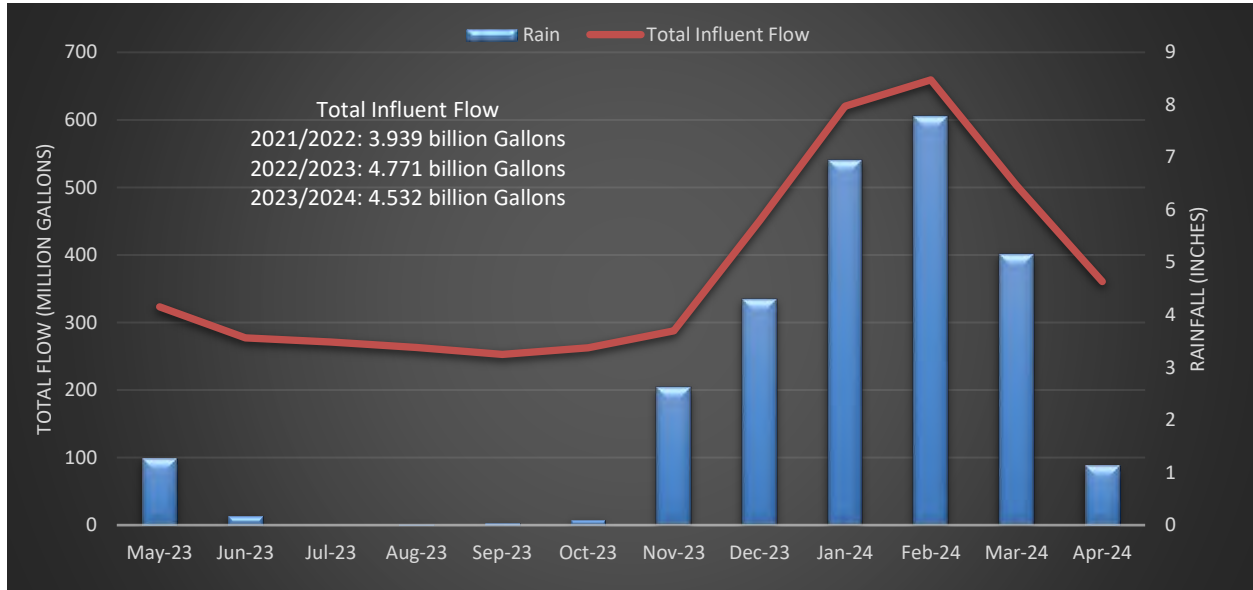
<sup>e</sup> Peak flow rate dependent on area's rainfall. Value is defined as the Agency 5-Minute Maximum Flow Rate for the reporting period.

<sup>f</sup> Metcalf & Eddy defines Peaking Factor as the Daily/Hourly/5-Minute Maximum Flow Rate divided by the Daily Average Flow Rate. CMSA defines the Peaking Factor as the 5-Minute Maximum Flow Rate divided by the Average Dry Weather Flow Rate.

### III. Process

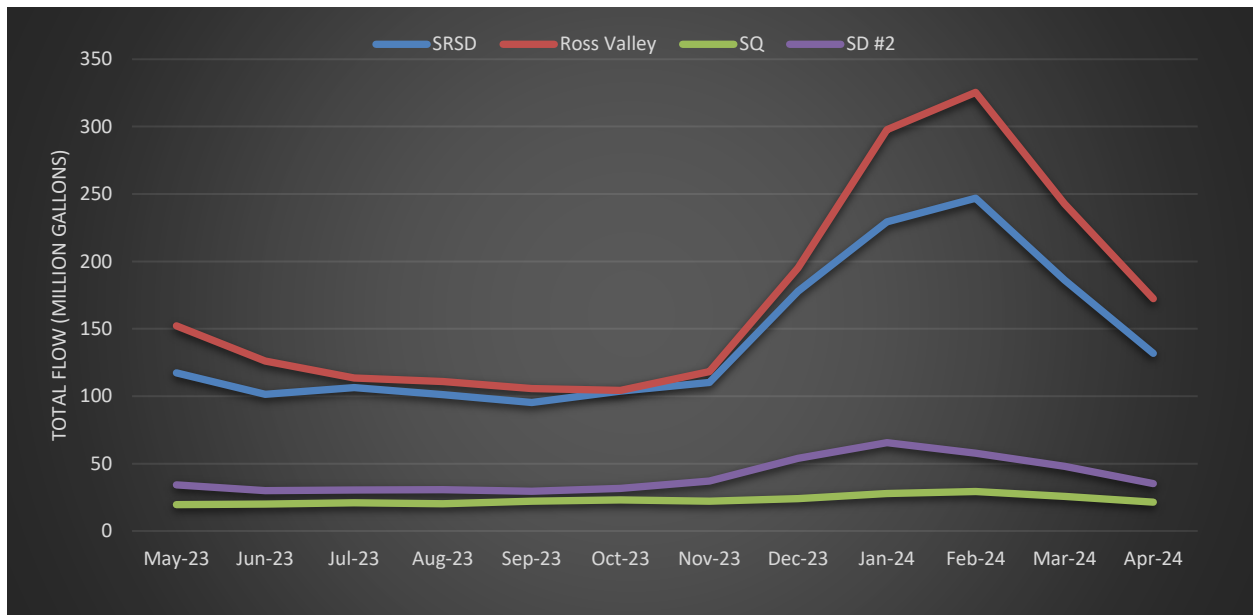
Below are graphical and tabular representations of wet weather indicators and affected performance indicators.

**GRAPH 1 – Monthly Total Influent Flow and Rainfall**



For the 2023/2024 reporting period, CMSA received a total rainfall of 29.5” and 4.532 billion gallons of influent. These rainfall totals are lower than the previous year, as annual rainfall for 2022/2023 was 43.3 inches, a 32% decrease in annual precipitation. Although there was a 32% decrease in rainfall, there was a 5% decrease in total influent flow during this period.

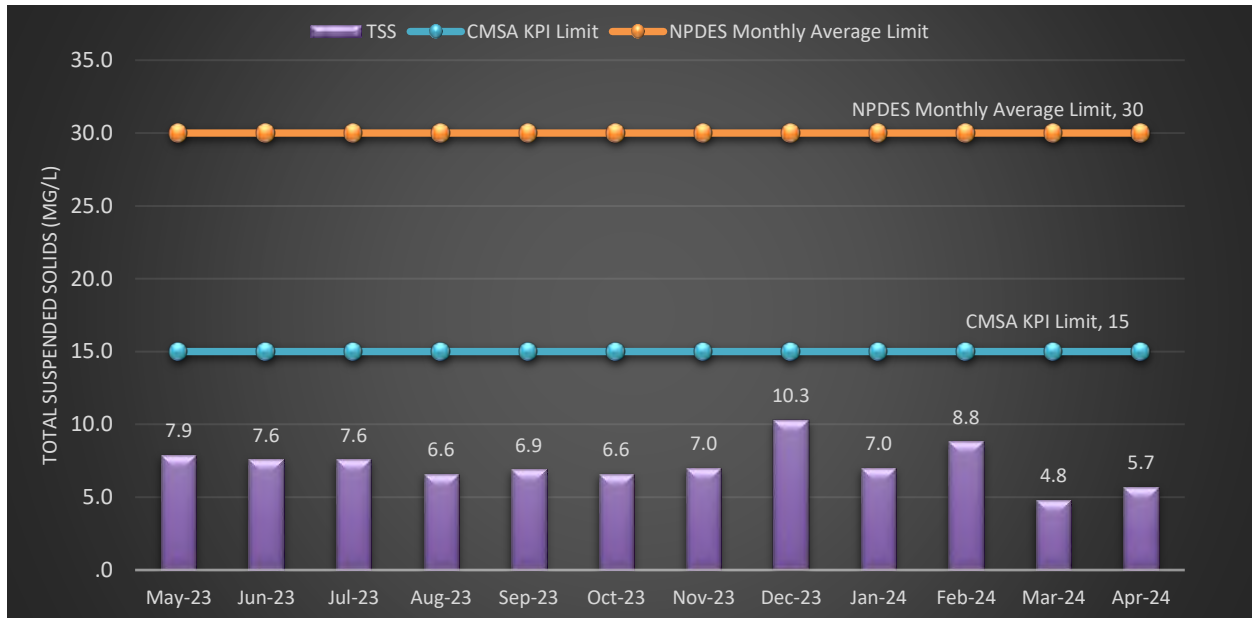
**GRAPH 2 – Monthly Total Flow by JPA Agency**





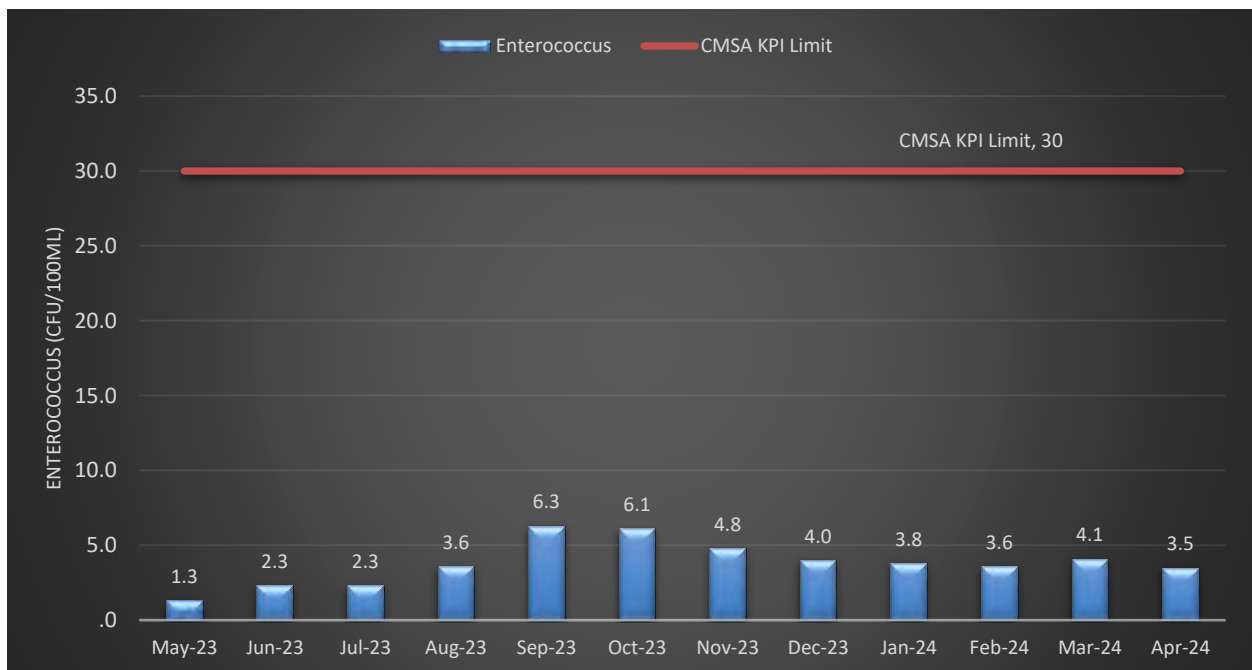
During the wet weather season months of January and February 2024, CMSA received an average increase of 247% in influent flow compared to the dry season influent flow period of August through October of 2023.

**GRAPH 3 – Monthly Average Effluent Total Suspended Solids**



Graph 3 illustrates effluent TSS water quality during this reporting period. This year, Operations staff managed the processes and equipment in service to match seasonal changes. Each monthly TSS average remained in single digits, except December 2023, and are below the Agency’s Key Performance Indicator (KPI) of 15 mg/L.

**GRAPH 4 – Monthly 6-Week Rolling Geometric Maximum Enterococcus**



CMSA’s renewed NPDES permit, effective July 1, 2023, required that the Agency transition from Total Coliform, a standard bacterial indicator in wastewater, to Enterococcus bacteria monitoring. Graph 4 illustrates Enterococcus, an indicator of CMSA’s disinfection and blending processes. As shown in this graph, compliance is well below the Agency’s KPI limit and is the result of CMSA effectively managing the disinfection and overall secondary treatment processes.

**TABLE 4 – Biosolids Production and Disposal**

Date	Total Number of Loads	Total Tons	Solano Land App	Lystek	Redwood Landfill ADC
May-23	28	458.0		137.3	320.7
Jun-23	24	387.2	210.0	106.4	70.8
Jul-23	24	365.8	122.5	127.3	116.0
Aug-23	24	365.9		94.6	271.3
Sep-23	27	422.0		155.2	266.8
Oct-23	23	381.0		124.8	256.2
Nov-23	23	398.2		134.0	264.2
Dec-23	28	485.9		187.2	298.7
Jan-24	34	616.0		159.5	456.5
Feb-24	30	523.8		123.7	400.1
Mar-24	27	512.5		85.4	427.1
Apr-24	22	385.0 <sup>g</sup>		122.5	262.5
<b>Total</b>	<b>314</b>	<b>5,301.3</b>	<b>332.5</b>	<b>1,557.9</b>	<b>3,410.9</b>

As noted above, an estimated 5,301 wet tons of biosolids were produced at CMSA and hauled to the various reuse sites during this period. A significant portion of those biosolids, 1,582 wet tons, were produced and hauled during the December to March wet weather season.

