



Central Marin Sanitation Agency

COMMISSION REGULAR MEETING AGENDA

Tuesday, July 11, 2017

at the Agency Office

7:00 p.m.

(Closed Session at 6:30 p.m.)

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

1. **6:30 p.m.: Call Meeting to Order/Pledge of Allegiance**
2. **Roll Call**
3. **Open Period for Public Participation**
Open time for public expression, up to two minutes per speaker, on items within CMSA's jurisdiction and not on the Board of Commissioners' agenda. The Board will not discuss or take action during open time.
4. **Adjourn to Closed Session**
CONFERENCE WITH LABOR NEGOTIATOR
California Government Code Section 54957.6
Agency Negotiator: Austris Rungis, Labor Relations Consultant (I.E.D.A.),
Jason Dow, General Manager
Employee Organization: SEIU Local 1021; and Unrepresented Employees
5. **7:00 p.m.: Reconvene in Open Session**
Report on any action taken in closed session.
6. **Roll Call**
7. **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.



8. Consent Calendar

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

- a) Minutes—Regular Board Meeting—June 13, 2017
- b) Treasurer’s Report—Operating Account—June 2017
- c) Schedule of Investments—June 2017
- d) NPDES, Process, and Maintenance Report—June 2017
- e) Performance Metric Reports—June 2017
- f) CASA 2017 Annual Conference
- g) National Association of Clean Water Agencies’ 12-Year Platinum Peak Performance Award
- h) FY 2017 Asset Management Program—Annual Report
- i) Office Furniture Procurement
- j) PG&E Interconnection Design Project Agreement

9. Selection of Commission Officers and Board/Committee Appointments for FY18

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

10. Cancel August Regular Board Meeting

Recommendation: Consider cancelling the August 8th regular Board meeting.

11. Proposed Fiscal Year 2017-18 Agency Business Plan

Recommendation: Approve the FY18 Agency Business Plan, and provide comments and/or direction to the General Manager, as appropriate.

12. 2017 Agency Facilities Master Plan Status Report

Recommendation: Receive the Facilities Master Plan status report, and provide comments and/or direction to the General Manager, as appropriate.

13. North Bay Watershed Association (NBWA) Report*

14. Oral Reports by Commissioners/General Manager*

15. Next Scheduled Meeting

Tuesday, August 8, 2017 at 7:00 p.m. at the Agency office.

Note: if the August meeting is cancelled, the next regular meeting is scheduled for Tuesday, September 12, 2017 at the Agency office.

*Information not furnished with Agenda



Central Marin Sanitation Agency

COMMISSION REGULAR MEETING MINUTES

Tuesday, June 13, 2017

at the Agency Office

Note: The minutes are an official record of the Board meeting.

There are also official audio and video recordings available on the Agency's website at 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 Hartzell called the meeting to order at 6:05 p.m. A quorum was present.

2. Roll Call

Present: Chair Kathy Hartzell; Vice-Chair Diane Furst; Commissioners Maribeth Bushey, Thomas Gaffney, and Michael Boorstein (arrived at 6:10); and Alternate Commissioner Dean DiGiovanni (for Al Boro).

Absent: Secretary Al Boro

Staff present: Jason Dow, General Manager; Austris Rungis, IEDA; Kate Brouillet, Recording Secretary

Public present: None

3. Open Period for Public Participation

There were no comments from the public.

4. Closed Session was convened at 6:08 p.m.

The recording secretary left the meeting.

CONFERENCE WITH LABOR NEGOTIATOR

California Government Code Section 54957.6

Agency Negotiator: Austris Rungis, Labor Relations Consultant (I.E.D.A.)

Jason Dow, General Manager

Employee Organization: SEIU Local 1021; and Unrepresented Employees

5. Open Session was reconvened at 7:30 p.m. 00:00
Chair Hartzell reported that there was no action taken in closed session, and direction was given to staff.

6. Roll Call 00:35

Present: Chair Kathy Hartzell; Vice-Chair Diane Furst; Commissioners Maribeth Bushey, Thomas Gaffney, and Michael Boorstein; Alternate Commissioner Dean DiGiovanni (for Al Boro).

Absent: Secretary Al Boro

Staff present: Jason Dow, General Manager; Austris Rungis, IEDA; Chris Finton, Treatment Plant Manager; Ken Spray, Administrative Services Manager; Kate Brouillet, Recording Secretary

Public present: None

7. Open Period for Public Participation 00:47
There were no comments from the public.

8. Consent Calendar 01:00

- a) Minutes—Regular Board Meeting—May 9, 2017
- b) Treasurer's Report—Operating Account—May 2017
- c) Schedule of Investments—May 2017
- d) NPDES, Process, and Maintenance Report—May 2017
- e) Performance Metric Reports—May 2017
- f) Fiscal Year 2017-18 Schedule of Base Salaries by Agency Job Classifications
- g) Revised Agency Investment Policy
- h) Revised Purchasing Financial Policy

Commissioner Gaffney asked that item #8g, the Revised Agency Investment Policy, be removed for discussion.

Comments from the Public:

There were no comments from the public.

Chair Hartzell asked for a motion on the remaining Consent Calendar items.

ACTION: Commissioner Furst moved to approve Consent Calendar items 8a-f and 8h; second, Commissioner Boorstein.

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

Nays: NONE

Abstentions: NONE

Commissioner Gaffney referenced the table on page 7 of the Investment Policy, and stated that footnote #2 should be reworded to remove the references to ratings, and to indicate that Negotiable Certificates of Deposit, Time Certificates of Deposit, and Passbook Savings Accounts must be FDIC insured. The Board concurred.

Comments from the Public:

There were no comments from the public.

ACTION: Commissioner Gaffney moved to approve Consent Calendar item 8h with the above referenced change; second, Commissioner DiGiovanni.

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

Nays: NONE

Abstentions: NONE

9. Proposed Budget for the Fiscal Year 2017-18

04:09

GM Dow stated that staff presented a draft Proposed Budget for FY 17-18 at the May 9 Board meeting, and no changes or comments were received. He stated the Board directed staff to prepare the final draft Proposed Budget and bring it to the June meeting for review and consideration of adoption.

GM Dow stated that there were a very few minor adjustments made by staff in the operating budget, and said there were approximately ten minor changes in the capital program budget. GM Dow referred to two handouts showing a revision of one of the figures in the Cooperative Agreement Expenses, and an update to the Summary of Expenditures by Departments and Category to show FY 15-16 Audited Actuals and the FY 17-18 Proposed Budget figures.

GM Dow then referred to a third handout, an updated and reformatted 10-year financial forecast spreadsheet. He stated that FY 17-18 is the last year in the current 5-year revenue program, and this fall staff and the Finance Committee will begin development work on the next revenue program for presentation to the Board in early 2018.

The Board discussed the budget and the three handouts, and had some questions regarding the relationship of the proposed budget and the development of the 5-year revenue plan, and succession planning for key staff. GM Dow and Ken Spray, Administrative Services Manager, answered the Board's questions.

Commissioner Gaffney suggested that in the future staff include a prepared date on the 10-Year Financial Forecast.

Comments from the Public:

There were no comments from the public.

ACTION: Commissioner Furst moved to approve and adopt the Proposed Budget for the Fiscal Year 2017-18, with the changes presented in the GM's three handouts: replacement of page 17 of 91 (Summary of Expenditures by Departments and Category), replacement page 50 (Cooperative Agreement Expenses), and the inclusion of the 10-Year Financial Forecast; second, Commissioner Gaffney.

Ayes: BOORSTEIN, BUSHEY, DiGIOVANNI, FURST, GAFFNEY, HARTZELL

Nays: NONE

Abstentions: NONE

DIRECTION: Staff to include a date prepared on the 10-Year Financial Forecast documents going forward.

10. Agency Comments on LAFCO's Draft Central Marin Wastewater Study 19:53

GM Dow stated that the Marin Local Agency Formation Commission (LAFCO) released its Draft Central Marin Wastewater Study (Study) for public review in April 2017, and Agency comments are due by Friday, June 30, 2017. He said that Keene Simonds, LAFCO's Executive Director, attended the May 9 Board meeting, presented the Study findings and recommendations, and answered Board member questions. He stated that the Board asked individual commissioners to submit their comments to staff by the end of May and then for staff to summarize and present them at the June Board meeting for discussion. He stated that JPA member agency comments have not yet been completed. GM Dow said that Board and staff comments on several of the Study's general conclusions and recommendations are included in the annotated report attached to the staff memo, along with staff comments on the revised Agency profile.

The Board briefly discussed the report and the response options, and gave direction to staff.

Comments from the Public:

There were no comments from the public.

DIRECTION: GM Dow to draft a Board and staff comment letter to LAFCO from CMSA; Chair Hartzell stated she would be available to provide assistance.

11. Fiscal Year 2016-17 Strategic Business Plan Year-End Report 25:33

GM Dow stated that in July 2016, the Board adopted the Agency's Fiscal Year 2016-17 Strategic Business Plan (SBP) with Objectives and Actions to achieve a set of goals that align with the Agency's Mission, Vision, and Value Statements. He stated that the Agency Strategic Planning Committee (ASPC) developed implementation schedules to achieve the nineteen Objectives in the SBP. He referred to the staff

memo and report, and noted that the Agency initiated fifty-three of the sixty strategic Actions associated with those Objectives and seven were delayed.

The Board said that the number of Actions that were completed was impressive, and commented favorably on the layout and presentation of the report.

Comments from the Public:

There were no comments from the public.

ACTION: Commissioner Furst moved to accept the Agency's Fiscal Year 2016-17 Strategic Business Plan Year-End Report; second, Commissioner Boorstein.

Ayes: BOORSTEIN, BUSHEY, DiGIOVANNI, FURST, GAFFNEY, HARTZELL

Nays: NONE

Abstentions: NONE

12. Marin County Civil Grand Jury Report – Marin's Retirement Health Care 29:09

Benefits: *The Money Still Isn't There*

GM Dow stated that Marin County's 2016/2017 Civil Grand Jury released a report on May 17, 2017, titled "Marin's Retirement Health Care Benefits: *The Money Still Isn't There*". He said that as with past practice, Chair Hartzell and staff recommend forming an ad hoc Governance Committee to collaborate with staff on the preparation of draft report responses for the full Board's consideration. He said there are nine recommendations that require Agency response, which must be made at a public meeting in accordance with the Brown Act. He stated that the responses are due 90 days after the report's public release date, but the Grand Jury Foreperson approved staff's request to extend the Agency response date to September 30, 2017.

The Board briefly discussed response options, and gave direction to staff.

Comments from the Public:

There were no comments from the public.

DIRECTION: The Board created an Ad Hoc Governance Committee consisting of Commissioners Gaffney, DiGiovanni, and Boorstein to work with staff to draft the Agency's response and bring it back to the full Board at a future meeting.

13. Marin County Civil Grand Jury Report – The Budget Squeeze: 35:36

How will Marin Fund Its Public Employee Pensions

GM Dow stated that Marin County's 2016/2017 Civil Grand Jury released a report on June 5, 2017, titled "The Budget Squeeze: *How will Marin Fund Its Public Employee Pensions.*" He stated that staff can prepare draft responses for the Board's consideration, or, since the Board formed an Ad Hoc Governance Committee to

prepare Agency responses to the Grand Jury's OPEB report, staff and the Committee could prepare draft responses also for this report. He stated that Agency is to respond to recommendations #3, #4 and #8, and must be submitted to the Grand Jury Foreperson and Presiding Judge by September 31, 2017.

The Board briefly discussed the report and the response options and gave direction to staff.

DIRECTION: The Board concurred that the Ad Hoc Governance Committee that was formed to draft a response to the Grand Jury's OPEB report can also respond to this report and bring the draft response back to the full Board at a future meeting.

Chair Hartzell requested that item #14 be moved to the end of the agenda. The Board concurred.

15. North Bay Watershed Association (NBWA) Report 42:18

Commissioner Boorstein stated that the July 7, 2017 NBWA Board meeting is scheduled to be held at CMSA starting at 9:30 a.m.

Commissioner Boorstein stated he attended the June 2, 2017 North Bay Watershed Association Board meeting. He said there was a presentation *Re-Oaking the Valleys* by Robin Grossinger and Erica Spotswood of the San Francisco Estuary Institute which examined the historic role oak trees play and how they can be reintegrated into the developed landscape. He stated there was a second presentation on *Climate Change and the North Bay* by Dr. Andrew Gunther, Ph.D. of the Bay Area Ecosystems Climate Change Consortium, which provided an overview of the science describing global climate change, and discussed some of the potential effects on the North Bay.

16. Oral Reports by Commissioners/General Manager 48:00

GM Dow referred to his handout and reported:

- CMSA is in full compliance with the 9th Circuit Court of Appeals decision that cash in-lieu of medical benefits must be included in the regular rate of pay to calculate an employee's overtime premium pay.
- The JPA managers have prepared a JPA review plan that includes five review groups to be presented at the Ad Hoc Committee meeting scheduled for June 22.
- GM Dow will be on vacation from June 14 to June 23; Chris Finton, Treatment Plant Manager will serve as acting GM.
- An application was prepared and sent to FEMA for expenses related to the Andersen Hillside slide; containment and tree removal expenses will be reimbursed, and future repair work will also likely be reimbursed.
- CMSA received GFOA awards for the FY 16 CAFR and PAFR.

- The State Water Board informed staff that the SRF loan reimbursement date for project costs will be from when the loan application was received (9/15/16).
- The Final Order for the Agency's NPDES permit is scheduled to be presented to the Regional Water Board in October 2017.

14. Resolution of Appreciation for Kathy Hartzell **57:40**

GM Dow stated that Chair Hartzell has been a great Board member, and he has very much enjoyed working with her and has learned a lot.

Chair Hartzell said that it has been a real pleasure working with the CMSA Board over the last ten years, and feels that there were some challenges in the past that have been mitigated, and views the Board an extremely intelligent, passionate, and collaborative public service team that always has the best of interest of CMSA and the member agencies in mind.

The Board members then read aloud the Resolution of Appreciation.

Comments from the Public:

There were no comments from the public.

ACTION: Commissioner Boorstein moved Adopt Resolution #314 – a Resolution of Appreciation for Kathy Hartzell; second, Commissioner DiGiovanni.

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

Nays: NONE

Abstentions: NONE

17. Next Scheduled Meeting **64:18**

Tuesday, July 11, 2017 at 7:00 p.m. at the Agency office.

Chair Hartzell adjourned the meeting at 8:40 p.m.

Respectfully submitted,

Kate Brouillet, Recording Secretary

Diane Furst, Vice-Chair

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

I. Accounts Summary: Bank & Investment Accounts

Summary of Bank & Money Market Accounts

Westamerica Bank - Account Activity shown below	\$ 149,818.11
Local Agency Investment Fund (LAIF) - Refer to Schedule of Investments	14,456,842.67
California Asset Management Program (CAMP) - Refer to Schedule of Investments	360,171.68
Total Bank & Investment Accounts: Ending Balance on June 30, 2017	<u>\$ 14,966,832.46</u>

II. Account Activity for Westamerica Bank

Beginning Balance on June 1, 2017 267,419.43

Cash Receipts (Deposits into Westamerica):

Transfers from LAIF	850,000.00
Connection Fees (Capacity Charges): SRSD - 9 Residential Connections	56,433.30
Permit and Inspection Fees	2,992.70
Revenue from Haulers & RVs	10,542.52
Revenue from Organic Waste Programs	23,581.24
Safety Director Revenue (NSD: FY17 4Q Salary/Benefits)	13,595.86
SD 2 Operations & Maintenance Contract (FY17: Feb, April, May)	103,655.28
SQSP Wastewater Services Contract (FY17: April)	108,237.75
SQSP: Reimburse Automation Direct additional work	956.00
SQ Village Operations & Maintenance Contract (FY17: April)	1,142.88
Misc Revenue: MetLife Dividend, CalCARD Incentive Payment	405.70
Expense Reimbursement from NSD for Sanitary Sewer Overflow Response Training	800.00
Miscellaneous Reimbursements: State Withholding Tax Overpayment	29.97
Void check #14950	1,249.75
Total Cash Receipts	<u>\$ 1,173,622.95</u>

Cash Disbursements (Withdrawals from WestAmerica):

June 2017 Operating account disbursements register (see attached)	\$939,311.88
Regular Payroll paid 06/09/17	136,924.45
Regular Payroll paid 06/23/17	134,158.95
Transfers to EFTPS Federal Payroll Taxes (06/14, 06/28, 06/30)	67,457.47
Merit Pay (4), Final Separation Pay (1)	13,237.19
Bank Fee	134.33
Total Cash Disbursements	<u>\$1,291,224.27</u>
Ending Balance on June 30, 2017	<u>\$ 149,818.11</u>

Prepared by: H Lang
H Lang for Kenneth Spray, Administrative Services Manager

Reviewed by: J Dow
Jason Dow, General Manager

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of June 2017

Check Number	Date	Vendor/Payee	Amount	Description
15270				Last check # from prior month's register
15271	06/02/17	Cal Public Employee Retirement	62,962.34	Medical Insurance, June 2017
15272	06/02/17	Delta Dental Plan of Calif.	7,820.65	Dental Insurance, June 2017
15273	06/02/17	Lincoln Financial Group	2,256.96	Life Insurance, June 2017
15274	06/02/17	Vision Service Plan -(CA)	938.39	Vision Insurance, June 2017
15275	06/02/17	Phillip Frye	225.63	Reimbursement for retiree health benefits by check
15276	06/02/17	James L. Johnson	172.48	Reimbursement for retiree health benefits by check
15277	06/07/17	Atmospheric Analysis	1,290.00	Cogeneration engine gas analysis
15278	06/07/17	Allied Fluid Products Corp	595.66	EPS check valve
15279	06/07/17	Alan Burleigh	440.00	Employee Expense Reimb: Operator Grade V exam
15280	06/07/17	BWS Distributors, Inc.	419.87	Safety supplies: PPE
15281	06/07/17	CWEA TCP	171.00	CWEA membership fee (2 employees)
15282	06/07/17	Jon Farr	134.00	Employee Expense Reimb: CWEA 2017 Annual Conference
15283	06/07/17	HDR Engineering, Inc.	9,405.50	Prof Svcs: San Rafael and Ross Valley Interceptor Condition Assessment, 03/05-04/01/2017
15284	06/07/17	IDEXX Distribution Inc	1,898.76	Lab supplies: Water microbiology
15285	06/07/17	Kaman Industrial Technologies	6,786.93	Replacement expansion joints for grit and process return lines
15286	06/07/17	Ken Grady Co., Inc.	2,805.40	Chlorine analyzer for reclaimed water system
15287	06/07/17	Koffler Electrical Mechanical	1,800.00	Replacement crane & operator service
15288	06/07/17	Monica Oakley	172.50	Prof Svcs: Regulatory consulting, 04/29-05/26/2017
15289	06/07/17	P.G.& E.	59.63	SF Drake facility electricity service, 4/20-5/18/2017
15290	06/07/17	Ricoh USA Inc	259.35	Lab copier lease, 05/09-06/08/2017
15291	06/07/17	Romaine Electric Corp	7,868.93	Spark plugs (64) for cogeneration engine
15292	06/07/17	State Water Resources Ctrl Br	340.00	SWRCB membership fee (1 employee)
15293	06/07/17	Total Waste Systems, Inc.	9,082.49	Biosolids hauling fee, May 2017
15294	06/07/17	Univar USA Inc	4,215.78	Sodium Hypochlorite (2 deliveries)
15295	06/07/17	USP Technologies	5,020.71	Hydrogen Peroxide (1 delivery)
15296	06/07/17	Waters, Jeff	229.50	Employee Expense Reimb: Safety glasses
297-15298	06/14/17	CalPERS	35,099.32	Retirement Pension Contribution: Agency and EPMC, PPE 06/03/2017 (Note C)
15299	06/14/17	California Public Employee	4,479.04	Contribution to Retiree Health Benefits Trust Fund, PPE 06/03/2017 (Note C)
15300	06/14/17	California State Disbursement	314.76	EE Garnishment, PPE 06/03/2017 (Note A)
15301	06/14/17	ICMA Retirement Trust-457	4,858.00	Deferred compensation contributions, PPE 06/03/2017 (Note A)
15302	06/14/17	Navia Benefit Solutions	540.19	Flexible spending account, PPE 06/03/2017
15303	06/14/17	Nationwide Retirement	4,469.30	Deferred compensation contributions, PPE 06/03/2017 (Note A)
15304	06/14/17	Operating Engineers Public & M	1,296.92	MARA contributions, PPE 06/03/2017
15305	06/14/17	SEIU Local 1021	1,106.98	Union dues, PPE 06/03/2017
15306	06/14/17	AireSpring	700.22	Telephone service, May 2017
15307	06/14/17	Aramark Uniform Services	1,588.10	Uniform service, May 2017
15308	06/14/17	AT&T Dataplan	399.22	Wireless service, 06/02-07/01/2017
15309	06/14/17	Carollo Engineers, Inc.	24,621.40	Prof Svcs: 2017 Facilities Master Plan Project, April 2017
15310	06/14/17	Comcast	191.20	Internet service, June 2017
15311	06/14/17	Control Systems West, Inc.	28,237.55	SQVSMD PS Maint: Electrical control panel (Note B)
15312	06/14/17	D&D Lift Inc	2,571.12	Sky track maintenance service
15313	06/14/17	Evoqua Water Tech LLC	9,518.55	Calcium Nitrate (1 delivery)
15314	06/14/17	HDR Engineering, Inc.	1,450.20	Prof Svcs: San Rafael and Ross Valley Interceptor Condition Assessment, 04/02/2017-04/29/2017
15315	06/14/17	IEDA, Inc.	755.00	Labor relations consulting, June 2017
15316	06/14/2017	Heidi Lang	2,464.19	Employee Expense Reimb: GFOA Annual Conference, May 2017
15317	06/14/2017	Marin Sanitary Service	6,377.02	Yardwaste and grit disposal service, May 2017
15318	06/14/2017	Marin Office Supply	395.66	Office supplies, May 2017

