Central Marin Sanitation Agency

COMMISSION REGULAR MEETING AGENDA
Tuesday, May 9, 2017
at the Agency Office
7:00 p.m.
(Closed Session at 6:00 p.m.)

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

1. **6:00 p.m.: Call Meeting to Order/Pledge of Allegiance**
2. **Roll Call**
3. **Open Period for Public Participation**
   Open time for public expression, up to two minutes per speaker, on items within CMSA's jurisdiction and not on the Board of Commissioners' agenda. The Board will not discuss or take action during open time.
4. **Adjourn to Closed Session**
   CONFERENCE WITH LABOR NEGOTIATOR
   California Government Code Section 54957.6
   Agency Negotiator: Jason Dow, GM
   Employee Organization: SEIU Local 21; 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.

OVER

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—April 11, 2017
b) Treasurer's Report—Operating Account—April 2017
c) Schedule of Investments— April 2017
d) NPDES, Process, and Maintenance Report—April 2017
e) Performance Metric Reports—April 2017
f) 2016/2017 Wastewater Flow Report
g) Fiscal Year 2018 Chemical Supply Contracts
h) Financial Auditing Services Agreement with Chavan & Associates
i) Rental Uniform Supply Contract with Aramark, CMSA Contract No. 17-22

9. Bay Area Biosolids-to-Energy Coalition Lead Agency

Recommendation: Authorize the Agency to serve as the Bay Area Biosolids-to-Energy Coalition Lead Agency, and authorize the General Manager to execute the Fiscal Agent Support Services Agreement with the California Association of Sanitation Agencies after its approval by the Coalition.

10. Marin LAFCO's Draft Central Marin Wastewater Study

Recommendation: Review and discuss the Draft Central Marin Wastewater Study, and decide on the manner to prepare an Agency response.

11. PG&E Interconnection Agreement

Recommendation: Approve the PG&E Interconnection Agreement, and authorize the General Manager to execute the agreement.

12. Update on the Agency's Power Sale Options

Recommendation: Authorize the General Manger to negotiate a power sale agreement with Marin Clean Energy.

13. Proposed Fiscal Year 2017-18 Budget

Recommendation: Review the Agency's Proposed Budget for the Fiscal Year 2017-18 and provide comments and direction to the General Manager as appropriate.

14. North Bay Watershed Association (NBWA) Report*

15. Oral Reports by Commissioners/General Manager*

16. Next Scheduled Meeting

Tuesday, June 13, 2017 at 7:00 p.m. at the Agency office.

*Information not furnished with Agenda

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

Central Marin Sanitation Agency

COMMISSION REGULAR MEETING MINUTES
Tuesday, April 11, 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 **00:00:00**

Chair Hartzell called the meeting to order at 7:00 p.m. A quorum was present.

2. Roll Call **00:00:25**

Present: Chair Kathy Hartzell; Vice-Chair Diane Furst; Commissioners Maribeth Bushey and Thomas Gaffney; Alternate Commissioners Dean DiGiovanni (for Al Boro), and Doug Kelly (for Michael Boorstein).
(Note: Mr. DiGiovanni arrived after the Consent Calendar.)

Absent: Secretary Al Boro and Commissioner Michael Boorstein

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

Public present: Felicia Newhouse, Ross Valley Sanitary District

3. Open Period for Public Participation **00:00:45**

There were no comments from the public.

GM Dow introduced CMSA's new Administrative Services Manager, Ken Spray, who was in attendance. The Board welcomed Mr. Spray, and he stated he was very glad to be with CMSA.

4. Consent Calendar **00:02:00**

a) Minutes—Special Board Meeting—March 16, 2017
b) Treasurer's Report—Operating Account—March 2017
c) Schedule of Investments—March 2017
d) NPDES, Process, and Maintenance Report—March 2017
e) Performance Metric Report—March 2017

f) FY 2017 Asset Management Program – Third Quarter Report
g) FY18 Natural Gas Procurement Structure

Commissioner Gaffney asked regarding an expense payment for Maggiora and Ghilotti in item #4b, the Treasurer's Report, if the Agency was responsible for maintenance of the Andersen Drive hillside. GM Dow answered that emergency repairs were necessary for a mudslide on the Andersen hillside during a recent storm event, and that CMSA's property extends up to the ridge of the hill.

Comments from the Public:
There were no comments from the public.

ACTION: Commissioner Furst moved to approve the Consent Calendar items; second, Commissioner Gaffney.

Ayes: BUSHEY, DiGIOVANNI, FURST, GAFFNEY, HARTZELL

Nays: NONE

Abstentions: NONE

5. California Water Environment Association – 2016 State Level Awards 00:04:11

GM Dow stated CMSA's award recipients from the California Water Environment Association's (CWEA) Redwood Empire Section competed with the award recipients from the CWEA's seventeen other sections in the recent state level award competition, and that the Agency and two staff members received state level awards. He then briefly reviewed the awards and recipients, including first place awards for Community Engagement and Outreach program, Safety Program of the Year, and Electrical/Instrumentation Person of the Year, Jon Farr.

The Board stated that receiving the state level awards was impressive, asked if any staff members were planning to attend the upcoming CWEA conference to receive awards, and if the award winners receive a bonus. GM Dow stated that a few staff members are planning to attend the conference, and said Agency Administrative Policy #60, Employee Award Recognition, outlines monetary awards to recognize employee accomplishments.

Comments from the Public:
There were no comments from the public.

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

6. Organic Waste Receiving Program Report 00:09:39

GM Dow stated that the Agency's Organic Waste Receiving Facility (OWRF) began receiving Fats, Oils, and Grease (FOG) in November 2013, and in January 2014, Marin Sanitary Service began delivering pre-processed food waste under the cooperative Food-to-Energy Program. He stated that in March 2014, staff began preparing a weekly Organic Waste Program and Digester Report (Report) to summarize the amount of organic wastes received and contaminants removed, and present key digester operational metrics to identify and track the health and any impacts to the Agency's two anaerobic digesters. He stated that over the past three years, this Report has been expanded to include other useful information such as the number of restaurants participating in the F2E Program, the amount of wastewater and organic waste loading to the digesters, program revenues and expenses, biogas production and cogeneration system runtime, and planned maintenance work.

GM Dow referred to the staff report and reviewed each of the tables in the monthly report. He stated that the Agency's organic waste program is nearly self-supporting, with annual revenues almost covering operating expenses. He stated that in 2016, revenues were $277,793 while expenses were $268,453, and when the Agency reaches energy self-sufficiency and begins to deliver power, the program will be revenue positive.

The Board asked GM Dow several questions regarding the program. GM Dow answered the Board's questions.

The Board was enthusiastic about the progress of the program, and suggested that some sort of metric or graphic be posted to the website to highlight the amount of energy the Agency is generating through biogas production.

Comments from the Public:
There were no comments from the public.

DIRECTION: Staff to develop and post a biogas/energy production metric on the Agency website.

7. FY 2017 Third Quarter Budget Report **00:28:45**

GM Dow stated the straight-line projection for the Agency's budget for the third quarter is 75% of the projected FY 16/17 revenue and expenses, and is on track with revenue at 76%, and expenses, including encumbered expenses, are at 72%. He stated that he could review the staff report, all or in part, or answer any questions from the Board.

The Board asked several questions regarding debt service payments, refunding of the revenue bonds, funding of the CIP projects, inventory of chemicals and equipment for emergency preparedness, and types of other revenue sources.

GM Dow answered the Board's questions, listing the funding sources for the CIP projects; describing the Agency's critical process equipment and chemicals that are stored in inventory in case of emergency; and reviewing the types of other revenue sources. Commissioner Gaffney stated that the revenue bond could be refunded at the 10-year call period.

Comments from the Public:
There were no comments from the public.

ACTION: Commissioner Kelly moved to accept the FY 2017 Third Quarter Budget Report; second, Commissioner Furst.

Ayes:	BUSHEY, DiGIOVANNI, FURST, GAFFNEY, HARTZELL, KELLY
Nays:	NONE
Abstentions:	NONE

8. Recycled Water Program Status Report **00:45:00**

GM Dow stated that at the May 2016 Board meeting, staff informed the Board that the recycled water truck fill station was constructed and ready to deliver recycled water, and briefed the Board on the recycled water rights opinion from special legal counsel Alan Lilly. He stated that during the summer of 2016, CMSA's JPA member agencies had not received recycled water use permits from Marin Municipal Water District (MMWD), and as of the date of this report, CMSA has not delivered any recycled water using the truck fill facility.

GM Dow then referred to his staff report and attachments and described the Recycled Water Feasibility Study, the Title 22 Truck Fill Program, and the water rights of the recycled water produced at CMSA.

The Board asked various questions, including potential uses and users of the recycled water, the water treatment levels, the MMWD permitting process, and training for the member agencies for use of the truck fill station.

GM Dow answered the Board's questions, and stated that the MMWD will be training RVSD staff on the use of CMSA's recycled water on April 21.

<u>Comments from the Public:</u>
There were no comments from the public.

DIRECTION: GM Dow to reach out to the member agencies and Marin Municipal Water District regarding CMSA delivering recycled water to potential users.

9. Denmark Wastewater Fact-Finding Trip Presentation **00:57:37**

GM Dow stated that last year he attended a presentation in San Francisco by the Danish Water Technology Alliance (WTA) and the San Francisco Public Utilities Commission (SFPUC), where both organizations gave presentations of their respective water and wastewater businesses, regulations, projects, and challenges. He stated that two WTA representatives, Pia Jacobsen and Flemming Moller, later visited CMSA and toured the facilities, discussed Agency operations, and presented several innovative programs used at their water/wastewater utilities in Denmark.

GM Dow stated that in late January, he received an invitation to a wastewater fact-finding trip to Denmark from March 4-10, 2017, and that he and Chris Finton, the

Agency's Treatment Plant Manager, joined a group of fourteen wastewater professionals from the US on the fact-finding tour. He stated they toured water and wastewater equipment manufacturing facilities, met with representatives from the Danish Water & Wastewater Association and Environmental Protection Agency, and received presentations on many topics such as Denmark's environmental programs, utility energy efficiency initiatives, and wastewater operations and process control.

GM Dow and Chris Finton then gave a Power Point presentation and stated that the trip was very eventful and informative, and gave highlights of tours of two treatment plants and two factories.

The Board accepted the presentation and asked various questions. GM Dow and Mr. Finton answered the Board's questions.

Comments from the Public:
There were no comments from the public.

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

10. North Bay Watershed Association (NBWA) Report **01:24:10**
There was no April NBWA Board meeting report.

11. Oral Reports by Commissioners/General Manager **01:24:20**
GM Dow referred to his handout and reported:

- CMSA's Plan of Study expenses incurred after the Clean Water SRF Loan application was accepted are reimbursable.
- JPA Review Committee members are Maribeth Bushey (SRSD), Diane Furst (SD2) and Dan Hillmer (Larkspur); Ross Valley to appoint a committee member after their next meeting. GM Dow will then schedule the kick-off meeting.
- LAFCO has completed their Central Marin Wastewater Study draft report and it will be presented to the LAFCO Commission on 4/13; GM Dow will provide a summary report at the May meeting.
- CMSA received the GFOA Distinguished Budget Award for FY 17.
- Sloan Bailey has been appointed as an alternate Commissioner by the SD2 Board.

Chair Hartzell stated that she is planning to retire from the CMSA Board at the end of the fiscal year. She stated she will confer with Dan Hillmer on his availability to attend the meetings, preferably before June. She stated she has enjoyed serving on this Board and appreciates the spirit of cooperation and energy the members have exhibited during her time on the Board.

Vice-Chair Furst indicated she would be willing to serve as Chair.

12. Next Scheduled Meeting

Tuesday, May 9, 2017 at 7:00 p.m. at the Agency office.

Commissioner Kelly moved to adjourn the meeting; second, Commissioner Furst.

Chair Hartzell adjourned the meeting at 8:31 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 April 2017

I. Accounts Summary: Bank & Investment Accounts

<u>Summary of Bank & Money Market Accounts</u>		
Westamerica Bank - Account Activity shown below	$	246,277.25
Local Agency Investment Fund (LAIF) - Refer to Schedule of Investments		15,256,842.67
California Asset Management Program (CAMP) - Refer to Schedule of Investments		359,563.48
Total Bank & Investment Accounts: Ending Balance on April 30, 2017	$	15,862,683.40

II. Account Activity for Westamerica Bank

Beginning Balance on April 1, 2017		197,646.76
Cash Receipts (Deposits into Westamerica):		
Transfers from LAIF		700,000.00
JPA Service Charges (FY17 Q4: SD#1, SD#2)		1,638,421.38
Connection Fees (Capacity Charges): RVSD - 1 Residential Connection		5,863.20
Permit and Inspection Fees		7,168.44
LGVSD - pollution prevention & FOG (FY17 3Q: Jan-Mar)		2,488.04
RVSD - FOG Program (FY17 3Q: Jan-Mar)		3,180.48
SD#2 FOG Program (FY17 3Q: Jan-Mar)		1,637.12
Mercury Reduction Program (NSD: FY17 2Q & 3Q: Nov-Feb)		2,576.19
Revenue from Haulers & RVs		5,189.97
Revenue from Organic Waste Programs		12,718.32
County-wide Public Education Program Reimbursement (FY17 3Q: LGVSD, NSD, SD#5, SMCSD)		13,178.69
SD 2 Operations & Maintenance Contract (FY17: January)		50,106.52
SQSP Wastewater Services Contract (FY17: February)		108,237.75
SQSP: Approved extra work for FY17 CIP		2,341.00
SQ Village Operations & Maintenance Contract (FY17: February)		5,475.03
Misc Revenue: CSRMA Program Dividend		18,280.89
Miscelleneous Reimbursements: NSD share recruitment expenses for Health & Safety Manager position.		6,800.00
Total Cash Receipts	$	2,583,663.02
Cash Disbursements (Withdrawals from WestAmerica):		
April 2017 Operating account disbursements register (see attached)		$801,371.93
Regular Payroll paid 04/14/17		132,448.50
Regular Payroll paid 04/28/17		133,891.87
Transfers to EFTPS Federal Payroll Taxes (04/05, 04/19)		63,507.52
Final Separation Pay (1)		3,706.17
Transfers to LAIF (FY17 Q4: JPA Payments)		1,400,000.00
Bank Fee		106.54
Total Cash Disbursements		$2,535,032.53
Ending Balance on April 30, 2017	$	246,277.25

Prepared by:
Ken Spray, Administrative Services Manager

Reviewed by:
Jason Dow, General Manager

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

Check Number	Date	Vendor/Payee	Amount	Description
14938				Last check # from prior month's register
14939	4/3/2017	Phillip Frye	225.63	Reimbursement for retiree health benefits by check
14940	4/3/2017	James L. Johnson	172.48	Reimbursement for retiree health benefits by check
14941	4/3/2017	Cal Public Employee Retirement	61,720.61	Medical Insurance, April 2017
14942	4/3/2017	Delta Dental Plan of Calif.	7,918.51	Dental Insurance, April 2017
14943	4/3/2017	Lincoln Financial Group	1,718.73	Life Insurance, April 2017
14944	4/3/2017	Vision Service Plan -(CA)	938.39	Vision Insurance, April 2017
14945	4/11/2017	American Sentry Systems, Inc.	105.00	Alarm service, April - June 2017
14946	4/11/2017	BreakPoint Sales	256.15	Office supplies
14947	4/11/2017	CalCPA	510.00	Membership fee (1 employee)
14948	4/11/2017	Chris Finton	1,000.00	Employee expenses eligible for dental reimbursement
14949	4/11/2017	Fisher Scientific	1,045.20	Lab supplies (7 invoices)
14950	4/11/2017	GHD Inc	1,249.75	Prof Svcs-Design: SQPS machine guarding, March 2017
14951	4/11/2017	Hach Company	133.00	Lab supplies
14952	4/11/2017	Hazen and Sawyer	639.85	Prof Svcs: Microscopic analysis, February 2017
14953	4/11/2017	Henris Roofing Company	3,992.00	Prof Svcs: Admin Building roof repair
14954	4/11/2017	IEDA, Inc.	755.00	Labor relations consulting, April 2017
14955	4/11/2017	Koff & Associates, Inc.	8,750.00	Prof Svcs: Laboratory and Safety Director recruitment, final payment
14956	4/11/2017	Lystek International LTD	11,007.84	Biosolids beneficial reuse fee, March 2017
14957	4/11/2017	Marin Office Supply	1,227.51	Office supplies, March 2017
14958	4/11/2017	Michael D Brown	80,795.34	Prof Svcs: PG&E Interconnection Agreement Project, October 2016 - March 2017
14959	4/11/2017	Monica Oakley	1,667.50	Prof Svcs: Regulatory consulting, 02/25-03/31/2017
14960	4/11/2017	Navia Benefit Solutions	52.20	Monthly fee
14961	4/11/2017	P.G.& E.	59.36	Electricity service for SF Drake site, 02/17-03/20/2017
14962	4/11/2017	Platt	2,848.40	Electrical supplies, March 2017
14963	4/11/2017	Polydyne, Inc.	35,347.39	Clarifloc Polymer (1 delivery)
14964	4/11/2017	William Ray Consulting LLC	375.00	Prof. Svcs.: Interim Lab Director, final payment, March 2017
14965	4/11/2017	Red Wing Brands of America Inc	184.85	Safety shoes (1 employee)
14966	4/11/2017	State Water Resources Ctrl Brd	300.00	SWRCB membership fees (1 employee)
14967	4/11/2017	TAP Plastics, Inc.	176.85	Maintenance parts & supplies (2 invoices)
14968	4/11/2017	Thomas Fish Company	140.50	Lab supplies
14969	4/11/2017	Thatcher Company of	4,534.54	Ferric Chloride (1 delivery)
14970	4/11/2017	Total Waste Systems, Inc.	7,253.04	Biosolids hauling fee, March 2017
14971	4/11/2017	Univar USA Inc	10,913.68	Sodium Bisulfite (3 deliveries); Sodium Hypochlorite (2 deliveries)
14972	4/11/2017	Websoft Developers, Inc.	12,000.00	Source Control Program database development
14973	4/17/2017	CASH-PETTY CASH Replenishment	362.85	Petty cash replenishment
14974	4/17/2017	CalPERS	36,209.99	Retirement Pension Contribution: Agency and EPMC, PPE 04/08/2017 (Note C)
14975	4/17/2017	California Public Employee	4,479.04	Contribution to Retiree Health Benefits Trust Fund, PPE 04/08/2017 (Note C)
14976	4/17/2017	California State Disbursement	314.76	EE Garnishment, PPE 04/08/2017 (Note A)
14977	4/17/2017	ICMA Retirement Trust-457	5,283.00	Deferred compensation contributions, PPE 04/08/2017 (Note A)
14978	4/17/2017	Navia Benefit Solutions	640.19	Flexible spending account, PPE 04/08/2017
14979	4/17/2017	Nationwide Retirement	4,238.30	Deferred compensation contributions, PPE 04/08/2017 (Note A)
14980	4/17/2017	Operating Engineers Public & M	1,357.78	MARA contributions, PPE 04/08/2017
14981	4/17/2017	SEIU Local 1021	1,098.34	Union dues, PPE 04/08/2017
14982-1502:	4/17/2017	Award	11,500.00	CWEA State Awards (41 employees)
15023	4/18/2017	AireSpring	699.59	Telephone service, March 2017
15024	4/18/2017	AT&T	283.84	Fax and emergency phone service, 04/07-05/06/2017
15025	4/18/2017	AT&T Dataplan	347.63	Wireless service, 03/02-04/01/2017
15026	4/18/2017	Burlingame Engineers, Inc.	4,569.28	Chlorination system pump rebuild parts
15027	4/18/2017	Carollo Engineers, Inc.	16,586.73	Prof Svcs: 2017 Facilities Master Plan Project, March 2017

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

Check Number	Date	Vendor/Payee	Amount	Description
15028	4/18/2017	Comcast	182.53	Internet service, 04/04-05/03/17
15029	4/18/2017	CWEA TCP	83.00	CWEA membership fee (1 employee)
15030	4/18/2017	Evoqua Water Tech LLC	522.00	Lab supplies (2 invoices)
15031	4/18/2017	Jon Farr	1,221.20	Employee per diem advance: CWEA Annual Conference; Employee expenses eligible for dental reimbursement
15032	4/18/2017	Michael Gardea	1,345.88	Employee Computer Loan Program (Note A)
15033	4/18/2017	Grainger	715.89	Maintenance parts & supplies (4 invoices)
15034	4/18/2017	Hagel Supply Co.	375.13	Utility supplies, March 2017
15035	4/18/2017	Hopkins Technical Products Inc	3,224.54	Pulsation dampeners (3) for polymer pumps
15036	4/18/2017	Mark Koekemoer	106.71	Employee Expense Reimb: ELTAC Sacramento Conference
15037	4/18/2017	Lord and Sons Inc	1,821.30	Hardware supplies for piping and valves (2 invoices)
15038	4/18/2017	Marin Independent Journal	398.00	Public Notice: Bid notices for process chemicals (5)
15039	4/18/2017	Marin Sanitary Service	6,708.45	Yardwaste and grit disposal service, March 2017
15040	4/18/2017	Marin Resource Recovery Center	61.25	Green waste
15041	4/18/2017	MicroCool	2,336.78	Parts for biotower misters
15042	4/18/2017	Ben Northcroft	270.00	Employee per diem advance: CWEA Annual Conference
15043	04/18/2017	Regional Government Svcs	240.00	Prof. Svcs.: Source Control Consultant, March 2017
15044	04/18/2017	Ricoh USA Inc	1,242.32	Admin copier lease, 03/23-04/22/17
15045	04/18/2017	Rock Steady Juggling	1,000.00	Public Education Program: Outreach at two schools (Note B)
15046	04/18/2017	Rockwell Solutions	2,510.41	Spare parts for Thickened Waste Activated Sludge pumps
15047	04/18/2017	State Water Resources Ctrl Brd	300.00	SWRCB membership fees (1 employee)
15048	04/18/2017	Univar USA Inc	8,798.46	Sodium Bisulfide (1 delivery); Sodium Hypochlorite (2 deliveries)
15049	04/18/2017	USP Technologies	10,135.74	Hydrogen Peroxide (1 delivery)
15050	04/18/2017	Abel Villarreal	270.00	Employee per diem advance: CWEA Annual Conference
15051	04/18/2017	VMAC	658.16	Air compressor service kit for cogeneration engine
15052	04/18/2017	Waste Management	18,587.35	Redwood Landfill biosolids reuse fee, March 2017
15053	04/18/2017	Waters, Jeff	201.60	Employee Expense Reimb: Excel training
15054	04/18/2017	Wiley Price & Radulovich	907.50	Prof Svcs: Employment Law services, March 2017
15055	04/18/2017	Yamaha Golf Cars Of	11,744.38	Replacement electrical cart
15056-15078		VOID		
15079	04/20/2017	Alliant Insurance Services	987.62	Underground storage tank insurance renewal fee, FY17-18
15080	04/20/2017	Amazon	1,830.10	Computer and office supplies, March-April 2017
15081	04/20/2017	American Battery Co.	582.89	Batteries for electric carts
15082	04/20/2017	American Soil Products	97.56	Utility supplies
15083	04/20/2017	Aramark Uniform Services	1,575.62	Uniform service, March 2017
15084	04/20/2017	CAL-CARD	11,987.93	State of California Purchase Card, February-March 2017
15085	04/20/2017	CWEA TCP	83.00	CWEA membership fee (1 employee)
15086	04/20/2017	Home Depot Credit Services	117.04	Maintenance parts & supplies, March 2017
15087	04/20/2017	Jackson's Hardware	404.48	Maintenance parts & supplies, March 2017
15088	04/20/2017	Ken Grady Co., Inc.	203.39	Maintenance parts & supplies, March 2017
15089	04/20/2017	Kone Inc	126.35	Elevator maintenance, April 2017
15090	04/20/2017	Marin Municipal Water District	528.32	Water service, 02/09-04/07/17 (3 invoices)
15091	04/20/2017	Ongaro & Sons, Inc.	318.19	Maintenance parts & supplies
15092	04/20/2017	Orchard Business/SYNCB	175.21	Maintenance parts & supplies, March 2017
15093	04/20/2017	Roy's Sewer Service, Inc.	1,250.00	SQVSMD PS Maint: Vactor services (Note B)
15094	04/20/2017	Thomas & Associates	42.73	Maintenance parts & supplies
15095	04/20/2017	Toyota Material Handling	1,006.42	Controller for electric cart
15096	04/20/2017	Univar USA Inc	17,369.73	Sodium Bisulfite (3 deliveries); Sodium Hypochlorite (2 deliveries)
15097	04/20/2017	Valley Power Systems-North	379.13	Maintenance parts & supplies
15098	04/20/2017	Western Exterminator Co. Inc.	163.50	Pest control, March 2017
15099	04/20/2017	CAL-CARD	47.39	State of California Purchase Card, February-March 2017

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

Check Number	Date	Vendor/Payee	Amount	Description
15100	04/24/2017	Automation Direct Co., Inc.	956.00	SQSP PS Maint: Four safety station boxes (Note B)
15101	04/24/2017	Caltest Analytical Laboratory	2,445.09	Lab analyses (5 invoices)
15102	04/24/2017	City Electric Supply	331.08	Electrical supplies (2 invoices)
15103	04/24/2017	ConservationCorps North Bay	2,586.00	Prof Svcs: Andersen Hillside clean-up, March 2017
15104	04/24/2017	CWEA TCP	93.00	CWEA membership fee (1 employee)
15105	04/24/2017	DELL Marketing L.P.	35,105.05	Replacement SCADA servers (2) and interconnect switches (4)
15106	04/24/2017	Dominican University of CA	4,550.00	Leadership development course tuition fee (2 employees)
15107	04/24/2017	Fastenal Company	1,201.17	Maintenance parts & supplies
15108	04/24/2017	Fisher Scientific	332.41	Lab supplies
15109	04/24/2017	Galco Industrial Electronics	142.83	SQSP PS Maint: Grinder parts (Note B)
15110	04/24/2017	Grainger	317.61	Maintenance parts & supplies (4 invoices)
15111	04/24/2017	McMaster-Carr Supply Co.	1,726.42	Maintenance parts & supplies (11 invoices)
15112	04/24/2017	Modular Space Corporation	3,758.23	Mobile office and storage containers (2) for Maintenance staff
15113	04/24/2017	Platt	418.00	Maintenance parts & supplies (3 invoices)
15114	04/24/2017	Praxair Distribution, Inc.	88.75	Welding supplies
15115	04/24/2017	R & B Company	333.23	Cogeneration engine cooling piping
15116	04/24/2017	Ryan Herco Flow Solutions	247.01	Lab supplies
15117	04/24/2017	Safety-kleen Systems, Inc	257.20	Maintenance parts & supplies
15118	04/24/2017	Shamrock Materials, Inc.	88.19	Propane
15119	04/24/2017	Van Bebber Bros., Inc.	72.14	Maintenance parts & supplies
15120	04/24/2017	VWR International	1,751.76	Lab supplies (5 invoices)
15121	04/28/2017	Amazing Solutions, Inc.	150.00	Prof Svcs: Accounting software support, March 2017
15122	04/28/2017	Sandra L. Batis	89.95	Employee Expense Reimb: Skid-steer loader training
15123	04/28/2017	Battalion One Fire Protection	1,850.00	Annual fire sprinkler testing and fire hydrant flushing
15124	04/28/2017	California Utilities Emergency	500.00	CUEA annual membership, FY17-18
15125	04/28/2017	Fisher Scientific	320.79	Lab supplies (3 invoices)
15126	04/28/2017	Frontier Analytical Lab.	900.00	NPDES Permit: Mercury and PCB sampling and analysis
15127	04/28/2017	GFOA	225.00	GFOA PAFR award review fee, 2016
15128	04/28/2017	HDR Engineering, Inc.	136,164.69	Prof Svcs: San Rafael and Ross Valley Interceptor Condition Assessment, 08/21/2016-03/04/2017
15129	04/28/2017	IDEXX Distribution Inc	202.94	Lab supplies
15130	04/28/2017	Lubrication Engineers, Inc.	381.93	Lubricants
15131	04/28/2017	Marin Resource Recovery Center	411.25	Green waste
15132	04/28/2017	Marin Municipal Water District	897.95	Water service, 02/10-04/10/17 (2 invoices)
15133	04/28/2017	Pacific EcoRisk	3,785.00	NPDES Permit: Chronic Toxicity testing
15134	04/28/2017	Pipette.com	443.69	Lab supplies
15135	04/28/2017	Praxair Distribution, Inc.	142.75	Lab supplies
15136	04/28/2017	SPURR	502.56	Natural gas, March 2017
15137	04/28/2017	Thatcher Company of	4,631.25	Ferric Chloride (1 delivery)
15138	04/28/2017	Univar USA Inc	4,136.12	Sodium Bisulfite (1 delivery)
15139	04/28/2017	VWR International	612.07	Lab supplies (2 invoices)
15140	04/28/2017	Water Components & Bldg. Supp.	222.99	Maintenance parts & supplies (3 invoices)
15141	04/28/2017	CalPERS	35,552.30	Retirement Pension Contribution: Agency and EPMC, PPE 04/22/2017 (Note C)
15142	04/28/2017	California Public Employee	4,479.04	Contribution to Retiree Health Benefits Trust Fund, PPE 04/22/2017 (Note C)
15143	04/28/2017	California State Disbursement	314.76	EE Garnishment, PPE 04/22/2017 (Note A)
15144	04/28/2017	ICMA Retirement Trust-457	5,283.00	Deferred compensation contributions, PPE 04/22/2017 (Note A)
15145	04/28/2017	Navia Benefit Solutions	640.19	Flexible spending account, PPE 04/22/2017
15146	04/28/2017	Nationwide Retirement	4,238.30	Deferred compensation contributions, PPE 04/22/2017 (Note A)
15147	04/28/2017	Operating Engineers Public & M	1,357.78	MARA contributions, PPE 04/22/2017
15148	04/28/2017	SEIU Local 1021	1,098.34	Union dues, PPE 04/22/2017

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

Check Number	Date	Vendor/Payee	Amount	Description
Payments by Automatic Clearing House:				
40417	04/03/2017	Payments to 23 retirees	6,517.06	Reimbursement for retiree health benefits
41117	04/11/2017	Buhler Commercial	41,809.50	Prof. Svcs.: Solids Handling Building Ventilation Improvements; Progress Payment No. 1
40317	04/03/2017	EDD	11,058.37	State & SDI Taxes, PPE 03/25/2017
41417	04/14/2017	EDD	11,820.39	State & SDI Taxes, PPE 04/08/2017
419171	04/19/2017	Maribeth Bushey	100.00	Stipend for 04/11/2017 Board Meeting
419172	04/19/2017	Dean DiGiovanni	100.00	Stipend for 04/11/2017 Board Meeting
419173	04/19/2017	Diane L. Furst	100.00	Stipend for 04/11/2017 Board Meeting
419174	04/19/2017	Thomas E Gaffney	100.00	Stipend for 04/11/2017 Board Meeting
419175	04/19/2017	Kathleen Ohlson Hartzell	100.00	Stipend for 04/11/2017 Board Meeting
419176	04/19/2017	Douglas T Kelly	100.00	Stipend for 04/11/2017 Board Meeting
		Grand Total	801,371.93	

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 April 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)			
Money Market Funds (< 1 year in maturity)			
CAMP Cash Reserve Pool, 0.96%			
b1. Agency Unrestricted Reserve: Operating	$ 9,563.48	$ 9,563.48	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	**$ 359,563.48**	**$ 359,563.48**	
II. Investments managed by Local Agency Investment Fund (LAIF)			
Money Market Funds (< 1 year in maturity)			
Local Agency Investment Fund (LAIF), 0.55% (estimate)			
a. Current Year Operating	$ 3,397,553.42	$ 3,397,553.42	
b1. Agency Unrestricted Reserve: Operating	$ 2,754,738.52	$ 2,754,738.52	$ 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)	$ 8,112,527.73	$ 8,112,527.73	$ 6,128,566
Total with LAIF	**$ 15,256,842.67**	**$ 15,256,842.67**	
TOTAL INVESTMENTS	**$ 15,616,406.15**	**$ 15,616,406.15**	
Amount designated for Capital Reserves			
1. CAMP	$ -	$ -	
2. LAIF	$ 9,104,550.73	$ 9,104,550.73	$ 7,120,589
Total	**$ 9,104,550.73**	**$ 9,104,550.73**	**$ 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 $189,728.73 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.

