Central Marin Sanitation Agency

COMMISSION REGULAR MEETING AGENDA
Tuesday, June 13, 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: Austris Rungis, Human Resources Consultant (I.E.D.A.),
   Jason Dow, General Manager
   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—May 9, 2017
   b) Treasurer's Report—Operating Account—May 2017
   c) Schedule of Investments—May 2017
   d) NPDES, Process, and Maintenance Report—May 2017
   e) Performance Metric Reports—May 2017
   f) Fiscal Year 2017-18 Schedule of Base Salary by Agency Job Classifications
   g) Revised Agency Investment Policy
   h) Revised Purchasing Financial Policy

9. **Proposed Budget for the Fiscal Year 2017-18**
   Recommendation: Approve and adopt the Proposed Budget for the Fiscal Year 2017-18 as presented.

10. **Agency Comments on LAFCO's Draft Central Marin Wastewater Study**
    Recommendation: Review the comments on LAFCO's draft Central Marin Wastewater Study, and provide direction to staff regarding preparation of an Agency response letter.

11. **Fiscal Year 2016-17 Strategic Business Plan Year-End Report**
    Recommendation: Accept the Agency's Fiscal Year 2016-17 Strategic Business Plan Year-End Report, and provide comments or direction to the General Manager as appropriate.

12. **Marin County Civil Grand Jury Report – Marin's Retirement Health Care Benefits: *The Money Still Isn't There***
    Recommendation: Consider forming an ad-hoc Governance Committee to prepare draft responses for the Marin Retirement Health Care Benefits report, and provide direction to staff as appropriate.

13. **Marin County Civil Grand Jury Report – The Budget Squeeze: *How will Marin Fund Its Public Employee Pensions***
    Recommendation: Provide direction to staff on the preparation of the Agency's responses.

14. **Resolution of Appreciation for Kathy Hartzell**
    Recommendation: Adopt Resolution #314 – a Resolution of Appreciation for Kathy Hartzell.

15. **North Bay Watershed Association (NBWA) Report***

16. **Oral Reports by Commissioners/General Manager***

17. **Next Scheduled Meeting**
    Tuesday, July 11, 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, May 9, 2017
at the Agency Office

Note: The minutes are an official record of the Board meeting.
There are also official audio and video recordings available on the Agency's website at www.cmsa.us.
The time stamps on these minutes refer to the items' start times on the video recording of the meeting.
Please contact CMSA at 415-459-1455 for information about receiving a copy of these records.

1. **Call Meeting to Order/Pledge of Allegiance**
   Chair Hartzell called the meeting to order at 6:10 p.m. A quorum was present.

2. **Roll Call**

Present:	Chair Kathy Hartzell; Vice-Chair Diane Furst; Commissioners Maribeth Bushey, Thomas Gaffney, and Michael Boorstein; Alternate Commissioner Dean DiGiovanni (for Al Boro).
Absent:	Secretary Al Boro
Staff present:	Jason Dow, General Manager; Jack Govi, Agency Counsel; Kate Brouillet, Recording Secretary
Public present:	None

3. **Open Period for Public Participation**
   There were no comments from the public.

4. **Closed Session was convened at 6:12 p.m.**
   The recording secretary left the meeting.

   CONFERENCE WITH LABOR NEGOTIATOR
   California Government Code Section 54957.6
   Agency Negotiator: Jason Dow, GM
   Employee Organization: SEIU Local 21; and Unrepresented Employees

5. **Open Session was reconvened at 7:08 p.m.** **00:35**
   Chair Hartzell reported that there was no action taken in closed session, and direction was given to staff.

6. Roll Call **00:49**

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

Absent: Secretary Al Boro

Staff present: Jason Dow, General Manager; Brian Thomas, Technical Services Manager; Mark Koekemoer, Laboratory Director; Jack Govi, Agency Counsel; and Kate Brouillet, Recording Secretary

Public present: Felicia Newhouse, Ross Valley Sanitary District; Keene Simonds and Rachel Jones, Marin LAFCO

7. Open Period for Public Participation **01:10**

There were no comments from the public.

8. Consent Calendar **01:25**

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

Commissioner DiGiovanni stated that item #a, the April minutes, should be corrected to show it was Doug Kelly who arrived late and not himself.

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

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

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

Nays: NONE

Abstentions: NONE

Chair Hartzell suggested moving up item #10, the Marin LAFCO Draft Wastewater Study, as Marin LAFCO representatives were in attendance, and then return to item #9. The Board agreed.

10. Marin LAFCO's Draft Central Marin Wastewater Study **03:15**

GM Dow stated that the Marin Local Agency Formation Commission (LAFCO) has released its Draft Central Marin Wastewater Study, and gave a brief description of the Study.

GM Dow stated that the Study was initiated in August 2015, and CMSA's Board subsequently authorized the Agency to serve on the study's advisory committee. He stated that he has responded to various questionnaires, and has reviewed several drafts of the Study's Agency profile and returned comments to LAFCO. He referred to the letter attachment to the staff memo and stated that Agency's substantive comments were specifically related to the Study term (2010-2014), presentation of the Agency facility demands and capacities, and the use of depreciation in several of the Study's financial metrics. GM Dow stated 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. He stated that final comments are due by May 30, 2017, but he and the JPA managers have requested an extension. GM Dow said that Keene Simonds, LAFCO's Executive Director, is in attendance and is prepared to discuss the Study and answer Board member questions. He then introduced Mr. Simonds.

Mr. Simonds provided a summary of the Study's scope, objectives, and recommendations. Mr. Simonds confirmed that the extension for comments to June 30 has been approved, and that his expectation is that a final document will be ready in August, 2017.

The Board asked Mr. Simonds questions on various topics in the Study, and were surprised, concerning *No. 6 - Additional Merit to Explore Regional Consolidation*, that more progress hasn't been made in formulating consolidation recommendations.

The Board commented that they did not agree with some of the Study's central themes. The Board stated that the agencies that provide wastewater services are not planning agencies, and as such, do not have an influence in accommodating or inhibiting new growth and development in Marin County; and questioned what LAFCO recommendations would be for reorganization of the CMSA governing board structure in regards to the City of Larkspur's presence within the joint powers authority.

Mr. Simonds responded to the Board's questions, and stated that all comments will be included in LAFCO's final report.

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

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

DIRECTION: Board members are to submit their comments on the Study individually to the General Manager by the end of May; GM Dow to meet with the JPA managers and consolidate common comments, and prepare a report for the June CMSA Board meeting.

9. Bay Area Biosolids-to-Energy Coalition Lead Agency **58:43**

GM Dow summarized the Agency's participation in the Bay Area Biosolids-to-Energy (BAB2E) Coalition. He stated that CMSA has been a member since 2009 and is signatory to the BAB2E Joint Exercise of Powers Agreement (JEPA). He stated that Delta Diablo Sanitation District has served as the BAB2E Lead Agency since the Coalition's inception and recently resigned, and the coalition needs to appoint a new Lead Agency to administer the contract with the California Association of Sanitation Agencies (CASA), the Coalition's fiscal and contracting agent.

GM Dow stated that under the Coalition's Joint Exercise of Powers Agreement (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. He stated that 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.

The Board discussed the agreement and asked a few questions regarding reimbursement for staff time. GM Dow stated that the JEPA does not allow for staff time reimbursement.

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

ACTION: Commissioner Boorstein moved to 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; second, Commissioner Bushey.

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

Nays: NONE

Abstentions: NONE

DIRECTION: GM Dow to report back to the Board on the amount of time spent on administering the agreement during the GM's evaluation in September.

Note: Jack Govi, Agency Counsel, left the meeting.

11. PG&E Interconnection Agreement **65:50**

GM Dow reviewed the progress of this project, and stated that 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. He stated that 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 final draft Agreement. GM Dow stated that the financial component to the Agreement is for CMSA to provide PG&E with $80,000 for interconnection and distribution system improvements and pay a monthly Cost-of-Ownership charge.

GM Dow said that the Agreement has been favorably reviewed by the Agency's construction/contract attorney, Bill McInerney, and staff recommends the Board authorize the General Manger to execute it.

The Board discussed the agreement, and asked GM Dow a few questions regarding the improvements and the cost-of-ownership fee. GM Dow answered the Board's questions.

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

ACTION: Commissioner DiGiovanni moved to approve the PG&E Interconnection Agreement, and authorize the General Manager to execute the agreement; second, Commissioner Boorstein.

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

Nays: NONE

Abstentions: NONE

12. Update on the Agency's Power Sale Options **70:57**

GM Dow reviewed the progress made on determining the Agency's power sale options, and said that 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. He stated that upon reviewing the PG&E E-BioMAT FIT eligibility requirements, and discussing them with the Agency's energy consultant and PG&E, staff learned that CMSA's cogeneration system was not eligible for the E-BioMAT FIT program. GM Dow stated that MCE has reviewed CMSA's FIT application and deemed it complete, and the Agency has a reserved baseload energy price of $0.105 per kWh, which will remain effective until March 20, 2018. GM Dow described several other actions that are scheduled to be complete by March 1, 2018.

The Board discussed the options, and asked various questions including other options that were explored, length of the MCE contract, the price per kWh offered, PG&E's tariff amounts, CMSA's cost per KWh, and the timing of project completion.

GM Dow and Brian Thomas, Technical Services Manager, answered the Board's questions. GM Dow stated that staff and the Agency's energy consultant explored several other potential power sale options, but determined that they were not viable or not cost-effective.

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

ACTION: Commissioner Gaffney moved to authorize the General Manger to negotiate a power sale agreement with Marin Clean Energy; second, Commissioner Furst.

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

Nays: NONE

Abstentions: NONE

DIRECTION: Staff to explore negotiation of a shorter duration contract with MCE.

13. Proposed Fiscal Year 2017-18 Budget **92:10**

GM Dow gave a PowerPoint presentation of the proposed FY 2017-18 Budget that included a summary/overview, proposed revenues and operating expenses, capital expenses, and a brief description of FY18's planned capital projects. He stated that the 10-year financial forecast and the final budget will be presented at the June 13 Board meeting.

The Board asked a few questions, including tipping fees and CIP projects that may come out of the Facilities Master Plan. GM Dow answered the Board's questions, and stated that this fall the Finance Committee will consider the findings and recommendations from the Facilities Master Plan during the preparation of the multi-year revenue plan.

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

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

14. North Bay Watershed Association (NBWA) Report **107:09**

Commissioner Boorstein stated that he attended the May 5, 2017 North Bay Watershed Association Board meeting. He said there was a presentation on *Drought & Floods: Current Status of our North Bay Fisheries*, which included a description of fish lifecycles and monitoring systems. He stated that the July NBWA Board meeting will be held at CMSA, and GM Dow will provide a tour of the facilities.

15. Oral Reports by Commissioners/General Manager **113:17**

Commissioner Boorstein stated that RVSD is in the process of disposing of their property in Larkspur Landing, and that they will need to secure space for trucks and portable buildings for operations staff. He stated that he and GM Dow have been in discussion about the potential of occupying space at CMSA, and would like to include this item on a future CMSA Board agenda.

GM Dow stated that he would include this item on a future agenda.

GM Dow presented each Board member with a bottle of purified water from the Orange County Water District's groundwater replenishment system that he received at the CASA Public Policy Forum reception.

16. Next Scheduled Meeting **117:10**

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

Chair Hartzell asked for a motion for adjournment. Commissioner Furst moved to adjourn the meeting; second, Commissioner Bushey.

Chair Hartzell adjourned the meeting at 9:05 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 May 2017

I. Accounts Summary: Bank & Investment Accounts

Summary of Bank & Money Market Accounts	
Westamerica Bank - Account Activity shown below	$ 267,419.43
Local Agency Investment Fund (LAIF) - Refer to Schedule of Investments	15,306,842.67
California Asset Management Program (CAMP) - Refer to Schedule of Investments	359,860.68
Total Bank & Investment Accounts: Ending Balance on May 31, 2017	$ 15,934,122.78

II. Account Activity for Westamerica Bank

Beginning Balance on May 1, 2017	246,277.25
Cash Receipts (Deposits into Westamerica):	
Transfers from LAIF	550,000.00
JPA Service Charges (FY17 Q4: SRSD)	960,418.12
Connection Fees (Capacity Charges): RVSD - 1 Residential Connection	5,863.20
Permit and Inspection Fees	282.35
SRSD - FOG Program (FY17 3Q: Jan-Mar)	2,289.17
Revenue from Haulers & RVs	6,313.64
Safety Director Revenue (NSD: FY17 4Q Salary/Benefits-April)	6,741.94
County-wide Public Education Program Reimbursement (FY17 3Q: SASM)	3,105.61
SD 2 Operations & Maintenance Contract (FY17: March)	28,457.85
SQSP Wastewater Services Contract (FY17: March)	108,237.75
SQSP: Reimburse GHD Engineering additional work (FY17: March)	1,249.75
SQ Village Operations & Maintenance Contract (FY17: March)	2,492.94
COBRA Health Benefit Payments from separated employees/retirees	235.65
Reimbursement from RVSD: Ross Valley Interceptor Condition Assessment (August 21 to March 4, 2017)	41,791.80
Total Cash Receipts	$ 1,717,479.77
Cash Disbursements (Withdrawals from WestAmerica):	
May 2017 Operating account disbursements register (see attached)	$721,955.29
Regular Payroll paid 05/12/17	127,876.97
Regular Payroll paid 05/26/17	131,853.17
Transfers to EFTPS Federal Payroll Taxes (05/03, 05/17, 05/31)	106,430.00
Merit Pay (2)	8,117.00
Transfers to LAIF (FY17 Q4: JPA Payments)	600,000.00
Bank Fee	105.16
Total Cash Disbursements	$1,696,337.59
Ending Balance on May 31, 2017	$ 267,419.43

Prepared by:
Kenneth Spray, Administrative Services Manager

Reviewed by:
Jason Dow, General Manager

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

Check Number	Date	Vendor/Payee	Amount	Description
15199	5/16/2017	Orchard Business/SYNCB	464.15	Maintenance parts & supplies
15200	5/16/2017	P.G.& E.	39.22	Electricity service for SF Drake site, 03/20-4/20/2017 (1 of 2)
15201	5/16/2017	Platt	166.58	SQSP PS Maint: CIP project (Note B)
15202	5/16/2017	Pure Effect Inc	7,385.50	Siloxane filter media replenishment
15203	5/16/2017	R2 Engineering, Inc	11,791.75	Replacement primary feed pump
15204	5/16/2017	Rafael Lumber	4,447.20	Presssure-treated lumber for Clarifier toe-kick replacement
15205	5/16/2017	Ricoh USA Inc	688.43	Admin and Lab copier lease payments, April-May
15206	5/16/2017	Ahn Ta	91.91	Employee Expense Reimb: Office supplies and A/P training conference travel
15207	5/16/2017	TAP Plastics, Inc.	126.34	Polycarbonate for Headworks odor scrubber
15208	5/16/2017	Thomas Fish Company	139.50	Lab supplies
15209	5/16/2017	Town of Fairfax	200.00	Public Ed: Booth fee for Fairfax Ecofest 2017 (Note B)
15210	5/16/2017	ULINE	476.72	PPE supplies: Gloves
15211	05/16/2017	Univar USA Inc	6,123.27	Sodium Bisulfite (1 delivery); Sodium Hypochlorite (1 delivery)
15212	05/16/2017	USP Technologies	5,900.91	Hydrogen Peroxide (1 delivery)
15213	05/16/2017	Western Exterminator Co.,Inc.	163.50	Pest control, May 2017
15214	05/16/2017	Woodland Center Auto Supply	670.53	Auto parts, April 2017
15215	05/16/2017	Wiley Price & Radulovich	531.00	Prof Svcs: Employment Law services, April 2017
15216	05/18/2017	CAL-CARD	6,137.73	State of California Purchase Card, March-April 2017
15217	05/18/2017	Caltest Analytical Laboratory	2,812.43	Lab analyses (6 invoices)
15218	05/18/2017	City Electric Supply	98.48	Maintenance parts & supplies
15219	05/18/2017	DKF Solution Group LLC	1,500.00	Sanitary Sewer Overflow (SSO) training for CMSA and NSD staff (Note B)
15220	05/18/2017	ERM	3,184.22	Refund for duplicate payment from vendor
15221	05/18/2017	Evoqua Water Tech LLC	405.00	Lab supplies
15222	05/18/2017	FactoryMation	444.00	Maintenance parts & supplies
15223	05/18/2017	Fastenal Company	704.14	Maintenance parts & supplies (3 invoices)
15224	05/18/2017	Fisher Scientific	1,105.32	Lab supplies (3 invoices)
15225	5/18/2017	Grainger	800.45	Maintenance parts & supplies (4 invoices)
15226	5/18/2017	McMaster-Carr Supply Co.	1,389.30	1) SD2 PS Maint: Door repair at Seawolf PS (Note B) 2) SQSP PS Maint: Grinder supplies (Note B) 3) Maintenance parts & supplies (6 invoices)
15227	5/18/2017	Medical Center of Marin	35.00	Audiometric make-up test (1 employee)
15228	5/18/2017	P.G.& E.	13.14	Electricity service for SF Drake, 03/20-4/20/2017 (2 of 2)
15229	5/18/2017	Praxair Distribution, Inc.	98.13	Acetelyne cylinder rental
15230	5/18/2017	Univar USA Inc	2,177.19	Sodium Hypochlorite (1 delivery)
15231	5/18/2017	VWR International	525.87	Lab supplies (2 invoices)
15232	5/30/2017	CalPERS	34,942.45	Retirement Pension Contribution: Agency and EPMC, PPE 05/20/2017 (Note C)
15233	5/30/2017	California Public Employee	4,479.04	Contribution to Retiree Health Benefits Trust Fund, PPE 05/20/2017 (Note C)
15234	5/30/2017	California State Disbursement	314.76	EE Garnishment, PPE 05/20/2017 (Note A)
15235	5/30/2017	ICMA Retirement Trust-457	4,783.00	Deferred compensation contributions, PPE 05/20/2017 (Note A)
15236	5/30/2017	Navia Benefit Solutions	540.19	Flexible spending account, PPE 05/20/2017
15237	5/30/2017	Nationwide Retirement	4,238.30	Deferred compensation contributions, PPE 05/20/2017 (Note A)
15238	5/30/2017	Operating Engineers Public & M	1,279.65	MARA contributions, PPE 05/20/2017
15239	5/30/2017	SEIU Local 1021	1,098.34	Union dues, PPE 05/20/2017
15240	5/30/2017	Amazon	837.96	Computer and electrical supplies
15241	5/30/2017	BWS Distributors, Inc.	214.56	Safety supplies: signs
15242	5/30/2017	Cal Steam	108.58	Maintenance parts & supplies (3 invoices)
15243	5/30/2017	Caltest Analytical Laboratory	1,355.05	Lab analyses
15244	5/30/2017	CWEA TCP	265.00	CWEA membership fee (2 employees)
15245	5/30/2017	CWEA	80.00	CWEA meeting registration fees (2 employees)

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

Check Number	Date	Vendor/Payee	Amount	Description
15148				Last check # from prior month's register
15149	5/1/2017	Cal Public Employee Retirement	68,537.68	Medical Insurance, May 2017
15150	5/1/2017	Delta Dental Plan of Calif.	8,552.56	Dental Insurance, May 2017
15151	5/1/2017	Lincoln Financial Group	2,159.16	Life Insurance, May 2017
15152	5/1/2017	Vision Service Plan -(CA)	966.71	Vision Insurance, May 2017
15153	5/2/2017	Phillip Frye	225.63	Reimbursement for retiree health benefits by check
15154	5/2/2017	James L. Johnson	172.48	Reimbursement for retiree health benefits by check
15155	5/10/2017	Five Thousand Forms Inc	9,085.29	Public Education Program: Promotional items (Note B)
15156	5/10/2017	Jose Gutierrez	1,026.18	Employee Expense Reimb: CWEA P3S Conference
15157	5/10/2017	IEDA, Inc.	755.00	Labor relations consulting, May 2017
15158	5/10/2017	Mark Koekemoer	88.71	Employee Expense Reimb: ELAP/ELTAC workshop
15159	5/10/2017	Marin County Tax Collector	165.00	Legal services: General Counsel, January - March 2017
15160	5/10/2017	Marin Office Supply	811.17	Office supplies, April 2017
15161	5/10/2017	Monica Oakley	2,645.00	Prof Svcs: Regulatory consulting, April 2017
15162	5/10/2017	Navia Benefit Solutions	51.10	Monthly fee
15163	5/10/2017	P.G.& E.	18,582.18	Electricity service, 03/16-04/16/2017
15164	5/10/2017	Rock Steady Juggling	1,000.00	Public Education Program: Outreach at two schools (Note B)
15165	5/10/2017	Total Waste Systems, Inc.	6,084.78	Biosolids hauling fee, April 2017
15166	5/10/2017	Waste Management	14,234.54	Redwood Landfill biosolids reuse fee, April 2017
15167	5/10/2017	CalPERS	35,072.87	Retirement Pension Contribution: Agency and EPMC, PPE 05/06/2017 (Note C)
15168	5/10/2017	California Public Employee	4,479.04	Contribution to Retiree Health Benefits Trust Fund, PPE 05/06/2017 (Note C)
15169	5/15/2017	California State Disbursement	314.76	EE Garnishment, PPE 05/06/2017 (Note A)
15170	5/15/2017	ICMA Retirement Trust-457	24,283.00	Deferred compensation contributions, PPE 05/06/2017 (Note A)
15171	5/15/2017	Navia Benefit Solutions	640.19	Flexible spending account, PPE 05/06/2017
15172	5/15/2017	Nationwide Retirement	4,238.30	Deferred compensation contributions, PPE 05/06/2017 (Note A)
15173	5/15/2017	Operating Engineers Public & M	1,318.71	MARA contributions, PPE 05/06/2017
15174	5/15/2017	SEIU Local 1021	1,098.34	Union dues, PPE 05/06/2017
15175	5/16/2017	AireSpring	698.55	Telephone service, April 2017
15176	5/16/2017	Airgas USA, LLC	156.72	Nitrogen
15177	5/16/2017	Allied Fluid Products Corp	493.53	Maintenance parts & supplies
15178	5/16/2017	American Battery Co.	1,357.63	Batteries for electric carts
15179	5/16/2017	Aramark Uniform Services	1,278.18	Uniform service, April 2017
15180	5/16/2017	AT&T	281.83	Fax and emergency phone service, 05/07-06/06/2017
15181	5/16/2017	AT&T Dataplan	399.22	Wireless service, 04/02-05/01/2017
15182	5/16/2017	Brown & Caldwell	2,821.89	Prof Svcs: Design Services, Odor Control Improvements Project, December 2016-March 2017
15183	5/16/2017	Burlingame Engineers, Inc.	2,931.75	Parts for dewatering system polymer pump
15184	5/16/2017	BWS Distributors, Inc.	1,535.71	Safety supplies: Rain gear
15185	5/16/2017	Certified Laboratories	101.85	Maintenance parts & supplies
15186	5/16/2017	ChemStation of Northern Cal.	2,967.53	Odor control masking agent
15187	5/16/2017	Comcast	191.20	Internet service, May 2017
15188	5/16/2017	Fluid Gauge Company	1,962.66	Replacement pressure safety switches for OWRF
15189	5/16/2017	Hagel Supply Co.	495.23	Utility supplies, April 2017
15190	5/16/2017	Holt of California	2,246.27	Tires and installation for skid steer loader
15191	5/16/2017	Home Depot Credit Services	481.60	Maintenance parts & supplies
15192	5/16/2017	Jackson's Hardware	18.84	Maintenance parts & supplies
15193	5/16/2017	Kone Inc	126.35	Elevator monthly maintenance, May 2017
15194	5/16/2017	Lystek International LTD	9,847.76	Biosolids beneficial reuse fee, April 2017
15195	5/16/2017	Marin Independent Journal	56.40	Public Notice: Bid notices for uniform supply contract
15196	5/16/2017	Marin Sanitary Service	4,485.68	Yardwaste and grit disposal service, April 2017
15197	5/16/2017	McInerney & Dillon, P.C.	525.00	Legal services: Construction/contract law, April 2017
15198	5/16/2017	Modular Space Corporation	626.65	Rental fee for mobile office and storage containers

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

Check Number	Date	Vendor/Payee	Amount	Description
15246	5/30/2017	Jason Dow	122.50	Employee expenses eligible for Agency dental reimbursement
15247	5/30/2017	Environmental Dynamics, Inc.	3,184.94	Diffuser membrane and clamps for Aeration system
15248	5/30/2017	ERA A Waters Company	2,170.26	Analytical lab testing services renewal (2 invoices)
15249	5/30/2017	Evoqua Water Tech LLC	9,398.77	Calcium Nitrate (1 delivery)
15250	5/30/2017	Fastenal Company	2,086.28	LOTO equipment: Lock boxes and personal locks
15251	5/30/2017	Flyers Energy LLC	6,511.19	Cogeneration Engine oil and lubricants
15252	5/30/2017	Forge Architecture	3,835.00	Prof Svcs-Design: Maintenance Building Modification Project, April 2017 (2 invoices)
15253	5/30/2017	Foster Flow Control	3,232.94	Check valves (2) for Primary Clarifiers
15254	5/30/2017	Kit Groves	220.70	Employee expenses eligible for Agency dental reimbursement
15255	5/30/2017	Harrington Industrial Plastics	1,865.45	Maintenance parts & supplies (4 invoices)
15256	5/30/2017	Holt of California	20.24	Maintenance parts & supplies
15257	5/30/2017	Intec Solutions, Inc.	153.15	SD2 PS Maint: VFD fan supplies for Paradise PS (Note B)
15258	5/30/2017	Marin Resource Recovery Center	28.75	Green waste
15259	5/30/2017	McMaster-Carr Supply Co.	1,533.11	Maintenance parts & supplies (5 invoices)
15260	5/30/2017	New Pig Corporation	637.56	Absorbent pad dispenser
15261	5/30/2017	P.G.& E.	17,998.65	Electricity service, 04/17-05/15/2017
15262	5/30/2017	Rotork Controls Inc	309.64	Maintenance parts & supplies
15263	5/30/2017	Shamrock Materials, Inc.	120.26	Propane
15264	5/30/2017	SPURR	1,181.62	Natural gas, April 2017
15265	5/30/2017	ULINE	444.82	Safety supplies: Pavement markers and PPE gloves
15266	5/30/2017	Univar USA Inc	6,644.91	Sodium Bisulfide (1 delivery); Sodium Hypochlorite 1 delivery)
15267	5/30/2017	USP Technologies	6,832.75	Hydrogen Peroxide (1 delivery)
15268	5/30/2017	Valley Power Systems-North	4,265.91	Spark plug leads (32) for Cogeneration Engine
15269	5/30/2017	Water Components & Bldg. Supp.	182.94	Maintenance parts & supplies (2 invoices)
15270	5/30/2017	YRC	266.38	Maintenance parts & supplies
Payments by Automatic Clearing House:				
50317	5/3/2017	Payments to 23 retirees	6,517.06	Reimbursement for retiree health benefits
503024	5/11/2017	Buhler Commercial	164,920.00	Prof. Svcs.: Solids Handling Building Ventilation Improvements; Progress Payment No. 2
502617	5/26/2017	Wells Fargo Bank	80,000.00	Escrow for PG&E Interconnection work
50117	5/1/2017	EDD	12,920.22	State & SDI Taxes, PPE 04/22/2017
51517	5/15/2017	EDD	13,356.71	State & SDI Taxes, PPE 05/06/2017
53017	5/30/2017	EDD	12,242.38	State & SDI Taxes, PPE 05/20/2017
516171	05/16/2017	Michael Owen Boorstein	200.00	Stipend for 05/09/2017 Board meeting and NBWA meeting
516172	05/16/2017	Maribeth Bushey	100.00	Stipend for 05/09/2017 Board meeting
516173	05/16/2017	Dean DiGiovanni	100.00	Stipend for 05/09/2017 Board meeting
516174	05/16/2017	Diane L. Furst	100.00	Stipend for 05/09/2017 Board meeting
516175	05/16/2017	Thomas E Gaffney	100.00	Stipend for 05/09/2017 Board meeting
516176	05/16/2017	Kathleen Ohlson Hartzell	100.00	Stipend for 05/09/2017 Board meeting
		Grand Total	721,955.29	

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 May 31, 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	$ 9,860.68	$ 9,860.68	See LAIF
b2. Agency Unrestricted Reserve: Emergency	$ 250,000.00	$ 250,000.00	$ 250,000
b3. Agency Unrestricted Reserve: Insurance	$ 100,000.00	$ 100,000.00	$ 100,000
Total with CAMP	**$ 359,860.68**	**$ 359,860.68**	
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	$ 3,687,751.67	$ 3,687,751.67	
b1. Agency Unrestricted Reserve: Operating	$ 2,754,441.32	$ 2,754,441.32	$ 2,764,302
c1. Capital Reserves (Restricted)	$ 992,023.00	$ 992,023.00	$ 992,023
c1. Capital Reserves (Restricted-Capacity/Connection Fees)	$ -	$ -	
c2. Capital Reserves (Unrestricted)	$ 7,872,626.68	$ 7,872,626.68	$ 6,128,566
Total with LAIF	**$ 15,306,842.67**	**$ 15,306,842.67**	
TOTAL INVESTMENTS	**$ 15,666,703.35**	**$ 15,666,703.35**	
Amount designated for Capital Reserves			
1. CAMP	$ -	$ -	
2. LAIF	$ 8,864,649.68	$ 8,864,649.68	$ 7,120,589
Total	**$ 8,864,649.68**	**$ 8,864,649.68**	**$ 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 $195,591.93 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.

8C

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Chris Finton, Treatment Plant Manager

Approved: Jason Dow, General Manager

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

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

I. NPDES Permit Compliance

Our NPDES permit testing for May 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 May 96-hour flow through bioassay test.

There were zero blend events recorded in May, therefore no enterococcus bacteria samples were collected. Beginning in June, enterococcus sampling for the recreational water contact season (June – October), will begin and continue through September.

As reported since March, staff is monitoring the Mercury Watershed Permit's limits for the San Francisco Bay and CMSA's effluent. We will inform the Board if we encounter a compliance issue. Mercury loading to date as noted in this report's Monthly Compliance Summary Table is 0.1213 kg/yr.

II. Influent Flow

In May, Marin County comes alive with wildflowers; the weather was characterized by mild daytime temperatures and breezy afternoons. This past month was the first full month since September of 2016 in which no rain events were recorded by the Agency's rain gauge. The facility's average daily influent flow was 9.7 MGD.

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

May Monthly Influent Flows	**San Rafael (SRSD)**	**Ross Valley (SD#1)**	**San Quentin (SQSP)**	**Corte Madera (SD#2)**	**CMSA Plant Total**
Average Daily (MGD)	3.5 MGD	4.9 MGD	0.33 MGD	0.99 MGD	9.7 MGD
Total for Month (MG)	107.6 MG	152.2 MG	10.2 MG	30.7 MG	300.7 MG
Percent of Flow	36.4 %	52.3 %	2.6 %	8.7 %	100 %

III. Treatment Process

The Agency placed all four calcium nitrate injections stations into service in May when the influent temperature reached 22.0°C (71.6°F), the typical temperature point at which hydrogen sulfide generation in the collection increases. Calcium nitrate helps prevent the formation of hydrogen sulfide, a significant component of wastewater odors.

The treatment plant has been completely transitioned to a dry weather mode of operation and shall remain in this mode until the wet season returns. The Mixed Liquor Suspended Solids (MLSS) inventory averaged 1,394 mg/l, a 15.6% increase in biomass from last month. The increase in biomass aligned with the process control decision to carry between 1,100 and 1,300 mg/L to manage our biomass while transitioning from four to two aeration basins.

Graph #3 shows the Total Suspended Solids (TSS), which is a good indicator of the effluent quality. The TSS monthly average in May was 3.7 mg/l, which is 24.7% of our Key Performance Indicator (KPI) of 15 mg/l, and is 12.3% 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. All thirteen of the coliform samples collected in May were below our KPI target of 30 MPN, and well below our daily limit of 10,000 MPN. The total coliform monthly geometric mean for May was 4.6 MPN, well below our permit's monthly limit of 240 MPN.

IV. Maintenance Activities

The cogeneration system produced 93.4% of the Agency's power in May, 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 were three occasions in May when the cogeneration system was temporarily removed from service, as noted below.

- On May 15 the cogeneration system was temporarily offline to allow contractors to perform electrical work on the buildings' ventilation system.
- On May 17 the cogenerator was offline long enough to change out a fouled spark plug.
- On May 23 and again on May 26 the cogeneration system was temporarily offline to perform corrective maintenance on the facility's reclaimed water system, which also supplies cooling water to the cogenerator.

In addition to the activities surrounding the cogeneration system, staff was also able to complete scheduled project work and monthly preventative maintenance tasks. Work included replacement of three 12" reclaimed water isolation valves; replacement of the main transformer in the aeration area control room; replacement of the Ross Valley Interceptor's hydrogen peroxide bulk storage tank and installation of new tank level indicating equipment; and replacement of all toe-kicks on the five original primary clarifiers.

Attachment

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

NPDES Permit Compliance, Treatment Process, and Maintenance Activities Report

May 2017

Technicians Performing Annual Maintenance and Repairing a Dechlorination Line in the Outfall Sump

Monthly Compliance Summary Table

Central Marin Sanitation Agency

May 2017

Final Effluent Monitoring

Parameter	Frequency	Units	Results	Limit
Carbonaceous BOD Highest Weekly Average	Weekly	mg/L	6.9	Maximum 40
Carbonaceous BOD Monthly Average	Monthly	mg/L	6.1	Maximum 25
Carbonaceous BOD Monthly Removal Rate	Monthly	%	97.9	Minimum 85
Total Suspended Solids Highest Weekly Average	Weekly	mg/L	4.4	Maximum 45
Total Suspended Solids Monthly Average	Monthly	mg/L	3.7	Maximum 30
Total Suspended Solids Monthly Removal Rate	Monthly	%	99.2	Minimum 85
Chlorine Residual Instant Limit	Instant	mg/L	<0.1	Maximum 0.0
Ammonia Monthly Average	Monthly	mg/L	32.6	Maximum 60
Ammonia Maximum Daily	Daily	mg/L	32.6	Maximum 120
pH Lower Limit	Continuous		7.3	Minimum 6
pH Upper Limit	Continuous		7.9	Maximum 9
Bacteriological Analysis				
Total Coliform Monthly Geometric Mean	3 X Week	MPN/100mL	4.6	Maximum 240
Total Coliform Daily Maximum	3 X Week	MPN/100mL	9.3	Maximum 10,000
Enterococcus Monthly Geometric Mean	Monthly	MPN/100mL	*	Maximum 35
Flow Through Bioassay				
Acute Toxicity 11 Sample 90th Percentile	Monthly	% survival	100	Minimum 70
Acute Toxicity 11 Sample Median	Monthly	% survival	100	Minimum 90
Metals Analysis				
Copper Daily Limit	Monthly	ug/L	4.2	Maximum 85
Copper Monthly Average	Monthly	ug/L	4.2	Maximum 49
Cyanide Daily Limit	Monthly	ug/L	DNQ (2.2)	Maximum 41
Cyanide Monthly Average	Monthly	ug/L	DNQ (2.2)	Maximum 21
Mercury Weekly Average	Weekly	ug/L	0.0037	Maximum 0.072
Mercury Monthly Average	Monthly	ug/L	0.0037	Maximum 0.066
Mercury Monthly Loading	Monthly	kg/mo	0.00394	
Mercury Annual Loading (watershed permit)	Jan-Dec	kg/yr	0.1213	Maximum 0.11
Semi-Annual Analysis				
Dioxin - Total Equivalents (TEQ) Daily Maximum	1/Permit Cycle	ug/L	*	Maximum 2.8E-08
Dioxin - Total Equivalents (TEQ) Monthly Average	1/Permit Cycle	ug/L	*	Maximum 1.4E-08
Polychlorinated Biphenyls (PCBs) Daily Limit	1/Permit Cycle	ug/L	*	Maximum 0.017
Polychlorinated Biphenyls (PCBs) Monthly Limit	1/Permit Cycle	ug/L	*	Maximum 0.012
Quarterly Analysis				
Oil and Grease Daily Limit	Quarterly	mg/L	ND	Maximum 20
Oil and Grease Monthly Average	Quarterly	mg/L	ND	Maximum 10
Chronic Bioassay Toxicity	every 3 mos	Tuc	ND	Maximum 20
Chronic Bioassay Toxicity (3 sample median)	every 3 mos	Tuc	ND	Maximum 10

Flow Analysis	Daily Max	Hourly Max	5 minute Max	Monthly Average
Effluent Flow (a)	9.4	16.2	15.7	14.8
Influent Flow (a)	10.6	14.0	18.7	14.9
# Days Blended				0

(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

Glossary of Terms
NPDES Permit Compliance Summary Table

- **Ammonia**: CMSA's NPDES permit requires that we analyze the final effluent for ammonia due to its toxicity to aquatic organisms and potential for providing nutrients for algae in the San Francisco Bay. The permit has a maximum daily limit of 60 mg/L and a monthly average limit of 120 mg/L. The maximum daily limit is the number that cannot be exceeded on any sample and the monthly average applies to all samples collected in any month (although typically we are required to take only one sample).

- **Biochemical Oxygen Demand (BOD):** The amount of dissolved oxygen needed by microorganisms (biomass) to stabilize organic material in the effluent. The permit limits for our effluent require that removal of 85% influent BOD, and meet a weekly average of less than 40 mg/L and a monthly average of less than 25 mg/L BOD.

- **Chlorine Residual:** The secondary effluent is disinfected with hypochlorite (chlorine "bleach"), and then the residual chlorine is neutralized with sodium bisulfite to protect the Bay environment. The final effluent chlorine residual limit is 0.0 mg/l, which is monitored continuously.

- **Bacteria:** Coliform and enterococcus bacteria are the indicator organisms for the determination of the effectiveness of the disinfection process.

- **Dioxin - Total Equivalents:** These are 17 dioxin-like compounds that we analyze for twice per year which have permit limits.

- **Fats, Oils, and Grease:** We are required to monitor our effluent for Fats, Oils, and Grease quarterly.

- **Flow Through Bioassay:** A 96-hour test in which we test the toxicity of our effluent to young rainbow trout (15-30 days old) in a flow-through tank to determine their survivability under continuous exposure to CMSA effluent. The permit requires that we maintain a 90th percentile survival of at least 70% and an 11-sample median survival of at least 90%. In layman's terms, this means that out of the last 11 samples, only one bioassay may fall below 70% survival, and the middle value—when all 11 samples are placed in numerical order—must be at least 90%.

- **Metals Analysis:** Our permit requires that we analyze our effluent for many different metals on a monthly basis. We have permit limits for three of the metals. The limits are stated as a maximum daily limit and a monthly average limit.

- **pH:** pH is a measurement of acidity, with pH 7.0 being neutral and higher pH values being basic and lower pH values being acidic. Our permit effluent pH must stay within the range of 6.0 to 9.0, which we monitor continuously.

- **Total Suspended Solids (TSS):** Measurement of suspended solids in the effluent. Our permit requires that we remove at least 85% of the influent TSS and that the effluent limit is less than 45 mg/L as a weekly average and less than 30 mg/L as a monthly average.

Executive Summary Process Performance Data
May 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:	443	mg/l	
Average TSS out:	162	mg/l	
Average Percent Removal Achieved:	63.5	%	Design 50-70% Removal
Average Total Biochemical Oxygen Demand (BOD) in:	306	mg/l	
Average BOD out:	160	mg/l	
Average Percent Removal Achieved:	47.9	%	Design 25-40% Removal
Average Plant Influent Flows:	9.7	MGD	

Biotower Performance

Average TSS out:	108	mg/l	
Average BOD out:	83	mg/l	
Average Percent BOD Removal Achieved:	48.3	%	Design 25-30% Removal

Aeration Tanks/Activated sludge

Dissolved Oxygen set point:	2.0	mg/l
Average MLSS:	1,394	mg/l
Average MCRT:	2.3	Days
Average SVI:	138	

Secondary Clarifiers

Average WAS concentration:	7,941	mg/l

Final Effluent

Average Effluent TSS for the month was:	3.7	mg/l	(Maximum Limit: 30mg/l)
Week #1 weekly average	3.2		(Maximum Limit: 45mg/l)
Week #2 weekly average	4.4		"
Week #3 weekly average	4.2		"
Week #4 weekly average	3.3		"
Monthly average TSS removal efficiency through the plant was:	99.2	%	(Minimum Limit: 85%)
Average Effluent BOD was:	6.1	mg/l	(Maximum Limit: 25mg/l)
Week #1 weekly average	6.0		(Maximum Limit: 40mg/l)
Week #2 weekly average	6.9		"
Week #3 weekly average	6.0		"
Week #4 weekly average	5.0		"
Monthly average BOD removal efficiency through the plant was:	97.9	%	(Minimum Limit: 85%)
Disinfection Dosing Rate:	4.4	mg/l	monthly average
Total Coliform Monthly Geometric Mean:	4.6	MPN	(Maximum 240)
The Daily Maximum Total Coliform Count for the month was:	9.3	MPN	(Maximum 10,000)
Enterococcus Monthly Geometric Mean:	No Samples	MPN	(Maximum, 35 MPN)
Effluent pH for the month was: Min	7.3		(Min 6.0)
Max	7.9		(Max 9.0)

Digester Treatment

Average Thickened Waste Concentration from the RDT was:	6.5	%		
Average percent of Volatile Solids destroyed was:	73.7	%		
Cubic feet of biogas produced was:	8,721,001	(Total)	281,323	(Daily Average)
Average temperature of the digester was:	100	degrees Fahrenheit		

Executive Summary Process Performance Data
May 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:	26.7	%
Average TSS of the Centrate was:	0.027	%
Solids capture of the Centrifuge was:	99.1	%
Polymer use per Dry ton of biosolids was:	21.10	#/dry ton
Average polymer feed rate per run was:	4.20	gpm
Average concentration of the polymer batches was:	0.369	%
Average sludge feed rate per run was:	54.0	gpm

Comments:

1. The treatment plant has been running well with final effluent being of very good quality.
2. Polymer use for dewatering operations was slightly elevated above our normal dosing range of 18-20 lbs. of polymer per dry ton of biosolids.

Technicians are servicing both Polymer Activation Units, specifically verifing flow and concentration control settings.

Graph #1:
Depicts the total influent flow (from all collection agencies) entering the treatment plant.
The red line represents total influent flows; and the blue 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 0-20 MGD.

Graph #3:
Depicts the total suspended solids in the effluent.
Our monthly average was 3.7 mg/l versus 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 4.6 MPN through May, which is less than our KPI median of 30 MPN and permit limit of 240 MPN.

Graph #5:
Depicts the effluent BOD which is measuring the oxygen demand of the wastewater.
The May effluent BOD average was 6.1 mg/l, which is lower than our KPI limit of 15 mg/l, and well below our NPDES limits of 40 mg/l weekly and 25 mg/l for the month.

Graph #6:
Depicts the degree to which the biosolids have been dewatered.
Our biosolids % concentration exceeded our KPI of 25% for 27 of 31 days in May. Lower KPI values are attributed to training a new staff member on dewatering equipment operations.

Graph #7:
Depicts the amount of Biogas that is produced in the digesters, and then used to produce electricity.
Biogas production in May averaged 281,323 cubic feet per day, which exceeded our monthly KPI of 200,000 cubic feet per day.

Graph #8:
This graph depicts the amount of energy produced through cogeneration versus the energy purchased from Marin Clean Energy (MCE) for Agency operations.
The cogeneration system was online all month producing 93.4% of the facility's power needs. The cogeneration engine was temporarily removed from service on three separate occasions as described in the May staff report and as shown on the graph.

Glossary of Terms
Process Performance Data Sheet

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

- **Anaerobic Digesters:** In the anaerobic digestion process, organic material removed in the primary and secondary clarifiers is digested by anaerobic bacteria. The end products are methane, carbon dioxide, water, stabilized organic matter, and some inorganic material.

- **Biosolids:** Anaerobically digested solids that are removed from the two digesters, dewatered, and then beneficially reused. Beneficial reuse may include landfill alternate daily cover (ADC), land application in the summer as a soil amendment and fertilizer, or converted into a liquid fertilizer for agricultural applications.

- **Biotower:** A biological treatment process, occurring after the primary clarifiers and before the aeration tanks, in which the wastewater trickles over a biomass-covered media. The biomass feeds on the dissolved and suspended solids in the wastewater.

- **Centrifuge:** Process equipment used to dewater biosolids prior to beneficial reuse.

- **Cogeneration System:** A system comprised of a dual-fuel engine coupled to an electric generator that is used to produce energy to power the Agency facilities. Fuels the system uses are methane biogas produced in the anaerobic digesters and, when biogas is not available, purchased natural gas. As well as generating electricity, the system supplies heat for plant processes and building heating.

- **Chlorine Contact Tanks (CCTs):** The final treatment process is disinfection and de-chlorination. The CCTs allow contact time for injected chlorine solution to disinfect the wastewater. Sodium bisulfite, the de-chlorination chemical, is introduced at the end of the CCTs to neutralize any residual chlorine to protect the San Francisco Bay environment.

- **Rotary Drum Thickener (RDT):** Waste activated sludge removed from the secondary clarifiers is thickened in rotary drum thickeners before being transported to the anaerobic digesters. Thickening removes some of the sludge's water content, to decrease hydraulic loading to the digesters.

- **Final Effluent:** After all the treatment processes are completed, the final effluent is discharged into to central San Francisco Bay through a 10,000-foot-long deep-water outfall.

- **Mean Cell Residence Time (MCRT):** An expression of the average time that a microorganism will spend in the secondary treatment system.

- **Mixed Liquor Suspended Solids (MLSS):** The liquid in the aeration tanks is called MLSS and is a combination of water, solids, and microbes. Suspended solids in the MLSS measured in milligrams per liter (mg/l).

- **Most Probable Number (MPN):** Concentrations, or number of colonies, of total coliform bacteria are reported as the "most probable number." The MPN is not the absolute count of the bacteria but a statistical estimate of their concentration.

- **Polymer:** Polymer is added to digested sludge prior to dewatering to improve solids coagulation and water separation.

- **Primary Clarifier:** A physical (as opposed to biological) treatment process where solids that settle or float are removed and sent to the digesters for further processing.

- **Return Activated Sludge (RAS):** The purpose of returning activated sludge (biomass) to the aeration tanks is to maintain a sufficient concentration of microbes to consume the wastewater's dissolved solids.

- **Secondary Clarifiers:** Provides settling for the biomass after aeration. Most of the settled biomass is returned to the aeration tank as return activated sludge (RAS) and some is sent to the RDT unit as waste activated sludge.

- **Sludge Volume Index (SVI):** This is a calculation used to indicate the settling ability of the biomass in the secondary clarifiers.