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of June 2017

Check Number	Date	Vendor/Payee	Amount	Description
15319	06/14/2017	Modular Space Corporation	626.65	Rental fee for mobile office and storage containers
15320	06/14/2017	Navia Benefit Solutions	50.00	Monthly fee
15321	06/14/2017	Ricoh USA Inc	317.99	Admin copier lease, 05/23-06/22/2017
15322	06/14/2017	Univar USA Inc	12,707.49	Sodium Bisulfide (2 deliveries); Sodium Hypochlorite (2 deliveries)
15323	06/14/2017	Waste Management	6,671.04	Redwood Landfill biosolids reuse fee, May 2017
15324	06/14/2017	CAL-CARD	9,497.85	State of California Purchase Card, April and May 2017
15325	06/16/2017	Airgas USA, LLC	50.24	Nitrogen
15326	06/16/2017	Brandon Tire	1,322.10	Tires for Agency vehicles (5 invoices)
15327	06/16/2017	Katherine Brouillet	125.30	Employee Expense Reimb: Meeting supplies
15328	06/16/2017	Cal Steam	208.32	Maintenance parts & supplies (3 invoices)
15329	06/16/2017	Caltest Analytical Laboratory	3,585.29	Lab analyses (6 invoices)
15330	06/16/2017	City Electric Supply	215.92	Electrical supplies
15331	06/16/2017	Dee Consultants LLC	14,030.00	Prof Svcs: Construction Management Support, May 2017
15332	06/16/2017	FactoryMation	458.80	Maintenance parts & supplies
15333	06/16/2017	Fisher Scientific	1,450.82	Lab supplies (9 invoices)
15334	06/16/2017	Flyers Energy LLC	169.84	Lubricants
15335	06/16/2017	Galco Industrial Electronics	527.77	Maintenance parts & supplies (2 invoices)
15336	06/16/2017	Grainger	3,695.91	Maintenance parts & supplies; site sump hoist (8 invoices)
15337	06/16/2017	Hach Company	6,555.61	Suspended Solids Analyzer for Secondary Effluent (2 invoices); Maintenance parts & supplies (1 invoice)
15338	06/16/2017	Hagel Supply Co.	80.16	Utility supplies
15339	06/16/2017	Interstate All Battery Center	304.06	SD2 PS Maint: Battery for pump station (Note B)
15340	06/16/2017	Jackson's Hardware	2,613.10	Landscaping equipment and utility supplies, May 2017
15341	06/16/2017	JWC Environmental	22,719.96	SQSP PS Maint: Channel grinder (Note B)
15342	06/16/2017	Lystek International LTD	12,228.44	Biosolids beneficial reuse fee, May 2017
15343	06/16/2017	Marin Color Service	64.12	Paint supplies, May 2017
15344	06/16/2017	McMaster-Carr Supply Co.	2,271.37	Maintenance parts & supplies (7 invoices)
15345	06/16/2017	NorthBay Petroleum	5,409.33	Diesel fuel for Agency use
15346	06/16/2017	Pacific EcoRisk	3,785.00	NPDES Permit: Toxicity testing
15347	06/16/2017	Platt	459.87	Maintenance parts & supplies (3 invoices)
15348	06/16/2017	R.F. MacDonald Co.	425.91	Maintenance parts & supplies
15349	06/16/2017	Ryan Herco Flow Solutions	343.09	Lab supplies (3 invoices)
15350	06/16/2017	Rock Steady Juggling	500.00	Public Education Program: Outreach at 1 school (Note B)
15351	06/16/2017	Roy's Sewer Service, Inc.	2,500.00	Organic Waste Receiving Facility cleaning
15352	06/16/2017	Safety-kleen Systems, Inc	1,318.46	Hazardous waste disposal (3 invoices)
15353	06/16/2017	Ahn Ta	1,000.00	Employee expenses eligible for Agency dental reimbursement
15354	06/16/2017	Thomas Fish Company	140.50	Lab supplies
15355	06/16/17	ULINE	457.93	Utility supplies
15356	06/16/17	VWR International	1,347.58	Lab supplies (3 invoices)
15357	06/16/17	Water Components & Bldg. Supp.	128.33	Maintenance parts & supplies (3 invoices)
15358	06/16/17	Woodland Center Auto Supply	174.48	Vehicle supplies
15359	06/16/17	Yokogawa Corp of America	3,164.30	Replacement CCT level transmitter
15360-15369		VOID		
15370	06/22/17	Amazon	97.22	Maintenance parts & supplies
15371	06/22/17	Aquadyne Associates	4,765.63	Duplex pump control panel for gallery sump
15372	06/22/17	AT&T	339.07	Fax and emergency phone service, 06/07-07/06/2017
15373	06/22/17	ChemStation of Northern Cal.	2,967.53	Odor control materials
15374	06/22/17	Five Thousand Forms Inc	917.84	Public Education Program: Promotional items (Note B)
15375	06/22/17	GHD Inc	1,249.75	Replacement for lost check
15376	06/22/17	HDR Engineering, Inc.	5,897.10	Prof Svcs: San Rafael and Ross Valley Interceptor Condition Assessment, 04/30-05/27/2017

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of June 2017

Check Number	Date	Vendor/Payee	Amount	Description
15377	06/22/17	Marin Resource Recovery Center	35.00	Green waste
15378	06/22/17	Marin Municipal Water District	72.45	SF Drake facility water service, 04/08-06/07/2017
15379	06/22/17	Thatcher Company of	4,694.76	Ferric Chloride (1 delivery)
15380	06/22/17	Univar USA Inc	2,155.22	Sodium Hypochlorite (1 delivery)
15381	06/22/17	CalPERS	35,030.42	Retirement Pension Contribution: Agency and EPMC, PPE 06/17/2017 (Note C)
15382	06/22/17	California Public Employee	4,479.04	Contribution to Retiree Health Benefits Trust Fund, PPE 06/17/2017 (Note C)
15383	06/22/17	California State Disbursement	314.76	EE Garnishment, PPE 06/17/2017 (Note A)
15384	06/22/17	ICMA Retirement Trust-457	4,858.00	Deferred compensation contributions, PPE 06/17/2017 (Note A)
15385	06/22/17	Navia Benefit Solutions	540.19	Flexible spending account, PPE 06/17/2017
15386	06/22/17	Nationwide Retirement	4,469.30	Deferred compensation contributions, PPE 06/17/2017 (Note A)
15387	06/22/17	SEIU Local 1021	1,106.98	Union dues, PPE 06/17/17
15388	06/22/17	CASH-PETTY CASH Replenishment	361.73	Petty cash replenishment
15389	06/22/17	CWEA TCP	172.00	CWEA membership fee (1 employee)
15390	06/22/17	Tuomas Groves	1,000.00	Employee expenses eligible for Agency dental reimbursement
15391	06/22/17	IDEXX Distribution Inc	3,983.14	Lab supplies: Microbiology equipment
15392	06/22/17	Rafael Lumber	1,167.81	Maintenance parts & supplies, May 2017
15393	06/22/17	Allied Electronics Inc	163.56	Electrical supplies
15394	06/22/17	Digital River Inc	2,925.00	Maintenance software for data server
15395	06/22/17	Elite Tree Service	21,300.00	Landscaping and tree removal (2 invoices)
15396	06/22/17	FactoryMation	653.00	Maintenance parts & supplies (2 invoices)
15397	06/22/17	Flyers Energy LLC	3,736.54	Gasoline for Agency fuel station
15398	06/22/17	Foster Flow Control	420.77	Maintenance parts & supplies
15399	06/22/17	G3 Engineering, Inc.	21,152.54	Chemical induction mixer replacement
15400	06/22/17	Grainger	3,419.09	Safety & Maintenance parts & supplies (7 invoices)
15401	06/23/17	Hoffmeyer Co. Inc.	8,214.57	Fiberglass material to reinforce existing weirs
15402	06/23/17	Horizon Dist. Inc	542.13	Maintenance parts & supplies (5 invoices)
15403	06/23/17	Jaybird	4,229.88	Odor control recirculation sump module
15404	06/23/17	McMaster-Carr Supply Co.	2,041.47	Maintenance parts & supplies (9 invoices)
15405	06/23/17	Marin Municipal Water District	971.00	Water service, 04/08-06/07/2017 (3 invoices)
15406	06/27/17	P.G.& E.	18,784.45	Electricity service, 05/16-06/14/17
15407	06/27/17	R2 Engineering, Inc	9,938.03	Grinder cartridge replacement
15408	06/27/17	Ricoh USA Inc	259.35	Lab copier lease, 06/09-07/08/2017
15409	06/27/17	Rockwell Solutions	1,941.69	Pump impeller
15410	06/27/17	SPURR	2,605.55	Natural gas, May 2017
15411	06/27/17	Tri-Power Trading Co Inc	1,392.00	Spark plugs for cogeneration engine (16)
15412	06/27/17	ULINE	48.27	Utility supplies
15413	06/27/17	USP Technologies	14,808.41	Hydrogen Peroxide (1 delivery)
15414	06/27/17	U.S. Bank	2,425.00	Series 2015 Revenue Bonds Administration Fee
15415	06/27/17	Wiley Price & Radulovich	265.50	Prof Svcs: Employment Law services, May 2017
15416	06/29/17	Katherine Brouillet	143.96	Employee Expense Reimb: Agency BBQ supplies
15417	06/29/17	Jacob Dellinger	62.57	Employee Expense Reimb: Agency BBQ supplies
15418	06/29/17	Chris Finton	249.28	Employee Expense Reimb: Agency BBQ supplies
15419	06/29/17	Lamotte Co.	170.64	Lab supplies
15420	06/29/17	Ryan Herco Flow Solutions	244.75	Lab supplies
15421	06/29/17	Synagro West, Inc.	2,598.75	Biosolids land application fee, May 2016
15422	06/30/17	City Electric Supply	541.03	SQVSMD PS Maint: Panel & conduit fittings (2 invoices) (Note B)
15423	06/30/17	Cresco	1,446.14	SD2 PS Maint: Back-up generator rental (Note B)
15424	06/30/17	FactoryMation	114.00	Maintenance parts & supplies
15425	06/30/17	Flyers Energy LLC	594.27	Vehicle motor oil
15426	06/30/17	Foster Flow Control	17,640.60	Electric actuator for outfall sump

Central Marin Sanitation Agency
 Operating Account Disbursements Register
 For the Month of June 2017

Check Number	Date	Vendor/Payee	Amount	Description
15427	06/30/17	Grainger	869.84	Maintenance parts & supplies (2 invoices)
15428	06/30/17	Harrington Industrial Plastics	2,710.61	Outfall diffuser repair parts (4 invoices)
15429	06/30/17	Horizon Dist. Inc	170.10	Maintenance parts & supplies (3 invoices)
15430	06/30/17	Kone Inc	126.35	Elevator monthly maintenance, June 2017
15431	06/30/17	McMaster-Carr Supply Co.	54.72	Maintenance parts & supplies
15432	06/30/17	Orchard Business/SYNCB	98.29	Maintenance parts & supplies
15433	06/30/17	Pace Supply Corp.	906.15	Fire protection water shutoff valve
15434	06/30/17	P.G.& E.	77.73	SF Drake facility electricity service, 05/19-06/20/2017
15435	06/30/17	Platt	335.48	SQSVSMD PS Maint: Conduit fittings (Note B)
15436	06/30/17	Stanley Convergent Security	308.00	Fire alarm system testing
15437	06/30/17	Tri-Power Trading Co Inc	1,392.00	Spark plugs for cogeneration engine (16)
15438	06/30/17	ULINE	918.28	Utility supplies (2 invoices)
15439	06/30/17	Univar USA Inc	2,152.97	Sodium Hypochlorite 1 delivery)
15440	06/30/17	Valley Power Systems-North	16,680.34	Cogeneration engine cylinder head rebuild
15441	06/30/17	Water Components & Bldg. Supp.	1,560.42	PAU water line installation parts and materials

Payments by Automatic Clearing House:

6/1/2017	Wells Fargo Bank	5,000.00	Escrow for PG&E Interconnection work
6/2/2017	Payments to 23 retirees	6,517.06	Reimbursement for retiree health benefits
6/9/2017	Buhler Commercial	265,130.85	Solids Handling Building Ventilation Improvements; Progress Payment No. 3
6/10/2017	EDD	12,709.47	State & SDI Taxes, PPE 06/03/2017
6/23/2017	EDD	11,356.53	State & SDI Taxes, PPE 06/17/2017
6/28/2017	EDD	308.63	State & SDI Taxes, PPE 06/28/2017
6/28/2017	Michael Owen Boorstein	200.00	Stipend for 06/13/2017 Board meeting and NBWA meeting
6/28/2017	Maribeth Bushey	100.00	Stipend for 06/13/2017 Board meeting
6/28/2017	Dean DiGiovanni	100.00	Stipend for 06/13/2017 Board meeting
6/28/2017	Diane L. Furst	100.00	Stipend for 06/13/2017 Board meeting
6/28/2017	Thomas E Gaffney	100.00	Stipend for 06/13/2017 Board meeting
6/28/2017	Kathleen Ohlson Hartzell	100.00	Stipend for 06/13/2017 Board meeting

Grand Total 939,311.88

Notes:

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

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

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

Central Marin Sanitation Agency
Schedule of Investments
As of Month Ending June 30, 2017

Description (1)	Book Value (2)	Market Value (3)	Agency Reserve Target for June 30, 2017
I. Investments managed by California Asset Management Program (CAMP)			
<u>Money Market Funds (< 1 year in maturity)</u>			
CAMP Cash Reserve Pool, 0.96%			
b1. Agency Unrestricted Reserve: Operating	\$ 10,171.68	\$ 10,171.68	See LAIF
b2. Agency Unrestricted Reserve: Emergency	\$ 250,000.00	\$ 250,000.00	\$ 250,000
b3. Agency Unrestricted Reserve: Insurance	\$ 100,000.00	\$ 100,000.00	\$ 100,000
Total with CAMP	\$ 360,171.68	\$ 360,171.68	
II. Investments managed by Local Agency Investment Fund (LAIF)			
<u>Money Market Funds (< 1 year in maturity)</u>			
Local Agency Investment Fund (LAIF), 0.55% (estimate)			
a. Current Year Operating	\$ 3,232,708.12	\$ 3,232,708.12	
b1. Agency Unrestricted Reserve: Operating	\$ 2,754,130.32	\$ 2,754,130.32	\$ 2,764,302
c1. Capital Reserves (Restricted)	\$ 992,023.00	\$ 992,023.00	\$ 992,023
c1. Capital Reserves (Restricted-Capacity/Connection Fees)	\$ -	\$ -	
c2. Capital Reserves (Unrestricted)	\$ 7,477,981.23	\$ 7,477,981.23	\$ 6,128,566
Total with LAIF	\$ 14,456,842.67	\$ 14,456,842.67	
TOTAL INVESTMENTS	\$ 14,817,014.35	\$ 14,817,014.35	
<u>Amount designated for Capital Reserves</u>			
1. CAMP	\$ -	\$ -	
2. LAIF	\$ 8,470,004.23	\$ 8,470,004.23	\$ 7,120,589
Total	\$ 8,470,004.23	\$ 8,470,004.23	\$ 7,120,589

COLUMN DEFINITIONS:

- (1) Description - the issuer, type of security and interest rate
- (2) Book Value - The sum of Original Cost and Accumulated Amortization
- (3) Market Value - An estimate of the value at which the principal would be sold from a willing seller to a willing buyer as-of the close of the last business day
Market values are per the fiscal agent's respective monthly statements.

NOTES:

Capacity connection fees collected each fiscal year are the initial source of funding for capital projects. Capital reserve restricted and unrestricted balances reflect amounts remaining after expenditures for CIP to date, including \$252,025.23 in capacity charges collected to date. Beginning balances for both reserves were determined by the FY 16-17 Adopted Budget.

Statement of Compliance

The above portfolio of investments is in compliance with the Agency's investment policy, adopted at the July 22, 2015 Commission meeting, and California G. Section 53600. In addition, the Agency does have the financial ability to meet its cash flow requirements for the next six months.



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager

Approved: Jason Dow, General Manager

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

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

I. NPDES Permit Compliance

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

As reported since March, staff is monitoring the Mercury Watershed Permit's limits for the San Francisco Bay and CMSA's effluent. We will inform the Board if we encounter a compliance issue. Mercury loading to date as noted in this report's Monthly Compliance Summary Table is 0.1239 kg/yr.

II. Influent Flow

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

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

June Monthly Influent Flows	San Rafael (SRSD)	Ross Valley (SD#1)	San Quentin (SQSP)	Corte Madera (SD#2)	CMSA Plant Total
Average Daily (MGD)	3.2 MGD	4.2 MGD	0.33 MGD	0.92 MGD	8.6 MGD
Total for Month (MG)	95.4 MG	125.9 MG	9.9 MG	27.7 MG	258.9 MG
Percent of Flow	36.9 %	48.6 %	3.8 %	10.7 %	100 %

III. Treatment Process

The treatment plant has been completely transitioned to a dry weather mode of operation and shall remain in this mode until the wet season returns. The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1,074 mg/l, a 29.8% decrease in biomass from last month. The decrease in biomass aligned with the process control decision to carry between 1,000 and 1,200 mg/L to manage our biomass and effectively meet our permit limits. Fewer pounds of biomass under aeration can result in reducing the energy demand in the Aeration system.

Graph #3 shows the Total Suspended Solids (TSS), which is a good indicator of the effluent quality. The TSS monthly average in June was 3.8 mg/l, which is 25.3% of our Key Performance Indicator (KPI) of 15 mg/l, and is 12.7% of our permit's monthly average limit of 30 mg/l.

Graph #4 shows the coliform most probable number (MPN), which represents the effectiveness of the disinfection process. One of the fourteen coliform samples collected in June was above our KPI range of 30 MPN, (6/16 = 33 MPN), but well below our daily limit of 10,000 MPN. The higher than normal coliform number on June 16 is attributed to process flow diversion work, to complete repairs to the disinfection dosing system. The total coliform monthly geometric mean for June was 3.0 MPN, well below our permit's monthly limit of 240 MPN.

IV. Maintenance Activities

The cogeneration system produced 94.9% of the Agency's power in June, and Marin Clean Energy (MCE) supplied the balance. The generator, as indicated on Graph #8, was in service and produced green power for the entire month. There was one occasion on June 22 when the cogeneration system was temporarily removed from service to replace a failed spark plug.

In addition to the activities surrounding the cogeneration system, staff was also able to complete scheduled project work and monthly preventative maintenance tasks. Work included replacement of a fire protection water isolation valves, replacement of broken toe-kick boards on the secondary clarifier deck and repairs to a broken disinfection pump; and staff completed a confined space entry to inspect, lube, and adjust isolation gates in the Aeration area.

Attachment

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

June 2017



Aeration Basin Channel Isolation Gate Maintenance and Condition Assessments

Monthly Compliance Summary Table

Central Marin Sanitation Agency

June 2017

Final Effluent Monitoring

Parameter	Frequency	Units	Results	Limit
Carbonaceous BOD Highest Weekly Average	Weekly	mg/L	6.3	Maximum 40
Carbonaceous BOD Monthly Average	Monthly	mg/L	5.8	Maximum 25
Carbonaceous BOD Monthly Removal Rate	Monthly	%	98.3	Minimum 85
Total Suspended Solids Highest Weekly Average	Weekly	mg/L	4.3	Maximum 45
Total Suspended Solids Monthly Average	Monthly	mg/L	3.8	Maximum 30
Total Suspended Solids Monthly Removal Rate	Monthly	%	99.1	Minimum 85
Chlorine Residual Instant Limit	Instant	mg/L	<0.1	Maximum 0.0
Ammonia Monthly Average	Monthly	mg/L	35.8	Maximum 60
Ammonia Maximum Daily	Daily	mg/L	36.0	Maximum 120
pH Lower Limit	Continuous		7.4	Minimum 6
pH Upper Limit	Continuous		7.8	Maximum 9
Bacteriological Analysis				
Total Coliform Monthly Geometric Mean	3 X Week	MPN/100mL	3.0	Maximum 240
Total Coliform Daily Maximum	3 X Week	MPN/100mL	33	Maximum 10,000
Enterococcus Monthly Geometric Mean	Monthly	MPN/100mL	*	Maximum 35
Flow Through Bioassay				
Acute Toxicity 11 Sample 90th Percentile	Monthly	% survival	100	Minimum 70
Acute Toxicity 11 Sample Median	Monthly	% survival	100	Minimum 90
Metals Analysis				
Copper Daily Limit	Monthly	ug/L	3.8	Maximum 85
Copper Monthly Average	Monthly	ug/L	3.8	Maximum 49
Cyanide Daily Limit	Monthly	ug/L	DNQ (2.2)	Maximum 41
Cyanide Monthly Average	Monthly	ug/L	DNQ (2.2)	Maximum 21
Mercury Weekly Average	Weekly	ug/L	0.0030	Maximum 0.072
Mercury Monthly Average	Monthly	ug/L	0.0030	Maximum 0.066
Mercury Monthly Loading	Monthly	kg/mo	0.00263	
Mercury Annual Loading (watershed permit)	Jan-Déc	kg/yr	0.1239	Maximum 0.11
Semi-Annual Analysis				
Dioxin - Total Equivalents (TEQ) Daily Maximum	1/Permit Cycle	ug/L	*	Maximum 2.8E-08
Dioxin - Total Equivalents (TEQ) Monthly Average	1/Permit Cycle	ug/L	*	Maximum 1.4E-08
Polychlorinated Biphenyls (PCBs) Daily Limit	1/Permit Cycle	ug/L	*	Maximum 0.017
Polychlorinated Biphenyls (PCBs) Monthly Limit	1/Permit Cycle	ug/L	*	Maximum 0.012
Quarterly Analysis				
Oil and Grease Daily Limit	Quarterly	mg/L	*	Maximum 20
Oil and Grease Monthly Average	Quarterly	mg/L	*	Maximum 10
Chronic Bioassay Toxicity	every 3 mos	Tuc	*	Maximum 20
Chronic Bioassay Toxicity (3 sample median)	every 3 mos	Tuc	*	Maximum 10
Flow Analysis				
	Daily Max	Hourly Max	5 minute Max	Monthly Average
Effluent Flow ^(a)	9.7	15.4 ^(b)	50.2 ^(b)	7.6
Influent Flow ^(a)	9.0	12.5	20.5	8.6
# Days Blended				0

^(a) Influent & Effluent flow values are currently being reviewed to assess daily variability between values.

* Monitoring Not Required This Month

ND = None Detected

^(b) A process flow diversion for maintenance work contributed to the higher than normal flow information.

DNQ = Detected but Not Quantified

Glossary of Terms
NPDES Permit Compliance Summary Table

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

Executive Summary Process Performance Data

June 2017

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

Primary Clarifier Performance

Expected removal efficiencies as outlined in Metcalf & Eddy Wastewater Engineering Manual

The average Total Suspended Solids (TSS) in:	<u>461</u>	mg/l
Average TSS out:	<u>127</u>	mg/l
Average Percent Removal Achieved:	<u>73.0</u>	%
Average Total Biochemical Oxygen Demand (BOD) in:	<u>335</u>	mg/l
Average BOD out:	<u>168</u>	mg/l
Average Percent Removal Achieved:	<u>49.9</u>	%
Average Plant Influent Flows:	<u>8.6</u>	MGD

Design 50-70% Removal

Design 25-40% Removal

Biotower Performance

Average TSS out:	<u>118</u>	mg/l
Average BOD out:	<u>98</u>	mg/l
Average Percent BOD Removal Achieved:	<u>38.1</u>	%

Design 25-30% Removal

Aeration Tanks/Activated sludge

Dissolved Oxygen set point:	<u>2.0</u>	mg/l
Average MLSS:	<u>1,074</u>	mg/l
Average MCRT:	<u>1.9</u>	Days
Average SVI:	<u>161</u>	

Secondary Clarifiers

Average WAS concentration: 6,584 mg/l

Final Effluent

Average Effluent TSS for the month was:	<u>3.8</u>	mg/l	(Maximum Limit: 30mg/l)
Week #1 weekly average	<u>4.3</u>		(Maximum Limit: 45mg/l)
Week #2 weekly average	<u>4.0</u>		"
Week #3 weekly average	<u>3.4</u>		"
Week #4 weekly average	<u>3.6</u>		"
Monthly average TSS removal efficiency through the plant was:	<u>99.1</u>	%	(Minimum Limit: 85%)

Average Effluent BOD was:	<u>5.8</u>	mg/l	(Maximum Limit: 25mg/l)
Week #1 weekly average	<u>6.3</u>		(Maximum Limit: 40mg/l)
Week #2 weekly average	<u>6.0</u>		"
Week #3 weekly average	<u>6.0</u>		"
Week #4 weekly average	<u>5.0</u>		"
Monthly average BOD removal efficiency through the plant was:	<u>98.3</u>	%	(Minimum Limit: 85%)

Disinfection Dosing Rate:	<u>4.3</u>	mg/l	monthly average
Total Coliform Monthly Geometric Mean:	<u>3.0</u>	MPN	(Maximum 240)
The Daily Maximum Total Coliform Count for the month was:	<u>33</u>	MPN	(Maximum 10,000)
Enterococcus Monthly Geometric Mean:	<u>No samples</u>	MPN	(Maximum 35 MPN)
Effluent pH for the month was:			
Min	<u>7.4</u>		(Min 6.0)
Max	<u>7.8</u>		(Max 9.0)

Digester Treatment

Average Thickened Waste Concentration from the RDT was:	<u>6.7</u>	%	
Average percent of Volatile Solids destroyed was:	<u>64.9</u>	%	
Cubic feet of biogas produced was	<u>8,563,118</u>	(Total)	<u>285,437</u> (Daily Average)
Average temperature of the digester was:	<u>100</u>	degrees Fahrenheit	

Executive Summary Process Performance Data

June 2017

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

Dewatering

Average Centrifuge Feed concentration was:	<u>2.6</u>	%
Average Biosolids concentration was:	<u>27.7</u>	%
Average TSS of the Centrate was:	<u>0.030</u>	%
Solids capture of the Centrifuge was:	<u>98.8</u>	%
Polymer use per Dry ton of biosolids was:	<u>17.7</u>	#/dry ton
Average polymer feed rate per run was:	<u>3.75</u>	gpm
Average concentration of the polymer batches was:	<u>0.328</u>	%
Average sludge feed rate per run was:	<u>57.4</u>	gpm

Comments:

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

Graph #1:

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

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

Graph #2:

Depicts individual collection agency flows.