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager

Approved: Jason Dow, General Manager JD

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

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

I. NPDES Permit Compliance

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

Enterococcus samples were collected during one blend event in April. CMSA's NPDES permit specifies monitoring for enterococcus bacteria during dry weather months and for each wet weather blend event, to verify compliance with established effluent limits. The enterococcus geometric mean for April was 4.8 MPN, well below our monthly limit of 35 MPN.

CMSA's annual effluent Mercury limit is 0.11 kg/yr, and the Agency's effluent limitations and discharge specifications for Mercury are detailed in Regional Board Order No. R2-2012-0096, the Mercury Watershed Permit. Compliance is determined annually for each wastewater agency listed in the permit, and is attained if the sum of all individual agencies' mercury mass emissions is not greater than the Aggregate Mass Emission Limit of 11 kg/yr. If the sum of all individual agency's mercury mass emissions is greater than 11 kg/yr, and CMSA exceeds its 0.11 kg/yr effluent limit, then CMSA shall be deemed to be in violation of its mercury mass limitation. CMSA's annual Mercury loading as noted in this report's Monthly Compliance Summary Table is 0.1173 kg/yr, and is primarily the result of large quantities of sediment in the collection system washing into the facility during unusually large storm events in January and February. Staff will continue to monitor its annual mercury loading to determine annual mercury loading compliance with the watershed permit.

II. Influent Flow

Rain events through April produced a total of 4.3 inches of rain as recorded by the Agency's rain gauge, and the resulting influent flows exceeded the treatment plant's maximum secondary capacity of 30 MGD on one occasion during the month. One blend event was posted on the Agency's website. The facility's average daily influent flow was 14.9 MGD.

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

April Monthly Influent Flows	**San Rafael (SRSD)**	**Ross Valley (SD#1)**	**San Quentin (SQSP)**	**Corte Madera (SD#2)**	**CMSA Plant Total**
Average Daily (MGD)	5.4 MGD	7.8 MGD	0.38 MGD	1.3 MGD	14.9 MGD
Total for Month (MG)	162.4 MG	233.4 MG	11.3 MG	38.9 MG	446.1 MG
Percent of Flow	36.4 %	52.3 %	2.6 %	8.7 %	100 %

III. Treatment Process

The influent temperature has remained below 22.0°C (71.6°F), and at this temperature range, sulfide generation in the collection systems is negligible. Agency staff is transitioning treatment processes and equipment between wet to dry weather modes of operation. This transition involved removing four primary clarifiers, two aeration basins, and two chlorine contact tanks from service in April. The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1206 mg/l, an 8.5% decrease in biomass from last month. The decrease in biomass aligned with the process control decision to carry between 1,100 and 1,300 mg/L to manage our biomass during this transitional period to drier weather conditions.

Graph #3 shows the Total Suspended Solids (TSS), which is a good indicator of the effluent quality. The TSS monthly average in April was 4.9 mg/l, which is 33.0% of our Key Performance Indicator (KPI) of 15 mg/l, and is 16.0% 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 thirteen coliform samples collected in April was above our KPI target of 30 MPN, (4/10 = 33 MPN), but remained well below our daily limit of 10,000 MPN. The higher than normal sample on April 10 was attributed to taking treatment processes/equipment offline during the transition from wet weather to dry weather modes of operation. The total coliform monthly geometric mean for April was 3.4 MPN, well below our permit's monthly limit of 240 MPN.

IV. Maintenance Activities

The cogeneration system produced 87.7% of the Agency's power in April, 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 more than one occasion in April when the cogeneration system was temporarily removed from service.

- On April 3, 13, and 20 the cogeneration system was offline to allow contractors to perform warranty repair work.
- On April 5 the cogeneration system was temporarily offline to test the engine's turbo-chargers.

In addition to cogeneration maintenance, staff was also able to complete scheduled project work and monthly preventative maintenance tasks. Work included replacement of the aeration basin air supply valves and actuators; refurbishment of the final effluent vault cuno filters; replacement of the suction and discharge pressure gauges and flow indicators on all carrier water pumps, and replacement of the lift assist assembly on the OWRF truck dump guardrail.

Attachment

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

Photos on the left depict the outdated blue air inlet valves. Photos on the right show the corresponding new white air inlet system components.

Aeration Basins Air Inlet Valves Replacement

Monthly Compliance Summary Table

Central Marin Sanitation Agency

April 2017

Final Effluent Monitoring

Parameter	Frequency	Units	Results	Limit
Carbonaceous BOD Highest Weekly Average	Weekly	mg/L	11.4	Maximum 40
Carbonaceous BOD Monthly Average	Monthly	mg/L	6.80	Maximum 25
Carbonaceous BOD Monthly Removal Rate	Monthly	%	96.3	Minimum 85
Total Suspended Solids Highest Weekly Average	Weekly	mg/L	7.2	Maximum 45
Total Suspended Solids Monthly Average	Monthly	mg/L	4.9	Maximum 30
Total Suspended Solids Monthly Removal Rate	Monthly	%	98.2	Minimum 85
Chlorine Residual Instant Limit	Instant	mg/L	<0.1	Maximum 0.0
Ammonia Monthly Average	Monthly	mg/L	18.2	Maximum 60
Ammonia Maximum Daily	Daily	mg/L	21.4	Maximum 120
pH Lower Limit	Continuous		6.9	Minimum 6
pH Upper Limit	Continuous		7.8	Maximum 9
Bacteriological Analysis				
Total Coliform Monthly Geometric Mean	3 X Week	MPN/100mL	3.4	Maximum 240
Total Coliform Daily Maximum	3 X Week	MPN/100mL	33.6	Maximum 10,000
Enterococcus Monthly Geometric Mean	Monthly	MPN/100mL	4.8	Maximum 35
Flow Through Bioassay				
Acute Toxicity 11 Sample 90th Percentile	Monthly	% survival	100	Minimum 70
Acute Toxicity 11 Sample Median	Monthly	% survival	100	Minimum 90
Metals Analysis				
Copper Daily Limit	Monthly	ug/L	4.2	Maximum 85
Copper Monthly Average	Monthly	ug/L	4.2	Maximum 49
Cyanide Daily Limit	Monthly	ug/L	ND	Maximum 41
Cyanide Monthly Average	Monthly	ug/L	ND	Maximum 21
Mercury Weekly Average	Weekly	ug/L	0.0057	Maximum 0.072
Mercury Monthly Average	Monthly	ug/L	0.0057	Maximum 0.066
Mercury Monthly Loading	Monthly	kg/mo	0.0070	
Mercury Annual Loading (watershed permit)	Jan-Dec	kg/yr	0.1173	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
Chronic Bioassay Toxicity	every 3 mos	toxicity units	X	Maximum 20
Chronic Bioassay Toxicity (3 sample median)	every 3 mos	toxicity units	X	Maximum 10
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	ND	Maximum 20
Oil and Grease Monthly Average	Quarterly	mg/L	ND	Maximum 10

Flow Analysis	Daily Max	Hourly Max	5 minute Max	Monthly Average
Effluent Flow (a)	42.0	65.6	69.4	14.8
Influent Flow (a)	39.4	65.9	69.1	14.9
# Days Blended				1

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

* Monitoring Not Required This Month

X Data not available at report time

ND = None Detected

DNQ = Detected but Not Quantified

- **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 usually we only are required to take 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, Oil and Grease** - Quarterly we are required to monitor our effluent for Fats, Oils, and Grease.

- **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
April 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
Average Total Suspended Solids (TSS) in:	235	mg/l	
Average TSS out:	142	mg/l	
Average Percent Removal Achieved:	35.0	%	Design 50-70% Removal
Average Total Biochemical Oxygen Demand (BOD) in:	184	mg/l	
Average BOD out:	102	mg/l	
Average Percent Removal Achieved:	45.4	%	Design 25-40% Removal
Average Plant Influent Flows:	14.9	MGD	

Biotower Performance

Average TSS out:	71.5	mg/l	
Average BOD out:	69.4	mg/l	
Average Percent BOD Removal Achieved:	31.4	%	Design 25-30% Removal

Aeration Tanks/Activated sludge

Dissolved Oxygen set point:	2.0	mg/l
Average MLSS:	1,206	mg/l
Average MCRT:	2.8	Days
Average SVI:	145	

Secondary Clarifiers

Average WAS concentration: 8,730 mg/l

Final Effluent

Average Effluent TSS for the month was:	4.9	mg/l	(Maximum Limit: 30mg/l)
Week #1 weekly average	7.2		(Maximum Limit: 45mg/l)
Week #2 weekly average	3.6		"
Week #3 weekly average	4.2		"
Week #4 weekly average	3.9		"
Monthly average TSS removal efficiency through the plant was:	98.2	%	(Minimum Limit: 85%)
Average Effluent BOD was:	6.6	mg/l	(Maximum Limit: 25mg/l)
Week #1 weekly average	11.4		(Maximum Limit: 40mg/l)
Week #2 weekly average	3.8		"
Week #3 weekly average	5.3		"
Week #4 weekly average	5.9		"
Monthly average BOD removal efficiency through the plant was:	96.5	%	(Minimum Limit: 85%)

Disinfection Dosing Rate:		4.3	mg/l	monthly average
Total Coliform Monthly Geometric Mean:		3.4	MPN	(Maximum 240)
The Daily Maximum Total Coliform Count for the month was:		33.6	MPN	(Maximum 10,000)
Enterococcus Monthly Geometric Mean:		4.84	MPN	(Maximum, 35 MPN)
Effluent pH for the month was:	Min	6.9		(Min 6.0)
	Max	7.8		(Max 9.0)

Digester Treatment

Average Thickened Waste Concentration from the RDT was:	6.6	%		
Average percent of Volatile Solids destroyed was:	65.0	%		
Cubic feet of biogas produced was:	8,964,448	(Total)	298,815	(Daily Average)
Average temperature of the digester was:	99.9	degrees Fahrenheit		

Executive Summary Process Performance Data
April 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:	2.4	%
Average Biosolids concentration was:	26.0	%
Average TSS of the Centrate was:	0.031	%
Solids capture of the Centrifuge was:	98.7	%
Polymer use per Dry ton of biosolids was:	19.70	#/dry ton
Average polymer feed rate per run was:	4.00	gpm
Average concentration of the polymer batches was:	0.36	%
Average sludge feed rate per run was:	60.0	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 member agency flows.
The Y-axis is the dry weather flow range of 0-30 MGD.

Graph #3:
Depicts the total suspended solids in the effluent.
Our monthly average was 4.9 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 3.4 MPN through April, which is less than our KPI median of 30 MPN and permit limit of 240 MPN. The higher KPI value on April 10 was attributed to taking treatment processes/equipment offline during the transition to dry weather modes of operation.

Graph #5:
Depicts the effluent BOD which is measuring the oxygen demand of the wastewater.
The April effluent BOD average was 6.6 mg/l, well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month. As shown on graph #5, the higher KPI value was due to elevated flows from April 6 storm event.

Graph #6:
Depicts the degree to which the biosolids have been dewatered.
As shown on graph #6, biosolids concentration was below our KPI of 25% for 3 days in April due to plugging issues with a centrate line, and a communication failure associated with centrifuge #1 hydraulic backdrive unit.

Graph #7:
Depicts the amount of Biogas that is produced in the digesters, and then used to produce electricity.
Biogas production in April averaged 298,815 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 co-generation vs. the energy purchase from MCE for agency operations.
As shown on graph #8, the cogeneration engine was periodically off-line throughout of the month. On April 3, 13, and 20, the cogeneration system was offline to allow contractors to perform warranty repair work, and April on 5, the cogeneration system was temporarily secured to test the engine turbo-chargers.

- **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.

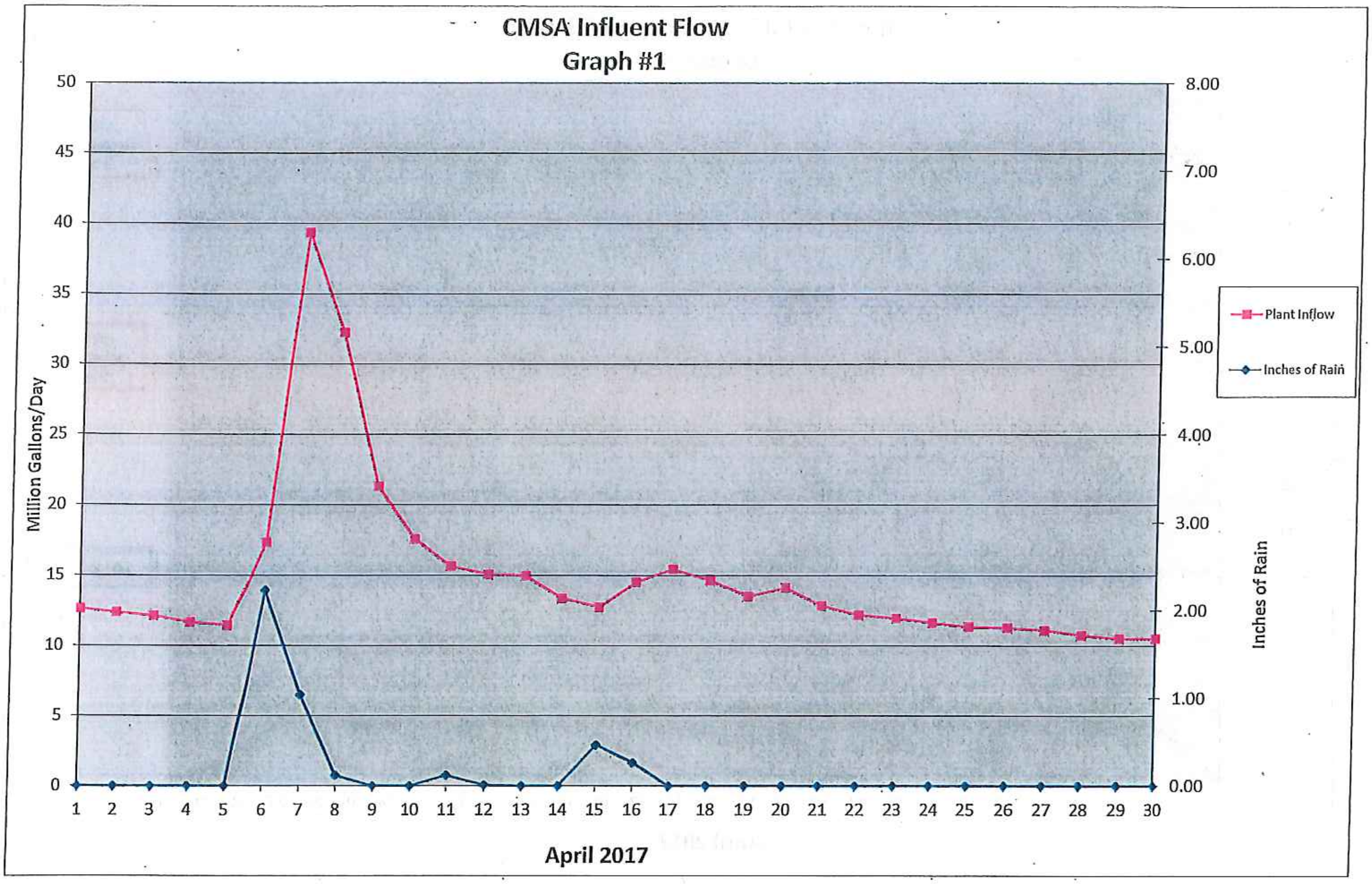
- **Thickened Waste Activated Sludge (TWAS):** Waste activated sludge is thickened in the RDTs, and then the TWAS product is pumped to the digester for processing.

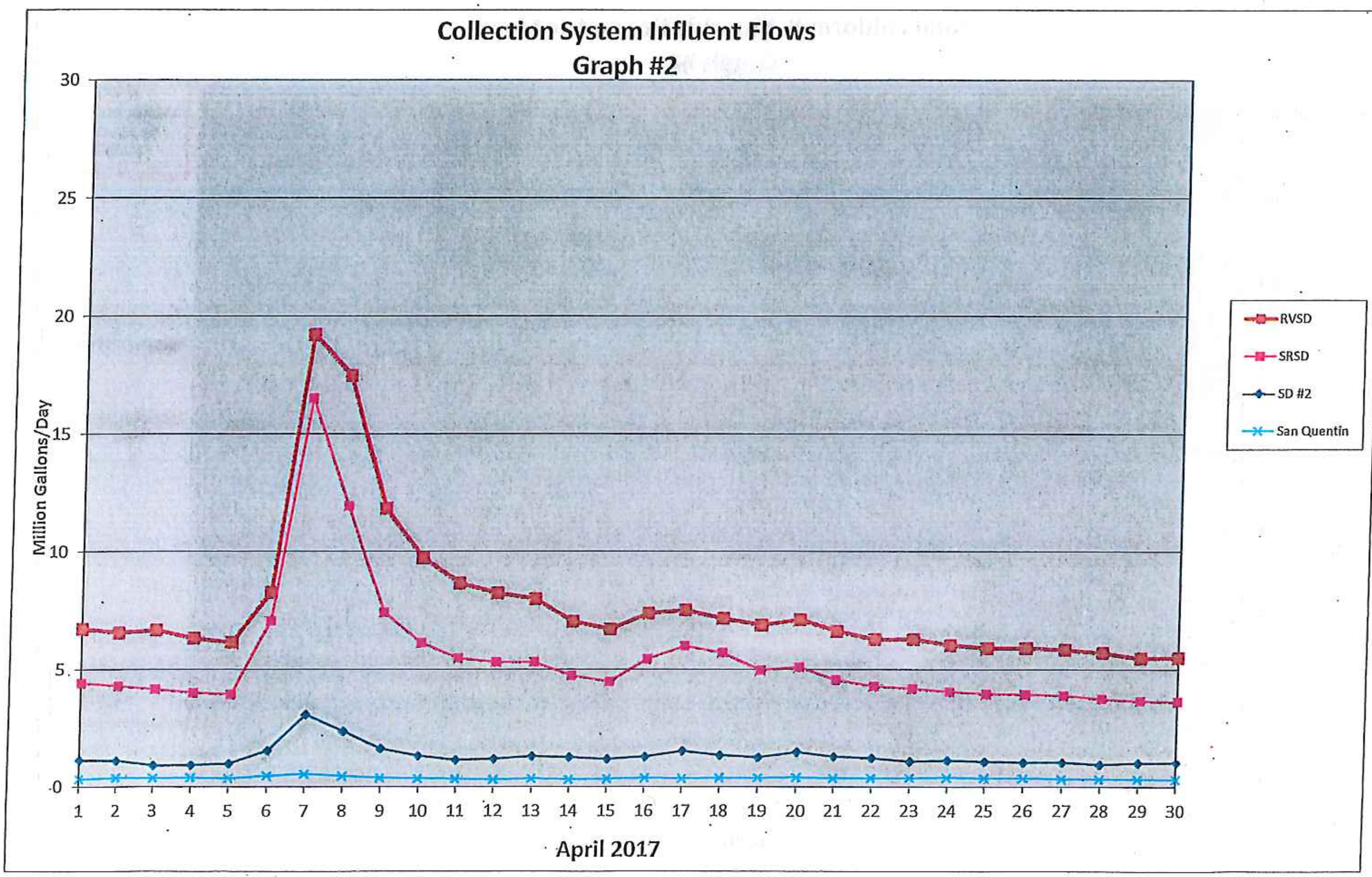
- **Volatile Solids:** Organic content of the wastewater suspended solids.

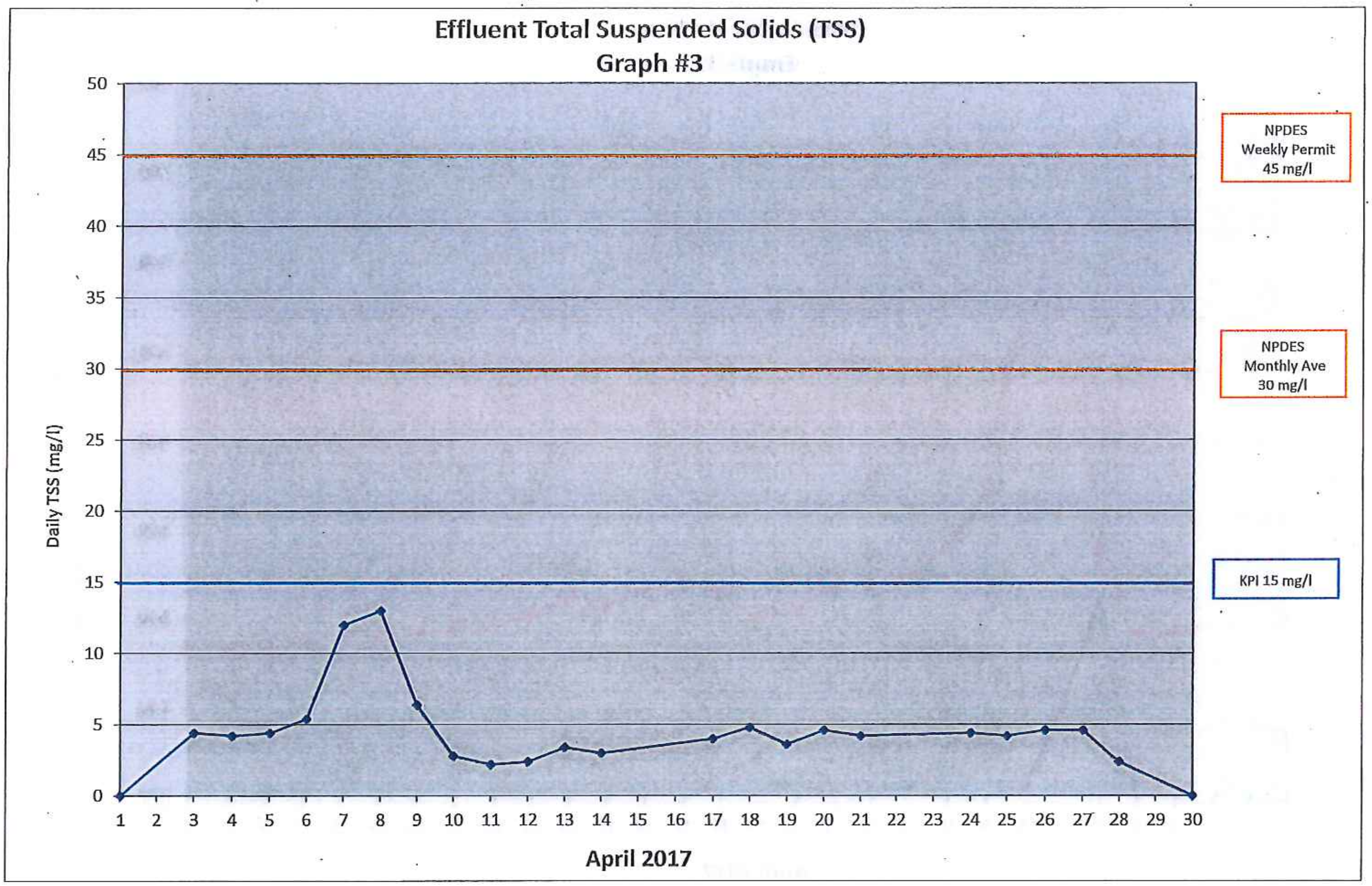
- **Waste Activated Sludge (WAS):** Biomass that is removed from the secondary clarifiers pumped to the RDTs for thickening.

Units of Measurement

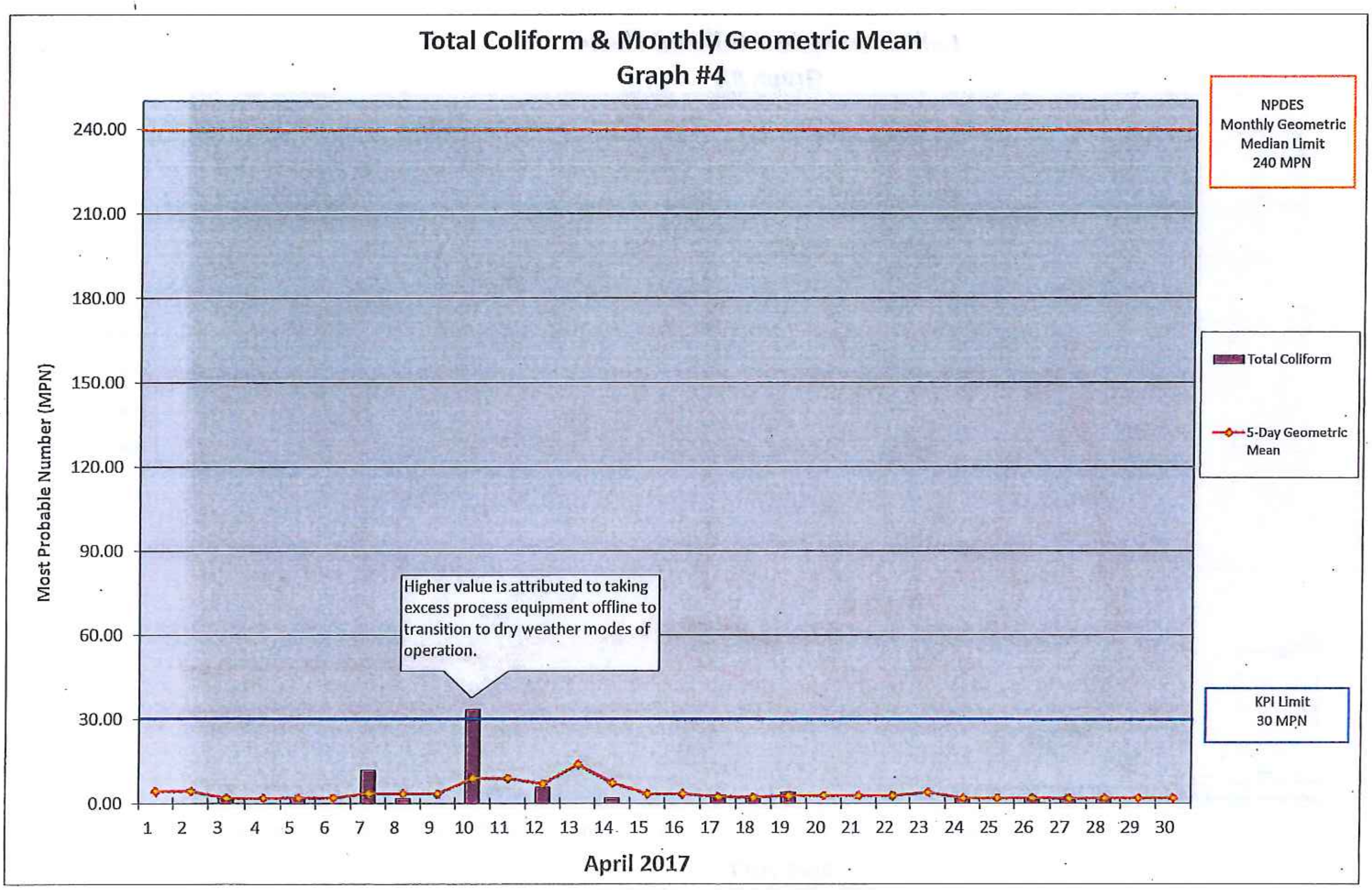
- kg/month (Kilograms per Month): 1 kilogram = 2.205 lbs.
- KPI (Key Performance Indicators): The Agency's process performance goals.
- Kwh (Kilowatt Hours): A unit of electric power equal to using 1 Kw for 1 hour.
- Milligrams per Liter (mg/L): A measure of the concentration by weight of a substance 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
Million Gallons/Day
50
45
40
35
30
25
20
15
10
5
0
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Inches of Rain
Plant Inflow
Inches of Rain
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
April 2017

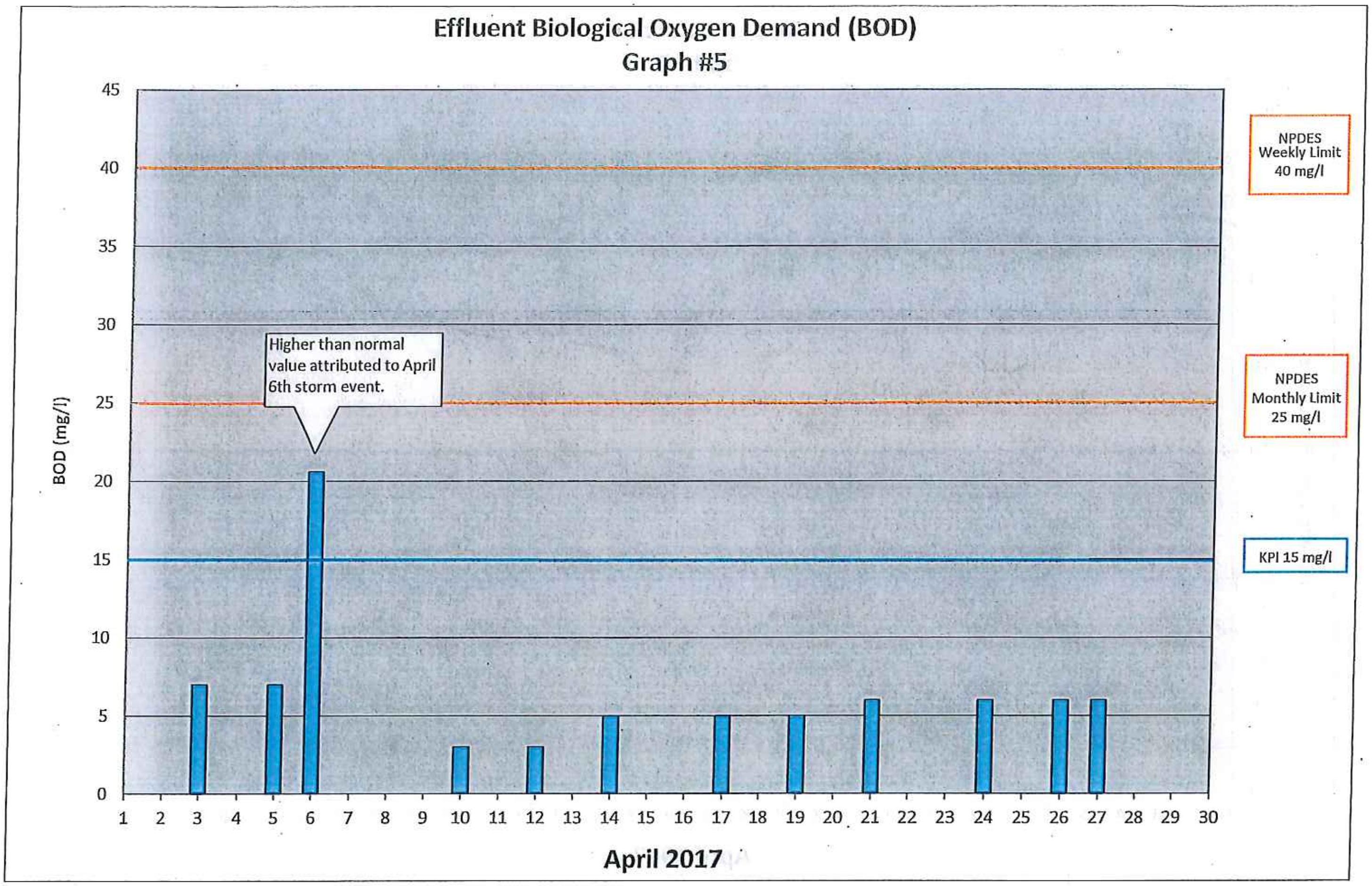

Collection System Influent Flows
Graph #2
Million Gallons/Day
30
25
20
15
10
5
0
RVSD
SRSD
SD #2
San Quentin
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
April 2017