CMSA biosolids were reused at the Redwood Landfill as Alternate Daily Cover (ADC), at Solano County land application sites during dry weather, and at Lystek's Fairfield biofertilizer production facility.

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<sup>g</sup> Weight ticket invoices have not been received to date. Tonnage reported are estimates.

**BOARD MEMORANDUM**

May 9, 2024

To: CMSA Commissioners & Alternates

From: Jason Dow, General Manager

**Subject: Artificial Intelligence Use Policy**

**Recommendation:** Approve the Artificial Intelligence Use Policy.

**Discussion:** The Agency's managers regularly attend the annual California Public Employers Labor Relations Association (CalPELRA) conference, which has presentations on human resources, labor relations, and employment law topics. This past year, a manager attended a session on use of artificial intelligence (AI) in the workplace and received a copy of a policy used by the County of Santa Cruz. In a subsequent meeting at CMSA, the managers discussed that several Agency employees have used AI tools to prepare reports, emails, and memos. We decided that having an AI Use Policy (Policy) for the Agency makes sense to educate employees on the risks associated with using AI and provide general guidance and expectations for its use.

Our employment law attorney, using the County of Santa Cruz policy as a template, prepared the attached draft Policy. After consultation with our labor relations consultant, we provided the draft Policy to SEIU for review and comment. SEIU's field representative had no comments or concerns with the Policy. If approved by the Board, managers will review the Policy requirements with department staff.

**Attachment:**

- Draft Artificial Intelligence Use Policy



<b>POLICY/PROCEDURE #:</b>	<b>112</b>
<b>SECTION:</b>	<b>ADMINISTRATIVE – INFORMATION TECHNOLOGY</b>
<b>SUBJECT:</b>	<b>Artificial Intelligence Use</b>
<b>DATE:</b>	<b>5/14/2024 (Board approved)</b>

### **PURPOSE**

To provide guidance to staff on the appropriate use and restrictions of using generative artificial intelligence (GenAI or AI) tools in connection with their work for the Agency.

### **PROCEDURE**

Available applications driven by GenAI, such as chatbots (e.g., ChatGPT) or image generators (DALL-E 2, Midjourney) are exciting new innovations that may appear to offer opportunities to increase workplace efficiency. Use of this new technology also brings significant risks related to confidentiality, accuracy, and security.

- I. GenAI applications are subject to providing false answers or information, or information that is out-of-date. As such, employees must carefully and thoroughly verify that any response from a GenAI tool upon which they intend to rely, or use is accurate, appropriate, and ethical; is not a breach of confidentiality; and does not violate any Agency policy or law.
- II. Information provided to a GenAI tool may become publicly available, regardless of any assurances to the contrary. As such, no confidential, proprietary, or sensitive information should be provided to a GenAI tool. For example, employees must not upload or input: passwords or other credentials; confidential health records or other personnel or personally identifiable information; or any other confidential Agency information.
- III. If an employee does use a GenAI tool to help perform a work task, they must inform their supervisor of that fact, preferably in advance of such use, in writing.
- IV. Employees are not permitted to represent any work generated by AI as their own original work. Employees must ensure that, if any of their work uses AI-generated information or assistance, they should include a clear statement of that fact on the work product.
- V. Employees shall not integrate any GenAI tool into Agency software, as explained in Policy #94: *IT Security*, without advance written authorization from the Information Systems Administrator.
- VI. Any employee who has a concern about possible violation of this policy must report the concern to their supervisor or the Information Systems Administrator.





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**BOARD MEMORANDUM**

May 9, 2024

**To:** CMSA Commissioners & Alternates

**From:** Jason Dow, General Manager

**Subject:** **Revised Treatment Plant Manager Job Description**

**Recommendation:** Approve the revised Treatment Plant Manager Job Description.

**Discussion:** Chris Finton has been the Agency's Treatment Plant Manager since December 2010, and will be retiring at the end of August 2024. Koff & Associates will be administering the recruitment for this important position, and in preparation for the recruitment, staff has revised the position's recruitment brochure and job description. In addition to several editorial revisions and converting the job description into the current Agency format, there are the following noteworthy revisions.

- A Baccalaureate Degrees has been changed from a job requirement to being desirable. This change was made to hopefully increase the number of applicants.
- A Grade V Wastewater Treatment Plant Operator certificate may be obtained within 12 months of hire instead of being a requirement at the time of hire. This change was also made to hopefully increase the number of applicants.
- Possession of a CA Driver's License has been removed as a requirement as driving is not an essential function of the job.

Koff intends to begin the recruitment advertisement in mid-May, and we anticipate a new employee will start work in early-August.

**Attachment:**

- Revised Treatment Plant Manager job description







**CENTRAL MARIN SANITATION AGENCY**

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

**JOB DESCRIPTION: TREATMENT PLANT MANAGER**

**SUMMARY**

Under direction of the General Manager, manages the Agency's Operations and Maintenance departments. This position plans, directs, and coordinates the operations and maintenance activities of the wastewater treatment plant and related facilities, and ensures the reliable operation of stationary and mobile equipment. Functions as the Agency's Chief-Plant-Operator and Legally Responsible Officer (LRO) for NPDES permit reporting and Air Quality Management District permit compliance, and ensures conformance with applicable permits, laws, and regulations. Manages and coordinates implementation of the Agency Asset Management Program and use of its Computerized Maintenance Management System, and performs related work as required.

**ESSENTIAL DUTIES AND RESPONSIBILITIES**

Duties include, but are not limited to the following:

- Manages, supervises, and coordinates activities related to the operation and maintenance of Agency equipment, facilities, processes, and systems.
- Manages the Agency's Asset Management Program and Computerized Maintenance Management System.
- Conducts regular treatment facility and process assessments; oversees adjustments of process control systems and equipment to meet regulatory compliance and operational needs.
- Determines necessary maintenance and repair activities to ensure that operational and regulatory requirements are continuously met.
- Coordinates the work of the Operations and Maintenance departments with that of other Agency departments, the JPA member agencies, and local agencies, as needed.
- Administers and manages assigned service contracts with local agencies.
- Oversees the preparation, administration, and management of the annual operating budgets for the Operations and Maintenance departments.
- Administers assigned professional and maintenance service contracts.
- Researches technical questions and problems with vendors, manufacturers, contractors, and others.
- Oversees the operation and maintenance of the Organic Waste Receiving Facility and Cogeneration Systems.
- Oversees the clean and orderly appearance of the Agency's grounds, buildings, and facilities.
- Manages the Agency's odor control programs.
- Prepares and gives presentations to the Agency Commission, and other stakeholders regarding operation and maintenance activities.
- Represents the Agency in meetings with representatives of local and regional agencies, various public and private groups, and the public.
- Monitors changes in technology or regulations that may affect Agency operations and maintenance activities; recommends equipment, policy, and procedural changes as needed.
- Maintains or directs the maintenance of accurate records and files.
- Prepares a variety of accurate and effective correspondence, reports, procedures, and other written materials.
- Serves as the acting General Manager, as requested by the General Manager, or by the Board Chair in the absence of the General Manager.

## **SUPERVISORY RESPONSIBILITIES**

This position supervises the Operations and Maintenance departments through subordinate supervisors; plans, reviews, and evaluates the work of staff directly and through supervisors; provides for the training and professional development of department staff. Carries out management responsibilities in accordance with Agency guidelines and policies, as well as applicable labor, regulatory, and safety regulations and laws. Responsibilities include interviewing, preparing hiring recommendations, and training employees; planning and assigning staff coverage, and directing work; tracking and authorizing time sheets; establishing staff work expectations, performance goals, and work plans; evaluating performance; disciplining employees; investigating, addressing, and resolving personnel complaints and related problems.

## **QUALIFICATIONS**

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

### **Education and/or Experience**

Seven years of increasing responsibilities in the operation, maintenance, and repair of facilities and equipment in an activated sludge wastewater treatment plant and related facilities; including four years of supervisory experience. Baccalaureate Degree in business management, environmental science, or a related technical field from a four-year college is desirable.

### **Interpersonal Skills**

Ability to work cohesively in a team setting; ability to interact with co-workers, supervisors, subordinates, vendors, and the public in a professional manner; to accept constructive criticism from supervisors, peers, and subordinate employees; to recognize the need for, and to seek assistance or clarification as needed; to work independently; to handle work-related stress in a professional manner; to prioritize assignments and meet deadlines; successfully balance life demands with work demands; to arrive at work as scheduled and to work the hours as agreed upon and scheduled.

### **Language Skills**

Ability to read and interpret documents such as safety rules and operating and maintenance instructions and procedure manuals, and communicate them to staff. Ability to write reports, correspondence, and procedures. Ability to effectively present information in a variety of settings, and respond to questions from staff, management, customers, the public, and technical representatives. Ability to respond to common inquiries or complaints from the public and regulatory agencies.

### **Mathematical Skills**

Ability to work with mathematical concepts such as probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry. Ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations. Ability to project budget expenses, prepare maintenance project layout calculations, and solve wastewater-related math problems.

### **Reasoning Ability**

Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal

with several abstract and concrete variables. Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form. Ability to recognize, mitigate, and correct unsafe conditions.

**CERTIFICATES, LICENSES, AND REGISTRATIONS**

Must possess a Grade V Wastewater Treatment Operator certificate issued by the California State Water Resources Control Board (SWRCB) at hire or within 12 months of employment.

**PHYSICAL DEMANDS**

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

While performing the duties of this job, the employee is regularly required to use hands to handle or feel, reach with hands and arms, and talk or hear in person or on the telephone or radio. Hearing is occasionally required for equipment operation analysis. The employee is frequently required to stand, walk, sit, and occasionally to climb or balance and stoop, kneel, crouch, or crawl.

The employee is occasionally required to smell, using odors to determine process or equipment problems. The employee must be able to lift and/or move up to 25 pounds above the head, and up to 50 pounds to waist height. Specific vision ability required by this job includes close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

**WORK ENVIRONMENT**

The work environment characteristics described here are representative of those that an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee is occasionally exposed to wet and/or humid conditions; moving mechanical parts; fumes or airborne particles; and outdoor weather conditions; to high, precarious places; toxic or caustic chemicals; construction project site conditions; extreme heat; risk of electric shock; and vibration. The noise level in the work environment is usually quiet with occasional exposure to moderate noise in the field and loud noise in a few equipment rooms.

**SPECIAL REQUIREMENTS**

There are no special requirements for this job.

**RIGHT TO WORK DOCUMENTATION**

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

**Job Title:** Treatment Plant Manager  
**Department:** Administration  
**Reports To:** General Manager  
**FLSA Status:** Exempt  
**Revised Date:** May 2024





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**BOARD MEMORANDUM**

May 9, 2024

**To:** CMSA Commissioners and Alternates

**From:** Jacky Wong, Associate Engineer  
Peter Kistenmacher, Technical Services Manager

**Approved:** Jason Dow, General Manager

**Subject:** **Rental Uniform Supply Agreement – Award to Prudential Overall Supply**

**Recommendation:** Award the Rental Uniform Cleaning Services Agreement to Prudential Overall Supply, and authorize the General Manager to sign it.

**Summary:** CMSA's current Rental Uniform Supply Agreement expires on June 30, 2024. In April, a Request for Quotation (RFQ) was sent to several companies that supply rental uniforms. Three quotes were received on May 7, 2024, and Prudential provided the lowest quote.

**Economic Analysis:** The new contract is for a three-year term with optional two one-year extensions. The estimated annual rental uniform service cost is \$33,097.33 per year.

**Discussion:** Approximately 36 Agency employees are required to wear uniforms during regular working hours. The Rental Uniform Cleaning Services Agreement scope of services includes furnishing and laundering shirts, pants, coveralls, smocks, lab coats, shop and bath towels, and floor mats. Every week, Prudential will collect and deliver the laundered items, inspect, and maintain the garments in good condition, and provide inventory reports tracking garments picked up and delivered to ensure each uniformed employee has a sufficient supply. Prudential will provide new garments to staff with no initial setup cost at the beginning of the new contract term.

**Attachment:**  
- Rental Uniform Supply RFQ Results











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**BOARD MEMORANDUM**

May 9, 2024

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

**Subject: Direct Potable Reuse Regulatory Update**

**Recommendation:** Receive the Direct Potable Reuse Regulatory Update presentation from Carollo Engineers, and provide comments or direction to the General Manager, as appropriate.

**Summary:** Carollo Engineers prepared a Direct Potable Reuse (DPR) Evaluation in early 2022 and presented the DPR Evaluation findings at the May 2022 Board meeting. The DPR Evaluation was developed using the draft DPR regulation information and requirements. In December 2023, the State Water Resources Control Board adopted the final DPR regulations. Carollo has prepared a DPR Regulatory Update report and will present the regulatory changes at the May 14, 2024 meeting.