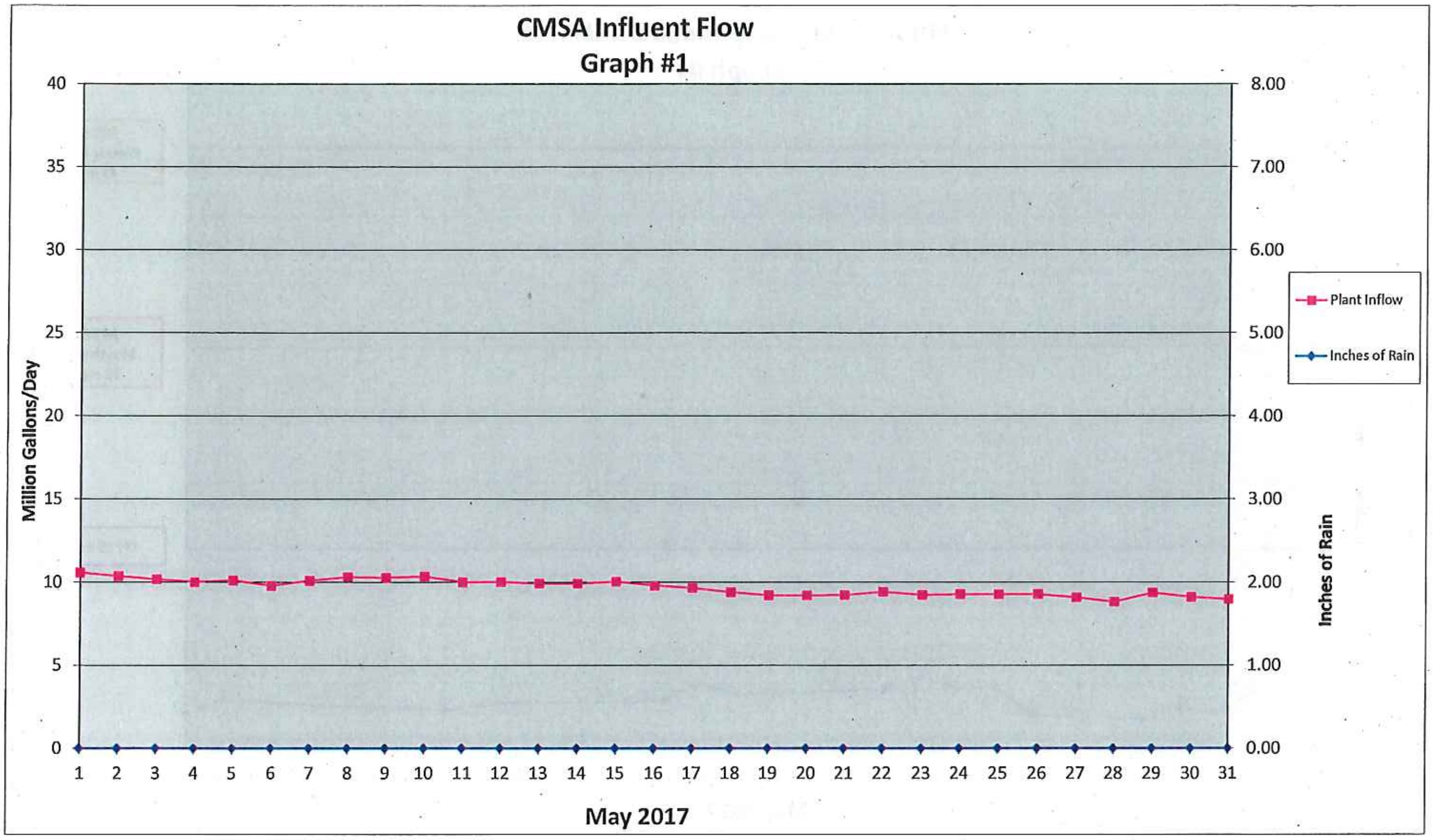
- **Thickened Waste Activated Sludge (TWAS):** Waste activated sludge is thickened in the RDTs, and then the TWAS product is pumped to the digester for processing.

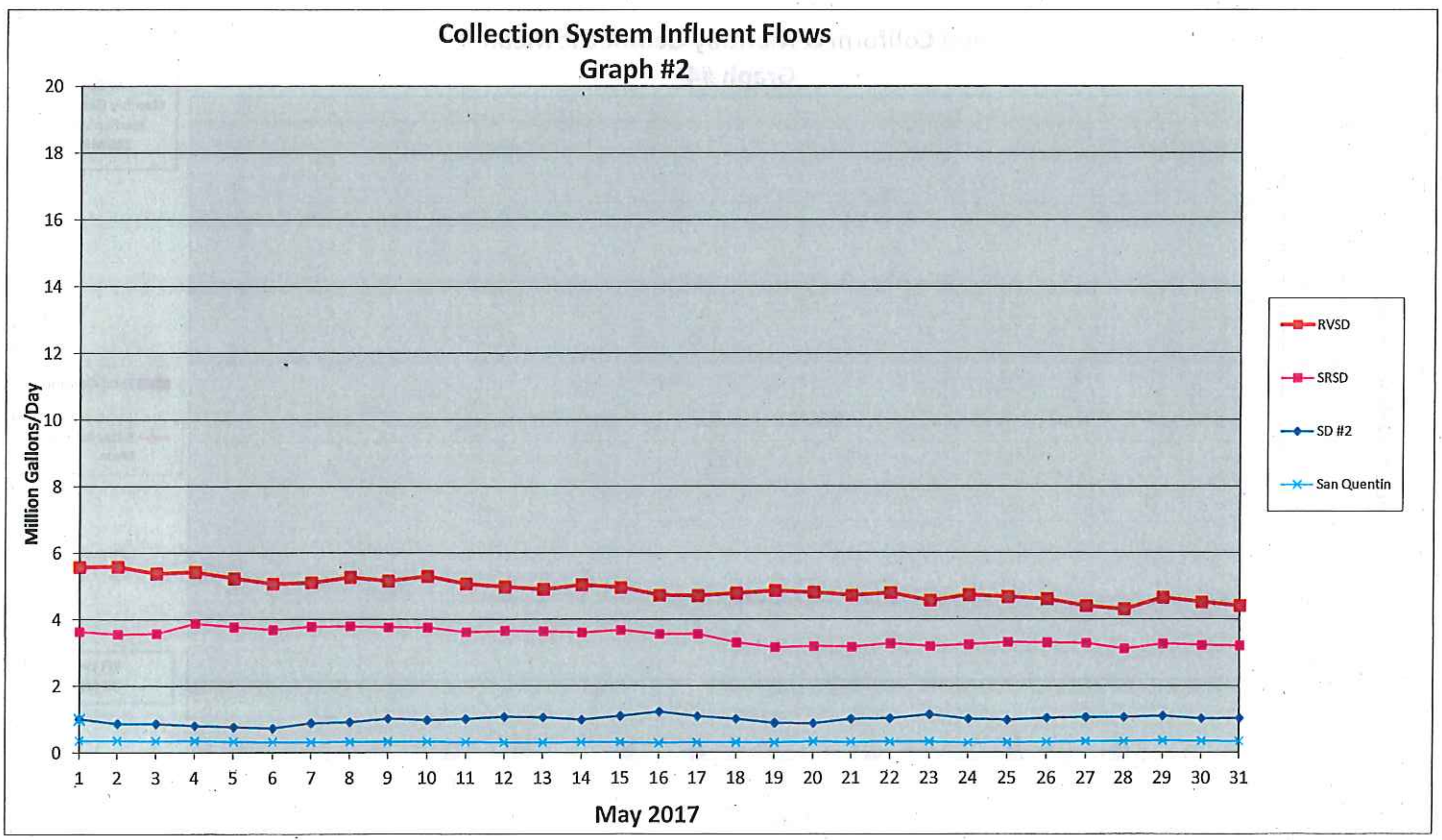
- **Volatile Solids:** Organic content of the wastewater suspended solids.

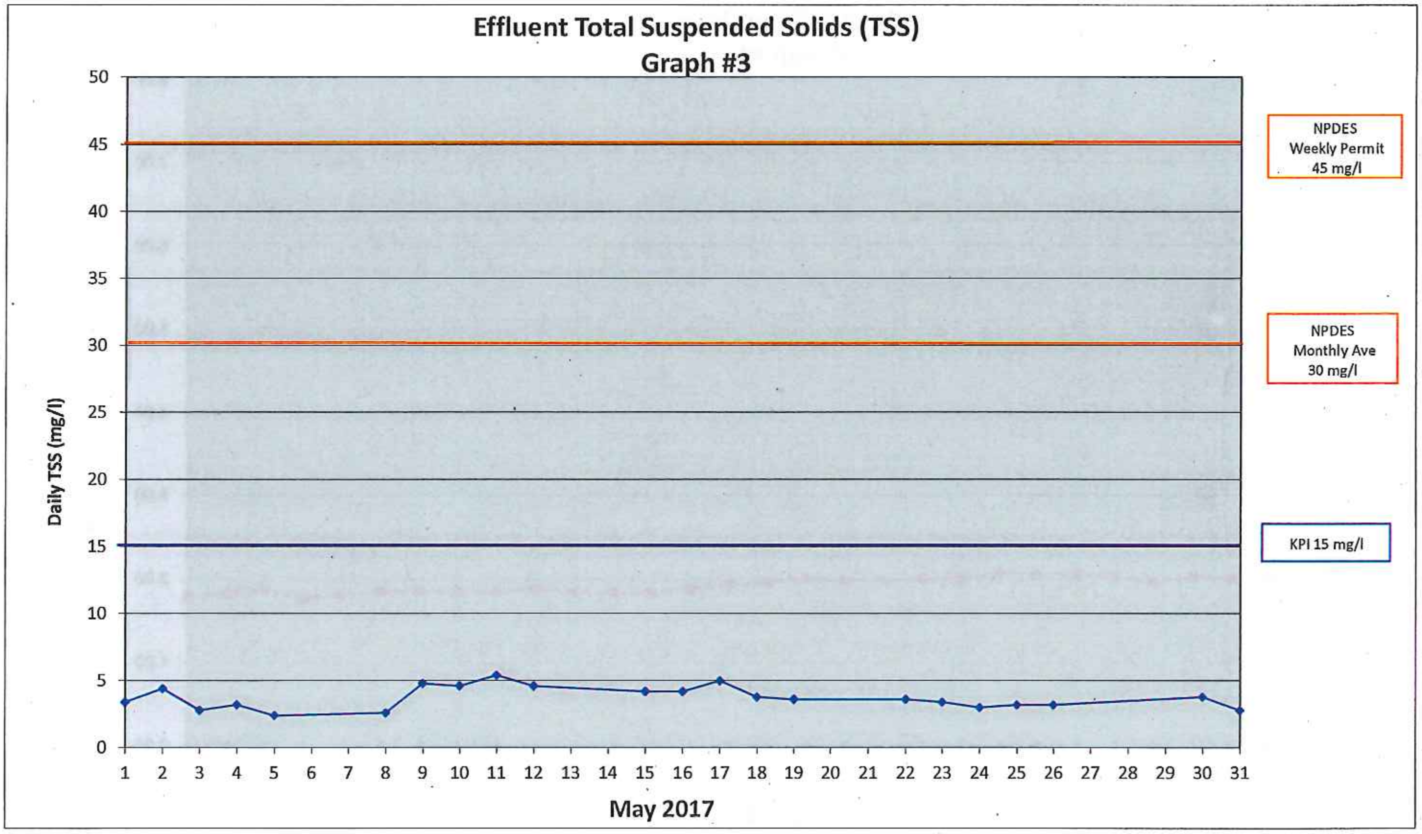
- **Waste Activated Sludge (WAS):** Biomass that is removed from the secondary clarifiers pumped to the RDTs for thickening.

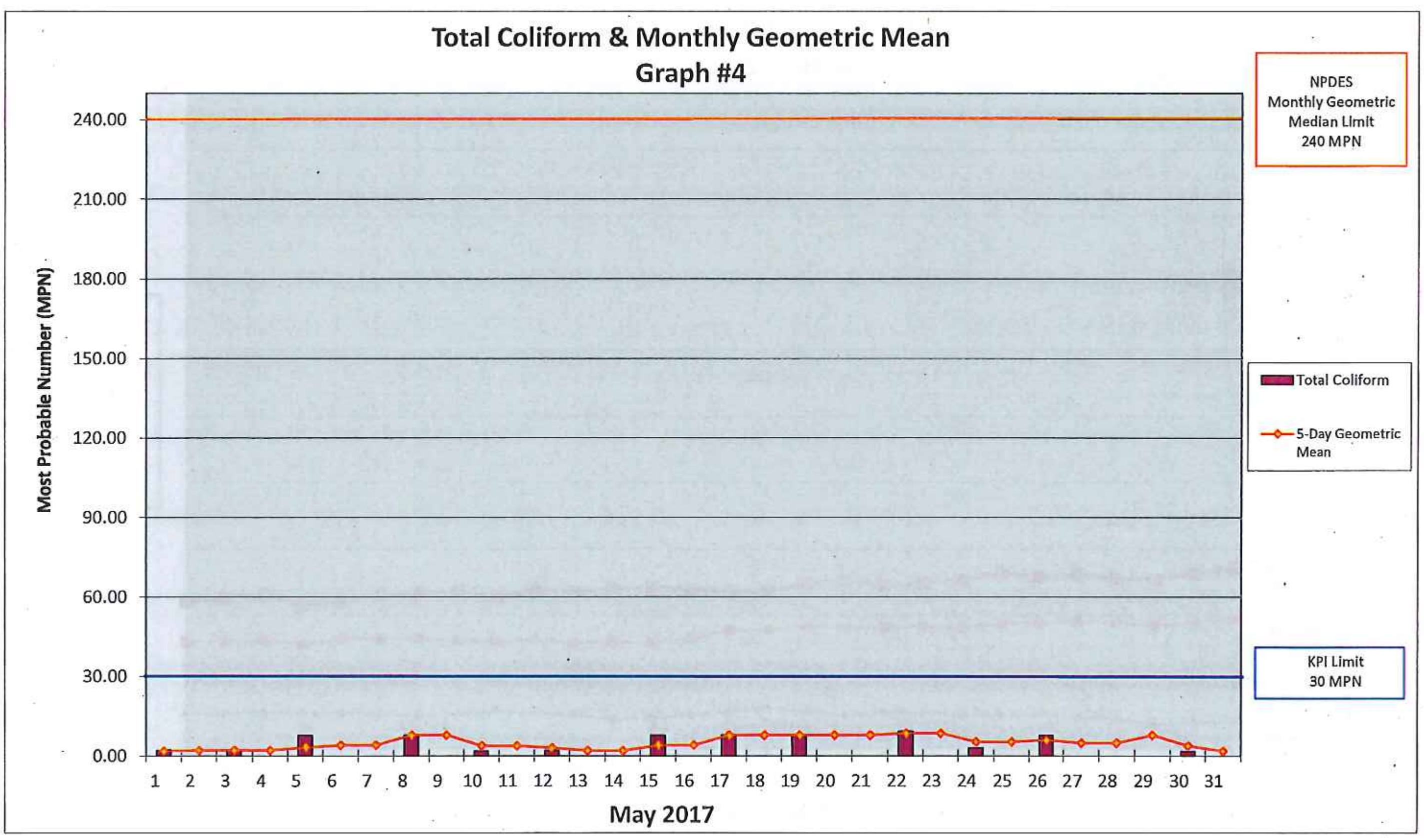
Units of Measurement

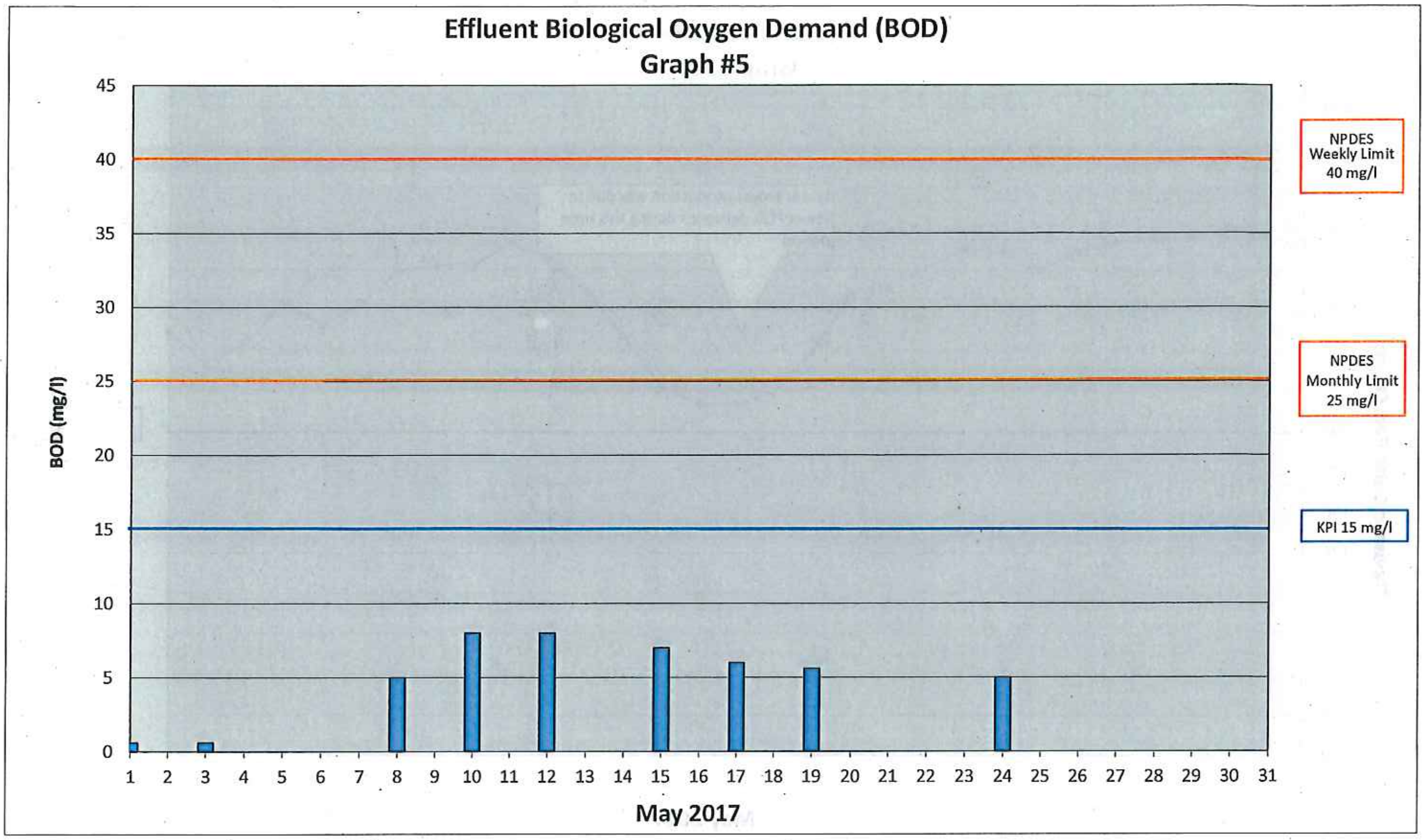
- kg/month (Kilograms per Month): 1 kilogram = 2.205 lbs.
- KPI (Key Performance Indicators): The Agency's process performance goals.
- Kwh (Kilowatt Hours): A unit of electric power equal to using 1 Kw for 1 hour.
- Milligrams per Liter (mg/L): A measure of the concentration by weight of a substance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

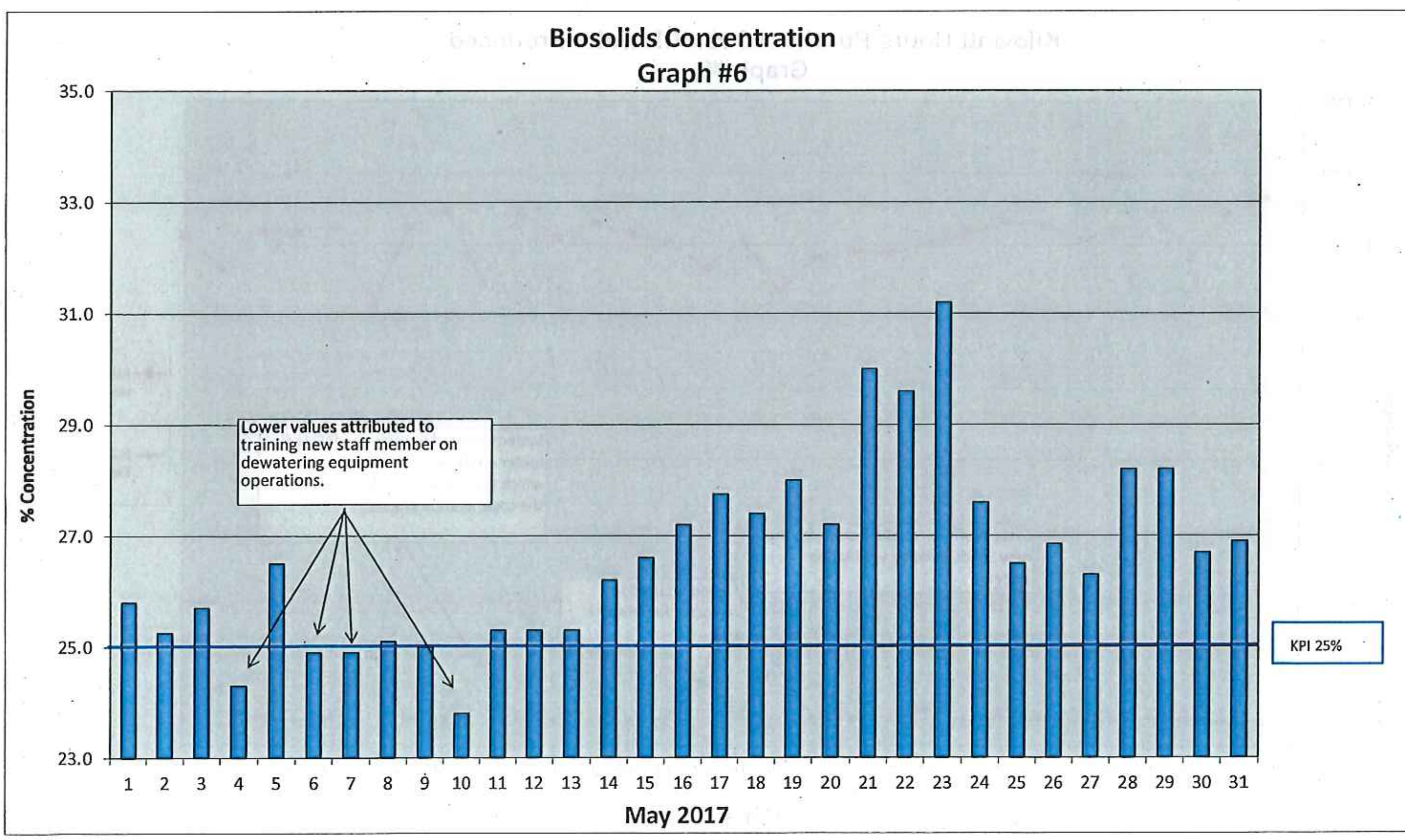

CMSA Influent Flow
Graph #1
Million Gallons/Day
Inches of Rain
Plant Inflow
Inches of Rain
May 2017

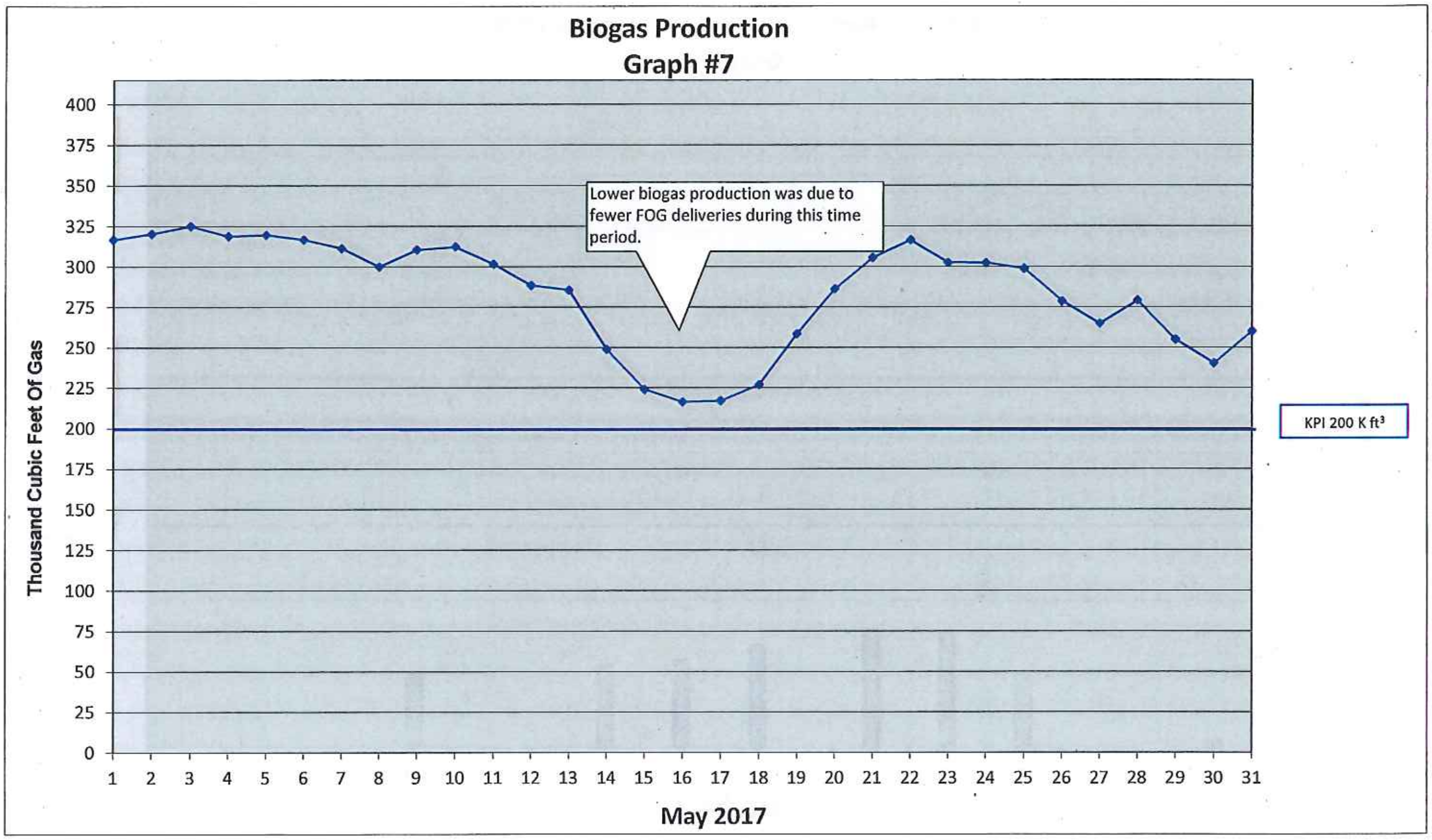

Collection System Influent Flows
Graph #2
Million Gallons/Day
RVSD
SRSD
SD #2
San Quentin
May 2017

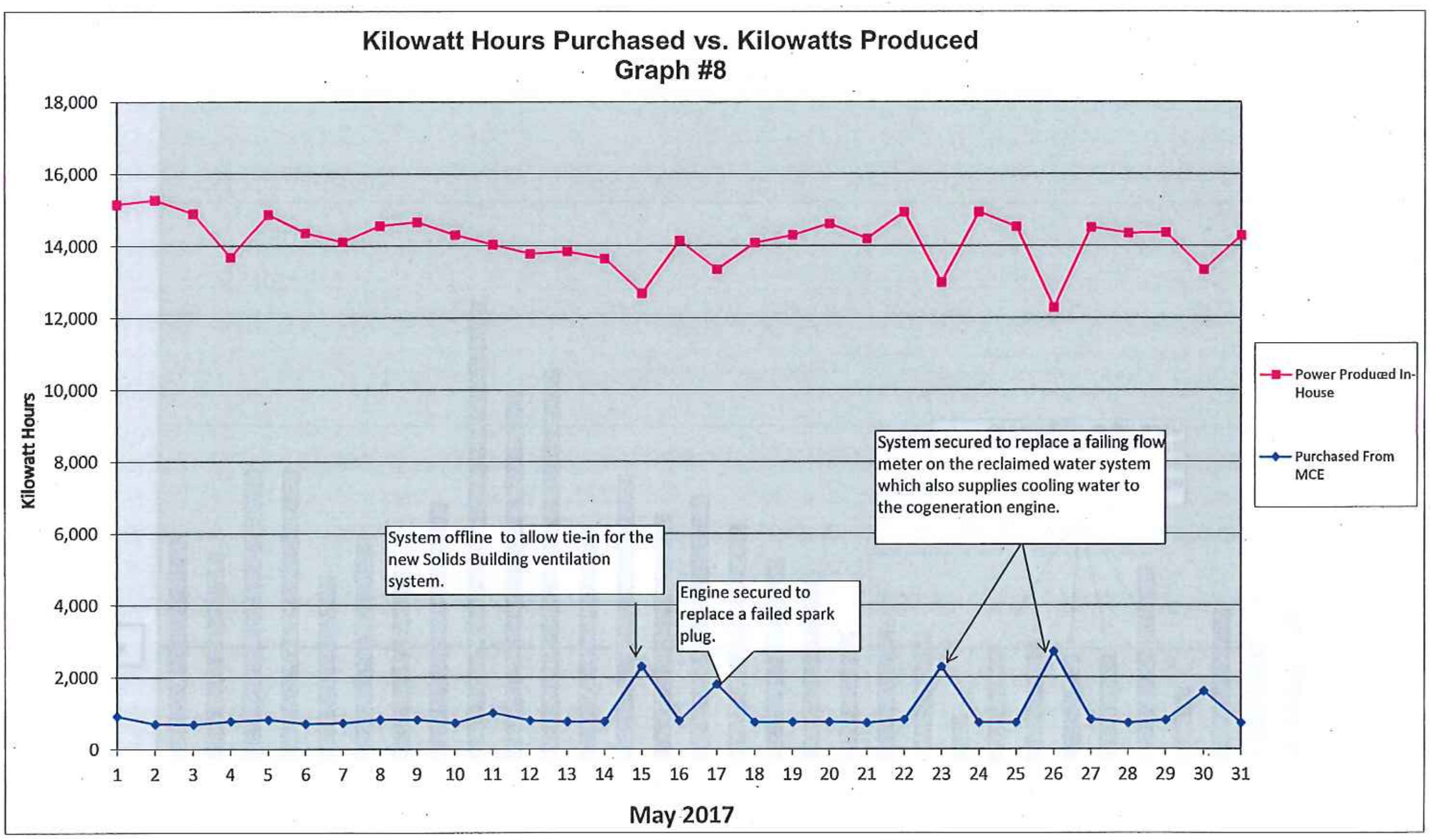

Effluent Total Suspended Solids (TSS)
Graph #3
NPDES
Weekly Permit
45 mg/l
NPDES
Monthly Ave
30 mg/l
KPI 15 mg/l
Daily TSS (mg/l)
50
45
40
35
30
25
20
15
10
5
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
May 2017


Total Coliform & Monthly Geometric Mean
Graph #4
NPDES
Monthly Geometric
Median Limit
240 MPN
Total Coliform
5-Day Geometric
Mean
KPI Limit
30 MPN
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 31
May 2017


Effluent Biological Oxygen Demand (BOD)
Graph #5
BOD (mg/l)
NPDES Weekly Limit 40 mg/l
NPDES Monthly Limit 25 mg/l
KPI 15 mg/l
May 2017


Biosolids Concentration
Graph #6
% Concentration
Lower values attributed to training new staff member on dewatering equipment operations.
KPI 25%
May 2017


Biogas Production
Graph #7
Lower biogas production was due to fewer FOG deliveries during this time period.
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 31
May 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
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 31
May 2017
Power Produced In-House
Purchased From MCE
System secured to replace a failing flow meter on the reclaimed water system which also supplies cooling water to the cogeneration engine.
System offline to allow tie-in for the new Solids Building ventilation system.
Engine secured to replace a failed spark plug.

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: Performance Metric Report – May 2017

Recommendation: Accept the May 2017 Performance Metric report.

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

Table I – Treatment/Process Metrics

Effluent quality continues to be exceptional, process metrics were within normal ranges, and the treatment facility's processes are in the dry weather operational mode. Biosolids land application began this month and will continue to the beginning of the 2017 wet weather season.

Table II – Employee Metrics

Training highlights included several staff members attending employment law training for alcohol in the workplace and workplace privacy; operations and maintenance staff attending on-site equipment presentations from Grundfos pumps and DHI control systems, and CSRMA sanitary sewer overflow training.

Table III - Environmental and Regulatory Compliance Metrics

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

Table IV - Public Outreach

There were four odor alerts posted to the Agency website in May, for removing primary clarifiers and a secondary clarifier out of service, and to clean the chlorine contact tanks in preparation for the monthly bioassay test.

Public education events include staff attendance at public outreach events, school classroom and/or juggler show presentations, and Agency tours. Public educations events in each category are shown on the following page.

Public Outreach
5/2/17 - Novato Farmers Market, 82 Booth visitors (61 adult, 21 kids quizzes)
5/20/17 - Marin Home and Garden Show, 96 Booth Visitors (Mostly all adult quizzes)

School Events
No classroom presentations or juggler shows occurred in the month.

Agency Tours
No tours were scheduled in May

Attachment:
- May 2017 Performance Metric Report

CMSA CY17 PERFORMANCE METRICS – May 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)	300.7 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)	176.1 wt 157.5 wt 179.8 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	542.5 tons; 98.2% 371.3 tons; 96.3%	> 85% > 85%
4) Priority Pollutants Removal	Diversion of priority NPDES metals from discharge to the S.F. Bay: a. % Mercury b. % Copper	97.5% 92.5%	88 – 99% 84 – 98%
5) Biogas Production	Biogas generated in our anaerobic digesters, in million cubic feet (Mft^3) Natural gas (methane) equivalent of the biogas, in million cubic feet (Mft^3)	8.72 Mft^3 5.58 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)	439,074 kWh 647 hrs; 87.0% $25,866	380 to 480,000 kWh 540 hrs.; 75% $7,000 to $24,000
7) Efficiency	The cost to operate and maintain the treatment plant per million gallons of wastewater treated, in dollars per million gallons Energy used, kilowatt hours, per million gallons treated	$1,196/Mg 1,563 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 = 38.5 External = 32	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);	540 hrs 727 hrs (88.2%) 97 hrs (15.3%) 0.65	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)*	1.3%; *(1.9%)*	< 5%

CMSA CY17 PERFORMANCE METRICS – May 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	232	150-250
3) Process Analyses	# samples analyzed by the CMSA laboratory for process control reporting and monitoring	543	400-600
4) Quality Control Testing	# of CMSA performed laboratory analyses for QA/QC purposes Accuracy of QA/QC tests	283 99.3%	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.)	5	as-needed
6) Pollution Prevention Inspections	Inspections of industrial and commercial businesses in the Agency's pretreatment and pollution prevention programs and Novato Sanitary District's Mercury Reduction Program – 277 businesses regulated	0	variable
7) FOG Program Inspections	Inspections of food service establishments (FSEs) in the Almonte, TCSD, SD2, RVSD, SRSD, and LGVSD service areas – approx. 500 FSEs are in programs; 310 are regulated – either permitted or have waivers.	26	20 – 50
8) Permits Issued/Renewed	Permits issued for the pretreatment, pollution prevention, and FOG source control programs, and for groundwater discharge	1	variable

Table IV- PUBLIC OUTREACH

Metric	Definition	Measurement	Target/Goal
1) Public Education Events	Attendance at public education outreach events; # of booth visitors; *(YTD)*	178; *(344)*	3,000/year
2) School Events	Participation or sponsorship in school outreach events; attendees; *(YTD)*	0; *(1,033)*	variable
3) Agency Tours	Tours given to students and the public; # of people, *(YTD)*	0; *(173)*	variable
4) Odor Notifications	Number of odor alerts posted to the Agency website due to process or operational changes	4	1-10
5) Odor Complaints	Number of odor complaints received from the public	0	0

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Kenneth Spray, Administrative Services Manager

Approved: Jason Dow, General Manager JD

Subject: Fiscal Year 2017-18 Schedule of Base Salaries by Agency Job Classification

Recommendation: Approve and adopt the Fiscal Year 2017-18 Schedule of Base Salaries by Agency Job Classification.

Discussion: Title 2, Section 570.5 of the California Code of Regulations (CCR) requires public agencies that are subject to California Public Employees' Retirement Law to approve and adopt a salary schedule, and that the salary schedule be made publicly available to any interested party. The intent of this requirement is to enforce the statutes of CCR 570.5 when determining compensation that is credited toward pension benefits and in calculating retirement benefits for current and future members.

Attached for your approval and adoption is the Agency's salary schedule for the Fiscal Year 2017-18 entitled *Schedule of Base Biweekly (80 hours) Compensation Earnable*. The Board's action is administrative only, as the pay schedule salary amounts reflect previously Board-approved Agency contracts with its General Manager and the represented and unrepresented employee groups.

Attachments:

- Schedule of Biweekly (80 hours) Compensation Earnable

Central Marin Sanitation Agency
Salary Schedule, Biweekly Rate (80 hours)

General Manager: Effective September 14, 2016 2.6% COLA (Board Approved September 14, 2016)
Unrepresented (M): Effective July 2, 2017 to July 1, 2018 (Board Approved August 26, 2014)
Represented (R): Effective July 1, 2017 to June 30, 2018 (Board Ratified August 26, 2014)

Job Title	Class	Biweekly A1	Biweekly B2	Biweekly C3	Biweekly D4	Biweekly E5
General Manager	M	9,576.32	-	-	-	-
Administrative Assistant	M	3,209.39	3,369.86	3,538.35	3,715.27	3,901.04
Administrative Services Manager	M	6,189.49	6,498.96	6,823.91	7,165.11	7,523.36
Financial Analyst	M	3,882.84	4,076.99	4,280.84	4,494.88	4,719.62
Personnel & Accounting Technician	M	2,783.49	2,922.66	3,068.79	3,222.23	3,383.35
Information Systems Analyst	R	4,014.69	4,215.42	4,426.19	4,647.50	4,879.88
Technical Services Manager	M	6,324.78	6,641.02	6,973.08	7,321.73	7,687.82
Assistant Engineer	R	3,639.06	3,821.01	4,012.06	4,212.66	4,423.30
Laboratory Director	M	4,750.06	4,987.56	5,236.94	5,498.79	5,773.73
Environmental Laboratory Administrator	R	4,015.18	4,215.94	4,426.73	4,648.07	4,880.47
Environmental Services Analyst II	R	3,723.86	3,910.06	4,105.56	-	-
Environmental Services Analyst I	R	3,216.81	3,377.65	3,546.54	-	-
Health & Safety Manager	M	3,717.19	3,903.05	4,098.21	4,303.12	4,518.27
Treatment Plant Manager	M	5,871.90	6,165.50	6,473.77	6,797.46	7,137.33
Maintenance Supervisor	M	4,400.95	4,621.00	4,852.05	5,094.65	5,349.38
Assistant Maintenance Supervisor	M	4,191.34	4,400.91	4,620.95	4,852.00	5,094.60
Maintenance Lead Worker	R	4,122.92	4,329.06	-	-	-
Mechanical Technician III	R	3,739.61	3,926.59	-	-	-
Mechanical Technician II	R	3,391.93	3,561.53	-	-	-
Mechanical Technician I	R	3,076.58	3,230.41	-	-	-
Mechanical Technician Trainee	R	2,349.90	2,467.39	2,590.76	-	-
Maintenance Repair III	R	3,739.61	3,926.59	-	-	-
Maintenance Repair II	R	3,391.93	3,561.53	-	-	-
Utility Worker	R	2,619.26	2,750.22	2,887.74	3,032.12	3,183.73
E/I Assistant Maintenance Supervisor	M	4,209.96	4,420.45	4,641.48	4,873.55	5,117.23
Electrical/Instrumentation Tech III	R	3,937.82	4,134.71	-	-	-
Electrical/Instrumentation Tech II	R	3,571.71	3,750.30	-	-	-
Electrical/Instrumentation Tech I	R	3,239.65	3,401.63	-	-	-
Electrical/Instrumentation Trainee	R	2,344.89	2,462.14	2,585.24	-	-
Operations Supervisor	M	4,334.53	4,551.26	4,778.82	5,017.76	5,268.65
Lead Operator	R	4,104.60	4,309.83	-	-	-
Operator III	R	3,723.00	3,909.15	-	-	-
Operator II	R	3,376.87	3,545.71	-	-	-
Operator I	R	3,062.92	3,216.06	-	-	-
Operator in Training	R	2,327.82	2,444.21	2,566.42	-	-

M= Management Positions
R= Represented Positions. SEIU, Local 1021

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: CMSA Finance Committee – Commissioners Hartzell and Gaffney
Jason Dow, General Manager

Subject: **Revised CMSA Investment Policy** JD

Recommendation: Approve the revised CMSA Investment Policy, Financial Policy #531.

Discussion: The California Government Code requires a legislative body to annually adopt its investment policy if it delegates the investment authority. CMSA's Investment Policy, Financial Policy #531, delegates the investment of surplus funds to the Agency's Treasurer, and the Policy was last presented to the Board in March 2017. During that Policy discussion, Commissioner Gaffney informed the Board that he had some suggested changes to the Policy and that the Board's Standing Finance Committee would be considering those at its upcoming meeting in April. The Board subsequently approved the Policy pursuant to the Government Code requirements, with the understanding that revisions will be presented at a subsequent Board meeting.

Staff and the Finance Committee met on April 27 to review the draft FY18 budget and discuss Commissioner Gaffney's Policy questions and suggested changes. Commissioner Gaffney's questions were associated with the appropriateness and/or need for certain types of investments listed in the Policy. Staff suggested and the Committee agreed with leaving all the investment types for use by a professional investment advisor, but limiting the types of investments for staff, as well as making other minor changes. The revised Policy is attached, and a summary of the proposed revisions are presented below.

1) Revised Board adoption date to June 13, 2017
2) Removed references to Controller throughout the Policy.
3) Statement of Investment Policy (Pg.1) - Added General Manager, along with the Treasurer, as staff that will submit the Policy to the Board.
4) Prudence (Pg. 1) – Expanded the trustee language.
5) Types of Agency Investments (Pg.2) - Converted section title from "Authorized Investment Section" to "Types of Agency Investments".

6) Types of Agency Investments (Pg.3) - Reduced ratings to "A" for medium term notes, municipal securities, and CDs, to give authorized investment advisors more investment flexibility.
7) Authorized Investments (Pg.9) - New section to list investment types authorized for staff and an investment advisor. Staff can only invest in municipal securities and CDs with a AAA rating.

In future years, staff will bring the Investment Policy to the Board for review and adoption at the June Board meeting.

Attachment:
- CMSA Financial Policy #531: Investments

POLICY #:	**531**
SECTION:	**FINANCIAL – TREASURY**
SUBJECT:	**Investments**
DATE:	**~~03/16/2017~~ 06/13/2017**

PURPOSE

The purpose of the Investment Policy is to provide guidelines for prudent investment of the Agency's cash. This Policy covers all funds and investment activities under the direction of the Agency in accordance with California Government Code Sections 53600, et seq.

STATEMENT OF INVESTMENT POLICY

Every June, the General Manager and Treasurer~~/Controller~~ shall submit to the Agency's Board this Investment Policy, where the Board shall review any changes in the policy and approve it at a public meeting.

OBJECTIVES

The Agency shall design and manage investments with a high degree of professionalism worthy of the public trust. The primary objectives, in order of priority of the Agency's investment activities, shall be:

I. Safety

Safety of principal is the foremost objective. Investments of Agency shall be made in a manner that seeks to ensure preservation of capital.

II. Liquidity

The investment portfolio shall remain sufficiently liquid to enable Agency to meet cash flow requirements which might be reasonably anticipated.

III. Yield

Investment return becomes a consideration only after the basic measurements of safety and liquidity have been met.

PRUDENCE

The Agency shall follow Section 53600.3 of the California Government Code that identifies as trustees those entities, i.e. California Asset Management Program (CAMP) and Local Agency Investment Fund (LAIF), authorized to make investment decisions on behalf of a local agency. ~~As a t~~Trustees are fiduciaries and are therefore subject to ~~, the standard of prudence shall be~~ the prudent investor standard when making investment decisions on behalf of the Agency. Investments shall be made with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the Agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of Agency.

DELEGATION OF AUTHORITY

The Board of Commissioners shall delegate authority to invest the Agency's funds for a one-year period to the Treasurer~~/Controller~~, who shall thereafter assume full responsibility for those transactions until the delegation of authority is revoked or expires. Subject to review, the Board may renew the delegation of authority each year. No person may engage in an investment transaction except as provided under the limits of this Policy.

The Treasurer~~/Controller~~ may delegate day-to-day investment decision-making and execution authority to an I~~i~~nvestment A~~a~~dvisor. The A~~a~~dvisor shall follow this Policy and such other written instructions as are provided.

The Treasurer~~/Controller~~ and the delegated staff acting in accordance with Policy and associated procedures and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and appropriate action is taken to control adverse developments.

INTERNAL CONTROLS

The Treasurer~~/Controller~~ shall establish a system of controls to regulate the activities of internal staff and any external investment advisors, and be responsible for all transactions undertaken by these persons. No person may engage in an investment transaction except as provided under the terms of this Policy, other Treasury and Internal Controls policies, and the associated procedures established by the Treasurer~~/Controller~~ and General Manager.

ETHICS AND CONFLICTS OF INTEREST

All participants in the investment process shall seek to act responsibly as custodians of the public trust according to this Policy and Policy # 503, *Ethics*. Officers and employees involved in the investment process shall refrain from personal business activities that could conflict with proper execution of the investment program, or which could impair their ability to make impartial investment recommendations and decisions.

~~AUTHORIZED~~ TYPES OF AGENCY INVESTMENTS

The Agency shall be governed by California Government Code Sections 53600, et seq. Within the investments permitted by the Government Code, the Agency seeks to further restrict eligible investments to those listed below. In the event an apparent discrepancy is found between this Policy and the Government Code, the more restrictive parameters shall take precedence.

The Agency's portfolio shall be diversified by security type and institution to avoid incurring unreasonable and avoidable risks regarding specific security types or individual financial institutions. Where this section specifies a percentage limitation for a particular category of investment, that percentage is applicable only at the date of purchase.

I. United States Treasury Issues

United States Treasury notes, bonds, bills, or certificates of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest. There is no limitation as to the percentage of the portfolio that may be invested in this category.

II. Federal Agency Obligations

Federal Agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises. There is no limitation as to the percentage of the portfolio that may be invested in this category; however, not more than 30 percent of the portfolio shall be placed in any one Agency. Furthermore, purchases of callable Federal Agency obligations are limited to a maximum of 20 percent of the portfolio. In addition, purchases of Federal Agency mortgage-backed securities issued by or fully guaranteed as to principal and interest by government agencies are limited to a maximum of 20 percent of the portfolio.

III. Medium-Term Notes

Medium-term notes, defined as all corporate and depository institution securities with a maximum remaining maturity of five years or less, issued by corporations organized and operating within the United States or depository institutions licensed by the United States or any state and operating within the United States. Eligible investment shall be rated ~~AAA~~ A by one or more nationally recognized rating service. A maximum of 30 percent of the portfolio may be invested in this category. The amount invested in medium-term notes with any one issuer in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

IV. Municipal Securities

Bonds, notes, warrants, or other evidences of indebtedness issued by the State of California or any California local agency. Securities eligible for purchase shall be rated ~~AAA~~A, as rated by one or more nationally recognized statistical-rating organization. A maximum of 30 percent of the Agency's portfolio may be invested in this category.

V. Negotiable Certificates of Deposit

Negotiable certificates of deposit (NCD) issued by a nationally or state chartered bank, a savings association or a federal association, a state or federal credit union, or a state-licensed branch of a foreign bank. No investments shall be made in a bank or credit union if a member of the Board, or any person with investment decision making authority also serves on the board of directors, or any committee appointed by the board of directors of the bank or credit union issuing the NCD. Purchases are limited to institutions which have long-term debt rated ~~AA~~ A or higher with a nationally recognized rating service; and/or have short-term debt rated at least A ~~AA-1~~ with a nationally recognized rating service. NCD may not exceed two years in maturity. A maximum of 30 percent of the portfolio may be invested in this category. The amount invested in NCD with any one financial institution in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

VI. Banker's Acceptances

Banker's Acceptances, otherwise known as bills of exchange or time drafts, are those which are drawn on and accepted by a commercial bank. Purchasers are limited to issuers whose short-term debt is rated A-1/P-1. Banker's Acceptances cannot exceed a maturity of 180 days. A maximum of 25 percent of the portfolio may be invested in this category. Furthermore, the amount invested in Banker's Acceptances with any one financial institution in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

VII. Commercial Paper

Commercial paper of prime quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized statistical-rating organization. The entity that issues the commercial paper shall meet all of the following conditions in either paragraph (A) or paragraph (B):

A. The entity meets the following criteria:

1) Is organized and operating in the United States as a general corporation.

2) Has total assets in excess of five hundred million dollars ($500,000,000).

3) Has debt other than commercial paper, if any, that is rated AA or higher by a nationally recognized statistical-rating organization.

B. The entity meets the following criteria:

1) Is organized within the United States as a special purpose corporation, trust, or limited liability company.

2) Has program-wide credit enhancements including, but not limited to, over collateralization, letters of credit, or surety bond.

3) Has commercial paper that is rated AA-1 or higher, or the equivalent, by a nationally recognized statistical-rating organization.

Eligible commercial paper shall have a maximum maturity of 270 days or less and not represent more than 10 percent of the outstanding paper of an issuing corporation. A maximum of 25 percent of the portfolio may be invested in this category. Furthermore, the amount invested in commercial paper with any one issuer in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

VIII. Repurchase Agreements

A. Repurchase agreements are to be used solely as short-term investments not to exceed 30 days. The Agency may enter into repurchase agreements with primary government securities dealers rated AA or better by two nationally recognized rating services. Counterparties should also have:

1) A short-term credit rating of at least A-1/P-1;

2) Minimum assets and capital size of $25 billion in assets and $350 million in capital;

3) Five years of acceptable audited financial results; and

4) A strong reputation among market participants.

B. The following collateral restrictions shall be observed:

1) Only U.S. Treasury securities or Federal Agency securities are acceptable collateral. All securities underlying repurchase agreements shall be delivered to the Agency's custodian bank versus payment or be handled under a properly executed tri-party repurchase agreement.