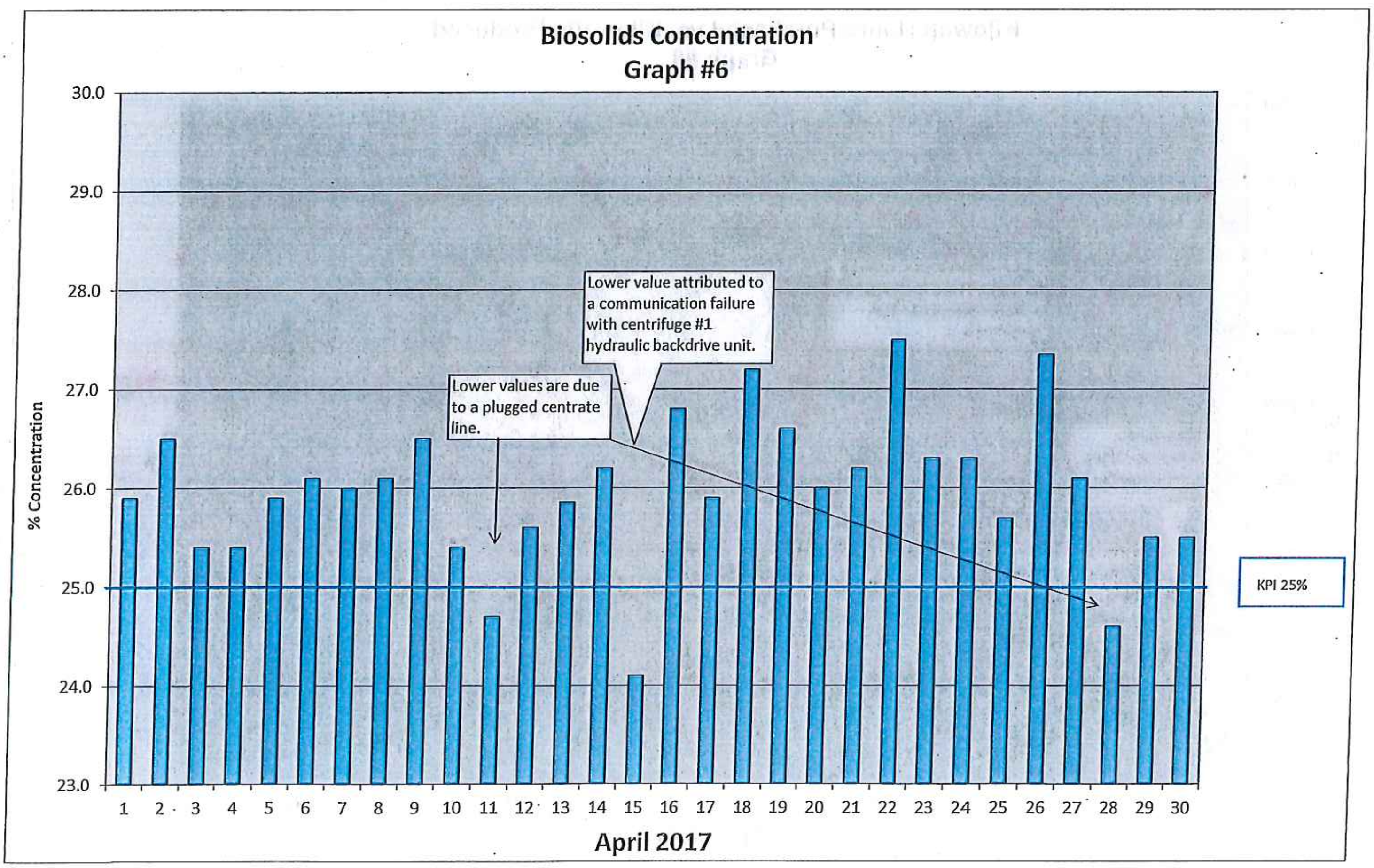
Effluent Total Suspended Solids (TSS)
Graph #3
Daily TSS (mg/l)
50
45
40
35
30
25
20
15
10
5
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
April 2017
NPDES Weekly Permit 45 mg/l
NPDES Monthly Ave 30 mg/l
KPI 15 mg/l



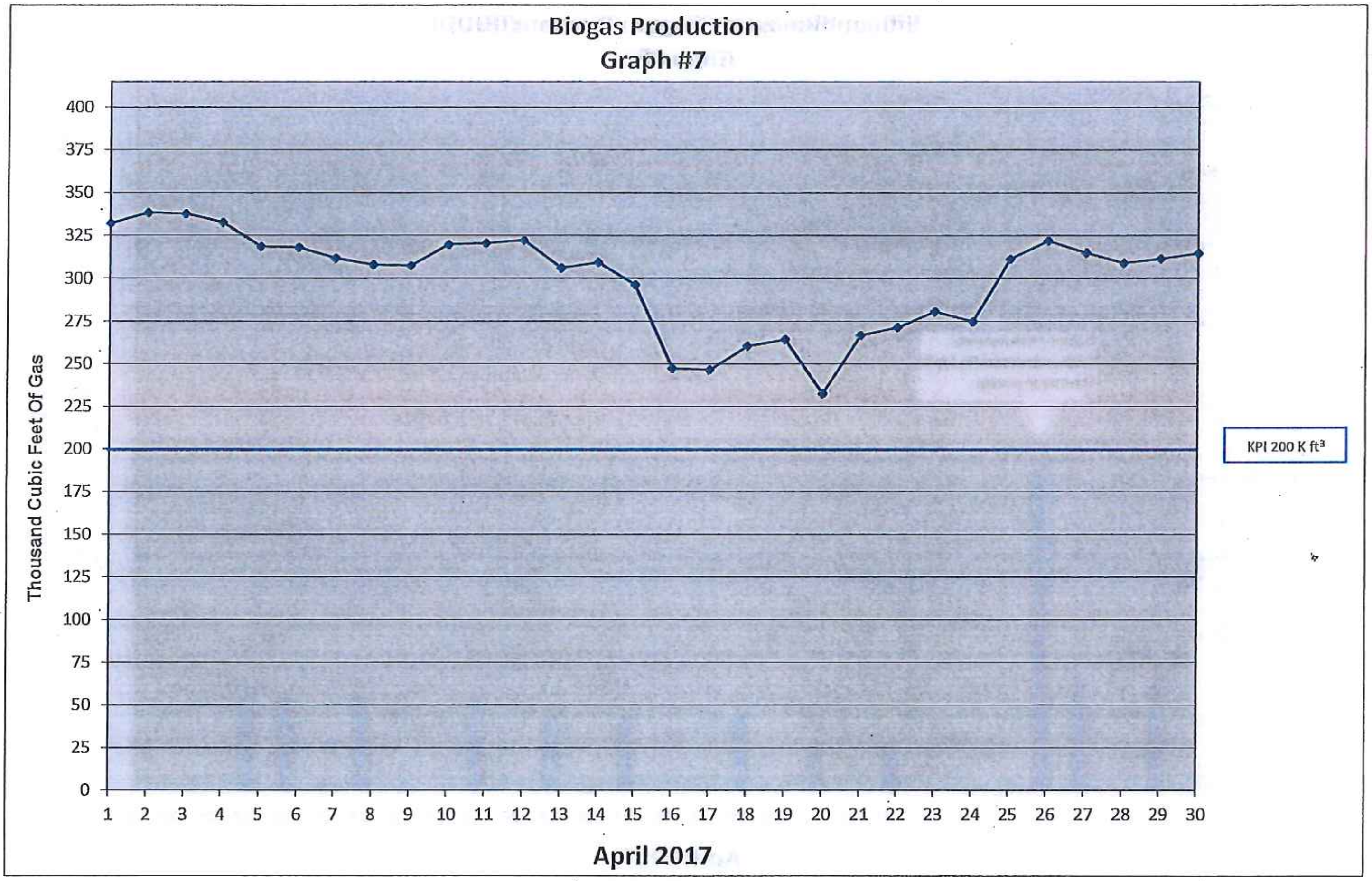
Total Coliform & Monthly Geometric Mean
Graph #4
Most Probable Number (MPN)
240.00
210.00
180.00
150.00
120.00
90.00
60.00
30.00
0.00
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
April 2017
NPDES Monthly Geometric Median Limit 240 MPN
Total Coliform
5-Day Geometric Mean
KPI Limit 30 MPN
Higher value is attributed to taking excess process equipment offline to transition to dry weather modes of operation.



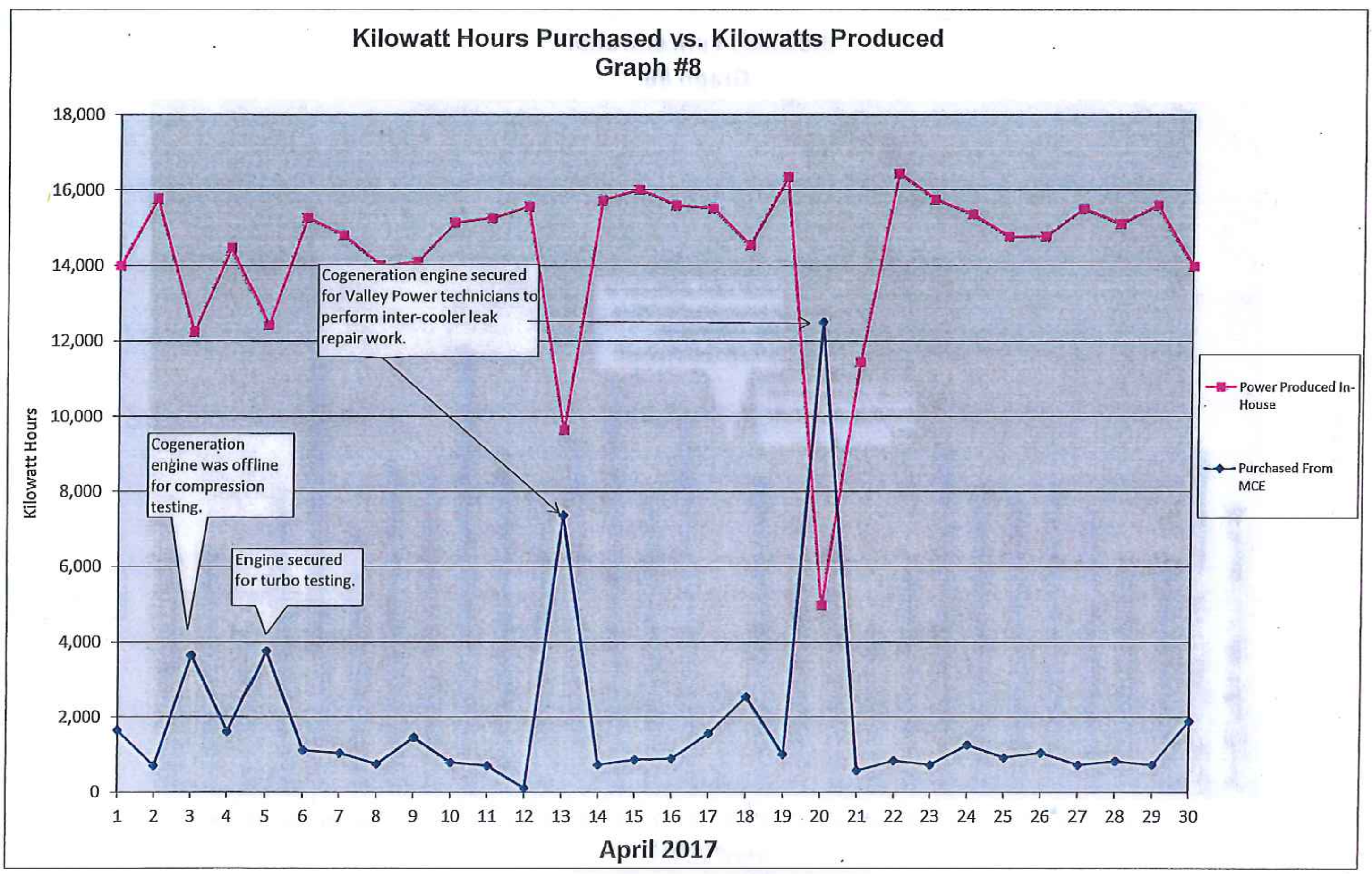
Effluent Biological Oxygen Demand (BOD)
Graph #5
NPDES Weekly Limit 40 mg/l
NPDES Monthly Limit 25 mg/l
KPI 15 mg/l
Higher than normal value attributed to April 6th storm event.
BOD (mg/l)
45
40
35
30
25
20
15
10
5
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
April 2017



Biosolids Concentration
Graph #6
Lower value attributed to a communication failure with centrifuge #1 hydraulic backdrive unit.
Lower values are due to a plugged centrate line.
KPI 25%
% Concentration
30.0
29.0
28.0
27.0
26.0
25.0
24.0
23.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
April 2017



Biogas Production
Graph #7
Thousand Cubic Feet Of Gas
400
375
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
April 2017
KPI 200 K ft³



Kilowatt Hours Purchased vs. Kilowatts Produced
Graph #8
Kilowatt Hours
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Cogeneration engine secured for Valley Power technicians to perform inter-cooler leak repair work.
Cogeneration engine was offline for compression testing.
Engine secured for turbo testing.
Power Produced In-House
Purchased From MCE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
April 2017

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: Performance Metric Report – April 2017

Recommendation: Accept the April 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 has been exceptional, process metrics were within normal ranges, and the treatment facility's processes were transitioned to dry weather operations.

Table II – Employee Metrics

Employee metrics are all within reasonable parameters, with overtime remaining below target and work orders exceeding targets. Training highlights included Operations and Maintenance staff members attending Liebert Cassidy Whitmore employment law training, a CWEA safety seminar, and Bobcat Competent Person training; several staff attended the annual CWEA Annual Conference in Palm Springs; the General Manager attended the CASA State Public Policy Forum in Sacramento; and the Laboratory Director attended the BACWA lab and permit committee meetings.

Table III - Environmental and Regulatory Compliance Metrics

There weren't any NPDES permit exceedances in March, and laboratory and pollution prevention activities were performed as scheduled. In early 2017, staff reviewed the manner in which the NPDES (Item 2), Process (Item 3), and QA/QC (Item 4) analyses were determined and revised their target ranges. As reported last month, the Agency's new Lab Director, Mark Koekemoer, has completed an evaluation of the Agency's laboratory activities and practices, and has adjusted the NPDES, Process, and QA/QC analysis ranges, as highlighted in yellow in the attached report.

Table IV - Public Outreach

There were seven odor alerts posted to the Agency website in April, for taking primary clarifiers in and out of service to accommodate wet weather flows, draining an aeration basin for the transition to dry weather, and to clean the chlorine contact tanks in preparation for the monthly bioassay test. One odor complaint was received by a person staying at the Extended Stay Hotel across Highway 580 from the treatment plant. Staff performed several odor control system and process evaluations over a multi-day period to determine the source of the odor, and responded to the complainant.

Public education events over the past month are presented below with the event date and number of attendees:

Public Outreach Events
4/6/17 - Novato Business Showcase had 50 booth visitors
4/20/17 - San Rafael Farmers Market had 24 Booth visitors
4/21/17 - San Dominico School Earth Day Festival had 78 booth visitors

"Go with the Flow" Juggler School
4/7/17 - Brookside Elementary in San Anselmo to 250 Students
4/24/17 - Anova in San Rafael to 35 Students

CMSA Tours
4/19/17 - Marin Academy for students

Attachment:
- April 2017 Performance Metric Report

CMSA CY17 PERFORMANCE METRICS – April 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)	446.2 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)	359.23 wt 0 144.83 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	434.4; 98.2% 319.7; 96.3%	> 85% > 85%
4) Priority Pollutants Removal	Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper	96.7% 87.7%	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)	8.96 Mft^3 5.74 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)	429,968 kWh 631 hrs; 87.7% $27,750	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	$806/Mg 1,086 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 = 75 External = 130	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);	445 hrs 314 hrs (87.4%) 75 hrs (8.9%) 0.87	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)*	1.1%; *(2.0%)*	< 5%

CMSA CY17 PERFORMANCE METRICS – April 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	206	150-250
3) Process Analyses	# samples analyzed by the CMSA laboratory for process control reporting and monitoring	513	400-600
4) Quality Control Testing	# of CMSA performed laboratory analyses for QA/QC purposes Accuracy of QA/QC tests	279 98.6%	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.)	2	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	2	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.	0	20 – 50
8) Permits Issued/Renewed	Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge	8	variable

Table IV- PUBLIC OUTREACH

Metric	Definition	Measurement	Target/Goal
1) Public Education Events	Attendance at public education outreach events; # of booth visitors; *(YTD)*	74; *(166)*	3,000/year
2) School Events	Participation or sponsorship in school outreach events; attendees; *(YTD)*	363; *(1,033)*	variable
3) Agency Tours	Tours given to students and the public; # of people, *(YTD)*	24; *(173)*	variable
4) Odor Notifications	Number of odor alerts posted to the Agency website due to process or operational changes	7	1-10
5) Odor Complaints	Number of odor complaints received from the public	1	0

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager
Mark Koekemoer, Laboratory Director

Approved: Jason Dow, General Manager JD

Subject: 2016/2017 Wastewater Flow Report

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

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

- There were no NPDES permit exceedances during calendar year 2016 and this marked the 11th consecutive year the Agency met or exceeded all of its permit requirements. However, during the February 2017 monitoring period, CMSA's cBOD removal was 81.84%, which is less than the 85% requirement and is NPDES permit violation. The low CBOD removal is the result of significant wet weather influent dilution and wastewater blending.

- Central Marin had 66 rain days during the wet weather season with 54.8" of rain measured at the treatment plant Headwork's rain gauge.

- CMSA treated approximately 5.18 billion gallons of wastewater over the past year, of which 2.85 billion gallons, or 45%, is attributed to storm water inflow/infiltration (I/I) into the gravity collection system.

- Wastewater blending occurred 15 times during the wet weather season, when influent flows exceeded the 30 MGD capacity of the secondary treatment system.

- The CMSA peaking factor, average dry weather effluent flow compared to peak wet weather effluent flow, was 15.4 for the largest wet weather event on February 7, 2017.

- The JPA member agency influent flow peaking factors ranged from 11.8 to 18.3, indicating that each system receives significant I/I during rain events. San Quentin State Prison had the lowest peaking factor of 9.7.

I. NPDES Permit Compliance

Our NPDES permit testing for February showed that the CMSA treatment plant effluent limit for Carbonaceous Biochemical Oxygen Demand (cBOD), a test to measure the depletion of dissolved oxygen by biological organisms, was measured at 81.8% removal and not in compliance with the minimum 85.0% removal limit. The cBOD result was due to the unusually large storm events and massive volume of wastewater treated in February. All other discharge requirements for the past twelve months showed the CMSA plant effluent was in compliance with all of the permit limits and we successfully passed the 96-hour flow through bioassay every month.

II. Rainfall and Wastewater Flows

The National Oceanic and Atmospheric Association (NOAA) produces seasonal outlooks to help communities prepare for what's likely to come in the next few months and minimize weather's impacts on lives and livelihoods. Forecasters at the NOAA Climate Prediction Center issued the U.S. Winter Outlook saying that La Niña, which typically favors dryer, warmer winters in the southern U.S. and wetter, cooler conditions in the northern U.S., was expected to influence winter conditions this year and predicted this climate phenomenon was likely to develop in late fall or early winter. The NOAA also stressed that complete drought recovery in California this winter was highly unlikely. The NOAA prediction for our region turned out to be almost 100% opposite of what has actually occurred, as the 2016/2017 wet weather season has been the wettest on record to date in the 122 years of recording weather data for northern California, 91% of the state is no longer in a drought condition, and the Sierra snowpack as of this report was at 179% of normal..

Varying amounts of rain occurred over 66 days (from 0.21" to 3.91" in less than 24 hours as recorded by CMSA's rain gauge) this wet weather season. The wet weather season started in October producing a total of 4.95" of rain as recorded in San Rafael. In January, a series of "Pineapple Express" storms moved through the Bay Area and CMSA received 15.0" of rain in 14 separate events. This storm pattern continued into February and the Agency received an additional 16.4" inches of rain over 16 days, with a combined total of 31.4" as compared to San Rafael's average annual rainfall of 35.2".

Blending was triggered 15 times this season when wet weather flows exceeded the secondary process maximum capacity of 30 MGD; blending occurs when the primary effluent flow is passively diverted around the secondary treatment process, then combines with the secondary effluent prior to disinfection and discharge to the S.F. Bay. The following table shows the monthly rainfall in inches and the total for the season.

TABLE 1 - 2016/2017 Monthly Rainfall in Inches

May 16	Jun 16	Jul 16	Aug 16	Sept 16	Oct 16	Nov 16	Dec 16	Jan 17	Feb 17	Mar 17	Apr 17	Total
0.00"	0.00"	0.00"	0.00"	0.00"	4.95"	2.92"	8.13"	15.0"	16.40"	2.40"	4.25"	54.05"

The table below illustrates CMSA, JPA member agencies', and San Quentin total monthly influent flow volumes from May 2016 to April 2017. CMSA treated approximately 5.18 billion gallons of wastewater over that time period.

TABLE 2 - Monthly Flows in Million Gallons (MG)

Monthly Flows* (in MG)	San Rafael (SRSD)	Ross Valley (SD#1)	San Quentin	Corte Madera (SD#2)	CMSA Plant Influent	Blend Events
May 2016	100.80	129.10	10.90	28.40	269.20	0
June 2016	86.50	115.40	10.80	24.60	237.30	0
July 2016	89.40	113.60	11.00	25.80	239.80	0
August 2016	92.40	118.20	10.50	26.10	247.20	0
September 2016	86.40	108.80	9.80	25.70	230.70	0
October 2016	114.30	141.40	10.10	33.00	298.80	0
November 2016	128.50	176.70	9.90	35.10	350.20	2
December 2016	200.70	296.40	11.10	48.90	557.10	2
January 2017	338.70	524.50	15.60	73.90	952.70	3
February 2017	312.50	462.90	14.70	74.00	864.10	5
March 2017	176.20	251.50	11.80	44.40	483.90	2
April 2017	162.40	233.38	39.98	11.34	447.10	1
Total Flow*	**1,888.80**	**2,671.88**	**166.18**	**451.24**	**5,178.10**	**15**
Percent of Flow	**36%**	**52%**	**3%**	**9%**	**100%**	

*Flows have been rounded

Of the 5.18 billion gallons treated, the expected dry weather portion of the flow for the year is approximately 2.85 billion gallons, which shows that CMSA treated about 2.33 billion gallons of wet weather flow, representing 45% of the twelve months' total flow.

February had the highest total rainfall of 16.4". CMSA had a peak influent flow of 120.1 MGD during the storm of the 7th, resulting in the highest peak influent flow through the plant for the year. When compared to a 2016 three-month Average Dry Weather (ADW) *effluent* Flow of 7.8 MGD, the peaking factor equals a 15.4. In Metcalf & Eddy's *Wastewater Engineering: Collection and Pumping of Wastewater,* the common range for an infiltration peaking factor is 1 to 4. The CMSA facility and the satellite collection systems generally experience significant peaking factors during the wet weather months.

TABLE 3 - Peak Flows and Peaking Factors

RAIN (a)	San Rafael	Ross Valley	San Quentin	Corte Madera	CMSA
ADW Flow (b)	2.9 MGD	3.7 MGD	0.34 MGD	0.84 MGD	7.8 MGD
Peak Day's Flow (c)	32.6 MGD	51.5 MGD	1.3 MGD	6.3 MGD	84.1 MGD
Peak Flow Rate (c)	52.8 MG	67.7 MG	3.3 MG	9.9 MG	120.1 MG
Peaking Factor	18.2	18.3	9.7	11.8	15.4

(a) Peak flows based on rainfall events in February 2017. Total Rainfall for the period February 1, to February 28, 2017 was 16.4"

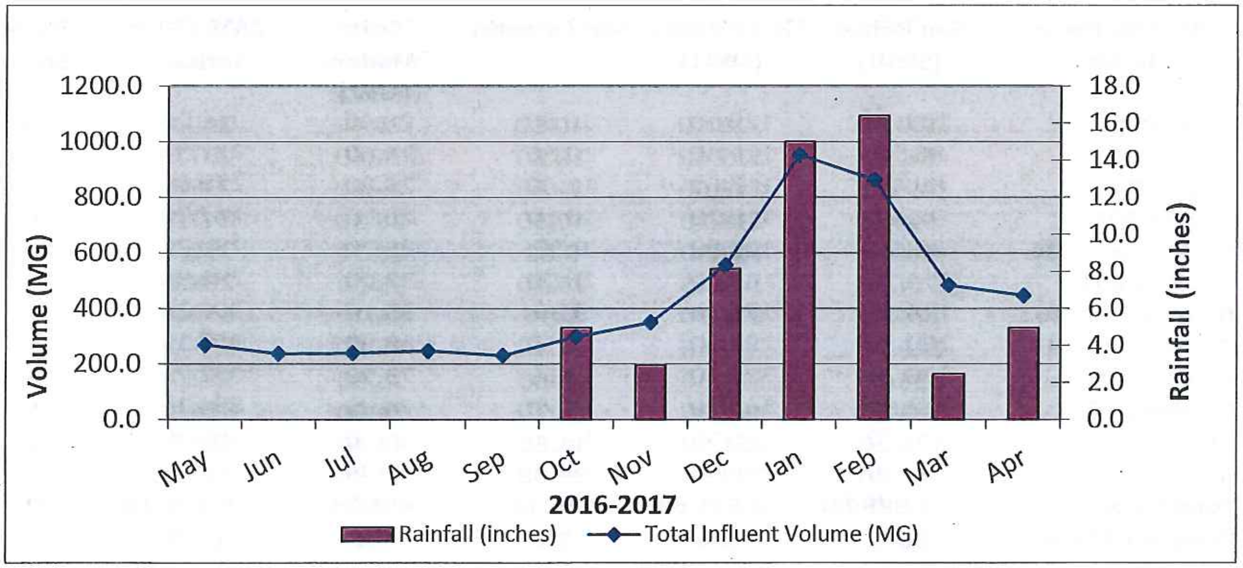
(b) Average Dry Weather influent Flow calculated based upon influent flow from July, 2017 to September, 2017.

(c) Peak flow and Daily Maximum flow dependent on area's rainfall. Values reported based upon February 7, 2017 storm event.

I. Process

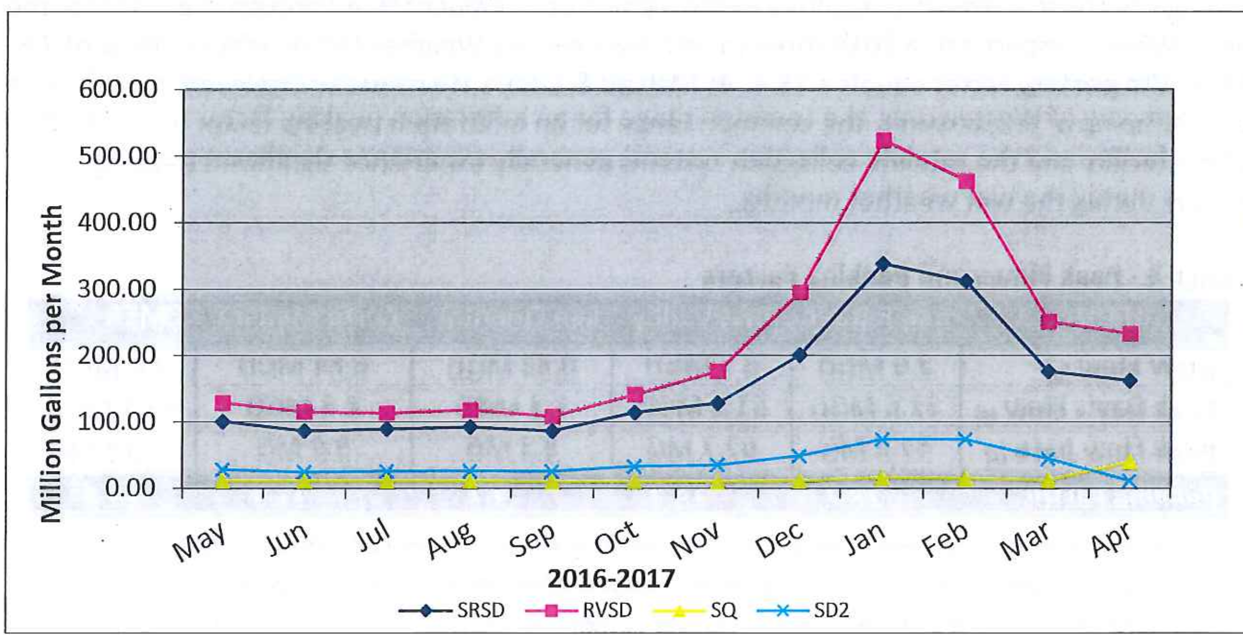
Provided below are graphical and tabular representations of wet weather indicators and affected performance indicators.

GRAPH 1 – Total Influent Volume and Monthly Rainfall Totals



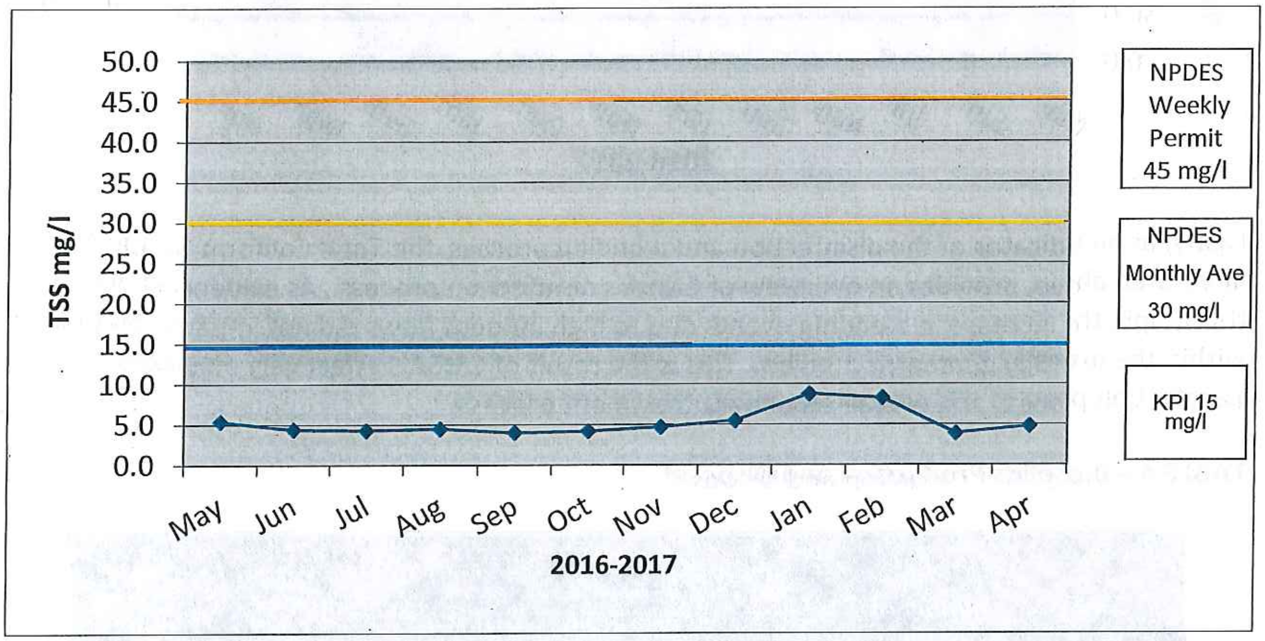
As indicated in Graph 1 above, there was a substantial increase in the amount of rainfall, particularly in the months of January and February. For the 2016-2017 reporting period CMSA received a total rainfall of 54.8 inches and 5.18 billion gallons of influent. These rainfall totals are substantially higher than in previous years. For example, annual rainfall for the 2014-2015 period was 26.4 inches and influent flow total was 3.94 billion gallons.