The Y-axis is in the Dry Weather flow range of 0-12 MGD.

Graph #3:

Depicts the total suspended solids in the effluent.

Our monthly average was 3.8 mg/l vs our KPI of 15 mg/l and permit monthly average limit of 30 mg/l.

Graph #4:

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

The monthly Total Coliform Geometric Mean was 3.0 MPN through June, which is less than our KPI median of 30 MPN and permit limit of 240 MPN. The higher than normal value on June 16 is attributed to process flow diversion work to complete repairs to the disinfection dosing system.

Graph #5:

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

The June effluent BOD average was 6.0 mg/l, well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month.

Graph #6:

Depicts the degree to which the biosolids have been dewatered.

Our biosolids % concentration exceeded our KPI of 25% for 28 days in June. The lower than normal KPI value on June 8 was due to centrifuge performance testing. Centrifuge No. 1 was removed from service for an inspection and annual maintenance, and dewatering operations did not occur on June 24th.

Graph #7:

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

Biogas production in June averaged 285,437 cubic feet per day, which exceeded 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 Marin Clean Energy (MCE) for Agency operations.

The cogeneration system was online for the entire month of June producing 94.9% of the facility's power needs. The cogeneration engine was temporarily removed from service as described in the June staff report and as shown on the graph.

Glossary of Terms Process Performance Data Sheet

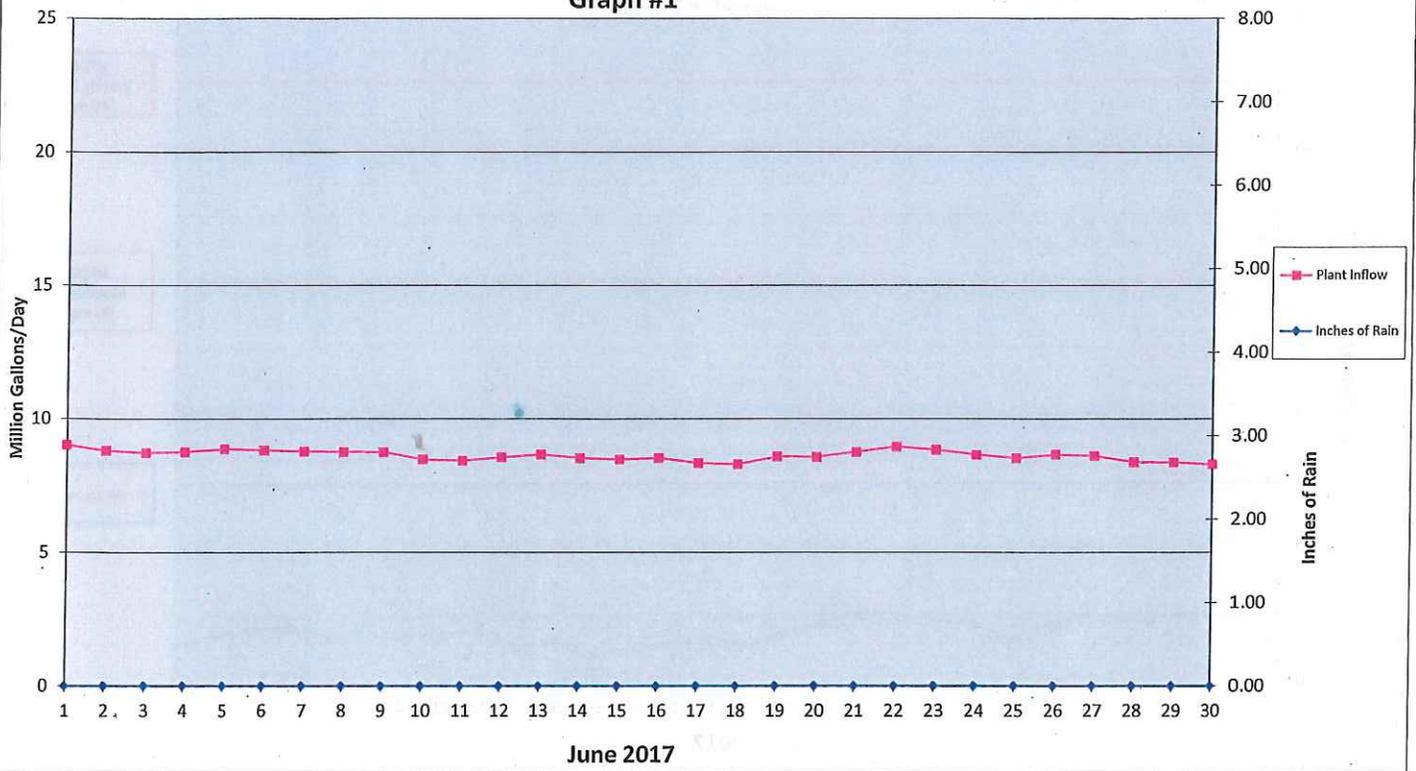
- **Aeration Tanks:** A biological process that takes place after the biotowers, where biomass (microorganisms) is mixed with the wastewater to feed on dissolved and suspended organic material. High speed blowers are used to provide compressed air to mix the tank contents.
- **Anaerobic Digesters:**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

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

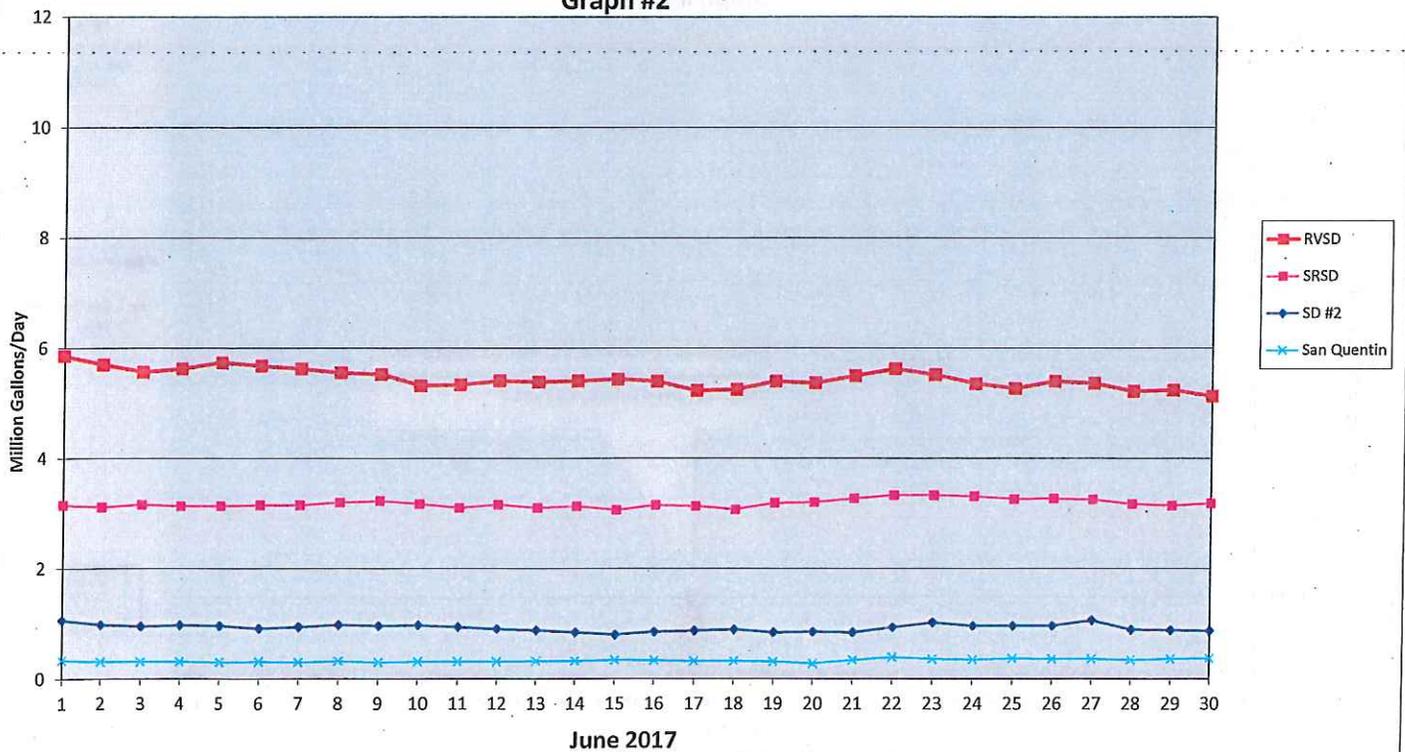
Units of Measurement

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

**CMSA Influent Flow
Graph #1**

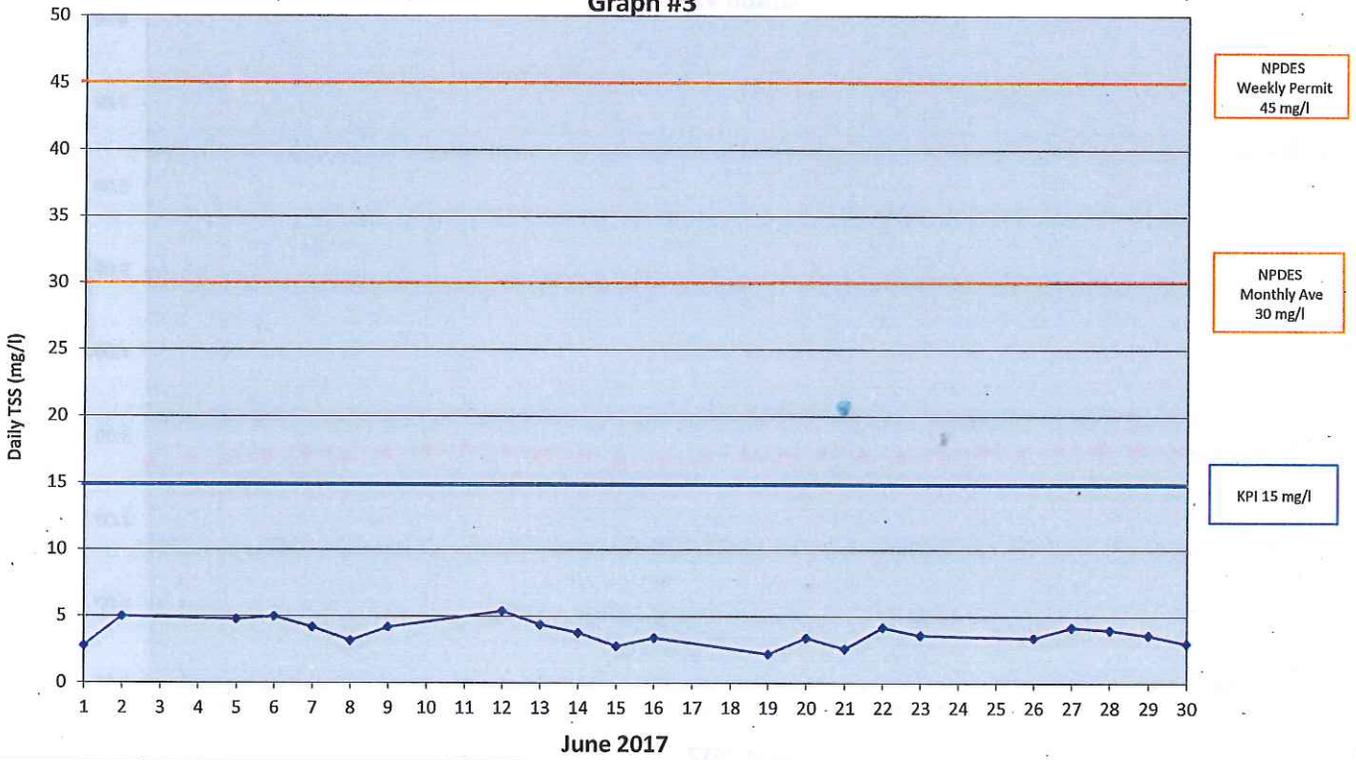


**Collection System Influent Flows
Graph #2**



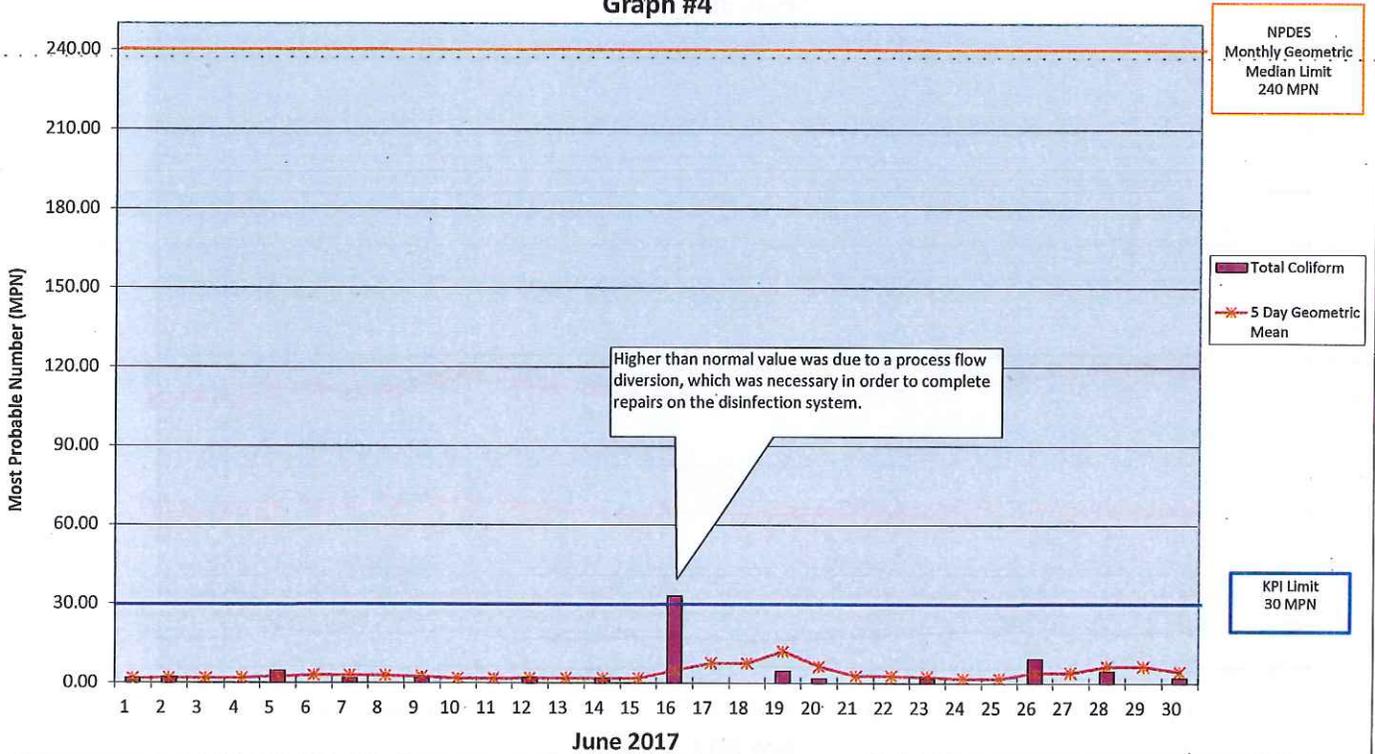
Effluent Total Suspended Solids (TSS)

Graph #3



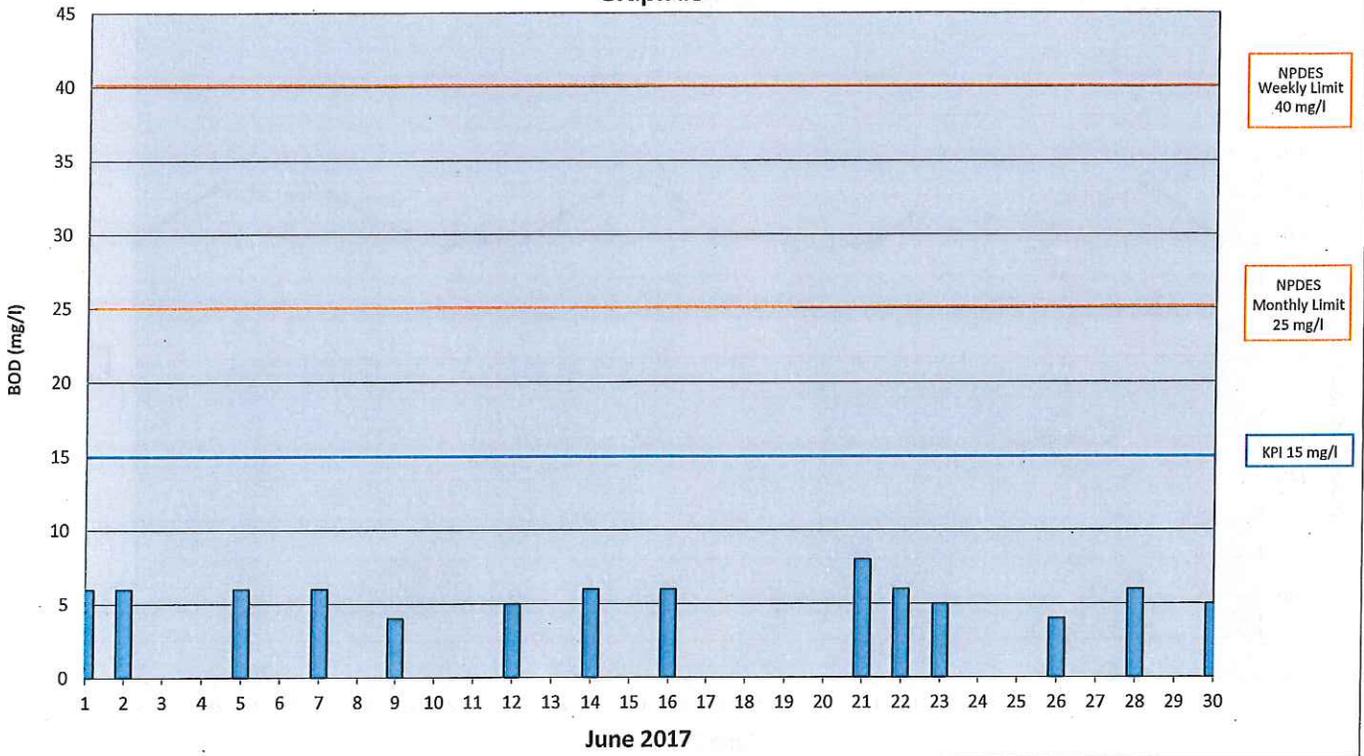
Total Coliform & Monthly Geometric Mean

Graph #4



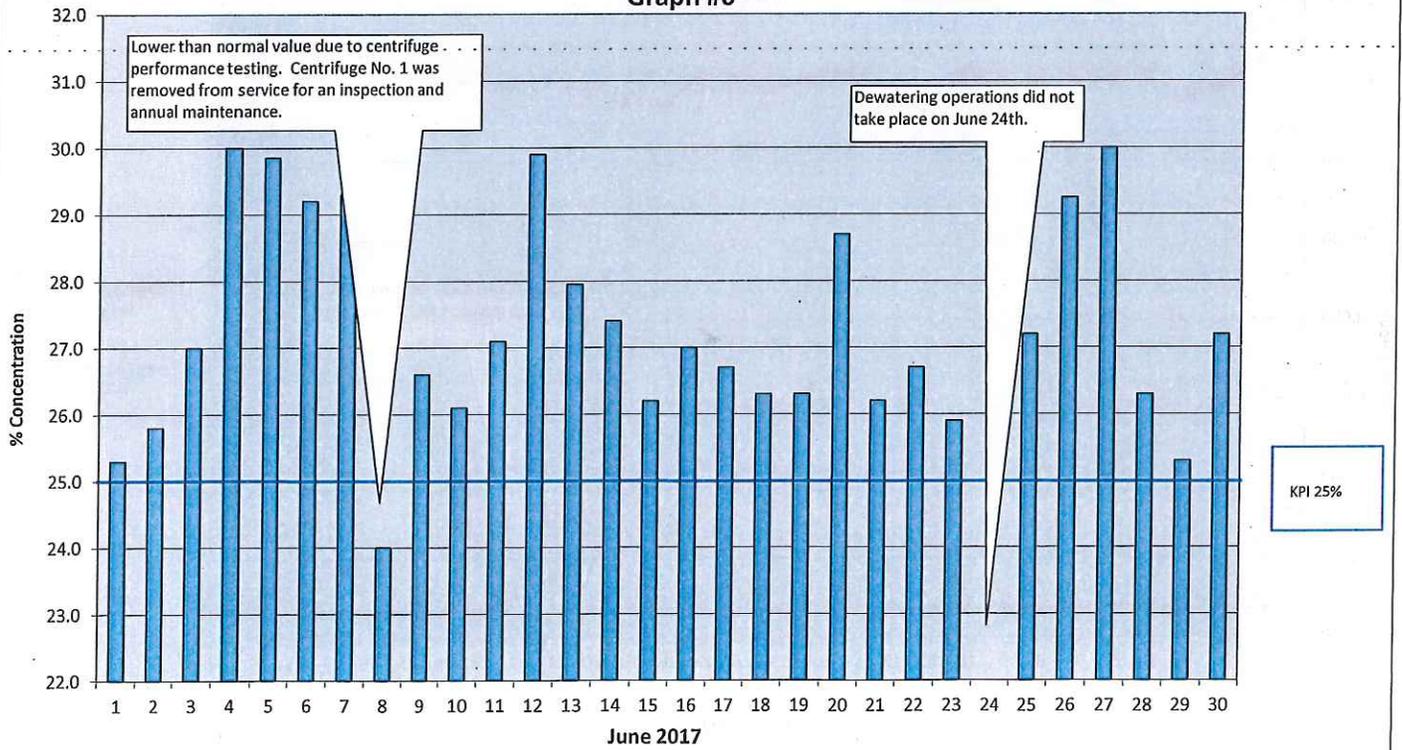
Effluent Biological Oxygen Demand (BOD)