**Background:** The DPR Evaluation reviewed the water quality of the Agency's secondary effluent, performed a DPR analysis to select the appropriate treatment systems to produce advanced treated water, determined the on-site infrastructure needed to support the DPR treatment system, and prepared planning level cost estimates to produce DPR water for direct injection into the Marin Municipal Water District (MMWD) distribution system. Additionally, it laid out a project implementation approach from planning, demonstration, implementation, and operations training.

The Evaluation assumed the DPR facility was located in the CMSA corporation yard and connected to an MMWD water distribution pipeline either on Andersen Drive or Sir Francis Drake Boulevard. Disinfected secondary effluent is the source water for the DPR facility and would be transported to the existing seven-million-gallon storage pond to provide the necessary system response time. A new pumping facility would transport the secondary effluent to a 2 MGD or 4 MGD two-story DPR treatment facility in the corporation yard. CMSA effluent not sent to the DPR facility is used to mix and dilute the reverse osmosis system brine for discharge to the San Francisco Bay.

**Attachment:**

- Direct Potable Reuse Regulatory Update Presentation



# Central Marin Sanitation Agency

**Direct Potable Reuse Regulatory  
Update**

May 14, 2024

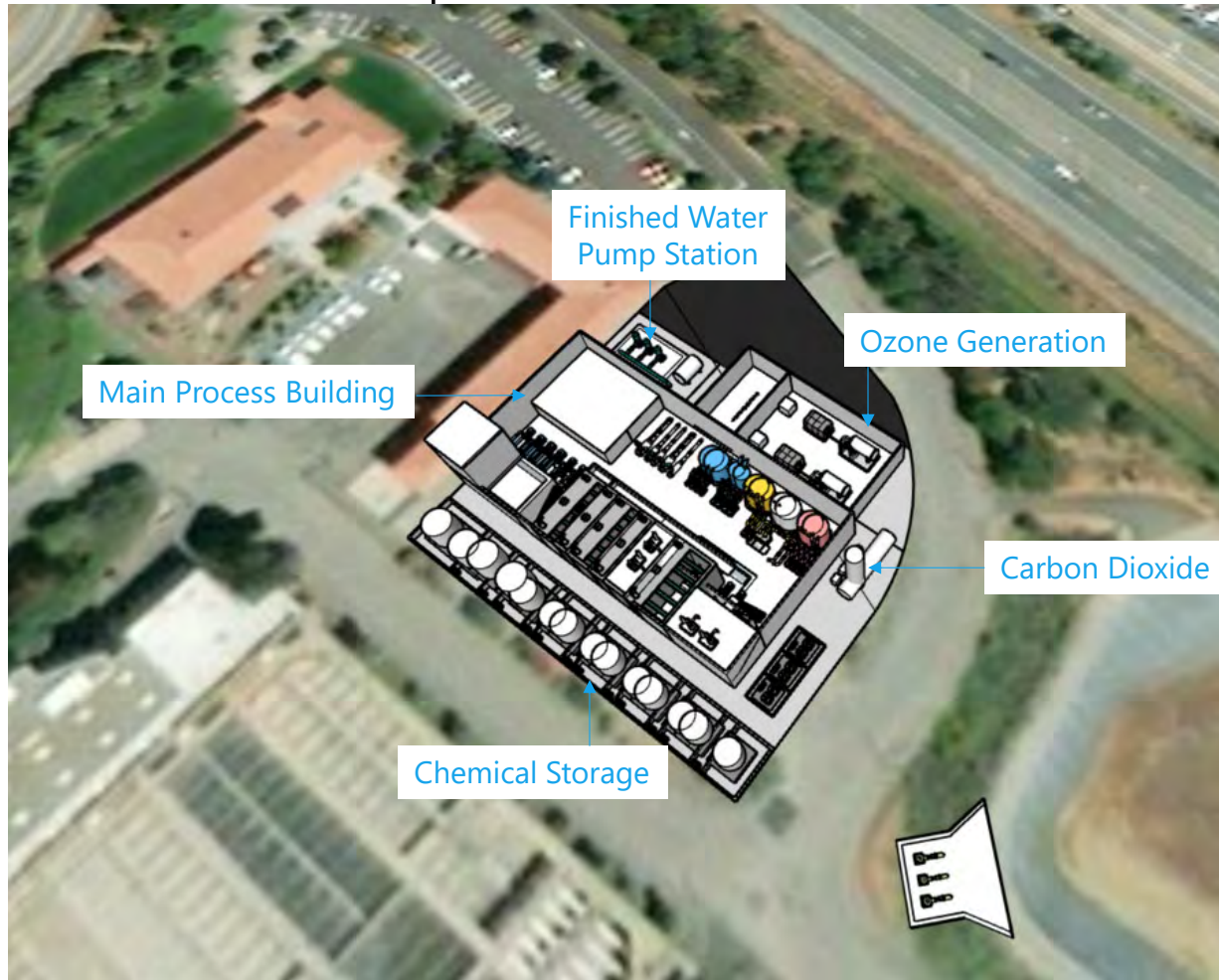


# — Agenda

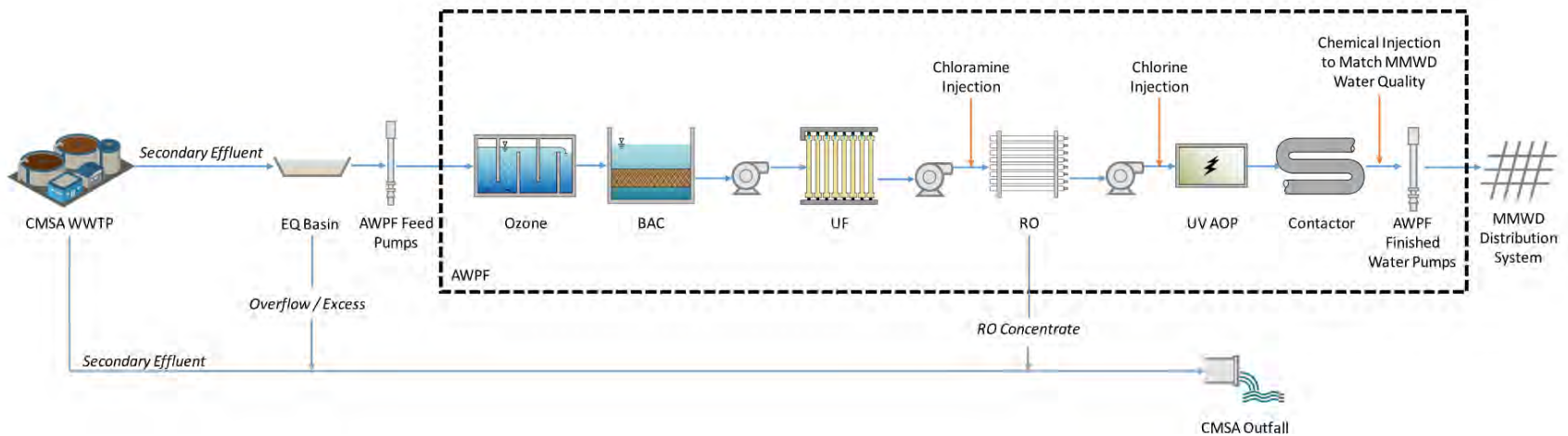
Topic	Description
2022 DPR Evaluation	<ul style="list-style-type: none"><li>• Overview of 2022 CMSA DPR Report.</li></ul>
DPR Regulatory Updates and Impacts	<ul style="list-style-type: none"><li>• Updated regulatory requirements and how this impacts or has the potential to impact CMSA.</li></ul>
Updated Construction Cost Estimate	<ul style="list-style-type: none"><li>• Rising cost of construction.</li></ul>



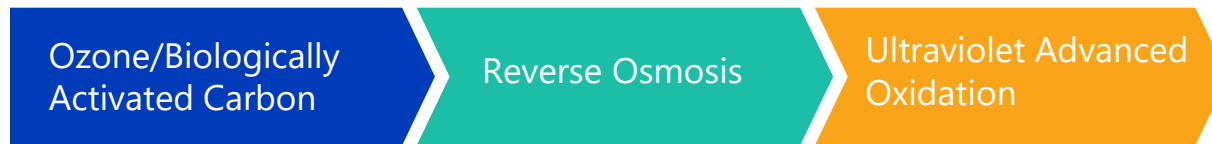
# 2022 CMSA DPR Report



# 2022 CMSA DPR Report (continued)



Proposed Treatment Train



2022 CMSA DPR Feasibility Study Meets Treatment Train Requirements.

## 2022 CMSA DPR Report (continued)

### Pathogen Control Requirements

- 20-log virus.
- 14-log Giardia.
- 15-log Cryptosporidium.

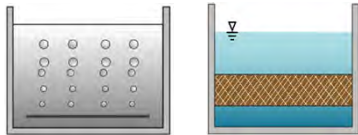


2022 CMSA DPR Feasibility Study Meets Treatment Train Requirements.

### Chemical Control and Other Requirements

- Feed water monitoring for MCLs, NLs, priority pollutants, solvents, DBPs, and DBP precursors.
- Maximum effluent TOC contribution of 0.5 mg/L.
- Meet all drinking water standards including MCLs, DBPs, and ALs.
- Nitrate and nitrite continuously monitored in the RO permeate.
- Ability to attenuate a one-hour elevated concentration by a factor of 10.

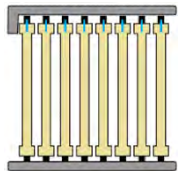
# 2022 CMSA DPR Report (continued)



Ozone/BAC



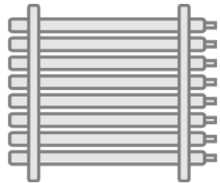
UVAOP



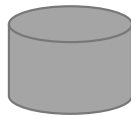
UF



UV Disinfection



RO



Chlorination

Process	Virus	Giardia	Cryptosporidium
Ozone/BAC	6	6	1
UF	0	4	4
RO	2	2	2
UVAOP	6	6	6
UV Disinfection	4	6	6
Chlorination	2	0	0
<b>Total</b>	<b>20</b>	<b>24</b>	<b>19</b>
Required	20	14	15



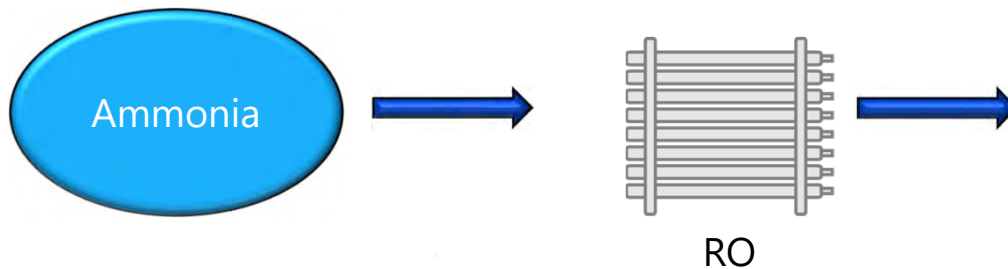
2022 CMSA DPR Feasibility Study Meets Treatment Train Requirements.



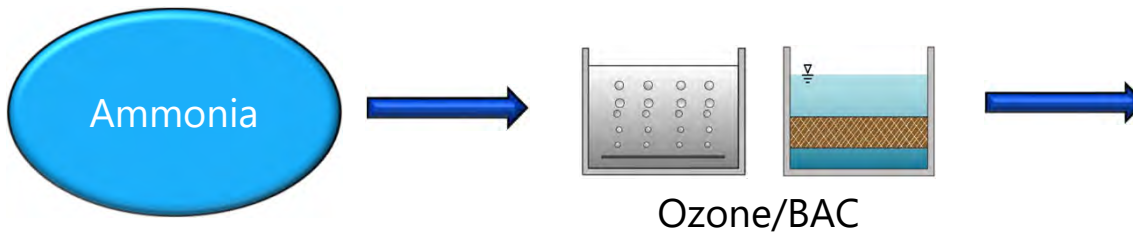
# 2022 CMSA DPR Report (continued)

## CMSA Effluent Water Quality Data

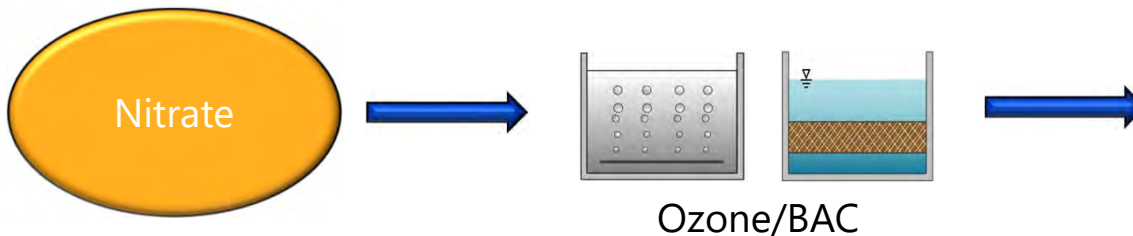
No Change Relative to Regulations, but Important Nutrient Targets to Remember



- Average values low enough to allow RO to reduce below regulated values.