GRAPH 2 – Total Volume by Agency



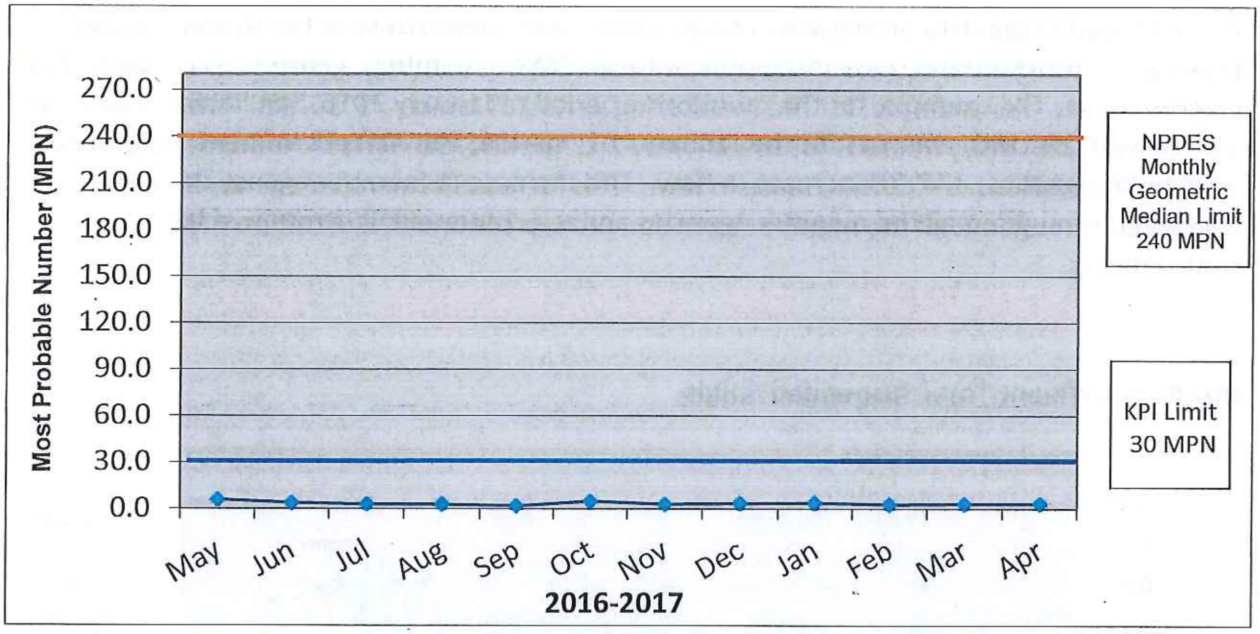
As evidenced in the data provided in Tables 1 and 2 and summarized in the Graph 2 above, there was a substantial increase influent flow from CMSA's member agencies as compared to previous years. For example, for the monitoring period of January 2016, San Rafael's influent volume was 229.1MG, whereas for the January 2017 period, San Rafael's influent volume was 338.8 million gallons, a 47.9% increase in flow. This increase in member agency flows is evidenced throughout all the member agencies and is a continued illustration of I&I contributions.

GRAPH 3 – Effluent Total Suspended Solids



Graph 3 above shows Effluent Total Suspended Solids over the past year, during which time operations staff managed the processes and equipment in service to match seasonal changes. In spite of high flows during the wet weather season, each monthly TSS average remained in single digits, and well below the Agency's Key Performance Indicator (KPI) of 15 mg/l. However, as illustrated by the graph above, effluent water quality is affected by elevated I&I events within the collection system.

GRAPH 4 – Effluent Total Coliform



Lastly, as an indicator of the disinfection and blending process, the Total Coliform Graph 4 illustrated above, provides an overview of CMSA's disinfection process. As evidenced within this graph, the increase in blending events due to high influent flows did not impact compliance within the monthly geometric median. This is the result of CMSA's effectively managed disinfection process and overall secondary treatment process.

TABLE 4 – Biosolids Production and Disposal

Date	Total Number of Loads	Total Tons	Solano Land Application Tons	Lystek Tons	Redwood Landfill Tons	Dos Palos Compost Tons
May-16	30	525.03	420	0	105.03	0
Jun-16	30	497.7	367.5	0	130.2	0
Jul-16	30	486.73	350	0	136.73	0
Aug-16	31	534.5	437.5	0	97	0
Sep-16	28	478.78	350	0	128.78	0
Oct-16	31	532.65	140	66.16	313.95	12.54
Nov-16	36	608.96	0	175.73	433.23	0
Dec-16	38	639.78	0	129.5	510.28	0
Jan-17	36	634.21	0	155.51	478.7	0
Feb-17	30	572.51	0	164.99	407.52	0
Mar-17	36	651.57	0	144.33	507.24	0
Apr-17	28	504.06	0	144.83	359.23	0
Total	**384**	**6,666.48**	**2,065**	**981.05**	**3,607.9**	**12.54**

All 6,667 tons of CMSA biosolids were beneficially reused at Redwood Landfill as Alternate Daily Cover (ADC) during the wet weather, at the Solano County land application site during dry weather, where they are applied as fertilizer and soil amendment, or at the Lystek biofertilizer production facility. In October 2016, CMSA began delivering two biosolids loads per week to the Lystek facility. This has resulted in CMSA leveraging what would have normally just been land applied to nutrient rich materials used for federally registered fertilizers.

For this report the defined wet weather period was from October through June, and as indicated in the table above, 5,167 wet tons were hauled during this period whereas during the dry weather months, 1,500 tons were hauled. This is a 14.8% increase in biosolids production associated with wet weather events.

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Amy Hwang, Assistant Engineer

Approved: Jason Dow, General Manager

Subject: Fiscal Year 2018 Chemical Supply Contracts

Recommendation: Authorize the General Manager to execute procurement agreements for the following Chemical Supply Contracts that were bid through the Bay Area Chemical Consortium (BACC):

1. BACC Bid No. 04-2017 - Evoqua Water Technologies, LLC to supply calcium nitrate at a unit price of $2.04 per gallon, before taxes;
2. BACC Bid No. 06-2017 - Thatcher Company of California to supply ferric chloride at a unit price of $479.00 per dry ton, before taxes;
3. BACC Bid No. 09-2017 - Evoqua Water Technologies, LLC to supply hydrogen peroxide at a unit price of $2.02 per gallon, before taxes;
4. BACC Bid No. 11-2017 - Univar USA Inc. to supply sodium bisulfite at a unit price of $0.97 per gallon, before taxes;
5. BACC Bid No. 14-2017 - Univar USA Inc. to supply sodium hypochlorite at a unit price of $0.55 per gallon, before taxes.

Summary: CMSA staff reviewed the draft BACC bid documents prior to issuance by the Dublin San Ramon Services District (DSRSD), and provided Agency specific information such as estimated chemical volumes and delivery criteria to be incorporated into the final bid documents. DSRSD issued Requests for Bids in March. Bids were received, opened, and analyzed by DSRSD staff, and recommendation letters were sent to the low bidders. CMSA staff agrees with DSRSD's award recommendations. Each contract is for one year, fixed price procurement, with three one-year administrative extensions available, upon mutual agreement. The unit price for any succeeding period of service will be determined by negotiation with the chemical vendor. The BACC bid documents do not include an agreement form, and require each Agency to enter into their own agreement with each vendor. A sample chemical procurement agreement is attached.

There is significant price increase for sodium bisulfite (14.8% increase) and sodium hypochlorite (33.4% increase) compared to last year. The chemical vendor attributed the higher prices mainly to increased costs of raw materials and chemical transportation, as well as general market conditions.

Discussion: The following is a basic description of the reasons for using each chemical.

- Calcium nitrate prevents the formation of odor compounds in the wastewater collection system, and reduces odors at the CMSA wastewater treatment's headworks;
- Ferric chloride is a coagulant chemical used in the wastewater treatment plant's primary clarifiers during wet weather to increase settling efficiency, for controlling hydrogen sulfide generation in the Agency's two anaerobic digesters, and for controlling the formation of struvite in digested sludge pipelines;
- Hydrogen peroxide assists with controlling odors at the treatment plant headworks, and is injected into the Ross Valley and San Rafael interceptors just upstream of the headworks building;
- Sodium hypochlorite is used for effluent disinfection, control of filamentous organisms in the activated sludge (biological) process, in three treatment plant odor control scrubbers, and to enhance recycled water disinfection levels;
- Sodium bisulfite neutralizes chlorine residual in the treated effluent prior to discharge and the reclaimed water delivered to the Remillard Pond in Larkspur.

Economic Summary: For Fiscal Year 17-18, chemical unit prices have both increased and decreased compared to the current unit costs. The summary table below shows each chemical's estimated annual consumption, current unit price before tax, bid unit price before tax, and percent change between the current unit price and the bid unit price.

Chemical	Vendor	Estimated Annual Usage	Current Unit Price	Bid Unit Price	(%) Change
Calcium Nitrate	Evoqua Water Technologies, LLC	180,000 gallons	\$2.10	\$2.04	-3.10%
Ferric Chloride (41% Solution)	Thatcher Company of California	135 dry tons	\$436.16	\$479.00	9.82%
Hydrogen Peroxide (50% Solution)	Evoqua Water Technologies, LLC	125,000 gallons	\$2.06	\$2.02	-1.89%
Sodium Bisulfite (25% Solution)	Univar USA Inc.	170,000 gallons	\$0.84	\$0.97	14.83%
Sodium Hypochlorite (12.5% Solution)	Univar USA Inc.	280,000 gallons	\$0.41	\$0.55	33.41%

Background: CMSA joined the BACC in June 2013. The BACC is a cooperative group of over 50 public water and wastewater agencies in northern California, and is currently managed and administered by DSRSD staff. The primary purpose of the BACC is to seek competitive bids from vendors to supply and deliver chemicals for water and/or wastewater treatment. BACC members benefit from a better price through larger purchasing power, and have cost savings in administrative time as DSRSD prepares all of the bid documents and bid advertisements, and performs the bid analyses. BACC members reimburse the administrative cost to DSRSD when they participate in one of the BACC bids. Last year, the reimbursement cost to DSRSD was $293 per chemical bid, and CMSA's total fee for participating in the chemical supply and procurement process was $1,465. Utilizing the BACC bid process provides a significant savings in staff time and advertising costs as compared to CMSA staff developing the contracts and administering the procurement process for each chemical.

Attachments:
1) BACC's Notice of Intent Award Letter of Calcium Nitrate
2) BACC's Notice of Intent Award Letter of Ferric Chloride
3) BACC's Notice of Intent Award Letter of Hydrogen Peroxide
4) BACC's Notice of Intent Award Letter of Sodium Bisulfite
5) BACC's Notice of Intent Award Letter of Sodium Hypochlorite
6) Agreement to Purchase Chemicals (Sample)

Dublin San Ramon Services District
Water, wastewater, recycled water

7399 Johnson Drive
Pleasanton, CA 94588

phone (925) 846-4565
fax (925) 462-0658
www.dsrsd.com

May 3, 2017

Evoqua Water Technologies LLC
Attention: Jennifer Miller
2650 Tallevast Road
Sarasota, FL 34243

Re: Notice of Intent to Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 04-2017 for Supply and Delivery of Calcium Nitrate

Dear Ms. Miller,

After completing our review of the bids that were received in response to the Bay Area Chemical Consortium (BACC) solicitation for calcium nitrate, Bid No. 04-2017, we are pleased to advise you that the bid submitted by Evoqua Water Technologies LLC has been found to be complete and in compliance with all of the specifications described in the bid documents. Enclosed is a copy of the final bid tabulation results. Furthermore, the bid submitted by Evoqua Water Technologies was determined to be the lowest responsive bid for the supply and delivery of calcium nitrate during the period July 1, 2017 through June 30, 2018. Therefore, our review of the bids is complete, and the participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Evoqua Water Technologies for their respective facilities.

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

If you have any questions, please feel free to contact me at (925) 875-2398.

Sincerely,

LIvy

Louanne Ivy
Administrative Analyst II – Operations
DUBLIN SAN RAMON SERVICES DISTRICT

Cc: Bay Area Chemical Consortium Member Agencies
Enclosure

BAY AREA CHEMICAL CONSORTIUM

Final Bid Tabulation for Bid No. 04-2017
Supply and Delivery of Calcium Nitrate
Open Date: Tuesday, April 4, 2017 at 9:00 a.m. PDT

Name of Bidder	Peninsula Unit Price Per Lb. of Nitrate Oxygen	Peninsula Unit Price Per Gallon Calcium Nitrate Solution	Marin-Sonoma-Napa Unit Price Per Lb. of Nitrate Oxygen	Marin-Sonoma-Napa Unit Price Per Gallon Calcium Nitrate Solution	Central Valley Unit Price Per Lb. of Nitrate Oxygen	Central Valley Unit Price Per Gallon Calcium Nitrate Solution
Thatcher Company of California, Inc.	$0.547	$1.92	$0.547	$1.92	$0.547	$1.92
Evoqua Water Technologies LLC	$0.4625	$2.035	$0.4625	$2.035	$0.4625	$2.035
Univar USA Inc.	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid
Sierra Chemical Co.	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid

Lowest Responsive Bid

Per terms of the bid - the low bid will be determined using the cost per pound of available nitrate oxygen. The bid price in $ per gallon will be used for invoicing by the successful bidder.

Dublin San Ramon Services District
Water, wastewater, recycled water

7399 Johnson Drive
Pleasanton, CA 94588

phone (925) 846-4565
fax (925) 462-0658
www.dsrsd.com

May 3, 2017

Thatcher Company of California, Inc.
Attention: Craig N. Thatcher
P.O. Box 27407
Salt Lake City, UT 84127-0407

Re: Notice of Intent to Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 06-2017 for Supply and Delivery of Ferric Chloride

Dear Mr. Thatcher,

After completing our review of the bids that were received in response to the Bay Area Chemical Consortium (BACC) solicitation for ferric chloride, Bid No. 06-2017, we are pleased to advise you that the bid submitted by Thatcher Company of California, Inc. has been found to be complete and in compliance with all of the specifications described in the bid documents. Enclosed is a copy of the final bid tabulation results. Furthermore, the bid submitted by Thatcher Company of California was determined to be the lowest responsive bid for the supply and delivery of ferric chloride during the period July 1, 2017 through June 30, 2018. Therefore, our review of the bids is complete, and the participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Thatcher Company of California for their respective facilities.

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

If you have any questions, please feel free to contact me at (925) 875-2398.

Sincerely,

LIvy

Louanne Ivy
Administrative Analyst II – Operations
DUBLIN SAN RAMON SERVICES DISTRICT

Cc: Bay Area Chemical Consortium Member Agencies
Enclosure

BAY AREA CHEMICAL CONSORTIUM

Final Bid Tabulation for Bid No. 06-2017

Supply and Delivery of Ferric Chloride

Open Date: Tuesday, April 4, 2017 at 9:00 a.m. PDT

Name of Bidder	East Bay Unit Price Per Dry Ton	Tri-Valley Unit Price Per Dry Ton	Peninsula Unit Price Per Dry Ton	South Bay Unit Price Per Dry Ton	Marin-Sonoma-Napa Unit Price Per Dry Ton	Sacramento Area Unit Price Per Dry Ton	Central Valley Unit Price Per Dry Ton
Thatcher Company of California, Inc.	$488.00	$474.00	$500.00	$500.00	$479.00	$482.00	$498.00
Kemira Water Solutions, Inc.	$528.00	$521.00	$534.00	$521.00	$538.00	$521.00	$528.00
Pencco, Inc.	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid
Univar USA, Inc	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid

Lowest Responsive Bid

Dublin San Ramon Services District
Water, wastewater, recycled water

7399 Johnson Drive
Pleasanton, CA 94588

phone (925) 846-4565
fax (925) 462-0658
www.dsrsd.com

May 3, 2017

Evoqua Water Technologies LLC
Attention: Jennifer Miller
2650 Tallevast Road
Sarasota, FL 34243

Re: Notice of Intent to Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 09-2017 for Supply and Delivery of Hydrogen Peroxide

Dear Ms. Miller,

After completing our review of the bids that were received in response to the Bay Area Chemical Consortium (BACC) solicitation for hydrogen peroxide, Bid No. 09-2017, we are pleased to advise you that the bid submitted by Evoqua Water Technologies LLC has been found to be complete and in compliance with all of the specifications described in the bid documents. Enclosed is a copy of the final bid tabulation results. Furthermore, the bid submitted by Evoqua Water Technologies LLC was determined to be the lowest responsive bid for the supply and delivery of hydrogen peroxide during the period July 1, 2017 through June 30, 2018. Therefore, our review of the bids is complete, and the participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Evoqua Water Technologies for their respective facilities.

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

If you have any questions, please feel free to contact me at (925) 875-2398.

Sincerely,

Louanne Ivy
Administrative Analyst II – Operations
DUBLIN SAN RAMON SERVICES DISTRICT

Cc: Bay Area Chemical Consortium Member Agencies
Enclosure

BAY AREA CHEMICAL CONSORTIUM

Final Bid Tabulation for Bid No. 09-2017
Supply and Delivery of Hydrogen Peroxide
Open Date: Tuesday, April 4, 2017 at 9:00 a.m. PDT

Name of Bidder	Marin-Sonoma-Napa Unit Price Per Gallon	Central Valley Unit Price Per Gallon
USP Technologies	$2.05	$2.08
Evoqua Water Technologies LLC	$2.021	$2.011
Univar USA Inc.	No Bid	No Bid

Lowest Responsive Bid

Dublin San Ramon Services District
Water, wastewater, recycled water

7399 Johnson Drive
Pleasanton, CA 94588

phone (925) 846-4565
fax (925) 462-0658
www.dsrsd.com

May 3, 2017

Univar USA Inc.
Attention: Jennifer Perras
8201 S. 212th Street
Kent, WA 98032

Re: Notice of Intent to Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 11-2017 for Supply and Delivery of Sodium Bisulfite

Dear Ms. Perras,

After completing our review of the bids that were received in response to the Bay Area Chemical Consortium (BACC) solicitation for sodium bisulfite, Bid No. 11-2017, we are pleased to advise you that the bid submitted by Univar USA Inc. has been found to be complete and in compliance with all of the specifications described in the bid documents. Enclosed is a copy of the final bid tabulation results. Furthermore, the bid submitted by Univar USA Inc. was determined to be the lowest overall responsive bid for the supply and delivery of sodium bisulfite during the period July 1, 2017 through June 30, 2018. Therefore, our review of the bids is complete, and the participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Univar USA Inc. for their respective facilities.

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

If you have any questions, please feel free to contact me at (925) 875-2398.

Sincerely,

LIvy

Louanne Ivy
Administrative Analyst II – Operations
DUBLIN SAN RAMON SERVICES DISTRICT

Cc: Bay Area Chemical Consortium Member Agencies
Enclosure

BAY AREA CHEMICAL CONSORTIUM

Final Bid Tabulation for Bid No. 11-2017

Supply and Delivery of Sodium Bisulfite

Open Date: Tuesday, April 4, 2017 at 9:00 a.m. PDT

Name of Bidder	North Bay 25% Solution Unit Price Per Gallon	North Bay Cost Estimated at 497,000 Gals	East Bay 25% Solution Unit Price Per Gallon	East Bay Cost Estimated at 200,000 Gals	South Bay 25% Solution Unit Price Per Gallon	South Bay Cost Estimated at 660,000 Gals	Peninsula 25% Solution Unit Price Per Gallon	Peninsula Cost Estimated at 598,000 Gals	Peninsula 40% Solution Unit Price Per Gallon	Peninsula Cost Estimated at 115,000 Gals	Marin-Sonoma-Napa 25% Solution Unit Price Per Gallon	Marin-Sonoma-Napa Cost Estimated at 471,300 Gals	Sacramento 25% Solution Unit Price Per Gallon	Sacramento Cost Estimated at 7,000 Gals	Sacramento 40% Solution Unit Price Per Gallon	Sacramento Cost Estimated at 11,592 Gals	Central Valley 40% Solution Unit Price Per Gallon	Central Valley Cost Estimated at 150,000 Gals	Total Overall Cost
Chemurgic	$1.18	$586,460.00	$1.03	$206,000.00	$1.05	$693,000.00	$1.05	$627,900.00	$1.64	$188,600.00	$1.18	$556,134.00	$1.08	$7,560.000	$1.59	$18,431.280	$1.55	$232,500.000	$3,116,585.28
Univar USA Inc.	$1.00	$497,000.000	$0.9631	$192,620.000	$1.01	$666,600.000	$0.985	$589,030,000	$1.30	$149,500.000	$0.9692	$456,783.960	$1.588	$11,116.000	$1.588	$18,408.10	$1.59	$238,500.000	$2,819,558.06
Sierra Chemical Co.	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid

Lowest Overall Responsive Bid

Dublin San Ramon Services District
Water, wastewater, recycled water

7399 Johnson Drive
Pleasanton, CA 94588

phone (925) 846-4565
fax (925) 462-0658
www.dsrsd.com

May 3, 2017

Univar USA Inc.
Attention: Jennifer Perras
8201 S. 212th Street
Kent, WA 98032

Re: Notice of Intent to Award Contract in Response to Bay Area Chemical Consortium (BACC) Bid No. 13-2017 for Supply and Delivery of 12.5% Sodium Hypochlorite

Dear Ms. Perras,

After completing our review of the bids that were received in response to the Bay Area Chemical Consortium (BACC) solicitation for 12.5% sodium hypochlorite, Bid No. 13-2017, we are pleased to advise you that the bid submitted by Univar USA Inc. has been found to be complete and in compliance with all of the specifications described in the bid documents. Furthermore, the bid submitted by Univar USA Inc. was determined to be the lowest responsive bid for the supply and delivery of 12.5% sodium hypochlorite during the period July 1, 2017 through June 30, 2018, for the **North Bay, East Bay, Tri-Valley, South Bay, Peninsula, Marin-Sonoma-Napa, and Central Valley regions.**

Enclosed is a copy of the final bid tabulation results. Our review of the bid is complete, and the participating BACC Agencies should be contacting you shortly to discuss entering into contracts with Univar USA Inc. for their respective facilities.

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

If you have any questions, please feel free to contact me at (925) 875-2398.

Sincerely,

L Ivy

Louanne Ivy
Administrative Analyst II – Operations
DUBLIN SAN RAMON SERVICES DISTRICT

Cc: Bay Area Chemical Consortium Member Agencies
Enclosure

BAY AREA CHEMICAL CONSORTIUM

Final Bid Tabulation for Bid No. 13-2017

Supply and Delivery of 12.5% Sodium Hypochlorite

Open Date: Tuesday, April 4, 2017 at 9:00 a.m. PDT

Name of Bidder	North Bay Unit Price Per Gallon	North Bay Optional Bid Item Unit Price Per Gallon in drums	East Bay Unit Price Per Gallon	Tri-Valley Unit Price Per Gallon	South Bay Unit Price Per Gallon	South Bay Optional Bid Item Unit Price Per Gallon in carboys	South Bay Optional Bid Item Unit Price Per Gallon in drums	Peninsula Unit Price Per Gallon	Marin-Sonoma-Napa Unit Price Per Gallon	Sacramento Area Unit Price Per Gallon	Sacramento Area Optional Bid Item Unit Price Per Gallon in carboys	Central Valley Unit Price Per Gallon
Olin Chlor Alkali Products and Vinyls	$0.539	No Bid	$0.539	$0.524	$0.524	No Bid	No Bid	$0.549	$0.569	$0.534	No Bid	$0.524
HASA, Inc.	$0.785	No Bid	$0.805	$0.795	$0.826	No Bid	No Bid	$0.856	$0.876	$0.882	No Bid	$0.892
Univar USA Inc.	$0.465	No Bid	$0.447	$0.471	$0.441	No Bid	No Bid	$0.488	$0.549	$0.645	No Bid	$0.482
Sierra Chemical Co. *Non-responsive bid for Central Valley region. Product does not conform to NSF standards; is for wastewater application only, and includes a freight charge between supplier's facility and delivery points outside a 10 mile area.	$2.00	$1.75	$2.00	$2.00	$2.00	$2.53	$2.10	$2.00	$2.00	$2.00	$2.65	$0.33*

Lowest Responsive Bid for each Region

AGREEMENT

THIS AGREEMENT made and entered into this ______ day of May 2017, by and between the CENTRAL MARIN SANITATION AGENCY, hereinafter referred to as "CMSA", and ______________________________, hereinafter designated as the "Vendor".

WITNESSETH: That the parties hereto do mutually agree as follows:

ARTICLE 1: For and in consideration of the payments and agreements hereinafter mentioned to be made and performed by CMSA, the Vendor agrees with CMSA to service the contract entitled "**Supply and Delivery of** ______________________________" and to perform all work described in the BACC Bid Contract Documents Bid No. ___ and to perform everything required by this agreement.

ARTICLE 2: CMSA promises and agrees with the Vendor to employ and does employ the Vendor to provide the materials and do the work according to the terms and conditions referred to at the unit price as set forth in the bid proposal for Marin-Sonoma-Napa region, and contracts to pay the same, at the time, in the manner, and upon the condition set forth in the specifications; and the parties for themselves, their heirs, executors, administrators, successors and assigns, do agree to the full performance of these covenants.

ARTICLE 3: The BACC Bid Contract Documents Bid No. ______, and all Addenda issued by BACC prior to the opening of bids are incorporated in and made a part of this agreement.

ARTICLE 4: The Vendor is aware of, and hereby agrees to comply with Section 3700 of the Labor Code requiring every employer to be insured against liability for Workers' Compensation or to undertake self-insurance before commencing any of the work.

This Contract's Expiration Date is June 30, 2018, with an option to extend the contract on a year-to-year basis, not exceed three (3) yearly renewals upon mutual agreements.

IN WITNESS WHEROF, these parties have caused this contract to be executed the day and year first above written.

Vendor: ______________________________

By: ______________________________

Title: ______________________________

Printed Name: ______________________________

CENTRAL MARIN SANITATION AGENCY

By: ______________________________

Jason R. Dow, General Manager

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: CMSA Finance Committee – Chair Hartzell and Commissioner Gaffney
Jason Dow, General Manager JD

Subject: Financial Auditing Services Agreement with Chavan & Associates

Recommendation: Approve the Financial Auditing Services Agreement with Chavan & Associates.

Summary: CMSA's financial statements have been prepared and audited by Chavan & Associates, LLP (Chavan) for the past five fiscal years, FY 11-12 through FY 15-16, under a Financial Auditing Services Agreement. That Agreement terminated on December 31, 2016. Staff intended to prepare a Request for Proposals (RFP) in early 2017 to select an auditing firm this spring to perform financial auditing and related services for a multi-year period, beginning with the FY 16-17 financial audit. This initiative has been delayed due to the separation of Carlos Oblites, and the subsequent recruitment for a new Administrative Services Manager.

General Manager Dow and the Agency's new Administrative Services Manager, Ken Spray, met with the Board's Finance Committee on April 27 to review and discuss Agency business in preparation for the May 9 Board meeting. An item on that meeting agenda was to consider a staff proposal for the Agency's FY16-17 financial audit. Staff proposed and the Committee agreed with contacting with Chavan to prepare the current year's financial audit, and to prepare an RFP in the fall to select an auditing firm for future years' audits. If the Agreement is approved, the Agency will be working with Chavan and its partner, Sheldon Chavan, for a sixth consecutive year, which is allowed in the California Government Code.

Attachments:
1) Financial Auditing Services Agreement with Chavan & Associates
2) Chavan & Associates Engagement Letter – April 24, 2017
3) Government Code Section 12410.6

CENTRAL MARIN SANITATION AGENCY
FINANCIAL AUDITING SERVICES

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT is made and entered into this _________day of May, 2017 by and between the Central Marin Sanitation Agency, hereinafter referred to as "Agency" and Chavan & Associates, LLP, hereinafter referred to as "Auditor."

RECITALS:

WHEREAS, Agency desires to retain Auditor to provide the following services:

1. Audit the Agency's financial statements for the fiscal year ending June 30, 2017. The Auditor will express a written opinion on the fair representation of the Agency's basic financial statements in accordance with generally accepted auditing standards and the State of California State Controller's Minimum Audit Requirements for California Special Districts.

2. Provide additional accounting and auditing consultation as requested by the Agency.

WHEREAS, Auditor warrants that it is qualified and competent to render the aforesaid services;

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

1. SCOPE OF SERVICES:

Auditor agrees to provide the services described in **Exhibit "A"** attached hereto and by this reference made a part hereof.

The Auditor also agrees to provide additional auditing and accounting services to the Agency as requested by the Agency. Said services will be authorized by either contract amendment.

2. FURNISHED SERVICES:

The Agency agrees to:

a. Guarantee access to and make provisions for the Auditor to enter Agency facilities as required to perform their work.
b. Make available all pertinent data and other requested records for Auditor's review, use, and reliance.
c. Schedule meetings and the Board presentation, and provide comments on draft deliverables on agreed upon dates.
d. Work collaboratively with Auditor during their work

3. **FEES**:

The fees for furnishing services under this Agreement shall be based on the fee schedule which is attached hereto as **Exhibit "B"** and by this reference incorporated herein. Said fees shall remain in effect for the entire term of the Agreement.

4. **MAXIMUM COST TO AGENCY**:

The cost to Agency for the services to be provided herein shall not exceed the maximum sum of $16,000, including direct non-salary expenses under the approved scope of work. If additional auditing services are required during this contract's duration, Auditor and Agency will prepare and execute an Amendment for the services, pursuant to Section 18.

5. **PAYMENT**:

The fees for services under this Agreement shall be due within thirty (30) calendar days after the Agency receives and approves an invoice covering the service(s) rendered.

6. **AGREEMENT PERFORMANCE TIME:**

All the work required by this Agreement shall be completed in accordance with the estimated project schedule shown in **Exhibit "C".**

7. **INSURANCE:**

Auditor shall maintain the following insurance policies with limits no less than:

(1) General Liability: $1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/ location or the general aggregate limit shall be twice the required occurrence limit.

(2) Automobile Liability: $1,000,000 per accident for bodily injury and $100,000 per accident for property damage.

(3) Employer's Liability: $1,000,000 per accident for bodily injury or disease. See Item 8 below.

(4) Errors and omissions liability: $1,000,000 per claim and aggregate.

Said policies shall remain in force through the life of this Agreement. The insurer shall supply a certificate of insurance with endorsements signed by the insurer evidencing such insurance to

Agency prior to commencement of work, and said certificate with endorsement shall provide for thirty (30) days' advance notice to Agency of any termination or reduction in coverage.

___ By initialing in the space provided, Auditor warrants that the services to be provided under this Agreement do not require the use of any type of vehicle by Auditor.

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

(1) 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 officers, officials, and employees are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Auditor; completed operations of the Auditor; premises owned, occupied or used by the Auditor; or automobiles hired or borrowed by the Auditor. These provisions are limited by Section G.1. on the attached Commercial General Liability Extension.

(2) For any claims related to this project, the Auditor'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 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 officers, officials, employees and volunteers shall be excess of the Auditor's insurance and shall not contribute with it.

(3) Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided 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 officers, officials, employees and volunteers.

(4) The Auditor'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.

(5) The Auditor will notify the Agency by certified mail, returned receipt requested as soon as practicable if notified by its insurance company of coverage being cancelled. Auditor also agrees to provide notification to the Agency in the event the insurance policies are suspended, voided, or reduced in coverage or limits.

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

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

8. WORKER'S COMPENSATION:

The Auditor acknowledges that it is aware of the provisions of the Labor Code of the State of California which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and it certifies that it will comply with such provisions before commencing the performance of the work of this Agreement. If Auditor has employees, a copy of the certificates evidencing such insurance shall be provided to Agency prior to commencement of work.

___ By initialing in the space provided, Auditor warrants that no employees will be used in providing the services under this Agreement.

9. NONDISCRIMINATORY EMPLOYMENT:

Auditor shall not unlawfully discriminate against any individual based on race, color, religion, nationality, sex, sexual orientation, age or condition of disability. Auditor understands and agrees that Auditor is bound by and will comply with the nondiscrimination mandates of all Federal, State and local statutes, regulations and ordinances.

10. SUBCONTRACTING:

The Auditor shall not subcontract nor assign any portion of the work required by this Agreement without prior written approval of the Agency except for any subcontract work identified herein.

11. ASSIGNMENT:

The rights, responsibilities and duties under this Agreement are personal to the Auditor and may not be transferred or assigned without the express prior written consent of the Agency.

12. LICENSING AND PERMITS:

The Auditor shall maintain the appropriate licenses throughout the life of this Agreement. Auditor shall also obtain any and all permits which might be required by the work to be performed herein.

13. BOOKS OF RECORD AND AUDIT PROVISION:

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

14. TIME OF AGREEMENT:

This Agreement shall commence on the date the Agreement is executed by CMSA and shall terminate on June 30, 2018. This Agreement's Time may be extended by mutual agreement.