Graph #5

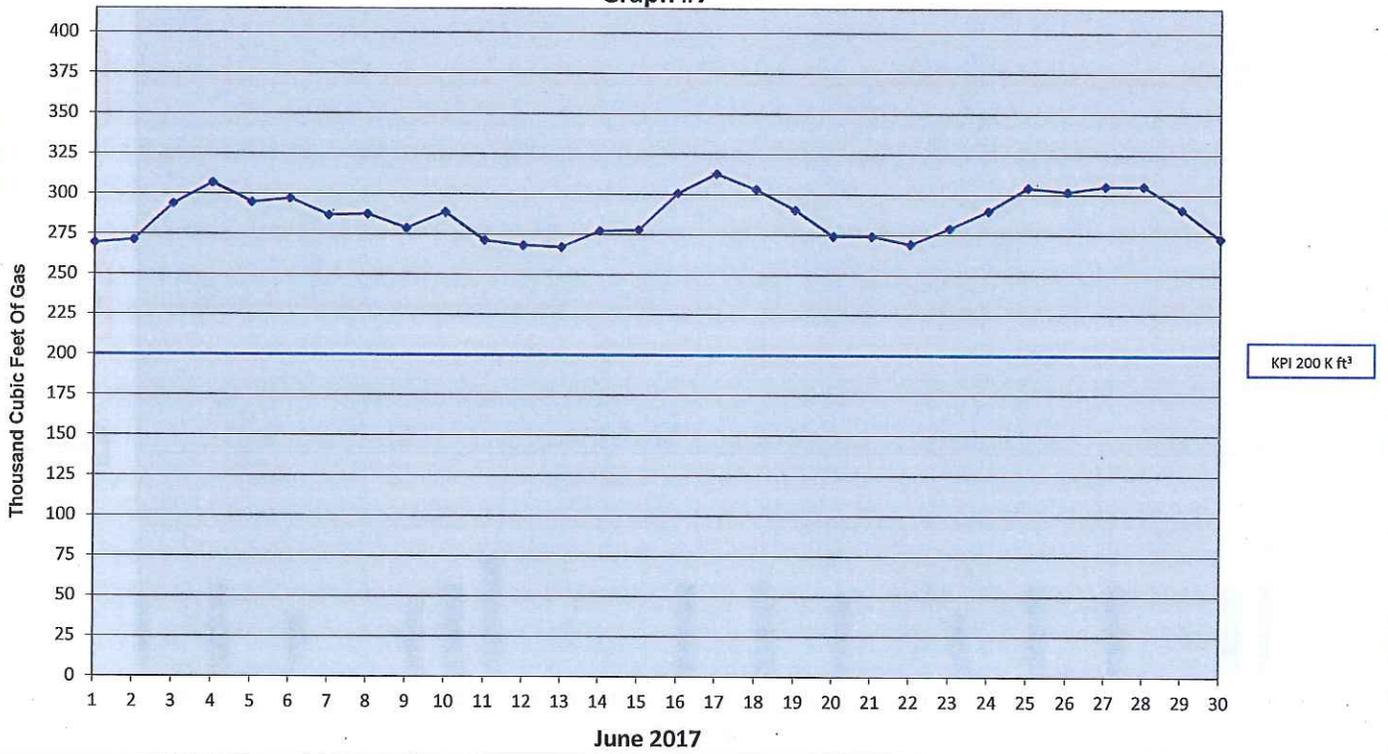


Biosolids Concentration

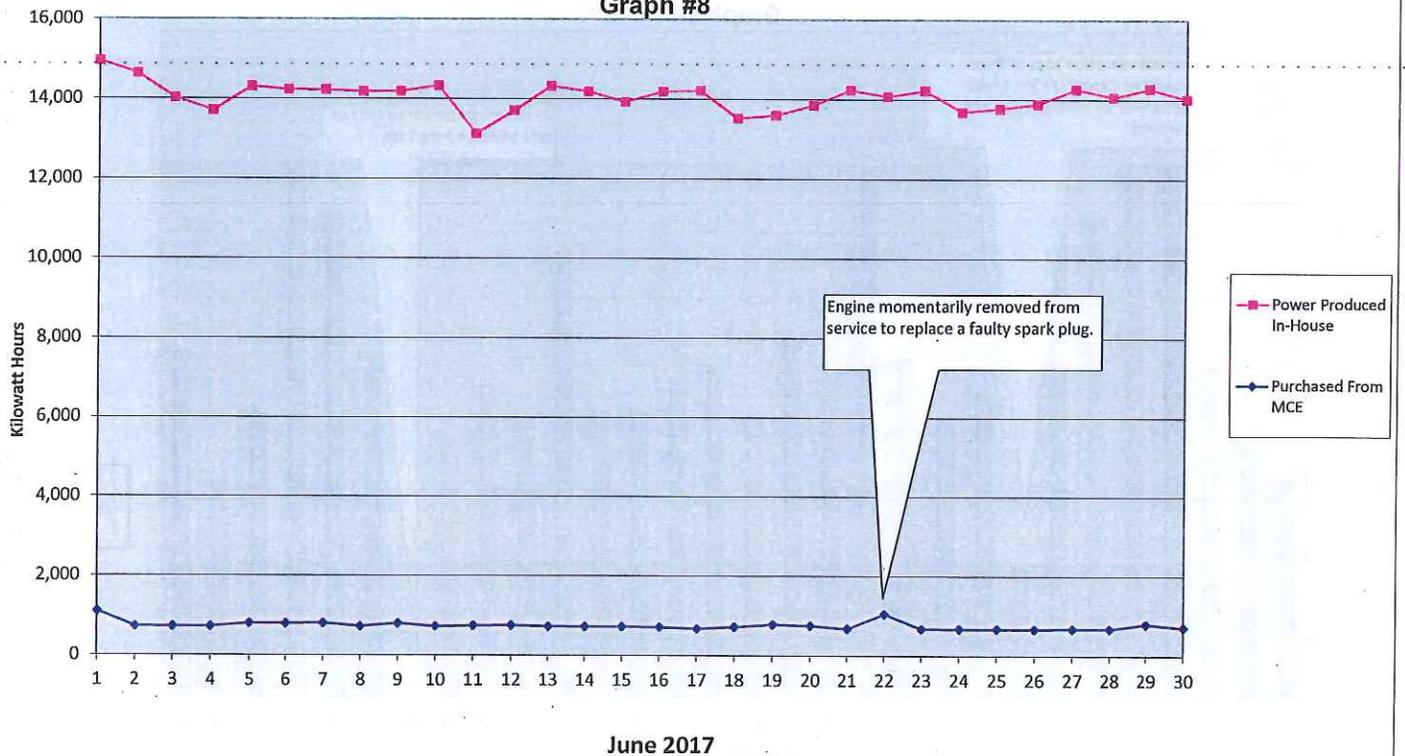
Graph #6



**Biogas Production
Graph #7**



**Kilowatt Hours Purchased vs. Kilowatts Produced
Graph #8**





BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates
From: Jason Dow, General Manager JD
Subject: **Performance Metric Report – June 2017**

Recommendation: Accept the June 2017 Performance Metric report.

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

Table I – Treatment/Process Metrics

Effluent quality continues to be exceptional, process metrics were within normal ranges, and the treatment facility’s processes are in the dry weather operational mode.

Table II – Employee Metrics

Training highlights included operations, maintenance, and technical services staff attending defensive driver training; two staff members attending a multi-day supervisory training course; and select classification specific internal development training for several employees.

Table III - Environmental and Regulatory Compliance Metrics

There weren’t any NPDES permit exceedances in June, and laboratory and pollution prevention activities were performed as scheduled.

Table IV - Public Outreach

There were five odor alerts posted to the Agency website in June, and there were no odor complaints. Alerts were for removing aeration tanks and chlorine contact tanks out of service for preventative maintenance projects. Public education events may include staff attendance at public outreach events, school classroom and/or juggler show presentations, and Agency tours. In June, outreach events are shown below, and there weren’t any classroom events or tours.

June 7 and 8 - Wetland Days at SASM in Mill Valley, 240 booth visitors

June 10 and 11 - Fairfax EcoFest, 230 booth visitors

Attachment:

- June 2017 Performance Metric Report

CMSA CY17 PERFORMANCE METRICS – June 2017

TABLE I - TREATMENT/PROCESS METRICS

Metric	Definition	Measurement	Range/Target/Goal
1) Wastewater Treated	Volume of wastewater influent treated and disposed, in million gallons (Mg)	258.9 Mg	165 – 820 Mg
2) Biosolids Reuse	Alternate Daily Cover (ADC) at the Redwood Landfill, in wet tons (wt) Fertilizer and soil amendment at land application sites, in wet tons (wt) Bio-Fertilizer production at the Lystek facility, in wet tons (wt)	126.8 wt 210 wt 145.5 wt	360 – 665 wt
3) Conventional Pollutant Removal	Removal of the conventional NPDES pollutants - Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) a. tons of TSS removed; % TSS removal b. tons of organics removed (BOD); % BOD removal	501.8 tons; 99.3% 361.3 tons; 98.5%	> 85% > 85%
4) Priority Pollutants Removal	Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper	98.2% 95.2%	88 – 99% 84 – 98%
5) Biogas Production	Biogas generated in our anaerobic digesters, in million cubic feet (Mft ³) Natural gas (methane) equivalent of the biogas, in million cubic feet (Mft ³)	8.56 Mft ³ 5.48 Mft ³	6.0 to 9.5 Mft ³ 3.8 to 6.1 Mft ³
6) Energy Produced	Energy produced from cogeneration of generated biogas and purchased natural gas - in kilowatt hours Cogeneration system runtime on biogas, in hours (hrs.); % time during month Biogas value (natural gas cost equivalent)	422,045 kWh 656 hrs; 91.2% \$25,223	380 to 480,000 kWh 540 hrs.; 75% \$7,000 to \$24,000
7) Efficiency	The cost to operate and maintain the treatment plant per million gallons of wastewater treated, in dollars per million gallons Energy used, kilowatt hours, per million gallons treated	\$1,389/Mg 1,718 kWh/Mg	\$451-\$1,830/Mg (wet - dry) 670 - 2,400 kWh/Mg

Table II – EMPLOYEE METRICS

Metric	Definition	Measurement	Target/Goal
1) Employee Training	Hours of internal training – safety, web-based, project, vendor, etc. Hours of external training – employment law, technical, regulatory, etc.	Internal = 204.5 hrs External = 64 hrs	variable
2) Work Orders	Preventative maintenance (PM) labor hours Planned corrective maintenance (CM) labor hours; % of CM+UCM hrs. Unplanned corrective maintenance (UCM) labor hours; % of CM+PM hrs. Ratio of PM to total corrective maintenance (CM + UCM);	472 hrs 346 hrs (87.7%) 48.5 hrs (9.3%) 1.19	300 – 500 hrs ≥ 70% total CM hrs ≤ 30% total hours ≥ 0.45
3) Overtime Worked	Monthly hours of OT worked; Year to date hours of OT (YTD) % of normal hours worked; % Year to date (YTD)	2.5%; (2.0%)	< 5%

CMSA CY17 PERFORMANCE METRICS – June 2017

Table III - ENVIRONMENTAL AND REGULATORY COMPLIANCE METRICS

Metric	Definition	Measurement	Range/Target/Goal
1) Permit Exceedances	# of NPDES permit exceedances	0	0
2) NPDES Analyses	# samples analyzed by the CMSA laboratory for NPDES compliance monitoring	43	150-250
3) Process Analyses	# samples analyzed by the CMSA laboratory for process control reporting and monitoring	403	400-600
4) Quality Control Testing	# of CMSA performed laboratory analyses for QA/QC purposes Accuracy of QA/QC tests	66 100%	150-300 > 90%
5) Water Quality Sample Analyses	# of ammonia, coliform (total and fecal), enterococcus, and/or sulfide analyses performed for the CMSA member agencies (SSOs, etc.)	8	as-needed
6) Pollution Prevention Inspections	Inspections of industrial and commercial businesses in the Agency's pretreatment and pollution prevention programs and Novato Sanitary District's Mercury Reduction Program – 277 businesses regulated	0	variable
7) FOG Program Inspections	Inspections of food service establishments (FSEs) in the Almonte, TCSD, SD2, RVSD, SRSD, and LGVSD service areas – approx. 500 FSEs are in programs; 310 are regulated – either permitted or have waivers.	42	20 – 50
8) Permits Issued/Renewed	Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge	16	variable

Table IV- PUBLIC OUTREACH

Metric	Definition	Measurement	Target/Goal
1) Public Education Events	Attendance at public education outreach events; # of booth visitors; (YTD)	470; (814)	3,000/year
2) School Events	Participation or sponsorship in school outreach events; attendees; (YTD)	0; (1,033)	variable
3) Agency Tours	Tours given to students and the public; # of people, (YTD)	0; (173)	variable
4) Odor Notifications	Number of odor alerts posted to the Agency website due to process or operational changes	5	1-10
5) Odor Complaints	Number of odor complaints received from the public	0	0



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager 

Subject: **CASA 2017 Annual Conference**

Recommendation: Authorize interested Board members to attend the 2017 CASA Annual Conference in San Diego.

Summary: The 2017 California Association of Sanitation Agencies' (CASA) Annual Conference is being held at the Marriott Marquis during August 22-24, 2017. The conference's preliminary program is attached.

The Board's Reimbursement Policy for Travel/Expenses for Agency Officials (Policy #4) states that commissioners must receive prior Board approval for attendance at conferences, trainings, or meetings that require overnight travel. Staff recommends that the Board consider authorizing its commissioners' attendance at the CASA Annual conference. If approved, commissioners can request per diem advance and travel/expense reimbursement forms from staff. Additionally, staff can assist with making conference and travel reservations.

Attachment:

- CASA 2017 Annual Conference Preliminary Program



62nd ANNUAL CONFERENCE

August 22-24, 2017

Marriott Marquis - San Diego, CA

www.casaweb.org

**Turning Uncertainty
into Opportunity**

Tuesday, August 22, 2017

- 7:00 a.m. - 12:00 p.m. CSRMA Training Seminar & Breakfast
- 9:00 a.m. - 5:00 p.m. Registration
- 10:00 a.m. - 12:00 p.m. CASA Board of Directors Meeting
- 12:00 p.m. - 1:00 p.m. Communications Workgroup Meeting
- 1:00 p.m. - 4:00 p.m. Breakout Session: Track 1 Utility Rates, ADUs and Prop. 218
Carl Nelson, Bold, Polisner, Maddow, Nelson & Judson
Robert Kwong, Arnold LaRoche Mathews VanConas & Zirbel LLC
- 1:00 p.m. - 4:00 p.m. Breakout Session: Track 2 Operational Best Practices
- 1:00 p.m. - 4:00 p.m. Breakout Session: Track 3 Regulatory Hot Topics
- 4:15 p.m. - 5:30 p.m. Federal Legislative Committee Meeting
- 4:15 p.m. - 5:30 p.m. Associates Committee Meeting
- 5:00 p.m. - 6:30 p.m. CSRMA Executive Board Meeting

Wednesday, August 23, 2017

- 7:30 a.m. - 5:00 p.m. Registration
- 7:45 a.m. - 9:00 a.m. Breakfast
- 7:30 a.m. - 9:00 a.m. CSRMA Board of Directors Meeting
- 7:30 a.m. - 9:00 a.m. Utility Leadership Committee Meeting
- 9:00 a.m. - 12:00 p.m. Morning Session
- 9:00 a.m. - 9:30 a.m. Opening Address: Representative Duncan Hunter (invited)
- 9:30 a.m. - 10:00 a.m. Kevin Faulconer, Mayor, San Diego
- 10:00 a.m. - 11:15 a.m. Public Private Partnerships Panel
Hala Titus, CDM Smith, Overview/Moderator
Ben Munoz, Selma Kingsburg Fowler Sanitation District & Ashu Jain, Opterra
Energy, Energy Storage Project
Traci Minamide, City of LA Sanitation, *Digester Gas Utilization Project*

- 11:15 a.m. - 11:45 a.m. Presentation of the CASA Awards of Excellence
- 12:00 p.m. - 1:45 p.m. Conference Luncheon & Business Session
- 2:00 p.m. - 4:30 p.m. Afternoon Session
- 2:00 p.m. - 2:30 p.m. Research Update from the Water Environment and Reuse Foundation
Melissa Meeker, Executive Director
- 2:30 p.m. - 4:00 p.m. Watershed Solutions Panel
Pamela Creedon, Executive Officer, Central Valley Regional Water Board,
CV SALTS
Dave Williams, Bay Area Clean Water Agencies, *Bay Area Nutrients*
Ashli Desai, Larry Walker Associates, *Santa Margarita River*
- 4:30 p.m. - 5:30 p.m. Bay Area Biosolids Coalition Meeting
- 5:30 p.m. - 6:30 p.m. Reception

Thursday, August 24, 2017

- 7:30 a.m. - 11:00 a.m. Registration
- 7:30 a.m. - 9:30 a.m. Breakfast
- 8:00 a.m. - 9:00 a.m. State Legislative Committee Meeting
- 9:15 a.m. - 11:00 p.m. Closing Session
- 9:15 a.m. - 10:00 a.m. State Controller Betty Yee
- 10:00 a.m. - 10:45 a.m. Joaquin Esquivel, Member, State Water Board
- 10:45 a.m. - 11:00 a.m. Passing of the Gavel, announcement of election results
- 11:00 a.m. - 3:00 p.m. Attorneys Committee Meeting
-



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager *JD*

Subject: **National Association of Clean Water Agencies' 12-Year Platinum Peak Performance Award**

Recommendation: Accept the National Association of Clean Water Agencies' 12-Year Platinum Peak Performance Award.

Summary: In calendar year 2016, the Agency did not have any National Pollution Discharge Elimination System (NPDES) permit exceedances and complied with all the final effluent limits and reporting requirements in our NPDES permit. Because of the Agency's exceptional regulatory compliance record since 2005, the National Association of Clean Water Agencies (NACWA) awarded CMSA the 12-year Platinum Peak Performance Award, for eleven consecutive years of 100% permit compliance.

Unfortunately, the February 2017 carbonaceous biological oxygen demand (cBOD) removal rate of 82% resulted in a permit violation, and ends the Agency's exceptional regulatory compliance record. Staff submitted the attached report to the Regional Water Board to explain the violation and what actions the Agency will implement to prevent a similar future violation. For 2017, staff will submit a NACWA Silver Award application.

Background: NACWA recognizes wastewater treatment facility performance and compliance with NPDES permit requirements through their Peak Performance Award program. There are three levels of awards: Platinum, Gold, and Silver. Silver recognizes agencies that have less than five permit exceedances in a year; Gold recognizes agencies that have 100% permit compliance, and Platinum recognizes agencies that have 100% permit compliance for at least five consecutive years.

CMSA was first awarded NACWA's Platinum Peak Performance Award in 2010, for consistently complying with our permit requirements in calendar years 2005 through 2009. At that time, NACWA reported that less than 2% of wastewater agencies in the nation had achieved this significant accomplishment. Fewer agencies continue to maintain 100% permit compliance each subsequent year, primarily due to the challenges with operating a 24/7 wastewater treatment operation and with increasingly stringent permit compliance requirements.

Receiving this award is a noteworthy team effort, in which every Agency employee contributed to its achievement. The Board adopted Employee Award Recognition Policy provides each employee a \$500 monetary award when the Agency receives the Platinum Peak Performance award.

Attachments:

- 1) June 23, 2017 award notification letter from NACWA
- 2) February 2017 cBOD Permit Violation Summary

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Executive Director
Narragansett Bay
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LA Sanitation
Los Angeles, CA

CHIEF EXECUTIVE OFFICER

Adam Krantz

June 23, 2017

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

Dear Jason:

It gives us immense pleasure to inform you that Central Marin Sanitation Agency's *Central Marin Sanitation Agency* has earned a *Platinum Peak Performance Award* for 12 years of 100% compliance. Congratulations on this great accomplishment!

While only first-time *Platinum Peak Performance* winning facilities are recognized individually at our annual Awards Ceremony, we hope that you will be there as we celebrate all our honorees on Tuesday, July 25, 2017 during NACWA's Utility Leadership Conference, *Peer-to-Peer Partnership...Solving Today's Utility Challenges Together*, in St. Louis.

Please pay special attention to the *Essential Information for Award Recipients* (included with this correspondence), as well as the following key deadlines described in detail in the accompanying materials:

July 7, 2017: Deadline to send photos of your team to NACWA for our multi-media presentation showcasing *Platinum Award* honorees

June 30, 2017: Hotel reservation cut-off for special group rate at the Hyatt Regency St. Louis at the Arch

Additional honors that your utility may have been awarded, such as *Gold or Silver Awards*, will be mailed to you following the Utility Leadership Conference.

June 23, 2017
Page 2 of 2

Again, congratulations on a job well done. We look forward to seeing you in St. Louis!

Sincerely,



Edward G. Henifin
Chair, NACWA Awards Committee
General Manager
Hampton Roads Sanitation District, VA



Adam Krantz
NACWA Chief Executive Officer

Enclosures: *Essential Information for Award Recipients*

Attachment 2 - February 2017 (cBOD) NPDES Violation Summary

In February 2017, the percent removal for carbonaceous biochemical oxygen demand (cBOD) was 82% and percent removal for total suspended solids (TSS) was 88%. The lower BOD percent removal was due to increased influent flows rather than facility performance. In particular, the total effluent volume for February 2017 was 899 million gallons whereas the average total effluent volume for the month of February over the last five years was only 282 million gallons. Similarly, the average daily flow for February 2017 of 32.1 MGD can be compared to the average daily flow for February 2016 (an El Niño year) which was only 8.6 MGD. In February 2016 the cBOD percent removal was 98% and TSS percent removal was 98%.

To put the lower cBOD percent removal for February 2017 into further perspective, as of April 26, 2017 a total of 96 inches of rain had fallen for the current water year (as measured at the Marin Municipal Water District's Lake Lagunitas weather station). The rainfall so far this year is about twice the amount of rainfall during the 2016 water year. In addition, the last time a wet season with more rain than the current water year so far (which is not over yet) was the water year ending in the year 1895, or 122 years ago. Even taking into account the extreme nature of the 2017 water year rainfall, CMSA will be increasing the sampling of cBOD and TSS from once per week to three times per week during January and February in future years, to incorporate more data when determining percent removal for these parameters and provide a more representative cBOD removal rate assessment of the CMSA treatment facility.

The agency considered whether it was possible to prevent a cBOD percent removal value lower than 85% in the future. It was deemed impractical to implement capital improvements at the treatment plant to prevent an occurrence associated with a larger than 100-year storm event. However, satellite agencies are taking significant measures to reduce I/I in the tributary collection systems. For example, the Ross Valley Sanitary District has recently engaged in the following activities:

- Using smoke testing, recently discovered and disconnected an 18" abandoned sewer main in San Anselmo and a 21" abandoned sewer main in Ross that was filling with creek water during storm events and carrying the water to nearby sanitary manholes.
- Purchased and using 35 Smart Covers to measure water elevation in manholes to identify areas of high I/I.
- Completed CCTV of the entire gravity sewer system to find structural deficiencies and illegal connections.
- Currently developing a focused smoke testing program to find specific I/I sources using CCTV and Smart Cover information.
- 620 private sewer laterals were replaced during 2016 with partial funding from District lateral program grants.
- A manhole assessment program is in development, and its findings will be used to prioritize manhole repairs to reduce I/I.