- Average values low enough to not impact biofiltration



- Reduced through optimization of the biological process.
- Must be considered in ozone system sizing.

## 2022 CMSA DPR Report (continued)



- Exact location of MMWD pipeline has not been pinpointed.

Proposed Connection Point Options to Existing MMWD Distribution System

# — 2024 DPR Regulatory Update

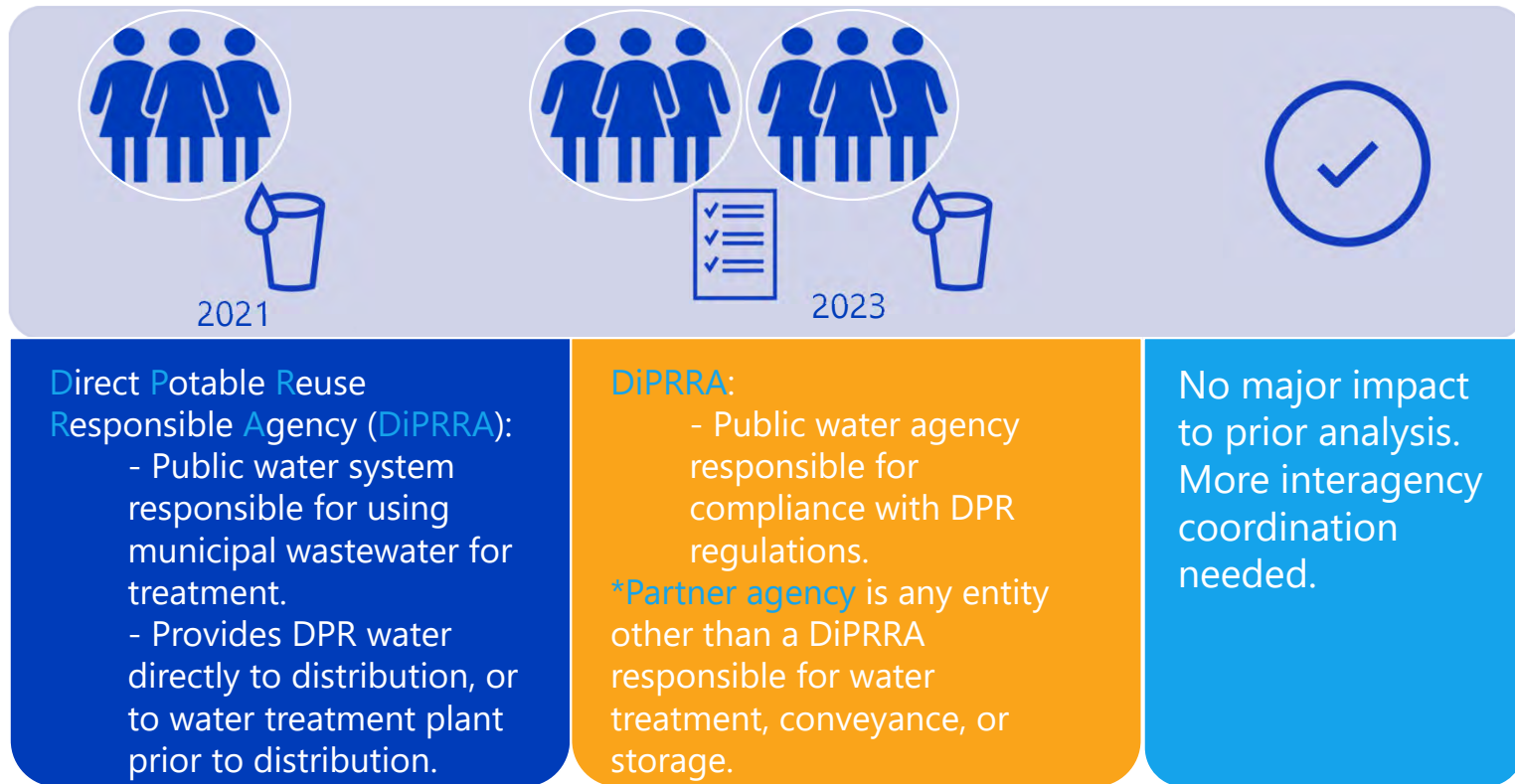
## Background

- Previous CMSA Feasibility Study (2022) was based on the Second Draft DPR Regulations (**2021**).
- Looked at changes due to **final 2023** DPR Regulations.

## Areas where changes occurred:

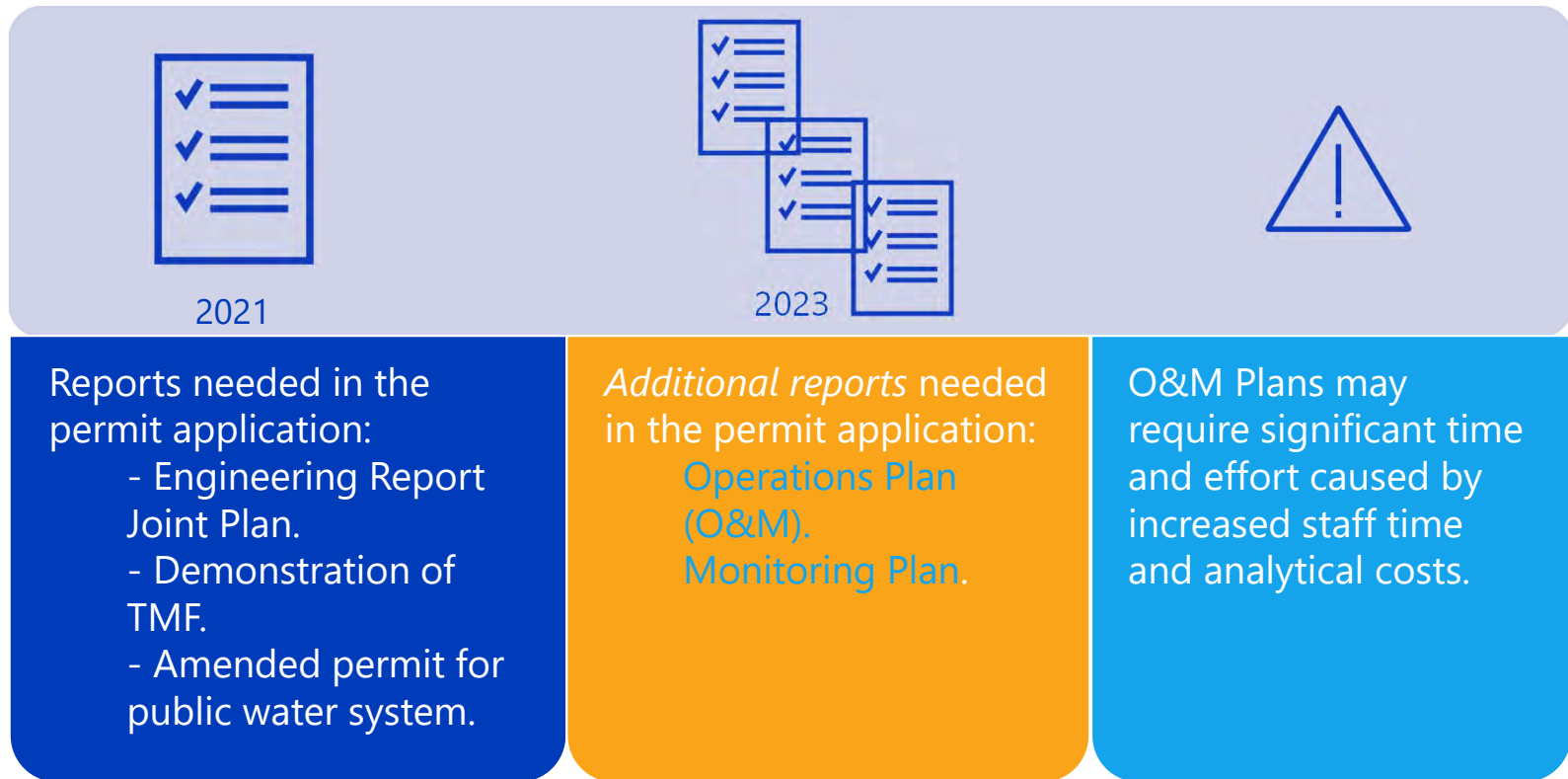
- » Project structure.
- » Feed water monitoring.
- » Pathogen control requirements.
- » Chemical control requirements.
- » Additional monitoring requirements.
- » Operational Requirements.
- » Plans and Reporting.

# DPR Regulatory Update – Project Structure



\*Note: 2023 Regulations may require a partner agency to obtain a domestic water supply permit.

## DPR Regulatory Update – Project Structure (continued)



# DPR Regulatory Update – Feedwater Monitoring

## Monitoring Required 24 Months Prior to Operation

Regulated Contaminants (MCLs).

Priority Pollutants.

Notification Level constituents.

Solvents.

Disinfection By-Products (DBPs) and DBP precursors.

Chemicals associated with businesses and household sources of hazardous substances, pharmaceuticals, and personal care products.

Chemicals specified by the State Board.

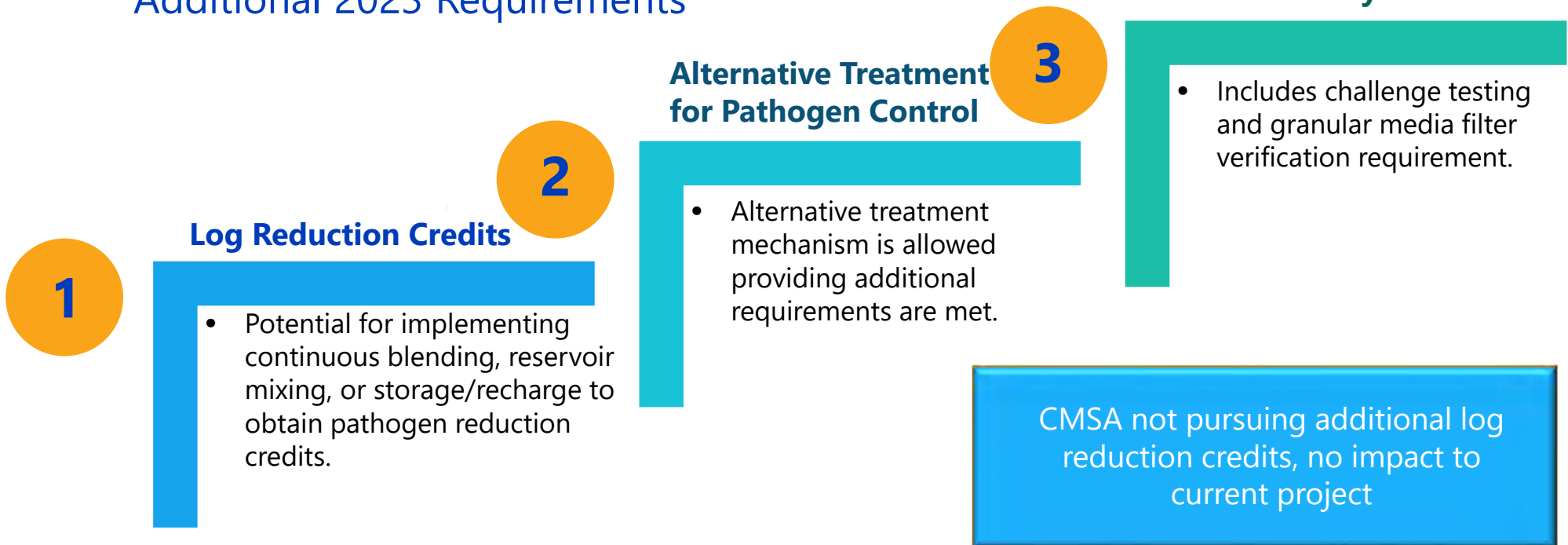
2021

2023

Additional chemical monitoring will require *minor* additional effort or cost.

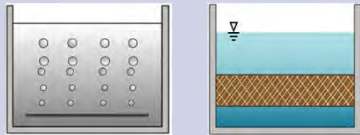
# DPR Regulatory Update – Pathogen Control Requirements

## Additional 2023 Requirements



# DPR Regulatory Update – Chemical Control Requirements

## Additional 2023 Requirements



Ozone/BAC



TOC

- Continuous blending substitute for Ozone/BAC.
- Ozone: 1 log reduction of carbamazepine and sulfamethoxazole.
- Ozone:TOC ratio  $\geq 1$ .
- BAC: 1 log reduction of acetone.

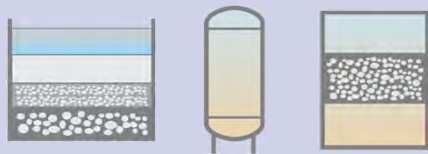
- TOC monitoring  $\geq$  every 15 minutes.
- Opportunity to attenuate elevated TOC with reservoir located downstream.