15. TITLE:

It is understood that any and all documents, information and reports concerning this project prepared by and/or submitted to the Auditor, shall be the property of the Agency. The Auditor may retain reproducible copies of documents. In the event of the termination of this Agreement, for any reason whatever, Auditor shall promptly turn over all information, writing and documents to Agency without exception or reservation.

16. TERMINATION:

A. If the Auditor fails to provide in any manner the services required under this Agreement or otherwise fails to comply with the terms of this Agreement or violates any ordinance, regulation or other law which applies to its performance herein, the Agency may terminate this Agreement by giving five (5) calendar days written notice to the party involved.

B. The Auditor shall be excused for failure to perform services herein if such services are prevented by acts of God, strikes, labor disputes or other forces over which the Auditor has no control.

C. Either party hereto may terminate this Agreement for any reason by giving thirty (30) calendar days written notice to the other parties. Notice of termination shall be by written notice to the other parties and be sent by registered mail.

D. In the event of termination not the fault of the Auditor, the Auditor shall be paid for services performed to the date of termination in accordance with the terms of this Agreement.

17. RELATIONSHIP BETWEEN THE PARTIES:

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

18. AMENDMENT:

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

19. ASSIGNMENT OF PERSONNEL:

The Auditor shall not substitute any personnel for those specifically named in its proposal unless personnel with substantially equal or better qualifications and experience are provided, acceptable to Agency, as is evidenced in writing.

20. 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.

21. INDEMNIFICATION:

Auditor shall indemnify, defend and hold harmless the Agency, its members including San Rafael Sanitation Agency, 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 officers, officials, and employees from any and all liabilities including, but not limited to, litigation costs and reasonable attorney's fees to the extent caused and arising from any and all claims and losses to anyone who may by reason of Auditor's negligence, recklessness, and willful misconduct in the performance of this contract, except where caused by the negligence of the Agency, its members including San Rafael Sanitation Agency, 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 officers, officials, and employees.

22. COMPLIANCE WITH APPLICABLE LAWS:

The Auditor shall comply with any and all federal, state and local laws affecting the services covered by this Agreement.

23. NOTICES AND DESIGNATED REPRESENTATIVES:

Ken Spray is the designated representative of CMSA and will administer this Agreement for the CMSA. Sheldon Chavan is the authorized representative for Auditor. 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 Auditor at the following address:

Chavan & Associates, LLP
Certified Public Accountants
1475 Saratoga Ave, Suite 180
San Jose, CA 95129

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

AUDITOR:

By: ______________________________

Sheldon Chavan, Partner

EXHIBIT "A"

SCOPE OF SERVICES
To Be Provided By Auditor

1. Audit and prepare the basic financial statements of the Agency and express an opinion on the fair presentation of its basic financial statements in conformity with accounting principles generally accepted in the United States of America.

2. Audit of the financial statements will be conducted in accordance with auditing standards generally accepted in the United States of America prescribed by the American Institute of Certified Public Accountants, the standards for financial audits set forth in the U. S. General Accounting Office's Government Auditing Standards and the State of California Controller's Minimum Audit Requirements for California Special Districts.

3. At the completion of each phase of the annual audit pursuant to the audit schedule, schedule an exit conference to discuss the results of the audit and the adequacy and effectiveness of the Agency's current accounting procedures and controls based on the Auditor's understanding of the control structure and assessment of control risk. The Auditor will address issues related to the Agency's systems of internal control, accounting systems, functions, procedures and processes and compliance with laws and regulations.

4. Provide a Management's Discussion and Analysis template for the annual Financial Statement with updated tables and numbers.

5. Prepare a management letter which shall include findings (reportable conditions), statements, observations, opinion, and comments or recommendations with regard to systems of internal control, accounting systems, functions, procedures and processes aimed at automation, and compliance with laws, rules and regulations.

6. Prepare a written report of all irregularities and illegal acts or indications of illegal acts of which Auditor becomes aware of to the General Manager and the Board of Commissioners.

7. Provide a written report to the General Manager and the Board communicating information as required by SAS 114:
    - The Auditor's responsibility under generally accepted auditing standards
    - Significant accounting policies
    - Management's judgments and accounting estimates
    - Significant audit adjustments
    - Other information in documents containing audited financial statements
    - Any disagreements with management
    - Management consultation with other accountants
    - Major issues discussed with management prior to retention
    - Difficulties encountered in performing the audit

8. Present the final audit report to the Board of Commissioners at a scheduled Board meeting. The Agency will notify the Auditor of the meeting date and time.

9. Provide consultation regarding accounting and compliance issues as required throughout the contract period.

10. Be available throughout the year to provide assistance to the Agency in explaining audit findings and recommendations, to discuss the items that may impact the audit and any other issues or questions that the Agency may have during the year.

11. Review the Agency's Comprehensive Annual Financial Report if requested by the Agency.

EXHIBIT "B"

PROFESSIONAL SERVICES FEE

Chavan & Associates, LLP agrees to perform the services detailed in "EXHIBIT A" and other services requested by the Agency in accordance with Chavan & Associates' schedule of professional fees detailed in the table below.

	Hourly Rate
Engagement Partner	$125
Associate Partner	$100
Manager/Senior Auditor	$ 85
Professional Staff	$ 65
Clerical	$ 25

EXHIBIT "C"

PROFESSIONAL SERVICES SCHEDULE

The two schedules listed below pertain to the provision of services detailed in "EXHIBIT A - **SCOPE OF SERVICES**".

I. Professional Service Schedule for fiscal period ending on June 30, 2017

Audit Activities	Estimated Completion Timeline
a. List of Items and Audit Plan to Agency	June 5, 2017
b. Entrance Conference with Agency	July 10, 2017
c. Interim Testing	July 19, 2017
d. Interim Exit Conference	July 21, 2017
e. Initial List of Findings and Recommendations	July 28, 2017
f. Confirmations	August 3, 2017
g. Progress Conference	September 11, 2017
h. Year-end Field Work	September 13, 2017
i. Exit Conference	September 15, 2017
j. Final List of Findings and Recommendations	September 29, 2017
k. Draft Reports, Financials and Management Letters	October 12, 2017
l. Meeting to Review Reports and Letters	October 16, 2017
m. Final Reports, Financials and Letters	October 26, 2017
n. Board Presentation	November 14, 2017 (mandatory)

II. Professional Service Schedule for fiscal periods ending on June 30, 2017

Timeline	Outline of annual Audit Requirements
By April 30	Auditor will submit a draft a schedule of audit activities to be performed for the fiscal period ending on June 30 to the Agency for review.
By May 20	Auditor will submit an audit engagement letter to the Agency detailing audit objectives, schedule, procedures, and Agency responsibilities.
By May 29	Agency will execute the engagement letter with the Auditor
June-October	Auditor and Agency will perform the audit activities in accordance with the agreed upon audit objectives, schedule, procedures, and responsibilities specified in the engagement letter.
By October 26	Auditor will submit Final Audit Reports, Financials and Letters for the fiscal period ending on June 30
Each November	Auditor will present the Final Audit Reports, Financials and Letters to the AGENCY'S Board of Commissioner at the scheduled November Board Meeting. The Agency will notify the Auditor of the meeting date and time.

Chavan & Associates, LLP
Certified Public Accountants

April 24, 2017

Central Marin Sanitation Agency
1301 Anderson Drive
San Rafael, CA 94901

We are pleased to confirm our understanding of the services we are to provide the Central Marin Sanitation Agency (the Agency). We will audit the Agency's financial statements of the business-type activities and each major fund which collectively comprise the entity's basic financial statements, as of and for the fiscal year ending June 30, 2017. Accounting standards generally accepted in the United States provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to supplement the Agency's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the Agency's RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by generally accepted accounting principles and will be subjected to certain limited procedures, but will not be audited:

1) Management's Discussion and Analysis.

2) Pension and OPEB Schedules

Audit Objectives

The objective of our audit is the expression of opinions as to whether your basic financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles and to report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. The objective also includes reporting on internal control related to the financial statements and compliance with laws, regulations, and the provisions of contracts or grant agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*. The reports on internal control and compliance will each include a statement that the report is intended solely for the information and use of management, the body or individuals charged with governance, others within the entity specific legislative or regulatory bodies, federal awarding agencies, and if applicable, pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America; the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and other procedures we consider necessary to enable us to express such opinions and to render the required reports. If our opinion on the financial statements are other than unqualified, we will fully discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or to issue a report as a result of this engagement.

Management Responsibilities

Management is responsible for the basic financial statements and all accompanying information as well as all representations contained therein. Management is also responsible for identifying government award programs and understanding and complying with the compliance requirements. As part of the audit, we will prepare your financial statements and related notes. You are responsible for making all management decisions and performing all management functions relating to the financial statements and related notes and for accepting full responsibility for such decisions. You will be required to acknowledge in the management representation letter our preparation of the financial statements and that you have reviewed and approved the financial statements and related notes prior to their issuance and have accepted responsibility for them. Further, you are required to designate an individual with suitable skill, knowledge, or experience to oversee any nonaudit services we provide and for evaluating the adequacy and results of those services and accepting responsibility for them.

Management is responsible for establishing and maintaining effective internal controls, including internal controls over compliance, and for evaluating and monitoring ongoing activities, to help ensure that appropriate goals and objectives are met and that there is reasonable assurance that government programs are administered in compliance with compliance requirements. You are also responsible for the selection and application of accounting principles; for the fair presentation in the financial statements of the respective financial position of the business-type activities and each major fund of the Agency and the respective changes in financial position and, where applicable, cash flows in conformity with U.S. generally accepted accounting principles; and for compliance with applicable laws and regulations and the provisions of contracts and grant agreements.

Management is also responsible for making all financial records and related information available to us and for ensuring that management and financial information is reliable and properly recorded. Your responsibilities also include identifying significant vendor relationships in which the vendor has responsibility for program compliance and for the accuracy and completeness of that information. Your responsibilities include adjusting the financial statements to correct material misstatements and confirming to us in the representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud or illegal acts affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud or illegal acts could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the entity complies with applicable laws, regulations, contracts, agreements, and grants. You are responsible for the preparation of the supplementary information in conformity with U.S. generally accepted accounting principles. You agree to include our report on the supplementary information in any document that contains and indicates that we have reported on the supplementary information. You also agree to present the supplementary information with the audited financial statements.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying for us previous financial audits, attestation engagements, performance audits, or other studies related to the objectives discussed in the Audit Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

Audit Procedures - General

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. We will plan and perform the audit to obtain reasonable rather than absolute assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the entity or to acts by management or employees acting on behalf of the entity. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

Because an audit is designed to provide reasonable, but not absolute assurance and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements or noncompliance may exist and not be detected by us. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements or major programs. However, we will inform you of any material errors and any fraudulent financial reporting or misappropriation of assets that come to our attention. We will also inform you of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential, and of any material abuse that comes to our attention. Our responsibility as your auditor is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include tests of the physical existence of inventories, and direct confirmation of receivables and certain other assets and liabilities by correspondence with selected individuals, funding sources, creditors, and financial institutions. We will request written representations from your attorneys as part of the engagement, and they may bill you for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from you about the financial statements and related matters.

Audit Procedures - Internal Controls

Our audit will include obtaining an understanding of the entity and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards and *Government Auditing Standards*.

Audit Procedures - Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the Agency's compliance with applicable laws and regulations and the provisions of contracts and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

Engagement Administration, Fees, and Other

We understand that your employees will prepare all confirmations we request and will locate any documents selected by us for testing. We will provide templates for any confirmations needed.

The audit documentation for this engagement is the property of C&A and constitutes confidential information. However, pursuant to authority given by law or regulation, we may be requested to make certain audit documentation available to the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of C&A personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release.

We expect to begin audit planning in June, interim fieldwork in July, year-end fieldwork in September, or as otherwise agreed, and to issue our reports no later than the middle or end of October. Sheldon Chavan is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them. Our all-inclusive maximum fee for these services will be **$16,000** for the fiscal year ending June 30, 2017 which includes out-of-pocket costs (such as report reproduction, word processing, postage, travel, copies, telephone, etc.).

Our invoices for these fees will be rendered each month as work progresses and are payable on presentation. In accordance with our firm policies, work may be suspended if your account becomes thirty days or more overdue and may not be resumed until your account is paid in full. If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed upon written notification of termination, even if we have not completed our report. You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket costs through the date of termination. The above fee is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit.

We appreciate the opportunity to be of service to the Agency and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Very truly yours,

C & A LLP

Chavan & Associates, LLP
San Jose, CA

RESPONSE:

This letter correctly sets forth the understanding of Central Marin Sanitation Agency.

By:
Title:
Date:

1475 Saratoga Ave, Suite 180, San Jose, CA 95129
Tel: 408-217-8749 • E-Fax: 480-247-5523
info@cnallp.com • www.cnallp.com

GOVERNMENT CODE - GOV

TITLE 2. GOVERNMENT OF THE STATE OF CALIFORNIA [8000 - 22980] *(Title 2 enacted by Stats. 1943, Ch. 134.)*

DIVISION 3. EXECUTIVE DEPARTMENT [11000 - 15986] *(Division 3 added by Stats. 1945, Ch. 111.)*

PART 2. CONSTITUTIONAL OFFICERS [12001 - 12790] *(Part 2 added by Stats. 1945, Ch. 111.)*

CHAPTER 5. Controller [12402 - 12481] *(Chapter 5 added by Stats. 1945, Ch. 111.)*

ARTICLE 2. Duties [12410 - 12432] *(Article 2 added by Stats. 1945, Ch. 111.)*

12410.6. (a) An audit for any local agency, including those submitted to the Controller pursuant to subdivision (a) of Section 12410.5, shall be made by a certified public accountant or public accountant, licensed by, and in good standing with, the California Board of Accountancy.

(b) Commencing with the 2013–14 fiscal year, a local agency shall not employ a public accounting firm to provide audit services to a local agency if the lead audit partner or coordinating audit partner having primary responsibility for the audit, or the audit partner responsible for reviewing the audit, has performed audit services for that local agency for six consecutive fiscal years. For purposes of calculating the six consecutive fiscal years, the local agency shall not take into account any time that a public accounting firm was employed by that local agency prior to the 2013–14 fiscal year. The Controller may waive this requirement if he or she finds that another eligible public accounting firm is not available to perform the audit.

(Added by Stats. 2012, Ch. 231, Sec. 2. Effective January 1, 2013.)

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Jacky Wong, Assistant Engineer

Approved: Jason Dow, General Manager JD

Subject: Rental Uniform Supply Contract with Aramark
CMSA Contract No. 17-22

Recommendation: Award a two-year term Rental Uniform Supply Contract to Aramark Uniform Services, and authorize the General Manger to execute the contract agreement.

Summary: The current rental uniforms contract with Aramark Uniforms Services (Aramark) expires on June 30, 2017. In March, staff prepared a detailed scope of work for the uniform supply services and sent a Request for Quotes (RFQ) to four uniform service companies. A notice was also published in the Marin IJ newspaper on April 17, 2017. Two quotes were received on April 28, 2017, and Aramark, the Agency's current vendor, provided the lowest quote based on the pricing structure detailed in the RFQ. The summary of the quotes is attached.

Discussion: The scope of services includes furnishing and laundering garments and other items, including shirts, pants, coveralls, smocks, lab coats, shop and bath towels, and floor mats. Additionally, Aramark will clean Agency-owned jackets on an as-requested basis. On a weekly basis, Aramark will collect and deliver the laundered items, provide a garments inventory, and inspect and maintain the garments in a good condition. If necessary, Aramark will either repair or replace items in accordance with the contract provisions.

The new contract is for a two-year period. The estimated annual rental uniform cost is $20,424.32. Aramark's quoted price is 10% lower than the current contract's schedule of values. Staff estimates the Agency will save approximately $2,000 annually on the contract services.

Attachments:
1) Uniform vendor quote summary
2) Rental Uniform Supply Contract with Aramark

Central Marin Sanitation Agency
Contract 17-22 – Rental Uniform Supply
Vendors' Quote Summary

Vendor	Quoted Amount
Aramark Uniform Services	$20,424.32
Cintas	$27,620.76

Central Marin Sanitation Agency

Contract No.17-22
GL No.5060-000-01

CENTRAL MARIN SANITATION AGENCY
RENTAL UNIFORM SUPPLY AGREEMENT

This Agreement dated ______________________, 2017, is between Aramark (Vendor), and Central Marin Sanitation Agency (CMSA).

Scope of Work: Vendor shall provide garment rental and cleaning services for the identified staff members. Refer to Appendix A for a complete description of the scope of work and provisions.

Contract Period: The term of this contract is for a 24-month period. The contract period will begin on July 1, 2017 and shall terminate on June 30, 2019.

Changes: CMSA, without invalidating this Agreement, may order changes in the Scope of Work consisting of additions, deletions, or other revisions, the Contract Price and Contract Time being adjusted accordingly. Such changes in the Work shall be authorized by written Work Directive signed by the Agency representative.

Insurance Requirements: Prior to commencement of work, the following insurance coverages from insurance companies satisfactory to CMSA shall be in place and maintained with insurance companies having at least an AVII (or better) financial rating. All insurance coverage shall provide for 30 days' advanced written notice to the Agency of any modifications, changes, or cancellation of any of the insurance coverage.

I. Workers' Compensation and Employers Liability Insurance:

a. Workers' Compensation coverage shall be provided as required by applicable law, regulation or statute. Employer's Liability insurance shall be provided in amount 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;
b. Waiver of Subrogation: The Workers' Compensation policy shall be endorsed with a waiver of subrogation in the favor of the Agency for all work performed by the Contractor, its employees, agents and subcontractors.

II. General Liability Insurance:

a. General Liability Insurance shall be provided with the following limits:
   i. $1,000,000 each occurrence, Bodily Injury and Property Damage combined;
   ii. $2,000,000 aggregate for Personal Injury Liability;

b. **Additional Insured Endorsement:** Contractor's insurance policy must name CMSA, San Rafael Sanitation District, City of Larkspur, Sanitary District #1 and Sanitary District #2 of Marin County, City of San Rafael, The Town of Corte Madera and the commissioners, officers, directors and employees of each listed entity as additional insured on the General Liability Insurance policy.

c. **Primary Wording:** The policy shall be endorsed to stipulate that the insurance afforded the additional insureds shall apply as primary and non-contributory insurance, and that any other insurance maintained by the additional insureds shall not be called upon to contribute with, or shall be excess of, this insurance.

III. Automobile Liability Insurance:

a. Automobile Liability Insurance shall be provided with limits of liability not less than $1,000,000 Combined Single Limit, and shall apply to "any automobile" or "all automobiles," as appropriate.

Price and Payment: CMSA will pay Vendor based on the unit prices set forth in the price proposal for service received during the contract period. The product and service codes and billing procedures shall be mutually agreed upon by the Agency and the Vendor at the beginning of the Contract, and shall not be changed during the Contract term without the Agency's prior consent.

Payment, in full, will be made within 30 calendar days after acceptance of the completed work by CMSA and presentation of the invoice for it.

Responsibility: Vendor will protect and preserve all CMSA facilities and operations that may be adjacent to or impacted by the work encompassed by this Agreement.

Coordination: Vendor will coordinate with CMSA for performance of the work.

Indemnity: Contractor shall indemnify, defend and hold harmless CMSA, San Rafael Sanitation District, City of Larkspur, Sanitary District #1 and Sanitary District #2 of Marin County, the City of San Rafael, the Town of Corte Madera, and the commissioners, officers, directors, and employees of each listed entity ("Indemnitees"), from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from Contractor's performance of the Scope of Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), but excluding that which is caused by the sole negligence or willful misconduct of indemnities.

Jake Williams, Aramark General Manager	Jason R. Dow, CMSA General Manager
Date	Date

Appendix A:

Complete Scope of Work to be Performed by Vendor

Uniform Rental and Cleaning

Service Scope of Work

A. Scope of Service

The Vendor shall provide garment rental and cleaning service for the Agency's uniformed staff. Service includes supplying new uniforms, collecting soiled uniforms, returning cleaned uniforms, maintaining and providing to the Agency accurate counts of garment inventory, and repairing or replacing damaged or excessively worn uniforms. Vendor shall also provide towels and floor mat rental and cleaning service and shall clean the Agency-owned jackets and sweaters on an as-requested basis.

The scope of work has been written to describe the general duties and services to be performed by the Vendor. Wherever the scope of work is explicit, it must be strictly adhered to. However, it is neither practical nor feasible for the scope of work to cover every possible contingency that might occur in the execution of this Agreement. The Vendor shall notify the Agency before beginning any work it believes is not described in this scope of work that will result in additional charges to the Agency. The Agency and Vendor will determine if a change to the Agreement is necessary.

B. Contact Information

The Vendor shall provide a designated primary contact person and telephone number for inquiries regarding service scheduling, billing, and technical supports. All telephone numbers must indicate available hours of use and time zone. The Vendor must notify CMSA in writing if any contact phone numbers are changed.

C. Uniform Measurements

Uniform measurements are to ensure that new proper fit uniforms will be provided at the beginning of the Contract period. Upon notification of award, the Vendor shall immediately arrange and coordinate with the Agency for providing qualified personnel to take measurements and to provide sufficient number of sample garment of the exact type and size for all employees who are to be furnished uniforms to try on. Measuring shall be conducted at the Agency facility located at: 1301 Andersen Drive, San Rafael, CA 94901 and shall be complete within two (2) weeks of notification of award.

Delivery of new uniforms to CMSA must occur no later than June 30, 2017. Any garment received that is incorrectly fitted must be exchanged for the correct size. The Vendor will be responsible for, and is to include in the quoted price, alternations required to adjust or finish length of pants and length of sleeves of shirts. There shall be no additional charge or cost for uniforms considered extra size, extended size, big & tall size, plus size, small size, or any other size which may mean to be outside the "normal" size.

D. New Personnel Clothing and Rental Changes

Vendor shall furnish new uniform to the Agency new-hired personnel at the contracted prices and at no setup cost to the Agency, regardless of when the request falls within the Contract term. The Agency will pay for the ongoing uniform rental and cleaning service at the listed value in the cleaning service cost schedule.

Grade B or slightly used uniforms (without holes, tears, rips, and stains) that meet the performance standards may be supplied for damaged, lost, worn items, or exchange for size changes during the contract period at no cost to the Agency.

With proper notice to the Vendor, the Agency reserves the right to delete any discontinued employee from the uniform rental and cleaning service's billing ticket and rental payments.

E. Service Days

Uniform service shall be provided each week on the same weekday, to be agreed upon by the Agency and the Vendor at the beginning of the Contract. Regular uniform service days shall not be changed without the Agency's prior agreement in writing. If a regular uniform service day falls on an Agency observed holiday, the uniform service day for that week shall be the previous business day. All garments picked up one week shall be returned the following week. Each uniformed staff member shall be provided with 11 uniform sets: five sets will be worn in a week, five sets will be in Vendor possession for cleaning, and one spare will be on the Agency's uniform rack. On the service day, Vendor shall collect the soiled uniforms from the soiled uniform storage bins, hang up the cleaned uniforms on a labeled uniform rack by employee's first and last name, and provide an inventory count to ensure that each uniformed employee has supply of at least five sets of uniforms supply on hand. Vendor shall be responsible for establishing and maintaining adequate uniform inventory. At each service day, Vendor must have a receipt signed and verified as to quantities picked-up and/or delivered. Quarterly, or as requested by the Agency, Vendor shall provide complete inventory counts of all provided garments.

F. Cleaning Requirements

Garments shall be laundered to the industry standard with hypoallergenic detergents and the returned uniforms shall be clean, neat appearing, dry and odor/mildew free. Work uniform may experience hard use that may accelerate wear and tear. Due to the nature of the Agency's work function, some of the work uniforms may have grease, soil, and/or oil stains that require removal.

G. Uniform Repair and Replacement

The Vendor shall repair and/or replace damaged garments. Rented garments shall be consistently maintained in satisfactory condition, with buttons securely attached. When determined by Agency staff, Vendor shall replace all garments that are unsightly due to mending or excess wear, at no additional charge to the Agency.

The Agency will assume responsibility for any documented uniform losses where the loss of the uniform has been proven to have occurred while the garment was in the custody of an Agency employee. The Agency will assume responsibility when it is proven that a uniform was damaged through negligence of an Agency employee. Payment for said garments will be based on the replacement cost schedule listed in Table 2.

H. Rental Garment Specifications

The Vendor shall provide the Agency with garments that are made of durable material. The provided garment shall be designed for wearing comfort. Each garment shall have a unique identification number, and shall be stamped with a date that the garment is issued or replaced.

Cost for embroidering and sewing of Agency logos shall be included in the rental price and in the replacement price. The Agency logo shall be sewn over the left breast on all shirts, lab coats, smocks, and coveralls. Employee's first name emblem shall be sewn over the right breast of the shirts and lab coats. Vendor shall provide a sample of the emblem for Agency to approve. The emblem, consisting of the logo or script, border, and backing, shall be in color(s) appropriate to the garment colors, with the stitched lettering to closely match the chosen garment color. Emblem size must be a minimum of 2 inches by 2 inches and a maximum of 4 inches by 4 inches.

The following are the minimum specifications for the rental garments:

Shirts: Shall be made from pre-shrunk, 65% polyester and 35% cotton or 100% cotton, 4.25oz cloth; sleeve lengths shall be short sleeve or long sleeve at the option of the employee; two (2) breast pockets with one pencil slot on the left pocket; sizes S - 5XL; solid color: Navy/Post Blue.

Pants: Shall be made from pre-shrunk, 65% polyester and 35% cotton or 100% cotton, 7.25oz cloth; two front slash style pockets; two rear inserts; heavy-duty industrial type of zipper fly with button on the waistband; sizes 28"- 56"; solid color: Navy/Post Blue.

Wrinkle Free Oxford style shirts and Khaki Trousers: Shirts shall be Oxford style, long sleeve; Size S-5XL; Solid color: Black. Trousers shall be straight-leg Khaki style with two front slash style pockets, two rear inserts; sizes 28"-56"; solid color: Khaki.

Flame Resistant Garments: Shirts shall meet NFPA 70-E Hazard Risk Category 1 with minimum ARC rating: ATPV 7.7 calories/cm^2; long sleeve with two (2) breast pockets with one pencil slot on the left pocket; sizes S - 5XL; solid color: Navy/Post Blue. Pants shall meet NFPA 70-E hazard risk category 2 with minimum ARC rating: ATPV 11.1 calories/cm^2; two front slash style pockets, two rear inserts; self-locking brass zipper; sizes 28"-56"; solid color: Navy/Post Blue.

Lab Coats: Shall be knee length; mixed polyester and cotton; with minimum of two (2) pockets on outside; sizes S to 5XL; Solid color: White.

Coveralls: Shall be long sleeve; 100% cotton, 7.25 oz cloth; with seven buttons; two pockets button through functional flaps, and pencil slot in left pocket; sizes 38 – 54; solid color: White and Light Brown.

Smocks: Shall be long sleeve; 100% cotton, 7.25 oz cloth; sizes 38 – 54; solid color: Navy/Post Blue.

Bath Towels: Shall be made of 100% cotton; minimum size: 21-inch by 39-inch; solid color: White.

Shop Towels: Shall be made of 100% cotton; typical size: 22-inch by 45-inch; solid color: non-white.

Grease Towels: Shall be made of 100% cotton; typical size: 13-inch by 13-inch; solid color: non-white.

Floor Mats: Nylon pile bonded to nitrile rubber backing, ADA compliant; sizes varies; solid color: Grey.

I. Estimated Quantities, Prices, and Award Basis

The quantities depicted in Table 1 and 2 are estimated quantities for quotation purposes. Actual payment will be for the service and replacements provided during each billing period.

Prices quoted shall include all labor, transportation, preparation, setup, any surcharges, and administrative costs for delivering of ready for use uniform. No rates increase will be permitted over and above the proposed prices listed in Table 1 and 2 during the contract period.

Vendor shall include fully completed Table 1 and 2 and list of any exceptions or additions to the service scope of work. Before CMSA staff evaluates all received quotes, CMSA will check figures and numbers in Table 1 and 2 for accuracy. Vendor shall correct any omission and error in the preparation of this quote, within 48-hours, after CMSA is given the notice to the Vendor. Vendor may be deemed as a non-responsive if the Vendor fails to respond and/or make corrections.

Contract will be awarded on the basis of the lowest total quotation costs as entered in Item 3 (defined as the sum of Item 1 – Total Service Costs, and Item 2 – Total Annual Replacement Costs).

Table 1.Number estimated cleaning services

Item	Unit Price	Quantity (number of cleanings or changes per year)	Extended Service Costs
Blue Uniform Pants (100% Cotton)	.315	3,640	$ 1146.60
Blue Uniform Shirts (100% Cotton)	.36	3,640	$ 1310.40
Blue Uniform Pants Cotton/Poly Blend	.27	3,640	$ 982.80
Blue Uniform Shirts Cotton/Poly Blend	.315	3,640	$ 1146.60
Blue Uniform Pants NFPA 70E Compliant	.72	1,040	$ 748.80
Blue Uniform Shirts NFPA 70E Compliant	.675	1,040	$ 702.00
Dark Gray/White Coveralls 100% Cotton	.54	858	$ 463.32
Blue Mechanic's Smocks 100% Cotton	.675	78	$ 52.65
White Lab Coats Cotton/Poly Blend	.45	702	$ 315.90
Wrinkle Resistant Dress Shirts Cotton/Poly Blend	.36	962	$ 346.32
Khaki Trousers 100% Cotton	.315	962	$ 303.03
Bath Towels	.162	7800	$ 1263.60
Shop Towels	.036	5200	$ 187.20
Grease Towels	.135	8320	$ 1123.20
4' X 6' ADA-Compliant Floor Mats	1.80	156	$ 280.80
3' X 4' Floor Mats	1.35	728	$ 982.80
(As-needed) Cleaning of Agency-owned Jackets and Sweaters	.90	200	$ 180.00

ITEM 1: Total Annual Service Costs: $ 11,536.02

Table 2.Nubmer estimated annual replacement cost schedule

Item	Unit Price	Quantity (number of replacements per year)	Extended Replacement Costs
Blue Uniform Pants (100% Cotton)	15.75	109	$ 1716.75
Blue Uniform Shirts (100% Cotton)	13.50	109	$ 1471.50
Blue Uniform Pants Cotton/Poly Blend	12.60	109	$ 1373.40
Blue Uniform Shirts Cotton/Poly Blend	11.25	109	$ 1226.25
Blue Uniform Pants NFPA 70E Compliant	18.00	31	$ 558.00
Blue Uniform Shirts NFPA 70E Compliant	15.75	31	$ 488.25
Dark Gray/White Coveralls 100% Cotton	18.00	26	$ 468.00
Blue Mechanic's Smocks 100% Cotton	16.20	2	$ 32.40
White Lab Coats Cotton/Poly Blend	15.75	21	$ 330,75
Wrinkle Resistant Dress Shirts Cotton/Poly Blend	13.50	29	$ 391.50
Khaki Trousers	12.60	29	$ 365.40
Bath Towels	1.125	234	$ 263.25
Shop Towels	.225	156	$ 35.10
Grease Towel	.675	250	$ 168.75

ITEM 2: Total Annual Replacement Costs: $ 8,888.30

ITEM 3: Total Annual Uniform Rental Cost (Sum of Items 1 and 2 above):

Twenty Thousand Four Hundred Twenty Four DOLLARS and Thirty Two cents

DOLLARS (Written Out)

$ 20,424.32

(figures)

END OF SECTION

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: Bay Area Biosolids-to-Energy Coalition Lead Agency

Recommendation: Authorize the Agency to serve as the Bay Area Biosolids-to-Energy Coalition Lead Agency, and authorize the General Manager to execute the Fiscal Agent Support Services Agreement with the California Association of Sanitation Agencies after its approval by the Coalition.

Discussion: CMSA has been a member of the Bay Area Biosolids-to-Energy (BAB2E) Coalition since 2009, and is signatory to the BAB2E Joint Exercise of Powers Agreement (JEPA). Delta Diablo Sanitation District served as the BAB2E Lead Agency since the Coalitions inception and recently resigned as Lead Agency. Under the JEPA, the Lead Agency's responsibilities include coordinating activities of the BAB2E Steering Committee, serving as the Coalition's contracting agent, and handling Coalition funds. Last year, the Coalition contracted with Carollo Engineers for Sarah Deslauriers to serve as the BAB2E Program Manager, and in early 2017, contracted with the California Association of Sanitation Agencies (CASA) to serve as the Coalition's fiscal and contracting agent. With Delta Diablo's resignation as Lead Agency, the Coalition needs to appoint a new Lead Agency to administer the contract with CASA.