The last time CMSA had a violation was December 11, 2004.



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates
From: Kevin Lewis, Assistant Maintenance Supervisor
Approved: Jason Dow, General Manager
Subject: **FY 2017 Asset Management Program – Annual Report**

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

Summary: Provides the Board with periodic reports to highlight the progress made on implementing the Agency's Asset Management Program (Program). Reports are published quarterly in October, January, and the annual report is presented in July.

Annual Highlights

1. Digester Sludge Heat Exchangers – The Agency utilizes waste heat from the cogeneration process to heat the facility's two anaerobic digesters. Process water that has been used to cool the cogeneration engine is reclaimed and pumped through large heat exchangers, transferring the heat to the digested sludge, which keeps the digesters at a set temperature for optimum biomass breakdown and biogas production. One of the two originally installed heat exchangers developed a small pinhole leak allowing the two fluids to intermingle, contaminating the Agency's hot water loop. A thorough inspection of the second exchanger was conducted and it was determined that the unit was still sound but there was noticeable thinning of the walls between the two fluids. The Board authorized the purchase of two direct replacement heat exchangers from the original equipment manufacturer, Alfa Laval Inc. in March of 2016, and Agency technicians installed both new heat exchangers in July of 2016.
2. Primary Influent Channel Isolation Gate Replacement – Maintenance technicians completed a large project to remove and replace six originally installed channel isolation gates in the primary influent channel. Wastewater leaving the headworks enters a series of channels prior to the primary treatment process. These gates control the direction of the flow and distribution of influent into specific primary treatment tanks. A condition assessment was performed on the gates and it was determined that they were in need of replacement. Agency staff developed a replacement plan which allowed for the removal and replacement of these gates without the need to shut

down treatment processes or perform flow diversions. Staff also leveraged this opportunity to refurbish the gate's actuators, which included fabricating new stainless steel mounting plates and installing new access cover deck plating.

3. Building Access Ramps and Stairs – CMSA's buildings and the original treatment facilities are pile supported due to the site's soil composition. Over the past thirty years, the site has seen significant ground settling in non-supported areas (roads, facility access points) and has left access to specific areas unsafe. An in-house project was recently completed where staff designed, fabricated, and installed a series of OSHA compliant adjustable stairs and ramps at locations which eliminated the unsafe access conditions.
4. San Quentin State Prison Influent Channel Grinder - Technicians replaced a failing influent channel grinder at San Quintin State Prison's main pump station with a spare unit from inventory. The channel grinder is part of a two-step process to remove inorganic material and debris from the wastewater prior to reaching the station's discharge pumps. The failed unit was returned to its original equipment manufacturer, JWC, for reconditioning, and Agency staff worked with JWC to deliver a refurbished unit for a critical spare.
5. Organic Waste Receiving Facility (OWRF) Slurry Mixing Pump Replacement – This facility utilizes open faced chopper pumps to break up and mix organic waste materials prior to transport to the anaerobic digesters. Due to the abrasive and acidic nature of these wastes, the mixing pump's internal parts tend to wear at an accelerated rate. Staff installed a new style mixing pump which can better withstand the acidic nature of the mixed organic waste, and replacement parts for these pumps are easier to obtain and less costly than the originally installed pumps. The Agency will analyze the performance of this pump against the original pumps over the next several months. This work was completed in conjunction with the OWRF storage tank relining project.
6. Biotower Feed Pump Rehabilitation Work – The Agency utilizes biotower feed pumps to convey primary effluent up to and across the biotowers, the first stage in the Agency's biological process used to reduce the wastewater's biochemical oxygen demand (BOD). There are four pumps, all originally installed in 1985, that have been in service to varying degrees since then. A condition assessment was performed on these pumps in 2015 and staff identified pump no. 4 as showing early signs of bearing failure. Technicians disassembled the pump, performed a visual inspection, and took accurate measurements of internal wear components to compare with factory specifications. The pump's shaft was sent out to a specialized maintenance facility which used a spray-metal process to restore the shaft to factory specifications. The pump was then reassembled by staff using new bearings, grease seals, and a packing wear sleeve. The refurbished pump was reinstalled on its base and laser aligned to ensure a long bearing service life.
7. Paradise Pump Station Sewage Pump – The Variable Frequency Drive (VFD) motor for dry weather pump no. 2 faulted during a routine station inspection. Agency electricians determined, and the pump's manufacturer representative concurred, that the pump's

low resistance to ground was an indication that the pump's motor winding insulation was bad. The standard repair would be to remove and replace the failed motor, but this was not feasible as the pump and motor are one assembly. To complicate matters, this model of pump was no longer supported by its manufacturer and a new model would be required as the replacement option. It was determined that the best course of action was for staff to use the equipment vendor's replacement pump specifications to design and build piping modifications in the pump station to accommodate the new pump. Once the new pump was received, staff confirmed that the new pump and the modified station piping were correctly aligned. The pump is currently in service and operating.

8. Reclaimed Water Sump Drain Valve – As part of Operation's preventative maintenance, the sump requires draining and flushing on a routine basis. The drain valve is a 6" sluice gate that had been installed during the plant's construction and had ceased to operate due to age and severe corrosion. Staff performed several confined space entries into the sump to verify measurements and mounting details, remove the gate, and install a new stainless steel gate with actuator, stem, and guide brackets. The new valve allows Operations to easily drain and flush the sump to clean out any contaminants that may accumulate during operation of the plant's pumps.
9. Sample Sinks – The Agency utilizes sink/cabinet stations around the facility to perform sampling for process monitoring. The Agency has embarked on a multi-year program to systematically replace the rusted and deteriorating cabinets as well as the sinks and counter tops at these various areas. This past year staff worked with a contractor to install new units at the peroxide sampling and chlorine analyzer sampling stations. The contractor installed the cabinets and Agency staff connected water supply and waste piping to the new units. The new style units have been an excellent upgrade and make staff's job easier to perform.
10. Aeration tanks Gallery "L" – After the installation of the larger aeration tank drain pump, staff began a project to paint every surface in Gallery "L". Utility workers prepped, masked, and taped all of the process piping as well as the other surfaces and equipment to protect them from fugitive paint droplets. Staff used an airless paint applicator to apply multiple coats of industrial paint to enhance and protect the surfaces for years to come. All of the coating was applied according to the Agency's color identification schedule.
11. Maintenance Building Modification – Due to the increasing use of computer systems and technology in the maintenance field, the maintenance department had outgrown its office space in the maintenance building. During the project's design phase, staff participated in multiple meetings with the designers to provide input on what would best suit their needs. Prior to construction, staff went to work relocating all of the supplies, tools, machinery, and workspaces to temporary locations throughout the treatment plant. Construction on this building is scheduled to be completed by the end of 2017.

12. Cogeneration Engine Major Overhaul – Over this past year, technicians have kept this system running smoothly and reliably. Their hard work resulted in a system uptime of over 97%. Staff completed a total of three 2,000-hour preventive maintenance (PM) procedures this past fiscal year, which involved replacing the oil and oil filters, air filters, spark plugs, and performing valve adjustments as needed.

A manufacturer recommended 24,000-hour preventive maintenance procedure was completed in the third quarter. This work included a complete “In-Frame” overhaul, replacing and inspecting all major components of the engine. Some key parts of the work were installation of: new piston and cylinder liner kits, new connecting rod bearings, 16 rebuilt cylinder heads and gasket kits, two rebuilt turbochargers, and inspection of the engine’s intercooler. The contractor, Valley Power Systems, commented on the outstanding condition of the engine’s internal working parts, which can be directly attributed to the effectiveness of the Agency’s biogas purification systems and preventive maintenance schedules.

Annual engine emissions source testing was performed in May by the Bay Area Air Quality Management District (BAAQMD) source control inspectors. Test results for 2017 indicated that the cogeneration system is running well within regulatory emissions limits for both biogas and natural gas.

Asset Inventory

The Asset Parts Inventory is comprised of critical spare parts for Agency equipment, and consumable items designated for CMSA’s contract collection agencies—Sanitary District #2 (Corte Madera), San Quentin State Prison, and San Quentin Village Sewer Maintenance District. Spare parts for CMSA and San Quentin Village are kept at CMSA site-specific parts rooms, Sanitary District #2 parts and equipment are stored at Paradise pump station, and San Quentin State Prison parts and equipment are stored at the San Quentin pump station.

Staff conducted a comprehensive review of Agency assets tracked within the computerized maintenance management systems (CMMS) asset tree. This quarterly exercise is performed to verify active assets within the system. As Agency managed projects or regularly scheduled maintenance work is completed, both new and old assets must be accounted for in an asset inventory count. Along with entering new and removing obsolete assets from the asset tree, staff removed improperly grouped or classified assets, and removed additional non-critical assets valued under \$2,500, the Agency’s established tracking limit for assets within the CMMS system. In all, a total of 211 items were entered, reclassified, or removed from the CMMS asset tree this past year.

Asset Locations	Total Assets
CMSA	2,342
Sanitary District #2	241
San Quentin Prison	27
San Quentin Village	4

Parts Inventory	Parts Quantity	Total Value
CMSA	21,565	\$1,746,843
Sanitary District #2	1446	\$112,383
San Quentin Prison	23	\$66,717
San Quentin Village	2	\$1,124

Asset Improvements, Repairs, and Refurbishment Work – Fiscal Year 2017

1) CMSA Capital Improvement Project Work

Projects in the table below are capital projects that were completed or were in progress over the past year. CMSA staff performed work alongside contractors to complete these projects.

Project Name	CMSA Staff Cost	Total Cost	Status
Maintenance Building Modifications	\$29,260	\$365,138	In Progress
Primary Channel Isolation Gates	\$30,997	\$58,727	Complete
Primary Influent Gates	\$1,200	\$206,852	Complete
Primary Sludge Pump No. 5	\$1,151	\$9,846	Complete
Access Ramp Modifications	\$28,147	\$33,009	Complete
Biotower Pump No. 4	\$8,956	\$12,482	Complete
Aeration System - Tank Drain and Valve Replacement	\$4,750	\$10,411	Complete
Paint Interior of Galley L	\$9,002	\$11,310	Complete
Digester Sludge Heat Exchangers	\$9,395	\$101,105	Complete
Centrifuge No. 1 Feed Pump	\$943	\$11,179	Complete
Plant-site Peroxide Pump Replacement	\$2,523	\$7,541	Complete
OWRF Slurry Mixing Pump No. 1 Replacement	\$3,017	\$13,842	Complete
OWRF Sump Relining Project	\$11,500	\$99,518	Complete
Cogeneration "In-Frame" Overhaul	\$9,373	\$117,995	Complete
Reclaimed Water Sump Drain Valve	\$6,211	\$15,382	Complete
Chlorine Contact Tanks 3W supply valves	\$5,450	\$13,346	Complete
Recycled Water Fill Station	\$1,534	\$4,016	Complete
Sample Sinks	\$1,975	\$11,954	Complete

2) CMSA Asset Management Improvements

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

Area	Equipment	Improvement	Total Cost	Comments
Gallery System: Gallery B Gallery B/C Final Eff. Vault Aeration Area	Sump Pumps	Upgraded controls	\$16,929	Modified piping, added hard floats, and programmed sump control panels.
Gallery System Gallery E	Ventilation Fan	Installed high volume fan	\$4,490	Higher capacity exhaust fan eliminates NFPA 820 restrictions.
Gallery System Gallery C	Irrigation Water Supply	Dedicated low-dose chlorinated water supply	\$7,993	Piping modifications to supply header, and added a flowmeter.
Gallery System Gallery C	Plant Water Supply Line	Flow meter replacement	\$5,717	Replaced failed flowmeter with totalizing Badger meter.
Headworks	Grit Classifiers	Annual preventive maintenance	\$13,260	Replaced cables, augers, and wear parts as needed. Rebuilt auger gearbox on classifier No. 4.
Headworks	Influent Screens	Annual preventive maintenance	\$6,554	Screen inspections, changed lubricants, and replaced missing retaining clips.
Primary Clarifiers	All Process Tanks	Annual preventive maintenance	\$6,324	Inspected process equipment and changed lubricants.
Primary Clarifiers	Primary Clarifier No. 1	Scum collector drive shaft	\$4,779	Fabricated and machined new part. Reinstalled repaired scum collector.
Primary Clarifiers	Influent Channel Deck	Non-skid coating	\$2,890	Removed failed coating and applied several coats of two-part epoxy coating with non-slip aggregate.
Aeration	Process Tanks No. 2 and 3	Annual preventative maintenance	\$25,482	Inspected piping, diffusers and membranes, tank structures, and gates. Lubricated and tested gates. Replaced EPDM diffuser socks and clamps.

Area	Equipment	Improvement	Total Cost	Comments
Aeration	All Process Tanks	Installation of safe access gates	\$7,864	Removed sections of railing, welded in posts, and mounted gates with locking mechanisms.
Aeration	Motor Controls and Lighting Panel	Transformer replacement	\$5,716	Installed new dry transformer.
Aeration	Air Flow Control Valves	Replacement valves and actuators	\$40,626	Installed new butterfly valves with actuators and upgraded control communication protocols.
Aeration	Tank Drain System	Replacement valves	\$10,411	Installed new eccentric plug valves, gaskets, and hardware.
Secondary Clarifiers	All Process Tanks	Annual preventative maintenance	\$6,437	Replaced lubricants, wear parts, and inspected drive motors and gear boxes.
Secondary Clarifiers: Return Activated Sludge (RAS) Pump Room	RAS Pump No. 6	Refurbished pump	\$10,289	Reconditioned shaft, and replaced bearings, grease and mechanical seals. Welded up new flanges and reducer spool pieces to replace failed parts.
Solids Handling	Area Network System (PLC)	Installed communication cabling and switches	\$4,091	New cables and network switches connect solids building, digesters, and organic waste receiving facility.
Solids Handling: Thickened Waste (TWAS)	TWAS Pumps No's 1 and 2	Annual preventative maintenance	\$8,004	Replaced lobes, wear plates, housings and lubricants.
Solids Handling	Digester No. 2	Replaced LEL sensor	\$4,137	More robust, less troublesome Methane gas sensor.
Solids Handling	Pipe Vaults	Replaced vault covers	\$8,356	New aluminum tread plate covers.
Solids Handling	Rotary Drum Thickeners	Centralized wash sink for sample collection	\$5,864	Installed lab sample sink. Plumbed in TWAS/WAS/3W lines to sink.
Solids Handling	Digester Recirculation Grinder	Annual preventative maintenance	\$8,909	Installed new grinder cartridge, and cleaned and inspected piping.

Area	Equipment	Improvement	Total Cost	Comments
Solids Handling	Ferric pumps	Centrifuge ferric feed pump	\$4,379	Replaced pump with a PulaFeeder gear pump.
Electrical Switchgear	Access Door	Access door upgrade	\$2,076	Installed Panic push bar for building egress.
Energy Generation	Exhaust Heat Recovery Unit	Installed control valve	\$3,621	New pneumatic control valve.
Energy Generation	Biogas Treatment	Filter media replacement	\$6,379	Replaced activated carbon siloxane filter media in both vessels.
Energy Generation	Cogenerator	2,000 hour maintenance procedure	\$2,159	Replaced oil and air filters, sparkplugs, and lubricants, and performed bore scope.
Organic Waste Receiving Station	Slurry Mixing Pumps	6 Month maintenance procedure	\$36,286	Replaced impellers, cutter nuts, and cutting bar plates. Refreshed lubricants five times.
Organic Waste Receiving Facility	Digester Feed Pump	Installed new hose	\$5,918	Replaced EPDM hose and hose lubricant two times. Replaced pressure switches.
Organic Waste Receiving Facility	Paddle Finisher Feed Pump	Installed new hose	\$9,622	Replaced EPDM hose and hose lubricant four times. Replaced pressure switches.
Disinfection	Metering Pump	Refurbished pump	\$4,228	Replaced diaphragm, check balls, housings, seals, and lubricant.
Dechlorination	Sodium Bisulfite (SBS)	SBS neat solution line improvements	\$3,930	Routed new SBS line from SBS storage room to Gallery C and pressure tested. New plumbing is double contained.
Dechlorination	Sodium Bisulfite (SBS) Spill Vault	Converted to safely accept SBS solution deliveries	\$1,479	Refurbished inspection hatch and jams, installed fill port and tubing, and modified pump discharge line.
Effluent Pump Station	Day Tanks	Installed manual fuel pumps	\$2,908	Pumps to aid in priming during power failures.
Effluent Pump Station	Above Ground Fuel Storage Tank	Weatherproofing	\$1,832	Removed old caulking, sealed cracks, and applied liquid rubber coating.

Area	Equipment	Improvement	Total Cost	Comments
Outfall	72" Sluice Gate	Replaced gate actuator	\$9,735	New unit installed with collar kit for easy removal.

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

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

Asset Owner	Asset	Improvement	Total Cost	Comment
Sanitary District No. 2	Lucky Drive Pump Station	Pump renovations	\$8,707	Installed a new pump, and new impeller on pump No. 1.
Sanitary District No. 2	Paradise Pump Station	Level instrumentation improvements	\$5,918	Installed new more robust and easily serviceable submersible level transmitters.
Sanitary District No. 2	Paradise Pump Station	Pump replacement	\$30,045	Installed new style pump and performed pipe modifications.
Sanitary District No. 2	Lucky Drive Pump Station	Check valve replacement	\$2,694	Installed new check valve and inspected piping.
Sanitary District No. 2	Lakeside Pump Station	Generator repair	\$12,282	Repair of the voltage regulating system.
Sanitary District No. 2	Air Relief Valves (ARV)	Replacement & standardization	\$7,707	Installed 10 new standard ARVs and fittings.
San Quentin Prison	Grinder Cartridge	Replaced in-service cartridge	\$21,926	Installed factory refurbished channel grinder.
San Quentin Prison	Auger Monster Systems	Replaced brushes	\$3,448	Installed new inclined auger brushes.
San Quentin Prison	Building	Exterior lighting upgrades	\$1,503	Replaced two exterior fixtures with LED.
San Quentin Prison	Influent Channel	Unguarded openings covered	\$900	Installed aluminum plate covers to prevent injury.
San Quentin Village	Control Panel	Replace/Upgrade	\$32,000	Installed new control panel, PLC, conduits, and fittings.

Work Orders – Annual Summary FY 2017

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

Work Order Type	# of WO's	% of Total WO's	Labor Hrs.	% of Total Hrs.
Preventative Maintenance (PM)	848	40.04%	4,372.00	12.23%
Corrective-Planned	667	31.49%	5,844.25	19.14%
Corrective-Unplanned	232	10.95%	1,167.25	3.26%
Improvement Project Work	28	1.32%	1,034.25	2.89%
Coating Projects	3	0.14%	239.00	0.67%
Safety	43	2.03%	294.75	0.82%
Professional Development/Staff Meetings	87	4.11%	1,229.25	3.44%
Facilities Administration/Housekeeping	106	5.00%	3,268.75	9.14%
Process Control and Facility Operations	104	4.91%	17,310.00	48.41%
Total	2118	100%	35,759.50	100%



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates
From: Amy Hwang, Assistant Engineer *AH*
Approved: Jason Dow, General Manager *JD*
Subject: Office Furniture Procurement

Recommendation: Authorize the purchase of office furniture for the remodeled maintenance building and CMSA Board room, not-to-exceed \$55,000.

Discussion: Construction of the Maintenance Facilities Modification Project is expected to be complete in September 2017. As part of the Project, the office space in the maintenance building is being renovated to house both maintenance and engineering staff, and will consist of three private offices, an open workstation area, and an upstairs mechanics office. CMSA is responsible to purchase and install the new office furniture, and staff has requested quotes from two vendors, and both vendors provided initial quotes that did not include the installation costs. The vendors are revising their respective quotes but were not able to deliver them before the Board Agenda publication date. Because the vendors require approximately six weeks from the time an order is placed to deliver and install the furniture, an order must be placed in late-July to match to the building construction schedule.

The office furniture plan layout and a 3D rendering of the open workstation area are shown on the following page. The attached initial quote shows costs for the office furniture, and the revised quote will include costs for the installation of the furniture and new chairs for the Agency's Board room, which are expected to increase the total cost up to \$55,000.

Fiscal Impact: The Project's adopted FY 18 Capital Improvement Program (CIP) budget is \$800,000, which includes funds to complete construction, including: construction management services, designer services during construction, a 10% construction contingency, and other expenses for soils testing and office furniture.