- No impact from new regulations.
- TOC Blending not applicable to CMSA.



## DPR Regulatory Update – Chemical Control Requirements (cont.)

### Additional 2023 Requirements



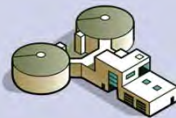
Alternative Treatment

- Must prove the treatment provides an equivalent or better performance.
- Approved by Independent Advisory Panel.
- Identify chemical control points and surrogate and/or operational parameters and establish critical limits for the surrogate and/or operational parameters.
- Receive written approval from State Board.

CMSA is not pursuing an alternative treatment train.

# DPR Regulatory Update – Additional Monitoring Requirements

## Additional 2023 Requirements



Sampling Locations

- DPR feed water may be collected after secondary wastewater treatment or at an *alternate location approved by the State Board*.
- \*Finished water sampling location can be used as the monitoring location (immediately after AOP).
- State Board may require additional monitoring locations.



Chemicals to Sample

- Chemicals associated with businesses or household sources of hazardous substances, pharmaceuticals, and personal care products.

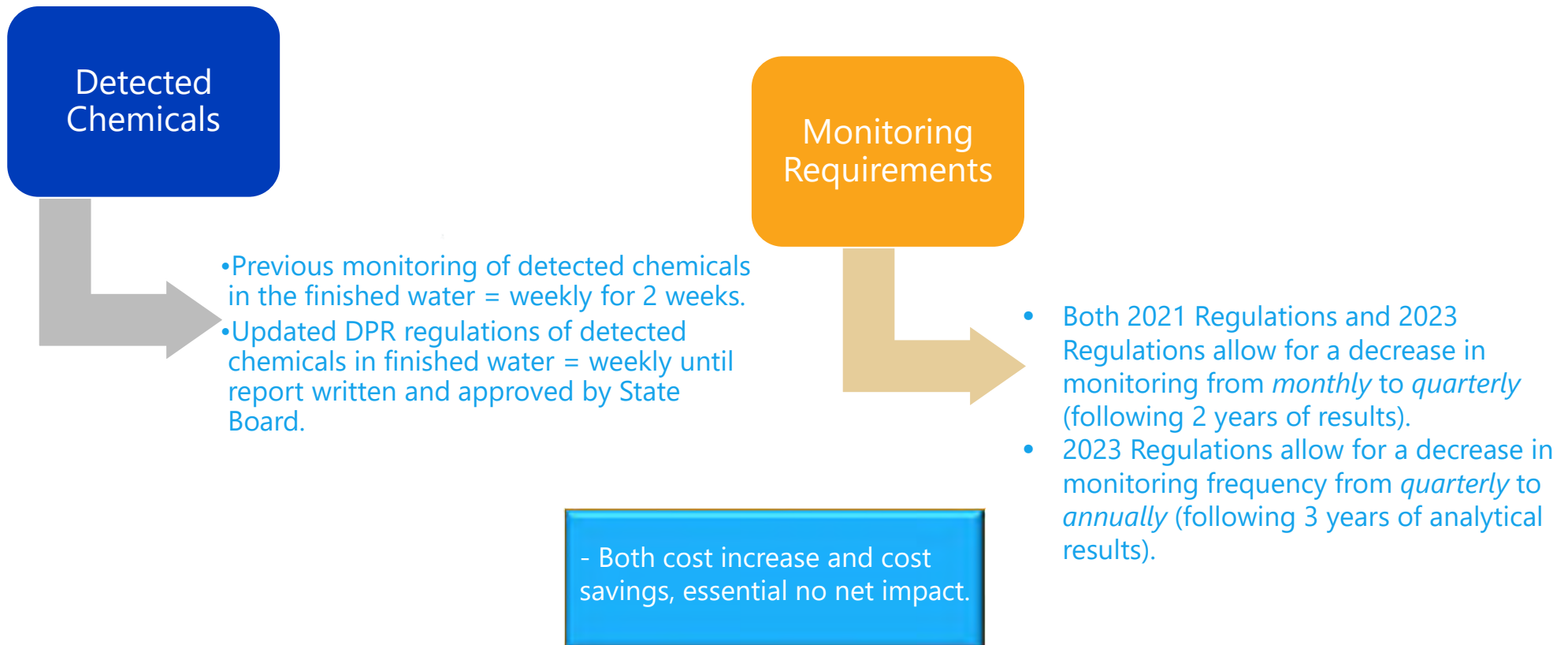


- Additional sampling locations and more chemicals will increase cost.

\* Note: provided the two locations have similar water quality.

# DPR Regulatory Update – Additional Monitoring Requirements (cont.)

## Additional 2023 Requirements



# DPR Regulatory Update – Operational Requirements



## Second Draft 2021 Regulations

- *Certification:*
  - **Chief operator: Grade 5 AWTO certification.**
  - **Shift Operator (min. 1): Grade 5 AWTO.**
- *Time on-site:*
  - A **Chief Operator** or shift operator shall *be on site at all times*, with no mention of reduced on-site operations.

## 2023 DPR Regulations

- *Certification:*
  - **Chief operator: Grade 5 AWTO & T5 certification.**
  - **Shift operator: Grade 3 AWTO & T3 certification.**
- *Time on-site:*
  - A **Chief Operator** or **Shift Operator** shall *be on site at all times\**.



## Impact to CMSA

- Certification efforts/cost will increase.
- Decrease in 24/7 operations will reduce costs significantly.

After 12 months of operation the DiPRRA may apply to the State Board to waive the requirement for being on site at all times pending the DiPRRA demonstrates an equivalent degree of operational oversight with the ability to exert physical control over the water treatment plant within a period specified in the Operations Plan or one hour (whichever is shorter).

# DPR Regulatory Update – Plans and Reporting

## Additional 2023 Reporting Requirements

Engineering Report.

Consumer Confidence Report.

Additional Reporting (e.g., climate change impacts).



- Reporting costs to increase

# — CMSA Updated Construction Cost Estimate

	2022	2024 (1)
2 mgd DPR Facility	\$91.4M	\$102.7M
4 mgd DPR Facility	\$122.4M	\$137.5M



(1) Based on an annual escalation factor of 6%.



# Thank You!

[asalveson@carollo.com](mailto:asalveson@carollo.com)

May 14, 2024










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**BOARD MEMORANDUM**

May 9, 2024

**To:** CMSA Commissioners and Alternates

**From:** Jacky Wong, Associate Engineer  
Peter Kistenmacher, Technical Services Manager

**Approved:** Jason Dow, General Manager

**Subject:** **Primary Clarifier No. 1 Rehabilitation Project – Construction Contract Award**

**Recommendation:** Award the construction contract for the Primary Clarifier No. 1 Rehabilitation Project to GSE Construction for \$524,500, and authorize the General Manager to execute the contract agreement.

**Summary:** Bids for the construction of the Primary Clarifier No. 1 Rehabilitation Project (Project) were publicly opened on April 30, 2024. GSE Construction (GSE) was the lowest, responsive, responsible bidder with a total bid amount of \$524,500. GSE's bid is \$64,500 (14.0%) higher than the Engineer's Estimate. If the construction contract is awarded, construction is anticipated to be substantially completed by the end of September 2024.

**Fiscal Impact:** The FY24 capital budget has \$818,700 allocated for the rehabilitation of Primary Clarifier No. 1. \$90,000 was authorized to purchase clarifier replacement parts in March 2024, and \$287,000 for the procurement of a baffle system in May 2023. Approximately \$440,000 remains in FY24 to perform rehabilitation of Primary Clarifier No. 1 and install the baffle system. Staff is currently in the process of updating the FY25 Capital Improvement Project (CIP), and the updated Project cost would be reflected in the revised FY25 CIP budget.

**Discussion:** The Project's scope of work includes blasting and recoating six steel launder mechanisms, resurfacing and coating the deteriorated sludge hopper concrete, and repairing spalled concrete and exposed rebar throughout the clarifier tank. The work also includes installation of a pre-purchased flow optimization baffle system to improve the clarifier's solids capture efficiency.

The Board adopted the Project's contract documents and authorized the General Manager to advertise the Project for public bidding at the March 2024 meeting. The Notice Inviting Sealed Bids was issued on March 22, 2024, and was published in the Marin Independent Journal, posted on the Agency's website, and sent to various Builders' Exchanges. Five contractors

attended the non-mandatory pre-bid meeting on April 9, 2024, and three sealed bids were received on April 30, 2024. Table 1 of the following page summarizes the bid opening results.

**Table 1. Bid Opening Results**

<b>Contractor</b>	<b>Bid Amount</b>	<b>% Above/Below Estimate</b>
<i>Engineer's Estimate</i>	<i>\$460,000</i>	
GSE Construction Company Inc.	\$524,500	+14.0%
Euro Style Management	\$717,250	+55.9%
Top Line Engineers	\$356,150*	-22.6%

\*Mistakes were made in preparing the bid proposal, withdrawal of bid on May 4.

Top Line Engineers submitted a low bid of \$356,150. Top Line Engineers acknowledged that a bid mistake was made where the lump sum price for the deck concrete repair was stated as \$350, which Top Line Engineers mistakenly assumed as the unit cost, whereas the GSE bid for this line item is \$125,000. When staff reviewed the bid packages, staff also discovered errors in which the unit prices for other bid items and estimated quantities did not equal the extended amount quoted. According to the Project specifications, the unit price shall govern, eliminating Top Line Engineers as the lowest bidder. Given these multiple errors, Top Line Engineers submitted a bid withdrawal request to CMSA on May 4, 2024.

Staff also reviewed the GSE bid package, financial qualifications, and safety data and determined that GSE is the lowest, responsible, responsive bidder. GSE recently completed the construction of the Agency's four secondary clarifiers rehabilitation projects, and staff was satisfied with their performance.

The Agency has seven primary clarifiers. Primary Clarifiers No. 1 through 5 were built during the original facility construction and began operation in 1985. Clarifiers No. 6 & 7 were built as part of the Wet Weather Improvements Project in 2010. As part of periodic maintenance and rehabilitation work to properly maintain and extend the life of the clarifiers, the Agency is planning to rehabilitate the seven clarifiers over the next several years. Primary Clarifier No. 1 is the first clarifier to be rehabilitated, and the Agency's CIP includes funding to sequentially rehabilitate Clarifiers No. 2 through 7 in Fiscal Years 25 through 29.

**Alignment with Strategic Plan:** This Project aligns with the Agency's FY24 Business Plan to support Goal 1 – Objective 1.3 as shown below.

*Goal One: CMSA will effectively operate and maintain its treatment facilities in compliance with changing regulations.*

*Objective 1.3: Deliver Critical and High Priority Agency Capital Projects.*

*Action: Rehabilitate Primary Clarifier No. 1 and install flow optimization baffle.*




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**BOARD MEMORANDUM**

May 9, 2024

**To:** CMSA Commissioners and Alternates

**From:** Joyce Cheung, Senior Engineer

**Approved:** Peter Kistenmacher, Technical Services Manager  
Jason Dow, General Manger

**Subject:** **Purchase of Grit Washing System for the Grit Classifiers Replacement Project**

**Recommendation:** Authorize the General Manager to purchase two Coanda RoSF4 Size 3 Grit Washing Systems from Huber Technology, not to exceed \$850,000, excluding taxes.

**Summary:** The Grit Classifiers Replacement Project (Project) includes the replacement of three aging grit classifiers with two new grit washers. To expedite the project schedule, save cost, and facilitate and customize the design process, staff recommends the advanced selection and purchase of the grit washing equipment. Carollo Engineers (Carollo) provided the attached letter to justify the selection of the Coanda RoSF4 Size 3 Grit Washing Systems from Huber Technology.

**Project Budget:** The Agency's 10-year Capital Improvement Program (CIP) budgeted \$150,000 in FY24 for design services and allocated \$1,056,200 in FY25 for the construction work. The proposed FY25 CIP budget adjustment is \$1,842,000 to complete the design and begin construction, and \$610,000 in FY26 to complete the installation and startup of the new equipment. A total of \$1,176,000 is allocated to purchase and install the washers.

**Background:** The Agency has five grit classifiers that are used in the pre-treatment process for grit removal. These classifiers have significant wear and do not effectively separate organics from the grit. Staff previously retained Carollo to provide a high-level study to evaluate replacing the grit classifiers in-kind versus installing a modern high-efficiency grit washer system that can remove and recover almost all the organic materials from the grit. Staff informed the Board at the August 2023 meeting on the project approach, and obtained Board authorization at the October 2023 meeting to retain Carollo for engineering design services for this Project. Staff performed site visits to Central Contra Costa Sanitary District and the Sausalito-Marín City Sanitary District in 2023 to observe and discuss the operational benefits and maintenance requirements of their Huber Coanda systems. Based on the site visits and Carollo's evaluation, two new high-efficiency grit washers were recommended to replace three of the existing grit classifiers, with two grit classifiers remaining for redundancy.



**Alignment with Strategic Plan:** This project aligns with CMSA’s strategic action to support Goal 4 – Objective 4.1 in the Agency’s FY24 Business Plan as shown below.