Ms. Deslauriers, with approval of the BAB2E Steering Committee, sent the attached letter requesting CMSA consider serving as Lead Agency, and a draft contract between CASA and the Coalition for CMSA's execution. With nearly all of the Lead Agency's responsibilities transferred to CASA and the Program Manager, staff believes CMSA can provide the Lead Agency services with only a minor time commitment. Agency Legal Counsel Jack Govi has reviewed the attached documents and discussed them with staff, and has stated there are no legal issues with the CMSA serving as the BAB2E Lead Agency.

Attachments:
- May 4, 2017 letter from Sarah Deslauriers
- Draft Agreement for Fiscal Support Agent Services with CASA
- Lead Agency section from the BAB2E JEPA – Pages 5 and 6

Bay Area Biosolids to Energy Coalition

May 4, 2017

Jason Dow
Central Marin Sanitation Agency (CMSA)
1301 Andersen Drive
San Rafael, CA 94901

RE: Transfer of the Bay Area Biosolids to Energy Coalition Lead Agency Role from Delta Diablo to CMSA

Dear Mr. Dow,

As a member, you know the Bay Area Biosolids to Energy (BAB2E) Coalition consists of 19 San Francisco Bay Area wastewater agencies, representing over four million people, who are working together to develop a diverse portfolio of biosolids management solutions that maximize the beneficial use of biosolids and minimize greenhouse gas emissions. As the Coalition expands its efforts, roles of member agencies are changing and assistance from other organizations are being pursued to better leverage members' expertise in Coalition activities.

As part of these changes, the Coalition seeks to transfer the title and associated roles/tasks of the Lead Agency of the Coalition from Delta Diablo to CMSA, with the support of the California Association of Sanitation Agencies (CASA) and the Coalition Program Manager. As Lead Agency, CMSA will hold an agreement with CASA (draft agreement attached) to continue to provide fiscal support services to the Coalition as outlined in Sections 5.A.b and 5.A.c of the BAB2E Coalition Joint Exercise of Powers Agreement (JEPA, also attached) and as described in the previous agreement with Delta Diablo. In addition, the Program Manager will continue to support the Lead Agency in providing the duties listed in Section 5.A.a of the JEPA and as described in the Scope of Services defined by the Steering Committee for the Coalition Program Manager.

The Coalition fully supports CMSA in serving as the new Lead Agency under the terms described in this letter and JEPA, effective immediately, upon CMSA Board approval. If approved by the CMSA Board, the Coalition will vote to approve that CMSA execute the agreement between CMSA and CASA.

Please contact me if you have any questions about the Coalition or regarding CMSA's role as Lead Agency of the Coalition going forward.

Sincerely,

Sarah A. Deslauriers

Sarah A. Deslauriers, P.E.
Program Manager
Bay Area Biosolids to Energy Coalition
(925) 756-1974
Sarah.deslauriers@bayareabiosolids.com

Coalition members: Central Marin Sanitation Agency, City of Burlingame, City of Livermore, City of Millbrae, City of Palo Alto, City of Richmond, City of San Jose, City of Santa Rosa, Delta Diablo, Dublin San Ramon Services District, Fairfield-Suisun Sewer District, Ironhouse Sanitary District, Palo Alto Regional Water Quality Control Plant, San Mateo County Sanitation District, San Francisco Public Utilities Commission, Sausalito Marin City Sanitary District, Silicon Valley Clean Water, Union Sanitary District, Vallejo Sanitation & Flood Control District, West County Wastewater District

May 11, 2017

Jason Dow
Bay Area Biosolids to Energy Coalition
c/o Central Marin Sanitation Agency (Lead Agency)
1301 Andersen Drive
San Rafael, CA 94901

SUBJECT: AGREEMENT FOR FISCAL SUPPORT AGENT SERVICES

Dear Mr. Dow:

This letter sets forth the terms on which the California Association of Sanitation Agencies ("CASA" or "we") will provide the fiscal support services for the Bay Area Biosolids to Energy Coalition ("Coalition" or "you").

SCOPE OF WORK

CASA will provide fiscal support to the Coalition as requested. Tasks to be performed by CASA include, but are not limited to:

- Establish and operate for the use of the Coalition a designated account ("Account") segregated from CASA's general fund.
- All amounts deposited into the Coalition Account will be used as directed by the Coalition, less an administrative fee to CASA in accordance with the conditions set forth below.
- Preparation and transmittal of accounts receivable billing.
- Disbursement and collection of revenue.
- Enter into contracts on behalf of the Coalition as approved by the Steering Committee and directed by the lead agency. The Steering Committee, as defined in the Joint Exercise Powers Agreement (JEPA), is the decision-making body of the Coalition consisting of at least one representative from each member agency.
- Payment of consultants invoices, pursuant to contracts with CASA, as approved by the Coalition lead agency in accordance with the JEPA agreement.
- Manage accounting and reporting, including depositing checks, tracking revenues and expenditures in a restricted fund, and providing monthly status reports.
-
- CASA will maintain all financial records relating to the Coalition according to generally accepted accounting principles, retain records as long as required by law, and make records available to auditors as required by law.
- CASA will reflect the activities of the Coalition, to the extent required, on its state and federal government tax returns and financial reports. All disbursements from the Account shall be treated as payments made to or on behalf of the Coalition. The Coalition will provide CASA with proper documentation to accomplish this task.

RATES and BILLING

The Coalition shall compensate CASA at least annually in the amount of five (5) percent of total revenues or $10,000.00, whichever is greater, for the services performed. At least once annually, CASA shall submit an invoice to the lead agency requesting authorization to transfer funds from the restricted Coalition Account to the CASA General Fund to cover these services.

TERM

The term of this agreement shall be for a 12 month period commencing March 1, 2017 and terminating on February 28, 2018, unless extended by the parties or terminated earlier as provided below.

TERMINATION

The Coalition may terminate this Agreement at any time with 30 days written notice to CASA, or sooner by mutual agreement. Upon termination of the agreement, the Coalition shall remit payment for all services performed and expenses incurred on behalf of the Coalition by CASA up to the date of termination.

CASA may terminate this Agreement at any time by giving the Coalition 60 days written notice of intent to terminate, or sooner by mutual agreement. The Coalition shall reimburse CASA for all undisputed services provided pursuant to this agreement within 10 days of receiving a final invoice detailing such services.

Within 30 days of termination, CASA shall return to the lead agency all funds remaining in the Coalition Account after payment of any undisputed amounts due to CASA or consultants.

UNDERSTANDING of the PARTIES

In the best judgment of the parties, the services set forth in the scope of work can be provided for the specified amount. However, the Coalition and CASA will reevaluate and reassess during the course of the agreement both the tasks required to be performed and the amount of compensation paid and determine whether adjustments are warranted in any future agreement.

Agreed:

Bay Area Biosolids to Energy Coalition

Date: ______________________________ By:

____
Jason Dow

California Association of Sanitation Agencies

Date: ______________________________ By:

____
Roberta L. Larson, Executive Director

Upon the admission of a Subsequent Member, the Lead Agency shall update the information shown in Exhibit D and circulate the updated information to all Members.

c. In-Kind Payment. If a Member carries out a demonstration of a new technology, or takes other actions substantially beyond those taken by other Members, that contributes to the purpose of this Agreement, the Steering Committee may grant such Member a credit toward its Contribution, or toward future Contributions, in exchange for access to and/or information about the demonstration or other actions. Any such decision by the Steering Committee will be documented by the Steering Committee through a memo to all Members.

B. Administration of Funds.

a. Account. Coalition funds are to be accounted for by the Lead Agency.

b. Financial Obligations. Financial obligations of the Coalition to be covered by Coalition funds, including Lead Agency Costs, as defined below, must be authorized by the Steering Committee.

c. Annual Accounting. The Lead Agency shall prepare, or shall hire a consultant to prepare, periodic reports and accountings of all Coalition funds. Within sixty (60) days after the close of each Fiscal Year, the Lead Agency shall prepare, or shall hire a consultant to prepare, a written report of all of the Coalition's financial activities for such Fiscal Year. Such reports shall be distributed to each Member. Should the Lead Agency utilize a consultant for such reporting, the costs shall be reimbursable from the Coalition Contributions.

d. Records. The Lead Agency shall maintain accurate records of all Coalition expenditures. Any Member may inspect the books and records of the Coalition at any time during regular business hours.

C. Disposition. Upon termination of this Agreement, any Coalition assets from cash contributions remaining after the payment of, or provision for, all debts, liabilities and obligations of the Coalition (including obligations to Members), are to be returned to the Members in proportion to their Contributions.

SECTION 5

Lead Agency

A. Duties

a. General. The Lead Agency shall coordinate the activities of the Steering Committee, including calling and organizing meetings, transmitting notices, minutes, and other communications to the members of the Steering Committee, and ensuring compliance with the "Ralph M. Brown Act" (Government Code section 54950 *et seq.*), if and to the extent required.

b. Custodian of Coalition Funds. The Lead Agency shall maintain an account for Coalition funds and perform the accounting and reporting activities set forth in Section 4.

c. Contracts. The Lead Agency is empowered by the Coalition to enter into contracts on behalf of the Coalition, provided (i) the contract relates to ministerial duties that have been delegated to the Lead Agency by the Steering Committee (such as bookkeeping and other administrative services), or (ii) the Steering Committee has approved the essential terms of the contract. No other Member is authorized to enter into contracts on behalf of the Coalition. All contracts signed by the Lead Agency on behalf of the Coalition, including but not limited to the Existing Contracts, bind all Members, including Subsequent Members. Upon request, the Lead Agency will make available to any Member a copy of any contract entered into on behalf of the Coalition.

B. Costs. Subject to the approval of the Steering Committee, the Lead Agency is entitled to be reimbursed for costs it incurs in carrying out its duties as Lead Agency, including, but not limited to, the cost of travel for state and federal advocacy, conference call hosting, and copying and postage, but excluding staff time, (hereinafter referred to as "Lead Agency Costs"). Payment of Lead Agency costs from Coalition funds shall only be made with Steering Committee approval. The Lead Agency shall keep a record of Lead Agency Costs and, upon request, shall provide to the Steering Committee a summary thereof.

If the parties agree to a future project for the design, construction, or operation of a regional biosolids facility, to the extent not otherwise reimbursed, the Lead Agency may elect to have Lead Agency Costs reimbursed in the form of a credit toward any contribution required of the Lead Agency for such project.

C. Indemnification. The Members shall defend, indemnify and hold the Lead Agency harmless from and against any and all claims, damages, losses, liens, judgments, penalties, expenses (including reasonable attorneys and consultant fees), and/or liabilities arising out of or relating to any acts of the Lead Agency in its capacity as Lead Agency, except to the extent caused by the intentional or willful misconduct, or the negligent acts, errors, or omissions of the Lead Agency or its agents, officers, or employees. This provision will survive the expiration or termination of this Agreement.

D. Replacement.

a. Resignation. If the Member acting as the Lead Agency resigns as Lead Agency, the Steering Committee shall select another Member to serve as the Lead Agency.

b. Termination. The Steering Committee may replace the Member acting as Lead Agency with another Member, with or without cause.

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager

Subject: Marin LAFCO's Draft Central Marin Wastewater Study

Recommendation: Review and discuss the Draft Central Marin Wastewater Study, and decide on the manner to prepare an Agency response.

Summary: The Marin Local Agency Formation Commission (LAFCO) has released its Draft Central Marin Wastewater Study (Study) for public review, and comments are due by Friday, June 30, 2017. Keene Simonds, LAFCO's Executive Director, will attend the May 9 CMSA Board meeting to present the Study and answer Board member questions. The complete Study is enclosed in Board members' packets and can be viewed and downloaded from the CMSA website.

Staff is seeking Board guidance on preparation of an Agency response. Options include:

1) Staff to prepare a draft response for Board review at the June meeting;
2) Form an ad hoc committee to prepare a draft response for review in June; or
3) Board members to independently review the Study, provide comments to staff, and then staff to consolidate the comments for review in June.

Discussion: LAFCO's Study is comprised of an Executive Summary, the Study area's wastewater service characteristics, and profiles for each of the seven agencies providing wastewater services in central Marin County – CMSA, San Rafael Sanitation District (SRSD), Ross Valley Sanitary District (RVSD), Sanitary District #2 (SD2), Las Gallinas Valley Sanitary District (LGVSD), and the County of Marin's Murray Park and San Quentin Village Sewer Maintenance Districts. CMSA staff has reviewed draft versions of the Agency's profile, and provided comments and suggested revisions to LAFCO. In December 2016, Chair Hartzell and I sent the attached letter to LAFCO that summarized the Agency's substantive comments, specifically relating to the Study term (2010-2014), i presentation the Agency facility demands and capacities, and the use of depreciation in several of the Study's financial metrics. LAFCO has made most of the minor and editorial suggested changes, which are reflected in the Study, and has stated the demand/capacity charts and depreciation related comments will be addressed in the final Study.

The Study has eleven recommendations, three of which are related to CMSA, as presented below.

Recommendation #2 (Pg. 2-11):
"CMSA should develop a plan to allocate treatment capacity among its member agencies to enhance regional growth management. This plan would appropriately inform each member agency as well as the local land use authorities with more certainty with respect to their ability to forecast and accommodate new development within their jurisdictional boundaries going forward."

Recommendation #4 (Pg. 2-11):
"CMSA should reorganize its governing board structure to limit and or remove the City of Larkspur's presence within the joint powers authority to better align and weight governance with vested participation among member agencies."

Recommendation #8 (Pg. 2-12):
"The Commission should consider authorizing an addendum to fully evaluate options to reorganize and consolidate public wastewater services in Central Marin....."

Staff will be reviewing the revised Agency Profile section (attached) to determine which of the Agency's most recent comments have been included, or not, in the Study. Any comments or suggested changes from staff's review effort will be presented to the Board in June for discussion.

Background: In November 2013, San Rafael Sanitation District's Board President, Gary Phillips, sent Marin LAFCO a letter requesting that LAFCO consider evaluating alternate government structures for wastewater services as part of its municipal service review activities. In response to that request, LAFCO scheduled the Study to begin in fiscal year, FY 15-16. Initially, the Study intended to cover all wastewater related services within central Marin County, such as pretreatment and source control, collection, treatment, disposal, and reclamation. LAFCO normally conducts municipal service reviews of a selected area every five years, and historically, wastewater services in central Marin County were performed during separate Ross Valley and City of San Rafael service reviews. LAFCO's Study is the first time a service review has been conducted for the combined CMSA, RVSD, SRSD, SD2, County of Marin sewer maintenance district, and Las Gallinas Valley Sanitary District wastewater services.

Mr. Simonds attended the August 2015 CMSA JPA managers meeting to explain the Study schedule and objectives, and to gauge the managers' interest on serving on an advisory committee to work with LAFCO during the review. He explained that committee members would describe specific wastewater services provided by their respective districts, recommend service level performance metrics, consider and recommend planning assumptions to be used during the review, brainstorm and discuss wastewater service delivery alternatives, and peer review LAFCO work products, among other activities. Each JPA manager agreed that forming an advisory committee would be worthwhile and add value to the wastewater service review process and report. After the meeting, Mr. Simmonds sent a letter to each central Marin wastewater agency requesting their manager or designee consider serving on the advisory committee.

Mr. Simonds attended the October 2015 CMSA Board meeting to explain the Study scope, present and discuss the anticipated committee work activities, and answer any Board member questions. The Board appointed me to serve on the committee as CMSA's representative, and between December 16, 2015 and April 2016 the committee met three times to review various elements of the Study.

Attachment:

- December 27, 2016 Agency comment letter to LAFCO

CENTRAL MARIN SANITATION AGENCY

1301 Andersen Drive, San Rafael, CA 94901-5339 Phone (415) 459-1455 Fax (415) 459-3971 www.cmsa.us

December 27, 2017

Keene Simonds, Executive Director
Marin Local Agency Formation Commission
1401 Los Gamos, Suite 220
San Rafael, California 94903

Subject: Comments on Central Marin Wastewater Municipal Service Review Agency Profile

Dear Keene,

CMSA's Board of Commissioners supports Marin County Local Agency Formation Commission's preparation of a Central Marin Wastewater Municipal Service Review (MSR), and looks forward to reviewing the final document. At our December 10 Board meeting, General Manager Jason Dow informed the Board of the status of the MSR, his meeting with LAFCO staff to review comments on the initial draft Agency profile, and that the revised draft Agency profile was presented to the LAFCO Commission on December 8, 2016. The Board appreciated LAFCO staff meeting with GM Dow to review and discuss his comments, and understand some were incorporated in the revised draft Agency profile.

Upon review of the revised draft Agency profile, GM Dow and I noted several instances where Agency information was either inaccurate or incomplete, and a few areas that we believe need to be considered before the final Agency profile is accepted and the MSR analysis is completed. Three of the more noteworthy items are below and the attached revised draft Agency profile contains other suggested changes and edits.

<u>Study Term</u>: The current study term is from 2010 to 2014. We believe a study term through 2016 is more appropriate, so the information presented in the MSR and its analysis is reasonably current and accurate. If the LAFCO Commission is agreeable with extending the term, CMSA staff will provide the necessary 2015 and 2016 data.

<u>Capacity Graph (pg. 14)</u>: This graph compares the maximum daily volume, in million gallons (MG), received during each year of the study period to CMSA's hydraulic capacity of 125 MG per day. Using only maximum day information represents that CMSA has a significant amount of underutilized hydraulic capacity. Wastewater treatment plants are designed to provide adequate hydraulic capacity to prevent wastewater overflows from the treatment processes, and adequate treatment capacity to clean the wastewater to meet regulatory requirements. When assessing available hydraulic and treatment capacities, maximum peak hourly and 5-

minute peak flow rates need to be considered as these better represent available capacity. We suggest adding peak hourly and peak wet weather flows, which will show volumes over 110 MG per day that are much closer to maximum capacity. This suggested change wasn't included in the revised profile. GM Dow can further explain the relevance and importance of using these peak flowrates when assessing available capacity.

Financial Information (pg 17-21): It appears that this information is extracted from the Agency's audited financial statements. In several locations in this section LAFCO states CMSA's expenses exceed revenues resulting in an operating loss. On cash flow, budgetary, and financial management bases this is incorrect. Historically, CMSA's annual operating revenues exceed our annual operating expenses resulting in surplus funds for investment that are used to fund future capital activities. LAFCO includes depreciation as an expenses, which is fine from an auditing perspective to determine net assets, but would most likely be misunderstood by the general public. Local agencies don't fund depreciation with revenues, as depreciation is not a real operating expense.

Please do not hesitate to contact the Agency's General Manager, Jason Dow, to discuss any of the comments.

Respectfully,

Kathy Hartzell
Commission Chair

Jason Dow
General Manager

Attachment
- Revised Draft CMSA Profile with comments and suggested revisions

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Brian Thomas, Engineering Manager
Jason Dow, General Manager JD

Subject: PG&E Interconnection Agreement

Recommendation: Approve the PG&E Interconnection Agreement, and authorize the General Manager to execute the agreement.

Summary: In July 2016, the Board authorized the General Manger to submit an Interconnection Agreement (IA or Agreement) Modification Application to PG&E with the intent of ultimately allowing CMSA to supply excess generated power to the grid. Staff, with the assistance of the Agency's energy consultant, MDB Consulting, submitted the application, and over the past several months worked with PG&E to prepare the attached final draft Agreement. The Agreement has been favorably reviewed by our construction/contract attorney, Bill McInerney, and staff recommends the Board authorize the General Manger to execute it. A financial component to the Agreement is for CMSA to provide PG&E with $80,000 for interconnection and distribution system improvements and pay a Cost-of-Ownership charge.

Discussion: CMSA's electrical cogeneration system currently powers the Agency's facilities for an average of 23 hours per day with biogas as its fuel source. There have been numerous days over the past year when CMSA could have generated enough electricity to meet the facility's power demand and supply excess power to the electrical grid. However, the existing PG&E IA prohibits CMSA from delivering or exporting power.

As part of the IA modification process, PG&E prepared Initial Review and Supplemental Review reports to determine the specific power distribution system upgrades necessary for CMSA to safely and reliably provide power the PG&E electrical grid. The Supplemental Review report was finalized in January 2017 and identified an estimated $80,000 in PG&E system improvements that must be paid for by CMSA. The identified PG&E system improvements include a new ground fault detection bank ($45,000) near the CMSA switchgear building, a new PG&E secondary revenue meter ($5,000), a PG&E SCADA system expansion ($20,000), and system testing ($10,000). Per the Agreement terms, CMSA is required to fund these improvements by posting a financial security in the form of a guarantee, letter of credit, or other mechanism that is acceptable to PG&E. Once the security is posted, PG&E will begin design and construction of the improvements. In parallel, CMSA will begin design and construction of improvements to

Agency-owned equipment that must be upgraded to meet PG&E's power delivery standards, as described in the Supplemental Review report.

The new PG&E IA establishes the terms and conditions to supply power, including a Cost-of-Ownership charge of $384.00 per month for the duration of the Agreement. In accordance with the IA milestone schedule, distribution and network upgrades will be completed by early January 2018, followed by approximately two months of testing, and final interconnection by March 1, 2018. The Cost-of-Ownership charge is a mechanism for PG&E to recover its costs of constructing, owning, and maintaining facilities for power distribution. The Agreement allows for CMSA to either pay a one-time charge of $65,802.24 or a monthly charge of $384.00/month for the duration of the Agreement. The Agreement term is 10 years and will be automatically renewed on an annual basis unless either party terminates the Agreement in accordance with the appropriate Agreement terms. Staff recommends monthly payments as it will take 14.3 years to cover the one-time charge using simple present value of money.

The IA only allows CMSA to supply power to the PG&E electrical grid. A separate power sale agreement must be negotiated with a power distributor for CMSA to receive compensation for energy produced by the cogeneration system. Staff has submitted an application to Marin Clean Energy for their Feed-In-Tariff power sale program.

Alignment with Strategic Plan: This project is associated with two strategic actions to support Goal 3 – Objective 3.1 in the Agency's FY17 Strategic Business Plan as shown below.

Goal Five:	*CMSA will further incorporate green business principles and consider renewable resource opportunities in its short- and long-term planning.*
Objective 3.1:	*Investigate and implement steps to supply the Agency's extra power.*
Action:	*Develop a new Interconnection Agreement with PG&E.*
Action:	*Determine and implement any improvements to supply power to the PG&E utility grid.*

Attachment:

- Final Draft PG&E Small Generator Interconnection Agreement

SMALL GENERATOR INTERCONNECTION AGREEMENT (SGIA)

(For Generating Facilities No Larger Than 20 MW)

BETWEEN

PACIFIC GAS AND ELECTRIC COMPANY

AND

CENTRAL MARIN SANITATION AGENCY

For Project:

CMSA Renewable Energy Expansion
1384-WD

San Rafael, CA 94901
Marin County

TABLE OF CONTENTS

This Interconnection Agreement ("Agreement") is made and entered into this ________ day of ________________, 20__ by **PACIFIC GAS AND ELECTRIC COMPANY** ("Distribution Provider"), and **CENTRAL MARIN SANITATION AGENCY** ("Interconnection Customer"), each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

Distribution Provider Information

Pacific Gas and Electric Company
Attention: Electric Generation Interconnection - Contract Management
245 Market Street
Mail Code N7L
San Francisco, California 94105-1702
Phone: (415) 972-5394
Email: EGIContractMgmt@pge.com

Interconnection Customer Information

Central Marin Sanitation Agency
Attention: Brian Thomas
1301 Andersen Drive
San Rafael, CA 94901
Phone: 415-459-1455
Email: bthomas@cmsa.us

Interconnection Customer Application No: **PG&E Project ID# 50G3411, Queue# 1384-WD.** In consideration of the mutual covenants set forth herein, the Parties agree as follows:

Article 1. Scope and Limitations of Agreement

1.1 This Agreement shall be used for all Small Generating Facility Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) or Generator Interconnection Procedures (GIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Attachment 5.

1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Distribution Provider's Distribution System.

1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity.

1.4 Nothing in this Agreement is intended to affect any other agreement between the Distribution Provider and the Interconnection Customer.

1.5 <u>Responsibilities of the Parties</u>

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.

1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, in accordance with this Agreement, and with Good Utility Practice.

1.5.3 The Distribution Provider shall construct, operate, and maintain its Distribution System, Transmission System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Distribution Provider or Affected Systems. The Interconnection Customer shall comply with the Distribution Provider's Interconnection Handbook. In the event of a conflict between the terms of this SGIA and the terms of the Distribution Provider's Interconnection Handbook, the terms in this SGIA shall govern.

1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Distribution Provider and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Distribution Provider's Distribution and Transmission Systems, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

1.5.6 The Distribution Provider shall coordinate with all Affected Systems to support the interconnection.

1.5.7 The Interconnection Customer shall ensure "frequency ride through" capability and "voltage ride through" capability of its Small Generating Facility. The Interconnection Customer shall enable these capabilities such that its Small Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Distribution Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to section 2.1 of this Agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The Small Generating Facility's protective equipment settings shall comply with the Distribution Provider's automatic load-shed program. The Distribution Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority on a comparable basis. The term "frequency ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The term "voltage ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis.

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized by the Distribution Provider to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Distribution Provider's Distribution and Transmission Systems and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

1.7 Metering

The Interconnection Customer shall be responsible for the Distribution Provider's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power

1.8.1 Power Factor Design Criteria

1.8.1.1 Synchronous Generation The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Distribution Provider has established different requirements that apply to all similarly situated synchronous generators in the control area on a comparable basis.

1.8.1.2 Non-Synchronous Generation The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Distribution Provider has established a different power factor range that applies to all similarly situated non-synchronous generators in the control area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting nonsynchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Distribution Provider of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Distribution Provider may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Distribution Provider a written test report when such testing and inspection is completed.

2.1.2 The Distribution Provider shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Distribution Provider of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

2.2 Authorization Required Prior to Parallel Operation

2.2.1 The Distribution Provider shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Distribution Provider shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Distribution Provider shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Distribution Provider's Distribution System without prior written authorization of the Distribution Provider. The Distribution Provider will provide such authorization once the Distribution Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access

2.3.1 Upon reasonable notice, the Distribution Provider may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Distribution Provider at least five Business Days prior to conducting any on-site verification testing of the Small Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Distribution Provider shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3 Each Party shall be responsible for its own costs associated with following this article.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date
This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Distribution Provider shall promptly file this Agreement with the FERC upon execution, if required.

3.2 Term of Agreement
This Agreement shall become effective on the Effective Date and shall remain in effect for a period of ten years from the Effective Date or such other longer period as the Interconnection Customer may request and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3 Termination
No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a

notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Distribution Provider 20 Business Days written notice.

3.3.2 Either Party may terminate this Agreement after Default pursuant to article 7.6.

3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Distribution Provider's Distribution System. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.4 The provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 Emergency Conditions -- "Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Distribution Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Distribution System, the Distribution Provider's Interconnection Facilities any Affected Systems; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the Distribution Provider may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Distribution Provider shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility. The Interconnection Customer shall notify the Distribution Provider promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Distribution Provider's Distribution System or other Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Distribution Provider may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the Distribution Provider's Distribution System when necessary for routine maintenance, construction, and repairs on the Distribution Provider's Distribution System and/or Transmission System. The Distribution Provider shall provide the Interconnection Customer with five Business Days notice prior to such interruption. The Distribution Provider shall use Reasonable

Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages

During any forced outage, the Distribution Provider may suspend interconnection service to effect immediate repairs on the Distribution Provider's Distribution System and/or Transmission System. The Distribution Provider shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Distribution Provider shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse Operating Effects

The Distribution Provider shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the Distribution Provider's Distribution System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Distribution Provider may disconnect the Small Generating Facility. The Distribution Provider shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the Distribution Provider before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the Distribution System and/or Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Distribution Provider's prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and/or the Distribution Provider's Distribution System or Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Distribution Provider shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Distribution Provider.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Distribution Provider's Interconnection Facilities.

4.2 Distribution Upgrades

The Distribution Provider shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Distribution Provider and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

Article 5. Cost Responsibility for Network Upgrades

5.1 Applicability

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

5.2 Network Upgrades

The Distribution Provider or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Distribution Provider and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Distribution Provider elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer unless Section 5.2.1 directs otherwise.

5.2.1 Repayment of Amounts Advanced for Network Upgrades

To the extent the CAISO Tariff, currently Section 12.3.2 of Appendix Y, provides for cash repayment to the Interconnection Customer for contribution to the cost of Network Upgrades, the Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Distribution Provider and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Distribution Provider's Tariff and Affected System's Tariff for transmission services with respect to the Small Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. '35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1 If the Interconnection Customer is entitled to a cash repayment pursuant to Article 5.2.1, the Interconnection Customer, the Distribution Provider, and Affected System operator may adopt any alternative payment schedule that is mutually agreeable so long as the Distribution Provider and Affected System operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Distribution Provider or Affected System operator(s) will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the commercial operation date.

5.2.1.2 If the Small Generating Facility fails to achieve commercial operation, but it or another generating facility is later constructed and requires use of the Network Upgrades, the Distribution Provider and Affected System operator shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades if the Interconnection Customer is entitled to a cash repayment pursuant to Article 5.2.1. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the generating facility, if different, is responsible for identifying the entity to which reimbursement must be made.

5.3 Special Provisions for Affected Systems

Unless the Distribution Provider provides, under this Agreement, for the repayment of amounts advanced to Affected System operator(s) for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

5.4 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

Article 6. Billing, Payment, Milestones, and Financial Security

6.1 Billing and Payment Procedures and Final Accounting

6.1.1 The Distribution Provider shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within three months of completing the construction and installation of the Distribution Provider's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Distribution Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Distribution Provider for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Distribution Provider shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Distribution Provider within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Distribution Provider shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than an Uncontrollable Force Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Distribution Provider's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Distribution Provider, at the Interconnection Customer's option, a guarantee, , letter of credit or other form of security that is reasonably acceptable to the Distribution Provider and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Distribution Provider's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Distribution Provider under this Agreement during its term. In addition:

6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Distribution Provider, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

6.3.2 The letter of credit must be issued by a financial institution or insured reasonably acceptable to the Distribution Provider and must specify a reasonable expiration date.

Article 7. Assignment, Liability, Indemnity, Uncontrollable Force, Consequential Damages, and Default

7.1 <u>Assignment</u>

This Agreement may be assigned by either Party upon fifteen (15) Business Days prior written notice and opportunity to object by the other Party; provided that:

7.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement;

7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Distribution Provider, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Distribution Provider of any such assignment.

7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 <u>Limitation of Liability</u>

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 <u>Indemnity</u>

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3.3 If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

7.4 <u>Consequential Damages</u>

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.5 <u>Uncontrollable Force</u>

7.5.1 As used in this article, an Uncontrollable Force shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Distribution Provider or Interconnection Customer which could not be avoided through the exercise of Good Utility Practice. An Uncontrollable Force Event does not include an act of negligence or intentional wrongdoing by the Party claiming Uncontrollable Force."

7.5.2 If an Uncontrollable Force Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Uncontrollable Force Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Uncontrollable Force Event. The notification must specify in reasonable detail the circumstances of the Uncontrollable Force Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Uncontrollable Force Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Uncontrollable Force Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of an Uncontrollable Force Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

Article 8. Insurance

8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection

Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Distribution Provider, except that the Interconnection Customer shall show proof of insurance to the Distribution Provider no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

8.2 The Distribution Provider agrees to maintain general liability insurance or self-insurance consistent with the Distribution Provider's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Distribution Provider's liabilities undertaken pursuant to this Agreement.

8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

Article 9. Confidentiality

9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1 b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the

Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

Article 10. Disputes

10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at http://www.ferc.gov/legal/adr.asp.

10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

Article 11. Taxes

11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.

11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Distribution Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

Article 12. Miscellaneous

12.1 <u>Governing Law, Regulatory Authority, and Rules</u>

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.2 Amendment
The Parties may amend this Agreement by a written instrument duly executed by both Parties.