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

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

Attachment:

- Initial Furniture Supplier Quote from KI

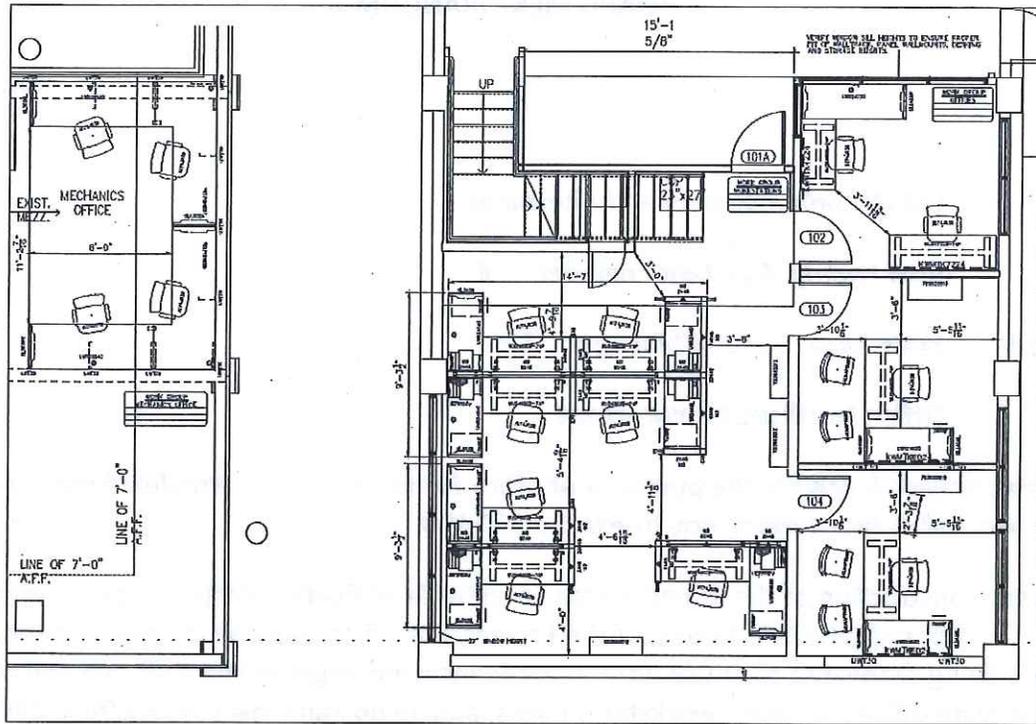


Figure 1: Mechanics office in mezzanine (left) and private offices and open workstation area (right)

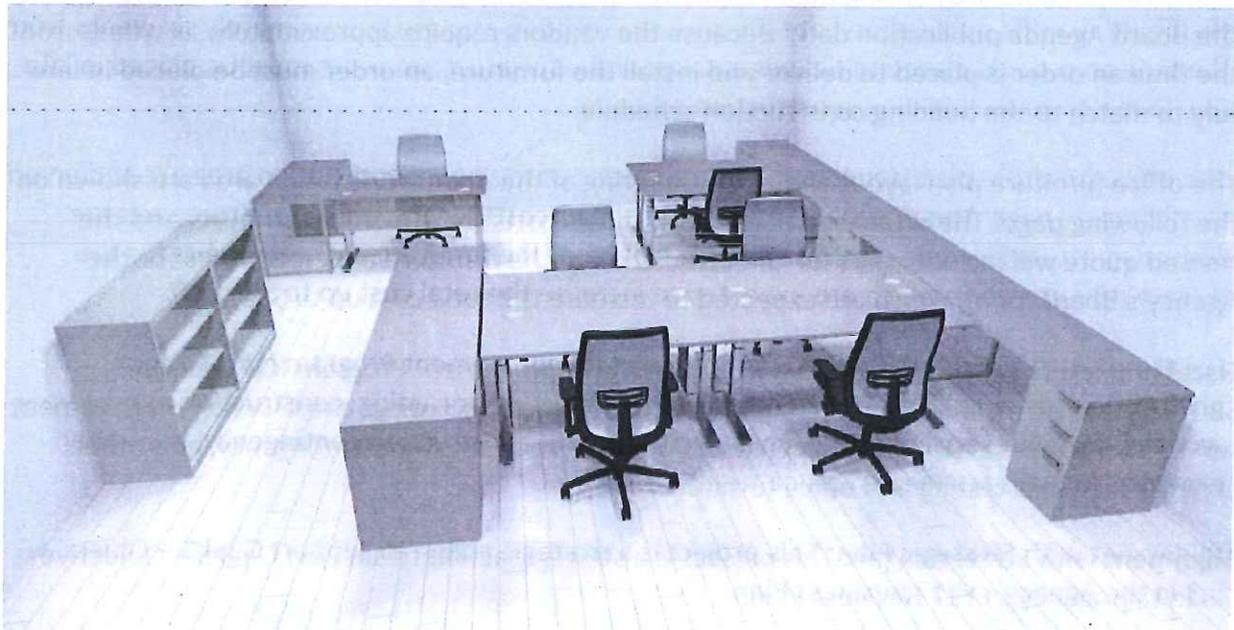


Figure 2: 3D rendering of the open workstation area (not showing tackboards)



QUOTATION: 17CAM-322527/C

Central Marin Sanitation Agency: Maintenance Office Renovation

CREATED 5/30/2017 | REVISED 7/6/2017 | Valid Through 8/28/2017





Central Marin Sanitation Agency: Maintenance Office Renovation

Quote Number: 17CAM-322527/C

CREATED 5/30/2017 | REVISED 7/6/2017 | Valid Through 8/28/2017

KI is pleased to present the enclosed quotation. The following items are included:

- Quote
- Summary
- Itemized Quote
- Detailed PO requirements
- Product Options*

* TBDs exist and must be selected prior to purchase. Please contact a sales team member for assistance with specifications.

PRODUCT TOTALS	\$40,413.92
See Quote Detail Summary	\$0.00
GRAND TOTAL	\$40,413.92

Requested Delivery Date:

To be Determined

Sold To

To be Determined

End User

To be Determined

Ship To

To be Determined

Installation

To be Determined

Sales Team:

Kat Kein
Sales Specialist
kat.kein@ki.com
408.568.7841

Carrie Manos
Inside Sales Specialist
carrie.manos@ki.com
855-853-8646

Client Notes:

Changes in fabrics, finishes, and quantities may affect pricing

Freight included

Installation not included

Please send the PO to Carrie.Manos@ki.com or fax to 920.468.2596





QUOTATION

CREATED 5/30/2017
 VALID THROUGH 8/28/2017
 Prepared By Carrie Manos
 Quote Filename Central Marin Sanitation Agency: Maintenance Office Renovation - 17CAM-322527/C

Product options that must be determined (aka TBDs) exist and must be selected prior to purchase order submittal. These items are noted in the far right column with (?)

Line	Model	Qty.	Sell Price	Extended Total	TBD Options
Tag 1: MECHANICS OFFICE					
1.1	K174/JR39	4	\$438.72	\$1,754.88	(?)
		Impress Ultra Task, Ped Base, Mesh Mid Bk, Adj Arms, Uph St			
		Seat Option	Sliding seat	/SLD	
		Back Panel	Black	-BL	
		Upholstery Grade/Color	Compliance to TB 117-2013	/NFR	
		Impress Upholstery	Fabric Grade 1	GRD1	
		G1 Fabric	>>To Be Determined	TBD<<	
		Base Option	>>To Be Determined	TBD<<	
		Height Option	Standard height (17 3/4"-22 1/4")	-NS	
		Memory Foam	No memory foam	/NF	
		Price Description: Delivered/Open Market			
1.2	UCANTD12.L	2	\$25.92	\$51.84	(?)
		Unite Worksurface Bracket For Worksurface Only, Left			
		Trim Color	>>To Be Determined	TBD<<	
		Price Description: Delivered/Open Market			
1.3	UCANTST.L	6	\$12.96	\$77.76	(?)
		Unite Standard Cantilever Bracket, Left			
		Trim Color	>>To Be Determined	TBD<<	
		Price Description: Delivered/Open Market			
1.4	UCANTST.R	2	\$12.96	\$25.92	(?)
		Unite Standard Cantilever Bracket, Right			
		Trim Color	>>To Be Determined	TBD<<	
		Price Description: Delivered/Open Market			
1.5	UNWT30	11	\$13.44	\$147.84	(?)
		Unite Wall Track 30"H			
		Finish Color	>>To Be Determined	TBD<<	
		Price Description: Delivered/Open Market			
1.6	UPSLC3029	1	\$111.84	\$111.84	(?)
		Unite Support Leg, Panel Mounted, Center, 30x27-3/4"H			
		Orientation	Left	/L	
		Edge Style	74P edge	/74P	
		Trim Color	>>To Be Determined	TBD<<	
		Price Description: Delivered/Open Market			
1.7	UPSLO3026	1	\$96.48	\$96.48	(?)
		Unite Support Leg, Panel Mounted, Open, 30x24-3/4"H			
		Orientation	Right	/R	
		Edge Style	74P edge	/74P	
		Trim Color	>>To Be Determined	TBD<<	
		Price Description: Delivered/Open Market			
1.8	UPSLO3029	1	\$97.44	\$97.44	(?)
		Unite Support Leg, Panel Mounted, Open, 30x27-3/4"H			
		Orientation	Left	/L	
		Edge Style	74P edge	/74P	
		Trim Color	>>To Be Determined	TBD<<	
		Price Description: Delivered/Open Market			



QUOTATION

CREATED 5/30/2017
 VALID THROUGH 8/28/2017
 Prepared By Carrie Manos
 Quote Filename Central Marin Sanitation Agency: Maintenance Office Renovation - 17CAM-322527/C

Product options that must be determined (aka TBDs) exist and must be selected prior to purchase order submittal. These items are notated in the far right column with (?)

Line	Model	Qty.	Sell Price	Extended Total	TBD Options
1.9	USPLPL 	2	\$3.36	\$6.72	
Price Description: Delivered/Open Market					
1.10	UWEC24367224-74P S17164007 	1	\$416.64	\$456.64	?
*Custom-Unite Extended Corner Worksurface,74P Edge,24x36x72x24"W					
Edge Color >>To Be Determined TBD<<					
Grommet Option Grommet : Center /C					
Grommet Color >>To Be Determined TBD<<					
Laminate Color >>To Be Determined TBD<<					
General - Dimensional / size modification Increase depth on entire piece from 24"D *Custom to 30"D and increase long span from 6'(72") to 8'-1"(97")- rounded user corner					
General - Dimensional / size modification One-Time Net Upcharge One Time Charge for Non- Tooling One Time Chg 40.00					
Price Description: Delivered/Open Market					
1.11	UWEC24723624-74P S17164008 	1	\$416.64	\$456.64	?
*Custom-Unite Extended Corner Worksurface,74P Edge,24x72x36x24"W					
Edge Color >>To Be Determined TBD<<					
Grommet Option Grommet : Center /C					
Grommet Color >>To Be Determined TBD<<					
Laminate Color >>To Be Determined TBD<<					
General - Dimensional / size modification Increase depth on entire piece from 24" *Custom to 30" and increase long span from 6'(72") to 8'-1"(97")- rounded user corner					
General - Dimensional / size modification One-Time Net Upcharge One Time Charge for Non- Tooling One Time Chg 40.00					
Price Description: Delivered/Open Market					
1.12	UWR3084-74P 	2	\$196.32	\$392.64	?
Unite Rectangular Worksurface,74P Edge,30x84"W					
Edge Color >>To Be Determined TBD<<					
Grommet Option Grommet : Center /C					
Grommet Color >>To Be Determined TBD<<					
Laminate Color >>To Be Determined TBD<<					
Price Description: Delivered/Open Market					
Tag 1: MECHANICS OFFICE				WorkGroup Product Subtotal	\$3,676.64
Tag 1: OFFICES					
2.1	K174/JR39 	4	\$438.72	\$1,754.88	?
Impress Ultra Task,Ped Base,Mesh Mid Bk,Adj Arms,UpH St					
Seat Option Sliding seat /SLD					
Back Panel Black -BL					
Upholstery Grade/Color Compliance to TB 117-2013 /NFR					
Impress Upholstery Fabric Grade 1 GRD1					
G1 Fabric >>To Be Determined TBD<<					
Base Option >>To Be Determined TBD<<					
Height Option Standard height (17 3/4"-22 1/4") -NS					
Memory Foam No memory foam /NF					
Price Description: Delivered/Open Market					
2.2	O4LNAPSMBC 	4	\$172.32	\$689.28	?
Opt4 4-Leg Armless Chair w/Casters,Poly Seat/Mesh Back					
Opt4 Frame Color >>To Be Determined TBD<<					
Opt4 Poly & Mesh Color Compliance to TB 117-2013 /NFR					
Poly and/or Mesh Colors - NFR >>To Be Determined TBD<<					
Opt4 Casters >>To Be Determined TBD<<					
Price Description: Delivered/Open Market					



QUOTATION

CREATED 5/30/2017
 VALID THROUGH 8/28/2017
 Prepared By Carrie Manos
 Quote Filename Central Marin Sanitation Agency: Maintenance Office Renovation - 17CAM-322527/C

Product options that must be determined (aka TBDs) exist and must be selected prior to purchase order submittal. These items are noted in the far right column with (?)

Line	Model	Description	Qty.	Unit Price	Extended Total	TBD Options
2.3	S7B/3625515	700 Series Files Bookcase-36Wx28Hx15"D-1 Adj Shelf	2	\$264.96	\$529.92	(?)
		Unit Color >>To Be Determined TBD<<				
		Price Description: Delivered/Open Market				
2.4	S7P/1524MBBF	700 Series Files Mobile Ped-Box/Box/File-24" Nominal Depth	2	\$407.04	\$814.08	(?)
		Pull Options >>To Be Determined TBD<< Unit Color >>To Be Determined TBD<< Key Option >>To Be Determined TBD<<				
		Price Description: Delivered/Open Market				
2.5	KWMTK6024	Aristotle Wall-Mount Tackboard,59x3/4Dx24"H	2	\$152.16	\$304.32	(?)
		Fabric Selection VSG1 Fabric Fabric Grade 1 >>To Be Determined GRD1 TBD<<				
		Price Description: Delivered/Open Market				
2.6	KWMTK7224	Aristotle Wall-Mount Tackboard,70x3/4Dx24"H	2	\$162.24	\$324.48	(?)
		Fabric Selection VSG1 Fabric Fabric Grade 1 >>To Be Determined GRD1 TBD<<				
		Price Description: Delivered/Open Market				
2.7	UNWT30	Unite Wall Track 30"H	7	\$13.44	\$94.08	(?)
		Finish Color >>To Be Determined TBD<<				
		Price Description: Delivered/Open Market				
2.8	UPSLO2429	Unite Support Leg,Panel Mounted,Open,24x27-3/4"H	3	\$89.28	\$267.84	(?)
		Orientation Left /L Edge Style 74P edge /74P Trim Color >>To Be Determined TBD<<				
		Price Description: Delivered/Open Market				
2.9	UPSLO2429	Unite Support Leg,Panel Mounted,Open,24x27-3/4"H	3	\$89.28	\$267.84	(?)
		Orientation Right /R Edge Style 74P edge /74P Trim Color >>To Be Determined TBD<<				
		Price Description: Delivered/Open Market				
2.10	UWR2460-74P	Unite Rectangular Worksurface,74P Edge,24x60"W	2	\$156.96	\$313.92	(?)
		Edge Color >>To Be Determined TBD<< Grommet Option Grommet : Center /C Grommet Color >>To Be Determined TBD<< Laminate Color >>To Be Determined TBD<<				
		Price Description: Delivered/Open Market				
2.11	UWR2472-74P	Unite Rectangular Worksurface,74P Edge,24x72"W	1	\$163.68	\$163.68	(?)
		Edge Color >>To Be Determined TBD<< Grommet Option Grommet : Center /C Grommet Color >>To Be Determined TBD<< Laminate Color >>To Be Determined TBD<<				
		Price Description: Delivered/Open Market				



QUOTATION

CREATED 5/30/2017
 VALID THROUGH 8/28/2017
 Prepared By Carrie Manos
 Quote Filename Central Marin Sanitation Agency: Maintenance Office Renovation - 17CAM-322527/C

Product options that must be determined (aka TBDs) exist and must be selected prior to purchase order submittal. These items are notated in the far right column with (?)

Line	Model	Qty.	Sell Price	Extended Total	TBD Options
2.12	UWSES.L 	1	\$13.92	\$13.92	(?)
Unite Worksurface Edge Support w/Lock,Left Trim Color >>To Be Determined TBD<<					
Price Description: Delivered/Open Market					
2.13	WU2448CB-74P 	1	\$1,000.32	\$1,000.32	(?)
Workup Rectangular Table,Counter Balance Base,74P,23-1/2 x 46-1/2",Designed to support 15 to 45 lbs of equipment Edge Color >>To Be Determined TBD<< Rolling Base Option Glides /G Surface Finish >>To Be Determined TBD<< Foot Finish >>To Be Determined TBD<< Frame and Inner Column Finish >>To Be Determined TBD<<					
Price Description: Delivered/Open Market					
2.14	WU2460CB-74P 	2	\$1,031.52	\$2,063.04	(?)
Workup Rectangular Table,Counter Balance Base,74P,23-1/2 x 58-1/2",Designed to support 15 to 45 lbs of equipment Edge Color >>To Be Determined TBD<< Rolling Base Option Glides /G Surface Finish >>To Be Determined TBD<< Foot Finish >>To Be Determined TBD<< Frame and Inner Column Finish >>To Be Determined TBD<<					
Price Description: Delivered/Open Market					
2.15	WU2472CB-74P 	1	\$1,062.24	\$1,062.24	(?)
Workup Rectangular Table,Counter Balance Base,74P,23-1/2 x 70-1/2",Designed to support 15 to 45 lbs of equipment Edge Color >>To Be Determined TBD<< Rolling Base Option Glides /G Surface Finish >>To Be Determined TBD<< Foot Finish >>To Be Determined TBD<< Frame and Inner Column Finish >>To Be Determined TBD<<					
Price Description: Delivered/Open Market					
2.16	CFS05.SL 	4	\$207.36	\$829.44	
Price Description: Delivered/Open Market					
2.17	KOMG.20.M 	4	\$234.72	\$938.88	
Price Description: Delivered/Open Market					
Tag 1: OFFICES				WorkGroup Product Subtotal	\$11,432.16
Tag 1: WORKSTATIONS					
3.1	KI74/JR39 	7	\$438.72	\$3,071.04	(?)
Impress Ultra Task,Ped Base,Mesh Mid Bk,Adj Arms,Uph St Seat Option Sliding seat /SLD Back Panel Black -BL Upholstery Grade/Color Compliance to TB 117-2013 /NFR Impress Upholstery Fabric Grade 1 GRD1 G1 Fabric >>To Be Determined TBD<< Base Option >>To Be Determined TBD<< Height Option Standard height (17 3/4"-22 1/4") -NS Memory Foam No memory foam /NF					
Price Description: Delivered/Open Market					



QUOTATION

CREATED 5/30/2017
 VALID THROUGH 8/28/2017
 Prepared By Carrie Manos
 Quote Filename Central Marin Sanitation Agency: Maintenance Office Renovation - 17CAM-322527/C

Product options that must be determined (aka TBDs) exist and must be selected prior to purchase order submittal. These items are noted in the far right column with (?)

Line	Model	Qty.	Sell Price	Extended Total	TBD Options
3.2	PPDS 	7	\$18.24	\$127.68	?
	Plastic Diagonal Storage Unit				
	Trim Colors	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				
3.3	PPLL 	7	\$18.24	\$127.68	?
	Plastic Paper Tray Unit				
	Trim Colors	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				
3.4	PPVS 	7	\$17.28	\$120.96	?
	Plastic Vertical Storage Unit				
	Trim Colors	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				
3.5	S7B/3663012 	3	\$450.24	\$1,350.72	?
	700 Series Files Bookcase-36Wx66Hx12"D-4 Adj Shelves				
	Unit Color	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				
3.6	S7P/1524MBBF 	7	\$407.04	\$2,849.28	?
	700 Series Files Mobile Ped-Box/Box/File-24" Nominal Depth				
	Pull Options	>>To Be Determined	TBD<<		
	Unit Color	>>To Be Determined	TBD<<		
	Key Option	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				
3.7	U2W9048 	3	\$65.76	\$197.28	?
	Unite 2-Way 90 Deg "L" Corner,48"H				
	Trim Color	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				
3.8	U3W9048 	2	\$68.16	\$136.32	?
	Unite 3-Way 90 Deg "T" Corner,48"H				
	Trim Color	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				
3.9	U4W9048 	1	\$66.24	\$66.24	?
	Unite 4-Way "X" Intersection,48"H				
	Trim Color	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				
3.10	UCANTD12.L 	4	\$25.92	\$103.68	?
	Unite Worksurface Bracket For Worksurface Only,Left				
	Trim Color	>>To Be Determined	TBD<<		
	Price Description: Delivered/Open Market				



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Line	Model	Qty.	Sell Price	Extended Total	TBD Options
3.11	UCANTD12.R  Unite Worksurface Bracket For Worksurface Only,Right Trim Color >>To Be Determined TBD<< Price Description: Delivered/Open Market	5	\$25.92	\$129.60	(?)
3.12	UCANTST.L  Unite Standard Cantilever Bracket,Left Trim Color >>To Be Determined TBD<< Price Description: Delivered/Open Market	2	\$12.96	\$25.92	(?)
3.13	UCANTST.R  Unite Standard Cantilever Bracket,Right Trim Color >>To Be Determined TBD<< Price Description: Delivered/Open Market	2	\$12.96	\$25.92	(?)
3.14	UEOR48  Unite End-Of-Run Condition,48"H Trim Color >>To Be Determined TBD<< Price Description: Delivered/Open Market	7	\$26.40	\$184.80	(?)
3.15	UET6PJNL  Unite Inline Panel Jumper,6 Circuit,12"L Price Description: Delivered/Open Market	3	\$23.04	\$69.12	
3.16	UET6PJNT  Unite Intersection Panel Jumper,6 Circuit,15-1/2"L Price Description: Delivered/Open Market	1	\$25.92	\$25.92	
3.17	UET6RBFU  Unite Base Infeed w/Bezel,Standard Base,6 Circuit Bezel Color >>To Be Determined TBD<< Price Description: Delivered/Open Market	3	\$72.48	\$217.44	(?)
3.18	UET6RRC.1  Unite 15 Amp Duplx Receptacle w/Bezel,Racewy,6 Circuit,Cir 1 Standard Trim Finishes >>To Be Determined TBD<< Price Description: Delivered/Open Market	4	\$13.44	\$53.76	(?)
3.19	UET6RRC.2  Unite 15 Amp Duplx Receptacle w/Bezel,Racewy,6 Circuit,Cir 2 Standard Trim Finishes >>To Be Determined TBD<< Price Description: Delivered/Open Market	3	\$13.44	\$40.32	(?)



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Line	Model	Description	Qty.	Unit Price	Sell Price	Extended Total	TBD Options
3.20	UET6RRC.5I	Unite 15 Amp Duplx Receptacle w/Bezel,Racewy,6 Circuit,Cir 5	3		\$13.44	\$40.32	(?)
		Standard Trim Finishes >>To Be Determined TBD<<					
		Price Description: Delivered/Open Market					
3.21	UET6RRC.6I	Unite 15 Amp Duplx Receptacle w/Bezel,Racewy,6 Circuit,Cir 6	4		\$13.44	\$53.76	(?)
		Standard Trim Finishes >>To Be Determined TBD<<					
		Price Description: Delivered/Open Market					
3.22	UET6WW.24	Unite Rigid Wireway,10-Wire System,6 Circuit,24"W Panel	3		\$45.60	\$136.80	
		Price Description: Delivered/Open Market					
3.23	UET6WW.60	Unite Rigid Wireway,10-Wire System,6 Circuit,60"W Panel	4		\$58.08	\$232.32	
		Price Description: Delivered/Open Market					
3.24	UMFR2448	Unite Mono Fabric Panel,Standard Base Raceway,24Wx48"H	6		\$177.12	\$1,062.72	(?)
		Top Cap Flat trim (std) /F Trim Color >>To Be Determined TBD<< Panel Fabric Side 1 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Panel Fabric Side 2 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Electrical Code Domestic - with cutouts /DP					
		Price Description: Delivered/Open Market					
3.25	UMFR6048	Unite Mono Fabric Panel,Standard Base Raceway,60Wx48"H	3		\$322.56	\$967.68	(?)
		Top Cap Flat trim (std) /F Trim Color >>To Be Determined TBD<< Panel Fabric Side 1 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Panel Fabric Side 2 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Electrical Code Domestic - with cutouts /DP					
		Price Description: Delivered/Open Market					
3.26	UMFT2448	Unite Mono Fabric Panel,Tile-To-Floor,24Wx48"H	5		\$177.12	\$885.60	(?)
		Top Cap Flat trim (std) /F Electrical Code Domestic - with cutouts /DP Trim Color >>To Be Determined TBD<< Panel Fabric Side 1 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Panel Fabric Side 2 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Price Description: Delivered/Open Market					



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Product options that must be determined (aka TBDs) exist and must be selected prior to purchase order submittal. These items are notated in the far right column with (?)