2) The total market value of all collateral for each repurchase agreement shall equal or exceed 102 percent of the total dollar value of the money invested by the Agency for the term of the investment.

3) For any repurchase agreement with a term of more than one day, the value of the underlying securities shall be reviewed on an on-going basis according to market conditions. Market value shall be calculated each time there is a substitution of collateral.

4) The Agency or its trustee shall have a perfected first security interest under the Uniform Commercial Code in all securities subject to repurchase agreement. The Agency shall have properly executed a PSA agreement with each counter party with which it enters into repurchase agreements. A maximum of 25 percent of the portfolio may be invested in this category.

IX. Time Certificates of Deposit

Time Certificates of Deposit (TCDs) placed with commercial banks and savings and loans. The purchase of TCDs from out-of-state banks or savings and loans is prohibited. The amount on deposit shall not exceed the shareholder's equity the financial institution. To be eligible for purchase, the financial institution shall have received a minimum overall satisfactory rating for meeting the credit needs of California Communities in its most recent evaluation, as provided Government Code Section 53635.2. TCDs are required to be collateralized as specified under Government Code Section 53630, et seq.

The Agency, at its discretion, may waive the collateralization requirements for any portion that is covered by federal insurance. The Agency shall have a signed agreement with the depository per Government Code Section 53649. TCDs may not exceed one year in maturity. A maximum of 20 percent of the portfolio may be invested in this category. Furthermore, the amount invested in TCDs with any one financial institution in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

X. Passbook Savings Accounts

Passbook savings accounts placed with commercial banks and savings and loans. To be eligible to receive deposits, the financial institution shall have received a minimum overall satisfactory rating for meeting the credit needs of California Communities in its most recent evaluation, as provided Government Code Section 53635.2. Passbook savings accounts are required to be collateralized as specified under Government Code Section 53630 et. seq.

The Agency, at its discretion, may waive the collateralization requirements for any portion that is covered by federal insurance. The Agency shall have a signed agreement with the depository per Government Code Section 53649. A maximum of 20 percent of the portfolio may be invested in this category. Furthermore, the amount invested in passbook savings accounts with any one financial institution in combination with any other investments from that financial institution or issuer shall not exceed 20 percent of the portfolio.

XI. Money Market Funds

Shares of beneficial interest issued by diversified management companies that are money market funds registered with the Securities and Exchange Commission under the Investment Company Act of 1940 (15 U.S.C. Sec. 80a-1, et seq.).

A. The company shall have met either of the following criteria:

1) Attained the highest ranking or the highest letter and numerical rating provided by not less than two nationally recognized statistical rating organizations.

2) Retained an investment adviser registered or exempt from registration with the Securities and Exchange Commission with not less than five years' experience managing money market mutual funds with assets under management in excess of five hundred million dollars ($500,000,000).

A maximum of 10 percent of the portfolio may be invested in this category.

XII. California Asset Management Program (CAMP)

Shares of beneficial interest issued by a joint powers authority organized pursuant to Government Code Section 6509.7 that invests in the securities and obligations authorized in subdivisions (a) to (n), inclusive of to Government Code Section 53601. There is no limitation as to the percentage of the portfolio that may be invested in this category.

XIII. State of California Local Agency Investment Fund (LAIF)

There is no limitation as to the percentage of the portfolio that may be invested in this category. However, the amount invested may not exceed the maximum allowed by LAIF

Authorized Investments

The Treasurer and/or the authorized Investment Advisor shall have the authority to invest the Agency's financial resources as shown in the table below.

Investment Type	Authorized for the Investment Advisor	Authorized for the AgencyTreasurer
United States Treasury Issues	X	X
Federal Agency Obligations	X	X
Medium-Term Notes	X	
Municipal Securities	X	X(1)
Negotiable Certificates of Deposit	X	X(2)
Banker's Acceptances	X	
Commercial Paper	X	
Repurchase Agreements	X	
Time Certificates of Deposit	X	X
Passbook Savings Accounts	X	X
Money Market Funds	X	X
CAMP	X	X
LAIF	X	X

(1) Municipal Securities must have an AAA rating.

(2) Negotiable Certificates of Deposit must have a minimum AA rating for long-term notes and AA-1 for short term notes.

TERM OF INVESTMENTS

It is the objective of the Agency to accurately monitor and forecast revenues and expenditures so that the Agency can invest funds to the fullest extent possible. Funds of the Agency shall be invested in accordance with sound treasury management principles.

Where this Policy does not specify a maximum remaining maturity at the time of the investment, no investment shall be made in any security, other than a security underlying a repurchase agreement, that at the time of the investment has a term remaining to maturity in excess of five years, unless the Board has granted express authority to make that investment either specifically or as a part of an investment program approved by the Board no less than three months prior to the investment.

PROHIBITED INVESTMENTS

Any investment in a security not specifically listed above, but otherwise permitted by the California Government Code, is prohibited. Section 53601.6 of the Government Code specifically disallows investments in invoice floaters, range notes, or interest-only strips that are derived from a pool of mortgages. In addition to the limitations in Government Code Section 53601.6, this Policy further restricts investments as follows:

I. No investment shall be made that has either (a) an embedded option or characteristic which could result in a loss of principal if the investment is held to maturity, or (b) an embedded option or characteristic which could seriously limit accrual rates or which could result in zero accrual periods.

II. No investment shall be made that could cause the portfolio to be leveraged.

III. Any security that could result in zero interest accrual if held to maturity shall not be made.

BANKS AND SECURITIES DEALERS

The Treasurer, with the concurrence of the General Manager, is authorized to make investments based on the recommendations of the Board approved investment advisor. For investments made by an investment advisor, the Board authorizes the investment advisor to use broker/dealers and financial institutions that the investment advisor has reviewed and approved for investment purposes. The investment advisor's approved list shall be made available to the Agency upon request.

PURCHASE, PAYMENT, DELIVERY, AND SAFEKEEPING

A competitive bid process shall be used to place all investment transactions. All security designated by the Treasurer.

The only exception to the foregoing shall be depository accounts and securities purchases made with:

I. Local government investment pools;

II. Time certificates of deposit, and,

III. Money market mutual funds, since the purchased securities are not deliverable.

Evidence of each of these investments shall be held by the Treasurer~~/Controller~~.

PERFORMANCE

The Agency seeks to attain market rates of return on its investments throughout economic cycles, consistent with constraints imposed by its safety objectives and cash flow consideration. The Treasurer shall continually monitor and evaluate the portfolio's performance.

REPORTING

The Treasurer shall submit a monthly investment report to the Board. The report shall include the following information for each individual investment: description of investment instrument, issuer name, maturity date, credit rating, yield to maturity, purchase price, par value, current market value and the source of the valuation.

The report also shall:

I. State compliance of the portfolio to the statement of investment policy, or manner in which the portfolio is not in compliance,

II. Include a description of any of the Agency's funds, investments or programs that are under the management of contracted parties, including lending programs, and

III. Include a statement denoting the ability of the Agency to meet its expenditure requirements for the next six months, or provide an explanation as to why sufficient money may or may not be available.

The report shall include a list of monthly investment transactions. This monthly report shall be submitted with the Board's monthly meeting agenda for public review.

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: Revised Purchasing Financial Policy

Recommendation: Approve the revised Purchasing Policy, Financial Policy #562.

Summary: Attachment A of the Agency's Purchasing Policy lists positions that are authorized by the Board to have and use Agency purchase cards, Visa CalCards. In October 2016, the Board approved revisions to Attachment A due to the separation of the Environmental Services Manager and replacement of the Safety Director classification with a Health & Safety Manager position. In November 2016, the Board approved an Agency reorganization, where the Environmental Services and Engineering Departments were combined into a new Technical Services Department, and a Laboratory Director classification replaced the Environmental Services Manager position. With these changes, minor revisions are proposed for Attachment A, to reflect the new department and add the laboratory director as a position authorized to use the CalCard.

Attachment:
- Revised Financial Policy #562: Purchasing

POLICY #:	**562**
SECTION:	**Financial – Procurement Management**
SUBJECT:	**Purchasing**
DATE:	**~~10/12/16~~ 6/13/17**

PURPOSE

The purpose of the Purchasing policy is to provide Agency staff with the direction to ensure continuity and uniformity in its purchasing operation for non-contract procured goods and services.

PROCUREMENT METHODS

This Purchasing Policy is associated with Policy #560, *Signature Authority*, which defines the signature responsibility and approval levels within the Agency for specific types of procurement transactions. The process for complying with each method of procurement is explained below.

I. Blanket Purchase Order

At the beginning of each fiscal year, finance staff shall establish and distribute a list of blanket purchase order (open account) numbers, based on requests by department managers, to be used for purchases less than $500. Agency staff shall communicate to the vendor the specific assigned purchase order (PO) number when making purchases to ensure the number is on all vendor invoices and related documents.

In lieu of creating an open account, vendors may provide business credit cards to the Agency. With discretion, the General Manager shall approve applications for these types of cards after review by the Administrative Services Manager. The cards shall be used for purchases of less than $500, and may only be used at the business where the card was issued. Department managers shall designate the employees who are allowed to use these types of cards when purchases need to be made. Until an invoice is received, the designated employees or the Personnel and Accounting Technician shall keep a record of the purchase (i.e., receipt, packing slip) to provide supporting documentation for invoice or statement payment processing. These cards shall be governed by the Use of Card policies stated under the Purchase Card section below.

II. Purchase Order

Agency staff shall use a purchase order for purchases for, 1) vendors with open accounts in amounts greater than or equal to $500, or, 2) vendors without open accounts. All purchase orders shall be in writing using the appropriate form and documentation, have the appropriate approvals, and be submitted to the vendor for processing.

III. Petty Cash

Agency staff may use petty cash for purchases of $50 or less with vendors unable to establish an open account with the Agency and for necessary small infrequent expenses. These expenses may include supplies, parts, bridge tolls, attendance at offsite meetings and trainings, multi-Agency meetings, etc. All requests for petty cash disbursements shall be in writing using the appropriate form and approved by the department manager. The General Manager may authorize a petty cash disbursement greater than $50 if it is determined to be a prudent and appropriate payment or reimbursement method, and in the best interest of the Agency. Petty cash disbursements are made by the Administrative Assistant, Administrative Services Manager, or other employees designated by the General Manager.

IV. State of California Purchase Card Program

The Board of Commissioners shall approve the number and type of management, supervisory, and administrative positions that are authorized to use purchase cards (credit cards). The General Manager shall issue the cards to the specific employees (cardholders) and establish procedures for the appropriate use for making Agency-specific purchases when the above purchasing methods are impractical, inefficient, or not applicable. Monthly credit limits shall be set at $3,000 for supervisors/designated staff and $5,000 for department managers.

The Administrative Services Manager will serve as the administrator of the Agency's purchase cards. He/she will manage the Agency's account in accordance with the requirements of the Purchase Card Program and the Agency's policies, including, but not limited to, assigning purchase cards and purchase limits to authorized employee card holders, collecting and cancelling cards as needed, and reviewing purchase card transactions.

A. <u>Use of Card</u>

The cardholder shall be the only person authorized to sign for purchased items and shall be the only person to authorize telephone and online transactions using the purchase card. Cardholders shall not give or authorize use of their card to another employee without the General Manager's approval. The employee who is assigned a purchase card is responsible for safeguarding the card as well as ensuring proper use of the card.

Department managers ensure that purchase card use in their respective departments is consistent with this Policy and other related procedures. Each cardholder is responsible for keeping a record of the purchase (i.e., receipt, packing slip) to document purchases on the purchase card's account statement. An approved purchase order is required before using the purchase card for any transactions over $500, except for employee-related travel where a "Pre-

Authorization for Employee Travel" form is required. An approved travel preauthorization is required when using the purchase card for transactions related to training or travel on Agency business. Department managers are ultimately responsible for monitoring and approving all purchase card transactions within their department.

The Purchase Card shall not be used for the following purchases:

1) Professional services (labor costs)
2) Contract services
3) Capital/construction costs
4) Cash advances/personal use
5) Purchase of firearms, liquor, or cigarettes
6) Per diem meal allowance
7) Items for personal, non-Agency use

B. Lost or Stolen Card

If an Agency purchase card is lost or stolen, the cardholder shall immediately report this to the Administrative Services Manager so that he/she can notify the Purchase Card Program.

C. Misuse of the Card

Any misuse of the purchase card or violations of the Purchase Card Program guidelines or this Policy, including, but not limited to, personal use of the purchase card, shall result in the loss of purchase card privileges. All cardholders are subject to disciplinary actions for misuse and misappropriations of Agency funds. Cardholders who use or allow use of the card for personal purposes shall reimburse the Agency for all incurred charges.

ATTACHMENT A

Positions Authorized to Have Purchase Card
(Board Approved as of 10/11/2016)

Department	Position	Limit
Administration	General Manager	$10,000
Administration	Administrative Services Manager	$5,000
Administration	Treatment Plant Manager	$5,000
Administration	Health and Safety Manager	$3,000
~~Engineering~~Technical Services	~~Engineering~~ Technical Services Manager	$5,000
	Laboratory Director	$3,000
Maintenance	Maintenance Supervisor	$3,000
Maintenance	Assistant Maintenance Supervisor	$3,000
Maintenance	Assistant Maintenance Supervisor-Electrical	$3,000
Maintenance	E/I Technician (1)	$3,000
Operations	Operations Supervisors (2)	$3,000

Form

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

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

Subject: **Proposed Budget for the Fiscal Year 2017-18**

Recommendation: Approve and adopt the Proposed Budget for the Fiscal Year 2017-18 as presented.

Summary: Staff presented a draft Proposed Budget for FY 17-18 at the May 9, 2017 Board meeting. There were no comments received or requested changes, and the Board directed staff to prepare the final draft Proposed Budget and bring it to the June meeting for review and consideration of adoption. The Proposed FY 17-18 Budget is enclosed in Board member agenda packets, and is available on the Agency website (www.cmsa.us) for viewing and downloading.

Discussion: During the presentation of the draft FY 17-18 Proposed Budget at the May meeting, staff informed the Board that the budget documents did not include an updated 10-year forecast, and it would be presented at the June meeting. The Agency's Proposed Budget is balanced, and condensed financial information is as follows:

Total funding requirements:	$19,109,346
Total funding sources:	17,606,747
Reserve usage:	$ 1,502,599

The final draft proposed budget consists of five parts - revenues, operating expenses, a 10-year capital improvement program (CIP), a 10-year financial forecast, and an appendix of reference tables specific to budget development. The operating portion of the budget is funded by regional sewer service charges and contract service revenues, while the capital portion is funded by capacity charges, debt service coverage, and unrestricted capital reserves. The reserve usage shown above is from the unrestricted capital reserve.

The enclosed budget includes an updated and reformatted 10-year financial forecast of its revenues, expenditures, CIP, and reserve balances for use as an analytical tool to make strategic decisions for future operating and capital expenses, use of reserves, and to assist with the preparation of the Agency's next multi-year revenue plan. Over the past month finance staff updated the format of the 10-year forecast to be more comprehensive and improve readability/understandability. The forecast begins with the FY 17-18 budget figures, which are used to project future year revenues and expenses based upon specific assumptions. Staff has assigned assumptions for the escalation of operating expense categories and minor revenue sources. A cost escalation for regional sewer service charges has not been included beyond FY 17-18, which is the last year in the current 5-year revenue program. This fall, staff and the Finance Committee will begin development work on the next revenue program for presentation to the Board in early 2018.

As presented, the forecast shows the Agency can operate from reserves for two additional years beyond the FY 17-18 budget year, for the fiscal years 2018-19 and 2019-20. Beyond the FY 2019-20, the Agency can no longer operate without an increase to the regional sewer service charges. The forecast also reflects reserve transfers as applicable to maximize CIP funding, and that minimum reserve balances of 25% of operating costs are maintained through the fiscal year 2019-20.

The Agency submitted its adopted FY 16-17 budget to the Government Finance Officers Association of the United States and Canada for consideration of the Distinguished Budget Presentation Award. The Agency has received this prestigious award for the past six consecutive fiscal years, and after the Proposed FY17-18 Budget is adopted it will be converted into the GFOA version for submittal for the award.

Enclosure:
- Final Draft Proposed Budget for the Fiscal Year 2017-18

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: Agency Comments on LAFCO's Draft Central Marin Wastewater Study

Recommendation: Review the comments on LAFCO's draft Central Marin Wastewater Study, and provide direction to staff regarding preparation of an Agency response letter.

Discussion: The Marin Local Agency Formation Commission (LAFCO) released its Draft Central Marin Wastewater Study (Study) for public review in April 2017, and Agency comments are due by Friday, June 30, 2017. Keene Simonds, LAFCO's Executive Director, attended the May 9 Board meeting, presented the Study findings and recommendations, and answered Board member questions. Staff presented options to prepare an Agency response, and the Board asked individual commissioners to submit their comments to staff by the end of May and then for staff to summarize and present them at the June Board meeting for discussion. Comments on several of the Study's general conclusions and recommendations are presented below, as well as staff comments on the revised Agency profile.

Study General Conclusion and Recommendation Comments: The Study has twelve general conclusions and eleven recommendations. Several of each were discussed with Mr. Simmonds at the May meeting, and specific Board comments are summarized below.

<u>General Conclusion No.1</u> - Agencies Substantive Influence on Growth in Marin County

<u>Comment</u>: Growth and development is determined and approved by land use planning agencies, local city and town councils and/or the County Board of Supervisors, who have that statutory authority. Wastewater agencies do not have any decision-making authority on growth, and do not influence the planning and approval process as they don't possess any general planning powers under their enabling legislation. CMSA provides wastewater treatment based on available capacity for those developments approved by others.

In Central Marin, all wastewater agencies experience extensive rainwater and groundwater inflow and infiltration (I&I). This requires facilities to handle peak wet weather flows that are often ten times or greater than dry weather flows. It is a problem that all of the agencies are currently working to address and will continue to devote considerable effort on in the future.

However, this I&I issue means that the agencies have virtually no influence on growth, as they are already oversized for the limited growth that a municipality and the County may allow.

<u>General Conclusion No. 3</u> - Increasing Diseconomies of Scale

<u>Comment</u>: There is no justification for this statement. In fact, a national rating agency, Standard and Poors (S&P), would disagree. S&P has recently rated one agency "AAA" and others "AA+" and "A+." These are extremely high credit ratings and are for bond issues with 25-to 30-year terms. The discussion that limited growth in Central Marin will cause future diseconomies of scale implies that bigger is less expensive. Not so, as one needs to look no further than San Francisco, a densely populated area. A residential customer with 10 hundred cubic feet of water consumption would currently pay $101.66 per month ($1,220/yr) increasing to $1,339/yr effective July 1, 2017. The discussion also ignores the fact that the CMSA treatment plant was itself a consolidation that eliminated four smaller and less efficient plants with one facility with an excellent operating record. The real economies of scale are with treatment, not with collection systems.

<u>General Conclusion No.7</u> - Wastewater Demands Deintensifying During Normal Conditions
<u>General Conclusion No.8</u> - Wastewater Demands Intensifying During Peak-Day Conditions

<u>Comment</u>: If these interpretations are correct, dry-weather flows are declining because of water conservation, which our agencies support, and is not a problem for wastewater agencies. Wet-weather flows are high because of I&I, but I&I is not increasing. In fact, with new technology such as smart covers (manhole covers with flow sensing devices) agencies are now able to locate and correct major inflow sources. Wet-weather flows are likely to decrease markedly in the next few years.

<u>Recommendation #2</u>
"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 local land use authorities with more certainty with respect to their ability to forecast and accommodate new development within their jurisdictional boundaries going forward."

<u>Comment</u>: A wastewater agency's job is to provide service where it is needed. CMSA provides treatment of all wastewater flows from its service area that are resultant from development actions of the cities and County areas served. The strength of CMSA is the regional ability to operate, improve, and finance treatment facilities in the most economic and reliable manner. We believe there no beneficial reason to allocate treatment capacity. CMSA does not influence or enhance regional growth management - this statement should be deleted from the report.

The LAFCO suggestion is a model that has been used by some JPA's that allocated capacity at the time of their creation. A problem results when one agency runs out of capacity. The solution offered is that the agency could buy capacity from another agency that has remaining capacity. However, the other agencies either won't sell any capacity or if willing, they would charge the cost of providing future capacity. This means that any advantages from economies of scale would be lost, as the resources of only one agency would be used to fund future capacity. There are several examples of this situation.

Recommendation #4

"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."

Comment: LAFCO should recommend the form of the reorganized CMSA governing board structure given the recommendation. If Larkspur is removed from the CMSA Board, would another agency obtain the vacant seat, or would the seat be eliminated, reducing the Board size to five seats?

Revised Agency Profile Comments: Staff reviewed the revised Agency Profile section to determine which of the Agency's most recent comments have or have not been included in the draft Study. Most previous comments have been addressed, and others that should be considered are shown as handwritten comments in the attached Agency Profile section. Significant remaining comments, similar to those presented in a December 2016 comment letter from Chair Hartzell, are associated with the study term, the treatment demand versus capacity graphs, and using depreciation in financial metrics.

Study Term: The current study term is from 2010 to 2014. Staff believes a study term through 2016 is more appropriate, so the information presented in the Study and used its various analyses are reasonably current and accurate. If the LAFCO Commission is agreeable with extending the term, staff will provide the necessary 2015 and 2016 data.

Peak Flow Demand vs. Capacity Graphs: 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, which is incorrect. 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 during significant storm events. Staff suggests adding peak hourly and maximum peak wet weather flows, which will show volumes over 110 MG per day that are much closer to maximum capacity.

Agency Finances Section: Financial information presented throughout this section 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 the basis of cash flow, budgetary, and financial management 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 a cash expense, which is customary 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.

Attachments:
- Central Marin Wastewater Study – Draft Report Takeaways
- May 3, 2017 Study comment letter from the City of Larkspur
- Revised Agency profile with staff comments

Marin Local Agency Formation Commission

Regional Service Planning | Subdivision of the State of California

Central Marin Wastewater Study

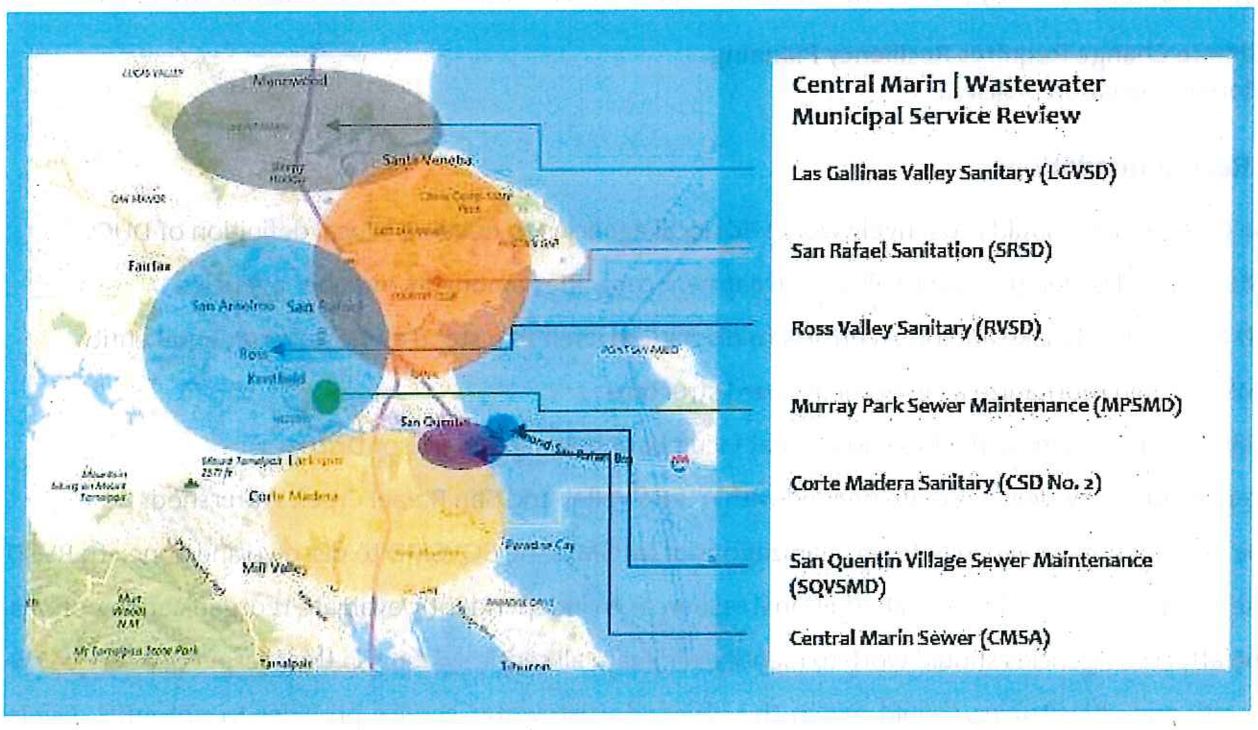
Draft Report Takeaways

Why…

State law directs all LAFCOs to prepare municipal service reviews every five years to proactively and independently assess the availability, range, and performance of local governmental services relative to current and future needs. These studies serve as the source document in (a) guiding subsequent sphere of influence updates, (b) informing future boundary changes, and (c) initiating – if merited – government reorganizations, such as formations, consolidations, and/or dissolutions. These studies must culminate with LAFCO adopting written determinations addressing specific factors listed under G.C. Section 56430 and include infrastructure needs or deficiencies, growth and population projections, financial standing, and opportunities and merits for government reorganizations.

What…

The underlying aim of the study is to independently assess the relationship and influencing factors therein in Central Marin between public wastewater demands versus collection, treatment, and disposal capacities based on recent data (2010-2014) and relative to the Commission's regional growth management duties and interests. This includes – and among other items – fulfilling the Legislature's direction to assess the effectiveness of the current governance relationships underlying wastewater services and to consider the merits of any potential alternatives. A listing of the seven affected agencies included in the study follow.



General Conclusions ...

No. 1 | Agencies' Substantive Influence on Growth in Marin County
- LAFCO projects the affected agencies collectively serve 48% of the entire Marin County population

No. 2 | Service Areas are Nearing Current Residential Buildout; Growth Exceeding Earlier Estimates
- LAFCO projects the affected agencies are collectively at 89% of current residential buildout

No. 3 | Increasing Diseconomies of Scale
- Combined increases in operating expenses has outpaced operating revenues by more than three-fold

No. 4 | Variation in Civic Engagement; Board Type Matters
- Civic engagement appears highest within the two independent agencies: LGVSD and RVSD

No. 5 | Immediate Merit to Reorganize MPSMD and SQVSMD
- RVSD appears readily capable in directly assuming service / governance control

No. 6 | Additional Merit to Explore Regional Consolidation
- Determine if notional benefits of consolidation are real and warrant proceeding with reorganization

No. 7 | Wastewater Demands Deintensifying During Normal Conditions
- Overall relative wastewater demands have declined by 20% on a per capita basis (133 gallons to 111 gallons)

No. 8 | Wastewater Demands Intensifying During Peak-Day Conditions; Increasing Impacts from I/I
- Overall relative peak day demands have increased by 6% on a per capita basis during the study

No. 9 | Collection System Capacities are Sufficient to Accommodate Demands Now and Over Next Ten Years
- The highest agency demand -to-capacity ratio during peak day periods was 72% with RVSD

No. 10 | Treatment Capacities are Sufficient to Accommodate Demands with Some Stress
- Average peak and dry weather flows within CMSA's service area equals 79% and 89% respectively

No. 11 | Near-Term Finances in Generally Good Shape
- Agencies finished study period with available capital with no more than 54% of debt relative to net assets

No. 12 | Climate Change Requires Resiliency Planning
- More information please...

Specific Recommendations...

No. 1 | The Commission should proactively work with local agencies to develop a local definition of DUCs

No. 2 | CMSA should develop a plan to allocate treatment capacities among its member agencies

No.3 | CSD No. 2 should make additional efforts to distinguish itself as a stand-alone governmental entity

No. 4 | CMSA should reorganize its governing board structure

No. 5 | SRSD should designate the lone board seat incumbent holding Supervisor District 1

No. 6| Agency boundary cleans ups are needed within Ross Valley and San Rafael Creek Watersheds

No. 7 | The Commission should initiate reorganizations of MPSMD and SQVSMD to dissolve and annex to RVSD

No. 8 | The Commission should commit additional resources to independently evaluate reorganization options

No. 9 | The affected agencies should work to identify/eliminate all septic systems in their respective service areas

No.10| County and cities/towns should match the affected wastewater service provider to potential development opportunities in housing elements

City of Larkspur

400 Magnolia Avenue, Larkspur, California 94939
Telephone: (415) 927-5110 Fax: (415) 927-5022
Website: www.cityoflarkspur.org

May 3, 2017

Submitted via email to: rjones@marinlafco.org

Rachel Jones, Administrative Analyst
Marin Local Agency Formation Commission
1401 Los Gamos Drive, Suite 220
San Rafael, CA 94903

SUBJECT: *Central Marin Wastewater Study*, dated April 17, 2017

Ms. Jones:

At its May 3, 2017 meeting, the City Council reviewed the above-referenced study and wishes to express its appreciation to the Commission for its efforts to evaluate wastewater services in the Central Marin area. All Marin agencies share the desire that wastewater collection and treatment services are delivered to the ratepayers in the most efficient and cost-effective manner possible.

The Council is responding specifically to recommendation No. 4 of the study, which states:

> *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.*

The Council wishes to note for the record that while the City of Larkspur has not provided wastewater collection services since 1993, it has remained an active and engaged participant in wastewater matters through its seat on the board of the Central Marin Sanitation Agency (CMSA). The Council believes its appointees to the CMSA Board have added value to important discussions about wastewater treatment services for the ratepayers.

The Council does recognize, though, that CMSA is a joint powers authority intended to provide a service to wastewater collection agencies. The study does not recommend a new governance structure for CMSA, and it is difficult for the Council to take a position on this recommendation without understanding and considering the implications of a proposed new governance structure.

Accordingly, the Council believes it is appropriate for the CMSA Board to consider this recommendation and, if it is the desire of the Board, to propose a governance structure that complies. The City of Larkspur is prepared to participate in discussions about governance proposals for CMSA, and to support a governance structure that the City Council believes best represents Larkspur ratepayers.

Sincerely,

Kevin Haroff, Mayor

G. CENTRAL MARIN SANITATION AGENCY

1.0 OVERVIEW

Corte Madera Creek

Courtesy / Visit Marin

The Central Marin Sanitation Agency (CMSA) formed in 1979 to provide wastewater treatment and disposal services on behalf of its four-member agencies located in east-central Marin County. The four-member agencies are County Sanitation District No. 1, County Sanitation District No. 2, San Rafael Sanitation District, and City of Larkspur. Governance is provided by a six-person commission whose members are appointed and serve at the discretion of the appointing member agency. CMSA's contracted service area – which is the sum of its four-member agencies' jurisdictional boundaries – spans approximately 36.3 square miles and overlaps nine land use authorities with the County of Marin's unincorporated area accounting for 40% of all acreage. The remainder of CSMA's contracted service area in terms of land use authorities is divided by the City of San Rafael at 19%, City of San Anselmo at 15%, Town of Fairfax at 12%, Town of Corte Madera at 6%, Town of Ross at 4%, City of Larkspur at 3%, Town of Tiburon at 2%, and the City of Mill Valley at less than 1%.

CMSA is organized as a legally autonomous joint-powers authority (JPA) with the delegated powers from its four-member agencies to collect, treat, reclaim, and dispose of wastewater generated within the contracted service area. CSMA may provide additional municipal services so long as the subject services are authorized active powers of each of the member agencies and delegated therein limited by the Sanitary District Act of 1923. CMSA maintains its own employees with responsibilities headlined by managing a wastewater treatment and disposal facilities located in San Rafael along the North San Quentin Point. CMSA is also contracted by the State of California to treat and dispose wastewater received from nearby San Quentin State and

CMSA's power from:
1) JPA
2) members per government code
3) Sanitary Act of 1923

therein also from the San Quentin Village Sewer Maintenance District. CMSA's adopted operating budget was $10.082 million and with funding dedicated for the equivalent of 41 employees as of the study term (2014). The unrestricted fund balance was $14.201 million with an associated days-cash ratio totaling 448; i.e., the amount of cash on hand to cover operating expenses based on 2013-2014 actuals.

Central Marin Sanitary Agency	
Formation Date:	1979
Principal Act:	Government Code Sections 6500 et seq.
Service Categories:	Wastewater Treatment and Disposal
Service Population	95,428 (all) 4,088 (direct customers)
Governance Type:	Dependent

The Commission independently estimates the resident service population within CMSA's contracted service area is 95,428 as of the term of the study term.[74] It is also projected CMSA's contracted service area population growth rate over the five-year study period has averaged 0.61% annually. Overall it is also estimated by the Commission that nearly three-fourths of the contracted service boundary within the four member-agencies has been developed and or improved – though not necessarily at the highest density. This means the remaining one-fourth of the contracted service area remains entirely undeveloped with 1,596 existing unbuilt and privately owned parcels zoned for some type of urban use by one of the land use authorities.[75]

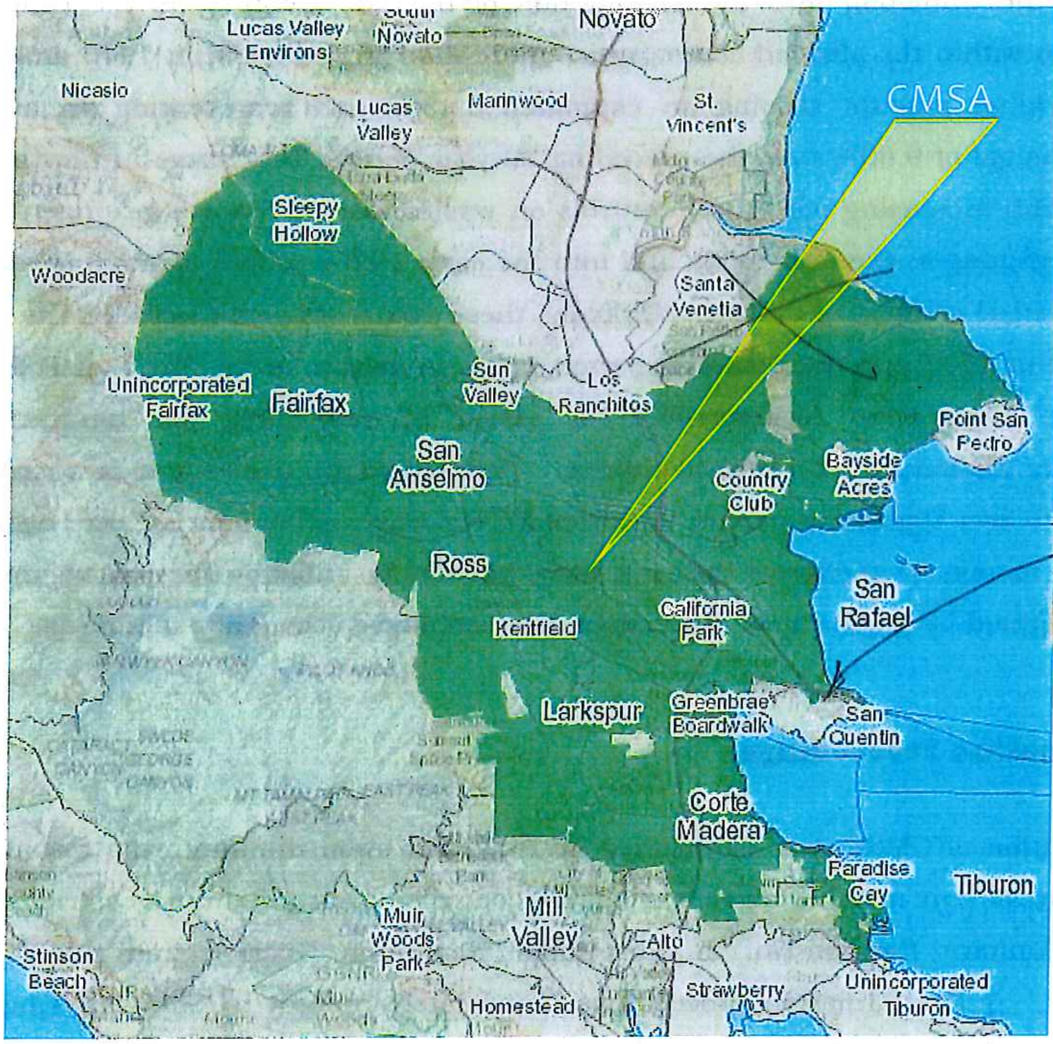
2.0 BACKGROUND

2.1 Community Development

CMSA's contracted service area began its collective transition from agrarian to urban development starting in the late 1800s and most intensely experienced in San Rafael. This transition was marked by the population within the affected communities nearly doubling from 6,274 in 1900 to 10,993 in 1920; a net change of 75% or 3.76% annually over the 20-year period. Increasing accessibility to the region as a result of transportation investments coupled with comparatively cheap land prices maintained and advanced the development of the affected communities heading towards mid-

[74] The resident estimate includes the design housing capacity at San Quentin State Prison of 4,000.
[75] Additional analysis is needed to assess the actual development potential of the 1,596 unbuilt parcels.

century with the estimated combined population reaching 20,968 by 1940; a net change of 92% or 4.59 annually over the preceding 20-year period.



CMSA is located here

In step with the ongoing development of the east-central region heading into the 1950s four separate wastewater agencies had been formed to handle the collection and disposal of sanitary flows for the affected communities. These four agencies – County Sanitary District No. 1, County Sanitary District No. 2, San Rafael Sanitation District, and the City of Larkspur – were all operating their own collection systems. Two of these agencies – County Sanitary District No. 2 and City of Larkspur contracted with County Sanitary District No. 1 to provide treatment and disposal of wastewater at the latter agency's Larkspur Landing Facility. San Rafael Sanitation District owned and operated its own two treatment plants.

CSMA's future service area experienced a new level of growth and development following the transition into the second half of the 20th Century as the estimated population within the affected communities more than tripled between 1940 and 1970 with the latter amount tallying an estimated 81,362 and representing an average annual change of 9.60% over the preceding 30-year period. This surge in new growth coupled with increasing regulatory controls on wastewater discharges into open water bodies beginning in the late 1960s and into the early 1970s proved seminal in leading to the eventual creation of CSMA. Markedly, these new regulations included the Clean Water Act of 1972 and the resulting permit program known as the National Pollutant Discharge Elimination System (NPDES) aimed at regulating the treatment of wastewater discharges into surface waters. This legislation also – and in support of California's own legislative version – provided a funding mechanism for local agencies to receive monies to construct the necessary facilities in fulfilling the new regulations and highlighted by requiring all discharges meet enhanced secondary standards.

2.2 Formation Proceedings

The formation of CMSA was established in 1979 and upon the approving resolutions enacted by all four member agencies' boards/councils: County Sanitary District No. 1; County Sanitary District No. 2; San Rafael Sanitation District, and the City of Larkspur. [The formation proceedings immediately preceded CSMA applying and receiving grant money that was reimbursed to construct and operate a new regional wastewater treatment facility on the north side of San Quentin Point along with its Central Marin Wastewater Improvements.]

Process was:
1) JPA formed
2) CMSA & Central Marin Clean Water projects approved by EPA.
3) CMSA applied for & secured grants
4) After construction, expenses reimbursed by grants

2.3 Post Formation Activities

A summary of notable activities undertaken by CSMA and/or affecting the agency's contracted service area following formation in 1979 is provided below.

- CSMA completes construction on a new regional wastewater treatment facility and begins receiving sanitary flows from its member agencies in January 1985. The facility was constructed at a cost of $84 million with approximately 87.5% being funded by federal and state grant monies.

- CMSA completed a planned expansion of the treatment facility to expand the total daily capacity during wet-month periods from 90 to 125 million gallons in 2010.

3.0 BOUNDARIES

3.1 Boundary Type / Contracted Service Area

The Commission has not established a jurisdictional boundary or sphere of influence to CSMA given the agency's formation as a JPA; only cities, towns, and special districts are directly overseen by LAFCOs under current State law. As such, CMSA's service area is statutorily tied to matching its four-member agencies' jurisdictional boundaries, and as such spans approximately 36.3 square miles in size and covers 23,246 total acres (parcels, right-of-ways, water bodies). Nine land use authorities overlap the service area. The County of Marin is the predominant land use authority and accounts for an estimated 40% of CMSA's service area. Another 19% of the service area falls under the land use authority of the City of Rafael. The remainder of the service area is divided among the land use authorities of San Anselmo at 15%, Fairfax at 12%, Corte Madera at 6%, Ross at 4%, Larkspur at 3%, Tiburon at 2%, and Mill Valley at less than 1%.

CMSA's contracted service area spans 36.3 square miles and overlaps nine land use authorities with the County of Marin being the largest with the unincorporated area covering 40%.

Total assessed value (land and structure) within CMSA is calculated at $25.196 billion and

Assessed land values in CMSA's contracted service area totals $25.196 billion, and equates to a per capita share of $0.264 million based on a service population of 95,428.

translates to a per acre value ratio of $1.083 million. This former amount – $25.196 billion – further represents a per capita value of $0.264 million based on the estimated service population of 95,428. CMSA does not receive any property tax proceeds.

CMSA Contracted Service Area Breakdown: Land Use Authorities
Table 4.113 | Source: Marin LAFCO

Agency	Assessor Parcel Acres	Assessor Parcel Acres % of Total	Total Assessor Parcels	Total Residential Units
County of Marin	6,491	39.5	7,103	5,999
San Rafael	3,188	19.4	10,672	15,454
San Anselmo	2,440	14.9	5,482	6,279
Fairfax	1,904	11.6	3,173	3,900
Corte Madera	897	5.5	3,390	3,910
Ross	676	4.1	847	883
Larkspur	542	3.3	2,522	3,580
Tiburon	299	1.8	442	435
Mill Valley	1	0.0	1	0
	16,441	100	33,632	40,440

As provided in the preceding table there are overall 16,441 assessor parcels currently within CMSA's contracted service area and collectively add up to 33,632 acres as of June 2016. Close to three-fourths – or 72% – of the current assessor parcel acreage have already been developed/improved to date, albeit not necessarily at the highest zoning density. This existing development is highlighted by the standing construction of 40,400 residential units and divided between single-family and multi-family on a 68% to 32% split. The remaining one-fourth plus – or 28% – of the current assessor parcel acreage is undeveloped/unimproved. This includes 1,596 un-built and privately owned assessor parcels that are zoned for some type of urban use by the subject land use authority.

Almost three-fourths of CMSA's contracted service area has already been developed or improved – though not necessarily at its maximum density. This means the remaining one-fourth of the service area remains entirely undeveloped. This includes 1,596 un-built and privately owned parcels zoned for some type of urban use by the subject land use authority.

CMSA Boundary Breakdown: Land Use Features
Table 4.114 | Source: Marin LAFCO

% Parcel Acres Already Developed	Residential Built Units	% of Units Built as SFR	Unbuilt Private Parcels	Unbuilt Private Parcel Acres
71.9	40,400	67.9	1,596	9,450

4.0 DEMOGRAPHICS

4.1 Population and Housing

CMSA's resident population within its contracted service area is independently estimated by the Commission at 95,428 as of the term of the study. This projection – which is the sum of individual calculations performed for the member agencies along with taking into account San Quentin State Prison – represents 36.6% of the estimated countywide population. It is also projected CMSA has experienced an overall growth rate of 3.03% over the preceding five-year period or 0.61% annually; all of which generated an estimated net add of 2,805 persons. This projected increase has been generated by the addition of an estimated 934 new occupied housing units within the contracted service area as well as aided by an intensification of household sizes over the span of the five-year period starting at 2.39 in 2010 and ending at 2.41 in 2014; the latter being a net intensity increase of 0.89%.

LAFCO estimates there are 95,428 total residents within CMSA's contracted service area that are explicitly served by the District's wastewater treatment system as of the term of the study. It is further estimated CMSA has experienced an overall population increase of 2,805 over the preceding five-year period.

CMSA Resident Population: Past and Current Estimates
Table 4.115 | Source: Marin LAFCO

Factor	2010	2011	2012	2013	2014
e) San Rafael Sanitation	39,381	39,191	39,906	40,192	40,744
b) County Sanitary District No. 1	39,454	39,261	39,974	40,259	40,809
c) County Sanitary District No. 2	9,788	9,680	9,794	9,802	9,874
d) San Quentin State Prison	4,000	4,000	4,000	4,000	4,000
Estimated Population	92,623	92,132	93,674	94,253	95,428

** rounded for reporting purposes*
** County Sanitary District No. 1 and 2 collectively account for the City of Larkspur*

With respect to going forward, and for purposes of this review, it is reasonable to assume the growth rate among CMSA's member-agencies will generally match the preceding five-year period and produce an overall yearly population change of 0.61%.

The substantive result of this assumption would be an overall increase in CMSA's resident population of 5,977 and produce a total of 101,405 by 2024. This growth rate, similarly, would generate the addition of 2,569 new and occupied housing units within CMSA through 2024 assuming the preceding five-year average ratio of 2.41 persons for every one occupied housing unit holds. These collective projections are summarized below.

CMSA Resident Population: Future Estimates
Table 4.116 | Source: Marin LAFCO

Factor	2014	2016	2018	2020	2022	2024
Estimated Population	95,428	96,592	97,771	98,966	100,178	101,405
Occupied Housing Units	38,256	38,900	39,311	39,810	40,313	40,825
- residents to housing units	2.39	2.38	2.39	2.39	2.39	2.39

** Estimated population totals include a flat 4,000 assignment each year for the San Quentin State Prison; this addition is excluded in calculating the residents to housing units' ratio*

4.2 Residency Type

The Commission projects CMSA's residential unit total (occupied and unoccupied) of 40,440 as of the study term is divided between single family and multi-family use at 67.9% (27,439) and 32.1% (13,001), respectively. These totals produce an estimated ratio of 2.1 to 1 with respect to single-family to multi-family units.

4.3 Social and Economic Indicators

A review of recent demographic information covering the CMSA contracted service boundary for the study period shows fulltime residents' economic and social standing generally matches countywide averages with certain notable exceptions. These exceptions include higher levels of unemployment and poverty rates within CMSA with both measurements having increased over the study period by more than 50%. CMSA residents were also more than three times more likely to work at home compared to countywide averages during the 60-month period.

CMSA's fulltime residents generally match countywide averages with respect most measured social and economic indicators, and highlighted by a similar median household income rate of $93,647 generated during the study period. Nevertheless, certain distinctions exist and this includes CMSA experiencing increasingly higher rates of unemployment and poverty levels within its contracted service boundary with both referenced measurements increasing by more than one-half over the study period.

Nonetheless, the median household income as of the study period totaled $93,647 and slightly above the countywide amount of $91,529. Median age, commute time, and household tenure relative to Proposition 13 (1979) within CMSA all finished within comparable countywide amounts.

CMSA: Resident Trends in Social and Economic Indicators
Table 4.117 | Source: Marin LAFCO / American Community Survey

Category	2005-09 Averages	2010-2014 Averages	Trend	Marin County 2010-2014 Avg.
Median Household Income	**$92,009**	**$93,647.63**	1.78%	**$91,529**
Median Age	42.63	43.59	2.25%	45.10
Prime Working Age (25-64)	58.14%	57.75%	(0.66%)	55.28%
Unemployment Rate (Labor Force)	3.30%	5.25%	59.26%	4.70%
Persons Living Below Poverty Rate	7.34%	11.88%	61.84%	8.80%
Mean Travel to Work	27.21 min	29.03 min	6.71%	29.4 min
Working at Home (Labor Force)	8.59%	8.65%	0.71%	2.50%
Adults with Bachelor Degrees or Higher	54.38%	54.80%	0.77%	30.80%
Non English Speaking	26.66%	27.33%	2.51%	23.50%
Householder Pre Proposition 13 (1979)	15.28%	11.65%	(23.75%)	12.80%

* Amounts represent the result of a weighted calculation by estimated population performed by Marin LAFCO taking into proportional account of all census tracts underlying CMSA.

5.0 ORGANIZATIONAL STRUCTURE

5.1 Governance

CMSA's governance authority is established under the Joint Exercise of Powers Act and codified under Government Code Section 6500 et seq. This legislation was functionally established in 1922 and authorizes two kinds of JPA arrangements: (a) two or more public agencies that jointly contract to exercise common service powers or (b) two or more public agencies that jointly contract to form a separate legal entity to provide common service powers.[76] CMSA has been formed under the latter category as a legally autonomous agency with the explicit delegation by its four-member agencies to construct and operate a new regional wastewater treatment facility on the north side of San Quentin Point. Further, and as provided under the enabling legislation, CMSA is authorized to do all of the following: make and enter contracts; employ agents and

[76] The legislation defines "public agency" broadly to include all of the following: federal government and including any department or agency therein; State government or any department or agency therein; counties; county boards of education; county superintendents of schools; cities; public districts; public corporations; regional transportation commissions; federally recognized Indian tribes; private nonprofit hospitals; mutual water companies; and any joint-power authorities.

employees; acquire, construct, manage, maintain, or operate any buildings, works, or improvements; acquire, hold, or dispose of real properties; incur debts, liabilities, or obligations; and sue or be sued.