12.3 No Third-Party Beneficiaries
This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Distribution Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement
This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts
This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership
This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all transmission providers, market participants, and interconnection customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Distribution Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

The Distribution Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

Article 13. Notices

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

Central Marin Sanitation Agency
Attention: Brian Thomas
1301 Andersen Drive
San Rafael, CA 94901
Phone: 415-459-1455
Email: bthomas@cmsa.us

If to the Distribution Provider:

Pacific Gas and Electric Company
Attention: Electric Generation Interconnection - Contract Management
245 Market Street
Mail Code N7L
San Francisco, California 94105-1702
Phone: (415) 972-5394
Email: EGIContractMgmt@pge.com

13.2 Billing and Payment
Billings and payments shall be sent to the addresses below:

Interconnection Customer:

Central Marin Sanitation Agency
Attention: Brian Thomas
1301 Andersen Drive
San Rafael, CA 94901
Phone: 415-459-1455
Email: bthomas@cmsa.us

Distribution Provider:

Pacific Gas and Electric Company
Attention: Electric Generation Interconnection - Contract Management
245 Market Street
Mail Code N7L
San Francisco, California 94105-1702
Phone: (415) 972-5394
Email: EGIContractMgmt@pge.com

13.3 Alternative Forms of Notice
Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Central Marin Sanitation Agency
Attention: Brian Thomas
1301 Andersen Drive
San Rafael, CA 94901
Phone: 415-459-1455
Email: bthomas@cmsa.us

If to the Distribution Provider:

Pacific Gas and Electric Company
Attention: Electric Generation Interconnection - Contract Management
245 Market Street
Mail Code N7L
San Francisco, California 94105-1702
Phone: (415) 972-5394
Email: EGIContractMgmt@pge.com

13.4 Designated Operating Representative
The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Central Marin Sanitation Agency
Attention: Brian Thomas
1301 Andersen Drive
San Rafael, CA 94901
Phone: 415-459-1455
Email: bthomas@cmsa.us

Distribution Provider's Operating Representative:

Pacific Gas and Electric Company
Concord Distribution Control Center
1020 Detroit Ave, Concord, CA 94518

Work Management Desk (Planned Clearance Requests)
Attention: Vallejo District (AOR 3- North Bay Division)
Phone: 844-743-2100

Real Time Operator Desk (Real Time Operational Issues)
Attention: Vallejo District (AOR 3- North Bay Division)
Phone: 844-743-3322

13.5 Changes to the Notice Information
Either Party may change this information by giving five Business Days written notice prior to the effective date of the change.

Article 14. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Distribution Provider: **Pacific Gas and Electric Company**

Signature: ______________________________

Name: John Galloway

Title: Supervisor, Electric Generation Interconnection

Date: ______________________________

For the Interconnection Customer: **Central Marin Sanitation Agency**

Signature: ______________________________

Name: Jason Dow

Title: General Manager

Date: ______________________________

Attachment 1

Glossary of Terms

Affected System – An electric system other than the Distribution Provider's Distribution System that may be affected by the proposed interconnection, including but not limited to the Transmission System.

Applicable Laws and Regulations – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Business Day – Monday through Friday, excluding Federal Holidays.

Default – The failure of a breaching Party to cure its Breach under the Small Generator Interconnection Agreement.

Distribution Owner – The entity that owns, leases or otherwise possesses an interest in the portion of the Distribution System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

Distribution Provider – The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission or wholesale distribution service under the Tariff. The term Distribution Provider should be read to include the Distribution Owner when the Distribution Owner is separate from the Distribution Provider.

Distribution System – Those non-ISO transmission and distribution facilities owned, controlled and operated by the Distribution Provider that are used to provide distribution service under the Tariff, which facilities and equipment are used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades – The additions, modifications, and upgrades to the Distribution Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Good Utility Practice – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Interconnection Provider, or any Affiliate thereof.

Interconnection Customer – Any entity, including the Distribution Provider, the Distribution Owner, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Distribution Provider's Distribution System.

Interconnection Facilities – The Distribution Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Distribution Provider's Distribution System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Handbook - A handbook, developed by the Distribution Provider and posted on the Distribution Provider's website or otherwise made available by the Distribution Provider, describing the technical and operational requirements for wholesale generators and loads connected to the Distribution System, as such handbook may be modified or superseded from time to time. In the event of a conflict between the terms of this SGIA and the terms of the Distribution Provider's Interconnection Handbook, the terms in this SGIA shall govern.

Interconnection Request – The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Distribution Provider's Distribution System.

ISO Tariff – The California Independent System Operator Agreement and Tariff, dated March 31, 1997, as it may be modified from time to time, and accepted by the Commission.

Material Modification – A modification that has a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request to the Distribution Provider or the ISO with a later queue priority date.

Network Upgrades – Additions, modifications, and upgrades to the Distribution Provider's Transmission System required at or beyond the point at which the Distribution System connects to the Distribution Provider's Transmission System to accommodate the interconnection of the Small Generating Facility to the Distribution Provider's Distribution System. Network Upgrades do not include Distribution Upgrades.

Operating Requirements – Any operating and technical requirements that may be applicable due to Regional Transmission Organization, California Independent System Operator, control area, or the Distribution Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

Party or Parties – The Distribution Provider, Distribution Owner, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Interconnection – The point where the Interconnection Facilities connect with the Distribution Provider's Distribution System.

Reasonable Efforts – With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Small Generating Facility – The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Tariff – The Distribution Provider's Wholesale Distribution Tariff through which open access distribution service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission System – Those facilities owned by the Distribution Provider that have been placed under the ISO's operational control and are part of the ISO Grid.

Upgrades – The required additions and modifications to the Distribution Provider's Distribution System, at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

Description and Costs of the Small Generating Facility, Interconnection Facilities and Metering Equipment

Central Marin Sanitation Agency, an Interconnection Customer (IC), has requested a Generating Facility (GF) interconnection for CMSA Renewable Energy Expansion (Project) to the Pacific Gas and Electric Company (PG&E)'s distribution system for a 750kW Synchronous generating facility to be located at 1301 Andersen Dr, San Rafael, CA 94901. The Generating Facility will be connected to PG&E's San Rafael 1103 distribution circuit. Interconnection will be in accordance with FERC's Generator Interconnection Procedures. This Project has been assigned the queue number of 1384-WD.

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer, the Distribution Provider, Distribution Owner or the Transmission Owner. The Distribution Provider will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

Project Information

Project Name:	CMSA Renewable Energy Expansion
Number of Generators:	1
Manufacturer Model Name & Number:	Waukesha V6F4BGLD
Number of Inverters:	N/A
Manufacturer Model Name & Number:	N/A
Total Output:	0.750MW
Transformer Data (PG&E-owned):	1,500kVA @ Z = 5.89% 12kV / 0.48kV Delta – Wye Grounded
PG&E Grid Voltage at Interconnection:	480 V

Interconnection Facilities

The estimated costs associated with the Interconnection Facilities required to interconnect the project to Distribution Provider's Distribution System.

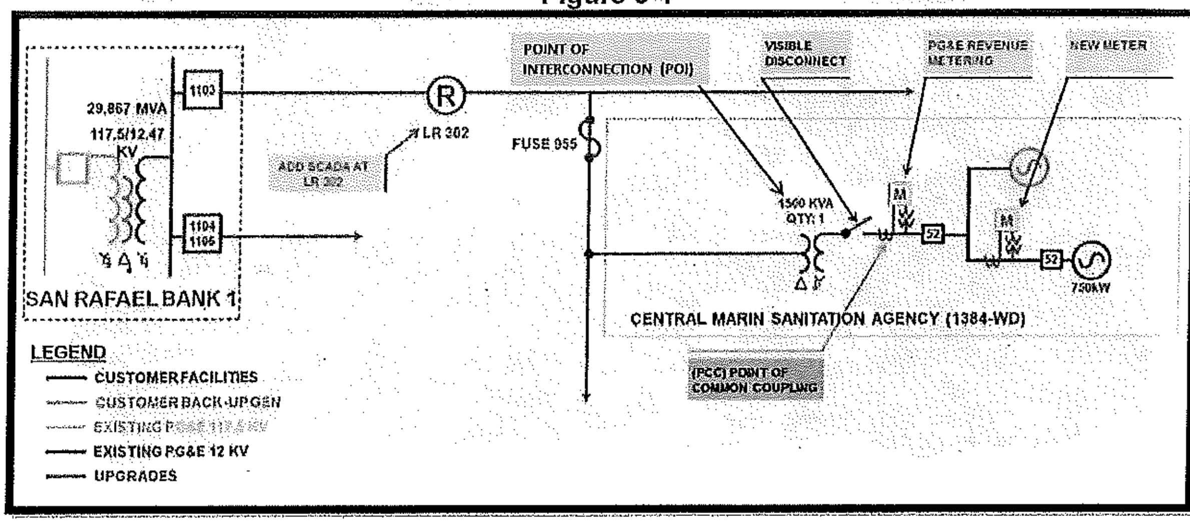
Interconnection Facilities (Subject to Cost-of-Ownership)	**Costs**
Pre-parallel inspection, protection review and testing witnessing	$10,000.00
PG&E Secondary Revenue Metering	$5,000.00
Secondary Service (existing)	n/a
Visible, lockable disconnect switch (by IC)	n/a
Ground fault detection bank (by PG&E)	$45,000.00
Total -- Interconnection Facility Costs *(Subject to Cost-of-Ownership)*	**$60,000.00**
ITCC Tax[1]	**TBD**

[1] Not subject to ITCC (Income Tax Calculation Component) on contribution. ITCC is exempt for wholesale generators that meet the IRS Safe Harbor Provisions. PG&E currently does not require the Interconnection Customer to provide security to cover the potential tax liability on the Interconnection Facilities, Distribution Upgrades, and Network Upgrades per the IRS Safe Harbor Provisions (IRS Notice 88-129). PG&E reserves the right to require, on a nondiscriminatory basis, the Interconnection Customer to provide such security, in a form reasonably acceptable to PG&E as indicated in Article 11 of the SGIA, an amount up to the cost consequences of any current tax liability. Upon request and within sixty (60) Calendar Days' notice, the Interconnection Customer shall provide PG&E such ITCC security or ITCC payment in the event that Safe Harbor Provisions have not been met, in the form requested by PG&E.

One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades

One-Line Conceptual Diagram of CMSA Renewable Energy Expansion

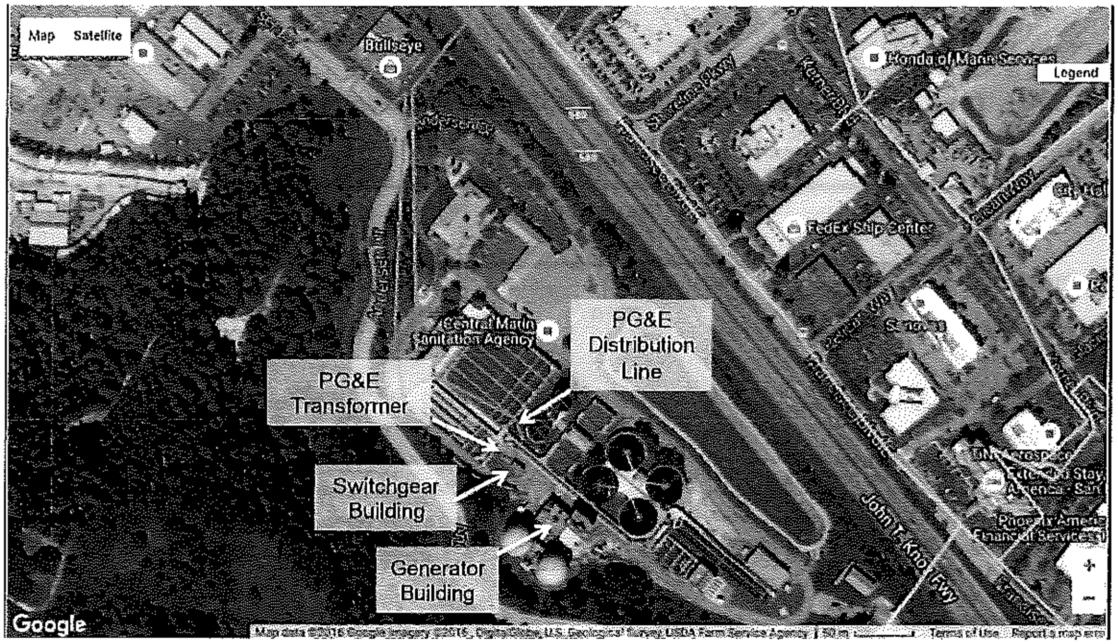
Figure 3-1



*Note: Point of Interconnection (POI) is at termination of conductor on low side of PG&E-owned transformer. Point of Common Coupling (PCC) is at the termination of conductor in the PG&E metering cabinet.

Vicinity Map of CMSA Renewable Energy Expansion

Figure 3-2



Attachment 4

Milestones

In-Service Date: January 18, 2018

Critical milestones and responsibility as agreed to by the Parties:

	Milestone	Date	Responsible Party
1	Financial Security Posting Due Date	May 25, 2017	Interconnection Customer
2	Completion of the Interconnection Facilities, Distribution Upgrades, and Network Upgrade facilities	January 4, 2018	Distribution Provider & Interconnection Customer
3	In-Service Date (back-feed power)	January 18, 2018	Distribution Provider & Interconnection Customer
4	Pre-parallel Inspection and Testing	February 15, 2018	Distribution Provider & Interconnection Customer
5	Initial Synchronization	February 15, 2018	Interconnection Customer
6	Provide written approval to Interconnection Customer for the operation of the facilities (PTO) and Commercial Operation Date (COD)	March 1, 2018	Distribution Provider

Note: Supplemental Billing and Payment Provisions:
If financial security postings are required to fulfill this Small Generator Interconnection Agreement (SGIA) or its amendment, the Interconnection Customer will receive instructions for posting those financial securities from PG&E no later than 30 calendar days after PG&E has executed this document.

In accordance with Article 6.3 of this project's SGIA, the financial security posting(s) must be completed by the Interconnection Customer before the Distribution Provider may begin any capital work. The Interconnection Customer may negotiate a milestone date to post the financial security(-ies) up to 180 Calendar Days (CD) after the execution of this SGIA. This negotiated date is shown in the milestones table above. If the financial security posting(s) is/are not completed by the date shown in the table above, a notice of default will be issued to the Interconnection Customer in accordance with Article 7.6 of this SGIA.

Billing Procedures for Actual Costs:
Per Section 6.1.1 of this project's SGIA, PG&E will bill the Interconnection Customer on a monthly basis for actual labor and/or material costs incurred during the prior month.

Agreed to by:
For the Distribution Provider ______________________ Date: __________

For the Interconnection Customer ______________________ Date: __________

Attachment 5

Additional Operating Requirements for the Distribution Provider's Distribution System, Transmission System and Affected Systems Needed to Support the Interconnection Customer's Needs

5.1 General Operating Requirements

The Distribution Provider shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Distribution Provider's Distribution System.

The Interconnection Customer must comply with all applicable rules and tariffs including but not limited to the Distribution Interconnection Handbook and the Wholesale Distribution Tariff.

5.2 Deliverability Status

The Interconnection Customer has elected for this Small Generating Facility to have Energy Only Deliverability Status, as defined in the CAISO Tariff. As a result, this Small Generating Facility was studied for Energy Only Deliverability Status by the Distribution Provider. Per the results of those studies, the Interconnection Customer and the Distribution Provider acknowledge and understand that the Participating Small Generating Facility will have Energy Only Deliverability Status.

Attachment 6

Distribution Provider's Description of its Upgrades and Best Estimate of Upgrade Costs

The Distribution Provider shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Distribution Provider shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

Distribution Upgrades

The estimated costs associated with the system upgrades required to interconnect the project to the Distribution Provider's Distribution System.

Distribution Upgrades: None

Distribution Upgrades

Distribution Upgrades (Subject to Cost-of-Ownership)	
Add SCADA to the existing LR 302	$20,000.00
Total – Distribution Upgrade Costs (Subject to Cost-of-Ownership)	$20,000.00
ITCC Tax[2]	TBD

Network Upgrades: None

[2] Not subject to ITCC (Income Tax Calculation Component) on contribution. ITCC is exempt for wholesale generators that meet the IRS Safe Harbor Provisions. PG&E currently does not require the Interconnection Customer to provide security to cover the potential tax liability on the Interconnection Facilities, Distribution Upgrades, and Network Upgrades per the IRS Safe Harbor Provisions (IRS Notice 88-129). PG&E reserves the right to require, on a nondiscriminatory basis, the Interconnection Customer to provide such security, in a form reasonably acceptable to PG&E as indicated in Article 11 of the SGIA, an amount up to the cost consequences of any current tax liability. Upon request and within sixty (60) Calendar Days' notice, the Interconnection Customer shall provide PG&E such ITCC security or ITCC payment in the event that Safe Harbor Provisions have not been met, in the form requested by PG&E.

Total Project Costs

Cost Category	Amount Subject to COO ($)	Amount NOT Subject to COO ($)	Total Cost Category Amount ($)
Interconnection Facilities Costs (Attachment 2)	$60,000.00	**N/A**	$60,000.00
Distribution Upgrade Costs (Attachment 6)	$20,000.00	**N/A**	$20,000.00
Network Upgrade Costs (Attachment 6)	N/A	$0.00	$0.00
Total Project Costs ($)	**$80,000.00**	**$0.00**	**$80,000.00**

Total Cost-of-Ownership Charges for Project:

The Interconnection Customer has elected the following by placing a check mark against it for Cost-of-Ownership for the applicable Interconnection Facilities and/or Distribution Upgrades. The Cost-of-Ownership will commence upon the In-Service Date per Section 4.1.2.

A. [x] **Monthly Cost-of-Ownership Charge**

$ 80,000.00 x 0.48%[3] (current percentage rate) = $ 384.00

Total Monthly Cost-of-Ownership Charge	**$ 384.00 / month**

B. [ ] **Equivalent One-Time Charge** (in lieu of recurring Monthly Cost-of-Ownership Charge)

$ 384.00 / month x 12 months x 14.28 (present worth factor[4]) = $ 65,802.24

Total Equivalent One-Time Charge	**$ 65,802.24**

3 The COST-OF-OWNERSHIP Charge for Interconnections provided under this Agreement is determined in accordance with PG&E's applicable percentage rates calculated using PG&E's most recent distribution owner revenue requirement on file with and accepted by FERC. PG&E currently charges the following COST-OF-OWNERSHIP rates for distribution facilities: Customer financed, Distribution-level Rate of 0.48% monthly.

4 The Present Worth Factor (PWF), which is also known as the perpetuity factor, is used under this agreement to determine the equivalent One-Time Payment. This financial factor is the reciprocal of the after-tax Rate of Return on Rate Base (ROR). The after-tax ROR is calculated by the Economic and Project Analysis Department and is based on CPUC decisions, which establish the Return on Rate Base.

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

From: Brian Thomas, Engineering Manager
Jason Dow, General Manager JD

Subject: Update on the Agency's Power Sale Options

Recommendation: Authorize the General Manger to negotiate a power sale agreement with Marin Clean Energy.

Summary: At the October 2016 Board meeting, staff was directed to explore power sale options with both PG&E and Marin Clean Energy (MCE). After PG&E completed the Interconnection Agreement's Supplemental Review in early 2017, staff submitted applications for the MCE standard Feed-In-Tariff (FIT) and the PG&E E-BioMAT FIT. Upon reviewing the PG&E E-BioMAT FIT eligibility requirements and discussing them with our energy consultant and PG&E, staff learned that CMSA's cogeneration system is not eligible for the E-BioMAT FIT program.

Discussion: MCE has reviewed CMSA's FIT application and deemed it complete on March 20, 2017, and the Agency has a reserved baseload energy price of $0.105 per kWh. The reservation will remain effective until March 20, 2018, during which time CMSA must obtain a new Interconnection Agreement from PG&E, provide proof of a Western Renewable Energy Generation Identification System (WREGIS) number, and complete the required physical improvements identified in the PG&E Interconnection Agreement Supplemental Review report. All of these actions are scheduled to be complete by March 1, 2018.

CMSA intends to have further discussions with MCE to determine if other power sale options could be implemented beyond the standard MCE FIT. These options include better pricing for "dispatchable" power (i.e. the ability to send a specific amount of power to MCE within a specific timeframe upon request from MCE) or through a sell all/buy all power agreement.

During the E-BioMAT FIT application review process, it was determined that CMSA is not eligible for the program based on the operational date of our cogeneration system. PG&E's program states the cogeneration facility must have commenced commercial operations on or after June 1, 2013. CMSA's existing cogeneration facility began operation in 2005 and had a total project cost of approximately $2.7 million.

However, there is a provision in the California Energy Commission's Renewables Portfolio Standard Eligibility Guidebook (Guidebook) to change the operations date for "Repowered Facilities". To qualify as a repowered facility, the prime generating equipment of the facility must be replaced with new equipment and the capital investments made to repower the facility must have a value equal to at least 80% of the repowered facility. In 2012, CMSA conducted a major overhaul of the cogeneration engine and generator for $314,555 and received a new generator as part of a warrantee settlement, valued at approximately $57,000. While this work was necessary and valuable to the operation of the cogeneration system, it does not meet the Guidebook criteria to qualify as a biomethane repowered facility or 80% capital investment requirement.

Alignment with Strategic Plan: This project is a strategic action to support Goal 3 – Objective 3.1 in the Agency's FY17 Strategic Business Plan as shown below.

Goal Five:	*CMSA will further incorporate green business principles and consider renewable resource opportunities in its short- and long-term planning.*
Objective 3.1:	*Investigate and implement steps to supply the Agency's extra power.*
Action:	*Develop a new Interconnection Agreement with PG&E.*
Action:	*Determine and implement any improvements to supply power to the PG&E utility grid.*
Action:	*Negotiate power sale agreements.*

Attachment:

- California Energy Commission's Guidebook: pages 38-40

COMMISSION GUIDEBOOK

RENEWABLES PORTFOLIO STANDARD ELIGIBILITY

Eighth Edition

Commission Guidebook

CALIFORNIA
ENERGY COMMISSION

Edmund G. Brown Jr., Governor

JUNE 2015

CEC-300-2015-001-ED8-CMF

1) A comprehensive list and description of all California LORS relating to the environmental area that may be directly or indirectly violated by the development or operation of the facility.

2) An assessment of whether the development or operation of a facility will cause or contribute to a violation of any California LORS in the region of California most likely to be affected by the development or operation of the facility.

3) Documentation substantiating the applicant's assessment as required in b) above. For example, documentation could include environmental studies, permits, and similar materials demonstrating that the development or operation of the facility will not cause or contribute to a violation of California LORS in California.

2. Out-of-Country Requirements

An applicant for a facility located outside the United States shall analyze and document that the facility is developed and operated in a manner that is as protective of the environment as a similar facility in California. To meet this requirement, the analysis performed by the applicant must include all of the following:

a) A comprehensive list and description of all California LORS that would apply to a similar facility located within California at a location designated by the applicant.

b) An explanation of how the facility will be developed and operated in a manner that is as protective of the environment as a similar facility located in California, including whether the developer and/or operator will secure and put in place mitigation measures to ensure that these LORS are followed.

c) Documentation substantiating the applicant's assessment as required in b) above. For example, documentation could include environmental studies, permits, and similar materials demonstrating that the development and operation of the facility will protect the environment to the same extent as provided by these LORS for a similar facility located in California.

D. Repowered Facilities

An applicant wishing to revise the commercial operations date of a facility may do so by repowering the facility as described in this section. The date the facility recommences commercial operations may be used as the new commercial operations date. Only an applicant seeking to revise the commercial operations date of a facility needs to apply for RPS certification as a repowered facility. Applicants seeking to certify a facility as a repowered facility shall document the following:

1) The prime generating equipment of the facility is replaced with new equipment.

2) The capital investments made to repower the facility have a value equal to at least 80 percent of the repowered facility.

Facilities consisting of multiple electrical generation units may be partially repowered if the repowered generating unit can be RPS-certified as an individual facility, separate from the generating units that were not repowered.

1. Prime Generating Equipment

All prime generating equipment at the facility shall be replaced with new equipment for the facility. The prime generating equipment for each renewable resource is defined as follows:

a) Wind: the wind turbine, including the electricity generator, gearbox (if any), nacelle, and blades.

b) Biomass: the boiler, electricity generator, and the steam turbine.

c) Geothermal: the electricity generator and the turbine, including the turbine rotors, shaft, stationary blades, and any gear assemblies.

d) Small and conduit hydroelectric: the electricity generator, turbine, and structures directly supporting the turbine.

e) Solid waste conversion: the gasifier (gasifying equipment), the electricity generator, and either the internal combustion engine or combustion turbine, as applicable.

f) Biomethane: the electricity generator and either the internal combustion engine or combustion turbine, as applicable.

g) Solar:

1) Solar thermal: the electricity generator, steam turbine, and solar boiler.

2) Solar Photovoltaic: the photovoltaic panel(s).

A facility that does not use any of the prime generating equipment listed above shall replace the equivalent equipment or the appropriate prime generating equipment for that technology type.

2. Capital Investments

The applicant must document that the capital investments to the portions of the facility directly contributing to electricity production have a value equal to at least 80 percent of the value of the repowered facility. The portion of the facility that directly contributes to electricity production includes the prime generating equipment; fuel processing, enhancing, and delivery equipment located at the facility; and any associated process control equipment and structures at the facility.

The capital investments shall be made not more than two years before the facility reenters commercial operations, unless it can demonstrate that the procurement or construction associated with repowering began more than two years before the date the facility re-enters commercial operations.

Capital investments in the following equipment may be used to meet the 80 percent threshold: electricity generators and related equipment, fuel processing, enhancing, and delivery equipment, control equipment, associated process control equipment, and structures used to support the aforementioned equipment. Expenditures for environmental control equipment, air pollution control equipment, land, or in tangibles, such as goodwill or the value of the power purchase contract of a facility, may not be used to meet the 80 percent threshold, because these expenditures do not directly contribute to the production of electricity. The applicant must provide documentation, such as invoice receipts, verifying the replacement of the old equipment, as well as other relevant components of the facility. Only documented capital investments to the portions of the facility directly contributing to the production of electricity are eligible to contribute to the 80 percent threshold.

An applicant shall demonstrate compliance with the 80 percent threshold by one of two methods:

a) Tax records method

b) Replacement value method

An applicant for precertification must provide documentation available to support the future compliance with these requirements, including any documentation available demonstrating preliminary compliance with these requirements.

a. *Tax Records Method*

The applicant shall document and provide all of the following to the Energy Commission:

1) All relevant tax records.

2) A list of all eligible capital investments made to the facility.

3) The year and month in which the investments were made.

4) The value of capital investments, which is the original tax "basis" declared to the Internal Revenue Service to calculate depreciation. The tax basis should reflect the value of the equipment the applicant has attested to purchasing.

5) The value of the repowered facility, which is based on the sum of the tax basis declared for all of the equipment and structures in the repowered facility as of the year the facility is repowered. For new equipment and structures, the value of the repowered facility is the original tax basis. For existing equipment and structures, the value of the repowered facility is the tax basis as adjusted for depreciation. For facilities financed using a sale/lease-back or similar structure, the original tax basis of the equipment and structures for both the lessor and lessee will be considered.

b. *Replacement Value Method*

The applicant must document and provide all of the following to the Energy Commission:

1) All relevant financial records.

2) A list of all eligible capital investments made to the facility.

Central Marin Sanitation Agency

BOARD MEMORANDUM

May 4, 2017

To: CMSA Commissioners and Alternates

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

Subject: Proposed Fiscal Year 2017-18 Budget

Recommendation: Review the Agency's Proposed Budget for the Fiscal Year 2017-18 and provide comments and direction to the General Manager as appropriate.

Summary: Attached is the proposed budget for the Central Marin Sanitation Agency for the fiscal year 2017-18. The proposed budget consists of five parts, revenues, expenses, capital improvements, a financial forecast, and an appendix of reference tables specific to budget development. Amounts have been carefully considered subject to review by the General Manager, the Administrative Services Manager, and the Finance Committee in its meeting on April 27, 2017. Also attached for reference information are the preliminary budget documents that were provided to the Finance Committee. Recommended Board action for the budget consists of first review for comments and direction at the regularly scheduled Board meeting on Tuesday May 9, 2017, and second review and adoption at the regularly scheduled Board meeting on June 13, 2017.

Staff will present the proposed budget at the May 9, 2017 Board meeting. The proposed budget for the fiscal year 2017-18 is enclosed in Board member agenda packets and may alternatively be viewed from the Agency website at www.cmsa.us/finance.

Analysis: The proposed budget provides funding requirements and funding sources necessary to provide services to the Agency's customers in a responsible and cost effective manner.

Highlights

- Budgeted base salaries reflect salary schedules for the fiscal year 2017-18 by step for each employee, respectively
- Headcount remains the same at 43 with no new positions proposed
- Accrued leave payout amounts are provided for known retirements within the fiscal year
- Retirement costs reflect a *de minimis* increase over the prior year of less than one-tenth of one percent for current active employees in the Classic group, with ongoing payments consistent in amount expressed as lump sum for past service costs, i.e., unfunded liability. The PEPRA group is consistent between years at 6.5% for the employer rate

- Health care costs rise at 4.5% in January 2018 but at a declining rate from 5% previously
- Retiree health benefits are consistent between years due to transition from a defined benefit plan to a defined contribution plan (MARA)
- Chemical costs are down overall due to savings from effective competitive bidding as well as reductions in estimated usage
- General & Administrative costs are down overall due to completion of certain consultant charges in connection with NPDES permit renewal and cumulative effect of other accounts
- Service charges increase 4% for year 5 of the Board adopted five-year revenue plan
- The capital fee increased $100K also in accordance with the five-year revenue plan
- Capacity charges are budgeted in a nominal amount, $29K, to reflect the revenue source
- Contract service revenues are down for San Quentin
- Interest income, although nominal, increased due to rising interest rates
- A multi-year revenue plan is due for renewal for consistent-predictable budgeting for the Agency as well as its members
- The capital program will be financed from, and in this order, (1) capacity charges, (2) coverage fees, (3) the capital fee, and (4) reserve usage

Personnel
Funded positions remain the same at 43 FTE's with no part-time or shared employees between departments. This makes for a stable workforce and predictable-manageable budgeting. The Agency carefully monitors its organizational position-structure and strives to modify responsibilities where possible to meet changing needs or improve service delivery without increasing total staff headcount. Personnel costs decrease a minor amount between fiscal years from 2016-17 to 2017-18 due to a minor reorganization last year, but more importantly are consistent and stable.

Retirement costs for the Classic employee group and the PEPRA group are stable and consistent between years with only immaterial increases between years. Cost projections for the 2018-19 fiscal year are also immaterial. The Agency's retirement account with CalPERS reflects a funded ratio of 78.6 percent with an unfunded accrued liability of approximately $8M. The unfunded liability began with historical plan changes and is ongoing due to financial market stress. Staff will evaluate funding options for the unfunded liability with the Finance Committee for possible future implementation. It is important to note that upon full funding the "normal" cost employer rate for the Agency is a very manageable and reasonable 11.7 percent of payroll.

Health care costs continue to increase but at a decreasing rate. We once saw 10 percent annual increases in health care premiums and are now seeing mild increases in the 5 percent area. Good news for budgeting for the Agency. Health care costs have also been capped at the Kaiser rate specific to each employee with the excess paid by the employee if a more expensive plan is selected thereby reducing costs to the Agency. Residual flex dollars for certain eligible employees are also capped at the residual amount as of July 1, 2014 for savings to the Agency.

Workers compensation insurance for work-related injuries is provided through the California Sanitation Risk Management Authority. The program is fully insured with no risk retention in the form of deductibles. Insurance premiums are consistent for the fiscal years 2015 and 2017 but rose for the fiscal year 2016 as there were claims that occurred in the 2016 fiscal year. Accordingly, premium cost has returned to previous lower levels.