Line	Model	Qty.	Sell Price	Extended Total	TBD Options
3.27	UMFT4848	2	\$273.12	\$546.24	(?)
	 Unite Mono Fabric Panel, Tile-To-Floor, 48Wx48"H Top Cap Flat trim (std) /F Electrical Code Domestic - with cutouts /DP Trim Color >>To Be Determined TBD<< Panel Fabric Side 1 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Panel Fabric Side 2 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Price Description: Delivered/Open Market				
3.28	UMFT6048	1	\$322.56	\$322.56	(?)
	 Unite Mono Fabric Panel, Tile-To-Floor, 60Wx48"H Top Cap Flat trim (std) /F Electrical Code Domestic - with cutouts /DP Trim Color >>To Be Determined TBD<< Panel Fabric Side 1 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Panel Fabric Side 2 Fabric Grade 1 GRD1 VSG1 Fabric >>To Be Determined TBD<< Price Description: Delivered/Open Market				
3.29	UNWM48	2	\$71.04	\$142.08	(?)
	 Unite Adjust Wall Mount, 48" Finish Color >>To Be Determined TBD<< Price Description: Delivered/Open Market				
3.30	UPMTR24	7	\$50.40	\$352.80	(?)
	 Unite On-Module Tool Rail, 24"W Trim Finish >>To Be Determined TBD<< Price Description: Delivered/Open Market				
3.31	UPNLO2429	5	\$87.36	\$436.80	(?)
	 Unite Support Leg, Non-Panel Mounted, Open, Supports 29" Peninsula Worksurface, 24x27-3/4"H Edge Style 74P edge /74P Trim Color >>To Be Determined TBD<< Price Description: Delivered/Open Market				
3.32	UWR2448-74P	1	\$144.00	\$144.00	(?)
	 Unite Rectangular Worksurface, 74P Edge, 24x48"W Edge Color >>To Be Determined TBD<< Grommet Option Grommet : Left /L Grommet Color >>To Be Determined TBD<< Laminate Color >>To Be Determined TBD<< Price Description: Delivered/Open Market				
3.33	UWR2448-74P	1	\$144.00	\$144.00	(?)
	 Unite Rectangular Worksurface, 74P Edge, 24x48"W Edge Color >>To Be Determined TBD<< Grommet Option Grommet : Right /R Grommet Color >>To Be Determined TBD<< Laminate Color >>To Be Determined TBD<< Price Description: Delivered/Open Market				
3.34	UWR2454-74P	4	\$151.68	\$606.72	(?)
	 Unite Rectangular Worksurface, 74P Edge, 24x54"W Edge Color >>To Be Determined TBD<< Grommet Option Grommet : Center /C Grommet Color >>To Be Determined TBD<< Laminate Color >>To Be Determined TBD<< Price Description: Delivered/Open Market				



QUOTATION

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 Quote Filename Central Marin Sanitation Agency: Maintenance Office Renovation - 17CAM-322527/C

Product options that must be determined (aka TBDs) exist and must be selected prior to purchase order submittal. These items are notated in the far right column with (?)

Line	Model	Qty.	Sell Price	Extended Total	TBD Options
3.35	UWR2460-74P 	1	\$156.96	\$156.96	(?)
Unite Rectangular Worksurface,74P Edge,24x60"W Edge Color >>To Be Determined TBD<< Grommet Option Grommet : Center /G Grommet Color >>To Be Determined TBD<< Laminate Color >>To Be Determined TBD<< Price Description: Delivered/Open Market					
3.36	UWSES.L 	3	\$13.92	\$41.76	(?)
Trim Color >>To Be Determined TBD<< Price Description: Delivered/Open Market					
3.37	UWSES.R 	2	\$13.92	\$27.84	(?)
Trim Color >>To Be Determined TBD<< Price Description: Delivered/Open Market					
3.38	WU2460CB-74P 	7	\$1,031.52	\$7,220.64	(?)
Workup Rectangular Table,Counter Balance Base,74P,23-1/2 x 58-1/2",Designed to support 15 to 45 lbs of equipment Edge Color >>To Be Determined TBD<< Rolling Base Option Glides /G Surface Finish >>To Be Determined TBD<< Foot Finish >>To Be Determined TBD<< Frame and Inner Column Finish >>To Be Determined TBD<< Price Description: Delivered/Open Market					
3.39	CFS05.SL 	7	\$207.36	\$1,451.52	
Flat Screen System,12" Post,Dual Screen,Two 10" Arms,Silver Price Description: Delivered/Open Market					
3.40	KOMG.20.M 	6	\$234.72	\$1,408.32	
Keyboard Tray With Mouse Tray Price Description: Delivered/Open Market					
Tag 1: WORKSTATIONS				WorkGroup Product Subtotal	\$25,305.12

Quote Summary

Product SubTotal: \$40,413.92
 Estimated Sales Tax: \$3,637.25
 Quote Total: \$44,051.17

NOTES:

- Images shown above are intended for approximate visual reference only and may not represent the exact models, numbers, descriptions or options selected. Refer to the model number/description/options shown for full product specifications.
- Sales Tax (For Shipment within the United States Only): Estimated sales/use tax will be calculated when order is entered. It is the customer's responsibility to pay any applicable sales/use tax due upon invoicing. A customer will not be charged sales tax if (1) a Resale Certificate, (2) an Exempt Organization Certificate, or (3) a Direct Pay permit is on file with KI's Finance Department. If no certificate is on file, the appropriate sales/use tax rate in effect at shipment will be applied and tax will be added to the customer's invoice.
- This project contains non-standard items which are not returnable and not cancelable. The warranty on non-standard product that alters function is 1 year. The warranty on non-standard product that does not alter function, but only finish (i.e., paint or plastic color, laminate, grommet removal) matches that of the standard product. Modification to U.L. Listed products eliminates the listing. Product will not have U.L. Listing labels unless specifically spelled out on this quote.



Customer represents that the product information contained within this quote is complete and accurate. Changes to quantities and/or options/finishes will affect this quote. If applicable, other charges such as freight, tax, installation and/or delivery fees may be added at time of order.

Sales resulting from purchase orders issued by the customer to KI (Whether related to this quotation or otherwise) are governed and controlled by the Terms and Conditions found at www.KI.com/terms

Prepared by Carrie Manos

"Reference Only"

Market Code: 9=9=State/Local Gov't

Opportunity #: 322527

Quote Filename: Central Marin Sanitation Agency;
Maintenance Office Renovation - 17CAM-322527

Final Considerations:

To ensure your Purchase Order (PO) is processed quickly and efficiently, please adhere to the following requirements:

1. All purchase orders must be issued to KI or KI c/o the dealer with this address:
KI
1330 Bellevue Street
Green Bay, WI 54302
2. The following items must be included on all purchase orders:
 - Sold To/Bill To Information: complete legal name, address, telephone number and fax number
 - Ship To Information: complete legal name, address, contact name, contact phone number
 - Purchase Order Number: a customer-specific identifier, typically a sequential purchase order number or requisition number
 - Issue Date: date the purchase order was issued
 - Sales Tax: applicable sales tax will be added upon KI invoicing. If tax exempt, customer must provide or have the tax exempt certificate on file at KI.
 - Purchase Order Total: total of all items and services included on the purchase order
 - Authorization: signature of authorized purchasing agent or buying entity
 - Order Details: reference a fully optioned KI quote (ex: 11KGGH-85432) or include all the information listed below
 - Quantity of each item
 - Complete model number, including all finish and option information (by line item)
 - Net purchase price (by line item)
 - Extended net purchase price (all line items)
 - Any additional applicable charges (ex: installation and/or delivery charges)
 - Contract name and/or number if pricing is based on a contract reference
3. Signatures on a quote or a worksheet cannot be accepted as a purchase order.
4. In the event that you do not have a formal Purchase Order process, please contact your KI Sales Representative or call 1-800-424-2432; and we will assist you with creating a PO.

We appreciate your cooperation in providing us with all the required information listed above on your Purchase Order. Complete information helps us serve you better. Thank you for your order.

Purchase Orders that do not meet these requirements will be placed on hold until complete information is received by KI. Purchase orders on hold are not released to manufacturing or assigned a delivery date. KI order lead times begin once the order is released to manufacturing.



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates
From: Jason Dow, General Manager JD
Subject: PG&E Interconnection Design Project Agreement

Recommendation: Approve the PG&E Interconnection Design Project Agreement with Carollo Engineers.

Discussion: Pacific Gas and Electric (PG&E) completed the Supplemental Review of its electrical transmission and distribution system in January 2017, and determined that CMSA can deliver power to its local electrical grid with only minor system improvements. At the May 2017 Board meeting, the Board approved a new Interconnection Agreement between CMSA and PG&E that identified the field improvements and modifications to the PG&E electrical system, and authorized \$80,000 of Agency funds for the PG&E system improvements. Staff transferred those funds to an escrow account, and PG&E intends to have the improvements and field testing completed by March 2018.

The Supplement Review also identified requirements for CMSA's electrical and instrumentation systems that need to be made before the Agency can deliver power. Staff has worked with Carollo Engineers to prepare a scope of work for the electrical engineering design services to comply with the Supplemental Review's power delivery requirements. Attached is a Professional Services Agreement with Carollo Engineers for the PG&E Interconnection Agreement Design Project. Carollo's scope and fee may need to be amended if PG&E requires additional improvements that are not included in the Agreement's scope of work, Exhibit A.

Attachment:
- PG&E Interconnection Agreement Design Project Agreement

**CENTRAL MARIN SANITATION AGENCY
PG&E INTERCONNECTION DESIGN PROJECT AGREEMENT
CMSA CONTRACT NO. 18-03**

This Professional Services Agreement (hereinafter "Agreement") is made and entered into this ___ day of July, 2017 by and between the Central Marin Sanitation Agency (hereinafter referred to as "Agency") and Carollo Engineers (hereinafter referred to as "Consultant").

RECITALS:

WHEREAS, the Agency desires to retain Consultant to perform the services (hereinafter referred to as "Services"), which include, but are not limited to designing the necessary improvements to CMSA's cogeneration facility electrical system to allow delivering renewable power to the PG&E local electrical grid; and

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

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

1. CONSULTANT'S SCOPE OF SERVICES:

Consultant shall provide the Services described in **Exhibit "A"** attached hereto and by this reference made a part of this Agreement. If the Agency desires to engage Consultant to perform optional or additional services, the Agency and Consultant will prepare and execute an amendment to this Agreement for the performance of the optional or additional services.

2. AGENCY'S OBLIGATIONS:

The Agency shall:

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

3. FEES:

The fees for furnishing the Services to be performed under this Agreement are set forth in the fee and task proposal which is attached hereto as **Exhibit "B"** and by this reference incorporated herein and made a part of this Agreement. Said fees shall remain in effect for the entire term of the Agreement.

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

4. PAYMENT:

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

5. AGREEMENT TIME:

This Agreement shall commence on **July 12, 2017** and shall terminate on **December 31, 2017**. Time is of the essence with respect to this Agreement. This Agreement's Time may be extended by mutual agreement of the parties. Consultant's Services shall be performed and the deliverables provided in accordance with the Schedule that is detailed in **Exhibit "A"**.

6. INSURANCE:

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

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

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

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

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

(A)(ii) **Comprehensive Automobile Liability Insurance** shall provide coverage for bodily injury and property damage liability. This policy shall protect Consultant against all liability arising out of the use of owned or leased automobiles both passenger and commercial. Automobiles, trucks, and other vehicles and equipment (owned, not owned, or hired, licensed or unlicensed for road use) shall be covered under this policy. Limits of liability for Comprehensive Automobile Liability Insurance shall not be less than \$1,000,000 per accident for bodily injury and property damage.

(A)(iii) **Comprehensive General Liability Insurance** as will protect Consultant and the Agency from any and all claims for damages or personal injuries, including death, which may be suffered by persons, or for damages to or destruction to the property of others, which may arise from the Consultant's Services under this Agreement. Said insurance shall provide a minimum of \$1,000,000 Combined Single Limit coverage for personal injury, bodily injury, and property damage for each occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately for this Agreement or the general aggregate limit shall be twice the required occurrence limit. Such insurance will insure Consultant and the Agency from any and all claims arising from the following:

1. Personal injury;
2. Bodily injury;
3. Property damage;
4. Broad form property damage;
5. Independent contractors;
6. Blanket contractual liability.

(A)(iv) **Professional Liability Insurance** shall protect Consultant from claims arising out of negligent acts, errors or omissions of Consultant in the performance of the Service in an amount of not less than \$1,000,000. The policy shall cover the indemnity provisions under this Agreement. Consultant shall maintain this insurance for twelve (12) months after the Services required under this Agreement have been completed.

(B) Consultant agrees to procure and maintain such insurances at Consultant's expense in full force and effect in a company or companies satisfactory to the Agency. All coverage shall remain in effect until completion of the Services.

(C) Consultant will furnish the Agency with certificates of insurance issued by Consultant's insurance carrier(s) and countersigned by an authorized agent or representative of the insurance company. The certificates shall show that the insurance will not be cancelled, altered, or reduced without at least ten (10) days' prior written notice to the Agency. The certificates for liability insurance will show that liability assumed under this Agreement is included.

- (D) Consultant hereby grants to CMSA a waiver of any right to subrogation which any insurer of said Consultant may acquire against CMSA by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the CMSA has received a waiver of subrogation endorsement from the insurer.
- (E) The general liability and automobile liability insurance policies shall contain or be endorsed to contain the following provisions:
- (i) The Agency, its members including San Rafael Sanitation District, City of Larkspur, Sanitary District No. 1 of Marin County, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, their respective commissioners, directors, councilmembers, officers, officials, employees and volunteers are to be covered as additional insured as respects: liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied or used by the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the Agency, its members including San Rafael Sanitation District, City of Larkspur, Sanitary District No. 1 of Marin County, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, their respective commissioners, directors, councilmembers officers, officials, employees and volunteers.
 - (ii) For any claims related to this Agreement, the Consultant's insurance coverage shall be primary insurance as respects the Agency, its members including San Rafael Sanitation District, City of Larkspur, Sanitary District No. 1 of Marin County, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, their respective commissioners, directors, councilmembers, officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its members including San Rafael Sanitation District, City of Larkspur, Sanitary District No. 1 of Marin County, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, their respective commissioners, directors, councilmembers, officers, officials, employees and volunteers shall be excess of the Consultant's insurance and shall not contribute to it.
 - (iii) The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
 - (iv) Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party except after ten (10) days' prior written notice by mail, has been given to the Agency.

Consultant agrees to provide notification to the Agency in the event the insurance policies are suspended, voided, or reduced in coverage or limits.

- (F) Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to CMSA.

Failure to provide and maintain the insurance required by this Agreement will constitute a material breach of this Agreement. In addition to any other available remedies, Agency may suspend payment to the Consultant for any services provided during any time that insurance was not in effect and until such time as the Consultant provides adequate evidence that Consultant has obtained the required insurance coverage.

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

7. NONDISCRIMINATORY EMPLOYMENT:

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

8. LICENSING AND PERMITS:

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

9. BOOKS OF RECORD AND AUDIT PROVISION:

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

10. TITLE TO INFORMATION & DOCUMENTS:

It is understood that any and all documents, including but not limited to Information, documents, and reports concerning this Agreement's Services prepared by and/or submitted to the Consultant, shall be the property of the Agency. The Agency may provide the Consultant's work product(s) to another person or entity in the future for a separate specific assignment. However, Consultant retains all intellectual property rights, including copyrights, applicable to its work. The Consultant may retain reproducible copies of the documents that it prepares as part of the Services. In the event of the termination of this Agreement, for any reason whatever, Consultant shall promptly deliver all Information, including but not limited to writings, plans, reports and other documents to Agency without exception or reservation.

11. TERMINATION:

(A) **Notice to Cure.** If Consultant at any time fails to properly and diligently perform the Services covered by the Agreement, or has committed a material breach of a provision of this Agreement, the Agency shall give Consultant written notice that within two (2) working days of its receipt of said notice, Consultant shall commence and continue satisfactory correction of such default or breach with diligence and promptness.

(B) **Consultant Default.** If Consultant fails to commence, within two (2) working days after receipt from the Agency of the notice issued under the above paragraph (A) and diligently thereafter, to correct the default or breach, then the Agency may pursue any remedies available by common law, statute, or this Agreement, including, but not limited to, one or more of the following:

- (i) withhold any sums due or thereafter to become due to Consultant under the Agreement and during such period such withheld amounts shall not accrue interest; or
- (ii) terminate the Agreement;

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

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

Upon such termination, sub-consultants shall be entitled to payment only for the Services completed as of the date of termination pursuant to the Agreement. Consultant shall not be entitled to any claim or claim for any

additional compensation, lost profit, or other damages in the event of such termination.

12. RELATIONSHIP BETWEEN THE PARTIES:

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

13. AMENDMENT:

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

14. ASSIGNMENT OF SERVICES AND PERSONNEL:

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

15. JURISDICTION AND VENUE:

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

16. INDEMNIFICATION:

Consultant shall indemnify, defend, and hold harmless the Agency, its members including San Rafael Sanitation District, City of Larkspur, Sanitary District No. 1, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, and their respective commissioners, directors, councilmember, officers, officials, and employees from any and all liabilities claims and losses including, but not limited to, reasonable litigation costs and attorney's fees arising from Consultant's negligence and/or willful misconduct in the performance of the Services under this Agreement, except to the extent caused by the active negligence of the Agency, its members including San Rafael Sanitation District, City of Larkspur, Sanitary District No. 1, Sanitary District No. 2 of Marin County, the City of San Rafael, the Town of Corte Madera, or their respective commissioners, directors, councilmember, officers, officials, and employees.

Notwithstanding the foregoing, for any claim alleging Consultant's negligent performance of professional services or willful misconduct, Consultant's obligations regarding Agency's or its member's defense under this section include only the reimbursement of Agency's and/or its

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

17. STANDARD OF CARE:

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

18. ESTIMATES AND PROJECTIONS:

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

19. THIRD PARTIES:

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

20. FORCE MAJUERE:

Neither Consultant nor Agency shall be considered to be in default of this Agreement if delays in or failure of performance shall be due to uncontrollable forces; the effect of which, by the exercise of reasonable diligence, the nonperforming party could not avoid. The term "uncontrollable forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under this Agreement and which is beyond the control

of the nonperforming party. It includes, but is not limited to, fire, flood, earthquake, storms, lightening, epidemic, war, riot, civil disturbance, sabotage, inability to procure permits, licenses, or authorizations from any state, local, or federal agency or person for any of the supplies, materials, accesses, or services required to be provided by either Consultant or Agency under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint.

21. COMPLIANCE WITH APPLICABLE LAWS:

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

22. WAIVER:

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

23. SEVERABILITY:

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

24. INTEGRATION:

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

25. NOTICES AND DESIGNATED REPRESENTATIVES:

Brian Thomas is the designated representative for CMSA and will administer this Agreement for CMSA. **Rick Chan** is the designated representative for Consultant. Changes in designated representatives shall occur only by advance written notice to the other party.

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

1301 Andersen Drive
San Rafael, CA 94901

Notices shall be given to Consultant at the following address:

Carollo Engineers
2700 Ignacio Valley Road, Suite 300
Walnut Creek, CA 94598

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

APPROVED BY:

CENTRAL MARIN SANITATION AGENCY:

Jason R. Dow, General Manager

CONSULTANT:

Rick Chan, Partner

Federal Tax ID #: _____

EXHIBIT "A"
CENTRAL MARIN SANITATION AGENCY
RULE 21 INTERCONNECTION DESIGN PROJECT

SCOPE OF SERVICES
June 19, 2017
(Revision 2)

INTRODUCTION

Central Marin Sanitation Agency (Agency) owns and operates a 10-mgd rated average dry weather flow (ADWF) wastewater treatment plant (WWTP) located in San Rafael, California. In August 2016, Michael D. Brown Consulting Engineers completed an Interconnection Agreement Study for the Agency. As a result of the Interconnection Agreement Study and a subsequent Interconnection Application prepared and submitted to PG&E, PG&E provided an Initial Review (dated November 18, 2016) and a Supplemental Review (dated January 4, 2017) that outline the requirements for the existing cogeneration system to be brought up to current Rule 21 standards. This project will design the changes to the cogeneration system as outlined in the PG&E reports.

SCOPE OF SERVICES

This section presents the Scope of Services to be provided by Carollo Engineers (Consultant).

Task 1 – Final Design

Task 1.1 – Meetings

Consultant shall attend four (4) meetings during the course of this project. These include:

- a. One (1) project kickoff meeting.
- b. Two (2) meetings with PG&E.
- c. One (1) 90 percent design review meeting.

Task 1.2 – Design

Consultant shall perform final design of the Rule 21 Interconnection Project to include the following modifications to the existing Cogeneration Facility Electrical System to allow the Agency to export power to the grid from the existing 750 kW cogeneration engine:

- a. Enabling the generator to operate at a unity power factor.
- b. Providing the end of line fault detection.
- c. Providing the end of line ground fault detection.
- d. Installation of a generator disconnect switch.

- e. Installation of a battery system.
- f. Providing additional relays to meet Rule 21 protection requirements.
- g. Replacing relays that do not meet Rule 21 requirements.

The design will include preparing bid documents (specifications and drawings) for work to upgrade, replace, or add to the electrical system as required to meet the Rule 21 requirements. Work sequence and constraints specifications will be prepared to stage the construction work to minimize electrical interruptions to the plant.

Consultant shall prepare CSI technical specifications and CAD drawings based on Consultant's standard design format. Agency will provide Agency-developed Front End Specifications tailored to this project. Consultant shall prepare and submit 90% design submittal for Agency review and comment.

Task 1.3 – Construction Cost Estimates

Consultant shall also prepare construction cost estimates at the 90% and 100% design stages.

Information Provided by Agency:

- Cogeneration engine shop drawings.
- Cogeneration switchgear shop drawings.
- Main switchgear shop drawings.
- Agency Front End Specifications (WORD file).
- 90% design written review comments (Excel or WORD file).
- Agency to be responsible for obtaining any permits needed for this project.

Consultant Deliverables:

- Brief project status report with invoices.
- Meeting agenda, materials, and minutes.
- 90% design documents (PDF).
- 100% design bid documents (PDF).
- 90% and 100% construction cost estimates (PDF).

SCHEDULE

Consultant shall complete this project based on the following schedule. Schedule will be updated as necessary during the course of this project.

- Conduct kickoff meeting and at least one meeting with PG&E within 4 weeks after receiving Notice to Proceed.
- Complete and submit 90% design submittal to Agency for review within 8 weeks after completion of PG&E meetings.

- Complete and submit 100% design documents to Agency within 2 weeks after receiving written comments from Agency and completion of the 90% design review meeting.

EXHIBIT B - LABOR AND BUDGET ESTIMATE

**CENTRAL MARIN SANITATION DISTRICT
RULE 21 INTERCONNECTION DESIGN PROJECT**

Task No. Description	Rick	Chris	Electrical	CAD	WP	Total Hours	Labor Cost	Other Direct Costs (ODC)				Total Cost	
	Chan	Carvalho	Engineer					PECE ⁽¹⁾	Printing	Mileage ⁽²⁾			ODC Cost
	\$281	\$259	\$166	\$138	\$109			\$11.7/hr		Trips	Amount		
1 Final Design													
1.1 Meetings	0	20	0	0	0	20	\$5,180	\$234	\$0	4	\$202	\$436	\$5,616
1.2 Design	2	42	73	65	10	192	\$33,646	\$2,246	\$0	0	\$0	\$2,246	\$35,892
1.3 Construction Cost Estimates	1	2	15	0	0	18	\$3,289	\$211	\$0	0	\$0	\$211	\$3,500
Total =	3	64	88	65	10	230	\$42,115	\$2,691	\$0	4	\$202	\$2,893	\$45,008
Project Totals =	3	64	88	65	10	230	\$42,115	\$2,691	\$0	4	\$202	\$2,893	\$45,008
												Use	\$45,000

Notes:

(1) Project Equipment and Communication Expense.

(2) Based on 90 miles per round trip @ IRS rate.