Governance of CMSA is provided by a six-member Commission whose members are appointed and serve at the discretion of the appointing member agency as provided under the JPA agreement. The largest members – County Sanitary District No. 1 and San Rafael Sanitation District – appoint two members each. County Sanitary District No. 2 and Larkspur appoint one member each. The Commission holds regular meetings on the 2nd Tuesday of each month at 7:00 p.m. at the CMSA Administrative Office located at 1301 Anderson Drive in San Rafael. Commissioners currently receive a meeting stipend of $100. A current listing of CMSA Commissioners along with appointing authority follows.

Current CMSA Commission Roster
Table 4.118 | Source: CMSA

Member	Position	Appointing Authority	Years on Board
Kathy Hartzell	Chair	City of Larkspur	6
Diane Furst	Vice Chair	County Sanitary District No. 2	2
Michael Boorstein	Commissioner	County Sanitary District No. 1	1
Al Boro	Commissioner	San Rafael Sanitation District	26
Maribeth Bushy	Commissioner	San Rafael Sanitation District	2
Thomas Gaffney	Commissioner	County Sanitary District No. 1	1
		Average Years of Commission Service	**6.3**

5.2 Administration

CMSA Administrative Offices
1301 Anderson Drive
San Rafael, California 94901

Courtesy: Google

CMSA appoints an at-will General Manager to oversee all agency operations. The current General Manager – Jason Dow – was appointed by the Commission in 2002 and is fulltime. The General Manager presently oversees 43 other full-time employees and this includes three senior management support positions: Administrative Services Manager; Technical Services Manager; and Treatment Plant Manager. CMSA contracts with the County for legal services through County Counsel.

6.0 WASTEWATER SERVICES

6.1 System Structure

CMSA provides treatment service for its four member agencies (RVSD, CSD No. 2, SRSD and City of Larkspur) as well as San Quentin State Prison and San Quentin Village. CMSA reports the average age of the treatment system is around 30 years and the expected lifespan of the current infrastructure is approximately 25 years less subsequent improvements are made. The treatment facility was initially constructed in 1985 with most recent updates completed in 2014. Treated effluent is discharged into the San Francisco Bay through an approximate two-mile outfall pipeline. As of the study term CMSA's equipment replacement ratio – i.e., the number of years it would take the Agency to fully fund its depreciable capital asset inventory – is 23.6 years and has risen by 4.2% over the corresponding 60-month period.

> CMSA's equipment replacement ratio – i.e., the number of years it would take the District to fully fund its depreciable capital asset inventory – as of the study term is 23.6 years.

utility agencies do not Fund depreciation

6.2 Wastewater Demands

Recent Measurements |
Wastewater ~~Collection System~~ Flows

Treatment plant Flows

CMSA's average annual wastewater treatment demand generated over the study period as reported by the Agency has been approximately 4.321 billion gallons. This average amount, which serves as a macro overview of system demands, represents a daily average flow of 11.8 million

> Average annual wastewater flows generated within CMSA during the study period have produced the daily equivalent of 11.8 million gallons; an amount that accounts for flows received from the JPA's member agencies plus direct contract flows from the San Quentin area (State Prison and Village)

gallons. It also translates to an estimated 126.2 gallons per day for each resident of its member agencies or 314.2 gallons per day for each occupied housing unit; it also represents 393.6 gallons per day for each service connection.

With respect to trends, annual demands within the five-year study period have shown an overall (15.83%) decrease in flows over the span of the affected 60-months. The high demand point for the treatment system during the study period occurred in 2010 with annual volume equaling 5.074 billion gallons. The high demand year translates to an estimated 149.6 gallons per day for each resident of its member agencies or 371.6 gallons per day for each occupied housing unit; and it also translates to 461.4 gallons per day for each service connection. A breakdown of annual and daily wastewater flows over the study period in relation to population and housing is shown below.

CMSA: Recent Annual and Average Daily Treatment Flows Breakdown
Table 4.119 | Source: Marin LAFCO and CMSA

	2010	2011	2012	2013	2014	Average	Trend
Annual Flow	5.074 bg	4.599 bg	3.778 bg	3.887 bg	4.271 bg	4.322 bg	(15.83%)
Daily Average	13.9 mg	12.6 mg	10.4 mg	10.7 mg	11.7 mg	11.8 mg	(15.83%)
- Daily Avg Per Resident	149.6	136.4	110.2	112.7	122.2	126.2	(18.30%)
- Daily Avg Per Housing Unit	371.6	339.2	274.3	280.9	305.1	314.2	(17.88%)
- Daily Avg Per Connection	461.4	420.4	345.9	352.6	387.8	393.6	(15.96%)

"bg" refers to billions gallons per day
"mg" refers to millions gallons per day
Per resident as estimated by the Commission
Per housing unit refers to occupied status as estimated by the Commission

Along with average annual wastewater flow three other more micro measurements are tracked with respect to CMSA's treatment system and provide additional context to assessing demand. These measurements are (a) dry-weather flow, (b) wet-weather flow, and (c) peak-day flow and summarized below.

Dry-Weather Day Flows

Average dry-weather wastewater flows over the study period has been 8.84 million gallons. This flow is typically recorded between July and September and most recently tallied 8.5 million gallons as of the study term. The overall average dry-weather tally translates to 94.2 gallons for every resident or 234.5 gallons for every occupied housing unit and 293.9 gallons per service connection during the affected

60 months. This measurement has decreased overall during the study period by (7.61%). A breakdown of dry-weather flows during the study period follows.

CMSA: Recent Dry Weather Day Flows
Table 4.120 | Source: Marin LAFCO and CMSA

Year	Daily Gallon System Average	Average Gallon Per Resident	Average Gallon Per Housing Unit	Average Gallon Per Connection
2010	9.2 mg	99.0 gallons	245.9 gallons	305.4 gallons
2011	9.3 mg	100.7 gallons	250.4 gallons	310.3 gallons
2012	8.6 mg	91.5 gallons	227.9 gallons	287.4 gallons
2013	8.6 mg	91.0 gallons	226.8 gallons	284.7 gallons
2014	8.5 mg	88.8 gallons	221.7 gallons	281.7 gallons
Average Trend	8.8 mg (7.61%)	94.2 gallons (10.32%)	234.6 gallons (9.86%)	293.9 gallons (7.76%)

"mg" refers to million gallons

Wet-Weather Day Flows

Average wet-weather day wastewater flows over the study period has been 14.8 million gallons. This flow typically is recorded between October and January and most recently tallied at 14.9 million gallons during the study term. The overall average wet-weather day tally translates to 158.2 gallons for every resident or 393.9 gallons for every occupied housing unit and 493.3 gallons for every service connection during the affected 60 months. This measurement has decreased during the study period by (19.9%). A breakdown of recent wet-weather flows follow.

CMSA: Recent Wet Weather Day Flows
Table 4.121 | Source: Marin LAFCO and CMSA

Year	Daily Gallon System Average	Average Gallon Per Resident	Average Gallon Per Housing Unit	Average Gallon Per Connection
2010	18.6 mg	200.2 gallons	497.2 gallons	617.5 gallons
2011	15.9 mg	172.1 gallons	428.1 gallons	530.5 gallons
2012	12.1 mg	128.8 gallons	320.7 gallons	404.4 gallons
2013	12.7 mg	134.4 gallons	335.0 gallons	420.5 gallons
2014	14.9 mg	155.7 gallons	388.6 gallons	493.9 gallons
Average Trend	14.8 mg (19.9%)	158.2 gallons (22.3%)	393.9 gallons (21.9%)	493.9 gallons (20.0%)

Peak- Day Flows

Average peak-day wastewater flows over the study period has been 94.5 million gallons producing a peak-factor relative to average day totals of 10.7. The average peak-day flow – which represents the highest volume during a 24-hour period for the affected year and typically is recorded during storm events – most recently tallied 98.3 million gallons as of the study term. The average wet-weather peak day tally translates to 1,027.1 gallons for every resident or 2,563.6 gallons for every occupied housing unit; it also translates to 3,258.1 gallons for every service connection during the affected 60 months. This measurement has increased overall during the study period by 6.50%. A breakdown of peak-day flows during the study period follows.

CMSA: Recent Peak Day Flows
Table 4.122 | Source: Marin LAFCO and CMSA

Year	Peak Day Total	Gallon Per Resident	Gallon Per Housing Unit	Gallon Per Connection	Peaking Factor
2010	92.3 mg	993.6	2,467.3	3,064.1	10.0
2011	86.9 mg	940.5	2,339.7	2,899.6	9.3
2012	85.1 mg	905.8	2,255.5	2,843.9	9.9
2013	109.8 mg	1,161.6	2,896.1	3,635.2	12.8
2014	98.3 mg	1,027.1	2,563.6	3,258.1	11.6
Average	94.5 mg	1,005.7	2,504.4	3,140.2	10.7
Trend	6.5%	3.4%	3.9%	6.3%	15.3%

Projected Measurements | Wastewater Collection System Flows to Treatment Facility

Going forward – and specifically for purposes of this study – it appears reasonable to assume CMSA's wastewater collection system flows will generally follow trends over the study period. It is estimated, accordingly and using linear regression to control for variances in the most recent yearend totals, the system will ultimately experience an overall decrease in annual wastewater flows of 356.6 million gallons over the succeeding 10-year period finishing in 2024; a difference of (8.60%) or (0.86%) annually. This projection continues CMSA's overall annual flows decrease incurred during the study period, albeit at a deintensified rate relative to the study period over three-fold. It is also estimated – in using regression analysis - the system's peak-day flows will ultimately increase over the succeeding 10-year period by 9.42 million gallons or 9.58% and resulting in a peaking factor of 9.9; the latter representing a rise in peak day flows relative to average day amounts by one-fifteenth.

The Commission independently estimates CMSA's annual wastewater demands will continue to decrease over the succeeding 10-year period at an average rate of (0.86%). This will result in the average day demand equaling 3.8 billion gallons in 2024; a net difference of 500.0 million gallons relative to the baseline year (2014).

- Flows increased in 2015 & 2016
- assumption should be revisited

- Decrease due to water conservation & several draught years.

The following table summarizes these and related projection flows through 2024.

CMSA: Projected Wastewater Flows
Table 4.123 | Source: Marin LAFCO

Year	Average Annual Flows	Average-Day Flows	Dry-Weather Flows	Wet-Weather Flows	Peak-Day Flows
2014	4.271 bg	11.7 mg	8.5 mg	14.9 mg	98.3 mg
2015	3.965 bg	11.0 mg	8.2 mg	13.7 mg	99.6 mg
2016	3.943 bg	10.9 mg	8.0 mg	13.8 mg	101.8 mg
2017	3.929 bg	10.9 mg	7.9 mg	13.9 mg	103.2 mg
2018	3.907 bg	10.9 mg	7.7 mg	14.0 mg	105.4 mg
2019	3.893 bg	10.8 mg	7.6 mg	14.1 mg	106.8 mg
2020	3.870 bg	10.8 mg	7.4 mg	14.2 mg	109.1 mg
2021	3.856 bg	10.8 mg	7.3 mg	14.2 mg	110.5 mg
2022	3.833 bg	10.7 mg	7.1 mg	14.3 mg	112.8 mg
2023	3.818 bg	10.7 mg	6.9 mg	14.4 mg	114.3 mg
2024	3.826 bg	10.7 mg	7.0 mg	14.3 mg	113.5 mg
Average Trend	3.884 bg (9.04%)	10.8 mg (7.49%)	7.50 mg (11.75%)	14.1 mg (5.41%)	107.7 mg 9.58%

"bg" refers to billions gallons per day
"mg" refers to millions gallons per day

why – more storms?

Constraints | Contractual Provisions

> CMSA is prohibited from discharging more than 10.0 million gallons a day into San Francisco Bay during driest three-month period.

CMSA operates under the permit provisions of the California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) with respect to discharge allowances. This permit was most recently renewed on June 13, 2012 and extends through July 31, 2017.[77] It authorizes CMSA to discharge secondary treated wastewater into San Francisco Bay byway of the Agency's submerged outfall pipeline with a multi-port diffuser year round and up to 10.0 million gallons a day during the driest three months of the year.[78] The permit allows influent above 30 million gallons per day to blend with secondary treatment for the portion of the flow above 30 million gallons and recombine the blended flows with secondary-treated flow to be disinfected and subsequently discharged into San Francisco Bay. The permit

[77] Reference to RWQCB National Pollutant Discharge Elimination System Permit No. CA0038628.
[78] The permit does allow for limited blending of the referenced 10.0 million gallons limitation on discharge into Central San Francisco Bay between October 1st and June 1st to avoid overflows and upon advance notice/concurrence of RWQCB.

Not in CMSA's permit

also stipulates CMSA shall not exceed 10.0 million gallons per day in average dry weather flow through the treatment facility.

6.3 Wastewater Capacities

CMSA's treatment facility has a hydraulic capacity of 155 million gallons and a treatment capacity of 125 million gallons, and fully meets the referenced capacity of the Agency's associated member agencies' tributary collection systems. When flows exceed 30 million gallons per day of the treatment capacity for the ~~District's~~ Agency's secondary system, CMSA blends partially-treated effluent during wet-weather events as allowed by its NPDES permit. CMSA also retains an effluent storage pond with the ability to hold 7.2 million gallons of disinfected wastewater under due to maintenance or other emergency type conditions. CMSA has not had an NPDES permit exceedance in over 10 years. [79]

> CMSA treatment system's daily capacity is 125 million gallons with the emergency ability to accommodate an additional 7.2 million gallons through storage facilities.

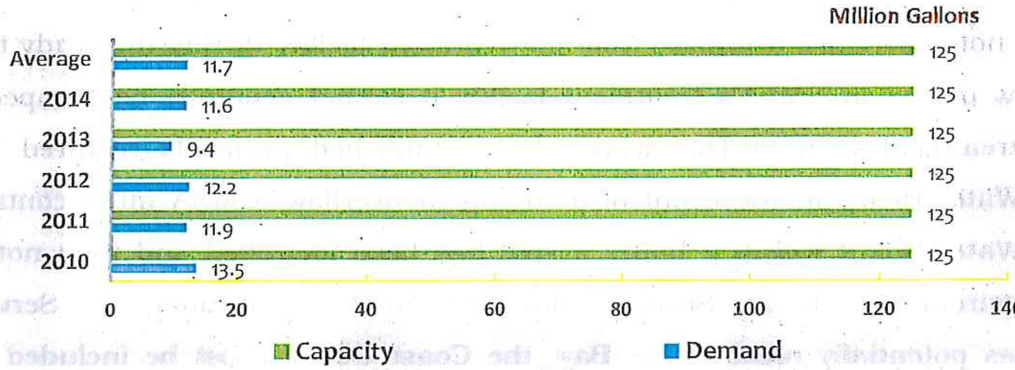
6.4 Demand to Capacity Relationships

Study period flows averages show CMSA has sufficient available capacities within its collection system to accommodate current and projected demands over the succeeding 10-year period with some qualifiers as detailed. Average annual demands over the study period equal 9.4% of the treatment system capacity with minimal changes expected over the succeeding 10-year period. Average dry-weather demands over the study period represent the ~~biggest tax on the treatment facility given permit restrictions by RWQCB~~ and tally 60.0% of the collection system capacity and expected to reach 70% by 2024. Average peak-day demands over the study period equal 40.0% of capacity and expected to rise up to 90% by 2024.

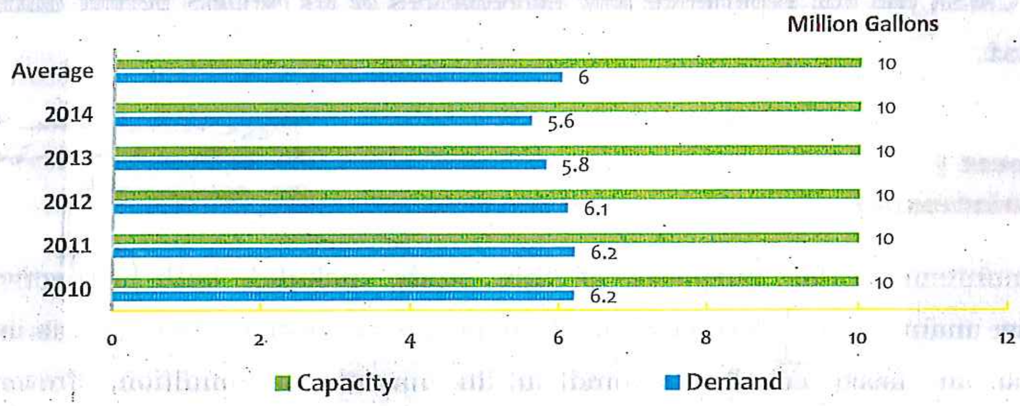
treatment

[79] CMSA notes that as of 12/31/2016 the Agency has not had an NPDES permit exceedance in 12 years.

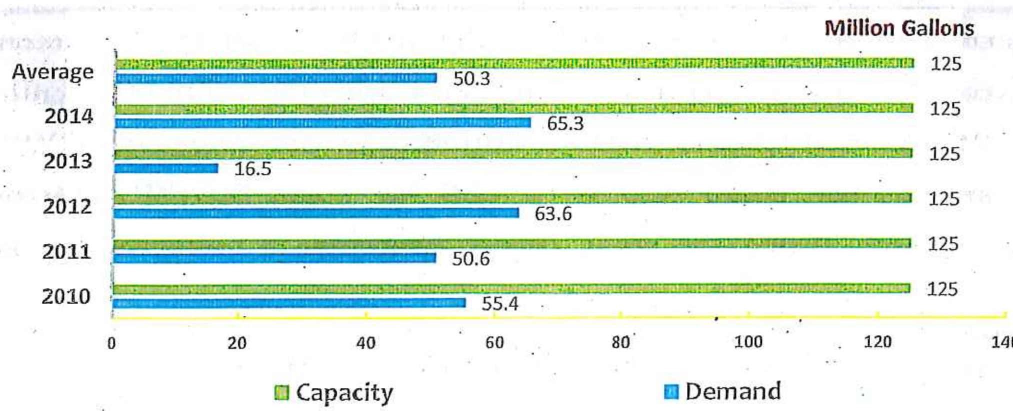
MEASUREMENT |
Average Day Demands v. Treatment System Capacity
Study Period (2010-2014)



MEASUREMENT |
Average Dry-Day Weather Demands v. Treatment System Capacity
Study Period (2010-2014)



MEASUREMENT |
Average Peak-Day Demands v. Treatment System Capacity
Study Period (2010-2014)



* Should add "Peak Hour" & "Peak" charts
* reference to avoiding overflows & permit exceedances.

6.5 Performance

Measurement | Treatment Facility Overflows

CMSA did not experience overflows from its treatment facility during the study term. If an overflow occurs in CMSA's treatment facility it cannot generally be pumped back into the treatment plant.[80] The agency has established protocols required by the Regional Water Board in the event of a treatment overflow. CMSA must contact the Regional Water Board within 2 hours a spill has been identified and then notify the County Environmental Health Services, along with the Office of Emergency Services. If spillage has potentially reached the Bay, the Coast Guard must be included in the notification process. Final effluent exceedances of compounds specified in the agency's NPDES permit must be followed by a notification to RWQCB within 24 hours of discovery. Samples must also be collected to quantify any environmental and safety impacts. CMSA did not experience any exceedances of its NPDES permit during the study period.

These terms are typically used to define & describe maintenance on equipment

Measurement | System Maintenance

System maintenance for purposes of this study includes both [corrective and preventative maintenance.] Corrective maintenance, is performed when signals indicate a fault, so an asset can be restored to its operational condition. Preventative maintenance, conversely, is initiated according to a predetermined schedule rather than in response to failure. A summary of both measurements follow.

Corrective Maintenance

CMSA's corrective maintenance is noted in the number of service calls received to resolve, correct or assist a particular situation. During the entire 60-month study period, CMSA received 19 service calls all attributed to odor complaints. CMSA does operate and maintain pump stations for CSD No. 2 and SQVSMD but had not received any calls during the study period attributed to overflows or potential

[80] CMSA reports under certain limited conditions SSOs can be pumped back under some conditions.

environmental and health impacts. The following table shows all service calls by category type over the study period.

CMSA: Number of District Service Calls
Table 4.124 | Source: Marin LAFCO

Factor	2010	2011	2012	2013	2014
General	0	0	0	0	0
Public SSO	0	0	0	0	0
Private SSO	0	0	0	0	0
Odor Complaints	1	14	1	2	1
Noise Complaints	0	0	0	0	0
Pump Station Alarms	0	0	0	0	0
Non-District Incidents	0	0	0	0	0
Total	**1**	**14**	**1**	**2**	**1**

Preventative Maintenance

CMSA's preventative maintenance is designed to protect and preserve its wastewater treatment plant in a cost effective manner. The agency uses several approaches to determine when assets need to be replaced, expanded, modified or new equipment to be purchased. Energy reduction, process optimization, GHG reduction, and operational efficiency evaluations can lead to procurement of new or modifications of existing systems and equipment. Changes in water quality regulations may result in construction of new facilities or modifications to current facilities or operational practices. CMSA's completion in 2010 to expand treatment and storage facilities to accommodate intense wet weather events was a response to significant I/I during wet weather periods and increased system capacity at a cost of $58 million. CMSA has also provided a blending reduction analysis and found the best alternative is to develop an on-site storage of primary effluent, a parallel pumping system and new flocculation units for additional secondary clarification capacity with an estimated cost at $27 million. The agency has also additionally established a fat, oil, and grease (FOG) program to support member agencies in reducing these organic liquids in preventing blockages and SSOs in the tributary collection systems.

MSA
ses these
s project
election &
rioritization
riteria

6.6 User Charges and Fees

this amount does not include debtservice.

CMSA bills its member agencies and San Quentin State Prison an annual sewer service charge, debt service charge amounting to a total of $8,671,932 for the most recent study year to contribute to CMSA's operation and maintenance of its treatment system. Service charges are measured on wastewater flows and strength based on a three-year period of its member agencies. The service operating costs totaled to $13.3 million, with service charges contributing 65.1% to operating and capital costs. The user fee was last updated in 2012 from $169.74 per sewer service charge, $106.08 per debt service charge and $275.82 per annual service charge.

allocated using

7.0 AGENCY FINANCES

7.1 Financial Statements

CMSA contracts with an outside accounting firm (Chavan and Associates) to prepare an annual report for each fiscal year to review the agency's financial statements in accordance with established governmental accounting standards. This includes vetting CMSA's statements with respect to verifying overall assets, liabilities, and equity as stated in a balance sheet. These audited statements provide the Commission with quantitative measurements in assessing CMSA's short and long-term fiscal health.

End of Study Term Financial Statements	
Assets	$110.8 m
Liabilities	$60.3 m
Equity	$50.5 m

CMSA's most recent financial statements for the study period were issued for 2013-2014 and shows the District experienced a moderate and downturn change over the prior fiscal year as its overall equity or fund balance decreased by (2.7%)% from $51.9 to $50.5 million. Underlying this most recent change in equity standing is the result of CMSA reducing restricted cash in making capital improvements. . A summary of year-end totals and trends over the study period follows.

Agency Assets

CMSA's audited assets at the end of 2013-2014 totaled $110.881 million; an amount more than (5%) lower than the average sum generated over the course of the study period's 60 months. Assets classified as current with the expectation they could be liquidated within a year represented slightly more than one-tenth of the total amount with the majority tied to cash and investments and have decreased by (50.5%) over the corresponding 60 months. Assets classified as non-current represented the remaining nine-tenth plus total with the largest portion associated with utility infrastructure and have increased over the 60 month period by 7.8%.

CMSA Assets | Study Period
Table 4.125 | Source: CMSA

Category	2009-10	2010-11	2011-12	2012-13	2013-14	Trends	Average
Current	31.680	30.740	26.352	15.938	15.675	(50.5%)	24.077
Non-Current	88.418	87.230	90.520	~~99.565~~	~~95.206~~	7.7%	92.188
	120.098	117.971	116.873	115.504	110.881	(7.7%)	116.265

amounts in millions

* Helpful to give examples of assets.

restricted cash removed?

Agency Liabilities

CMSA's audited liabilities at the end of 2013-2014 totaled $60.327 million; an amount that represents a collective decrease of more than one-tenth – or (12.5%) – over the study period's 60 month period. Current liabilities representing obligations owed in the near-term account for less than one-tenth and generally tied as of the study term to owed debt payments with the remainder involving accrued employee benefits. The majority of liabilities representing more than nine-tenth of the total are booked as non-current and highlighted by outstanding debt tied to a 2006 Revenue Bond used to finance improvements to the wastewater treatment facility.

CMSA Liabilities | Study Period
Table 4.126 | Source: CSMA

Category	2009-10	2010-11	2011-12	2012-13	2013-14	Trends	Average
Current	4.240	4.267	4.652	5.120	4.091	(3.5%)	4.474
Non-Current	64.681	62.766	60.553	58.453	56.235	(13.1%)	60.537
	68.921	67.033	65.206	63.573	60.327	(12.5%)	65.012

amounts in millions

* Helpful to give examples of liabilities

Agency Equity / Net Assets

CMSA's net assets have decreased by (1.2%) over the study period. The unrestricted fund balance as of the study term total of $14.2 million equates to a per capita reserve ratio of $148.

CMSA's audited equity or net assets at the end of 2013-2014 totaled $50.554 million and represent the difference between the agency's total assets and total liabilities. This referenced amount has decreased by (1.2%) over the 60 month period and primarily attributed to ~~drawing down cash equivalents in making capital improvements.~~ Due to increased operating expenses. The ending equity amount includes $14.201 million in unrestricted funds and translates to a per capita reserve ratio of $148 based on an estimated resident population of 95,428.

CMSA Equity | Study Period
Table 4.127 | Source: CMSA

Category	2009-10	2010-11	2011-12	2012-13	2013-14	Trends	Average
Unrestricted	10.264	11.513	12.651	13.337	14.201	38.7%	12.393
Restricted (Capital)	40.913	39.424	39.015	38.592	36.352	(11.2%)	38.859
	51.117	50.938	51.666	51.930	50.554	(1.2%)	51.253

amounts in millions

7.2 Measurements / Liquidity, Capital, Margin, and Structure

A review of the audited financial statement issuances by CMSA covering the five years comprising the study period and specifically fiscal years 2009-2010 through 2013-2014 shows the agency finished each year in relatively good health with respect to liquidity and – though to a less extent – capital. This includes CMSA finishing the study period with an estimated current ratio of over 3 to 1 and the net effect of having more than triple the amount of available cash resources to cover near-term debts. Similarly, CMSA finished the study period with over 14 months – or 448 days – of cash on hand to cover daily operating expenses. Separately CMSA finished the study period with a debt ratio of more than one-half at 54.0%; an amount that is somewhat on the higher end but has advantageously decreased over the 60 months by (5.2%). Conversely margin measurements show increasingly profit-challenges over the 60 month period. Total margin – i.e., all revenues and expenses – experienced a sizeable and escalating decrease over the study period at (244.4%). Operating margin – i.e., only operational revenues and expenses – also experienced an escalating decrease – albeit at a lower level – at (88.1%). Last, and with respect to structure, CMSA's earned income ratio averaged exceeding high at 98.9%, and as such shows nearly all of the agency's annual revenues are tied to direct service fees. A summary of year-end liquidity, capital, margin, and structure ratios are show in the following table.

CMSA: Financial Measurements | Study Period
Table 4.128 | Source: CMSA Financials and Marin LAFCO

Fiscal Years	Current Ratio	Days' Cash	Debt Ratio	Total Margin	Operating Margin	Earned Income Ratio
2009-2010	7.47 to 1	890.49	57.39%	8.28%	24.99%	97.89
2010-2011	7.20 to 1	950.03	56.82%	(2.01%)	15.26%	99.22%
2011-2012	5.66 to 1	840.23	55.79%	(3.41%)	13.41%	98.94%
2012-2013	3.11 to 1	480.62	55.04%	(3.38%)	12.99%	99.05%
2013-2014	3.83 to 1	448.02	54.41%	(11.96%)	2.97%	99.46%
Average	5.46 to 1	721.88	55.89%	(2.50%)	13.92%	98.91%
Trend	(48.7%)	(49.69%)	(5.19%)	(244.36%)	(88.10%)	1.61%
	Liquidity		Capital	Margin		Structure

Notes

Should not include bond proceeds, Not For operations!

Current Ratio (liquidity) relates to the ability of the agency to pay short-term obligations (current liabilities) relative to the amount of available cash and cash equivalents (current assets). Higher is better.

Days' Cash (liquidity) measures the number of days' worth of average operating expenses the agency can meet with cash on hand. Higher is better.

Debt Ratio (capital) measures the portion of agency's total assets that are directly tied to debt financing. Lower is better.

Total Margin (profit) represents the year-end profit level of the agency and includes all revenues and expenses. Higher is better.

Depreciation should be excluded

Operating Margin (profit) represents the year-end profit level of the agency specific to its normal and reoccurring revenues and expenses tied to service provision. Higher is better.

Earned Income (structure) measures the portion of annual revenues that are directly tied from user fees for services. Higher is better for enterprise agencies.

7.3 Pension Obligations

CMSA provides a defined benefit plan to its employees through an investment risk-pool contract with the California Public Employees Retirement Systems (CalPERS).

CalPERS

This pension contract provides employees with specified retirement benefits and includes disability benefits, annual cost-of-living adjustments, and death benefits to members and their beneficiaries. Actual pension benefits are based on the date of hire. Employees hired before January 1, 2013 are termed "Category One" while employees hired afterwards are termed "Category Two." Additional details of the pension program based on actuarial valuations issued by CalPERS follows.

Participants | Pension Formulas

Most CMSA employees receive defined pensions based on a 2.7 @ ~~50~~ 55 formula. Employees hired before January 1, 2013 were also brought into the pension formula a 2.0 @ 60 pension formula.

As of the study period's term (2014) there are a total of 95 participants within CMSA's pension program. This total amount – which represents an overall increase of 3% in participants since 2012 – is further divided between enrollee type (i.e., active, separated, transferred, retired) and marked by a worker-to-retiree ratio of 0.9 to 1 as of the study term. Category One participants represent 98% – or 93 – of the total program enrollees and are eligible to receive one of two types of retirement payments. The first and predominate tier within Category One is based on a 2.7 at ~~50~~ 55 formula, and as such provides eligible retirees with 20 years of total service credit 54% of their highest one year of salary beginning at age 55 and continuing each year thereafter. Category Two participants account for the remaining 2% of the total program enrollee amount as of the study period's term and are subject to a flat 2.0% at ~~60~~ 62 pension formula. This tier provides eligible retirees with 20 years of total service credit 40% of their highest three years of average salary beginning at age 60 and continuing annually thereafter.

CMSA's Pension Enrollee Information
Table 4.129 | Source: CalPERS and Marin LAFCO

Type	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Active	n/a	n/a	40	41	38
Transferred	n/a	n/a	9	10	8
Separated	n/a	n/a	6	5	6
Retired	n/a	n/a	37	38	43
Total Enrollees	n/a	n/a	92	93	95
Worker-to-Retiree Ratio	n/a	n/a	1.1 to 1	1.1 to 1	0.9 to 1

Annual Contributions

CMSA's pension contributions have increased by 9% over the five-year study period, and as of 2013-2014 account for 28% of total payroll.

CMSA's total annual pension contributions as of the study period's term tallied $1.170 million. This amount represents an overall increase over the five-year study period of 9% and is slightly less than the corresponding inflation rate calculated for the San Francisco Bay Region.[81] The most recent annual pension contribution by CMSA for the study period marked 28% of the District's total annual payroll for the corresponding fiscal year (2013-2014).[82]

CMSA's Pension Contributions
Table 4.130 | Source: CalPERS and Marin LAFCO

2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
$1,071,270	$1,097,126	$1,130,352	$1,202,050	$1,170,254
			Five-Year Average	$1,134,210
			Five-Year Trend	9.24%

Funded Status

CMSA's unfunded liability – tally of pension monies owed and not covered by assets – ended the study period at $6.445 million and as such represented 45.4% of the District's unrestricted fund balance as of June 30, 2014. This former amount produces a funded ratio of 82% based on market value. It also reflects an overall improvement of 15% over the preceding four-year period.[83]

> CMSA's unfunded pension liability has decreased over the last four years of the study period by (21%) and ended the term at $6.445 million; the equivalent of an 82.0% funded ratio.

CMSA's Pension Trends
Table 4.131 | Source: CalPERS and Marin LAFCO

	Unfunded Liability	Funded Ratio
2009-2010	n/a	n/a
2010-2011	$8,103,016	71.28%
2011-2012	$9,660,173	67.97%
2012-2013	$8,765,885	72.66%
2013-2014	$6,445,664	81.98%
Four-Year Average	$8,243,685	73.47%
Four-Year Trend	(20.5%)	10.70%

Amounts above are show in market form and reflects the immediate and short term values of the pension with respect to assets and liabilities (i.e., here and now).

7.4 Revenue to Expense Trends

A review of CMSA's actual revenues and expenses

> On average CMSA's annual revenue totals have fallen short of annual expense totals – which include depreciation outlays – by (2.60%) over the study period. This gap has also increased during the 60 months on a 4 to 1 ratio.

[81] According to the United States Department of Labor the overall inflation rate in the San Francisco Bay Area region between 2010 and 2014 tallied 10.77%.
[82] CMSA's covered annual payroll in 2013-2014 totaled $4.173 million.
[83] Pension information for 2009-2010 is not available.

losses result of considering depreciation as a "real" cash expense.

during the study period and specific to fiscal years 2009-2010 to 2013-2014 shows the agency experiencing net losses in four of the five years. Overall actual expenses – which include outlays for depreciation – outpaced actual revenues over the 60 month period with the former averaging $15.707 million compared to the latter averaging 16.115 million. Moreover, the referenced budget gap has been widening with the growth rate of actual expenses increasing more than 4 to 1 over the growth rate of actual revenues

Top Average Revenues:
1) Treatment Charges @ 92.5%
2) Contract Maintenance @ 4.2%

Top Average Expenses:
1) CMSA Contract @ 28.6%
2) Collection System @ 25.9%

CMSA's annual budget reflects five distinct categories within its revenue ledger. Sewer treatment service charges to the member-agencies accounted on average for 92.5% of all revenues during the study period. The remaining revenues – which account for 7.5% of the average total – were largely drawn from maintenance contract fees and investment interest. CMSA books 10 distinct categories within its expense ledger. Over the study period salaries and benefits tallied the largest average expense for CMSA at 42.5% of the total. The next highest average expense tally was drawn from depreciation and accounted for 20.6%.

CMSA Actual Revenue Trends | Study Period
Table 4.132 | Source: CMSA Financials and Marin LAFCO

Category	2009 2010	2010 2011	2011 2012	2012 2013	2013 2014	Trend	Average	Share of Average
Sewer Treatment Charges	14.587	14.851	14.396	14.095	14.722	0.9%	14.530	92.5%
Contract Maintenance Fees	0.351	0.314	0.296	1.112	1.226	248.79%	0.660	4.20%
Other Operating	0.309	0.250	0.388	0.403	0.384	24.19%	0.347	2.21%
Investment Earnings	0.133	0.090	0.065	0.102	0.040	(69.49%)	0.086	0.55%
Other Non-Operating	0.195	0.030	0.95	0.46	0.047	(75.72%)	0.083	0.53%
	$15.578	$15.537	$15.242	$15.760	$16.421	5.42%	$15.707	100%

CMSA Actual Expense Trends | Study Period

Table 4.133 | Source: CMSA Financials and Marin LAFCO								
Category	2009 2010	2010 2011	2011 2012	2012 2013	2013 2014	Trend	Average	Share of Average
Salaries and Benefits	6.107	6.520	6.340	6.722	8.585	40.59%	6.855	42.54%
Treatment Plant	1.268	1.195	1.317	1.300	1.340	5.65%	1.284	7.97%
Repairs and Maintenance	0.545	0.581	0.593	0.917	1.175	115.48%	0.762	4.73%
Permit Testing	0.089	0.087	0.090	0.107	0.110	23.08%	0.097	0.60%
Depreciation	2.263	3.605	3.663	3.506	3.562	57.38%	3.314	20.57%
Insurance	0.090	0.084	0.096	0.098	0.097	7.80%	0.092	0.58%
Utilities	0.379	0.364	0.383	0.431	0.471	24.40%	0.406	2.52%
General Administration	0.694	0.624	0.604	0.498	0.504	(27.37%)	0.585	3.63%
Interest Expense	2.849	2.781	2.703	2.702	2.536	(10.97%)	2.714	16.84%
Other Non-Operating	0.000	0.004	0.000	0.007	0.001	335.82%	0.002	0.002%
	$14.287	$15.850	$15.762	$16.292	$18.386	28.69%	$16.155	100%

Net					
	$1.290	($0.312)	($0.520)	($0.532)	($1.964)
	3.00%	(2.01%)	(3.41%)	(3.38%)	(11.96%)

not an "actual" expense

Page Blank for Photocopying

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Brian Thomas, Technical Services Manager
Ken Spray, Administrative Services Manager

Approved: Jason Dow, General Manager

Subject: Fiscal Year 2016-17 Strategic Business Plan Year-End Report

Recommendation: Accept the Agency's Fiscal Year 2016-17 Strategic Business Plan Year-End Report, and provide comments or direction to the General Manager as appropriate.

Discussion: In July 2016, the Board adopted the Agency's Fiscal Year 2016-17 Strategic Business Plan (SBP) with Objectives and Actions to achieve a set of goals that align with the Agency's Mission, Vision, and Value Statements. The Agency's SBP provides a guide for maintaining and continuing to improve the Agency's operations and services. It also sets organizational priorities and guides fundamental decisions/actions that will shape the Agency into the future.

The Agency Strategic Planning Committee (ASPC) developed implementation schedules to achieve the nineteen (19) Objectives in the SBP, and executed fifty-three (53) of the sixty (60) strategic Actions associated with those Objectives. The table below shows the number of actions that were either completed or ongoing, i.e., having no definable end date or are recurring, and those that were delayed and will be included in the Fiscal Year 2017-18 business plan.

Action Status	Number
Completed	38
Ongoing	15
Delayed	7
Total	**60**

The ASPC is preparing a new business plan for the Fiscal Year 2017-18 that will include continuing Fiscal Year 2016-17 Actions, as well as contain new Objectives and Actions in line with the Agency's Goals.

The attached report briefly summarizes the status of the Actions within each Objective.

Attachment
- Fiscal Year 2016-17 Strategic Business Plan Year-End Report

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

	OBJECTIVE	ACTION	STATUS	COMMENTS
	Objective 1.1 Maintain the high performance of the treatment facility's operational processes			
a	*Action:*	Comply with all Agency regulatory requirements	COMPLETE	With the exception of two instances during high flow in the winter, the Agency met all of its regulatory requirements.
b	*Action:*	Apply for the National Association of Clean Water Agencies (NACWA) Platinum Year 11 Peak Performance Award	COMPLETE	The Agency applied for and received the 2015 NACWA Platinum Peak Performance Award.
c	*Action:*	Rotate staff to the Process Control Team to collaborate on facility operations	COMPLETE	New members were added to the Process Control Team. The team meets weekly to discuss process trends, sample results, and special projects.
d	*Action:*	Update target metrics and key performance indicators for treatment plant processes	COMPLETE	Target metrics were reviewed and updates were incorporated into the monthly performance metric reports.
	Objective 1.2 Develop and implement strategies to meet changing regulatory requirements			
a	*Action:*	Select and hire a regulatory consultant for the National Pollutant Discharge Elimination System (NPDES) permit renewal	COMPLETE	The Agency hired a regulatory consultant, MMO Consulting, to provide assistance with the NPDES permit renewal.
b	*Action:*	Submit the NPDES permit renewal application and report of waste discharge to the Regional Water Board	COMPLETE	The NPDES Report of Waste Discharge was submitted and accepted by the Regional Water Board in January 2017.
c	*Action:*	Prepare an Agency-wide facility master plan	ONGOING	Carollo Engineers was hired to prepare the Agency Facilities Master Plan. The Project is ongoing and will be completed in December 2017.
d	*Action:*	Participate in Regional Water Board nutrient watershed permit studies	COMPLETE	Agency staff submitted comments on a draft report prepared by the Bay Area Clean Water Agencies that identified potential projects to reduce nutrient discharges from CMSA's treatment plant.
	Objective 1.3 Manage the Agency's assets			
a	*Action:*	Select and hire a consultant to evaluate Computerized Maintenance Management System (CMMS) functions and operation, and recommend improvements	DELAYED	This project is delayed, has been included in the FY 18 proposed budget, and will be carried over to the FY 18 Business Plan.
b	*Action:*	Overhaul the cogeneration engine	COMPLETE	The cogeneration engine overhaul was completed in February 2017.
c	*Action:*	Replace primary clarifier influent gates	COMPLETE	A contractor replaced four gates in the primary clarifiers and one secondary clarifier gate.
d	*Action:*	Remove and replace coating in the FOG/F2E vault	COMPLETE	A temporary system was installed to allow continued delivery of FOG while the vault was taken out of service for recoating.

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

	OBJECTIVE	ACTION	STATUS	COMMENTS
	Objective 2.1 Regularly evaluate existing fiscal practices and develop new procedures as necessary			
a	*Action:*	Manage and review monthly transactions to ensure a clean FY 16 audit	COMPLETE	Audit accepted by the Board in November 2016.
b	*Action:*	Develop a procedure for reviewing and monitoring investment opportunities	COMPLETE	Cancelled--no direct investing is anticipated. If use outside manager as authorized by Agency policy in future, establish a benchmark as basis for monitoring and comparison.
c	*Action:*	Provide Agency staff with quarterly refresher training on commonly used financial procedures	ONGOING	Training provided on purchase order procedures; additional trainings to be provided in FY 18.
d	*Action:*	Review service provider costs for ongoing operational and administrative services	DELAYED	Moved to FY18.
	Objective 2.2 Explore and implement fiscal planning initiatives that improve the Agency's financial sustainability			
a	*Action:*	Update the financial component of the Agency's Business Continuity Plan	COMPLETE	Business Continuity Plan uploaded to California Sanitation Risk Management Authority portal.
b	*Action:*	Develop the Agency's next Multi-Year Revenue Plan	DELAYED	Item moved to fall FY 18 to align with Master Plan completion and JPA member Proposition 218 schedules.
c	*Action:*	Prepare report analyzing different amortization structures for CalPERS unfunded liability	COMPLETE	2014 Actuarial Valuation from CalPERS obtained; conferred with other agencies; excel model options developed.
	Objective 2.3 Prepare transparent financial documents			
a	*Action:*	Prepare the Agency's Budget document in the Government Finance Officers Association (GFOA) format and submit to the GFOA for review	COMPLETE	FY 17 budget prepared, approved by the Board, submitted to GFOA; Distinguished Budget Award received.
b	*Action:*	Prepare quarterly budget report for Board of Commissioners	COMPLETE	Quarterly reports completed.
c	*Action:*	Prepare the Agency's Comprehensive Annual Financial Report (CAFR), and submit to the GFOA for review	COMPLETE	Award received for FY 16 CAFR.
d	*Action:*	Prepare the Agency's Popular Annual Financial Report (PAFR), and submit to the GFOA for review	COMPLETE	PAFR sent to GFOA for consideration of award.

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

	OBJECTIVE	ACTION	STATUS	COMMENTS
	Objective 3.1 Investigate and implement steps to supply the Agency's extra power			
a	*Action:*	Develop a new interconnection agreement with PG&E	COMPLETE	PG&E issued a new Interconnection Agreement (IA) that allows CMSA to supply excess power to the grid once system improvements are completed.
b	*Action:*	Determine and implement any improvements to supply power to the PG&E utility grid	ONGOING	PG&E and CMSA system improvements were identified during the IA modification process. Improvements are scheduled to be complete and tested by March 2018
c	*Action:*	Negotiate power sale agreements	ONGOING	Power sale applications were submitted to PG&E and Marin Clean Energy. CMSA is not eligible for PG&E's program and will complete negotiations with MCE in the summer of 2017.
	Objective 3.2 Produce recycled water for outside use			
a	*Action:*	Produce recycled water for sanitary district sewer line flushing	COMPLETE	Recycled water is available at the Agency's truck filling station. Laboratory staff test the water quality and reports data as required.
b	*Action:*	Participate with Marin Municipal Water District in marketing the recycled water truck filling station to prospective users	ONGOING	This action is on hold until MMWD initiates a marketing campaign. Will carry over to FY 18 Business Plan.
c	*Action:*	Provide recycled water to other identified users	ONGOING	This project is on hold until MMWD identifies other potential users. Will carry over to FY 18 Business Plan.
	Objective 3.3 Monitor and review energy and environmental sustainability metrics			
a	*Action:*	Assess greenhouse gas reduction and/or energy efficiency measures for all maintenance and capital improvement projects and implement when feasible	COMPLETE	Several projects, including lighting upgrades and the Solids Handling Building Ventilation Improvement project installed energy efficient equipment. Additional power monitors, lighting improvements, and hybrid vehicles are included in the FY 18 CIP.
b	*Action:*	Prepare quarterly and annual energy use and greenhouse gas production reports	COMPLETE	The Greenhouse Gas and Energy Efficiency Committee prepare a quarterly report that include an ongoing list of projects that quantifies the energy and greenhouse gas reduction for each project.

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

	OBJECTIVE	ACTION	STATUS	COMMENTS
	Objective 4.1 Collaborate with local agencies in sharing of services and resources			
a	*Action:*	Prepare inventory of Agency resources available for inter-agency mutual aid	COMPLETE	The equipment inventory was prepared and is available to share with other local agencies.
b	*Action:*	Explore training opportunities for multi-agency disaster preparedness and recovery	ONGOING	The JPA supervisors discussed opportunities for coordinated training and will participate in the State Wide Power Outage Exercise in 2017.
	Objective 4.2 Promote interagency coordination on capital projects			
a	*Action:*	Administer condition assessment of the San Rafael and Ross Valley interceptors	COMPLETE	The condition assessment is complete and found no issues with either interceptor.
b	*Action:*	Support rehabilitation of the Sanitary District #2 meter vault	ONGOING	Agency staff are coordinating with the SD#2 design consultant who is currently preparing construction documents.
c	*Action:*	Administer Capital Improvement Program for San Quentin State Prison Pump Station	COMPLETE	All of the projects in the approved FY 17 SQPS Capital Improvement Program have been completed.
d	*Action:*	Replace the San Quentin Village Pump Station control panel	ONGOING	The control panel was designed and delivered to CMSA. It will be installed in July 2017.
e	*Action:*	Support Ross Valley Sanitary District with pump station control and telemetry rehabilitation upgrade projects	COMPLETE	CMSA staff have provided information to the RVSD design team to ensure their equipment is compatible with CMSA's communication and control systems.

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

	OBJECTIVE	ACTION	STATUS	COMMENTS
	Objective 5.1 Promote a culture of leadership and professional growth			
a	*Action:*	Organize and conduct periodic informal seminars on a variety of Agency activities	DELAYED	Moved to FY18 Business Plan.
b	*Action:*	Provide employees opportunities to attend leadership and technical training events	ONGOING	Department managers provide training opportunities as noted in employees' work plans.
c	*Action:*	Support employee attendance at training and development activities outside of working hours	ONGOING	Outside training opportunities researched and identified; to be provided to department managers on an ongoing basis.
d	*Objective 5.2 Support efforts to attract and develop qualified and skilled employees*			
a	*Action:*	Draft administrative procedure to outline and promote Agency internship opportunities	COMPLETE	Agency Internship Policy adopted by the Board at March 2017 meeting.
b	*Action:*	Provide an unpaid internship opportunity in Operations and Maintenance and target local community for candidate search	ONGOING	Onboarding materials identified and being developed; community outreach to launch in July.
c	*Action:*	Represent the Agency at off-site events sponsored by industry associations and other entities	COMPLETE	Staff attended several local chapter CWEA events and other industry conferences.
	Objective 5.3 Enhance employee work culture			
a	*Action:*	Create new storage area and modern work space by completing the maintenance facility modification project	ONGOING	The design was completed and publicly bid. The contractor began onsite construction activities in April 2017 and is on schedule to complete the project in November 2017.
b	*Action:*	Implement an employee wellness program	COMPLETE	The wellness program is active and healthy living information is regularly distributed to employees.
c	*Action:*	Establish annual Agency BBQ to recognize industry award recipients	COMPLETE	The Agency Employee Appreciation BBQ was held in September 2016.
	Objective 5.4 Maintain a safe work environment			
a	*Action:*	Provide advanced Competent Person training for the skid steer loader	DELAYED	This training is delayed and will be completed in FY 18.
b	*Action:*	Support staff participation in safety conferences and events	COMPLETE	Staff attended the CWEA Northern Safety Day and held several safety tailgates throughout the year.
c	*Action:*	Install safe-access gates in secondary clarifiers	COMPLETE	Gates were installed on the aeration tanks instead of the secondary clarifiers because the Agency Facilities Master Plan may recommend modifications to the secondary clarifiers.