*Goal Four: CMSA will be a leader and/or an active participant in collaborative efforts to address industry and community challenges and opportunities.*

*Objective 4.1: Collaborate with stakeholders on programs to comply with CalRecycle’s regulations on diverting organics from landfills.*

*Action: Support CalRecycle’s co-digestion efforts by installing a high efficiency grit washing system.*

**Attachment:**

- Pre-Purchase Justification of Huber Coanda Units by Carollo Engineers





April 24, 2024

Ms. Joyce Cheung  
Central Marin Sanitation Agency  
1301 Andersen Dr.  
San Rafael, CA 94901

Subject: Grit Classifiers Replacement Project – Huber Coanda Unit Pre-Purchase Justification

Dear Ms. Cheung:

Central Marin Sanitation Agency (Agency) has retained Carollo Engineers, Inc. (Carollo) to provide engineering design services to replace three deteriorating grit classifiers with two new grit washers to modernize and improve the Agency's preliminary wastewater treatment process. Pre-selection of the grit washer's make and model is critical in order to inform the design of associated mechanical piping, electrical panel locations and conduit routes, and structural modifications. Carollo has reviewed the Agency's existing infrastructure and operational constraints, and recommends the Huber Coanda RoSF4 Size 3 units for the Grit Classifiers Replacement Project.

Carollo performed a high-level review of the fit, performance, capacity, and track record of Huber's Coanda grit washers prior to providing the recommendation:

- Years of experience: Based on Carollo's professional experience, Huber is the only manufacturer with a demonstrated successful track record in the U.S. producing high-efficiency grit washer equipment. Huber has over 20 years' experience in the production of this grit washer equipment at over 80 separate facilities. They are also the only manufacturer known to Carollo that utilizes a single-step process (does not use cyclone), meets a minimum of 10 installations and has a minimum of 10 years' experience in municipal wastewater treatment.
- Performance and capacity: In order to accommodate the existing infrastructure and operations of our aerated grit system, the performance requirements for the grit washer include:
  - Capacity: at least 400 gpm of continuous flow per grit washer.
  - Organic removal: Less than or equal to 5 percent putrescible organic material in washed grit.
  - Water content: Less than 10 percent water content in washed grit.
  - Grit removal efficiency: 95 percent  $\geq$  200 $\mu$ m.

Based on Carollo's professional experience, the Coanda units meet all the desired performance criteria listed above for effective grit capture and washing. This has been corroborated by several performance tests conducted by an independent third-party company in recent years. Other grit washer manufacturers have not demonstrated the same level of performance and long-term successful service as the Huber Coanda units.

- Fit and maintenance: The proposed new grit washers will be installed in an existing building, where grit washers need to be arranged to avoid structural beams and existing hoppers, and equipment access is limited by narrow removeable wall panels. Carollo obtained detailed measurements to confirm clearances necessary for fit and maintenance and confirmed that the Huber Coanda RoSF4 Size 3 units fit into the existing space without requiring major structural modifications.

Ms. Joyce Cheung  
Central Marin Sanitation Agency  
April 24, 2024

Page 2

- Installations in the Bay Area: The Huber Coanda units have been successfully installed and are currently operating in many California wastewater treatment facilities. These include the Sausalito-Marín City Sanitary District, Central Contra Costa Sanitary District, and the cities of San Jose, Quincy, Laguna, Stockton, Imperial, Richmond, Bakersfield, Ukiah, and Modesto.

Based on the reasons listed above, Carollo recommends the Huber Coanda RoSF4 Size 3 for the Grit Classifiers Replacement Project.

Sincerely,  
CAROLLO ENGINEERS, INC.

A handwritten signature in black ink, appearing to read "Michelle Trinh", with a stylized flourish at the end.

Michelle Trinh, P.E.  
Project Engineer

AuthorInitials:mt

cc: Rick Chan, Peter Kistenmacher






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**BOARD MEMORANDUM**

May 9, 2024

**To:** CMSA Commissioners and Alternates

**From:** Joyce Cheung, Senior Engineer

**Approved:** Peter Kistenmacher, Technical Services Manager  
Jason Dow, General Manager

**Subject:** **Accept Completion of the Liquid Organic Waste Receiving and Biogas Treatment Upgrades Project**

**Recommendation:** Accept the Liquid Organic Waste Receiving and Biogas Treatment Upgrades Project as complete, and authorize the General Manager to file the Notice of Completion with Marin County.

**Summary:** The construction contract for the Liquid Organic Waste Receiving and Biogas Treatment Upgrades Project (Project) was awarded to GSE Construction Company (GSE) in October 2022 for \$2,213,700. The Project scope of work included constructing a new above-grade tank to allow more flexibility to receive liquid organic wastes, and upgrading the existing biogas treatment system to provide enhanced redundancy and reliability to treat the biogas that is used for the new cogeneration system. Nine Contract Change Orders were issued during construction, resulting in a final contract amount of \$2,478,994 (12% increase).

**Discussion:** The Project's Notice to Proceed was issued on November 29, 2022. GSE subsequently provided submittals for engineering review and began the on-site construction activities in March 2023 after materials and equipment were approved and delivered. Demolition and installation of the new biogas chillers and heat exchanger were completed in November 2023, and Agency staff have since been operating these new units. The new above-grade tank, piping, screening system, and mixing pump were installed and tested in February 2024, and Agency staff are currently utilizing the new tank to accept liquid organic wastes.

Nine change orders were processed for this Project to comply with CalRecycle's grant requirements for labor (six percent increase) and to accommodate field modifications, including additional helical piles for the tank foundation due to unforeseen soil conditions, adding conduit and control wiring for the biogas chillers, adding rebar and concrete for the tank equipment pad, and operational modifications to the offloading port and bypass line. The Project was delayed due to unforeseen long lead times for the biogas chillers and heat exchanger; additionally, the polyethylene tank that was initially delivered to the Agency did not have a sloped bottom as specified and, therefore, was sent back for the manufacturer to refabricate and provide a new tank. With the equipment delays and field modifications, the

overall project construction schedule was extended by 245 calendar days at no additional cost to the Agency.

Throughout the construction phase, manufacturer’s representatives were on-site to confirm proper installation, and performed the startup, testing, and staff training for the screening system, tank mixing pump, and the biogas chillers and heat exchanger. Staff has inspected the Project work and found it to meet contract requirements. With the equipment already in operation by Agency staff, only minor housekeeping items from GSE remain, including providing the required spare parts for the mixing pump, replacing the level transmitter with one that has Bluetooth capability, submitting the warranty certification and record drawings, and general site cleanup.

Staff will file the Project’s Notice of Completion after the above housekeeping items are completed. The Project’s five percent retainage, \$123,950, will be released 30 days after the filing.

**Economic Summary:** A total of \$3,071,009 was expensed on this Project as summarized in the table below. The Agency was awarded \$2,577,200 through CalRecycle’s Organics Grant Program to fund the construction phase of the Project. To date, \$1,558,285 have been reimbursed by CalRecycle, with most of the remaining funds expected to be reimbursed by August 2024. A 10% retainage of the grant funds will be withheld by CalRecycle until April 2025 when the grant term ends.

<b>Liquid Organic Waste Receiving &amp; Biogas Treatment Upgrades Project Expenditures</b>	
<b>Design Phase (FY21 and FY22)</b>	
Engineering Design (GHD)	\$232,131
Notice of Exemption filed at Marin County	\$50
<b>Subtotal for Design Phase</b>	<b>\$232,181</b>
<b>Owner Furnished Items (FY23 and FY24)</b>	
Screening system	\$187,379
Pressure Washer	\$17,667
Remote IO communications	\$5,453
Hopper debris bin	\$1,573
<b>Subtotal for Owner Furnished Items</b>	<b>\$212,072</b>
<b>Construction (FY23 and FY24)</b>	
Contract Construction Bid (GSE)	\$2,213,700
Contract Change Orders No. 1 - 9 (GSE)	\$265,294
Tank Rental during OWRF shutdown	\$16,271
Special inspections (Miller Pacific)	\$14,450
Engineering services during construction (GHD)	\$79,731
Construction Management assistance (Dee Consultants)	\$37,310
<b>Subtotal for Construction Phase</b>	<b>\$2,626,756</b>
<b>Total Project Cost</b>	<b>\$3,071,009</b>

**Alignment with Strategic Plan:** This project aligns with CMSA’s strategic action to support Goal 1 – Objective 1.3 in the Agency’s FY24 Business Plan as shown below.

**Goal One:** *CMSA will effectively operate and maintain its treatment facilities in compliance with changing regulations.*

**Objective 1.3:** *Deliver Critical and High Priority Agency Capital Projects.*

**Action:** *Complete construction of the new Liquid Organic Waste Receiving Tank and Biogas Treatment project.*

**Project Photos:**



**Figure 1:** Truck contents being pumped through the new screening system and into the new Liquid Organic Waste Receiving Tank



**Figure 2:** New Chillers and Heat Exchanger at the Biogas Treatment Area





## BOARD MEMORANDUM

May 9, 2024

**To:** CMSA Commissioners and Alternates

**From:** Jacky Wong, Associate Engineer  
Peter Kistenmacher, Technical Services Manager

**Approved:** Jason Dow, General Manager

**Subject:** **FY25 Chemical Supply Contracts**

**Recommendation:** Authorize the General Manager to execute procurement agreements for the following FY25 chemical supply contracts:

1. **Calcium Nitrate** – award to Two Rivers Terminal at a unit price of \$0.688/pound of nitrate-oxygen.
2. **Emulsion Polymer** – award to Polydyne at a unit price of \$1.63/wet pound.
3. **Hydrogen Peroxide** – award to US Peroxide at a unit price of \$3.07 per gallon.
4. **Ferric Chloride** – award to Kemira at a unit price of \$1,573/dry ton.
5. **Sodium Bisulfite** – award to Univar at a unit price of \$1.64 per gallon.
6. **Sodium Hypochlorite** – award to Univar at a unit price of \$3.25 per gallon.

**Summary:** The calcium nitrate, ferric chloride, sodium bisulfite, and sodium hypochlorite contracts are for a twelve-month fixed procurement price, ending June 30, 2025. The hydrogen peroxide contract is for a twenty-four-month period with periodic cost analyses and an adjustment provision every six months, and the emulsion polymer contract is for a thirty-six-month period with periodic cost analyses and an adjustment provision every six months.

**Economic Summary:** The table below shows the estimated annual use for each chemical, the current unit price before tax, the new unit price before tax, and the percentage change between the current unit price and the new unit price.

Chemical	Vendor	Estimated Annual Usage	Current Unit Price	New Unit Price	% Change
Calcium Nitrate	Two Rivers Terminal	380,000 lbs	\$0.920 /lb N-O	\$0.688 /lb N-O	-25.2%
Emulsion Polymer	Polydyne	100,000 lbs	\$1.660/lb	\$1.630/lb	-1.8%
Hydrogen Peroxide	US Peroxide	97,000 gal	\$3.10/gal	\$3.07/gal	-1.0%
Ferric Chloride	Kemira	105 dry tons	\$1,498/ dry ton	\$1,573/ dry ton	5.0%
Sodium Bisulfite	Univar USA	140,000 gal	\$1.845/gal	\$1.64/gal	-11.1%
Sodium Hypochlorite	Univar USA	200,000 gal	\$2.88/gal	\$3.25/gal	12.9%



**Discussion:** CMSA uses several types of chemicals to treat and process wastewater and biosolids to meet regulatory permit requirements. These chemical suppliers are selected after a public bid process either administered by the Bay Area Chemical Consortium (BACC) or CMSA staff. This year, BACC bid on sodium hypochlorite, sodium bisulfite, and ferric chloride, while CMSA bid on calcium nitrate, hydrogen peroxide, and emulsion polymer. Below is a brief description of each chemical's use and the bidding process.

Calcium Nitrate is the first phase of a two-phase odor control system used in the collection system upstream of the wastewater treatment facility to control wastewater odors around the Headworks building. Nitrate dosing in strategic locations inhibits the formation of hydrogen sulfide. It's injected at the Greenbrae (Ross Valley Sanitary District), Paradise (Sanitary District No. 2), and North Francisco and West Railroad (San Rafael Sanitation District) pump stations. The Agency uses approximately 380,000 pounds of nitrate-oxygen annually. In April 2024, CMSA issued a Request for Bids to chemical suppliers. CMSA staff received, opened, and analyzed four bids in May 2024. Two Rivers Terminal was determined to be the lowest responsive and responsible bidder. A bid summary and tabulation are attached.

Emulsion polymer is injected into the digested sludge feed for the Agency's three high-speed dewatering centrifuges, to improve dewatering and increase the biosolid's total solids content. The current polymer supply contract with Polydyne was executed in July 2019, and no administrative contract extensions are available. In early April 2024, staff sent a Request for Bids, and Solenis and Polydyne responded and performed the required pre-bid laboratory bench scale trials. Following the bench scale trials, staff received an email notification that Solenis would not participate in the full-scale testing and bidding process as Solenis's polymer product is likely less competitive than Polydyne's for the Agency's application. Polydyne completed a bench scale trial and verified that the existing polymer, WE-1196, is the most optimal polymer for CMSA's processes. Polydyne offered to enter into a multiyear contract under the existing contract's terms and conditions at the reduced price of \$1.63/wet pound, with an adjustment provision every six months. Approximately 100,000 wet pounds of polymer are used annually.