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: Selection of Commission Officers and Board/Committee Appointments for FY18

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

Discussion: The Commission annually selects officers and makes appointments to its standing Finance Committee and the North Bay Watershed Association's (NBWA) Board of Directors. These appointments are for a one-year term, and are normally made at the July Board meeting. Chair Kathy Hartzell retired from the Board at the end of June 2017, leaving a position on the Finance Committee vacant. The second finance Committee vacancy is due to Commissioner Maribeth Bushey's resignation in early 2017. The current slate of officers and Committee/Board members are:

Officers

- Commission Chair: Vacant
Commission Vice-Chair: Diane Furst, Sanitary District #2
Commission Secretary: Albert Boro, San Rafael Sanitation District

Standing Finance Committee: Tom Gaffney (RVSD), Vacancy 1, Vacancy 2

NBWA Board of Directors: Michael Boorstein (RVSD), GM Jason Dow (alternate)

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

"Each commissioner may be an elected official of the governing body of the City or District they represent or may be such other resident of the City or District as selected by the Member. A commissioner shall serve in such a manner and for such term as each Member may determine, and may be removed at the pleasure of the Member appointing such person. The Commission shall annually choose commissioners to serve as Chair and Vice-Chair. The commissioners shall annually choose a Secretary who shall be a commissioner. Each Member shall determine its method of selection of the person representing the City or District. An elected official or resident of the City or District may be designated by the Member to serve as an alternate to any commissioner."



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager 

Subject: **Cancel August Regular Board Meeting**

Recommendation: Consider cancelling the August 8th regular Board meeting.

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

Agency business items currently planned for the August meeting are those noted above that are typically in the Board meeting's consent calendar. Staff recommends cancelling the regular August meeting.



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates

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

Subject: **Proposed Fiscal Year 2017-18 Agency Business Plan**

Recommendation: Approve the FY18 Agency Business Plan, and provide comments and/or direction to the General Manager, as appropriate.

Summary: Over the past several months, concurrent with developing the Agency's FY18 budget and updating its 10-year Capital Improvement Program, the Agency's Strategic Planning Committee (ASPC) prepared the FY17 Business Plan Report and the proposed FY18 Business Plan. Last month, the Board accepted the FY17 Report, and the proposed FY18 Business Plan is attached for the Board's consideration of approval.

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

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

Staff recommends that the Board review and adopt the Agency's FY18 Business Plan. Following Board adoption, the ASPC will develop the business plan implementation schedule.

Attachments:

- 1) CMSA Vision, Mission, and Value Statements
- 2) FY18 Agency Business Plan



Agency's Mission, Vision, and Values



MISSION

WHAT THE AGENCY DOES

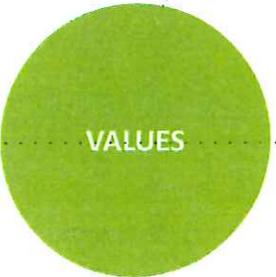
Central Marin Sanitation Agency will protect the environment and public health by providing wastewater, environmental, and resource recovery services of exceptional quality and value to its customers.



VISION

WHERE THE AGENCY WANTS TO BE IN THE FUTURE

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



VALUES

KEY STATEMENTS THAT DESCRIBE THE IDEALS OF THE AGENCY

CMSA-values...

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

AGENCY GOALS

▲ GOAL ONE

▲ GOAL TWO

▲ GOAL THREE

▲ GOAL FOUR

▲ GOAL FIVE

▲ GOAL SIX



GOAL ONE

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

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

- Action: Comply with all Agency regulatory requirements
- Action: Apply for the National Association of Clean Water Agencies (NACWA) Silver Award for 2017
- Action: Determine Key Performance Indicators (KPI) for process areas
- Action: Install a total solids meter to monitor Secondary System effluent
- Action: Prepare process area automation template for one process area

Objective 1.2 *Develop and implement strategies to meet changing regulatory requirements*

- Action: Negotiate a reasonable, new 5-year NPDES Permit
- Action: Create a permit compliance schedule, and distribute to internal stakeholders
- Action: Provide employees with NPDES permit training
- Action: Update existing and develop new procedures to comply with ELAP TNI standards for the laboratory
- Action: Complete the Sewer Use Local Limit update
- Action: Review and update the Sewer Use Ordinance's Enforcement Response Plan

Objective 1.3 *Manage the Agency's assets*

- Action: Hire a consultant to evaluate the Asset Management Program and recommend improvements
- Action: Prepare a predictive asset management plan for a selected area
- Action: Complete construction of the Maintenance Facilities Modification Project
- Action: Design and construct paving improvements by the Solids Handling Building

Objective 1.4 *Prepare an Agency Facilities Master Plan*

- Action: Complete the tasks in the plan's scope of work
- Action: Present Master Plan findings and recommendations to the Board
- Action: Work with Finance Committee and Board to select projects for future implementation
- Action: Update 10-Year CIP with approved projects and activities

AGENCY GOALS

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

**GOAL TWO**

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

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

- Action: Manage and review monthly transactions to ensure a clean FY17-18 audit
- Action: Provide Agency staff with quarterly refresher training on commonly used financial procedures, such as timesheets, payment processing, purchasing, and travel
- Action: Compile a list of service provider contracts by functional area with optional providers

Objective 2.2 Prepare a Multi-Year Revenue Plan

- Action: Determine multi-year revenue increase needed to balance operating budget
- Action: Incorporate approved Master Plan projects into the proposed Revenue Plan
- Action: Construct revenue plan alternatives for review with Finance Committee and JPA managers
- Action: Collaborate with Finance Committee and JPA managers to select a multi-year revenue plan strategy
- Action: Board selection of revenue strategy and staff implementation

Objective 2.3 Prepare transparent financial documents

- Action: Prepare the Agency's Budget document in the Government Finance Officers Association (GFOA) format and submit to the GFOA for review
- Action: Prepare quarterly budget reports for Board of Commissioners
- Action: Prepare the Agency's Comprehensive Annual Financial Report (CAFR), and submit to the GFOA for review
- Action: Prepare the Agency's Popular Annual Financial Report (PAFR), and submit to the GFOA for review

AGENCY GOALS

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



GOAL THREE

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

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

- Action: Design and implement required improvements for power delivery
- Action: Receive a State Revolving Fund (SRF) Green Project Reserve loan with forgiveness
- Action: Negotiate and execute a power sale agreement
- Action: Identify potential organic waste sources within Marin County

Objective 3.2 Produce recycled water for outside use

- Action: Participate with Marin Municipal Water District in marketing the recycled water truck filling station to prospective users
- Action: Provide recycled water for uses other than sewer line flushing
- Action: Provide the Board with a Recycled Water Use Report in July 2018

Objective 3.3 Increase the Agency's Energy Efficiency

- Action: Establish an Agency team to develop a power monitoring program
- Action: Prepare a Power Monitoring Plan to identify processes and equipment for power monitoring, define power usage metrics, and install the necessary monitoring equipment
- Action: Construct a power monitoring dashboard and begin to actively track and discuss energy use
- Action: Determine the energy savings obtained by utilizing waste heat

AGENCY GOALS

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



GOAL FOUR

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

Objective 4.1 Collaborate with stakeholders on programs to comply with CalRecycle's organic diversion regulations from landfills

- Action: Revise the Agency Food Waste Disposal Agreement with Marin Sanitary Service for Board adoption
- Action: Serve as the Bay Area Biosolids Coalition lead agency
- Action: Participate in the Bay Area Biosolids Coalition to evaluate year-round biosolids management alternatives

Objective 4.2 Promote interagency coordination on capital projects

- Action: Administer the FY18 Capital Improvement Program for the main pump station at San Quentin State Prison
- Action: Support rehabilitation of the Sanitary District No. 2 Fifer Pump Station
- Action: Replace the San Quentin Village Pump Station's control panel
- Action: Replace the San Quentin Pump Prison Station's effluent flow meter
- Action: Support integration of the Ross Valley Sanitary District pump station telemetry to CMSA SCADA

Objective 4.3 Participate in the Joint Powers Agreement (JPA) Revision Initiative

- Action: Prepare a JPA review plan and process with the JPA managers and ad hoc JPA Revising Committee
- Action: Participate in the JPA review process, and draft JPA revisions for consideration by the JPA Agency Boards
- Action: Revise the JPA with approved revisions

AGENCY GOALS

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



GOAL FIVE

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

Objective 5.1 Promote a culture of leadership and professional growth

- Action: Organize and conduct periodic informal seminars on a variety of Agency activities
- Action: Communicate to staff the Agency's Mission, Vision, and Values, and annual Business Plan
- Action: Identify opportunities to attend leadership and technical training events
- Action: Determine the practicality of a mentorship program for new hires

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

- Action: Prepare a succession plan for key employee classifications
- Action: Provide an unpaid internship opportunity in Operations and Maintenance and target the local community during our candidate search
- Action: Develop and implement an Agency intern on-boarding packet

Objective 5.3 Enhance employee work culture

- Action: Hold an Agency barbeque and holiday party
- Action: Submit applications for industry awards
- Action: Explore opportunities to create a modern Facility Control Room and workspaces in the Administration Building
- Action: Review annual performance evaluation forms, and design and implement improvements

Objective 5.4 Maintain a safe and secure work environment

- Action: Install safe-access gates for the chlorine contact tanks
- Action: Combine the Safety and Security Committees, and prepare a new charter document
- Action: Develop an annual safety training calendar
- Action: Develop a quarterly report with safety activity metrics (Training Participation, Tailgates Provided, Safety Suggestions, etc.)

AGENCY GOALS

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



GOAL SIX

CMSA will enhance its internal and external communications.

Objective 6.1: Educate employees on currently available Agency benefits

- Action: Create an Agency Benefits Handbook for an employee reference tool
- Action: Provide training on Agency health benefits for open enrollment period
- Action: Coordinate 457 plan provider training on Agency's deferred compensation

Objective 6.2: Improve Agency Information Management Systems

- Action: Update records retention policy for electronic files
- Action: Complete all department file structure migration and archive legacy shared drive content
- Action: Annually audit and update all Agency forms and ensure file paths are correct
- Action: Develop standard forms for the Agency's Pollution Prevention and Pretreatment Programs
- Action: Complete development of the WEBSOFT industrial waste database and update reporting process

Objective 6.3: Improve methods of communication

- Action: Technical Services to prepare and distribute a bi-weekly activity report
- Action: Review internal agency reports to identify and make improvements
- Action: Deployment of LIMS and DIMS database for more efficient use of lab and process control data
- Action: Implement online contractor bid management system



BOARD MEMORANDUM

July 7, 2017

To: CMSA Commissioners and Alternates
From: Jason Dow, General Manager 
Subject: 2017 Agency Facilities Master Plan Status Report

Recommendation: Receive the Facilities Master Plan status report, and provide comments and/or direction to the General Manager, as appropriate.

Background: In September 2016, the Board approved the 2017 Agency Facilities Master Plan (Plan) contract with Carollo Engineers, and the Plan's schedule showed substantial completion in spring 2017 and a Board presentation in August 2017. A key reason for developing the Plan in FY17 was to have planning level information of future maintenance and capital projects for the Board to review, discuss, and consider including in the Agency's next multi-year revenue program. During the fall of 2016, the JPA managers informed staff that their respective agencies would not be raising sanitary sewer rates for FY18 through the Proposition 218 public notification and hearing process, and they did not need CMSA's future revenue figures until the spring of 2018. With this new timeframe, staff advised Carollo that it was acceptable to extend the completion date for several of the Plan's major tasks to allow additional time to perform the tasks' analyses, present results and findings to the CMSA project team, and prepare the final reports with CMSA comments. Additionally, the new schedule provides staff and the Board's Finance Committee adequate time to evaluate the Plan projects and formulate recommendations for the Board to consider. Carollo will present the Plan's final report to the Board in early 2018.

Discussion: Carollo has been making good progress on several the Plan's eleven tasks. They have completed the Blending Reduction Alternative Analysis (Technical Memorandum #7), Biosolids Dewatering Evaluation (TM#6), and have substantially completed the Equipment and Facility Condition Assessment (TM#1). A summary of each task, from the Plan's scope of work, with a status report is presented below.

1. Equipment and Facility Condition Assessment – Carollo will conduct a focused condition assessment of the Agency's assets that will include a visual assessment of selected equipment, systems, processes, and areas in the facility, and a workshop to receive staff input. Recommended projects will consider increased energy efficiency and greenhouse gas reduction where practical.

Status: Carollo's assessment team completed the field assessment work, prepared a risk based evaluation of the assessment findings, delivered a draft TM, and held a workshop with the CMSA project team to review and receive comments on the TM. An important element in the TM is a prioritized list of projects by process area, with recommended completion timeframes and conceptual project costs. Staff has completed an independent field review of the TM recommendations and will be working with Carollo to finalize the TM in the near future. The final list of projects will be presented to the Finance Committee this fall, with a staff recommendation to incorporate them into an updated CIP for use in preparing the 5-year revenue program.

2. Biogas Utilization – Carollo will peer review the digester capacity and biogas production estimates that were prepared in the Interconnection Agreement Modification Project, and will investigate other alternatives to utilize excess biogas. Potential alternatives include a second power generation facility, a biomethane fueling station for vehicles, and biomethane injection into the local natural gas distribution system. The consultant will develop site layouts and conceptual project costs, prepare lifecycle cost analyses, and perform regulatory reviews to determine feasible alternatives. This task will also evaluate options to utilize excess heat from a second power generation facility.

Status: Staff asked Carollo to postpone initiation of this task until we received confirmation from the State Water Resources Control Board that our SRF loan was approved, allowing full reimbursement for the consultant fees and staff time associated with the task. Confirmation was recently received and Carollo will begin work in July, and the tasks TM is scheduled for delivery in October.

3. Organic Waste Receiving Facility – The facility's underground storage tank has a capacity of 20,000 gallons, and occasionally liquid waste loads cannot be accepted due to limited tank capacity. Carollo will estimate the maximum storage tank capacity needed to accommodate the available organic waste processing capacity of the digesters, and develop above- and below-ground alternatives.

Status: For the same reason as Task 2, this task will be started in July and will be completed in October.

4. Nutrient Removal – Under the Regional Water Board's Nutrient Watershed Permit, the Bay Area Clean Water Agencies' (BACWA) consultant, HDR Engineering, has performed a preliminary assessment of technologies that could be constructed and/or installed at CMSA to reduce nutrients (ammonia, nitrogen, and phosphorus) if effluent limits are ever added to CMSA's NPDES permit. Carollo will expand upon the BACWA report to identify locations where side-stream and/or new treatment facilities could be built while considering other potential Agency projects such as a recycled water facility. The consultant will also refine cost estimates, identify timing for construction and design, and prioritize technologies based on their cost effectiveness.

Status: BACWA provided CMSA with a copy of the draft assessment report in March and staff forwarded it to Carollo. Both staff and Carollo's comments were subsequently sent to HDR and the final draft assessment report should be completed in the near future. Assuming that BACWA delivers the final draft report this month, Carollo intends to begin work on this task in August and is scheduled to be completed it in November.

5. Biosolids Management Alternatives – CMSA has multiple beneficial reuse options for our biosolids and more options are expected to be available in the near future. The consultant will identify new biosolids reuse options and potential regulatory changes for current and potential reuse options. Should it become necessary in the future, staff will use this information to propose additional biosolids reuse options for the Board's consideration.

Status: Work on this task will be started in July, and the draft TM is scheduled for delivery in October.

6. Biosolids Dewatering – Digested sludge is dewatered with high speed centrifuges. CMSA recently hired a vendor to conduct a condition assessment of the centrifuges to determine when planned rehabilitation work is required. The consultant will use the condition assessment report as a basis to perform a dewatering alternatives analysis to determine if CMSA should consider replacing the centrifuges with a different technology. The alternatives analysis will consider space limitations in the existing building and include a lifecycle cost comparison of alternatives that includes capital cost, maintenance/rehabilitation cost, power usage, and polymer usage.

Status: Carollo completed the dewatering alternative analysis, reviewed the draft TM with staff, and is preparing the final TM. Alternatives considered in the analysis included rehabilitating our three existing centrifuges, and installing new centrifuges, screw filter presses, and rotary fan presses. Economic and non-economic factors were used in the analysis, such as capital costs, operations and maintenance expenses, net present value, capacity limitations, performance, utilizing the existing building space, and redundancy. New centrifuges scored the highest of the alternatives. Given that staff have proactively maintained the existing centrifuges, the recent vendor assessment found that they were in good condition and have 5-10 years left of service life. Using the draft TM information, staff has moved a CIP project to replace the centrifuges with new centrifuges from FY18 to FY22.

7. Blending Reduction Alternative Analysis – CMSA's NPDES Permit allows blending of primary and secondary effluent during wet weather events that cause flows to exceed the capacity of the secondary treatment system. Our current NPDES Permit requires completion and submittal of a No Feasible Alternative to Blending Analysis (NFAA) with the 2017 NPDES Permit renewal application. In this task, Carollo will review and update the 2012 alternative treatment system analysis to reflect current costs, recent blending

history, and any new technologies available to reduce blending frequency. This information will be provided to the Agency's regulatory consultant for peer review and inclusion in the NFAA.

Status: Carollo completed the analysis, and the TM was given to Monica Oakley, our regulatory consultant. The TM findings were then incorporated into the NFAA, and staff presented the storage and treatment alternatives to the Board at the December 2016 Board meeting. In January, the Board selected the "Maintain the Existing Secondary Treatment System" alternative from the TM, and that was noted as the Agency's NFAA's preferred alternative in the Agency's Report of Waste Discharge that was submitted to the Regional Water Board on January 31, 2017. As of the date of this staff report, Ms. Oakley has not received any comments from the Regional Water Board staff on the Agency's preferred blending reduction alternative.

8. Secondary Treatment – CMSA's biological secondary treatment process consists of bio-towers, aeration basins, and secondary clarifiers. The consultant will work with staff to determine the most efficient operation of the secondary system process during several flow conditions. The evaluation will consider treatment process stability, power consumption, odors, and other concerns that impact operations. In the current CIP, the internal components of each secondary clarifier are scheduled for replacement over multiple years. This task will determine if the components should be replaced in-kind or with an alternative system to improve performance.

Status: Staff has met with Carollo to review their initial findings for this task, and comments are being incorporated into the final draft report. Carollo has provided a season-based secondary system operational strategy that will be included and explained in the report.

9. Solar Power Generation – The consultant will conduct a feasibility analysis to determine practical locations on Agency property and buildings where solar power facilities can be installed and the amount of power that can be generated. The analysis will consider regulatory limitations or restrictions with exporting biogas generated and solar derived power, system capital costs, purchase power agreement options, operational impacts due to limited space, and construction limitations.

Status: Work on this task will be started in August, and the draft TM is scheduled for delivery in November.

10. Sea Level Rise – CMSA's facility is included in the Marin BayWAVE sea level rise vulnerability assessment of the eastern Marin shoreline from Sausalito to the northern end of Novato. The consultant will use BayWAVE data to determine impacts to the hydraulic capacity of the outfall during dry and wet weather operations. While preliminary BayWAVE results do not show inundation of the CMSA site, the consultant will consider other potential impacts to the treatment facility access and structures.

Status: Carollo reviewed the final draft Marin BayWAVE report and completed the sea level rise analysis, and is currently determining the hydraulic impacts to the Agency's effluent pumping station. The draft TM should be completed by mid-August.

11. Treatment Plant Model (optional) – With proper calibration, a treatment plant model can accurately simulate physical, chemical, and biological treatment processes for a variety of flow and loading scenarios. Because it generally requires specialized training with years of experience to properly use a treatment plant model, consultants generally are hired to prepare models only for master planning efforts that anticipate a significant plant expansion or treatment process change. The wastewater industry is just starting use treatment plant models as a training tool for operations staff. If this optional task is approved, the consultant would create a simplified treatment plant model with defined scenarios that can be used to train operators for specific events such as preparing the plant for a large storm event.

Status: Work will begin on this task in August.

Alignment with Strategic Plan: This activity is a strategic action to support Goal 1 – Objective 1.4 in the Agency's FY18 Strategic Business Plan as shown below.

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

Objective 1.4: Prepare an Agency Facilities Master Plan.

Actions: Complete the tasks in the plan's scope of work.

Present Master Plan Findings and Recommendations to the Board

Attachments:

- 1) Updated Facilities Masterplan Project Schedule
- 2) Project list from the draft Condition Assessment TM

**Table 1.5 Prioritized 10-Year CIP
2017 Facilities Master Plan
Central Marin Sanitation Agency**

CIP Years	Project Number and Title	Risk Rank	Cost
1-2	06-1-Floor grating repair	1	\$237,000
1-2	10-1-CCT Effluent pipe corrosion repair	2	\$847,000
1-2	08-1-Secondary clarifier minor rehab	5	\$809,000
1-2	12-1-Waukesha Cogeneration System Study	5	\$100,000
1-2	05-1-Primary clarifier rehab	3	\$1,410,000
1-2	04-1-Hydraulic unit Replacement	3	\$830,000
Years 1-2	Subtotal (6 projects)		\$4,233,000
3-5	09-1-CCT gate rehabilitation	12	\$977,000
3-5	13-1-Digester mixing pump study	12	\$100,000
3-5	08-2-RAS/WAS Pump Replacement	8	\$2,400,000
3-5	06-2-Bio-tower #1 Upgrades	8	\$2,250,000
3-5	00-1-Roof Repairs	8	\$127,000
3-5	00-2-Gallery pipe reconfiguration	8	\$123,000
3-5	08-3-Clarifier drain pipe corrosion repair	5	\$920,000
3-5	12-5-Solids handling building elevator replacement	24	\$577,000
Years 3-5	Subtotal (8 projects)		\$7,474,000
6-10	12-3-Boiler and Heat Exchanger Replacement	19	\$1,080,000
6-10	10-2-Gallery C Pump Replacements	19	\$230,000
6-10	05-2-Primary gallery repairs	19	\$91,000
6-10	21-1-F2E Pump Replacement	19	\$100,000
6-10	12-2-Ferric containment area Coating	19	\$38,000
6-10	13-2-Digester basement floor slab repair	29	\$133,000
6-10	10-3-SBS floor recoating	29	\$99,000
6-10	12-7-Cummins Standby Generator Study	29	\$50,000
6-10	04-4-Grit Room Rehabilitation	15	\$1,900,000
6-10	04-3-Grit blower and diffuser replacements	15	\$915,000
6-10	00-3-Gallery Lighting Replacement	15	\$230,000
6-10	00-4-Crack and leak repairs (injection)	15	\$150,000
6-10	04-2-Grit classifiers and hoppers replacement	24	\$1,300,000
6-10	09-2-CCT Rehab	24	\$675,000
6-10	99-1-Seismic study	34	\$200,000
Years 6-10	Subtotal (15 projects)		\$7,155,000
10+	14-1-Main switchgear Replacement	12	\$975,000
10+	06-3 -Bio-tower scrubber and AHU replacement	24	\$2,475,000
10+	99-2-NEC Compliance Retrofits	24	\$0
10+	12-6-Gas Compressor System Replacement	29	\$1,315,000
10+	04-5-Ferric room floor coating	29	\$125,000
10+	99-4-Influent Flow Meter Alternatives Study	35	\$75,000
10+	99-3-F2E Crane Optimization Evaluation	36	\$0
10+	9-5-Solids hopper upgrade	36	\$0
Beyond 10 Years	Subtotal (8 projects)		\$4,965,000

Notes:

(1) Projects with \$0 cost would be included as part of larger project.