Goal Six: CMSA will enhance its internal and external communications.

	OBJECTIVE	ACTION	STATUS	COMMENTS
	Objective 6.1 Educate employees on currently available Agency benefits			
a	*Action :*	Create an Agency Benefits Handbook as an employee reference tool	ONGOING	Handbook development in progress; moved to FY18 for completion.
b	*Action:*	Provide training on Agency health benefits for open enrollment period	COMPLETE	Power Point presentation was given to staff in September 2016.
c	*Action:*	Coordinate 457 plan provider training on Agency's deferred compensation	DELAYED	Moved to FY18 Business Plan.
d	*Objective 6.2 Evaluate next steps for new Agency file structure*			
a	*Action:*	Produce department-specific file structure outline for Executive Team review	DELAYED	Moved to FY18 Business Plan.
b	*Action:*	Complete all department file structure migration and archive legacy shared drive content	COMPLETE	Legacy content moved to shared drive as read only access in April 2017; disconnected in June 2017.
c	*Action:*	Review and update file structure guidance document	ONGOING	Moved to FY18 Business Plan.
	Objective 6.3 Improve interdepartmental communications			
a	*Action:*	Transition calendars and email to Office 365	COMPLETE	Training was provided to staff and the Agency transitioned to Office 365 in January 2017.
b	*Action:*	Develop Agency-wide calendar use procedure and provide staff training	COMPLETE	Staff developed a procedure document and training program to ensure consistent use of the electronic calendar in Office 365.
	Objective 6.4 Update Agency external communication channels			
a	*Action:*	Develop schedule to keep website content current and implement updates per schedule	COMPLETE	A scheduled was developed and staff regularly reviews the website content and updates the site as needed.
b	*Action:*	Implement online contractor bid management system	COMPLETE	Staff is researching several potential vendors and will select a system in June 2017.
c	*Action:*	Publish quarterly Agency newsletter	COMPLETE	The Agency newsletters were prepared by staff and published.

COMPLETE	38
ONGOING	15
DELAYED	7
TOTAL	**60**

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: Marin County Civil Grand Jury Report – Marin's Retirement Health Care Benefits: *The Money Still Isn't There*

Recommendation: Consider forming an ad-hoc Governance Committee to prepare draft responses for the Marin Retirement Health Care Benefits report, and provide direction to staff as appropriate.

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

Discussion: Previous Marin County Grand Juries have issued reports on Other Post-Employment Benefits (OPEB) in 2005, 2007, and 2013, and CMSA responded to each of those reports. For most local agencies, OPEB is comprised of retiree medical benefit expenses. This report checks-in on the status of Marin County local agencies' OPEB funding levels and unfunded liabilities, and identifies numerous cost containment strategies for local agency governing boards to consider.

In 2010, CMSA negotiated and initiated two significant OPEB cost containment measures. First, employees hired after July 1, 2010 receive a defined contribution of 1.5% of their annual compensation for eligible retiree medical expenses, instead of a defined lifetime benefit. Second, the Board authorized establishment of a CalPERS retiree medical trust fund, called the California Employers Retirement Benefit Trust (CERBT). In the Agency's January 1, 2015 GASB 45 actuarial report, the future projected cost of all retiree medical benefits is $4.512 million. Since 2010, the Agency has been funding the CERBT at the GASB 45 annual required contribution (ARC) level each year, and as of March 31, 2017, that fund has $2,128,310 in assets. With that amount, CMSA's future retiree medical benefit expenses are approximately 47.2% funded.

On Page 7, in the special district section of the report, CMSA is shown as one of a few agencies that have reduced its OPEB liabilities since 2012.

CMSA must respond to the following nine recommendations.

Recommendation 1: "Each agency should adopt a formal, written policy for contributions to its OPEB plan."

Recommendation 2: *"Each agency's standard practice should be to consistently satisfy its formal written OPEB contribution policy."*

Recommendation 3: *"Each agency's OPEB contribution policy and practice should support a projection under GASB 75 that it's OPEB plan assets will be sufficient to make all projected OPEB benefit payments."*

Recommendation 4: *"Each agency that uses special reserve funds for Postemployment Benefits should transition to a trust meeting the criteria of GASB 75."*

Recommendation 5: *"Each term of service, elected or appointed officials of each agency should take a public agency financial class."*

Recommendation 6: *"Each agency should make its CAFRs, Audits, and GASB valuations more readily understandable by the general public."*

Recommendation 7: *"Each agency should ensure that all of its public financial presentations are more readily understandable and scheduled during hours convenient for the public."*

Recommendation 8: *"Each agency should have the following downloadable and text-searchable documents readily accessible on the website: the last five years of CAFRs/Audits and the last three actuarial reports."*

Recommendation 9: *"Before the next round of bargaining begins, each agency should prioritize the cost containment strategies to be used, including reducing or eliminating OPEB benefits for future employees."*

Attachment

- Marin County Civil Grand Jury Report – Marin's Retirement Health Care Benefits

2016–2017 MARIN COUNTY CIVIL GRAND JURY

Marin's Retirement Health Care Benefits

The Money Still Isn't There

Report Date: May 10, 2017

Public Release Date: May 17, 2017

COUNTY OF MARIN

Marin's Retirement Health Care Benefits
The Money Still Isn't There

SUMMARY

Four years ago, the Grand Jury released a report titled *Marin's Retirement Health Care Benefits: The Money Isn't There*,[1] that discussed the funding of public agency liabilities for retiree health benefits. They discovered that most agencies were neither saving adequately nor implementing best practice cost containment strategies, and warned of the consequences.

Since then, some agencies have started paying more attention to their unfunded benefit liabilities and are choosing to prepay at least a portion of their liabilities, as financial advisors recommend. However, while 16 of the 39 agencies we studied in this report collectively *decreased* their unfunded liability by $108.1 million (the County of Marin reduced its unfunded liability by $88.3 million), the remaining 23 agencies collectively *increased* their unfunded liability by $41.9 million. This problem has been escalating for years and will not be magically gone tomorrow. Left unchecked, the growing liabilities may eventually challenge agencies' fiscal health.

The Grand Jury recognizes that all agencies face day-to-day operational challenges and that retiree health liabilities are likely not top-of-mind for many agencies. Officials and board members may not be expert at interpreting financial documents nor aware of the long-term implications of retiree health liabilities for their agency's viability – but they need to be. In this report, we offer strategies to help Marin agencies deal with their Other Postemployment Benefits liability (primarily health benefits) and make it easier for the average person to understand the scope and potential effects of such liabilities on our communities.

[1] "Marin's Retirement Health Care Benefits: The Money Isn't There." *Marin County Civil Grand Jury*. 3 June 2013.

BACKGROUND

Public employees are typically granted two retirement benefits: a pension and "Other Postemployment Benefits" (OPEB) – primarily retiree health care. This report is a follow-up to previous OPEB-related Marin County Grand Jury Reports from: 2004-2005,[2] 2006-2007,[3] and 2012-2013.[4] We wanted to see how local public agencies' OPEB liabilities have changed since the 2012-2013 Report, and examine the impact of OPEB on agencies' financial health.

METHODOLOGY

The Grand Jury, in order to understand the financial and historical details of OPEB plans:

- Reviewed Marin County Civil Grand Jury OPEB-related reports and agency responses: 2004-2005, 2006-2007, and 2012-2013.
- Distributed detailed financial questionnaires (and analyzed responses) to the same public agencies surveyed in the 2012-2013 Grand Jury Report (see Appendix A: OPEB Questionnaire to Public Agencies).
- Researched OPEB legal issues.
- Reviewed OPEB-related Governmental Accounting Standards Board Statements 43, 45, 74, and 75 (GASB 43, GASB 45, GASB 74, and GASB 75) and related literature.
- Analyzed all Comprehensive Annual Financial Reports (CAFRs) and audits of public agencies since Fiscal Year 2012.
- Analyzed GASB 45 Actuarial Valuations of OPEB benefits and liabilities, prepared for public agencies.
- Watched city/town council audit and financial presentations.
- Interviewed agency staff and consultants involved with the actuarial process.
- Surveyed literature for examples and best practices of OPEB.

---

[2] "The Bloated Retirement Plans of Marin County, Its Cities and Towns." *Marin County Civil Grand Jury*. 9 May 2005.
[3] "Retiree Health Care Costs: I Think I'm Gonna Be Sick." *Marin County Civil Grand Jury*. 19 March 2007.
[4] "Marin's Retirement Health Care Benefits: The Money Isn't There." *Marin County Civil Grand Jury*. 3 June 2013.

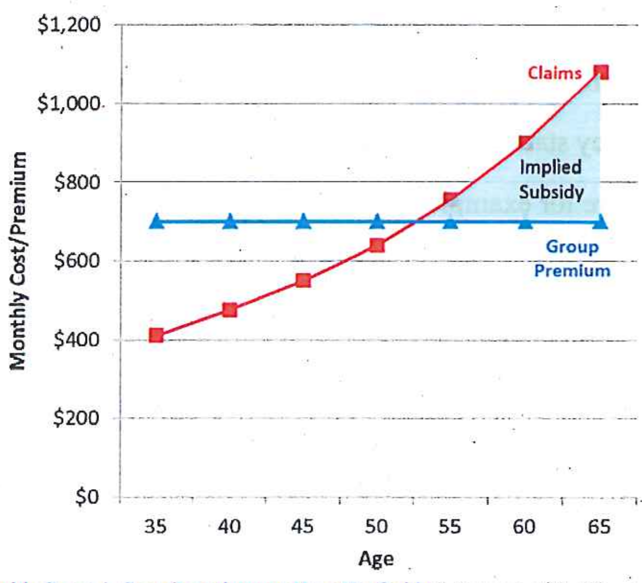
DISCUSSION

If a public agency provides an employee with *Other Postemployment Benefits* (OPEB), and the employee meets specified periods of service and age, the agency will pay these benefits upon retirement to the employee (and to his/her spouse and/or dependents under some OPEB plans). The liability for providing these benefits is determined by an *actuary* and reported in an *actuarial valuation.* In accounting terminology, such a future financial obligation is called an *Actuarial Accrued Liability* (AAL). If an agency does not annually prepay their actuarial-determined *Annual Required Contribution* (ARC), the agency creates an *Unfunded Actuarial Accrued Liability* (UAAL).

Retiree Health Care

OPEB "principally involve health care benefits, but also may include life insurance, disability, legal and other services."[5]

Health care insurance costs continue to rise. These increased costs affect both the active employees and retirees. Public agencies blend employees and retirees into a single health care plan to calculate a premium that applies to both groups. The blending causes active employees, who are statistically healthier, to pay more for their health care to defray some of the additional costs of retiree health care. The additional cost of retiree claims is called an *implied rate subsidy.* If retiree health insurance costs rise, and employees are not charged sufficient premiums, then the public agency will have increased liabilities from the implied rate subsidy shortfall.



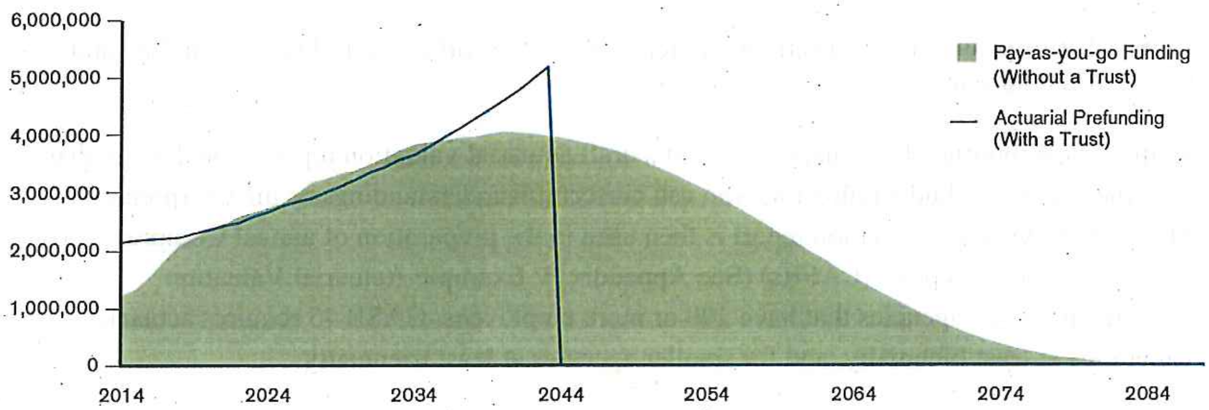
From: "Retiree Health Care: A Cost Containment How-To Guide." *League of California Cities.* Sep. 2016

[5] "Other Postemployment Benefits (OPEB)." *Governmental Accounting Standards Board.*

Prefunding vs. Pay-As-You-Go

Public agencies can choose to either prefund their Actuarial Accrued Liability (AAL) or pay the annual retiree benefits as they come due (*pay-as-you-go* or *pay-go*). Prefunding into an OPEB trust fund allows the contributions to be invested, which can further reduce both the agency's AAL and Unfunded Actuarial Accrued Liability (UAAL). While prefunding is a smart long-term strategy, it may affect an agency's ability to pay its short-term bills. That is why some agencies choose pay-go – they do not have a sufficient budget or adequate cash flow. Basic aid school districts[6] for example, depend upon local property tax distribution to cover both their short-term and long-term obligations.

Nevertheless, prefunding OPEB liabilities is a widely accepted best practice. As the Government Finance Officers Association (GFOA) states, "It is widely acknowledged that the appropriate way to attain reasonable assurance that benefits will remain sustainable is for a government to accumulate resources for future benefit payments in a systematic and disciplined manner during the active service life of the benefitting employees."[7] The following graph shows a hypothetical example of the annual cost for an agency's OPEB payments[8] for a closed group (no new employees) and illustrates how prefunding could be less expensive than pay-go, using 7.25% as the assumed rate of return on investments:



	WITHOUT A TRUST	WITH A TRUST
Employer payments	$160,000,000	$98,000,000
Investment income (7.25%)	0	62,000,000
Total cost of benefits	**160,000,000**	**160,000,000**

[6] Weston, Margaret. "Basic Aid School Districts." *Public Policy Institute of California*. September 2013.
[7] "Sustainable Funding Practices for Defined Benefit Pensions and Other Postemployment Benefits (OPEB)." *Government Finance Officers Association*. January 2016.
[8] "Establishing an OPEB trust fund." *Milliman, Inc.* 2014.

The Actuarial Valuation Process

Actuaries prepare their valuations using Actuarial Standards of Practice and applicable standards of the Governmental Accounting Standards Board (GASB). The accounting standards are issued as implementation guides. During the 2012-2016 time period, actuaries followed the GASB 45[9] implementation. The purposes of a GASB 45 actuarial valuation include:

- Informing an agency of its retiree benefits' financial future obligations,
- Determining how much an agency should consistently prefund to ensure there will be sufficient funding for the retirees' benefits, and
- Determining and measuring the funded status and funding progress of an OPEB plan.

The agency initiates the actuarial valuation process by providing basic data to the actuarial consultant, including:

- **Agency overview**: agency directions and intentions for the valuation.
- **Valuation data**: employee data, updates to health & welfare benefits and/or Memorandums of Understanding (MOUs), new resolutions about agency contributions, plan summaries and rates, and retiree benefits and other contributions paid recently.
- **Assumptions**: rates of retirement, termination, disability, mortality, prefunding, and discount rates.

Within a few months, the actuary arrives at a draft actuarial valuation report. The draft is shared with the finance or budget director, who can correct misunderstandings or misinterpretations. The final (GASB 45) valuation report is then used in the preparation of annual Comprehensive Annual Financial Reports (CAFRs) (See Appendix B: Example Actuarial Valuation Certification.) For agencies that have 200 or more employees, GASB 45 requires actuarial valuations at least biennially, and for smaller agencies at least triennially.

[9] "Statement No. 45 of the Governmental Accounting Standards Board: Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions." *Governmental Accounting Standards Board*. June 2004.

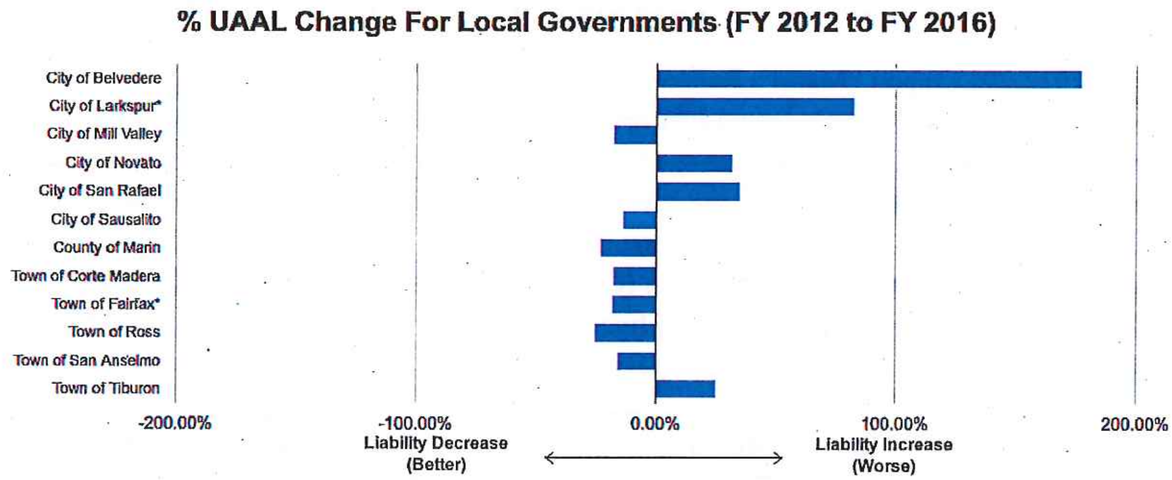
What Has Changed Since the 2012-2013 Report?

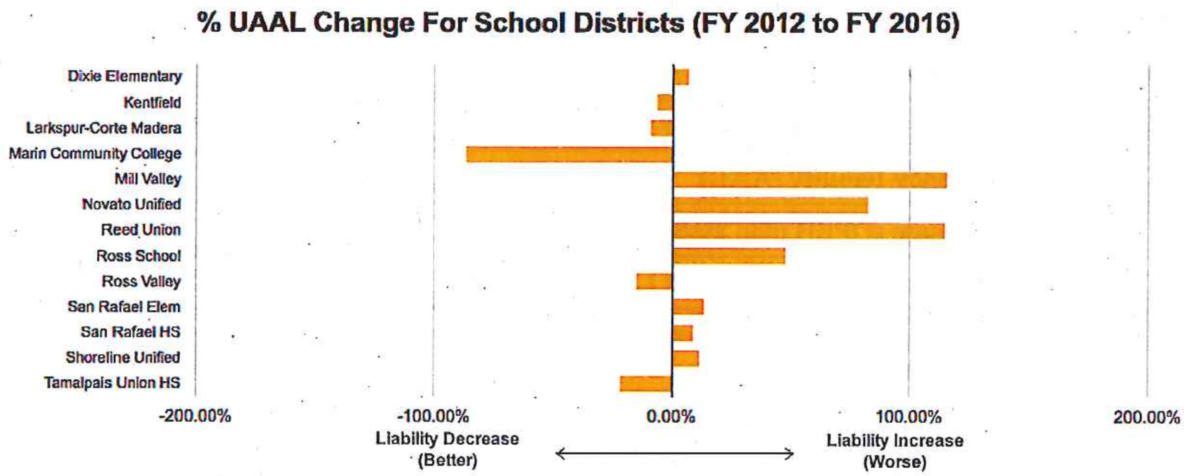
In the 2012-2013 report "Marin's Retirement Health Care Benefits: *The Money Isn't There,*"[10] the 2012-2013 Marin County Grand Jury reviewed the OPEB funding status of 40 local government agencies. Since one agency (Sewerage Agency of Southern Marin) responded that it was staffed by City of Mill Valley employees, only 39 agencies were examined. This year's Grand Jury compared the financial information published in agencies' Audits and Comprehensive Annual Financial Reports (CAFRs) for Fiscal Year 2012 (FY 2012) and FY 2016. (For an example of locating OPEB financial data, please see Appendix C: Finding Key OPEB Information in CAFRs or Audits.) By this comparison, the Grand Jury discovered:

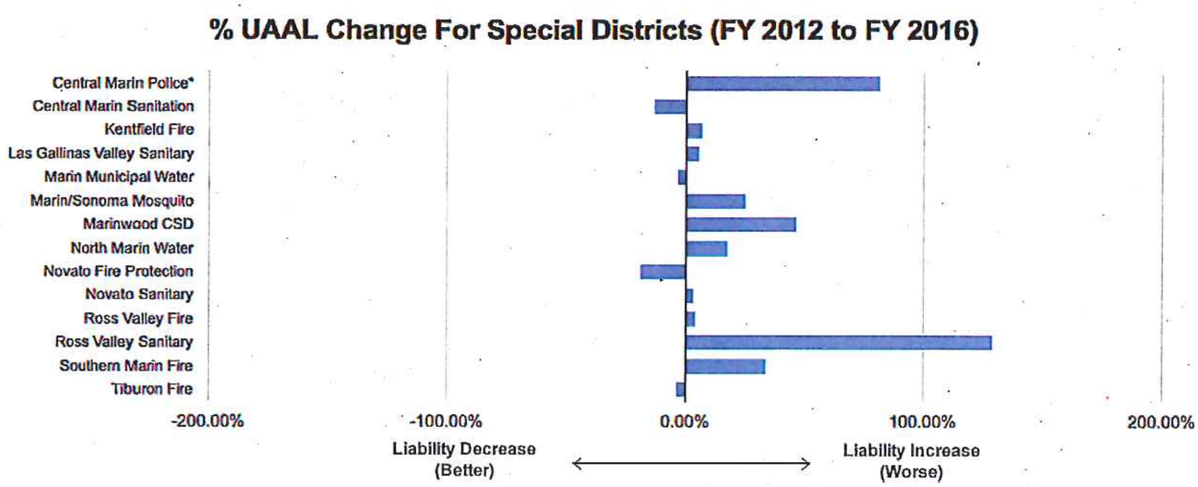
OPEB Highlights	FY2012	FY 2016
# of agencies that funded over 5% of their liability	11	18
# of agencies that funded between 1-5% of their liability	2	0
# of agencies that had not funded any of their liability	26	21
Collective 39-agency liability (AAL)	$630.7 Million	$650.2 Million
Collectively set aside (OPEB plan assets)	$24.6 Million	$110.2 Million
Collective Unfunded Actuarial Accrued Liability (UAAL)	$606.1 Million	$540.0 Million
Collective Unfunded Actuarial Accrued Liability (UAAL) excluding County of Marin	$223.4 Million	$245.7 Million

Because agencies have very different budgets, we chose to compare liabilities as the percentage Unfunded Actuarial Accrued Liability (UAAL) change from Fiscal Year FY 2012 to FY 2016. As of April 19, 2017, the City of Larkspur, the Town of Fairfax, and the Central Marin Police Authority had not released their FY 2016 CAFRs. For those agencies, we therefore needed to use their "older" FY 2015 financial data and applicable GASB 45 actuarial valuation data instead. Those agencies are indicated with an asterisk [*] following their names throughout this report.

[10] "Marin's Retirement Health Care Benefits: The Money Isn't There." *Marin County Civil Grand Jury.* 22 May 2013.







By reviewing agencies' published financial documents, we were able to prove that the agencies reduced their unfunded liability by a combination of actions:

- **Fully contributing their Annual Required Contribution (ARC) and establishing an investment account.** By keeping up-to-date with actuarial payments, future financial obligations are kept in check.

- **Setting aside "substantial assets" for OPEB liability.** Putting aside more money into a trust account for future OPEB benefits reduces the unfunded liability.

Since FY 2012, the overall unfunded liability of $606.1 million (UAAL) was *reduced* to $540.0 million. However, for agencies that have *increased* their UAAL, we found two basic causes:

- **Underfunding the Annual Required Contribution (ARC).** Agencies that opt to use pay-go and not completely fund their ARC, compound their UAAL each year (i.e., it grows).

- **Not Reporting Implied Rate Subsidies.** As described previously, the implied rate subsidy effectively requires public agencies to calculate an implied liability whenever their retirees participate in group medical plans, but pay the same premiums as active employees. Effective March 31, 2015, all actuarial valuations must include the implicit subsidy liability.[11]

The Liability Fear

Newspapers regularly cover the looming *unfunded* pension crisis across America. Where will the money come from to pay the retirees' pension? Less commonly reported is the looming *unfunded* OPEB crisis. "The logic has been that the OPEB funding problem is 25 years old, so it can wait another year or two — even though procrastinating simply makes the liabilities mushroom ... The problem of zero-funded OPEB plans is often ignored."[12] In Marin County, for the 39 agencies we studied, the unfunded pension liability is $956.3 Million and the unfunded OPEB liability (UAAL) is $540.0 Million.

Agencies need to look at their future budgets to decide if they will be able to pay an increasingly larger UAAL obligation. If they can, then the unfunded liability is simply an anticipated expense. If they cannot, then the unfunded liability is a much more urgent issue. To give some insight into the agency's potential challenge paying off its UAAL obligation, we compared each agency's most recent Annual Required Contribution (ARC) with its most recent total revenue. See Appendices D (municipalities), E (school districts), and F (special districts) for details.

If an agency does not plan sufficiently for paying their OPEB liability, citizens may be asked to make hard choices:

- **Agencies may try to find the money**. Agencies may reduce services ("crowd-out"), increase fees, attempt to raise taxes or issue bonds (with voter approval). If an agency proposes new taxes or bonds which may be used to reduce OPEB debt, the Grand Jury

[11] "Actuarial Standard of Practice No. 6." *Actuarial Standards Board.* May 2014.

[12] Miller, Girard and Link, Jim. '"New Normal" Retirement Plan Designs.' *Government Finance Review. Aug. 2009.*

believes it should fully disclose that purpose, and not use language that is "virtually impenetrable, written by lawyers for lawyers who are also accountants."[13]

- **Retiree benefits may be reduced.** "However, unlike pensions, OPEBs are typically not guaranteed or protected by state law. State and local governments have much more latitude to scale back OPEBs and share OPEB-related costs with retirees. Many have implemented several changes to that effect."[14]

Approaching Cost Containment

Over the years, many organizations have investigated reducing OPEB liabilities through cost containment strategies. Because of legal and political issues, these strategies may not be appropriate for every public agency. Rather than limit agencies to specific strategies, the Grand Jury wants to ensure that decision makers in the agencies are aware of the breadth and depth of these options to better inform any future liability-reducing actions.

In 2006, Governor Schwarzenegger established the *Public Employee Post-Employment Benefits Commission*[15] to identify the extent of unfunded OPEB liabilities and evaluate approaches for addressing the liabilities. The 34 recommendations contained in the Commission's final report addressed both pension and OPEB funding. While some of these recommendations are now legally required or obsolete, the Grand Jury believes two recommendations are still warranted today:

- ✓ **Public agencies providing OPEB benefits should adopt prefunding as their policy.** As a policy, prefunding OPEB benefits is just as important as prefunding pensions. The ultimate goal of a prefunding policy should be to achieve full funding.
- ✓ **Any employer considering the use of OPEB bonds should fully understand, and make public, the potential risks they bring.** Such risks include: shifting costs to future generations and converting a future estimated OPEB liability into fixed indebtedness.

In 2015, Smart Business Magazine highlighted cost containment strategies[16] for company employee benefits, including:

- ✓ **Consumer-Directed Health Plans (CDHPs).** Combines a high-deductible plan with a health savings account.
- ✓ **Adding Voluntary Benefits.** Employees can add benefits as-needed with pre-tax dollars.
- ✓ **Self-Funding the Health Plan.** Employers directly pay for health care claims, and reduce their financial risk by purchasing stop loss insurance from an insurance carrier.

---

[13] Herhold, Scott. "How ballot questions for bonds mislead voters." *The Mercury News*. 22 Aug. 2016.
[14] "Effective Advocacy & Key City Issues." *League of California Cities*. 20 Jan. 2016.
[15] "Funding Pensions & Retiree Health Care for Public Employees." *Public Employee Post-Employment Benefits Commission*. Jan. 2008.
[16] Pritts, Craig. "Benefit Renewals: Cost containment strategies that can control your health care costs." *Smart Business Pittsburgh*. Sep. 2015.

- ✓ **Expanding Wellness Programs.** Reportedly, 75% of health costs are preventable.
- ✓ **Reduce Spousal Subsidies or Add Spousal Surcharges.**

In 2016, the League of California Cities OPEB Task Force[17] listed a number of strategies that agencies could consider to reduce OPEB costs. The Grand Jury agrees that these strategies should be examined:

- ✓ **Benefit Changes for Future Employees.** Reduce benefits for new hires.
- ✓ **Benefit Changes for Existing Employees.** Reduce benefits for current employees (not retirees).
- ✓ **Change Contributions to Fixed Amounts.** Instead of paying a percentage of premiums, agencies would pay a fixed dollar amount as premiums increase.
- ✓ **Limit Duration of Retiree Medical Benefit.** Medical benefits would only extend until the retiree is eligible for Medicare.
- ✓ **Close the Benefit to New Employees.** Remove the benefit for new hires.
- ✓ **Adopt or Increase Tenure Requirements.** Require longer employment tenure before being eligible for benefits.
- ✓ **Cover Only Retirees.** Currently public agencies may cover the retiree's dependents as well.
- ✓ **Make Agency Insurance Secondary.** If the retiree has access to additional health care (from a spouse, previous employer, or veteran's program), use that primarily.
- ✓ **Eliminate Retiree Health Care for New Employees.** As pensions have become more generous, require retirees to pay for their own health care.
- ✓ **Buy Down/Buy Out Benefits.** Public agencies would pay a lump sum to reduce or eliminate their health care benefit.
- ✓ **Adjust Health Care Plans.** Changing the health care plans offered can reduce both employee and retiree health costs.
- ✓ **League Health Benefits Marketplace (Exchange).** This plan "provides cities the flexibility lacking in other group coverage medical plan designs to decouple and unbundle active employee and retiree costs, which is key to reducing OPEB liabilities."[18]
- ✓ **Audit Retiree Medical Benefits.** Ensure benefits are both compliant and not duplicative.
- ✓ **Enroll Retirees in Medicare Part A.** To the extent that some retirees are ineligible for full Medicare coverage and must pay for Medicare Part A, it may be more cost effective to pay for their enrollment in Part A.

[17] "Retiree Health Care: A Cost Containment How-To Guide." *League of California Cities*. Sep. 2016

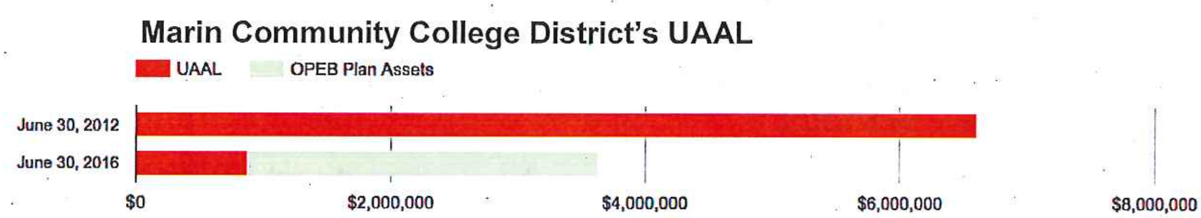
[18] "Health Benefits Marketplace." *League of California Cities*. Accessed Feb 2017.

✓ **Utilize Federally Subsidized Prescription Plan for Medicare Retirees.** As possible, use available subsidies.

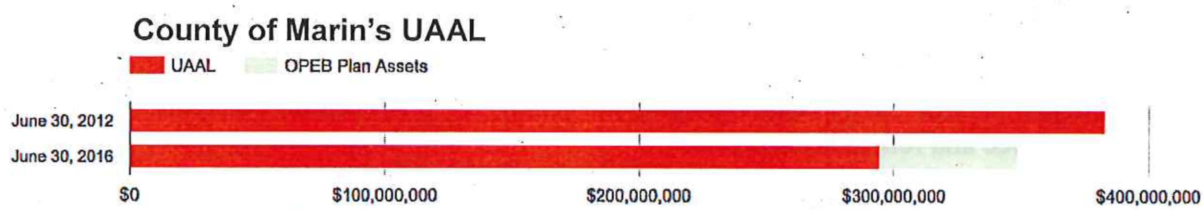
The Grand Jury recognizes that there is no one-size-fits-all acceptable solution to reduce unfunded OPEB liabilities, and that changing benefits requires a dialogue not only with agency staff but also union representatives. Therefore, we encourage agencies to clearly articulate the risk that the promised retiree benefits may not be able to be funded and to work with unions and staff to create a solution that is sustainable and fair for all parties, including the public.

Making a Dent

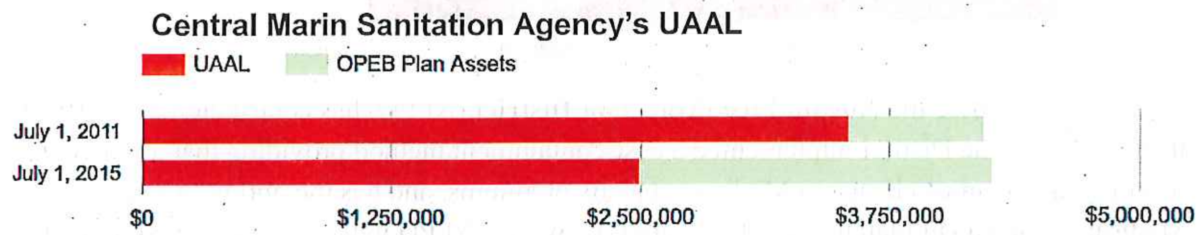
The Grand Jury found that some agencies have made notable reductions in their unfunded liability (UAAL) and are implementing best practice cost containment strategies. Their efforts are highlighted below, as reported in their financial statements and actuarial valuations. The valuation dates shown in the charts are from the agencies' actual valuation reports.



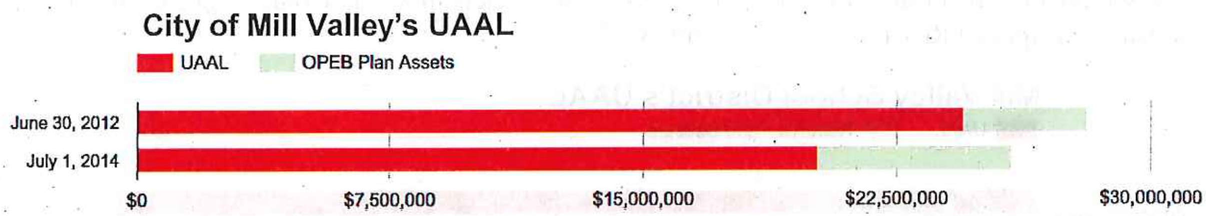
Marin Community College District ("College of Marin") decreased its UAAL by changing its OPEB funding policy. Through FY 2012, the district operated its OPEB plan solely on a pay-as-you-go basis ("pay-go"). However, during FY 2013, it established an irrevocable trust with the California Employers' Retiree Benefit Trust (CERBT) to prefund its OPEB costs through CalPERS, in addition to its regular pay-go costs.



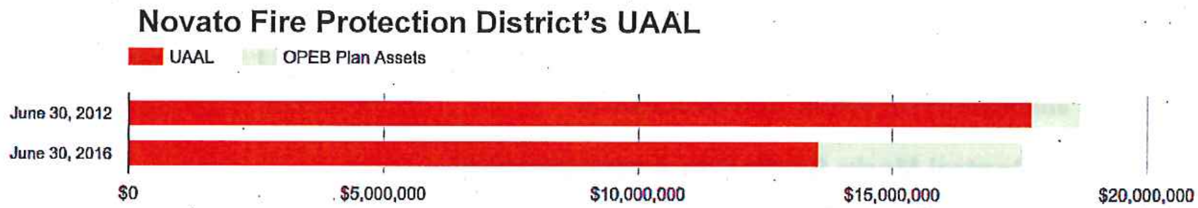
According to the CAFRs and actuarial valuations, the **County of Marin** accomplished its improvements primarily by changing its OPEB funding policy. Through FY 2012, the County was a pay-go funder but had also contributed to a reserve intended to be used to fund its OPEB plan. In February 2013, the County entered into an irrevocable trust agreement with the CERBT to prefund the County's OPEB costs through CalPERS, in addition to the regular pay-go contributions. The County transferred the reserve balance to the CERBT and began prefunding its full ARC during FY 2013. From FY 2013 through FY 2016, the County contributed 103.57% of its total ARC for that period. The most recent actuarial valuation reflects that the County also decreased its AAL by another factor within its control. It did not increase the maximum benefit for retirees eligible for its OPEB "Plan 3": retirees hired between October 1, 1993 and December 31, 2007 and those hired earlier who elect Plan 3.



Before FY 2012, the **Central Marin Sanitation Agency** (CMSA) contracted with CalPERS to administer its OPEB plan and entered into an irrevocable trust agreement with the CERBT to prefund future OPEB costs.



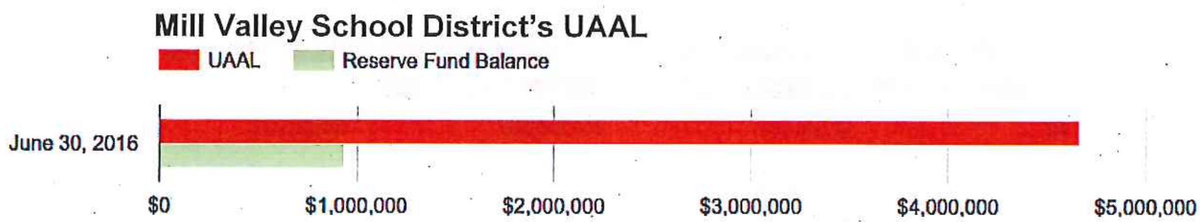
Through FY 2014, the **City of Mill Valley**'s CAFRs reflect that the City was funding its OPEB on a pay-go basis, plus some amounts to its trust account to prefund future OPEB costs. The most recent actuarial valuation noted the City's increased trust account contributions and the City's intent to consistently make total OPEB contributions greater than or equal to ARC each year. During 2013, Mill Valley implemented two OPEB cost-containment methods for new employees: (1) it increased their length of service required to be eligible for OPEB from 15 years to 20 years; and (2) it restricted any OPEB benefit to the employee only. In March 2017, the City started public discussions to eliminate OPEB benefits for American Federation of State, County and Municipal Employees (AFSCME) union members hired after January 1, 2017 and establishing a Retiree Health Savings Account, which is estimated to save $3,000/year for each employee.

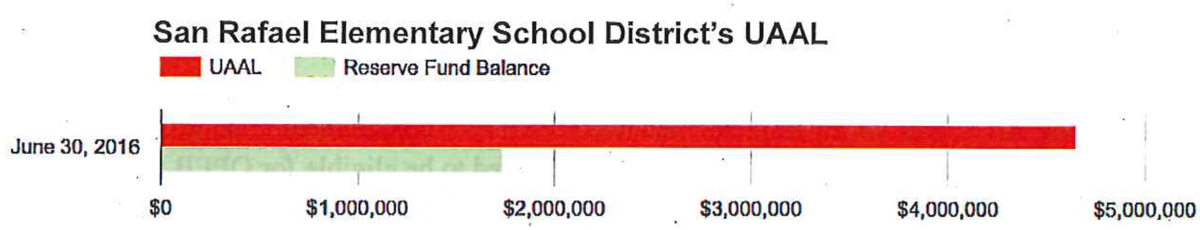


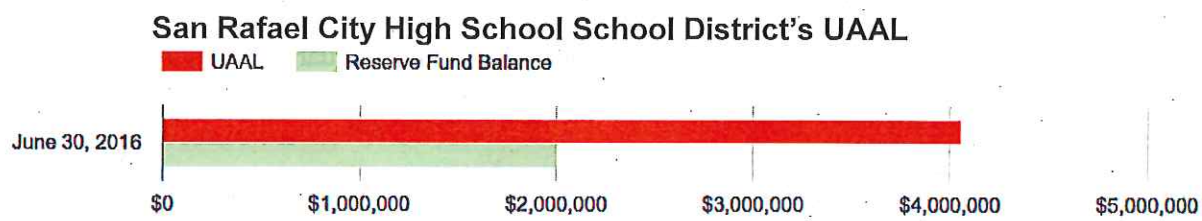
Starting in FY 2012, the **Novato Fire Protection District** (NFPD) has contributed 110.49% of its total ARC. The District implemented a cost-containment method providing that a retiree reaching age 65 must change to Medicare, pay its premiums, and has the option to select a Medicare supplement plan through the district. However, NFPD will only pay a maximum of 80% of the applicable Kaiser Medicare supplemental rate.

A Fund Which Would Make a Dent

The Grand Jury also found that at least three school districts in Marin County have established *substantial* Special Reserve Funds for OPEB:







California law authorizes these funds and many school districts throughout the state have them. They are commonly referred to as a *Fund 20, Special Reserve Fund for Postemployment Benefits*. Such Funds may be an important step in financing future benefits, and these school districts should be commended for establishing a Fund 20. However, funds set aside for future benefits (as opposed to pay-go costs) should be considered contributions to an OPEB plan only "if the vehicle established is one that is capable of building assets that are separate from and independent of the control of the employer and legally protected from its creditors. Furthermore, the sole purpose of the assets should be to provide benefits under the plan. These conditions generally require the establishment of a legal trust."[19] The Mill Valley School District should also be commended for establishing a trust with CERBT. Yet, if a school district deposits its Fund 20 balance into a trust, the district will reduce (or further reduce) its UAAL.

GASB 75

Most Marin agencies began implementing Governmental Accounting Standards (GASB) Statement 45 for their OPEB financial reporting on July 1, 2009. Beginning July 1, 2017, agencies will switch to using GASB 75. The changes to OPEB reporting are similar to changes in the GASB reporting of net pension liability (GASB 67 and 68). It states, "Employers that participate in a defined benefit pension plan administered as a trust or equivalent arrangement are required to record the net pension liability, pension expense, and deferred outflows/deferred inflows of resources related to pensions in their financial statements as part of their financial position."[20] These changes have increased financial scrutiny, and triggered public agencies across the United States to make changes to their pension funding strategies.[21] The primary objective of GASB 75 is to improve governmental accounting and financial reporting for OPEB, by improving the consistency, comparability and transparency of the information reported.[22] The new reporting standards will cause actuaries to change how they prepare their OPEB valuations and cause agencies to change their financial reporting. (See Appendix G: GASB 45 vs. 75 Overview for more details.) Three important changes are GASB 75's requirements for *biennial actuarial valuations, balance sheet liability reporting,* and *single blended discount rate.*

Biennial Actuarial Valuations. GASB 75 requires all agencies to obtain OPEB actuarial valuations biennially. In contrast, GASB 45 allowed agencies having fewer than 200 OPEB plan members to obtain such valuations triennially. This change affects several Marin agencies.

Balance Sheet Liability Reporting. GASB 75 requires agencies to report their Net OPEB Liability (NOL) for agencies with an OPEB trust, or Total OPEB Liability (TOL) for agencies that do not have an OPEB trust, *upfront* on the face of their balance sheets. NOL and TOL are the equivalent of UAAL and AAL under GASB 45 with some technical differences. GASB 75 also requires disclosure of how and why OPEB liability changed from year to year.

Single Blended Discount Rate. The *discount rate* is the rate used to discount future benefit payments (i.e. actuarial accrued liability) to a present value. A lower rate *increases* that liability, and a higher rate *decreases* that liability. Both GASB 45 and GASB 75 permit having higher long-term discount rates with full prefunding over the amortization period and plan assets exist.

[19] "City of Mill Valley, Actuarial Valuation of Other Post-Employment Benefit Programs As of July 1, 2014" *Bickmore.* Aug. 2015
[20] "Notes to the Agent Multiple-Employer Defined Benefit Pension Plan GASB 68 Accounting Valuation Reports." *California Public Employees Retirement System.* 30 Jun. 2016.
[21] Farmer, Liz and Maciag, Mike. "Why Some Public Pensions Could Soon Look Much Worse." *Governing.* 17 Mar. 2015.
[22] "Summary of Statement No. 75: Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions." *Governmental Accounting Standards Board.* June 2015.

However, GASB 75 requires a single blended discount rate if the plan has some assets, but is projected to be insufficient to make benefit payments at some future point. The single rate combines the long-term rate when assets are projected to cover the payments and a municipal bond (lower) rate when assets are projected to be insufficient.

The Grand Jury also notes that actuaries determined an Annual Required Contribution (ARC) under GASB 45, while GASB 75 uses the term Actuarially Determined Contribution (ADC). However, both terms have a similar meaning. The ARC represents a target contribution required to ensure there are sufficient savings to finance and cover the promised OPEB.[23] GASB 75 similarly defines the ADC as also representing a target contribution to an OPEB plan, determined in conformity with Actuarial Standards of Practice (ASOP). ASOP No. 6, adopted in 2014, defines the ADC as a potential payment to prefund an OPEB plan, using a contribution allocation procedure that may include an amortization method.[24] The ARC method may be used for the ADC.[25]

The Grand Jury believes that GASB 75 will cause a local public agency's financial situation to look much worse. The agency "should expect a larger total OPEB liability because the single blended rate calculated under [GASB] 75 is likely to be lower than the discount rate under existing standards."[26] "The recognition of the Net OPEB Liability in the employer's financial statements will likely be a significant increase in the amount of liability that was reported under prior GASB standards."[27] This change will likely increase scrutiny of the agencies' balance sheet OPEB obligations, and force agencies to focus on addressing these liabilities. For example, the previous section ("Making a Dent") shows that agencies following full prefunding policies with plan assets achieve the goal of reducing their unfunded OPEB liabilities. Under GASB 75, an agency can reach that goal with a prefunding policy and practice supporting a projection that plan assets will be sufficient to make *all* projected benefit payments.

"It's Hard to Wrap Your Head Around This!"

– Marin County Elected Official

"One of the most important responsibilities a local elected official has is oversight of the agency's spending."[28] However, understanding the ins-and-outs of financial and actuarial standards imposed on public agencies is not easy, as evidenced by the (above) official's exclamation. Even if an elected official has business financial expertise, the standards that guide public agencies differ significantly. If an elected official has trouble understanding these

---

[23] "Guide to Implementation of GASB Statements 43 and 45 on Other Postemployment Benefits." *Governmental Accounting Standards Board.* 2005.
[24] "Actuarial Standard of Practice No. 6." *Actuarial Standards Board.* May 2014.
[25] "GASB Approves New OPEB Employer Accounting Standard (No. 75)." *Bartel Associates.* July 2015.
[26] McAllister, Brian and Spinellli, Connie and Belger, Diane. "Getting familiar with OPEB." *Journal of Accountancy.* 1 Aug. 2016.
[27] "GASB Issues Two Other Postemployment Benefit (OPEB) Related Exposure Drafts." *Milliman.* Aug. 2014.
[28] "Budgeting and Finance." *Institute for Local Government.* Accessed Feb. 2017.

concepts, how can the average citizen hope to understand the annual Comprehensive Annual Financial Reports (CAFRs), budgets, or Audits?

"Relatively few educational opportunities are provided to help trustees and policy makers understand how liabilities are calculated, in the role and sensitivity of actuarial assumptions, the impact that amortization periods and actuarial smoothing have on the retirement plan's short-term and long-term contribution rates, and of the full meaning of a plan's funded status."[29]

Therefore, the Grand Jury recommends that public agencies improve both their financial literacy and transparency:

- Elected officials should take (and invite the public to attend) a financial literacy class such as one offered by: League of California Cities,[30,31] UC Davis,[32] ICMA University,[33] Government Finance Officers Association,[34] or the California State Association of Counties.[35]
- Financial documents issued by public agencies should be made easier to understand by the average resident.
- Public financial presentations both by and to public agencies should be easier to understand.

For example, the Government Finance Officers Association has established best practices for budget documents,[36] and annually recognizes agencies with "Distinguished Presentation Awards." Governing Magazine's "Guide to Financial Literacy: Connecting Money, Policy and Priorities,"[37] explains not only the terminology and purpose of various financial documents, it also offers essential questions that leaders should know to ask. Additional examples of classes and presentations can also be found in Appendix H (Example Financial Literacy Classes and Presentations).