Hydrogen Peroxide is the second phase of the odor control system injected into the Ross Valley and San Rafael interceptors upstream of the treatment plant, to control wastewater odors at and near the Headworks building. The Agency uses approximately 97,000 gallons annually. CMSA issued a Request for Bids to chemical suppliers in April 2024. CMSA staff received, opened, and analyzed four bids in May 2024. US Peroxide was determined to be the lowest responsive, responsible bidder. A bid summary and bid tabulation are attached.

Ferric Chloride controls hydrogen sulfide content in biogas, improves biosolids dewatering performance, and enhances suspended solids removal in primary clarifiers during wet weather flows. The Agency uses approximately 105 dry tons annually. The BACC issued a Request for Bids to chemical suppliers in December 2023. Bids were received, opened, and analyzed in February 2024, and the BACC award recommendation letter to Kemira for the ferric chloride bids is attached.

Sodium bisulfite is a dichlorination chemical used to neutralize residual chlorine in the final effluent prior to discharge into the San Francisco Bay. The Agency uses approximately 140,000 gallons annually. The BACC issued a Request for Bids to chemical suppliers in December 2023. Bids were received, opened, and analyzed in February 2024, and the BACC award recommendation letter to Univar for the sodium bisulfite bids is attached.

Sodium hypochlorite is used for disinfection of final effluent, odor control at various locations in the treatment facilities, disinfection of reclaimed water, and filament control in activated sludge. The Agency uses approximately 200,000 gallons annually. The BACC issued a Request for Bids to chemical suppliers in December 2023. Bids were received, opened, and analyzed by in February 2024, and the BACC award recommendation letter to Univar for the sodium hypochlorite bids is attached.

**BACC Background:** CMSA joined the BACC in June 2013. The BACC is a cooperative group of over 60 public water and wastewater agencies in northern California and is currently managed and administered by Bay Area Clean Water Agencies (BACWA). The primary purpose of the BACC is to seek competitive bids from vendors, on a regional basis, to supply and deliver chemicals for water and/or wastewater treatment. CMSA is in the Marin-Sonoma-Napa County region for bidding purposes.

BACC members benefit from a better price through larger purchasing power and administrative cost savings as BACWA prepares all of the bid documents, bid advertisements, and performs the bid analyses. BACC members reimburse BACWA when participating in one of the BACC bids. The reimbursement cost to BACWA is \$299.70 per bid, and CMSA's total fee for participating in the chemical procurement process this year is \$1,198.80. Utilizing the BACC bid process provides significant savings in staff time and advertising costs as compared to CMSA staff developing the contracts and administering the procurement process.

**Attachments:**

- 1) Calcium Nitrate Bid Opening Summary and Bid Tabulation
- 2) SNF Polydyne contract offer letter dated May 7, 2024
- 3) Hydrogen Peroxide Bid Opening Summary and Bid Tabulation
- 4) BACC Notice of Award Letter of Ferric Chloride
- 5) BACC Notice of Award Letter of Sodium Bisulfite
- 6) BACC Notice of Award Letter of Sodium Hypochlorite







Central Marin Sanitation Agency  
 SUPPLY AND DELIVERY OF CALCIUM NITRATE  
 CMSA Contract No. 24-37  
 Bid Opening Results:  
 May 2, 2024, 1:30 PM

Bidder

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Univar Solutions USA

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Two Rivers Terminal

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Evogva Water Technologies

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Penco Inc

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Bid Amount

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Calcium Nitrate \$ per Gallon: no bid

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Nitrate Oxygen \$ / lb: no bid

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Calcium Nitrate \$ per Gallon: 2.68

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Nitrate Oxygen \$ / lb: 0.688

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Calcium Nitrate \$ per Gallon: 2.70

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Nitrate Oxygen \$ / lb: 0.75

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Calcium Nitrate \$ per Gallon: \$2.97

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Nitrate Oxygen \$ / lb: 0.8486

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Bids Opened By

Bids Ready By



Emailed to: [jwong@cmsa.us](mailto:jwong@cmsa.us)

May 7, 2024

Mr. Jacky Wong  
Central Marin Sanitary Agency  
1301 Andersen Drive  
San Rafael, CA 94901

RE: Price Adjustment Justification Proposal – RFB Contract No. 19-33

Dear Mr. Wong,

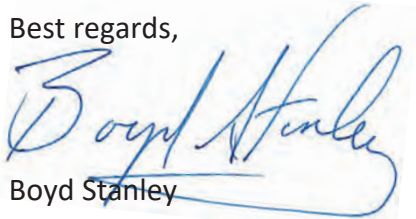
The above-referenced Contract between Central Marin Sanitary Agency and Polydyne Inc. is set to expire on June 30, 2024. At this time, Polydyne Inc. would like to offer the Agency the option to renew this Agreement at an adjusted price. In accordance with our Agreement, and the most recent BLS Consumer Price Index (Series ID: CUUR0000SA0), Polydyne Inc. suggests a price reduction of - 3.8%.

Effective July 1, 2024 through June 30, 2025, Polydyne Inc. proposes to supply the following:

PRODUCT	CURRENT PRICE	ADJUSTMENT CALCULATION	NEW PRICE
CLARIFLOC WE-1196	\$1.66/LB.	$((\$1.66/2) + (\$1.66/2) * (1-3.8\%))$	\$1.63/LB.

We greatly appreciate your business and look forward to continuing our valued partnership. If this offer is acceptable to the Agency, please send notification via email to: [bids@polydyneinc.com](mailto:bids@polydyneinc.com). If you have any questions, please feel free to contact Sarah Ben-Yoseph, Technical Sales Representative, at (415) 404-2138 or by email to [sben-yoseph@polydyneinc.com](mailto:sben-yoseph@polydyneinc.com).

Best regards,




Boyd Stanley  
Sr. Vice-President




# Databases, Tables & Calculators by Subject

[Special Notices](#) 4/25/2024

Change Output Options:

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include graphs  include annual averages

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Data extracted on: May 6, 2024 (4:20:26 PM)

## PPI Industry Data

**Series Id:** PCU325211325211  
**Series Title:** PPI industry data for Plastics material and resin manufacturing, not seasonally adjusted  
**Industry:** Plastics material and resin manufacturing  
**Product:** Plastics material and resin manufacturing  
**Base Date:** 198012

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Year	Feb
2014	297.8
2015	280.8
2016	255.4
2017	265.1
2018	278.0
2019	275.8
2020	269.6
2021	300.4
2022	357.647
2023	334.960
2024	321.843(P)

-3.8%

P : Preliminary. All indexes are subject to monthly revisions up to four months after original publication.

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Central Marin Sanitation Agency  
SUPPLY AND DELIVERY OF 50% HYDROGEN PEROXIDE SOLUTION  
CMSA Contract No. 24-36  
Bid Opening Results:  
May 2, 2024, 1:30 PM

Bidder	Bid Amount
Univar Solutions USA	no bid
Percco, Inc.	\$ 3.45 / gallon
U.S. Peroxide	\$ 3.07 / gallon
Evogua Water Technologies	\$ 3.17 / gallon

Bids Opened By \_\_\_\_\_

Bids Ready By \_\_\_\_\_

**BID REVIEW/RECOMMENDATION**

**CMSA Contract No. 24-37 Calcium Nitrate**

**Addenda Issued: None**

**Bid Open Date: Tuesday, May 2, 2024 at 1:30 PM**

	Bidder:	Two Rivers Terminal	Evoqua	Pencco	Univar
Item #	Description	Low Bidder			No Bid
1	Received in sealed envelope by bid deadline above	Yes	Yes	Yes	
2	Bids submitted on forms provided (completed BID FORM)	Yes	Yes	Yes	
3	In non-erasable permanent ink	Yes	Yes	Yes	
4	Must include a base unit price per gallon and per unit lb	Yes	Yes	Yes	
5	Additional charges for "short load" deliveries shown as a standard deviation on bid form	None	None	None	
6	Completed BIDDER INFORMATION FORM, including References: minimum of 3	Yes	Yes	Yes	
7	Product Specification Deviations - if any, proposed specification must be attached	None	None	None	
8	Signed Agreement	Yes	Yes	Yes	
9	Fully Executed Non-Collusion Affidavit	Yes	Yes	Yes	
10	Manufacturer's information with Representative lab analysis of the chemical prepared by reputable outside laboratory or ISO Certified	Yes	Yes	Yes	
11	Name /Address of chemical manufacturer	Grow West	Yara	Andersons	
12	Product Bulletin and Typical Properties	Yes	Yes	Yes	
13	Safety Data Sheet (SDS)	Yes	Yes	Yes	
14	Addendum/Addenda Acknowledgement	N/A	N/A	N/A	
15	Third Party Hauler? If applicable, name, address, Affidavit signed by Bidder	Grow West	John Perez & Sons	N/A	
16	Specific Deviations Noted	None	None	None	



March 18, 2024

Kemira Water Solutions, Inc.  
Attn: Christina Imbrogno  
4321 W. 6<sup>th</sup> St.  
Lawrence, KS, 66049

**RE: Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 06-2024 for Supply and Delivery of FERRIC CHLORIDE.**

Dear Ms. Imbrogno,

We are pleased to advise you that the bid submitted by Kemira Water Solutions, Inc. for Bid No. 06-2024 was determined to be the lowest responsive bid for the supply and delivery of FERRIC CHLORIDE during the period July 1, 2024 through June 30, 2025.

The participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Kemira Water Solutions, Inc. for their respective facilities.

Bay Area Chemical Consortium sincerely appreciates your efforts and participation in the competitive bid process.

If you have any questions, please free to contact me at [jdymment@bacwa.org](mailto:jdymment@bacwa.org)

Sincerely,

Jennifer Dymment  
Assistant Executive Director  
BACWA.org  
as Coordinating Agency for the Bay Area Chemical Consortium

Bay Area Clean Water Agencies  
 Bid Results for Project 06-2024 FERRIC CHLORIDE  
 Bid Due on February 22, 2024 4:00 PM (PDT)  
**SINGLE BID AWARD**

Section	FERRIC CHLORIDE							
	Central Valley	East Bay	Marin Sonoma Napa	North Bay	Peninsula	Sacramento	South Bay	Tri Valley
Description	dry ton	dry ton	dry ton	dry ton	dry ton	dry ton	dry ton	dry ton
Unit of Measure	dry ton	dry ton	dry ton	dry ton	dry ton	dry ton	dry ton	dry ton
Kemira Water Solutions, Inc	1,470.0000	1,380.0000	1,573.0000	1,573.0000	1,499.0000	1,499.0000	1,490.0000	1,490.0000





March 18, 2024

Thatcher Company of California, Inc.  
ATTN Michael T. Mitchell  
PO Box 27407  
Salt Lake City, UT 84127

**RE: Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 11-2024 for Supply and Delivery of SODIUM BISULFITE.**

Dear Mr. Mitchel,

We are pleased to advise you that the bid submitted by Thatcher Company of California, Inc. for Bid No. 11-2024 was determined to be the lowest responsive bid for the supply and delivery of SODIUM BISULFITE during the period July 1, 2024 through June 30, 2025.

The participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Thatcher Company of California, Inc. for their respective facilities.

Bay Area Chemical Consortium sincerely appreciates your efforts and participation in the competitive bid process.

If you have any questions, please free to contact me at [jdymment@bacwa.org](mailto:jdymment@bacwa.org)

Sincerely,

Jennifer Dymment  
Assistant Executive Director  
BACWA.org  
as Coordinating Agency for the Bay Area Chemical Consortium

Bay Area Clean Water Agencies  
 Bid Results for Project 11-2024 SODIUM BISULFITE  
 Bid Due on February 22, 2024 4:00 PM (PDT)  
**SINGLE BID AWARD**

Section	Sodium Bisulfite 25%							SODIUM BISULFITE 40% Solution		
	Central Valley	East Bay	Marin Sonoma Napa	North Bay	Peninsula	Sacramento	South Bay	Central Valley	East Bay	Sacramento
Description										
Unit of Measure	gal	gal	gal	gal	gal	gal	gal	gal	gal	gal
Thatcher Company of California, Inc.	1.6400	1.6400	1.6400	1.6400	1.6400	1.6400	1.6400	2.8000	4.0700	2.7400



March 18, 2024

Univar Solutions USA LLC  
ATTN Jennifer Perras  
8201 S 212th St.  
Kent, WA 99032

**RE: Regional Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 13-2024 for Supply and Delivery of SODIUM HYPOCHLORITE 12.5% in the Central Valley, East Bay, Marin Sonoma Napa, North Bay, Peninsula, South Bay and Tri Valley regions.**

Dear Ms. Perras,

We are pleased to advise you that the bid submitted by Univar Solutions USA LLC for Bid No. 13-2024 was determined to be the lowest responsive bid for the supply and delivery of SODIUM HYPOCHLORITE 12.5% in the Central Valley, East Bay, Marin Sonoma Napa, North Bay, Peninsula, South Bay and Tri Valley regions during the period July 1, 2024 through June 30, 2025.