The Agency is subject to the provisions of GASBs 45 and 75 for its post-retirement health care plan. Although the plan has been frozen to new employees hired after July 1, 2010, the Agency has an ongoing obligation for eligible employees. The annual actuarially required contribution for the plan is approximately $300K with an approximate $2.5M unfunded liability remaining. Options for funding the unfunded liability may also be discussed with the Finance Committee. The obligation for the plan will decrease over time through attrition of retirees receiving the benefit as there are no new eligible employees entering the plan to receive the benefit.

The Agency transitioned from a defined benefit post-retirement health care plan, described above, to a defined contribution plan to provide post-retirement medical benefits to retirees on a cost reimbursement basis based upon proof of payment. The plan is known as MARA, medical after retirement account, and is managed as a Section 115 trust. The Agency contributes 1 ½ percent of base salary to MARA to eligible employee accounts that is not taxed as compensation upon transfer to the trust or upon receipt of benefits from the trust. Expense for MARA will increase over time for all new hires.

Materials and Supplies
Budgeting for the various material and supply accounts is generally consistent between years with only minor variations. There was a large decrease in the budgeted cost of chemicals as the Operations department did well with competitive purchasing and also estimated lesser quantity usage of certain chemicals. Utility costs further decrease through reduction in natural gas procurement in relation to increased biogas production from the organic waste program. Insurance and claims costs are very consistent between years. General and administrative costs are down for less consultant fees paid in connection with the NPDES permit renewal and the cumulative effect of other accounts.

Capital Program
There are numerous capital projects identified and included within the 10-year CIP schedule totaling the amount of approximately $36M with approximately $3.8M reflected for the fiscal year 2017-18. The Agency's Capital Project Team will prioritize and schedule these projects based upon the needs of the Agency and those with the highest risk to the Agency. The CIP schedule is divided into four sections for facility improvements, general equipment, liquids treatment equipment and systems, and solids treatment and energy generation equipment and systems. Funding for the fiscal year 2017-18 projects is from capacity charges, coverage fees, the capital fee, and capital reserves.

Revenues
The Agency's largest revenue source is from service charges to member agencies for wastewater treatment services. The total amount of service charges needed to fund the budget is allocated between the members based upon their three-year flow and strength. The flow-strength allocation table is included in the appendix to the budget. The Agency had

previously established a five-year revenue plan for predictability and budgeting. The fiscal year 2017-18 is the fifth year of the five-year revenue plan and will need renewal with the Finance Committee, JPA agencies, and Board for the fiscal year 2018-19 and beyond. Service charges increase four percent in accordance with the revenue plan. The capital fee also is part of the revenue plan allocated based upon flow-strength and is due for update. The debt service charge is a function of the annual debt service due plus 25 percent coverage in accordance with the 2015 refunding revenue bond indenture. Revenues collected from the debt service coverage is used to finance the capital program. On the subject of coverage, the Agency's revenue-cost structure maintains debt service coverage in the area of approximately 150 percent in accordance with bond indenture requirements and rating agency expectations. Capacity charges previously were not budgeted due to their unpredictability but have been budgeted in a nominal amount to serve as a placeholder.

Contract service revenues are down due primarily to flow-strength reduction of the San Quentin wastewater treatment fee that is based upon a proportion of total flow-strength. San Quentin flows reduced from 5.16 percent of total flow-strength to 3.6 percent of flow-strength likely due to reduced inmate population. Interest income with the Local Agency Investment Fund, LAIF, has been at historically low levels for many years since the 2008 financial crisis. The LAIF rate has interestingly increased from approximately .3 percent to approximately .6 percent.

There are currently no other financing sources for the 2017-18 fiscal year but will occur with completion of a currently in-process financing with the California State Revolving Fund (SRF). The Agency is anticipating receiving an SRF Green Project Reserve loan with 75% debt forgiveness for ongoing planning level studies, and will avoid spending up to $500K in capital reserve. The value of the studies funded by the SRF loan will be recorded in the books as revenue in the form of capital contributions to the Agency. In addition, if the SRF loan represents federal pass-thru funds which is likely, $500K is the threshold for requiring a separate and special audit known as a "single audit" reportable to the California State Controller's Office (SCO) in addition to the annual financial audit.

Agency reserve levels are healthy standing at total reserves of approximately $14M depending on how much is spent on capital. Reserve levels are well above the minimum required level of 25 percent of operating costs.

10-Year Financial Forecast

The Agency updates a 10-year financial forecast each fiscal year to accompany the annual budget. The Forecast is a long-term budgetary examination of Agency operations and shows revenues, operating expenses, capital expenses, and reserve balances. It provides a strategic perspective to guide the Board in making decisions on the direction for future budgets, wastewater service revenues, and the funding and use of reserves. The forecast will be provided as a handout at the May 9, 2017 Board meeting.

Attachments:

1. (Fin Comm) Funding Requirements and Sources Summary
2. (Fin Comm) Schedule 1 – Revenues by Source
3. (Fin Comm) Schedule 2 – Operating Expenditures by Category
4. (Fin Comm) FY18 CIP Summary

Enclosure:

1. Proposed Fiscal Year 2017-18 Budget

CENTRAL MARIN SANITATION AGENCY

Preliminary Budget for the Fiscal Year 2017-18

FUNDING REQUIREMENTS AND SOURCES SUMMARY

Funding Requirements	Fiscal Year 2016-17	Year-End Projection 2016-17	Fiscal Year 2017-18	Amount [1] Increase (Decrease)	Percent [1] Increase (Decrease)
Operating: (Sched 2)					
Salaries and Wages	$ 5,283,599	$ 5,117,065	$ 5,278,851	$ (4,748)	-0.1%
Employee Benefits	2,575,700	2,399,918	2,553,620	(22,080)	-0.9%
Chemicals & Fuels	1,146,800	1,073,227	1,069,450	(77,350)	-6.7%
Biosolids Management	373,920	334,887	387,670	13,750	3.7%
Permit Testing & Monitoring	168,800	127,322	179,500	10,700	6.3%
Maintenance & Repairs	382,500	387,910	382,500	-	0.0%
Utilities	372,600	303,053	350,600	(22,000)	-5.9%
Insurance	275,900	203,553	261,085	(14,815)	-5.4%
General & Administrative	1,000,660	736,759	866,450	(134,210)	-13.4%
Operating before debt and capital	11,580,479	10,683,694	11,329,726	(250,753)	-2.2%
Debt Service (Sched 1)	3,968,094	3,968,094	3,961,906	(6,188)	-0.2%
Operating before capital	15,548,573	14,651,788	15,291,632	(256,941)	-1.7%
Capital Improvements (CIP Sched)	$ 4,193,000	$ 2,586,138	$ 3,829,400	(363,600)	-8.7%
Total requirements	$ 19,741,573	$ 17,237,926	$ 19,121,032	$ (620,541)	-3.1%

Funding Sources (Sched 1)	Fiscal Year 2016-17	Year-End Projection 2016-17	Fiscal Year 2017-18	Amount [1] Increase (Decrease)	Percent [1] Increase (Decrease)
Service Charges	$ 9,865,358	$ 9,865,358	$ 10,263,166	$ 397,808	4.0%
Capital Fee	530,000	530,000	630,000	100,000	18.9%
Debt Service Charge	4,960,118	4,960,118	4,952,383	(7,735)	-0.2%
Capacity Charges	-	185,000	-	-	
Contract Service Revenues	1,425,138	1,450,151	1,241,526	(183,612)	-12.9%
Program Revenues	128,990	132,949	122,235	(6,755)	-5.2%
Haulers, Permits & Inspections	211,250	244,100	226,250	15,000	7.1%
Other Revenues	20,000	28,470	20,000	-	0.0%
Interest Income	56,500	66,024	113,500	57,000	100.9%
Other Financing Sources	-	-	-	-	
Subtotal funding sources	17,197,354	17,462,170	17,569,060	371,706	2.2%
Reserve (Increase) Usage	2,544,219	(224,244)	1,551,972	(992,247)	-39.0%
Total funding sources	$ 19,741,573	$ 17,237,926	$ 19,121,032	$ (620,541)	-3.1%

Note 1: Amount and percent increase (decrease) are budget comparative for the fiscal years 2016-17 and 2017-18.

SCHEDULE 1

CENTRAL MARIN SANITATION AGENCY
Adopted Budget for the Fiscal Year 2017-18

	Acct No.	Revenues by Source / Revenues by Source Account Description	FY 15-16 Adopted Budget	FY 16-17 Adopted Budget	FY 17-18 Adopted Revenue Plan Adjustments	FY 17-18 Adopted Budget	% Change FY18 Adopted Budget from FY17 Adopted	Comments
		Section I: General Purpose Revenues, Service Charges						
1	4010-000-00	SRSD	4,386,913	4,458,970	51,890	4,510,860	1.2%	
2	4010-000-00	SD #1	4,610,127	5,018,269	460,993	5,479,262	9.2%	
3	4010-000-00	SD #2	900,509	918,119	(15,076)	903,043	-1.6%	
		Totals	9,897,549	10,395,358	497,808	10,893,166	4.8%	

	36 Month Flow/24 Month Strength % Total	36 Month Flow/36 Month Strength % Total	36 Month Flow/36 Month Strength % Total
SRSD	44.32%	42.89%	41.41%
SD #1	46.58%	48.27%	50.30%
SD #2	9.10%	8.83%	8.29%
	100.00%	100.00%	100.00%

FY 17-18 Revenue Budget Notes:
1. Service charges totals based upon YR 5 of adopted Five-Year Revenue Plan
2. Capital funding in the amount of $630,000 included within service charges
3. Service charges amounts to members based upon Flow-Strength proportion above

	FY 15-16	FY 16-17	FY 17-18 Adjustments	FY 17-18
Number of Budgeted EDU				
SRSD	19,643	19,555		19,545
SD #1 (reported by district)	22,648	22,719		22,404
SD #1 - Ross Valley	19,666	19,700		22,404
City of Larkspur	2,982	3,019		-
SQ State Prison	-	-		-
SQ State Prison (EDU's used for debt serv calc only)*	4,005	4,005		4,005
SD #2	6,216	6,076		6,090
Total*	48,507	48,350	-	48,039
EDU Rate				

* Total EDU excludes SQSP. SQSP EDU is not included in calculating service charge revenues. SQSP EDU is used to calculate debt service payments.

CENTRAL MARIN SANITATION AGENCY

Adopted Budget for the Fiscal Year 2017-18

SCHEDULE 1

	Acct No.	Revenues by Source Revenues by Source Account Description	FY 15-16 Adopted Budget	FY 16-17 Adopted Budget	FY 17-18 Adopted Revenue Plan Adjustments	FY 17-18 Adopted Budget	% Change FY18 Adopted Budget from FY17 Adopted	Comments
		Contract Service Revenues						
4	4601-000-00	San Quentin State Prison Wastewater Services	890,716	813,946	(233,351)	580,595	-28.7%	O&M plus capital * 3.83%
5	4601-001-00	San Quentin State Prison Pump Station Maintenance	102,800	105,473	2,637	108,110	2.5%	Bay Area CPI Jan-Jan at 3.0%
6	4602-000-00	San Quentin Village Wastewater Services	34,383	33,056	16,886	49,942	51.1%	FY18 budget to Marin County PW
7	4500-000-00	SD#2 Pump Stations	389,242	394,063	9,316	403,379	2.4%	FY18 Corte Madera PS Budget
8	4031-000-00	LGVSD - FOG & pollution prevention	20,000	20,000	-	20,000	0.0%	Poll prev-pretreat inspect estimate
9	4033-000-00	SD #1 - FOG	18,000	19,000	1,000	20,000	5.3%	Poll prev-pretreat inspect estimate
10	4034-000-00	SRSD - FOG	22,000	23,000	2,000	25,000	8.7%	Poll prev-pretreat inspect estimate
11	4035-000-00	TCSD - FOG	2,400	2,100	19,900	22,000	947.6%	Poll prev-pretreat inspect estimate
12	4036-000-00	SD #2 - FOG	9,500	9,500	(1,500)	8,000	-15.8%	Poll prev-pretreat inspect estimate
13	4037-000-00	Novato SD - Dental Amalgam	4,000	3,500	(500)	3,000	-14.3%	Poll prev-pretreat inspect estimate
14	4038-000-00	Almonte SD - FOG	2,000	1,500	-	1,500	0.0%	Poll prev-pretreat inspect estimate
		Subtotals	1,495,041	1,425,138	(183,612)	1,241,526	-12.9%	
		Program Revenues						
15	4070-000-00	Health & Safety Program	83,387	85,000	6,500	91,500	7.6%	Shared program with Novato Sanitary
16	4080-001-00	County-wide Public Education Program	51,156	43,990	(13,256)	30,734	-30.1%	Multi-agency program budget
17	4080-002-00	Outside Safety Training	-	-	-	-	-	
		Subtotals	134,543	128,990	(6,756)	122,234	-5.2%	
		Haulers, Permits & Inspection						
18	4030-000-00	Permit and Inspection Fees	20,000	20,000	4,000	24,000	20.0%	Permitting of subject businesses
19	4050-010-00	Revenue from Haulers - Septic	60,377	65,000	5,000	70,000	7.7%	$83.30 per 1,000 gal plus sampling fee
20	4050-020-00	Revenue from Haulers - RV	250	250	-	250	0.0%	$10 per load
21	4050-030-00	Revenue from Haulers - FOG	90,000	85,000	5,000	90,000	5.9%	Tiered pricing .06 to .01 to 15,000 gal
	4050-035-00	Revenue from Haulers - Liquid Waste	-	5,000	(3,000)	2,000	-60.0%	Price negotiated per truckload
22	4050-040-00	Revenue from Foodwaste Disposal	23,625	36,000	4,000	40,000	11.1%	Tipping scale from Marin San Service
		Subtotals	194,252	211,250	15,000	226,250	7.1%	
		Interest Income						
23	4910-002-00	Interest Income - LAIF	30,000	55,000	57,000	112,000	103.6%	LAIF yield rose from 27 bps to 43 bps
24	4910-011-00	Investment Interest - CAMP	700	1,500	-	1,500	0.0%	CAMP yield rose from 11 bps to 46 bps
		Subtotals	30,700	56,500	57,000	113,500	100.9%	
		Other Operating Revenues						
25	4990-000-00	Other non-operating revenue	20,000	20,000	-	20,000	0.0%	Miscellaneous infrequent items
26	4990-011-00	CAMP non-operating revenue	-	-	-	-	-	
		Subtotals	20,000	20,000	-	20,000	0.0%	
		Contract Services Revenue	1,874,536	1,841,878	(118,368)	1,723,510	-6.4%	
		Total General Purpose Revenues	11,772,085	12,237,236	379,440	12,616,676	3.1%	

ATTACHMENT 2

SCHEDULE 1

CENTRAL MARIN SANITATION AGENCY

Adopted Budget for the Fiscal Year 2017-18

	Acct No.	Revenues by Source Revenues by Source Account Description	FY 15-16 Adopted Budget	FY 16-17 Adopted Budget	FY 17-18 Adopted Revenue Plan Adjustments	FY 17-18 Adopted Budget	% Change FY18 Adopted Budget from FY17 Adopted	Comments
		Section II: Revenue for Debt Service and Capital Improvement Program						
27	4011-000-00	Service charges-debt service principal	2,095,000	2,195,000	55,000	2,250,000	2.5%	Per debt service schedule
		Service charges-debt service interest	1,564,224	1,773,094	(61,188)	1,711,906	-3.5%	Per debt service schedule
		Service charges-debt service coverage	914,806	992,024	(1,547)	990,477	-0.2%	Per debt service schedule
		Totals	4,574,030	4,960,118	(7,735)	4,952,383	-0.2%	
		Debt Service by Member Agencies & San Quentin State Prison (SQSP)						
		SRSD (19,545 EDU)	2,184,462	1,852,642	7,213	1,859,855.43	0.4%	Per updated EDU submitted
		SD #1 (22,404 EDU)	2,488,688	2,152,400	(20,489)	2,131,911.03	-1.0%	
		SQSP (4,005 EDU)	476,595	379,434	1,672	381,106.22	0.4%	
		SD #2 (6,090 EDU)	665,882	575,641	3,869	579,509.83	0.7%	
		Total	5,815,627	4,960,118	(7,735)	4,952,383	-0.2%	
		EDU Rate for Debt Service	$ 110.75	$ 94.74		$ 95.16	0.4%	
		Number of Budgeted EDU (used for debt service only)						
		SRSD	19,643	19,555		19,545		
		SD #1 (reported by district)	22,648	22,719		22,404		
		SD #1 - Ross Valley	19,666	19,700		22,404		
		City of Larkspur	2,982	3,019		-		
		SQ State Prison	-	-		-		
		SQSP (EDU's fixed at 4,005 units)	4,005	4,005		4,005		
		SD #2	6,216	6,076		6,090		
		Total***	52,512	52,355	-	52,044		

SCHEDULE 2

ATTACHMENT 3

Central Marin Sanitation Agency
Preliminary FY 2017-18 Operating Budget

Summary of Expenditures by Departments and Category

Operating Expenditures by Department	FY 16-17 Adopted Budget	FY 16-17 Projected Year End Expenditures	FY 17-18 Preliminary Budget	% Change FY18 Preliminary Budget from FY17 Adopted Budget
Administration	4,484,300	4,081,781	4,546,905	1.4%
Maintenance	1,881,100	1,875,249	1,933,500	2.8%
Operations	3,173,800	3,023,689	3,102,950	-2.2%
Technical Services	2,041,279	1,702,974	1,746,370	-14.4%
TOTAL	$ 11,580,479	$ 10,683,694	$ 11,329,725	-2.2%

Operating Expenditures by Category	FY 16-17 Adopted Budget	FY 16-17 Projected Year End Expenditures	FY 17-18 Preliminary Budget	% Change FY18 Preliminary Budget from FY17 Adopted Budget	Adopted % of Budget
SALARIES	5,283,599	5,117,065	5,278,851	-0.1%	46.6%
BENEFITS *	2,575,700	2,399,918	2,553,620	-0.9%	22.5%
SUB-TOTAL	7,859,299	7,516,983	7,832,471	-0.3%	69.13%
CHEMICALS & FUELS	1,146,800	1,073,227	1,069,450	-6.7%	9.4%
BIOSOLIDS MANAGEMENT	373,920	334,887	387,670	3.7%	3.4%
PERMIT TESTING & MONITORING	168,800	127,322	179,500	6.3%	1.6%
MAINTENANCE & REPAIRS	382,500	387,910	382,500	0.0%	3.4%
UTILITIES	372,600	303,053	350,600	-5.9%	3.1%
INSURANCE	275,900	203,553	261,085	-5.4%	2.3%
GENERAL & ADMINISTRATIVE	1,000,660	736,759	866,450	-13.4%	7.6%
SUB-TOTAL	3,721,180	3,166,711	3,497,255	-6.0%	30.87%
TOTAL	11,580,479	10,683,694	$ 11,329,725	-2.2%	100.00%

Benefit Expenditures	FY 16-17 Adopted Budget	FY 17-18 Preliminary Budget	Change	% Change FY18 Preliminary Budget from FY17 Adopted Budget
RETIREMENT (CALPERS CLASSIC, PEPRA, UAL)	1,011,900	1,032,900	*21,000*	2.1%
RETIREMENT - CALPERS CLASSIC	*526,503*	*503,128*	*(23,375)*	
RETIREMENT - CALPERS PEPRA	*81,700*	*48,700*	*(33,000)*	
RETIREMENT - CALPERS UNFUNDED ACCRUED LIABILITY	*403,697*	*481,072*	*77,375*	
RETIREMENT - CALPERS SURVIVORS	2,600	2,600	-	0.0%
RETIREMENT - SOCIAL SECURITY/MEDICARE	78,200	79,400	1,200	1.5%
CALPERS MEDICAL - ACTIVE EMPLOYEES	967,500	905,700	(61,800)	-6.4%
DENTAL - ACTIVE EMPLOYEES	115,700	115,700	-	0.0%
LIFE INSURANCE, AD&D, LTD - ACTIVE EMPLOYEES	24,400	24,900	500	2.0%
VISION - ACTIVE EMPLOYEES	11,300	11,250	(50)	-0.4%
MARA - ACTIVE EMPLOYEES	31,000	33,100	2,100	6.8%
CALPERS MEDICAL - RETIRED EMPLOYEES	177,700	198,200	20,500	11.5%
ANNUAL OPEB CONTRIBUTION	116,500	107,350	(9,150)	-7.9%
BENEFIT ADMINISTRATION FEES	-	7,520	7,520	100.0%
TOTAL *	2,536,800	2,518,620	(18,180)	-0.7%

* Benefit line items for uniforms and unemployment benefits are excluded from the Benefit Expenditures FY 17-18 table.

Discussion: Comparison between FY 16-17 Adopted to 17-18 Preliminary Budget

Salaries

- Salary increase of 2% for represented per MOU and 2% for unrepresented employees per compensation/benefit agreement.
- 21 Employees eligible to receive step advancement.
- 1 new Health and Safety Manager position with lower salary than Safety Director.
- Eliminate Safety Director position.
- Compensatory time, vacation and holiday time cash-outs included.

Benefits

- Retirement expenses: Eliminated 8% Employer Paid Member Contribution (EPMC) from the Classic employee retirement calculation submitted to CalPERS.
- Agency OPEB cost is lower as a result of increased OPEB assets resulting in lower annual required contributions in the most recent GASB 45 Actuarial Valuation as of January 1, 2015.
- Benefit administration fees are budgeted from separately from benefits paid for employees.

Chemicals

- Decrease in chemical procurement costs (polymer-cationic, odor control, nitrate) due to reduced cost per gallon and reduced usage.
- Higher fuel costs due to 2017-2018 U.S. Energy Information Administration cost predictions for gasoline and diesel fuels.

Utilities

- Reduction in procurement cost of natural gas due to increased biogas production from FOG/F2E program expecting 94% uptime running the cogeneration system.
- 6% increase Marin Sanitary Service garbage rates.

Biosolids Disposal:

- Biosolids hauling costs expected to increase 3.5% and includes a 1.5% increase in Lystec process for a full year of deliveries and biosolids production.
- Hauling costs expected to increase a total of 4% using the annual San Francisco Bay Area Consumer Price Index and increased deliveries to the Lystec and Solano County land sites.

Permit Testing and Monitoring:

- 60% increase for laboratory equipment for several one-time purchases that will be made during FY 18.
- Biosolids monthly monitoring costs expected to decrease 50%.

- Decrease in long-term contract pricing for NPDES permit sampling and testing due to changes in new regulations required by the regional water board.
- New county requirements for the underground tank overfill containment monthly inspections will increase 28%.
- Underground tank testing for secondary containment takes place every three years and is scheduled for FY 18. The last test was in FY 15.

Maintenance and Repairs

- There is no budget change expected for this category of expense.

Insurance

- Property and general liability insurance is 5% lower.
- Workers' Compensation insurance both budgeted 12% lower trending audited actuals.

General & Administrative

- Decreased costs include consultant fees related to the renewal of NPDES permit which is expected to be completed FY 18.
- Decreased membership costs, permits, and professional services for process control and engineering support.

Central Marin Sanitation Agency
Capital Improvement Program
FY 18 Proposed Budget and 10-Year Forecast

GL Account Number	PM*		Proposed Delivery Method	Prior FYs' Costs	Adopted Budget For FY 17	Projected FY 17 Actuals	10-year CIP 1 Adopted FY 18	2 FY 19	3 FY 20	4 FY 21	5 FY 22	6 FY 23	7 FY 24	8 FY 25	9 FY 26	10 FY 27	Total FY 18 - FY 27	Project Totals
Facility Improvements																		
7300-103-10	TSM	Effluent Storage Pond Rehabilitation	FB		-		-	-	-	-	37,400	1,184,400	-	-	-	-	1,221,800	1,221,800
7300-700-10	TSM	Agency Facilities Master Plan (3)	PSA		360,800	283,045	195,000	-	-	-	-	-	-	-	-	-	195,000	478,045
7300-956-00	TSM	Industrial Coatings & Concrete Rehabilitation	IB/MC		16,900	839	47,500	55,000	187,600	95,900	20,300	23,100	23,700	24,300	25,000	25,600	528,000	
7300-987-00	TSM	Outfall Inspection & Repairs	IB/MC		30,900	30,900	32,200	33,000	408,900	34,800	35,700	36,700	37,600	38,600	39,600	40,700	737,800	
7400-103-10	TSM	Maintenance Facility Modifications (3)	FB	161,740	786,300	494,000	966,500	-	-	-	-	-	-	-	-	-	966,500	1,622,240
7400-956-00	TSM	Facility Paving/Site Work	IB/MC		130,600	5,000	148,400	10,300	131,300	10,800	11,100	140,200	11,700	12,000	162,100	12,600	650,500	
7400-600-00	TSM	Hillside Slope Stabilization	FB		-	32,321	400,000	-	-	-	-	-	-	-	-	-	400,000	
7400-960-00	TSM	Facility Roofs Rehabilitation	MC/IB/FB		10,000	3,992	35,000	-	75,500	921,400	-	-	-	-	-	-	1,031,900	1,035,892
		Subtotal - Facility Improvements			1,335,500	850,097	1,824,600	98,300	803,300	1,062,900	104,500	1,384,400	73,000	74,900	226,700	78,900	5,731,500	
General Equipment																		
7300-672-00	ISA	Process Control	M/MC		35,500	8,824	37,900	29,000	30,500	31,300	47,200	33,000	33,900	34,800	35,700	36,600	349,900	
7300-672-10	TSM/ISA	Security / Fire Systems	MC		-	1,121	3,900	-	4,000	-	4,200	-	4,400	-	4,700	-	21,200	
7300-683-00	MS/TSM	Fuel Storage Tanks	IB/MC		10,000	491	35,000	-	112,400	-	-	-	-	-	-	-	147,400	
7410-851-00	ISA	IT Hardware and Communication Equip	M		54,400	48,231	42,900	13,700	14,400	14,800	15,200	45,000	16,000	16,400	16,900	17,300	212,600	
7420-701-00	MS	Agency Vehicle Replacement	IB/PO		59,000	36,260	51,000	43,000	72,000	73,000	67,300	40,000	70,600	52,600	175,400	79,300	724,200	
7430-958-00	LD	Laboratory Equipment	PO		14,300	10,006	151,100	31,100	61,600	16,600	6,600	6,600	19,100	37,100	6,600	6,600	343,000	
7450-002-00	MS	Electrical Equipment	M/IB		83,700	59,151	102,400	74,100	64,200	65,800	79,500	81,400	57,700	59,000	68,800	71,600	724,500	
7450-002-10	MS	Plant Lighting	IB		26,000	25,336	26,000	18,800	19,300	19,700	20,200	20,600	21,100	-	-	-	145,700	
7450-102-00	MS	Process Instrumentation	M		60,000	52,000	51,900	51,200	43,800	44,800	45,700	46,800	47,800	48,400	50,100	52,100	482,600	
7450-105-00	MS	Electrical Distribution System Rehabilitation	PSA/FB		25,500	1,687	25,000	-	-	1,164,200	-	187,900	-	196,900	-	-	1,574,000	
		Subtotal - General Equipment			368,400	243,107	527,100	260,900	422,200	1,430,200	285,900	461,300	270,600	445,200	358,200	263,500	4,725,100	
Liquids Treatment Equipment and Systems																		
7300-685-00	TSM	Bio-Tower Rotary Distributor Replacement	IB	-	126,700	-	-	131,900	-	-	-	-	-	-	-	-	131,900	131,900
7300-700-00	MS	Plant Pumps	MC/M		160,000	27,421	59,800	61,200	62,500	63,900	65,300	66,800	68,300	69,100	71,400	74,300	662,600	
7300-719-00	MS	Chemical Pumps	M		40,000	35,125	113,000	48,900	75,000	150,000	65,000	175,000	54,500	55,300	57,200	59,500	853,400	
7300-720-00	MS	Gates Rehabilitation	M/IB		87,900	111,110	35,000	73,400	74,900	76,700	78,400	10,000	81,900	82,900	85,700	89,200	688,100	
7300-727-00	MS	Headworks Equipment	M		70,000	13,022	50,000	26,500	27,900	900,000	29,400	105,200	31,000	31,800	32,600	33,500	1,267,900	
7300-981-00	TSM	Odor Control System Improvements (3)	PSA/FB	112,420	370,000	319,200	28,500	-	1,183,300	-	-	1,347,200	-	-	-	1,494,600	4,053,600	4,485,220
7300-983-00	MS	Process Tank Maintenance	M/IB		35,000	30,000	85,000	79,800	81,800	59,700	61,200	62,700	64,100	65,700	68,400	71,200	699,600	
7400-965-00	TSM/MS	Primary Clarifiers Rehabilitation	MC/M		10,000	10,000	33,400	20,800	-	-	130,600	133,600	136,400	138,400	155,800	162,100	911,100	
7300-990-00	MS	Secondary Clarifiers Rehabilitation	PSA/IB		75,000	-	-	252,200	257,700	325,700	157,600	-	-	-	-	-	993,200	
7300-995-00	TPM	Aeration System Rehabilitation	M/IB		51,000	47,004	20,100	15,000	-	-	-	-	26,000	-	-	-	61,100	
7400-966-00	TSM	Critical Buried Pipe Inspection/Repairs	PSA	97	100,000	121,552	-	183,600	-	-	-	-	-	-	-	157,900	341,500	463,149
7430-855-00	MS	Chemical Tanks	M/IB		40,000	40,000	40,000	87,200	27,900	57,100	58,500	35,900	42,900	2,500	45,000	54,200	451,200	
7430-857-00	MS	Piping, Valves & Operators	M		95,700	86,454	130,900	70,100	56,300	57,600	58,800	60,100	61,500	62,200	68,700	71,500	697,700	
7450-104-10	TSM	Influent Flow Meter Improvement	PSA		22,500	9,000	25,000	-	-	-	-	-	-	-	-	-	25,000	
		Subtotal - Liquids Treatment Equipment and Systems			1,283,800	849,888	620,700	1,050,600	1,847,300	1,690,700	704,800	1,996,500	566,600	507,900	584,800	2,268,000	11,837,900	
Solids Treatment and Energy Generation Equipment and Systems																		
7300-678-00	TSM	Emergency Generator Assessment & Improvement	PSA/FB		-	-	-	-	-	77,600	1,931,500	-	-	-	-	-	2,009,100	
7300-691-00	TSM	Digester Inspection, Cleaning & Cover Replacement	FB		-	-	-	-	-	856,600	875,600	-	-	-	-	-	1,732,200	
7300-715-00	TSM/MS	Centrifuge Maintenance	PSA/FB	3,139	235,300	-	-	150,000	-	250,000	1,700,000	-	-	-	-	-	2,100,000	2,103,139
7300-722-00	MS	Cogeneration Maintenance (3)	M/IB/FB		359,600	228,328	86,300	100,500	362,000	1,943,200	1,637,500	62,700	64,100	65,700	74,700	77,700	4,474,400	
7300-724-00	MS	Hot Water Systems	M/PSA		110,200	-	34,000	14,400	14,700	15,000	15,300	15,600	15,900	16,800	16,800	17,500	176,000	
7300-725-00	MS	Boilers Rehabilitation or Replacement	IB		-	-	-	72,000	-	-	-	-	-	520,400	-	-	592,400	
7300-977-00	MS	Sludge Recirculating Pump Grinders	M		16,900	10,000	18,000	18,300	18,700	19,100	19,600	20,000	20,400	20,700	21,400	22,300	198,500	
7300-978-00	MS	Biosolids Hoppers Maintenance	M		-	-	8,500	-	9,000	-	9,300	-	9,700	-	10,500	-	47,000	
7300-660-00	TSM	PG&E Interconnection Agreement Modification	PSA/IB		130,000	130,000	525,000										525,000	
		Subtotal - Solids Treatment and Energy Generation Equipment and Systems			977,000	464,846	671,800	355,200	404,400	3,161,500	6,188,800	98,300	110,100	623,600	123,400	117,500	11,854,600	
			CMSA Staff Costs for CIP (2)		178,200	178,200	185,200	190,100	195,100	200,200	205,500	210,900	216,400	222,100	227,900	233,900	2,087,300	
(Continued on next page)			Annual CIP Totals		4,142,900	2,586,138	3,829,400	1,955,100	3,672,300	7,545,500	7,489,500	4,151,400	1,236,700	1,873,700	1,521,000	2,961,800	36,236,400	