---

29 Kehler, David. "Public Pension Plan Financing: The Devil's in the Actuarial Details." *Society of Actuaries.* 2010.
30 "New Mayors & Council Members Academy." *League of California Cities.* Accessed Mar. 2017.
31 "Municipal Finance Institute." *League of California Cities.* Accessed Mar. 2017.
32 Brinkley, Dr. Catherine. "Community Governance." *UC Davis.* Spring 2016.
33 "Local Government 101 Online Certificate Program." *ICMA University.*
34 "Government Finance Officers Association Training." *Government Finance Officers Association.*
35 "California State Association of Counties Upcoming Courses." *California State Association of Counties.*
36 "Making the Budget Document Easier to Understand." *Government Finance Officers Association.* Feb 2014.
37 Marlowe, Justin. "Guide to Financial Literacy: Connecting Money, Policy and Priorities." *Governing.* 2014.

We Are Not Alone

Marin County's public agencies are not unique in facing the challenges of OPEB liabilities.

"Total unfunded state other postemployment (OPEB) liabilities have increased, according to S&P Global Ratings' latest survey of U.S. states. For states that have completed new OPEB actuarial studies since our last survey (which used 2013 or prior studies), total liabilities increased $59.4 billion, or 12% over a span of two years."[38]

In January 2016, California Controller Betty Yee "pegged the state's unfunded liability for other post-employment benefits (OPEB) at $74.1 billion. That's how much it will cost to allow workers to stay on their health plans after they retire until they're eligible for Medicare, subsidize their premiums, and then provide them with supplemental benefits after Medicare kicks in. The benefit's value can exceed $16,000 in the case of married couples and $20,000 in the case of retirees with children."[39]

The City of San Luis Obispo (California) reduced their 2009 estimated $5.9 million OPEB liability to $4.2 million by changing their amortization period and changing from pay-go to prefunding their Annual Required Contribution (ARC). In January 2010, the City of Beverly Hills (California) eliminated OPEB liabilities for new non-safety hires by shifting from a defined *benefit* health plan to a defined *contribution* retiree health plan.[40] South Lake Tahoe (California) collaborated with its stakeholders to reduce OPEB liability by 73 percent by creating a new insurance plan.[41]

Sharing Our Data

Despite the fact that agencies' OPEB financial documents are publicly available, the Grand Jury spent an enormous effort to gather the documents (not all of the documents were available online, nor text-searchable), extract the data, and analyze it. With the rise of the Open Data Movement (examples include: Data.gov, the Data Foundation, OpenGov, Marin County's Open Data Portal, and the City of Sausalito's Budget Transparency Tool), we wanted other organizations – including future Grand Juries – to be able to leverage our public data. Therefore, we have created a data portal consisting of all the Comprehensive Annual Financial Reports (CAFRs) and Audits for the 39 agencies we researched for FY 2011– FY 2016 along with a spreadsheet containing validated data extracted from those and other financial reports (including Annual Required Contributions (ARCs), discount rates, amortization periods, and the change of assets, liabilities, and unfunded liability). This information is available online, for free access here: https://goo.gl/fSqOfX.

---

[38] Spain, Carol. "Rising U.S. State Post-Employment Benefit Liabilities Signal An Unsustainable Trend." *Standard and Poors.* 7 Sep. 2016.

[39] Eide, Stephen and Disalvo, Daniel. "Phase out costly perks for retired state workers." *San Diego Union Tribune*. 1 Apr 2016.

[40] "Retiree Health Care: A Cost Containment How-To Guide." *League of California Cities*. Sep. 2016

[41] Kerry, Nancy. "Reducing Unfunded Liabilities for Other Post-Employment Benefits." *Western City*. May 2015.

CONCLUSION

Other Postemployment Benefits (OPEB) are just one of many financial obligations that public agencies face. Since the amount of the Annual Required Contribution (ARC) is a relatively small percentage for many agencies' annual total revenue, it is easy for them to not be too concerned (especially when faced by a much larger underfunded pension benefit). However, unlike pensions, agencies have more opportunities to reduce their OPEB obligations. The Grand Jury sees the delicate balance that agencies are facing: attracting new employees, negotiating with existing employees and retirees, and responsibly managing expenses in the public's interest. While some Marin agencies continue to reduce their unfunded OPEB liability, we are concerned that many agencies still have not yet done so. We hope that this report will give the agencies the additional reminders and tools to address this looming financial burden before more drastic measures need to be taken.

FINDINGS

F1. Many of the municipalities have *decreased* their UAAL obligation since FY 2012.

F2. Some of the schools that have *increased* their UAAL obligation (since FY 2012) are setting aside OPEB contributions into reserve funds (rather than irrevocable trust funds).

F3. Many of the special districts have *increased* their UAAL obligation since FY 2012.

F4. Some of the agencies that stated they comply with their actuarial funding guidelines, are not in compliance as shown in their CAFRs.

F5. GASB 45 has increased the agency's reporting transparency, but the information in these financial reports is difficult for the average person to understand.

F6. GASB 45 permits an agency with a full ARC funding policy in its GASB 45 valuation to increase its discount rate, thereby decreasing its OPEB liability and ARC payments.

F7. Upcoming GASB 75 reporting will further improve an agency's OPEB reporting transparency.

RECOMMENDATIONS

R1. Each agency should adopt a *formal, written policy* for contributions to its OPEB plan.

R2. Each agency's standard practice should be to consistently satisfy its formal, written OPEB contribution policy.

R3. Each agency's OPEB contribution policy and practice should support a projection under GASB 75 that its OPEB plan assets will be sufficient to make all projected OPEB benefit payments.

R4. Each agency that uses special reserve funds for Postemployment Benefits should transition to a trust meeting the criteria of GASB 75.

R5. Each term of service, elected or appointed officials of each agency should take a public agency financial class.

R6. Each agency should make its CAFRs, Audits, and GASB valuations more readily understandable by the general public.

R7. Each agency should ensure that all of its public financial *presentations* are more readily understandable and scheduled during hours convenient for the public.

R8. Each agency should have the following downloadable and text-searchable documents readily accessible on their website: the last five years of CAFRs/Audits and the last three actuarial reports.

R9. Before the next round of bargaining begins, each agency should prioritize the cost containment strategies to be used, including reducing or eliminating OPEB benefits for future employees.

REQUEST FOR RESPONSES

Pursuant to Penal code section 933.05, the grand jury requests responses as follows:

From the following governing bodies:

Municipalities

- City of Belvedere (R1-R9)
- City of Larkspur (R1-R9)
- City of Mill Valley (R1-R9)
- City of Novato (R1-R9)
- City of San Rafael (R1-R9)
- City of Sausalito (R1-R9)
- County of Marin (R1-R9)
- Town of Corte Madera (R1-R9)
- Town of Fairfax (R1-R9)
- Town of Ross (R1-R9)
- Town of San Anselmo (R1-R9)
- Town of Tiburon (R1-R9)

School Districts

- Dixie Elementary School District (R1-R9)
- Kentfield School District (R1-R9)
- Larkspur-Corte Madera School District (R1-R9)
- Marin Community College District (R1-R9)
- Mill Valley School District (R1-R9)
- Novato Unified School District (R1-R9)
- Reed Union School District (R1-R9)
- Ross School District (R1-R9)
- Ross Valley School District (R1-R9)
- San Rafael City Schools (R1-R9)
- Shoreline Unified School District (R1-R9)
- Tamalpais Union High School District (R1-R9)

Special Districts

- Central Marin Police Authority (R1-R9)
- Central Marin Sanitation Agency (R1-R9)
- Kentfield Fire Protection District (R1-R9)
- Las Gallinas Valley Sanitary District (R1-R9)
- Marin Municipal Water District (R1-R9)
- Marin/Sonoma Mosquito & Vector Control District (R1-R9)
- Marinwood Community Services District (R1-R9)
- North Marin Water District (R1-R9)
- Novato Fire Protection District (R1-R9)
- Novato Sanitary District (R1-R9)
- Ross Valley Fire Department (R1-R9)
- Ross Valley Sanitary District (R1-R9)
- Southern Marin Fire Protection District (R1-R9)
- Tiburon Fire Protection District (R1-R9)

The governing bodies indicated above should be aware that the comment or response of the governing body must be conducted in accordance with Penal Code section 933 (c) and subject to the notice, agenda and open meeting requirements of the Brown Act.

Note: At the time this report was prepared information was available at the websites listed.

Reports issued by the Civil Grand Jury do not identify individuals interviewed. Penal Code Section 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Civil Grand Jury. The California State Legislature has stated that it intends the provisions of Penal Code Section 929 prohibiting disclosure of witness identities to encourage full candor in testimony in Grand Jury investigations by protecting the privacy and confidentiality of those who participate in any Civil Grand Jury investigation.

GLOSSARY

Actuary: A professional dealing with the assessment and management of risk for financial investments, insurance policies, and any other ventures involving a measure of uncertainty.[42]

Actuarial Accrued Liability (AAL): The portion of the actuarial present value benefits allocated to prior years of employment—and thus not provided for by future normal costs.[43]

Actuarially Determined Contribution (ADC): "A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted."[44]

Annual Required Contribution (ARC): The ARC is the employer's periodic required contribution to a defined benefit OPEB plan. The ARC is the sum of two parts: (1) the normal cost, which is the cost for OPEB benefits attributable to the current year of service, and (2) an amortization payment, which is a catch-up payment for past service costs to fund the Unfunded Actuarial Accrued Liability (UAAL) over the next 30 years.[45] Despite the name "Annual **Required** Contribution," the contribution is not legally required.

California Employers' Retiree Benefit Trust (CERBT): This trust fund is dedicated to prefunding Other Post Employment Benefits (OPEB) for all eligible California public agencies. Even those not contracted with CalPERS health benefits can prefund future retiree benefits such as health, vision, dental, and life insurance.[46]

California Public Employees' Retirement System (CalPERS): An agency in the California executive branch that serves more than 1.7 million members in its retirement system and administers benefits for nearly 1.4 million members and their families in its health program.[47]

Discount Rate: A percentage rate required to calculate the present value of a future cash flow.[48]

Governmental Accounting Standards Board (GASB): "The independent organization that establishes and improves standards of accounting and financial reporting for U.S. state and local governments. Established in 1984 by agreement of the Financial Accounting Foundation (FAF) and 10 national associations of state and local government officials, the GASB is recognized by governments, the accounting industry, and the capital markets as the official source of generally accepted accounting principles (GAAP) for state and local governments."[49]

---

42 "Definition of 'Actuary'." *Investopedia.*

43 "Other Postemployment Benefits: A Plain-Language Summary of GASB Statements No. 43 and No. 45." *Governmental Accounting Standards Board.*

44 "Statement No. 75 of the Governmental Accounting Standards Board." *Governmental Accounting Standards Board.* No. 350. June 2015.

45 "GASBhelp." *Governmental Accounting Standards Board.*

46 "California Employers' Retiree Benefit Trust (CERBT) Fund." *CalPERS.* Accessed March 2017.

47 "CalPERS Story." *CalPERS.* Accessed March 2017.

48 "Fixed Income Bond Terms." *Corporate Finance Institute.*

49 "FACTS about GASB." *Governmental Accounting Standards Board.* 2012–2014.

Implied Rate Subsidy: The implicit rate is an inherent subsidy of retiree health care costs by active employee health care costs when health care premiums paid by retirees and actives are the same.[50]

Net OPEB liability: Introduced in GASB 75, the liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit OPEB plan that is administered through a trust.[51] GASB 45 uses Unfunded Actuarial Accrued Liability (UAAL) to connote a similar liability.

Other Postemployment Benefits (OPEB): Benefits (other than pensions) that U.S. state and local governments provide to their retired employees. These benefits principally involve health care benefits, but also may include life insurance, disability, legal and other services.[52]

Pay-As-You-Go Funding (Pay-go): With pay-as-you-go funding, plan contributions are made as benefit payments become due and funds necessary for future liability are not accumulated. That is, contributions made are for current retirees only, causing the majority of retiree health benefits liability to be considered unfunded.[53]

Public Employees' Retirement System (PERS): The retirement and disability fund for public employees in California.

Unfunded Actuarial Accrued Liability (UAAL): The excess of the Actuarial Accrued Liability (AAL) over the actuarial value of assets.[54]

---

[50] "Glossary: Implied Rate Subsidy." *Milliman.*
[51] "Summary of Statement No. 75: Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions." *Governmental Accounting Standards Board.* June 2015.
[52] "Other Postemployment Benefits (OPEB)." *Governmental Accounting Standards Board.*
[53] "Glossary: Pay-as-you-go funding." *Milliman.*
[54] "Other Postemployment Benefits: A Plain-Language Summary of GASB Statements No. 43 and No. 45." *Governmental Accounting Standards Board.*

APPENDIX A: OPEB Questionnaire to Public Agencies

OPEB Questionnaire

Definitions

A. Other Post Employment Benefits (OPEB): Benefits (other than pensions) that U.S. state and local governments provide to their retired employees. These benefits principally involve health care benefits, but also may include life insurance, disability, legal and other services.

B. Actuarial Accrued Liability (AAL): Excess of the present value of a OPEB fund's total of future benefits (payable to the OPEB beneficiaries) and fund administration expenses over the present value of the future normal cost of those benefits.

C. Actuarial Value of Assets (AVA): The value of OPEB investments and other property used by the actuary for the purpose of an actuarial valuation (sometimes referred to as valuation assets). Actuaries often select an asset valuation method that smoothes the effects of short-term volatility in the market value of assets.

D. Unfunded Actuarial Accrued Liability (UAAL): The UAAL is the Actuarial Accrued Liability (AAL) minus the value of any assets (AVA) that have been irrevocably set aside to fund future benefits.

E. Annual Required Contribution (ARC): The annual required contribution, or ARC, refers to the amount needed to be contributed by employers to adequately fund an OPEB plan. The ARC is the sum of two factors: a) the cost of OPEB benefits being accrued in the current year (known as the normal cost), plus b) the cost to amortize, or pay off, the OPEB plan's unfunded liability. The ARC is the required employer contribution after accounting for other revenue, chiefly expected investment earnings and contributions from employee participants.

F. Discount Rate: The interest rate used to bring future cash flows to the present to account for the time value of money

APPENDIX A: OPEB Questionnaire to Public Agencies (cont'd)

Agency Identification

1. Name of Responding Agency. ______________________________

Separate Investment Accounts

Please respond to this set of questions with regard to the existence of a separate investment account into which you may deposit each year's funds for amortizing your retiree health care benefits' UAAL?

2. Do you have such a separate investment account?

   ____

3. If you have a separate investment account, when did you set up that account?

   ____

4. If you do have such a separate investment account, what, is its current value?

   ____

5. If you do have a separate investment account, what is the value of your deposits into that account for each of the fiscal years 2011-2012 to the present?

   (1) Fiscal Year 2011-2012 ________________

   (2) Fiscal Year 2012-2013 ________________

   (3) Fiscal Year 2013-2014 ________________

   (4) Fiscal Year 2014-2015 ________________

   (5) Fiscal Year 2015-2016 ________________

6. If you have any other accounts to fund retiree health care benefits, please identify the nature, purpose and current value of those account(s).

   ____

   ____

7. If you do not have an investment account to fund retiree healthcare benefits why not?

   ____

APPENDIX A: OPEB Questionnaire to Public Agencies (cont'd)

Annual Required Contribution ("ARC")

8. What is your ARC for each of the fiscal years 2011-2012 to the present?

   (1) Fiscal Year 2011-2012 ____________

   (2) Fiscal Year 2012-2013 ____________

   (3) Fiscal Year 2013-2014 ____________

   (4) Fiscal Year 2014-2015 ____________

   (5) Fiscal Year 2015-2016 ____________

9. Have you committed to fully fund each year's ARC?

   ____

10. If you have you committed to fully fund each year's ARC, when did you make that commitment? ____________________

11. If you have you committed to fully fund each year's ARC in what amount did you fund each year's ARC for fiscal years 2011-2012 to the present?

   (1) Fiscal Year 2011-2012 ____________

   (2) Fiscal Year 2012-2013 ____________

   (3) Fiscal Year 2013-2014 ____________

   (4) Fiscal Year 2014-2015 ____________

   (5) Fiscal Year 2015-2016 ____________

12. If you have you not committed to fully fund each year's ARC, in what amount did you fund each year's ARC for fiscal years 2011-2012 to the present?

   (1) Fiscal Year 2011-2012 ____________

   (2) Fiscal Year 2012-2013 ____________

   (3) Fiscal Year 2013-2014 ____________

   (4) Fiscal Year 2014-2015 ____________

   (5) Fiscal Year 2015-2016 ____________

APPENDIX A: OPEB Questionnaire to Public Agencies (cont'd)

13. What discount rate(s) have you used to calculate your ARC for each year for fiscal years 2011-2012 to the present?

    (1) Fiscal Year 2011-2012 ____________________

    (2) Fiscal Year 2012-2013 ____________________

    (3) Fiscal Year 2013-2014 ____________________

    (4) Fiscal Year 2014-2015 ____________________

    (5) Fiscal Year 2015-2016 ____________________

14. Please explain how you arrived at such discount rate(s) for fiscal years 2011-2012 to the present.

    ____

    ____

15. Please specify the amortization period which you have used for each year fiscal year from 2011-2012 to the present to calculate your ARC and to fund your retiree health care benefits UAAL.

    (1) Fiscal Year 2011-2012 ____________________

    (2) Fiscal Year 2012-2013 ____________________

    (3) Fiscal Year 2013-2014 ____________________

    (4) Fiscal Year 2014-2015 ____________________

    (5) Fiscal Year 2015-2016 ____________________

Negotiations to Reduce OPEB Obligations

16. If from fiscal years 2011-2012 to the present you have negotiated any caps with any employee group(s) or negotiating group(s) on the amounts you commit to pay existing or new employees for retiree health care benefits, please specify the following for each negotiating group:

    (1) The employee group(s) or negotiating group(s):

    ____

APPENDIX A: OPEB Questionnaire to Public Agencies (cont'd)

(2) The nature of the cap: ______________________

(3) The date such cap was negotiated: ______________

(4) Whether applicable to both new and existing employees:

____

(5) If there is no negotiated cap, what is your cap?

____

17. If from fiscal years 2011-2012 to the present you have negotiated with any employee group or negotiating group a higher retirement age on the amounts you commit to pay existing or new employees for retiree health care benefits, please specify the following for each employee group(s) and negotiating group(s):

(1) The employee group(s) or negotiating group(s):

____

(2) The change in retirement age: ______________________

(3) The date such higher retirement age was negotiated: ______________

(4) Whether the higher retirement age is applicable to both new and existing employees: ______________________

18. If from fiscal years 2011-2012 to the present you have negotiated with any employee group(s) or negotiating group(s) to require active employees to contribute towards the cost of their retiree health care benefits, please specify the following for each employee group(s) and negotiating group(s):

(1) The employee group(s) or negotiating group(s):

____

(2) The nature of employee contribution:

____

(3) Whether you increased the employee's compensation to satisfy part of this contribution:

____

(4) The date such increased contribution went into effect: ______________

APPENDIX A: OPEB Questionnaire to Public Agencies (cont'd)

(5) Whether applicable to both new and existing employees:

____

(6) The amount of the employee contribution:

____

19. Please explain the nature of reduction in OPEB benefits, if any, when a recipient becomes eligible for Medicare.

____

20. What OPEB benefits (by type and agency funding amount) do you offer to your employees. If the benefits differ between employee group or negotiating groups or based on date of hire, please explain.

____

Your Website

21. Is there a link on your website to provide the latest following information?

____

(1) actuarial valuation of your AAL,
(2) your UAAL,
(3) its consequent percent funded,
(4) the Discount Rate (annual percentage) used to determine these values, and
(5) a projection of outlays ("Pay-Go") for retiree health care benefits for each of the current and subsequent 10 years?

(Collectively "Website Link")

22. If you maintain a Website Link, when was this information first put on your website?

____

23. With regard to the Website Link information, to the extent such information is not on your website, why not?

____

APPENDIX A: OPEB Questionnaire to Public Agencies (cont'd)

24. Please provide us the URL for the website page(s) that display this Website Link information.

____

Financial Reporting

25. Please provide the audited Comprehensive Annual Financial Report (CAFR) for fiscal year 2012 (2011-2012) in one of the following formats:

(1) a hyperlink to a publicly available web site containing the appropriate PDF document (preferred): ______________________________

(2) a digital copy of the appropriate PDF file, or

(3) a printed document.

APPENDIX B: Example Actuarial Valuation Certification

ACTUARIAL VALUATION CERTIFICATION

This report presents the City of Novato's Retiree Healthcare Plan ("Plan") January 1, 2014 actuarial valuation. The purpose of this valuation is to:

- Determine the Governmental Accounting Standards Board Statement Nos. 43 and 45 January 1, 2014 Benefit Obligations,
- Determine the Plan's January 1, 2014 Funded Status, and
- Calculate the 2014/15 and 2015/16 Annual Required Contributions.

The report provides information intended for reporting under GASB 43 and 45, but may not be appropriate for other purposes. Information provided in this report may be useful to the City for the Plan's financial management. Future valuations may differ significantly if the Plan's experience differs from our assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

The valuation is based on Plan provisions, participant data, and asset information provided by the City as summarized in this report, which we relied on and did not audit. We reviewed the participant data for reasonableness.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. Additionally, in our opinion, actuarial methods and assumptions comply with GASB 43 and 45. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,

John E. Bartel, ASA, MAAA, FCA President Bartel Associates, LLC October 28, 2014	Bianca Lin, FSA, MAAA, EA Assistant Vice President Bartel Associates, LLC October 28, 2014

Source: "City of Novato Retiree Healthcare Plan." City of Novato, California. January 1, 2014.

APPENDIX C: Finding Key OPEB Information in CAFRs or Audits

Where can people find important OPEB-related information in an agency's financial reports?

Example from a Municipality's Comprehensive Annual Financial Report (CAFR) (note: no prefunding contributions made):

NOTE 10 - Postemployment Benefits Other Than Pensions

Development of 2015 / 2016 Fiscal Year
Annual OPEB Cost - Based on a 4.00% discount rate

AAL	Actuarial Accrued Liability	$ 3,629,754
	Actuarial Value of Assets	-
UAAL	Unfunded Actuarial Accrued Liability	$ 3,629,754
	Amortization Period	23 years
	Annual % of Payroll Amortization of Unfunded AAL	$ 119,323
	Normal Cost (based on the Entry Age Normal Method)	177,525
ARC	Annual Required Contribution	296,848
	Interest on Net OPEB Obligation	73,576
	Adjustment to ARC	(89,962)
	Annual OPEB Cost	280,462
	Pay-as-you-go Cost	(105,580)
	Increase in net OPEB Obligation	174,882
	Net OPEB Obligation - beginning of year	1,839,397
	Net OPEB Obligation - end of year	$ 2,014,279

Example from a Municipality's Comprehensive Annual Financial Report (CAFR):

Required Supplementary Information
Schedule of Funding Progress (unaudited)
Other Postemployment Benefits Plan
As of June 30, 2016

The Schedule of Funding Progress presents trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits. Trend information from the actuarial studies is presented below:

Actuarial Valuation Date	Actuarial Accrued Liability (AAL) (a)	Actuarial Value of Assets (b)	Unfunded AAL (UAAL) (a-b)	Funded Ratio (b/a)	Covered Payroll (c)	UAAL as a % of Covered Payroll [(a-b)/c]
July 1, 2008	$ 1,747,300	$ -	$ 1,747,300	0%	$ 3,725,600	46.9%
July 1, 2011	$ 1,941,900	$ -	$ 1,941,900	0%	$ 4,068,100	47.7%
July 1, 2014	$ 1,628,827	$ -	$ 1,628,827	0%	$ 1,999,530	81.5%

APPENDIX C: Finding Key OPEB Information in CAFRs or Audits (cont'd)

Example from School District's Audit:

ARC	Annual required contribution (ARC)	$	24,585
	Interest on net OPEB obligation		(499)
	Adjustment to ARC		1,537
	Annual OPEB cost		25,623
Contribution	Contributions made:		
	Contributions from governmental funds		(19,944)
	Decrease in net OPEB (asset)		5,679
	Net OPEB Obligation (asset) - July 1, 2015		(12,465)
	Net OPEB Obligation (asset) - June 30, 2016	$	(6,786)

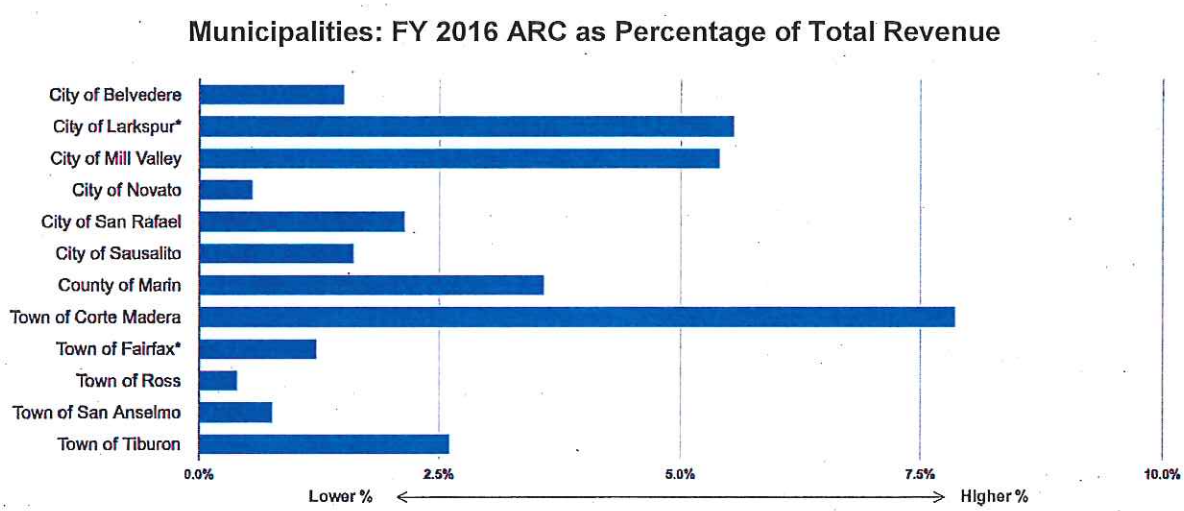
Funded Status and Funding Progress - OPEB Plans

As of July 1, 2014, the most recent actuarial valuation date, the District did not have a funded plan. The actuarial liability (AAL) for benefits was $189,127 and the unfunded actuarial accrued liability (UAAL) was $189,127.

APPENDIX D: Marin Municipalities' ARC as a Percentage of Total Revenue

The amount of an agency's annual required contribution (ARC) can be compared to its total revenue. A higher percentage may signal future budgetary challenges if not properly managed.

Municipality	UAAL FY 2012	UAAL FY 2016	UAAL Change	ARC FY 2016	Total Revenue FY 2016
City of Belvedere	$374,116	$1,036,193	662,077	$118,105	$7,855,000
City of Larkspur*	$7,493,551	$13,698,307	6,204,756	$1,165,424	$21,009,094
City of Mill Valley	$24,481,979	$20,156,488	(4,325,491)	$2,157,955	$39,916,000
City of Novato	$2,786,000	$3,673,318	887,318	$262,000	$47,954,000
City of San Rafael	$24,295,000	$32,727,000	8,432,000	$2,148,000	$100,490,000
City of Sausalito	$6,646,550	$5,730,670	(915,880)	$428,391	$26,588,325
County of Marin	$382,720,000	$294,375,000	(88,345,000)	$21,937,000	$611,801,000
Town of Corte Madera	$11,790,000	$9,704,000	(2,086,000)	$1,855,000	$23,593,928
Town of Fairfax*	$1,024,300	$835,400	(188,900)	$116,600	$9,212,366
Town of Ross	$417,000	$383,000	(34,000)	$36,000	$9,264,385
Town of San Anselmo	$1,941,900	$1,628,827	(313,073)	$147,364	$19,216,454
Town of Tiburon	$2,900,736	$3,629,754	729,018	$296,848	$11,341,758

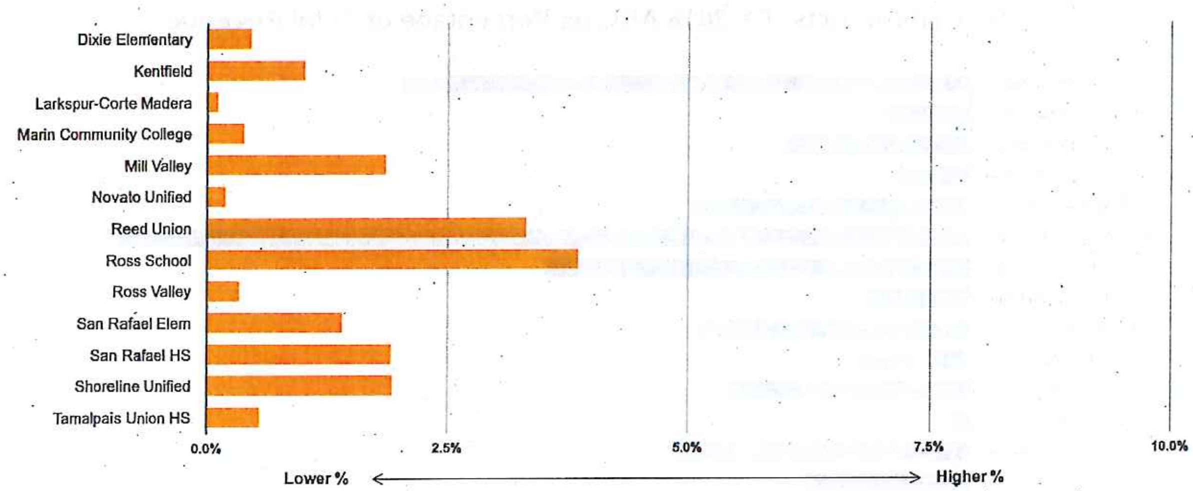


APPENDIX E: Marin School Districts' ARC as a Percentage of Total Revenue

The amount of an agency's annual required contribution (ARC) can be compared to its total revenue. A higher percentage may signal future budgetary challenges if not properly managed.

School District	UAAL FY 2012	UAAL FY 2016	UAAL Change	ARC FY 2016	Total Revenue FY 2016
Dixie Elementary	$1,057,000	$1,128,416	71,416	$114,463	$25,361,193
Kentfield	$1,432,000	$1,340,399	(91,601)	$199,312	$19,712,081
Larkspur-Corte Madera	$207,671	$189,127	(18,544)	$24,585	$21,966,152
Marin Community College	$6,604,85	$877,366	(5,727,491)	$261,064	$67,403,849
Mill Valley	$2,159,158	$4,662,117	2,502,959	$945,212	$50,815,837
Novato Unified	$823,300	$1,503,161	679,861	$175,235	$94,185,666
Reed Union	$2,730,727	$5,867,732	3,137,005	$855,510	$25,711,228
Ross School	$2,085,000	$3,086,992	1,001,992	$338,061	$8,748,369
Ross Valley	$1,838,000	$1,561,792	(276,208)	$98,513	$29,323,920
San Rafael Elem	$5,462,058	$6,200,000	737,942	$880,377	$62,306,271
San Rafael HS	$4,943,154	$5,400,000	456,846	$726,362	$37,919,147
Shoreline Unified	$1,798,111	$2,013,470	215,359	$286,133	$14,823,677
Tamalpais Union HS	$3,892,000	$3,053,537	(838,463)	$505,711	$92,371,238

School Districts: FY 2016 ARC as Percentage of Total Revenue

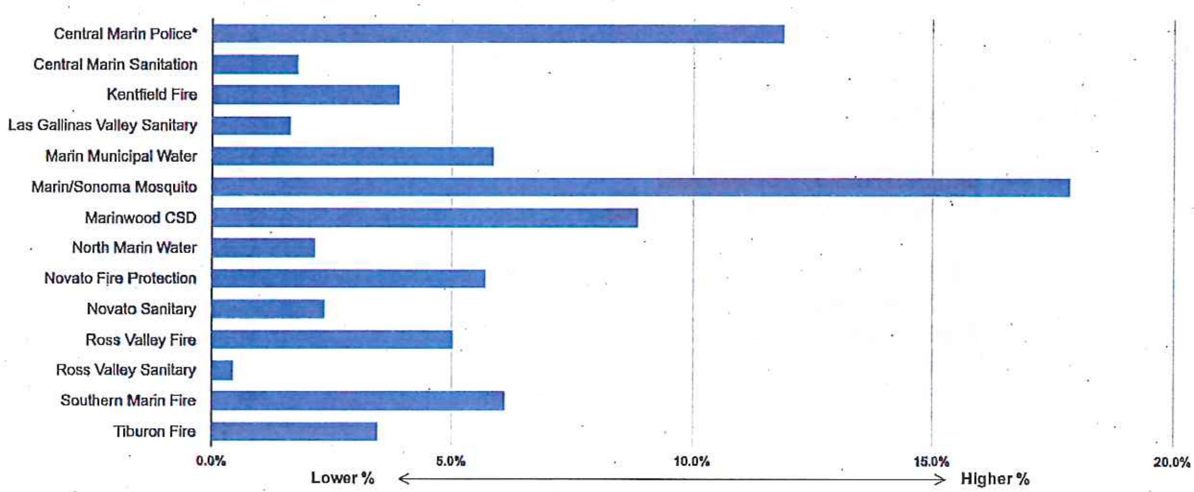


APPENDIX F: Special Districts' ARC as a Percentage of Total Revenue

The amount of an agency's annual required contribution (ARC) can be compared to its total revenue. A higher percentage may signal future budgetary challenges if not properly managed.

Special District	UAAL FY 2012	UAAL FY 2016	UAAL Change	ARC FY 2016	Total Revenue FY 2016
Central Marin Police*	$7,493,551	$15,155,425	7,661,874	$1,321,032	$11,087,891
Central Marin Sanitation	$2,872,049	$2,496,424	(375,625)	$301,327	$16,952,527
Kentfield Fire	$2,004,784	$2,146,412	141,628	$195,606	$5,014,333
Las Gallinas Valley Sanitary	$1,985,486	$2,094,980	109,494	$211,861	$12,976,695
Marin Municipal Water	$34,264,000	$33,104,000	(1,160,000)	$3,683,000	$62,502,430
Marin/Sonoma Mosquito	$12,030,407	$15,038,000	3,007,593	$1,542,000	$8,638,747
Marinwood CSD	$4,422,797	$6,477,757	2,054,960	$518,769	$5,837,007
North Marin Water	$3,470,834	$4,085,375	614,541	$384,385	$17,912,719
Novato Fire Protection	$16,751,185	$13,567,350	(3,183,835)	$1,596,595	$27,838,320
Novato Sanitary	$6,112,283	$6,313,211	200,928	$452,506	$19,299,289
Ross Valley Fire	$4,917,120	$5,121,615	204,495	$485,075	$9,598,396
Ross Valley Sanitary	$302,766	$693,717	390,951	$109,118	$23,623,985
Southern Marin Fire	$5,285,282	$7,089,540	1,804,258	$916,153	$14,911,632
Tiburon Fire	$2,269,028	$2,182,181	(86,847)	$249,592	$7,184,792

Special Districts: FY 2016 ARC as Percentage of Total Revenue



APPENDIX G: GASB 45 vs. GASB 75 Overview

GASB 45[55,56]	GASB 75[57,58,59,60]	Effect
Actuarial valuations required every 2 or 3 years (based on number of OPEB plan members), with optional alternative measurement method if fewer than 100 plan members.	Actuarial valuation required every 2 years for all OPEB plans, with optional alternative measurement method if fewer than 100 plan members.	More current picture of actuarial liability.
No single discount rate is required when an employer contributes less than ARC but has *some* plan assets.	Requires single discount rate that reflects (1) a long-term rate on plan assets to the extent they are projected to always be sufficient to cover projected payments, and (2) a municipal bond (*lower*) rate for the years when plan assets are not projected to cover projected payments. The projection must be based in part on whether the employer has a policy and practice to make its benefit payments.	Improves consistency, comparability and transparency of OPEB liability reporting. Long-term liability is more accurately stated.
Only "net OPEB obligation" required on face of balance sheet. Unfunded liability (UAAL) reported in plan notes in CAFR (Comprehensive Annual Financial Report) or Audit.	Net OPEB Liability (NOL) reported on the face of the balance sheet. NOL equals actuarial accrued liability (TOL) minus market value of plan assets (FNP). NOL same as UAAL with some technical differences.	Financial reporting of OPEB liabilities parallels GASB 68 for pension reporting.
Provides for limited disclosures in financial statement notes and required supplementary information schedules.	Provides for more extensive disclosures in financial statement notes and schedules. The note disclosures include (1) an explanation of how and why the NOL changed from year to year, (2) a description of contribution requirements and how they are determined, (3) a statement of assumptions and other inputs used to measure, (4) detailed information about the discount rate used, and (5) NOL calculations with 1% increases and decreases in medical trend rate and discount rate.	Improves transparency of OPEB liability reporting.
Six acceptable actuarial cost methods	Must use a single actuarial cost method (*entry age actuarial cost method*).	Improves consistency, comparability, and transparency of OPEB liability reporting
Permits a choice between open or closed amortization periods.	Must use a defined closed period amortization for expenses.	Improves consistency, comparability, and transparency of OPEB liability reporting

55 "Summary of Statement No. 45: Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions." *Governmental Accounting Standards Board.* June 2004
56 "Guide to Implementation of GASB Statements 43 and 45 on Other Postemployment Benefits." *Governmental Accounting Standards Board.* 2005.
57 "Summary of Statement No. 75: Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions." *Governmental Accounting Standards Board.* June 2015.
58 "Overview of GASB Statements 73, 74, and 75." *Milliman.* March 2016
59 "Brief Summary of New OPEB Accounting Standards: GASB 74 and 75." *Bartel Associates.* July 2015.
60 "GASB Approves New OPEB Employer Accounting Standard (No. 75)." *Bartel Associates.* July 2015.

APPENDIX H: Example Financial Literacy Classes and Presentations

County Financial Reporting and Budgeting for Nonfinancial Professionals

Understand and interpret county financial reports

This course provides the tools for decision-makers, elected officials, senior managers – other than accountants and auditors – who want to have an overview understanding of government financial reporting. Participants discuss budgets, financial statements and the audit, and at the 30,000' level what each of those is saying (or not saying!). Participants should bring questions about terms or concepts they have encountered as part of their interaction with county and government financial reporting. The discussion reviews terms and definitions used with government financial reporting and strategies on how to read financial statements and auditor reports to identify critical information and understand what it means … in plain English!

Financial Management: Debt and Investment of Public Funds

Make informed decisions about the use of public resources

Elected and appointed officials make critical decisions on the issuance and administration of debt, and the investment of public funds, but may have little experience or depth of knowledge on this complicated subject. This class provides a foundation on understanding debt, debt capacity, options, and county policy on debt. It examines the fiduciary responsibilities of elected and appointed officials and then explores investment of public funds. An overview of prudent investment policy, portfolio strategy and the role of the investment advisors are also explored.

From: *California State Association of Counties*

Retiree Health Benefits The Funding Issue

- Unlike pensions, health benefits have not been pre-funded for a long period of time
  - Most plan sponsors nationwide have not pre-funded health benefits either
  - Currently very little investment income to help pay benefits
- Costs rise as more members retire, and health inflation outpaces general inflation
- Pre-funding contribution rates have been calculated since 1999 – but pre-funding started only recently

2 GRS

Circumstances That Would Increase Projected Costs

- Medicare funding reductions or cost shifting
- Unexpected new benefit recipients (from health benefit cutbacks of other employers)
- Medical inflation worse than assumed; the actual future contributions will depend on future per capita health cost increases (health inflation) *
- Lower than expected investment returns; bigger impact as plan assets grow
- This is not a complete list

* Per capita costs are projected to increase 9% the first year, graded down to 3.5% in the tenth and later years.

7 GRS

From: "Michigan State Employees: Retiree Health Actuarial Valuation." *Gabriel Roeder Smith & Company*. 30 Sep. 2015

Central Marin Sanitation Agency

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: **Marin County Civil Grand Jury Report – The Budget Squeeze:** ***How will Marin Fund Its Public Employee Pensions***

Recommendation: Provide direction to staff on the preparation of the Agency's responses.

Summary: Marin County's 2016/2017 Civil Grand Jury released a report on June 5, 2017, titled "The Budget Squeeze: *How will Marin Fund Its Public Employee Pensions*". The report is very informative, shows pension contributions as a percentage of revenues for each of Marin County's local agencies, and explains the obstacles confronting local agencies with moving to defined contribution pension programs. Staff can prepare draft responses for the Board's consideration, or, if the Board formed an ad hoc Governance Committee to prepare Agency responses to the Grand Jury's OPEB report, staff and the Committee can prepare draft responses for this report. Agency responses must be submitted to the Grand Jury Foreperson and Presiding Judge by to September 31, 2017.

The report has ten findings and eight recommendations, and the local agencies listed in the report must respond to the following recommendations.

Recommendation 3: *"Agencies should publish long term budgets (i.e, covering at least five years), update them at least every other year and report what percent of total revenue they anticipate spending on pension contributions."*

Recommendation 4: *"Each agency should provide 10 years of audited financial statements and summary pension data for the same time period (or links to them) on the financial page of its website."*

Recommendation 8: *"Public agency and public employee unions should begin to explore how introduction of defined contribution programs can reduce unfunded liabilities for public pensions."*

Attachment

Marin County Civil Grand Jury Report – The Budget Squeeze

2016–2017 MARIN COUNTY CIVIL GRAND JURY

The Budget Squeeze

How Will Marin Fund Its Public Employee Pensions?

Report Date: May 25, 2017

Public Release Date: June 5, 2017

COUNTY OF MARIN

The Budget Squeeze
How Will Marin Fund Its Public Employee Pensions?

SUMMARY

Twenty years ago, the only people who cared about public employee pensions were public employees. Today, taxpayers are keenly aware of the financial burden they face as unfunded pension liabilities continue to escalate. The Grand Jury estimates that the unfunded liability for public agencies in Marin County is approximately $1 billion.

In 2012, the state passed the California Public Employees' Pension Reform Act of 2013 (PEPRA), which reduced pension benefits for new employees hired after January 1, 2013. PEPRA was intended to produce a modest reduction in the growth rate of these obligations but it will take years to realize the full impact of PEPRA. In the meantime, pension obligations already accumulated are undiminished.

This report will explore several aspects of this issue:

It's Worse than You Thought – While a net pension liability of $1 billion may be disturbing, the true economic measure of the obligation is significantly greater than this estimate.

The Thing That Ate My Budget – The annual expense of funding pensions for current and future retirees has risen sharply over the past decade and this trend will continue; for many agencies, it is likely to accelerate over the next five years. This will lead to budgetary squeezes. While virtually every public agency in Marin has unfunded pension obligations, some appear to have adequate resources to meet them, while many do not. We will look at what agencies are currently doing to address the issues and what additional steps they should take.

The Exit Doors are Locked – Although there are no easy solutions, one way to reduce and eliminate unfunded pension liabilities in future years would be transitioning from the current system of *defined benefit pension* plans to *defined contribution pension* plans, similar to a 401(k). However, this approach is largely precluded by existing statutes and made impractical by the imposition of termination fees by the pension funds that manage public agency retirement assets.

The Grand Jury's aim is to offer some clarity to a complex issue and to encourage public agencies to provide greater transparency to their constituents.

BACKGROUND

Defined benefit pension plans are a significant component of public employee compensation. These plans provide the employee with a predictable future income stream in retirement that is protected by California Law.[1] However, the promise made by an employer today creates a liability that the employer cannot ignore until the future payments are due. The employer must contribute and invest funds today so that future obligations can be met when its employees retire. Failing to set aside adequate funds or investing in underperforming assets results in a funding gap often referred to as an *unfunded pension liability*. In order to be consistent with Governmental Accounting Standards Board's (GASB) terminology, this paper will refer to the funding gap as the *Net Pension Liability* (NPL).

Actuaries utilize complicated financial models to estimate the *Total Pension Liability*, the present value of the liabilities resulting from pension plan obligations. Pension plan administrators employ sophisticated asset management strategies in an effort to meet targeted returns required to fund future obligations. Nevertheless, the logic behind pension math can be summed up in a simple equation: Total Pension Liability (TPL) - *Market Value of Assets* (MVA) = The Net Pension Liability (NPL). The NPL represents the funding gap between the future obligations and the funds available to meet those obligations. Conceptually, it is an attempt to answer the question: "How much would it be necessary to contribute to the plan today in order to satisfy all existing pension obligations?"

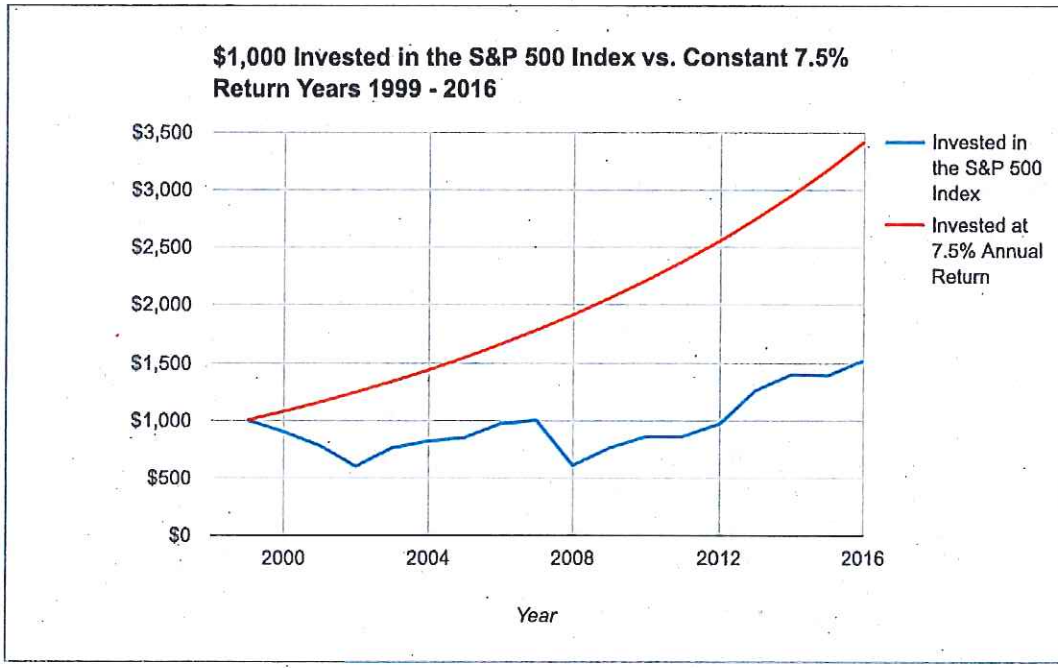
California is in the midst of an active public discussion about funding the retirement benefits owed to public employees. These retirement benefits have accumulated over decades and are now coming due as an aging workforce feeds a growing wave of retirements. The resulting financial demands will place stress on the budgets of public agencies and likely lead to reduced services, increased taxes or both.

The roots of the current crisis in California stretch back to the late 1990's, when the California Public Employees Retirement System (CalPERS) held assets well in excess of its future pension obligations. The legislature approved and Governor Davis signed SB 400, which provided a retroactive increase in retirement benefits and retirement eligibility at earlier ages for many state employees. These enhancements were not expected to impose any cost on taxpayers because of the surplus assets held by the retirement fund. However, the value of those assets fell sharply as a consequence of the bursting of the dotcom bubble in the early 2000s and the Great Recession starting in 2008. (CalPERS suffered a 24% decline in the value of its holdings in 2009 alone.[2]) Where there had been surplus assets, the state now has large unfunded liabilities.

The following graph illustrates the problem. If you had invested $1,000 in 1999, when the decision to enhance retirement benefits was made, and received a return of 7.50% annually — a

[1] "California Public Employee Retirement Law (PERL) January 1, 2016." *CalPERS.*
[2] Dolan, Jack. "The Pension Gap." *LATimes.com.* 18 Sept. 2016.

commonly used assumption of California's pension fund administrators — your investment would have grown to about $3,500 by the end of 2016. By contrast, had you received the returns of the S&P 500 over that same period, you would have only about $1,500, less than half of what had been assumed.



Last year, Moody's Investors Service reported that the unfunded pension liabilities of federal, state and local governments totaled $7 trillion.[3] Closer to home, the California Pension Tracker, published by the Stanford Institute for Economic Policy Research, places the state's aggregate unfunded pension liability at just under $1 trillion.[4]

Marin has not been exempt. Recent published estimates put the NPL for public agencies in Marin at about $1 billion. This is confirmed by our research.