The participating BACC Agencies from the above regions should be contacting you shortly to discuss entering into contracts with Univar Solutions USA LLC for their respective facilities.

Bay Area Chemical Consortium sincerely appreciates your efforts and participation in the competitive bid process.

If you have any questions, please free to contact me at [jdymment@bacwa.org](mailto:jdymment@bacwa.org)

Sincerely,

Jennifer Dymment  
Assistant Executive Director  
BACWA.org  
as Coordinating Agency for the Bay Area Chemical Consortium

Bay Area Clean Water Agencies  
 Bid Results for Project 13-2024 SODIUM HYPOCHLORITE 12.5%  
 Bid Due on February 22, 2024 4:00 PM (PDT)

**REGIONAL BID AWARD**

Section	SODIUM HYPOCHLORITE 12.5%									SODIUM HYPOCHLORITE 12.5% in 275-gal totes (Optional bid item)	Sodium Hypochlorite 12.5% in Carboys (OPTIONAL BID ITEM)	SODIUM HYPOCHLORITE 5.25% (Optional bid item)
	Central Valley	East Bay	Marin Sonoma Napa	North Bay	Peninsula	Sacramento	South Bay	Tri Valley	Central Valley	North Bay	Marin Sonoma Napa	Sacramento
Description	gal	gal	gal	gal	gal	gal	gal	gal	gal	gal	gal	gal
Unit of Measure												
Univar Solutions USA LLC.	3.2500	3.2300	3.2500	3.2100	3.2800	3.3100	3.2500	3.2700	no bid	no bid	no bid	no bid

**BOARD MEMORANDUM**

May 9, 2024

**To:** CMSA Commissioners & Alternates

**From:** Jason Dow, General Manager

**Subject:** **San Rafael Sanitation District Request for an Operational Service Agreement**

**Recommendation:** Discuss the May 1, 2024, letter from San Rafael Sanitation District and provide direction to the General Manager.

**Discussion:** At its December 12, 2023, meeting the Board authorized me to meet with San Rafael Sanitation District (SRSD) staff to discuss possible options to enhance SRSD operations. Since that Board meeting, I have met a few times with SRSD Manager Doris Toy and the SRSD consultant Paul Causey to discuss potential CMSA service alternatives and provide them with various CMSA organizational information.

On May 1, SRSD sent the attached letter to the CMSA Board that explains the SRSD Board has directed its staff to meet with CMSA staff to prepare an operational service agreement. I emailed this letter to the CMSA Board on May 2.

**Attachments:**

- 1) SRSD letter dated May 1, 2024
- 2) SRSD letter dated November 29, 2023





**San Rafael  
Sanitation  
District**

111 Morpew Street  
San Rafael, CA 94901

Telephone 415 454-4001

**Board of Directors**

Kate Colin, Chair  
Maribeth Bushey, Secretary/Director  
Katie Rice, Director

**District Manager/District Engineer**

Doris Toy, P.E.

May 1, 2024

To Members of the Central Marin Sanitation Agency Board:

In reference to our November 29, 2023, letter to CMSA, the San Rafael Sanitation District (“SRSD”) has explored various options for its future growth and stability. At SRSD’s April 26, 2024, Board meeting, the Board authorized staff to begin discussions with CMSA in preparing a service agreement on operational consolidation. The SRSD Board believes that integrating SRSD into CMSA will ensure long-term stability of SRSD as well as create employment stability through stronger recruitment, retention and compensation. We recognize that this is a bold initiative and appreciate CMSA’s willingness to begin discussions. We believe this strategy is in alignment with good local agency governance and will strengthen the entire wastewater collection-to-treatment system for decades to come.

The SRSD Board has identified four critical issues as part of the implementation: 1) logistical details of hiring all of the current SRSD employees as CMSA employees; 2) confirming how the new employees will be physically integrated at CMSA; 3) details around integration of services including the wastewater collection as well as administrative and support services; and 4) identifying any additional issues regarding the potential of a future consolidation.

We recognize that a phased approach might be the best path forward and we are optimistic about the development of a service agreement that will enable SRSD and CMSA to improve service to our customers and support SRSD employees at the same time.

Sincerely,

Kate Colin  
Chair, San Rafael Sanitation District

- cc: Doris Toy, SRSD District Manager/Engineer  
Jason Dow, CMSA General Manager  
Michael Boorstein, RVSD Board President  
Eli Beckman, SD2 Board President  
Cristine Alilovich, City of San Rafael City Manager







**San Rafael  
Sanitation  
District**

111 Morpew Street  
San Rafael, CA 94901

Telephone 415 454-4001

**Board of Directors**

Kate Colin, Chair  
Maribeth Bushey, Secretary/Director  
Katie Rice, Director

**District Manager/District Engineer**

Doris Toy, P.E.

November 29, 2023

To Members of the Central Marin Sanitation Agency Board:

We applaud your agency’s vision to be “a forward-thinking organization by providing innovative and effective wastewater services” and greatly appreciate the long-standing partnership with the San Rafael Sanitation District.

As we envision the best way to continue to deliver our services, our Board believes there is enormous positive potential for the residents of Marin and our agencies to re-imagine the current system. To that end, the San Rafael Sanitation District has retained a consultant to help the District explore options for future growth and stability. At our November 2023 Board Meeting, our Board authorized District Manager Doris Toy to reach out to CMSA to explore these possibilities.

We thank you for your leadership around wastewater services and are optimistic that through a shared forward-thinking lens, together we will enhance the efficiencies and effectiveness of both of our agencies.

Sincerely,

Kate Colin  
Chair, San Rafael Sanitation District



**BOARD MEMORANDUM**

May 9, 2024

To: CMSA Commissioners and Alternates

From: Tiffany Elam, Administrative Specialist

Approved: Jason Dow, General Manager

**Subject: May Informational Items**

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

- A. Letter dated April 26, 2024 to Ms. Kerry O’Conner, California Regional Water Quality Control Board

*Re: Monthly Self-Monitoring Report (SMR) – March 2024*

- B. House of Representatives perfluoroalkyl and polyfluoroalkyl substances (PFAS) Bill

*Re: To exempt certain entities from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 with respect to releases of PFAS, and for other purposes.*





April 26, 2024

California Regional Water Quality Control Board  
San Francisco Bay Region  
Ms. Kerry O' Conner, Water Resource Control Engineer  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

**Subject: Monthly Self-Monitoring Report (SMR) – March 2024**

Dear Ms. O' Conner,

The SMR 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 #R2-2023-006, the Nutrient Watershed Permit Order #R2-2019-0017, the Mercury and PCBs Permit Order #R2-2022-0038, the Amendment of Monitoring and Reporting Requirements and Amendment of Alternate Monitoring and Reporting Program Permit Order #R2-2021-0028, and the Amendment Update to Total Residual Chlorine and Oil and Grease Requirement Permit Order R2-2023-0023.

**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 during this reporting period.

**Data Validation**

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

**Supplemental Submittals**

In compliance with NPDES Permit Order #R2-2022-038, included within this submittal is the semiannual Chronic Toxicity Compliance Monitoring and Surveillance Monitoring conducted on March 4-8, 2024. Compliance monitoring of *Americamysis bahia* reported a 2.6% effect to survival and a -1.0% effect to growth at the IWC of 2.3% effluent; the TST analysis resulted is a Pass for both endpoints. Surveillance monitoring of *Americamysis bahia* reported a 2.6% effect to survival and a 11.0% effect to growth at the Surveillance Monitoring Concentration of 10% effluent; the TST analysis resulted is a Pass for both endpoints.

Additionally, CMSA has completed the Second Species Sensitivity Screening event during this reporting period. A summary of the results from this screening event in alignment with the

Species Screening Plan is provided Table 1 below. Based on these results *Mytilus galloprovincialis* provided a well-defined response to the 25% Effluent concentration.

**Table 1: Second Species Sensitivity Screening Results Summary**

Test Species	Test Endpoint	25% Effluent (% Effect)
<i>Macrocystis pyrifera</i>	Germination	6.1%
	Growth	1.8%
<i>Mytilus galloprovincialis</i>	Normal Development	2.3%
<i>Atherinops affinis</i>	Survival	-4.2%
	Growth	7.4%

**Summary**

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)).

Sincerely,



Loren C. Finton  
Treatment Plant Manager

.....  
(Original Signature of Member)

118TH CONGRESS  
2D SESSION

# H. R.

To exempt certain entities from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 with respect to releases of perfluoroalkyl and polyfluoroalkyl substances, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

Mr. CURTIS introduced the following bill; which was referred to the Committee on \_\_\_\_\_

---

# A BILL

To exempt certain entities from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 with respect to releases of perfluoroalkyl and polyfluoroalkyl substances, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Water Systems PFAS  
5 Liability Protection Act”.

1 **SEC. 2. EXEMPTION OF WATER AND WASTEWATER TREAT-**  
2 **MENT FACILITIES FROM CERCLA LIABILITY**  
3 **FOR RELEASES OF PFAS.**

4 (a) DEFINITIONS.—In this section:

5 (1) COVERED PERFLUOROALKYL OR  
6 POLYFLUOROALKYL SUBSTANCE.—The term “cov-  
7 ered perfluoroalkyl or polyfluoroalkyl substance”  
8 means a non-polymeric perfluoroalkyl or  
9 polyfluoroalkyl substance that contains at least 2 se-  
10 quential fully fluorinated carbon atoms, excluding  
11 gases and volatile liquids, that is a hazardous sub-  
12 stance (as defined in section 101 of the Comprehen-  
13 sive Environmental Response, Compensation, and  
14 Liability Act of 1980 (42 U.S.C. 9601)).

15 (2) INDIAN TRIBE.—The term “Indian Tribe”  
16 has the meaning given the term in section 4 of the  
17 Indian Self-Determination and Education Assistance  
18 Act (25 U.S.C. 5304).

19 (3) PROTECTED ENTITY.—The term “protected  
20 entity” means—

21 (A) a public water system (as defined in  
22 section 1401 of the Safe Drinking Water Act  
23 (42 U.S.C. 300f));

24 (B) a publicly or privately owned or oper-  
25 ated treatment works (as defined in section 212



1 of the Federal Water Pollution Control Act (33  
2 U.S.C. 1292));

3 (C) a municipality to which a permit under  
4 section 402 of the Federal Water Pollution  
5 Control Act (33 U.S.C. 1342) is issued for  
6 stormwater discharges;

7 (D) a political subdivision of a State or a  
8 special district of a State acting as a wholesale  
9 water agency; and

10 (E) a contractor performing the manage-  
11 ment or disposal activities described in sub-  
12 section (c) for an entity described in any of sub-  
13 paragraphs (A) through (D).

14 (b) EXEMPTION.—Subject to subsection (c), no per-  
15 son (including the United States, any State, or an Indian  
16 Tribe) may recover costs or damages from a protected en-  
17 tity under the Comprehensive Environmental Response,  
18 Compensation, and Liability Act of 1980 (42 U.S.C. 9601  
19 et seq.) for costs arising from a release to the environment  
20 of a covered perfluoroalkyl or polyfluoroalkyl substance.

21 (c) REQUIREMENTS.—Subsection (b) shall only apply  
22 if a protected entity transports, treats, disposes of, or ar-  
23 ranges for the transport, treatment, or disposal of a cov-  
24 ered perfluoroalkyl or polyfluoroalkyl substance—

1 (1) in a manner consistent with all applicable  
2 laws at the time the activity is carried out; and

3 (2) during and following the conveyance or  
4 treatment of water under Federal or State law, in-  
5 cluding through—

6 (A) the management or disposal of bio-  
7 solids consistent with section 405 of the Fed-  
8 eral Water Pollution Control Act (33 U.S.C.  
9 1345);

10 (B) the discharge of effluent in accordance  
11 with a permit issued under section 402 of the  
12 Federal Water Pollution Control Act (33 U.S.C.  
13 1342);

14 (C) the release or disposal of water treat-  
15 ment residuals or any other byproduct of drink-  
16 ing water or wastewater treatment activities,  
17 such as granulated activated carbon, filter  
18 media, and processed waste streams; or

19 (D) the conveyance or storage of water for  
20 the purpose of conserving or reclaiming the  
21 water for water supply.

22 (d) SAVINGS PROVISION.—Nothing in this section  
23 precludes liability for damages or costs associated with the  
24 release of a covered perfluoroalkyl or polyfluoroalkyl sub-  
25 stance by a protected entity if that protected entity acted

- 1 with gross negligence or willful misconduct in the dis-
- 2 charge, disposal, management, conveyance, or storage of
- 3 the covered perfluoroalkyl or polyfluoroalkyl substance.