The vast majority of employees of public agencies in Marin are covered by a pension plan. Three agencies administer these plans:

- California Public Employees Retirement System (CalPERS), a pension fund with $300 billion in assets that covers employees of many public agencies, excluding teachers.
- California State Teachers Retirement System (CalSTRS), a pension fund with $200 billion in assets that covers teachers.
- Marin County Employees' Retirement Agency (MCERA), a pension fund with $2 billion in assets that provides services to a number of Marin public agencies, the largest being the County of Marin and the City of San Rafael.

---

[3] Kilroy, Meaghan,. "Moody's: U.S. Pension Liabilities Moderate in Relation to Social Security, Medicare." *Pension & Investments*. 6 April 2016.
[4] Nation, Joe. "Pension Tracker." *Stanford Institute for Economic Policy Research*. Accessed 5 March 2017.

The Grand Jury chose to address public employee pensions not because it is a new problem, but because it is so large that it is likely to have a material future impact on Marin's taxpayers, its public agencies and their employees.

METHODOLOGY

The Grand Jury chose to review and analyze the audited financial statements of the 46 agencies included in this report for the fiscal years (FY) 2012-2016 (see Appendix B, Methodology Detail). We captured a snapshot of the current financial picture as well as changes over this five-year period. In addition to reviewing net pension liabilities and yearly contributions of each agency, we collected key financial data from their balance sheets and income statements. We present all of this data both individually and in aggregate in the appendices.

The agencies were organized into three main types: municipalities, school districts and special districts. The special districts were further separated into safety (fire and police) and all other, which includes sanitary and water districts and the Marin/Sonoma Mosquito and Vector Control District. Evaluating the agencies in this way provided insight into which types of agencies were most impacted by pensions. Comparing agencies within those designations provided further clarity on which agencies may need to take specific action sooner rather than later. The school districts, which have some unique characteristics, require a separate discussion.

Financial Data and Standards

The Grand Jury analyzed data from the Comprehensive Annual Financial Reports (CAFR), Audited Financial Reports and actuarial reports from the pension fund administrators.

The Grand Jury analyzed the annual reports for each agency for the five fiscal years 2012 through 2016. A listing of the financial reports upon which the Grand Jury relied is presented in Appendix A, Public Sector Agencies.

Additional scrutiny was paid to the fiscal years 2015 and 2016 due to reporting changes required by the Governmental Accounting Standards Board (GASB),[5] described in detail later in this report. For further information, see Appendix C.

The Grand Jury interviewed staff and management from selected public agencies and selected pension fund administrators.

The Grand Jury reviewed current law related to pensions.

Our investigation was to determine only the pension obligations of each agency. The Grand Jury

[5] "GASB 68." *Governmental Accounting Standards Board.*

did not attempt to analyze the details of individual pension plans for any of the public agencies. The Grand Jury did not analyze the mix of pension fund investments; the investments for each public agency are managed by the appropriate pension fund according to standards and objectives established by that fund as contracted by their customers.

The Grand Jury did not investigate other employee benefits such as deferred compensation or inducements to early retirement.

Financial Data Consistency

The following agencies did NOT publish audited financial reports for FY 2016 in time for the Grand Jury to include those financial data in this report:

- City of Larkspur
- Town of Fairfax
- Central Marin Police Authority

The lack of a complete set of financial data for the fiscal years under investigation is reflected in this report in the following ways:

The financial tables below include an asterisk (*) next to the name of agencies for which financial data is missing. Table cells with data which is *Not Available* are marked as **N/A**.

Summary financial data totals do not include data for missing agencies for FY 2016. Percentages presented are calculated only with available data.

One agency, the Central Marin Police Authority (CMPA), presents other complications. The predecessor agency of CMPA, the Twin Cities Police Authority (TCPA), was a Joint Powers Authority of the City of Larkspur and the Town of Corte Madera. Subsequent to the publication of the TCPA FY 2012 audit report, a new Joint Powers Authority was created consisting of the former TCPA members plus the Town of San Anselmo. Thus, a strict comparison of financial condition over the full five year term of this report is not possible. The FY 2012 audit report for TCPA is included in the CMPA statistics as the predecessor agency.

DISCUSSION

It's Even Worse than You Thought

The Governmental Accounting Standards Board (GASB) establishes accounting rules that public agencies must follow when presenting their financial results. The recent implementation of GASB Statement 68 requires public agencies to report NPL as a liability on the balance sheet in their audited financial statements beginning with the fiscal year ended June 30, 2015.[6] Prior to this accounting rule change, agencies only reported required yearly contributions to pension plans on the income statement, but NPL was not reflected on the balance sheet. The new method of reporting has provided greater transparency into the future impact of pension promises on current agency financials.

The addition of NPL as a liability on the balance sheet of government agencies has resulted in dramatic reductions to most agencies' *net positions*. The net position (assets minus liabilities, which is referred to as net worth in the private sector) is one metric used to evaluate the financial health of an organization. In the private sector, when net worth is negative, a company is considered insolvent, which is a signal to the investment community of potential financial distress. During the course of our research, the Grand Jury discovered many agencies that now have negative net positions following the addition of NPL to their balance sheets. We will discuss the possible implications of this new reality in the section entitled *The Thing That Ate My Budget.*

The calculation of the NPL involves complex actuarial modeling including many variables. Specific to each agency are the number of retirees, the number of employees, their compensation, their age and length of service, and expected retirement dates. Also included in the evaluation are general economic and demographic data such as prevailing interest rates, life expectancy and inflation. Actuaries base their assumptions on statistical models. But these assumptions can change over time as economic or demographic conditions change, which make regular updates to actuarial calculations essential. The total of all present and future obligations is calculated based on these assumptions. A discount rate is then applied to calculate the present value of the obligations and account for the time value of money.[7] This calculation yields the Total Pension Liability (TPL). Put simply, the total pension liability is the total value of the pension benefits contractually due to employees by employers.

Agencies are required to make annual contributions to the pension plan administrator. A portion of the yearly contributions is used to make payments to current retirees and a portion is invested into a diversified portfolio of stocks, bonds, real estate and other investments. The investments are accounted for at market value (i.e. the current market price rather than book value or acquisition price.) In the calculation of NPL, the value of this investment portfolio is referred to

[6] "GASB 68." *Governmental Accounting Standards Board*
[7] See Appendix C

as Market Value of Assets (MVA). Consequently the NPL = TPL - MVA. The net pension liability is simply the difference between how much an entity should be saving to cover its future pension obligations and how much it has actually saved.

Although the NPL calculation depends on many variables, it is extremely sensitive to changes in the discount rate, the rate used to calculate the present value of future retiree obligations.[8] The discount rate has an inverse relationship to the net pension liability (i.e. the higher the discount rate, the lower the NPL). GASB requires pension plan administrators to use a discount rate that reflects either the long-term expected returns on their investment portfolios or a tax-exempt municipal bond rate.[9] It is common practice for government pension administrators to choose the higher discount rates associated with the expected return on their investment portfolios. Choosing the higher discount rate produces a lower NPL, which requires lower contributions from agencies today with the expectation that investment returns will provide the balance. While a portfolio mix that contains stocks and other alternative assets might produce a higher expected return, these portfolios are inherently more risky and will experience significantly more volatility, potentially leading to underfunding of the pension plans.

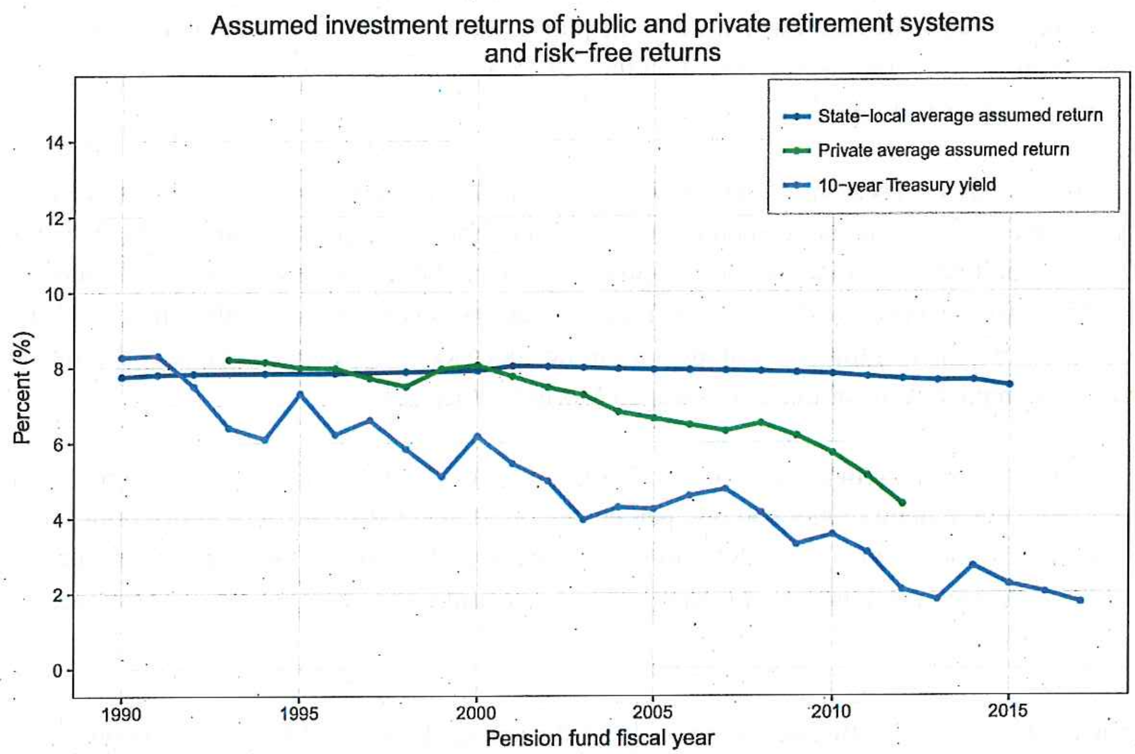
Until recently, the three pension administrators (CalPERS, CalSTRS and MCERA) that manage the assets on behalf of all of Marin's current employees and retirees used discount rates between 7.50% and 7.60%. Prolonged weak performance in financial markets has resulted in the long-term historical returns of pension funds falling below the discount rate. For example, CalPERS 20-year returns dropped to 7.00% following a few years of very poor investment performance, falling under the 7.50% discount rate.[10] In response, CalPERS announced in December 2016 that it would cut its discount rate to 7.00% over the course of the next three years.[11] CalSTRS will cut its rate first to 7.25% and then to 7.00% by 2018.[12] In early 2015, MCERA cut its discount rate from 7.50% to 7.25%. As noted before, a lower discount rate results in a higher NPL. A higher NPL leads to increasing yearly contributions. So you see, it's worse than you thought. But keep reading, because it may be even worse than that.

Discount rates may yet be too high even at the new, lower 7.00-7.25% range.

At this point, it is helpful to provide some historical context. The risk-free rate,[13] typically the US 10-Year Treasury note, yielded 2.37% as this report is written. (Real-time rates are available on Bloomberg.com.[14]) US Treasury securities are considered risk free because the probability of

[8] "Measuring Pension Obligations." *American Academy of Actuaries Issue Brief.* November 2013, pg 1
[9] "GASB 68." *Government Accounting Standards Board*
[10] Gittelsohn, John. "CalPERS Earns 0.6% as Long-Term Returns Trail Fund's Target." *Bloomberg.com.* 18 July 2016.
[11] Pacheco, Brad and Davis, Wayne and White, Megan. "CalPERS to Lower Discount Rate to Seven Percent Over the Next Three Years." *CalPERS.ca.gov.* 21 Dec. 2016.
[12] Myers, John. "California Teacher Pension Fund Lowers its Investment Predictions, Sending a Bigger Invoice to State Lawmakers." *LA Times.com.* 1 Feb. 2017.
[13] "*Risk Free Rate of Return.*" *Investopedia.com*
[14] "Treasury Yields." *Bloomberg.com*

default by the US government is considered to be zero. Investment returns in the range of 7.00% - 8.00% were attainable with little volatility in the past because the risk-free rate was much higher. Between 1990 and 2016, risk-free rates have declined substantially, by around six percentage points.[15] Discount rates in public sector pension plans have not declined proportionally. The following chart illustrates how the public sector has failed to reduce its assumed rates of return in response to the decline in risk-free rates.



From: "The Pension Simulation Project: How Public Plan Investment Risk Affects Funding and Contribution Risk." *Rockefeller Institute.* Accessed on 23 March 17. pg.3.

In the aftermath of the 2008 financial crisis, central banks around the world engaged in the artificial support of lower interest rates through *quantitative easing* to boost global growth.[16] Record-low interest rates followed, with interest rates on some sovereign debt even falling into negative territory. While easy monetary policy aided in spurring global growth, the prolonged period of low interest rates and weak investment returns has contributed to the dramatic underfunding of pension plans around the world.

[15] Boyd, Donald J. and Yin, Yimeng. "How Public Pension Plan Investment Risk Affects Funding and Contribution Risk." *The Rockefeller Institute of Government State University of New York.* Jan. 2017.
[16] Martin, Timothy W. and Kantchev, Georgi and Narioka, Kosaku. "Era of Low Interest Rates Hammers Millions of Pensions Around World." *WSJ.com* 13 Nov. 2016.

Pension plans in the private sector have lowered their discount rates in tandem with declining yields in the bond market. The Financial Accounting Standards Board (FASB) is the accounting rule-maker for for-profit corporations. FASB takes the view that, because there is a contractual requirement for the plan to make pension payments, the rate used to discount them should be comparable to the rate on a similar obligation. FASB Statement 87 says, "...employers may also look to rates of return on high-quality fixed-income investments in determining assumed discount rates."[17] The effect is that pension obligations in the private sector are valued using a much lower discount rate than those used in the public sector. We looked at the ten largest pension funds of US corporations. Based on their 2015 annual reports, the average discount rate on pension assets was 4.30%.[18]

A significant body of research written by economists, actuaries and policy analysts has been devoted to the topic of whether discount rates used in public sector pensions are too high. Some suggest that the FASB approach is more appropriate, others believe the risk-free rate should be used, while still others contend that the current approach is perfectly reasonable. The Grand Jury cannot opine on which is the best and most accurate approach. Our research can only illuminate the financial impact of lower discount rates on Marin County agencies.

An additional reporting requirement of GASB 68 is the calculation of the NPL using a discount rate one percentage point higher and one percentage point lower than the current discount rate in order to show the sensitivity of the NPL to this assumption. The current financial statements reflect the following rates, which, due to the recent discount rate reductions noted above, are already outdated:

Pension Fund	Discount Rate	+ 1 Percentage Point	-1 Percentage Point
CalPERS	7.50%	8.50%	6.50%
CalSTRS	7.60%	8.60%	6.60%
MCERA	7.25%	8.25%	6.25%

Because of this new disclosure requirement, the Grand Jury compiled the NPLs of the agencies at a discount rate range of between 6.25% - 6.60%. The individual results are presented in Appendix E; the total amount for the Marin agencies included in this report is $1.659 billion.

In this discussion, we have focused on the risk of lower rates of return, but there is a possibility that investment returns could exceed the discount rates assumed by the pension administrators.

---

17 "Statement of Financial Accounting Standards No. 87, Employers' Accounting for Pensions" *Financial Accounting Standards Board.* paragraph 44.
18 See Appendix F

However, this possibility appears to be unlikely in that it would constitute a dramatic reversal of a decades-long trend. (See graph on page 7.) If that occurred, the effect would be lower NPLs and lower required contributions by employers. Regardless of investment returns, employers would still be required to make some contributions.

While the discussion of growing NPLs and lower discount rates may seem abstract, ultimately they lead to higher required contributions by public agencies to their pension plans. Because these payments are contractually required, they are not a discretionary item in the agency's budgeting process. Consequently, steadily increasing pension payments will squeeze other items in the budget. In the next section, we discuss the impact on Marin's public agencies' budgets.

The Thing That Ate My Budget

A budget serves the same purpose in a public agency as it does in a for-profit enterprise or a household. It is a statement of priorities in a world of finite resources. As growing pension expenses demand an increasing share of available funding, agencies must figure out how to stretch and allocate their resources.

This budgetary conundrum is not unique to Marin. A recent article in the *Los Angeles Times*[19] discusses what can happen at the end stage of rising pension expenses. The City of Richmond has laid off 20% of its workforce since 2008 and projects pension expenses rising to 40% of revenue by 2021.

The explosion of pension expenses played a key role in three California cities that have filed for bankruptcy protection since 2008: Vallejo,[20] Stockton,[21] and San Bernardino.[22] Several factors played a role in these California bankruptcies. In the case of Vallejo, booming property tax revenues during the real estate bubble led city officials to offer generous salary and benefit increases. Property taxes plummeted after a wave of foreclosures during the financial crisis and city officials could not cut enough of the budget to meet obligations. In particular, the city's leadership was unable to negotiate cuts to pension benefits. This lack of flexibility forced Vallejo into bankruptcy. Further threats of litigation from CalPERS during the bankruptcy process kept the City from negotiating cuts to pension benefits as part of its bankruptcy plan. Despite exiting bankruptcy, Vallejo remains on unstable financial footing. Stockton and San Bernardino have similar stories: overly generous salary and benefits offered during boom times, some fiscal mismanagement (i.e. ill-timed bond offerings, failed redevelopment plans, etc.) followed by the inability to cut benefits when revenues declined.

[19] Lin, Judy. "Cutting jobs, street repairs, library books to keep up with pension costs." *Los Angeles Times* 6 Feb. 2017.
[20] Hicken, Melanie. "Once bankrupt, Vallejo still can't afford its pricey pensions." *Cnn.com* 10 March 2014.
[21] Stech, Katie. "Stockton Calif., To Exit Bankruptcy Protection Wednesday." *WSJ.com* 24 Feb. 2015.
[22] Christie, Jim. "Judge Confirms San Bernardino, California's Plan to Exit Bankruptcy." *Reuters.com* 27 Jan 2017.

In budgeting for pension expense, agencies have two types of contributions to consider: the *Normal Cost* and the amortization of the NPL. The Normal Cost is the amount of pension benefits earned by active employees during a fiscal year. In addition, agencies must make a payment toward the NPL. A pension liability is created in every year the fund's investments underperform the discount rate. The liability for each underfunded year is typically amortized over an extended period, which may be as long as 30 years.

While the passage of PEPRA has reduced the Normal Cost somewhat, the payments needed to amortize the NPL have been rising and will continue to rise in the coming years. This trend will only be exacerbated by the recent decisions of CalPERS and CalSTRS to lower their discount rates. In this section, we will discuss the stress this is placing on the budgets of Marin public agencies.

Revenues of public agencies come from defined sources, including property taxes, sales taxes, parcel taxes, assessments and fees for services. Cash flow may be supplemented by the issuance of general obligation bonds, but these require repayment of principal along with interest.

The budgeting process of public agencies is not always transparent. Although final budgets are made public, the choices made along the way — specifically, which spending priorities did not make it into the final budget — are usually not disclosed.

In 2016, the Marin/Sonoma Mosquito and Vector Control District commissioned a study of the district's financial situation over a projected ten-year time frame, which concluded:

> *In addition to the basic level of incurred and approved expenditures modeled .., the District has long term pension liabilities. Budgets have been reduced in recent years, but without additional revenues, the District would be forced to implement severe cutbacks in services and staffing.*[23]

The report concludes that expenses will exceed revenues beginning in FY 2018, with a deficit widening through FY 2027, the final year of the study, and that the district's reserves will be exhausted by FY 2024.

The Grand Jury commends the district for taking the responsible step of investigating its future financial obligations. We believe that a long term budgeting exercise — whether done internally or by an outside consultant — should be completed and made public by every agency every few years.

The Grand Jury chose several balance sheet and income statement items to provide context in calculating the relative burden that pension obligations placed on each agency. We felt a more

[23] Cover letter from NBS to the Board of Trustees and Phil Smith, Manager, Marin/Sonoma Mosquito Vector Control District dated November 9, 2016.

meaningful analysis could be gleaned from examining ratios rather than absolute numbers. For example, the $48 million dollar pension contribution that the County made in 2016 might sound less shocking when presented as 8% of the county's revenues. The County's $203 million NPL might be perceived as extraordinary, but not necessarily so when presented with a balance sheet that held $400 million in cash.

We focused on two metrics: 1) The percentage of revenue spent on pension contributions each year over a five-year period, and 2) The percentage of NPL to cash on the balance sheet to for fiscal years 2015 and 2016. The first metric was an attempt to answer the question of how much of an agency's budget is spent on yearly pension contributions. The second metric addressed the question of whether an agency had financial resources to pay down pension liabilities in order to reduce their future yearly contributions.

The recent announcements of discount rate reductions at both CalPERS and CalSTRS will lead to increases in NPL, resulting in increasing contributions for their participating agencies. As CalPERS and CalSTRS have not yet implemented the discount rate reductions, the financial statistics we have used in the following discussion do not reflect these pending increases and, therefore, somewhat understate the budgetary impact.

Given the wide scope of public missions, responsibilities and funding sources of the agencies investigated in this report, it is not easy to generalize about the consequences of budgetary shortfalls for individual agencies. However, we found similarities among agencies with similar missions.

School Districts

School districts share many characteristics: They are included in a single pool (i.e., identical contribution rates for all districts) for both CalSTRS and CalPERS; they have similar missions and similar financial structures and are, therefore, homogeneous. This is the only category where the agencies contribute to two pensions administrators: CalSTRS for certificated employees and CalPERS for classified staff. Both CalSTRS and CalPERS place eligible school-district employees into a single pool for purposes of determining the annual required contribution. Consequently, we see that pension contributions as a percentage of revenue are fairly consistent across districts.

School District	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012
Bolinas-Stinson Union School District	6.2%	5.1%	5.3%	4.4%	5.0%
Dixie Elementary School District	5.8%	5.7%	5.2%	5.4%	5.3%
Kentfield School District	5.4%	5.2%	4.9%	4.9%	5.1%
Larkspur-Corte Madera School District	5.5%	5.3%	5.0%	4.6%	5.0%
Marin Community College District	5.8%	6.0%	4.7%	3.9%	3.6%
Marin County Office of Education	3.3%	2.9%	2.8%	2.8%	2.7%
Mill Valley School District	5.1%	4.8%	4.4%	4.5%	4.8%
Novato Unified School District	4.4%	4.4%	4.9%	4.8%	4.8%
Reed Union School District	5.2%	4.8%	4.7%	4.6%	4.4%
Ross School District	5.0%	4.7%	4.6%	4.6%	4.3%
Ross Valley School District	5.5%	5.1%	4.8%	4.8%	4.6%
San Rafael City Schools - Elementary	4.6%	4.4%	4.1%	4.1%	4.0%
San Rafael City Schools - High School	5.3%	4.8%	4.4%	4.5%	4.4%
Sausalito Marin City School District	3.4%	3.7%	3.3%	3.0%	2.7%
Shoreline Unified School District	4.9%	5.0%	5.0%	3.8%	4.1%
Tamalpais Union High School District	5.7%	4.6%	4.9%	5.0%	4.9%
Total	**5.0%**	**4.7%**	**4.5%**	**4.3%**	**4.3%**

< 5%   5% - 10%   10% - 15%   > 15%

Pension contributions as a percentage of revenue for Marin's school districts have increased from 4.3% in FY 2012 to 5.0% in FY 2016. Increases will continue over the next five years, but at a much higher rate. CalSTRS contribution rates are governed by law and, under AB 1469[24], contribution rates are scheduled to increase from 10.73% of certificated payroll in FY 2016 to 19.10% in FY 2021 (and remain at that level for the next 25 years), an increase of 78%.[25] For classified employees, the CalPERS contribution rates will be increasing from 11.847% of payroll in FY 2016 to 21.50% in FY 2022, an increase of over 81%.[26] This implies that school districts will be spending 9% of their revenues on pension contributions within the next five years.

[24] AB-1469 State teachers' retirement: Defined Benefit Program: funding., *California Legislative Informative*
[25] "CalSTRS Fact Sheet, CalSTRS 2014 Funding Plan." *CalSTRS.* July 8, 2014.
[26] "CalPERS Schools Pool Actuarial Valuation as of June 30, 2015." *CalPERS.* April 19, 2016.

School districts are already running on tight budgets, with the average Marin school district expenses having slightly exceeded revenues in fiscal year 2016. Thus, increases in outlays for pensions will necessitate service reductions, tax increases or a combination of the two.

Many of the school districts have General Obligation (GO) bonds outstanding, which contributes to their precarious financial position. With the recent addition of NPL to their balance sheets, most of the school districts have negative net positions. As discussed earlier, in the private sector a negative net position is considered a sign of financial distress and possible insolvency. When we asked whether the rating agencies had expressed concerns or threatened to downgrade their existing debt, the responses from several districts were that they had no difficulties refinancing their bonds and had all maintained their high credit ratings.

The Grand Jury found this particular issue perplexing. A healthy balance sheet is essential in the private sector to attaining a high credit rating. We learned, however, that this is not how rating agencies view a Marin County agency's credit worthiness. In addition to looking at a particular agency's financials, the rating firms also evaluate the likelihood of getting paid back in the event of a default from other resources, more specifically Marin taxpayers. GO bonds have a provision where, in the event of a shortfall or default on a bond, the agency can direct the tax assessor to increase property taxes to satisfy the obligation.[27] Consequently, a rating agency is really assessing the ability to collect directly from Marin County taxpayers. Given Marin's relatively high home values and incomes, collection from Marin taxpayers is a safe bet in the eyes of the rating agencies, thereby making it completely defensible to assign a AAA rating on a GO bond from an agency with a negative net worth. Thus, taxpayers, and not bondholders, bear the risk of an individual agency's insolvency.

Another concern for school districts is their reliance on parcel taxes to supplement revenue. Most Marin school districts have parcel taxes, which run as high as 20% of revenue in some districts and average 9.7%.[28] This important source of revenue is subject to periodic voter approval and requires a two-thirds vote to pass. Historically, parcel tax measures have seldom failed in Marin. In November 2016, both Kentfield and Mill Valley had ballot measures to renew existing parcel taxes. Kentfield failed to get the required two-thirds and Mill Valley's measure barely passed. This raises two concerns: 1) that parcel tax measures will face greater opposition if voters believe the money is going for pensions; and 2) that districts' already tight finances will be substantially worsened if this source of funding is reduced.

[27] "California Debt Issuance Primer Handbook." *California Debt and Investment Advisory Commission.* pg 134.

[28] Sources: parcel tax data from ed-data.org, revenue data from audit reports (see Appendix A)

K-12 School District	Parcel Tax Revenue as % of Total Revenue
Bolinas-Stinson Union School District	13.3%
Dixie Elementary School District	7.6%
Kentfield School District	20.0%
Larkspur-Corte Madera School District	11.9%
Mill Valley School District	20.0%
Novato Unified School District	4.4%
Reed Union School District	8.6%
Ross School District	8.9%
Ross Valley School District	12.5%
San Rafael City Schools - Elementary	4.4%
San Rafael City Schools - High School	7.0%
Sausalito Marin City School District	0.0%
Shoreline Unified School District	6.2%
Tamalpais Union High School District	10.2%
Average	**9.3%**

Given these budget pressures, it is difficult to imagine how the impact of increasing pension contributions will not ultimately be felt in the classroom.

Municipalities & the County

The County and the 11 towns and cities in Marin County (we will refer to them collectively as the "municipalities") have broad responsibilities. Within this group, however, there are important differences. Populations differ widely, from Belvedere at about 2,000 to San Rafael at 57,000. In some municipalities, police and/or fire protection services are provided by a separate agency. In others they fall under the municipality's auspices. These factors lead to some variation among this category.

Unlike school districts, municipalities (and special districts, which we will discuss next) have individualized schedules for amortization of their NPLs. Although we can make overall statements about recent and expected increases in pension expense, there can be substantial variation among jurisdictions.. The following table shows the pension contribution as a percent of revenue for each municipality over the past 5 years.

Municipality	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012
City of Belvedere	4.2%	3.8%	3.9%	5.2%	5.7%
City of Larkspur*	N/A	3.8%	5.0%	6.0%	7.0%
City of Mill Valley	6.4%	5.5%	5.2%	5.1%	6.3%
City of Novato	5.4%	5.2%	9.1%	8.4%	8.3%
City of San Rafael	19.2%	18.8%	18.8%	15.9%	16.8%
City of Sausalito	6.6%	9.7%	6.9%	10.8%	12.3%
County of Marin	7.9%	6.9%	8.1%	15.2%	10.5%
Town of Corte Madera	7.7%	7.8%	8.5%	8.4%	11.0%
Town of Fairfax*	N/A	13.9%	9.8%	10.5%	9.8%
Town of Ross	14.5%	2.2%	3.9%	7.2%	13.0%
Town of San Anselmo	2.4%	1.9%	2.5%	4.3%	7.2%
Town of Tiburon	6.6%	3.8%	4.1%	4.7%	5.8%
Total	**8.8%**	**7.9%**	**8.9%**	**13.6%**	**10.7%**

< 5% 5% - 10% 10% - 15% > 15%

In FY 2016, the City of San Rafael and the Town of Ross had the highest contribution percentages, 19.2% and 14.5% respectively. The City of San Rafael's contribution rate has been consistently high for the last five years. MCERA, San Rafael's pension administrator, projects that contributions will remain high with only a slight decline over the next 15 years.[29]

In contrast, the Town of Ross had a relatively low contribution percentage through FY 2014 & FY 2015. The contribution rate would have remained low in FY 2016 but for a $1 million voluntary contribution to pay down its NPL. Nevertheless, the Town's pension administrator (CalPERS), projects that pension contributions will rise sharply from FY 2014/FY 2015 levels over the next five years.[30]

[29] "Actuarial Valuation Report as of June 30, 2016." *Marin County Employees' Retirement Association*. p.15.
[30] "Annual Valuation Report as of June 30, 2015." California Public Employees' Retirement System. Reports for Town of Ross - Miscellaneous Plan, Town of Ross - Miscellaneous Second Tier Plan, Town of Ross - PEPRA Miscellaneous Plan & Town of Ross - Safety Plan

Although Fairfax has not yet produced an audit report for FY 2016, we expect its required contributions will experience an increase over the next four to five years after which they are projected to decline somewhat over the following decade.[31]

Belvedere and San Anselmo had the lowest contribution percentages of 4.2% and 2.4% respectively.

Examining NPL as a percentage of cash (see Appendix E), Tiburon and Ross were in the best position, with Tiburon having 25.2% of NPL to cash and Ross having 33.7% of NPL to cash. The Grand Jury recommends that cash-rich agencies evaluate their reserve policies and discuss whether a contribution to pay down the NPL (as Ross did in FY 2016), should be prioritized. Conversely, San Rafael and Fairfax (based on FY 2015) are also in the worst position based on our balance sheet metric with a NPL that is more than double both municipalities' respective cash positions.

The County is in a strong financial position, spending 7.9% of its revenues on pension contributions. The County of Marin's balance sheet has assets of nearly $2 billion, yearly revenues of over $600 million and cash of over $400 million. When viewed in the context of its ample financial resources, the County does not currently appear to be financially strained by its pension obligations. Furthermore, the county's significant assets and ample cash cushion should protect it from further pressure caused by increasing pension contributions. In 2013, the County made a significant extra contribution ($30 million) to pay down its NPL and could do the same in future years to offset increasing contribution requirements from MCERA.

Special Districts

The Special Districts illustrate the stark differences among agencies. The safety districts (police and fire), out of all the agencies, spent the highest percentage of their revenues on pension contributions. The primary reason that safety agencies have high pension expenses relative to other agencies is that they are inherently labor intensive, with some of the most highly compensated public employees with the highest pension benefits (in terms of percentage of compensation for each year of service) and the earliest retirement ages. Other than some equipment, such as a fire engine, the bulk of the revenues are spent on employee compensation and benefits.

[31] "Annual Valuation Report as of June 30, 2015." California Public Employees' Retirement System. Reports for Town of Fairfax - Miscellaneous First Tier Plan, Town of Fairfax - Miscellaneous Second Tier Plan, Town of Fairfax - PEPRA Miscellaneous Plan, Town of Fairfax - PEPRA Safety Plan, Town of Fairfax - Safety First Tier Plan & Town of Fairfax - Safety Second Tier Plan

Safety District	FY 2016	FY 2015	FY 2014	FY 2013	FY 2012
Central Marin Police Authority*	N/A	13.4%	20.1%	17.7%	16.8%
Kentfield Fire Protection District	19.0%	16.7%	14.7%	16.9%	17.5%
Novato Fire Protection District	17.4%	18.2%	17.5%	18.1%	19.1%
Ross Valley Fire Department	11.7%	10.9%	9.1%	16.3%	61.8%
Southern Marin Fire Protection District	13.9%	5.4%	12.6%	13.8%	13.9%
Tiburon Fire Protection District	20.5%	31.0%	14.2%	14.2%	15.8%
Total	16.2%	15.2%	15.5%	16.5%	22.2%

< 5%   5% - 10%   10% - 15%   > 15%

The highest pension to revenue rates were in the Tiburon, Kentfield and Novato fire districts, which each spent more than 17% of their revenues on pension payments in FY 2016. Using the metric of NPL to cash on the balance sheet, the Ross Valley Fire Department had the highest ratio of nearly 600% (see Appendix E). However, Ross Valley Fire spent only 11.7% of its revenues on pension contributions in 2016.

The ratios for Tiburon Fire in FY 2015 and FY 2016 are inflated by the voluntary contributions it made, totaling approximately $2 million over those two years.

Sanitary districts as a group appeared to be in the best financial condition based on both balance sheet and income statement data. Sanitary districts tend to have few employees and own significant assets that require capital investments to maintain. A capital-intensive business requires cash, but not many employees. Consequently, their pension plans appear not to be a financial burden on the agencies.

Utility District	FY2016	FY2015	FY2014	FY2013	FY2012
Central Marin Sanitation Agency	5.5%	13.0%	16.6%	7.6%	7.4%
Las Gallinas Valley Sanitary District	2.3%	2.3%	2.3%	3.6%	3.5%
Marin Municipal Water District	9.2%	7.5%	6.5%	5.7%	6.4%
Marin/Sonoma Mosquito & Vector Control	11.2%	10.2%	11.0%	11.2%	24.0%
Marinwood Community Services District	5.5%	5.2%	8.0%	8.7%	10.7%
North Marin Water District	4.6%	3.6%	3.9%	8.6%	6.5%
Novato Sanitary District	1.5%	0.9%	1.4%	1.8%	1.3%
Richardson Bay Sanitary District	2.6%	2.4%	3.2%	2.3%	2.3%
Ross Valley Sanitary District	2.3%	2.0%	3.8%	3.8%	3.2%
Sanitary District # 5 Tiburon-Belvedere	28.4%	25.3%	2.9%	3.5%	4.9%
Sausalito Marin City Sanitation District	3.3%	4.0%	3.4%	2.4%	5.0%
Tamalpais Community Services District	5.9%	5.9%	6.4%	5.8%	5.1%
Total	**6.5%**	**6.4%**	**6.0%**	**5.5%**	**6.1%**

< 5% 5% - 10% 10% - 15% > 15%

Sanitary District #5 had a very high level of pension contributions at over 25% for each of the two most recent years. However, this is the result of large voluntary contributions. Further, the district had cash equal to three times its NPL. The Novato Sanitary District stood out as being in particularly good financial condition in that it spends less than 2% of its revenues on pension contributions and has a NPL that is 18% of its cash position.

The real question for Marin County taxpayers is not whether we are in dire straits because of pensions — for now, most of the agencies appear to be able to meet their pension obligations — but which services are going to be squeezed, which roads aren't going to be paved, which buildings aren't going to be updated because of growing pension contribution requirements. Alternatively, how many more parcel taxes, sales tax increases and fee hikes will be required because pension contributions continue to spiral upwards? In the next section, we will discuss possible alternatives to the current system of retiree pay.

The Exit Doors Are Locked

In 2011, Governor Jerry Brown announced a 12-point plan for pension reform. This plan included raising the retirement age for new employees, increasing employee contribution rates, eliminating "spiking" (where an employee uses special bonuses, unused vacation time and other pay perquisites to increase artificially the compensation used to calculate their future retirement benefit) and prohibiting retroactive pension increases. Most of these proposals were incorporated into the Public Employees Pension Reform Act of 2013 (PEPRA).[32] One that was not was Governor Brown's proposal for "hybrid" plans for new employees.

The hybrid proposal consisted of three components:

1. New employees would be offered pensions but with reduced benefits requiring lower contributions by both employer and employee.
2. New employees would also be offered defined contribution plans.
3. Most new employees would be eligible for Social Security. (Currently, employees not eligible for CalPERS or CalSTRS -- generally, part-time, seasonal and temporary employees -- are covered by Social Security.)

The Governor's proposal was for each of these three components to make up approximately equal parts of retirement income. (For those not eligible for Social Security, the pension would provide two-thirds and the defined contribution plan one-third.)

It may be helpful at this point to pause and define our terms. A traditional pension — like the plans covering public employees in Marin — is a *defined benefit* (DB) plan. Under a DB plan, the employee is eligible for a pension that pays a defined amount, typically a formula based on retirement age, years of service and average compensation. Because the benefit is defined, the contributions by employer and employee will be uncertain; they, along with the investment returns on the contributed assets, must be sufficient to fund the defined benefit.

Under a *defined contribution* (DC) plan, such as a 401(k), both employer and employee make an annual contribution. Typically, the employee chooses a portion of pre-tax salary that is contributed to the plan and the employer matches a percentage of the employee's contribution. The funds are placed in an investment account and the employee chooses how the funds are invested (usually from a range of choices established by the employer). What is undefined is the value of the account at the time the employee retires as this depends upon the total of contributions and the rates of return over the life of the account. By law, 401(k) plans are "portable"; they permit the employee to move the account to an Individual Retirement Account (IRA) should he/she change employers.

The primary difference between DB and DC plans is who assumes the risk of lower investment returns and greater longevity. In a DB plan, it is the employer; in a DC plan, it is the employee. Furthermore, a DB plan poses some risk to the employee: If the employer does not make the required contributions, the pension administrator will be required to reduce pension benefits to the retirees of the employer. In November 2016, CalPERS announced that it would cut benefits for the first time in its history. Loyalton, California was declared in default by CalPERS after failing to make required contributions towards its pension plans. The CalPERS board voted to

[32] "Twelve Point Pension Reform Plan." *Governor of the State of California*. 27 Oct. 2011.

reduce benefits to Loyalton retirees.[33] More recently, in March of 2017, CalPERS voted again to cut benefits for retirees of the East San Gabriel Valley Human Services Agency when it began missing required payments in 2015.[34]

Over the past several decades, private industry in the US has moved decidedly toward DC and away from DB. In 1980, 83% of employees in private industry were eligible for a DB plan (either alone or in combination with a DC plan).[35] By March 2016, the Bureau of Labor Statistics reported that among workers in private industry, 62% had access to a DC plan while only 18% had access to a DB plan. This compares with workers in state and local government, where 85% had access to DB plans and 33% to DC plans (some workers are eligible for both).[36]

Eliminating the risk of an underfunded plan is the primary reason that private employers have been moving away from DB plans, but there are several others. In a traditional DB plan, the employer is responsible for managing the assets held in trust for future retirees. This leads to costs for both investment management and oversight of their fiduciary duties. In addition, as the economy has shifted from manufacturing toward service and high technology, new firms have sprung up that did not have unionized work forces or legacy DB plans and chose the simplicity and lack of risk of DC. The shift from DB to DC may also reflect the preference of younger employees for the portability and transparency of DC.[37]

In public employment, which has fewer competitive pressures and a higher percentage of workers represented by unions, these same trends have not occurred, leaving more DB plans in place.

Under PEPRA, new employees hired after January 1, 2013 are still eligible for DB plans, but at a lower percentage of average compensation and a later retirement age (generally two years later). These important steps reduced the annual cost of employee pensions but still leave the employer with the administrative cost and fiduciary duty. While PEPRA prohibits retroactive increases, which prevents the state from making the same mistake it made in the late 1990's, investment performance that is significantly below target could again produce a large unfunded liability.

It is argued by some[38] that everyone would benefit from a more secure retirement; rather than taking DB plans away from public employees, they should be made available to all workers.

[33] "CalPERS Finds the City of Loyalton in Default for Non-Payment of Pension Obligation." *CalPERS.ca.gov* 16 November, 2016.
[34] Dang, Sheila "CalPERS Cuts Pension Benefits for East San Gabriel Valley Human Services." *Institutionalinvestor.com* 16 March, 2017.
[35] "Pensions: 1980 vs. Today." *New York Times*, 3 Sep. 2009
[36] "National Compensation Survey." *Bureau of Labor Statistics*, March 2016
[37] Barbara A. Butrica and Howard M. Iams and Karen E. Smith & Eric J. Toder. "The Disappearing Defined Benefit Pension and Its Potential Impact on the Retirement Incomes of Baby Boomers." *Social Security Bulletin,* Vol. 69, No. 3, 2009
[38] Aaronson, Mel and March, Sandra and Romain, Mona. "Everyone Should Have a Defined- Benefit Pension." *New York Teacher.* 17 Feb. 2011.

While this argument has some appeal, it ignores the fact that US commerce has adopted DC plans as the de facto standard. Further, as DB plans for public employees exhibit significant unfunded liabilities, it stands to reason that DB programs for private employees with comparable benefits would suffer the same financial difficulties.

It is easy to understand why taxpayers, who have to manage the risks of their own retirements using DC plans, would object to guaranteeing the retirement income of public employees with DB plans. In a February 2015 nationwide poll, 67% of respondents favored requiring new public employees to have DC instead of DB plans.[39] A California poll in September 2015 put that number at 70%.[40]

As noted above, the changes to state retirement law under PEPRA did not make DC or hybrid plans an option for public employees. While existing DC plans were grandfathered by PEPRA, any agency proposing to offer a new DC or hybrid plan in place of an existing DB plan would face a series of hurdles:

- According to the County Employees Retirement Law of 1937, the County of Marin would require specific legislative approval to amend the law to allow the introduction of a DC or hybrid DC/DB plan.
- For other public agencies, PEPRA did not create any approved DC or hybrid models; although neither did it explicitly prohibit them. Any changes by agencies that are participants in CalPERS would require approval of the CalPERS board. It appears likely that CalPERS would disapprove such a request under PEPRA section 20502, as an impermissible exclusion of a class of employees. (Some differentiations — by job classification, for example — are permissible.)

In addition, negotiations with the relevant collective bargaining unit would need to take place, a requirement that is made explicit in PEPRA section 20469.

An additional obstacle is termination fees. If a CalPERS participating agency chooses to terminate its DB plan, it must make a payment to CalPERS to satisfy any unfunded liability. This fee would be calculated by discounting the liability using a risk-free rate (see Glossary for definition), which might be four to five percentage points lower than the rate normally used to calculate the NPL.

The actual calculation of the termination liability is done at the time of the termination, but in its annual actuarial valuation reports CalPERS provides two estimates intended to describe the range in which the liability is likely to fall. While CalPERS has used a 7.50% discount rate to calculate NPL for active plans, it uses a combination of the yields on 10-year and 30-year

[39] "Pension Poll 2015 Topline Result," *Reason-Rupe Public Opinion Survey*, 6 February 2015
[40] "Californians and Their Government," *Public Policy Institute of California Statewide Survey*, September 2015

Treasury securities — which respectively yield 2.19% and 3.02% as this report is written — to calculate the termination liability. In its most recent actuarial reports, it provided estimates of agencies' termination liability using discount rates of 2.00% and 3.25%. To illustrate, at June 30, 2015 (reports for fiscal 2016 were not yet available as this was written), the City of Larkspur had a NPL of just over $9 million, but Larkspur's termination liability was estimated at between $46.8 million and $64.1 million, or between five and seven times its NPL. This range is very typical.

Here, again, we should define our terms. When a pension plan is terminated, the claims of all eligible participants are satisfied, either through a lump-sum payment or through the purchase by the plan of annuities that pay all benefits to which the participants are entitled. The plan is then liquidated; no further benefits accrue to employees and retirees and no further contributions are required from the employer.

A pension plan freeze is different from a termination. A plan can be frozen in a variety of ways. A plan might terminate all future activity so that any benefits earned prior to the freeze are still due but no further benefits are earned by any employees. Alternatively, a pension plan might choose to keep all terms in place — including benefit accruals for future service and required future contributions — for existing employees and retirees but enroll all new hires in DC plans. Other variations are possible.

Currently, CalPERS does not distinguish between a termination and a freeze. If an employer were to propose converting new employees to a DC plan, CalPERS would treat it as a termination because it is impermissible for a CalPERS plan to differentiate between groups of employees on the basis of when they were hired.

Absent legislative action, an agency that wanted to freeze its current DB plan and make all new employees eligible for a DC-only or hybrid plan would make an application to CalPERS. The CalPERS board would conclude that excluding employees from the existing DB plan on this basis was impermissible and declare the plan terminated, triggering the imposition of a fee five to seven times the amount of the NPL. For an agency that wishes to take better control of its financial position, this would be a counter-productive endeavor.

CONCLUSION

The net pension liability of Marin's public agencies cannot be made to disappear. It represents benefits earned over several decades by public employees and constitutes a legal and ethical obligation. Some progress has been made to reduce growing liabilities (such as PEPRA's anti-spiking provisions, which are the subject of a lawsuit currently under appeal at the state Supreme Court).[41] However, the vast bulk of this liability will need to be paid.

The recommendations proposed by the Grand Jury are intended to achieve three objectives:

1. Avoid further increasing the pension liabilities of Marin's public agencies by shifting from DB to DC-only and/or hybrid retirement plans.
2. Increase the rigor and extend the planning horizon of fiscal management by Marin's public agencies.
3. Improve the depth and quality of information provided to the public.

In the course of its investigation, the Grand Jury found two models that may help achieve these objectives, one from right next door and one from across the country.

In September 2015, Sonoma County empanelled the Independent Citizens Advisory Committee on Pension Matters consisting of seven members, "none of whom are members or beneficiaries of the County pension system."[42] The panel conducted an investigation and published in June 2016 a comprehensive and highly readable report with recommendations for containing pension costs, public reporting and improving fiscal management.[43]

In 2012, New York State Office of the State Controller introduced a Fiscal Monitoring System, which is intended to be an early-warning system for financial stress among the state's municipalities and school districts. It takes financial data from reports filed by the agencies and economic and demographic data to produce scores to identify fiscal stress. The OSC also offers advisory services to assist those agencies in developing plans to alleviate their financial stress.[44]

We believe that these two models could be helpful as Marin's public agencies come to terms with the fiscal realities of the years ahead.

One final point: As bad as this report may make things look, they will almost certainly look worse in the next few years because of the lowering of discount rates by pension administrators. We believe that these actions by CalPERS, CalSTRS and MCERA are well founded and prudent, but they will result in increases to the NPLs of every agency, necessitating higher payments in

---

[41] Marin Association of Public Employees v. Marin County Employees Retirement Association
[42] "Independent Citizens's Advisory Committee on Pension Matters." *County of Sonoma.*
[43] "Report of Independent Citizens Advisory Committee on Pension Matters." *County of Sonoma.* June 2016.
[44] "Three Years of the Fiscal Stress Monitoring System," New York State Office of the State Controller, September 2015.

the near term to amortize the higher NPLs. The result will be that budgets, already under pressure, will be squeezed further.

FINDINGS

F1. All of the agencies investigated in this report had pension liabilities in excess of pension assets as of FY 2016.

F2. A prolonged period of declining global investment returns has led pension plan assets to underperform their targeted expected returns.

F3. MCERA, CalPERS and CalSTRS have lowered their discount rates, which will result in significantly higher required contributions by Marin County agencies in the next few years.

F4. If pension plan administrators discounted net pension liabilities according to accounting rules used for the private sector, increases in required contributions would be vastly larger than those required by the recent lowering of discount rates.

F5. Most Marin County school districts have a negative net position due in part to the addition of net pension liabilities to their balance sheets.

F6. The required contributions of Marin school districts to CalSTRS and CalPERS will nearly double within the next five to six years due to legislatively (CalSTRS) and administratively (CalPERS) mandated contribution increases.

F7. Pension contribution increases will strain Marin County agency budgets, requiring either cutbacks in services, new sources of revenue or both.

F8. The private sector has largely moved away from defined benefit plans primarily due to the risk of underfunding, offering instead defined contribution plans to its employees.

F9. Taxpayers bear most of the risk of Marin County employee pension plan assets underperforming their expected targets.

F10. Retirees' pension benefits would be reduced if an agency was unable to meet its contribution obligations.

RECOMMENDATIONS

R1. The Marin Board of Supervisors should empanel a commission to investigate methods to reduce pension debt and to find ways to keep the public informed. The panel should be comprised of Marin citizens with no financial interest in any public employee pension plan and should be allowed to engage legal and actuarial consultants to develop and propose alternatives to the current system.

R2. CalSTRS and MCERA should provide actuarial calculations based on the risk-free rate as CalPERS does in its termination calculations.

R3. Agencies should publish long-term budgets (i.e., covering at least five years), update them at least every other year and report what percent of total revenue they anticipate spending on pension contributions.

R4. Each agency should provide 10 years of audited financial statements and summary pension data for the same period (or links to them) on the financial page of its public website.

R5. For the purposes of transparency, MCERA, CalSTRS and CalPERS should publish an actuarial analysis of the effect of Cost of Living Allowances (COLA) on unfunded pension liabilities on an annual basis.

R6. Elected state officials should support legislation to permit public agencies to offer defined contribution plans for new employees.

R7. Elected state officials should support legislation to implement a statewide financial economic health oversight committee of all public entities similar to that implemented in NY.

R8. Public agencies and public employee unions should begin to explore how introduction of defined contribution programs can reduce unfunded liabilities for public pensions.

REQUEST FOR RESPONSES

Pursuant to Penal code section 933.05, the grand jury requests responses as follows:

From the following governing bodies:

- Bolinas-Stinson Union School District (R3, R4, R8)
- Central Marin Police Authority (R3, R4, R8)
- Central Marin Sanitation Agency(R3, R4, R8)
- City of Belvedere (R3, R4, R8)
- City of Larkspur (R3, R4, R8)
- City of Mill Valley (R3, R4, R8)
- City of Novato (R3, R4, R8)
- City of San Rafael (R3, R4, R8)
- City of Sausalito (R3, R4, R8)

- Marin Community College District (R3, R4, R8)
- Dixie Elementary School District (R3, R4, R8)
- Kentfield Fire Protection District (R3, R4, R8)
- Kentfield School District (R3, R4, R5, R8)
- Larkspur-Corte Madera School District (R3, R4, R8)
- Las Gallinas Valley Sanitary District (R3, R4, R8)
- Marin County (R1, R3, R4, R8)
- MCERA (R2, R5, R8)
- Marin County Office of Education (R3, R4, R8)
- Marin Municipal Water District (R3, R4, R8)
- Marin/Sonoma Mosquito & Vector Control (R3, R4, R8)
- Marinwood Community Services District (R3, R4, R8)
- Mill Valley School District (R3, R4, R8)
- North Marin Water District (R3, R4, R8)
- Novato Fire Protection District (R3, R4, R8)
- Novato Sanitary District (R3, R4, R8)
- Novato Unified School District (R3, R4, R8)
- Reed Union School District (R3, R4, R8)
- Richardson Bay Sanitary District (R3, R4, R8)
- Ross School District (R3, R4, R8)
- Ross Valley Fire Department (R3, R4, R8)
- Ross Valley Sanitary District (R3, R4, R8)
- Ross Valley School District (R3, R4, R8)
- San Rafael City Schools - Elementary (R3, R4, R8)
- San Rafael City Schools - Secondary (R3, R4, R8)
- Sanitary District # 5 (R3, R4, R8)
- Sausalito Marin City Sanitation District (R3, R4, R8)
- Sausalito Marin City School District (R3, R4, R8)
- Shoreline Unified School District (R3, R4, R8)
- Southern Marin Fire Protection District (R3, R4, R8)
- Tamalpais Community Services District (R3, R4, R8)
- Tamalpais Union High School District (R3, R4, R8)
- Tiburon Fire Protection District (R3, R4, R8)
- Town of Corte Madera (R3, R4, R8)
- Town of Fairfax (R3, R4, R8)
- Town of Ross (R3, R4, R8)
- Town of San Anselmo (R3, R4, R8)
- Town of Tiburon (R3, R4, R8)

The governing bodies indicated above should be aware that the comment or response of the governing body must be conducted in accordance with Penal Code section 933 (c) and subject to the notice, agenda and open meeting requirements of the Brown Act.

The following individuals are invited to respond:

- California State Assemblymember Marc Levine (R6, R7)
- California State Senator Mike McGuire (R6, R7)
- California Governor Edmund G. Brown, Jr. (R6, R7)
- CalPERS Chief Executive Officer Marcie Frost (R5, R8)
- CalSTRS Chief Executive Officer Jack Ehnes (R2, R5, R8)

Note: At the time this report was prepared information was available at the websites listed.

Reports issued by the Civil Grand Jury do not identify individuals interviewed. Penal Code Section 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Civil Grand Jury. The California State Legislature has stated that it intends the provisions of Penal Code Section 929 prohibiting disclosure of witness identities to encourage full candor in testimony in Grand Jury investigations by protecting the privacy and confidentiality of those who participate in any Civil Grand Jury investigation.

GLOSSARY

401(k): A retirement savings plan sponsored by an employer. A 401(k) allows workers to save and invest a piece of their paycheck before taxes are deducted. Taxes aren't paid until the amounts are withdrawn.[45]

Actuary: A professional specially trained in mathematics and statistics that gathers and analyzes data and estimate the probabilities of various risks, typically for insurance companies.[46]

California Bill SB 400: A California statute[47] passed by the legislature and signed by then Governor Grey Davis in 1999 retroactively raising the pension benefits for public employees.

California Public Employees' Retirement System (CalPERS): An agency in the California executive branch that serves more than 1.7 million members in its retirement system and administers benefits for nearly 1.4 million members and their families in its health program.[48]

California State Teachers' Retirement System: A pension fund in California established in 1913 to manage the retirement benefits of public school educators.

Cost of Living Allowance (COLA): An annual increase in pension benefits granted to retirees, typically based upon the rate of inflation in a specific geographic area.

Comprehensive Annual Financial Report (CAFR): A report issued by a government entity that includes the entity's audited financial statements for the fiscal year as well as other information about the entity. The report must meet accounting standards established by the Governmental Accounting Standards Board (GASB)."[49] Audited financial reports may be referred to as "audit reports" or "financial statements" by various public agencies.

Defined Benefit (DB): A type of retirement plan in which an employer/sponsor promises a specified payments (or payments) on retirement that is predetermined by a formula based on factors including an employee's earnings history, tenure of service and age.[50]

Defined Contribution (DC): A type of retirement plan in which the employer, employee or both contribute on a regular basis into an account where the funds may be invested. At retirement, the employee receives a benefit whose size depends on the accumulated value of the funds in the retirement account.[51]

Discount Rate: The interest rate used in present value calculations.

---

[45] "What is a 401(k)?" *WSJ.com.* Accessed 25 March 2017.
[46] Bodie, Zvi and Merton, Robert C. *Finance.* Upper Saddle River. Prentice-Hall Inc. 1998. Pg. 223
[47] Senate Bill No. 400, *California Law*
[48] "CalPERS Story." *CalPERS.* Accessed March 2017.
[49] "Comprehensive Annual Financial Report (CAFR)." *Municipal Securities Rulemaking Board.*
[50] Bodie, Zvi and Merton, Robert C. *Finance.* Upper Saddle River. Prentice-Hall Inc. 1998. Pg. 50.
[51] Ibid.

Financial Accounting Standards Board (FASB): "Established in 1973, the Financial Accounting Standards Board (FASB) is the independent, private-sector, not-for-profit organization based in Norwalk, Connecticut, that establishes financial accounting and reporting standards for public and private companies and not-for-profit organizations that follow Generally Accepted Accounting Principles (GAAP)."[52]

Fiduciary Duty: A legal obligation of one party to act in the best interest of another. Typically, a fiduciary is entrusted with the care of money or other asset for another person.[53]

Fiscal Year (FY): A term of one year, typically beginning on the 1st day of July extending through the last day of June.

Governmental Accounting Standards Board (GASB): "The independent organization that establishes and improves standards of accounting and financial reporting for U.S. state and local governments. Established in 1984 by agreement of the Financial Accounting Foundation (FAF) and ten national associations of state and local government officials, the GASB is recognized by governments, the accounting industry, and the capital markets as the official source of generally accepted accounting principles (GAAP) for state and local governments."[54]

Hybrid Plan: A pension plan that contains both defined benefit and defined contribution options.

Independent Retirement Account (IRA): Retirement accounts that permit and encourage savings by individuals through the pre-tax investment of wages and salaries. Such investment accounts accumulate returns that are not taxed until withdrawals at a later date.

Market Value of Assets (MVA): The value of accumulated assets at the current value of individual assets as opposed to the original cost.

Marin County Employees Retirement Association (MCERA): A pension fund in Marin County, CA that manages the retirement assets and benefits of several municipalities and public agencies.

Net Pension Liability (NPL): The total pension obligation of an organization for its employees less the value of assets held to fund those benefits.

Normal Cost: The present value of future pension benefits earned during the current accounting period.

[52] About the FASB, *Financial Accounting Standards Board.*
[53] "Fiduciary Duty" *Businessdictionary.com.*
[54] "FACTS about GASB." *Governmental Accounting Standards Board.* 2012–2014.

Present Value (PV): The current worth of a future sum of money or stream of cash flows given a specified rate of return.[55]

Public Employees Pension Reform Act of 2013 (PEPRA): An act of State Legislature, which imposes certain limits on pension benefits for public employees hired after 2013.

Quantitative Easing: A monetary policy whereby a central bank, such as the Federal Reserve, creates money to fund the purchase of government securities - e.g. US Treasury Bonds - with the objective of stimulating the economy.

Risk-Free Rate: A discount rate considered to have no risk of default over time, typically a United States Treasury obligation backed by the full faith and credit of the United States.

Sensitivity Analysis: An analysis of the impact of different discount rates on unfunded liabilities. Typically, the discount rates used in the analysis are minus 1% and plus 1% of the stated discount rate of the liability.

Termination Fee: The fee levied by a pension fund against an agency for terminating the contract between the two parties. The fee amounts to the difference between the total liabilities calculated at the nominal discount rate versus the risk-free rate, typically a mix of 10-year and 30-year US Treasury bonds. The rationale for the fee is that as no additional contributions will be forthcoming from the agency to fund existing liabilities, a basket of securities without risk is required to prevent reductions of benefits.

Time value of money: The core principal of finance holds that money in hand today is worth more than the expectation of the same amount to be received in the future. First, money may be invested and earn interest, resulting in a larger amount in the future. Second, the purchasing power of money may decline over time due to inflation. Third, the receipt of money expected in the future is uncertain.[56]

Total Pension Liability: The total obligation of an agency to fund pension benefits for active and retired employees.

Unfunded Actuarial Accrued Liability (UAAL): The excess of the Actuarial Accrued Liability (AAL) over the actuarial value of assets.[57]

---

[55] Bodie, Zvi and Merton, Robert C. *Finance*. Upper Saddle River. Prentice-Hall Inc. 1998. Pg. 89.
[56] Bodie, Zvi and Merton, Robert C. *Finance*. Upper Saddle River. Prentice-Hall Inc. 1998. Pg. 82.
[57] "Other Postemployment Benefits: A Plain-Language Summary of GASB Statements No. 43 and No. 45." *Governmental Accounting Standards Board.*

Appendix A: Public Sector Agencies

The table below contains the list of public agencies, school districts and municipalities investigated in this report, the corresponding pension fund(s) for each and the source of audited financial statements used in this report.

For each agency, the five fiscal years from 2012 through 2016 were examined. All agencies reviewed in this report use the calendar dates of July 1 through June 30 for the fiscal year. (Note: San Rafael City Schools is a single district, but it produces separate financial statements for the elementary schools and the high schools. This report presents them separately.)

Municipality	Pension Funds	Audit Reports
County of Marin	MCERA	Comprehensive Annual Financial Report www.marincounty.org
City of Belvedere	CalPERS	Audited Financial Report www.ci.belb
City of Larkspur*	CalPERS	Audited Financial Report www.ci.larkspur.ca.us
City of Mill Valley	CalPERS	Audited Financial Report www.cityofmillvalley.org
City of Novato	CalPERS	Comprehensive Annual Financial Report www.novato.org
City of San Rafael	MCERA	Comprehensive Annual Financial Report www.cityofsanrafael.org
City of Sausalito	CalPERS	Comprehensive Annual Financial Report www.ci.sausalito.ca.us
Town of Corte Madera	CalPERS	Comprehensive Annual Financial Report www.ci.corte-madera.ca.us
Town of Fairfax*	CalPERS	Basic Financial Statements and Independent Auditor's Report www.town-of-fairfax.org
Town of Ross	CalPERS	Financial Report www.townofross.org
Town of San Anselmo	CalPERS	Annual Financial Report www.townofsananselmo.org
Town of Tiburon	CalPERS	Annual Financial Report www.townoftiburon.org

Appendix A: Public Sector Agencies (cont'd)

School District	Pension Funds	Audit Reports
Bolinas-Stinson Union School District	CalSTRS CalPERS	Audit Report July 1, 2012 - June 30, 2016 www.bolinas-stinson.org
College of Marin	CalSTRS CalPERS	Financial Statements www.marin.edu
Dixie Elementary School District	CalSTRS CalPERS	Audit Report www.dixieschool.com
Kentfield School District	CalSTRS CalPERS	Audit Report http://www.kentfieldschools.org/pages/Kentfield_School_District
Larkspur-Corte Madera School District	CalSTRS CalPERS	Audit Report www.lcmschools.org
Marin County Office of Education	CalSTRS CalPERS	Audit Report www.marinschools.org
Mill Valley School District	CalSTRS CalPERS	Audit Report www.mvschools.org
Novato Unified School District	CalSTRS CalPERS	Audit Report www.nusd.org
Reed Union School District	CalSTRS CalPERS	Audit Report www.reedschools.org
Ross School District	CalSTRS CalPERS	Audit Report www.rossbears.org
Ross Valley School District	CalSTRS CalPERS	Audit Report www.rossvalleyschools.org
San Rafael City Schools - Elementary	CalSTRS CalPERS	Audit Report www.srcs.org
San Rafael City Schools - High School	CalSTRS CalPERS	Audit Report www.srcs.org
Sausalito Marin City School District	CalSTRS CalPERS	Audit Report www.smcsd.org
Shoreline Unified School District	CalSTRS CalPERS	Annual Financial www.shorelineunified.org
Tamalpais Union High School District	CalSTRS CalPERS	Audit Report www.tamdistrict.org

Safety District	Pension Funds	Audit Reports
Central Marin Police Authority*	CalPERS	Twin Cities Police Authority (FY 2012) Financial Statements and Independent Auditor's Report http://centralmarinpolice.org
Kentfield Fire Protection District	CalPERS	Basic Financial Statements www.kentfieldfire.org
Novato Fire Protection District	CalPERS	Independent Auditor's Report www.novato.org
Ross Valley Fire Department	CalPERS	Basic Financial Statements www.rossvalleyfire.org
Southern Marin Fire Protection District	MCERA	Basic Financial Statements southernmarinfire.org
Tiburon Fire Protection District	CalPERS	Comprehensive Financial Report www.tiburonfire.org

Utility District	Pension Funds	Audit Reports
Central Marin Sanitation Agency	CalPERS	Financial Statements and Independent Auditor's Report www.cmsa.us
Las Gallinas Valley Sanitary District	CalPERS	Comprehensive Annual Financial Report www.lgvsd.org
Marin Municipal Water District	CalPERS	Comprehensive Annual Financial Report www.marinwater.org
Marin/Sonoma Mosquito & Vector Control District	MCERA	Basic Financial Statements www.msmosquito.com
Marinwood Community Services District	CalPERS	Basic Financial Statements www.marinwood.org
North Marin Water District	MCERA	Comprehensive Annual Financial Report www.nmwd.com
Novato Sanitary District	CalPERS	Comprehensive Annual Financial Report www.novatosan.com
Richardson Bay Sanitary District	CalPERS	Financial Statements www.richardsonbaysd.org
Ross Valley Sanitary District	CalPERS	Basic Financial Statements www.rvsd.org
Sanitary District # 5 Tiburon-Belvedere	CalPERS	Financial Statements www.sani5.org
Sausalito Marin City Sanitation District	CalPERS	Financial Statements and Independent Auditor's Report www.sausalitomarincitysanitarydistrict.com
Tamalpais Community Services District	CalPERS	Financial Statements and Independent Auditor's Report www.tcsd.us

Appendix B: Methodology Detail

The Grand Jury collected data from the sources described above: over 200 audited financial reports alone published by the entities (see Appendix A). Multiple jurors participated in the collection and review of all financial data items according to the process and methods described above.

The collected data were entered into spreadsheets to allow the Grand Jury to analyze relevant financial statistics. In order to assure a consistent interpretation of the financial data from these audited reports, and to ensure the correct transcription of the data to spreadsheets used for the analysis, multiple jurors participated in validation of each data item. In those cases where data was provided in separate portions of the report (i.e. a school district's CalPERS and CalSTRS pensions reported separately), the Grand Jury performed the appropriate summations to aid in our analysis.

In examining the audited financial reports of the public entities, the Grand Jury captured basic financial data from multiple fiscal years to determine the relative health of the entities with regard to pensions. Audited reports tend to have a similar structure, containing the following four major sections:

- The Independent Auditors Report
- Management's Discussion and Analysis (MD&A)
- Basic Financial Statements
- Notes to Financial Statements

Specific financial data was retrieved from these sections as follows:

Basic Financial Statements

<u>Total Revenue</u>

Revenues are taken from the Statement of Revenues, Expenditures and Changes in Fund Balances using the Total Governmental Funds column. Revenue used in this investigation includes both operating revenue and non-operating revenue.

In some instances, non-operating revenue was stated net of interest expense. In those cases, the appropriate calculations were performed to reverse the reduction of non-operating revenue to provide a true total of revenue from all sources. Revenue totals were then reconciled with statistics provided in the Basic Financial Statements.

In the case of municipalities, which have diverse sources of revenue, we used revenue as stated in the MD&A section of the relevant audit report.

Total Expenses
Total Expenses came from the Statement of Activities. Expenses cited in this investigation include both operating expenses and non-operating expenses.

Financial data used in this investigation are derived primarily from balance sheets and statements of revenue and expenses.

In the case of municipalities, which have diverse expenses, we used expenses as stated in the MD&A section of the relevant audit report.

Total Assets
The total assets of each entity were collected. Total assets include both short-term assets, long-term assets and capital assets.

Cash Position
Cash positions were considered to include cash and cash equivalents, the standard method of reporting.

Net Position
Net position is the excess of total assets of an entity minus the total liabilities. In the instance where liabilities exceed assets, the net position is negative.

Net Pension Liability
The net pension liability is provided in the Notes section of the audit reports.

Net Pension Liability Sensitivity, +1%
The net pension liability sensitivity for +1% is provided in the Notes section of the audit reports.

Net Pension Liability Sensitivity, -1%
The net pension liability sensitivity for -1% is provided in the Notes section of the audit reports.

These statistics are provided in the Notes section of the audit report in compliance with GASB 68 requirements.

Pension contribution
The total contribution for pensions is included in the Notes section of the audit reports. The Grand Jury chose to use pension contributions, rather than pension expense (a new GASB 68 requirement) for comparison purposes with older financial reports.

Total pension contributions for municipalities were stated in at least three separate sections of the CAFR: as a contribution in the Notes section on pensions, in the table labeled "Contributions subsequent to measurement date" and in the supplementary notes section. In most cases, the pension contribution was identical throughout the report. In some cases there were small differences among the values, and in one case (Town of Fairfax) there were material differences. In all of these cases the Grand Jury chose to use the "Contributions subsequent to measurement date" number and did not attempt to reconcile the differences.

The County of Marin changed its pension contribution reporting methodology in 2015 due to GASB 68. Prior to FY 2015, the County reported its pension contributions with a one-year lag. (For example, the FY 2014 report showed contributions for FY 2013). The result was that FY 2014 pension contributions were not included in either the FY 2014 or FY 2015 CAFR. Accordingly, the Grand Jury obtained FY 2014 pension contributions directly from the County Department of Finance. To address the one-year lag in reporting, the Grand Jury chose to use the contributions made in FY 2013 as provided by the Department of Finance rather than the number reported in the audit reports for FY 2012 & FY 2013.

An explanation of discount rates and present value calculations is presented as Appendix C, Discount Rate Primer.

Termination Statistics

<u>Risk Free Liability of Termination</u>

CalPERS provides to its participating agencies on an annual basis the one-time contribution required for the entity to terminate the pension plan. Under those circumstances, which are rare, CalPERS is no longer able to rely upon annual contributions by the entity to fund retirees and current employees.

CalPERS has determined under these circumstances that the discount rate for a termination must be "risk-free." That is, CalPERS is not willing to assume the risk normally associated with investment of an entity's assets in a balanced portfolio. Accordingly, CalPERS will price the termination discount rate using a combination of the 10-year and 30-year US Treasury obligations.

Neither CalSTRS nor MCERA provide a similar calculation.

Derived Statistics

The Grand Jury created several statistics from the basic financial data to assist in the evaluation of pension liabilities.

<u>Pension Contributions as a Percentage of Revenue</u>

<u>Net Pension Liability as a Percentage of Cash</u>

Net Pension Liability as a Percentage of Assets

Fiscal Year 2015 to Fiscal Year 2016 % Change in Net Pension Liabilities

Appendix C: Discount Rate Primer

Calculating Present Value of an Annuity[58]

The calculation of the value of pension benefits offered to employees can be viewed simply as the present value of an annuity: how much should be paid for an investment at present to produce an expected payment stream in the future. The concept of present value is based on the idea that money has time value. For example, if an investor were offered $1 today or $1 in the future, the investor would choose the dollar today because it can be invested to earn interest and produce more than $1 in the future. When determining how much should be paid today for an investment that is expected to produce income in the future, an adjustment, or discounting, must be applied to income received in the future to reflect the time value of money.

The calculation of present value (PV) for one time period is:

$$PV = FV \frac{1}{(1+i)n}$$

Where:

FV = Future value
i = interest rate
n = number of years

Example: How much should an investor put into a savings account today, with a 5% expected return, in order to receive $100 in a year?

$$PV = 100 \frac{1}{(1+.05)1}$$
$$PV = 95.24$$

Answer: $95.24

Expanding on this principle, the calculation of an annuity, which spans multiple years, follows:

$$PVA = R \frac{1}{(1+i)1} + R \frac{1}{(1+i)2} + R \frac{1}{(1+i)3} \ldots. + R \frac{1}{(1+i)n}$$

[58] Brueggeman, William B. and Fisher, Jeffrey D. (2005) Real Estate Finance and Investments. New York, NY McGraw Hill.

Alternatively:

$$PVA = R\sum_{t=1}^{n} \frac{1}{(1+i)t}$$

Where:

PVA = Present value of an annuity
R = payment
i = interest rate
n = number of years

Example: How much would an investor need to set aside today in order to receive $100 a year for five years if the interest rate was 5%?

$$PVA = 100\,\frac{1}{(1+.05)1} + 100\,\frac{1}{(1+.05)2} + 100\,\frac{1}{(1+.05)3} + 100\,\frac{1}{(1+.05)4} + 100\,\frac{1}{(1+.05)5}$$

Answer: $432.95

Example: If the interest rate was 10%?

Answer: $379.08

This simple example illustrates how a higher discount rate results in a much lower required initial investment to meet a particular future need.

Appendix D: GASB Primer

The Governmental Accounting Standards Board (GASB), founded in 1984, is an independent, nonprofit, non-governmental regulatory body charged with setting accounting and financial reporting standards for state and local governments. Prior to its founding, accounting standards for all types of enterprises were set by the Financial Accounting Standards Board (FASB).

In November 1994, GASB issued Statement 27, which established standards for accounting and financial reporting of pension benefits. Some of the key parts of GASB 27 were:

- The employer's expense for pensions was equal to the annual required contribution (ARC) as determined by the actuary in accordance with certain parameters, including the frequency of actuarial valuations and the methods and assumptions used.
- If the employer's actual contributions were different than the ARC, the accumulated difference plus interest was reported as the Net Pension Obligation in the employer's financial statements.
- Actuarial trend information was reported as Required Supplementary Information (RSI) to the financial statements, including note disclosures to the RSI.[59]

In June 2012, GASB 68 extensively amended GASB 27:

- Net Pension Liability on the Balance Sheet – Government employers that sponsor DB plans will now recognize a net pension liability [on their] balance sheet.
- New Discount Rate – The discount rate can continue to be the expected long-term rate of return on plan investments where current assets plus future contributions are projected to cover all future benefit payments. However, plans where current assets plus future contributions are projected not to cover all future benefit payments must use a municipal bond rate to discount the noncovered payments.
- More Variable Pension Expense – Pension expense will now be based on the net pension liability change between reporting dates, with some sources of the change recognized immediately in expense and others amortized over years. Service cost, interest on net pension liability, and expected investment earnings — as well as liability for any plan benefit change related to past service since the last reporting period — must also be expensed immediately.

[59] Findlay, Gary. "GASB's Pension Accounting Standards: Déjà vu all over again.", *Pensions & Investments*, October 22, 2012

- Changes in actuarial assumptions and experience gains and losses must be amortized over a closed period equal to the average remaining service of active and inactive plan members (who have no future service) — a much shorter than typical period. Investment gains and losses must be recognized in pension expense over closed 5-year periods.

- Cost-sharing Employers (those in plans where assets are pooled and can be used to pay benefits of any employer in the pool) Report a Proportionate Liability – These employers will now report a net pension liability and pension expense equal to their proportionate share of the cost-sharing plan.

- More Extensive Disclosures and Required Supplementary Information – More extensive note disclosures are required, including types of benefits and covered employees, how plan contributions are determined, and assumptions/methods used to calculate the pension liability. [60]

GASB 68 was effective for fiscal years beginning after June 15, 2014, which means that FY 2014-2015 was the first year for which it was reflected in the financial statements of the agencies that are the subject of this report.

[60] "GASB Approves New Pension Accounting Standards.", *Bartel Associates, LLC*, August 5, 2012

Appendix E: Public Agency Balance Sheet Data

FY 2016

Municipalities	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL% of Assets	NPL % of Cash
City of Belvedere	$10,054,000	$3,595,630	$5,678,000	$3,080,855	$5,057,618	$1,451,306	30.6%	85.7%
City of Larkspur*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
City of Mill Valley	$61,952,000	$17,919,732	$4,017,000	$25,010,100	$42,044,314	$10,993,085	40.4%	139.6%
City of Novato	$375,695,895	$59,936,536	$291,122,782	$32,111,535	$54,651,732	$13,464,873	8.5%	53.6%
City of San Rafael	$300,378,000	$66,009,979	$141,542,000	$142,323,127	$263,741,368	$42,614,784	47.4%	215.6%
City of Sausalito	$93,777,974	$28,955,501	$27,987,699	$19,635,621	$31,512,817	$9,872,158	20.9%	67.8%
County of Marin	$1,992,947,827	$408,896,116	$1,390,055,902	$203,688,484	$377,458,682	$60,988,969	10.2%	49.8%
Town of Corte Madera	$78,944,247	$15,323,517	$47,275,642	$14,263,877	$22,204,244	$7,732,353	18.1%	93.1%
Town of Fairfax*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Town of Ross	$19,557,803	$10,528,331	$13,434,401	$3,548,143	$5,793,448	$1,701,623	18.1%	33.7%
Town of San Anselmo	$29,217,215	$6,606,250	$10,925,168	$5,299,442	$8,601,144	$2,573,504	18.1%	80.2%
Town of Tiburon	$63,662,493	$21,441,460	$52,944,160	$5,412,997	$10,066,334	$2,805,016	8.5%	25.2%
Totals	**$3,026,187,454**	**$639,213,052**	**$1,984,982,754**	**$454,374,181**	**$821,131,701**	**$154,197,671**	**15.0%**	**71.1%**

School Districts	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL% of Assets	NPL % of Cash
Bolinas-Stinson Union School District	$4,810,121	$2,828,769	$1,406,313	$3,039,017	$4,710,035	$1,649,952	63.2%	107.4%
Dixie Elementary School District	$32,522,470	$18,194,342	-$11,279,305	$18,296,623	$28,111,026	$10,138,805	56.3%	100.6%
Kentfield School District	$36,650,017	$16,899,110	-$6,602,777	$13,427,307	$20,538,517	$7,516,633	36.6%	79.5%
Larkspur-Corte Madera School District	$63,370,037	$6,262,719	-$20,314,913	$15,695,360	$24,040,435	$8,759,042	24.8%	250.6%
Marin Community College District	$297,031,000	$17,857,000	-$5,569,000	$45,723,000	$74,506,000	$24,466,000	15.4%	256.1%
Marin County Office of Education	$71,319,233	$44,767,583	$39,274,235	$21,263,747	$33,325,302	$11,236,462	29.8%	47.5%
Mill Valley School District	$90,032,772	$21,001,383	-$22,426,359	$33,102,435	$50,864,259	$18,356,989	36.8%	157.6%
Novato Unified School District	$144,877,763	$29,605,956	-$7,019,803	$60,585,951	$93,087,454	$33,570,412	41.8%	204.6%
Reed Union School District	$52,162,124	$10,224,426	-$650,150	$17,787,987	$27,309,547	$9,873,631	34.1%	174.0%
Ross School District	$35,969,694	$4,473,827	$7,390,298	$5,578,419	$8,558,914	$3,101,035	15.5%	124.7%
Ross Valley School District	$64,424,216	$18,159,492	-$13,237,323	$20,577,136	$31,530,697	$11,472,647	31.9%	113.3%
San Rafael City Schools - Elementary	$123,144,010	$50,000,124	-$15,195,483	$33,037,132	$50,443,688	$28,569,426	26.8%	66.1%
San Rafael City Schools - High School	$109,218,754	$54,037,304	-$17,227,292	$28,004,648	$43,124,257	$15,436,855	25.6%	51.8%
Sausalito Marin City School District	$27,255,480	$4,092,629	$2,360,366	$3,502,310	$5,426,137	$1,903,098	12.8%	85.6%
Shoreline Unified School District	$22,411,328	$7,043,760	-$2,374,726	$10,009,533	$15,448,543	$5,488,410	44.7%	142.1%
Tamalpais Union High School District	$203,339,657	$42,522,717	$7,712,183	$57,699,928	$88,683,304	$31,946,196	28.4%	135.7%
Totals	**$1,378,538,676**	**$347,971,141**	**-$63,753,736**	**$387,330,533**	**$599,708,115**	**$223,485,593**	**28.1%**	**111.3%**

Appendix E: Public Agency Balance Sheet Data (cont'd)

Special Districts Safety	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL % of Assets	NPL % of Cash
Central Marin Police Authority*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kentfield Fire Protection District	$9,789,704	$3,507,855	$2,947,286	$4,310,797	$7,233,383	$1,913,867	44.0%	122.9%
Novato Fire Protection District	$35,403,303	$15,930,859	$10,305,465	$17,430,800	$32,301,320	$5,219,178	49.2%	109.4%
Ross Valley Fire Department	$3,008,924	$1,338,192	-$6,955,625	$7,800,931	$13,770,507	$2,905,473	259.3%	582.9%
Southern Marin Fire Protection District	$13,349,870	$9,102,154	$7,896,367	$6,033,143	$11,180,122	$1,806,460	45.2%	66.3%
Tiburon Fire Protection District	$11,652,619	$5,564,687	$5,444,495	$5,232,050	$10,007,964	$1,314,991	44.9%	94.0%
Total	**$73,204,420**	**$35,443,747**	**$19,637,988**	**$40,807,721**	**$74,493,296**	**$13,159,969**	**55.7%**	**115.1%**

Special Districts Utility	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL % of Assets	NPL % of Cash
Central Marin Sanitation Agency	$106,391,299	$14,974,538	$45,625,458	$6,643,602	$11,141,784	$2,929,830	6.2%	14.6%
Las Gallinas Valley Sanitary District	$81,480,447	$20,316,117	$63,883,215	$2,098,373	$3,571,571	$882,077	2.6%	10.3%
Marin Municipal Water District	$460,030,200	$16,947,252	$243,058,604	$69,753,895	$96,972,537	$47,010,300	15.2%	411.6%
Marin/Sonoma Mosquito & Vector Control District	$19,472,738	$11,634,371	$8,780,059	$4,135,340	$7,663,272	$1,238,215	21.2%	35.5%
Marinwood Community Services District	$6,784,666	$2,387,836	-$470,389	$3,322,116	$5,238,798	$1,624,470	49.0%	139.1%
North Marin Water District	$136,897,391	$5,411,426	$92,672,784	$8,619,837	$14,579,649	$3,833,847	6.3%	159.3%
Novato Sanitary District	$201,851,460	$19,742,079	$108,547,505	$3,528,249	$6,180,933	$1,338,148	1.7%	17.9%
Richardson Bay Sanitary District	$17,826,465	$1,595,379	$16,376,465	$1,101,797	$1,847,790	$485,893	6.2%	69.1%
Ross Valley Sanitary District	$122,064,345	$18,937,993	$66,824,699	$4,506,476	$7,557,675	$1,987,357	3.7%	23.8%
Sanitary District # 5 Tiburon-Belvedere	$30,527,780	$5,434,555	$20,083,181	$1,786,666	$2,996,362	$787,920	5.9%	32.9%
Sausalito Marin City Sanitary District	$46,001,842	$11,215,025	$39,986,927	$1,863,054	$3,124,472	$821,607	4.0%	16.6%
Tamalpais Community Services District	$8,062,948	$1,575,641	$1,239,870	$1,756,793	$3,255,545	$526,054	21.8%	111.5%
Total	**$1,237,391,581**	**$130,172,212**	**$706,608,378**	**$109,116,198**	**$164,130,388**	**$63,465,718**	**8.8%**	**83.8%**

Appendix E: Public Agency Balance Sheet Data (cont'd)

FY 2015

Municipalities	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL % of Assets	NPL% of Cash
City of Belvedere	$9,635,000	$2,981,537	$5,341,000	$2,821,673	$5,039,427	$986,027	29.3%	94.6%
City of Larkspur*	$45,030,851	$14,151,668	$24,277,367	$9,046,789	$15,797,243	$3,467,207	20.1%	63.9%
City of Mill Valley	$61,653,195	$20,419,625	$2,336,678	$21,174,403	$37,076,950	$8,022,272	34.3%	103.7%
City of Novato	$372,235,251	$60,646,987	$284,150,160	$29,915,448	$51,486,548	$11,986,247	8.0%	49.3%
City of San Rafael	$290,551,982	$65,829,733	$151,480,204	$74,253,787	$159,506,132	$3,692,492	25.6%	112.8%
City of Sausalito	$65,193,649	$11,696,520	$17,106,631	$17,741,671	$29,127,780	$8,335,668	27.2%	151.7%
County of Marin	$1,947,970,000	$367,440,909	$1,342,737,000	$142,013,491	$304,297,935	$7,062,046	7.3%	38.6%
Town of Corte Madera	$74,019,098	$9,073,608	$42,936,160	$12,146,336	$19,631,470	$5,958,264	16.4%	133.9%
Town of Fairfax*	$11,962,960	$2,463,991	-$1,376,349	$6,078,042	$9,422,128	$3,314,672	50.8%	246.7%
Town of Ross	$18,236,166	$10,234,934	$11,490,464	$3,465,264	$5,999,505	$1,374,389	19.0%	33.9%
Town of San Anselmo	$28,956,896	$5,822,276	$11,059,337	$4,002,434	$7,131,100	$1,405,939	13.8%	68.7%
Town of Tiburon	$62,234,833	$21,280,864	$52,632,219	$5,232,395	$9,162,200	$1,982,334	8.4%	24.6%
Totals	**$2,987,679,881**	**$592,042,652**	**$1,944,170,871**	**$327,891,733**	**$653,678,418**	**$57,587,557**	**11.0%**	**55.4%**

School Districts	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL % of Assets	NPL% of Cash
Bolinas-Stinson Union School District	$4,866,633	$2,865,817	$1,587,636	$2,499,021	$4,063,986	$1,192,965	51.4%	87.2%
Dixie Elementary School District	$32,345,802	$20,512,452	-$12,361,898	$14,791,102	$23,752,949	$7,405,888	45.7%	72.1%
Kentfield School District	$36,671,347	$16,481,560	-$7,350,022	$11,241,124	$17,845,987	$5,731,639	30.7%	68.2%
Larkspur-Corte Madera School District	$67,710,441	$20,180,460	-$18,662,067	$13,339,460	$21,229,928	$6,757,236	19.7%	66.1%
Marin Community College District	$296,646,697	$16,563,890	-$1,453,534	$35,165,000	$57,576,000	$16,323,000	11.9%	212.3%
Marin County Office of Education	$65,200,872	$40,080,879	$35,148,165	$18,141,000	$29,793,000	$8,340,000	27.8%	45.3%
Mill Valley School District	$88,076,729	$17,389,526	-$25,517,249	$26,623,202	$42,487,967	$13,316,095	30.2%	153.1%
Novato Unified School District	$147,677,796	$30,810,042	-$9,238,177	$51,786,928	$82,735,169	$25,967,877	35.1%	168.1%
Reed Union School District	$52,705,559	$9,360,996	-$1,378,282	$13,830,041	$22,131,664	$6,904,029	26.2%	147.7%
Ross School District	$36,049,201	$3,875,832	$7,486,041	$4,733,569	$7,568,886	$2,368,118	13.1%	122.1%
Ross Valley School District	$58,186,120	$12,864,248	-$12,811,202	$16,841,437	$26,841,518	$8,499,130	28.9%	130.9%
San Rafael City Schools - Elementary	$90,671,410	$18,526,824	-$21,324,673	$26,576,187	$42,069,163	$13,668,565	29.3%	143.4%
San Rafael City Schools - High School	$57,092,257	$17,649,236	-$32,610,889	$21,868,291	$35,163,300	$10,775,267	38.3%	123.9%
Sausalito Marin City School District	$27,343,812	$3,879,729	$2,795,062	$2,990,897	$4,824,034	$1,461,280	10.9%	77.1%
Shoreline Unified School District	$22,894,320	$6,451,291	-$2,544,996	$8,800,020	$14,190,098	$4,302,465	38.4%	136.4%
Tamalpais Union High School District	$207,432,180	$44,567,689	$3,702,851	$46,266,492	$74,079,210	$23,062,248	22.3%	103.8%
Totals	**$1,291,571,176**	**$282,060,471**	**-$94,533,234**	**$315,493,771**	**$506,352,859**	**$156,075,802**	**24.4%**	**111.9%**

Appendix E: Public Agency Balance Sheet Data (cont'd)

Special Districts Safety	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL % of Assets	NPL % of Cash
Central Marin Police Authority*	$16,470,963	$178,725	-$1,124,490	$11,532,085	$18,375,103	$5,889,395	70.0%	6452.4%
Kentfield Fire Protection District	$9,630,272	$3,261,202	$1,651,848	$5,202,429	$8,026,436	$2,875,079	54.0%	159.5%
Novato Fire Protection District	$37,252,657	$17,461,022	$3,778,037	$15,014,710	$32,172,613	$746,651	40.3%	86.0%
Ross Valley Fire Department	$2,499,767	$912,212	-$8,316,114	$7,679,794	$13,318,349	$3,033,390	307.2%	841.9%
Southern Marin Fire Protection District	$12,413,494	$7,865,476	$5,848,381	$3,845,243	$8,239,354	$191,216	31.0%	48.9%
Tiburon Fire Protection District	$11,338,453	$5,938,906	$4,874,704	$6,315,892	$10,889,109	$2,546,208	55.7%	106.3%
Total	**$89,605,606**	**$35,617,543**	**$6,712,366**	**$49,590,153**	**$91,020,964**	**$15,281,939**	**55.3%**	**139.2%**

Special Districts Utility	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL % of Assets	NPL % of Cash
Central Marin Sanitation Agency	$109,050,874	$15,998,126	$45,345,155	$6,024,473	$10,784,954	$2,073,726	5.5%	37.7%
Las Gallinas Valley Sanitary District	$77,052,295	$19,742,483	$58,063,598	$1,693,868	$3,065,929	$555,188	2.2%	8.6%
Marin Municipal Water District	$462,338,812	$19,959,569	$243,685,640	$62,139,077	$87,637,727	$40,725,228	13.4%	311.3%
Marin/Sonoma Mosquito & Vector Control District	$18,321,390	$10,672,765	$7,632,034	$3,378,396	$7,239,023	$168,001	18.4%	31.7%
Marinwood Community Services District	$6,030,417	$1,858,999	-$294,365	$3,142,286	$4,975,627	$1,628,944	52.1%	169.0%
North Marin Water District	$134,483,309	$4,943,414	$88,155,270	$6,701,264	$12,079,630	$2,237,730	5.0%	135.6%
Novato Sanitary District	$203,141,502	$18,102,303	$105,599,405	$3,335,896	$5,943,534	$1,171,804	1.6%	18.4%
Richardson Bay Sanitary District	$17,887,393	$1,303,363	$16,613,138	$901,425	$1,793,212	$161,327	5.0%	69.2%
Ross Valley Sanitary District	$119,157,291	$14,295,359	$62,983,772	$3,708,693	$6,068,264	$1,750,473	3.1%	25.9%
Sanitary District # 5 Tiburon-Belvedere	$30,993,246	$3,622,532	$18,117,614	$2,757,064	$3,943,406	$1,772,512	8.9%	76.1%
Sausalito Marin City Sanitary District	$39,718,939	$9,218,762	$32,797,172	$1,759,386	$3,134,682	$618,021	4.4%	19.1%
Tamalpais Community Services District	$8,676,425	$1,662,061	$1,698,672	$1,028,347	$2,203,480	$51,138	11.9%	61.9%
Total	**$1,226,851,893**	**$121,379,736**	**$680,397,105**	**$96,570,175**	**$148,869,468**	**$52,914,092**	**7.9%**	**79.6%**

Appendix E: Public Agency Balance Sheet Data (cont'd)

2016 Totals

Agencies	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL % of Assets	NPL % of Cash
Municipalities	$3,026,187,454	$639,213,052	$1,984,982,754	$454,374,181	$821,131,701	$154,197,671	15.0%	71.1%
School Districts	$1,378,538,676	$347,971,141	-$63,753,736	$387,330,533	$599,708,115	$223,485,593	28.1%	111.3%
Special Districts Safety	$73,204,420	$35,443,747	$19,637,988	$40,807,721	$74,493,296	$13,159,969	55.7%	115.1%
Special Districts Utility	$1,237,391,581	$130,172,212	$706,608,378	$109,116,198	$164,130,388	$63,465,718	8.8%	83.8%
Total	**$5,715,322,131**	**$1,152,800,152**	**$2,647,475,384**	**$991,628,633**	**$1,659,463,500**	**$454,308,951**	**17.4%**	**86.0%**

2015 Totals

Agencies	Assets	Cash	Net Position	NPL	NPL -1%	NPL +1%	NPL % of Assets	NPL % of Cash
Municipalities	$2,987,679,881	$592,042,652	$1,944,170,871	$327,891,733	$653,678,418	$57,587,557	11.0%	55.4%
School Districts	$1,291,571,176	$282,060,471	-$94,533,234	$315,493,771	$506,352,859	$156,075,802	24.4%	111.9%
Special Districts Safety	$89,605,606	$35,617,543	$6,712,366	$49,590,153	$91,020,964	$15,281,939	55.3%	139.2%
Special Districts Safety	$1,226,851,893	$121,379,736	$680,397,105	$96,570,175	$148,869,468	$52,914,092	7.9%	79.6%
Total	**$5,595,708,556**	**$1,031,100,402**	**$2,536,747,108**	**$789,545,832**	**$1,399,921,709**	**$281,859,390**	**14.1%**	**76.6%**

Appendix: F: Public Agency Income Statement Data

FY 2016

Municipalities	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
City of Belvedere	$7,855,000	$7,404,000	$327,816	4.2%
City of Larkspur*	N/A	N/A	N/A	N/A
City of Mill Valley	$39,916,000	$38,133,000	$2,551,885	6.4%
City of Novato	$47,954,000	$42,687,000	$2,604,320	5.4%
City of San Rafael	$100,490,000	$110,893,000	$19,339,577	19.2%
City of Sausalito	$26,588,325	$24,491,036	$1,763,040	6.6%
County of Marin	$611,801,000	$554,877,000	$48,302,323	7.9%
Town of Corte Madera	$23,593,928	$20,264,214	$1,810,099	7.7%
Town of Fairfax*	N/A	N/A	N/A	N/A
Town of Ross	$9,264,385	$7,320,448	$1,339,398	14.5%
Town of San Anselmo	$19,216,454	$19,350,623	$466,182	2.4%
Town of Tiburon	$11,341,758	$11,029,817	$753,153	6.6%
Totals	**$898,020,850**	**$836,450,138**	**$79,257,793**	**8.8%**

School Districts	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Bolinas-Stinson Union School District	$4,070,898	$4,252,221	$254,367	6.2%
Dixie Elementary School District	$25,361,193	$24,220,753	$1,463,819	5.8%
Kentfield School District	$19,712,081	$18,964,836	$1,065,278	5.4%
Larkspur-Corte Madera School District	$21,966,152	$23,618,998	$1,214,607	5.5%
Marin Community College District	$67,403,849	$82,922,415	$3,922,649	5.8%
Marin County Office of Education	$56,776,827	$55,642,573	$1,851,569	3.3%
Mill Valley School District	$50,815,837	$47,724,947	$2,592,161	5.1%
Novato Unified School District	$94,185,666	$91,973,207	$4,150,779	4.4%
Reed Union School District	$25,711,228	$24,983,096	$1,333,084	5.2%
Ross School District	$8,748,369	$8,844,112	$440,091	5.0%
Ross Valley School District	$29,323,920	$29,952,113	$1,621,067	5.5%
San Rafael City Schools - Elementary	$62,306,271	$59,610,089	$2,888,024	4.6%
San Rafael City Schools - High School	$37,919,147	$39,926,631	$2,009,294	5.3%
Sausalito Marin City School District	$7,421,237	$7,798,127	$253,588	3.4%
Shoreline Unified School District	$14,823,677	$14,594,704	$723,686	4.9%
Tamalpais Union High School District	$92,371,238	$88,169,381	$5,256,408	5.7%
Totals	**$618,917,590**	**$623,198,203**	**$31,040,471**	**5.0%**

Appendix: F: Public Agency Income Statement Data (cont'd)

Special Districts Safety	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Police Authority*	N/A	N/A	N/A	N/A
Kentfield Fire Protection District	$5,014,333	$4,243,041	$951,986	19.0%
Novato Fire Protection District	$27,838,320	$21,367,857	$4,848,895	17.4%
Ross Valley Fire Department	$9,598,396	$8,237,907	$1,119,907	11.7%
Southern Marin Fire Protection District	$14,911,632	$12,863,646	$2,072,079	13.9%
Tiburon Fire Protection District	$7,184,792	$7,604,639	$1,471,646	20.5%
Total	**$64,547,473**	**$54,317,090**	**$10,464,513**	**16.2%**

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Sanitation Agency	$16,952,527	$16,834,929	$936,613	5.5%
Las Gallinas Valley Sanitary District	$12,976,695	$7,881,853	$295,427	2.3%
Marin Municipal Water District	$62,502,430	$68,704,175	$5,725,637	9.2%
Marin/Sonoma Mosquito & Vector Control District	$8,638,747	$8,584,599	$968,417	11.2%
Marinwood Community Services District	$5,837,007	$6,013,031	$321,909	5.5%
North Marin Water District	$17,912,719	$17,534,252	$828,792	4.6%
Novato Sanitary District	$19,299,289	$16,587,829	$280,935	1.5%
Richardson Bay Sanitary District	$2,993,714	$3,239,823	$77,297	2.6%
Ross Valley Sanitary District	$23,623,985	$19,998,903	$543,759	2.3%
Sanitary District # 5 Tiburon-Belvedere	$6,264,746	$4,558,920	$1,781,586	28.4%
Sausalito Marin City Sanitary District	$8,391,876	$5,167,530	$276,804	3.3%
Tamalpais Community Services District	$5,245,439	$5,655,202	$308,274	5.9%
Total	**$190,639,174**	**$180,761,046**	**$12,345,450**	**6.5%**

Appendix: F: Public Agency Income Statement Data (cont'd)

FY 2015

Municipalities	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
City of Belvedere	$7,475,000	$7,191,000	$280,813	3.8%
City of Larkspur*	$21,009,094	$16,693,255	$802,226	3.8%
City of Mill Valley	$37,844,000	$36,158,000	$2,077,981	5.5%
City of Novato	$46,154,000	$41,545,000	$2,421,183	5.2%
City of San Rafael	$94,752,000	$80,572,000	$17,802,358	18.8%
City of Sausalito	$20,603,504	$17,970,673	$2,007,707	9.7%
County of Marin	$602,627,000	$538,354,000	$41,871,696	6.9%
Town of Corte Madera	$21,324,184	$16,988,011	$1,667,545	7.8%
Town of Fairfax*	$9,212,366	$8,630,597	$1,276,895	13.9%
Town of Ross	$10,081,926	$6,667,416	$217,566	2.2%
Town of San Anselmo	$18,707,969	$15,807,161	$359,492	1.9%
Town of Tiburon	$12,271,586	$9,589,263	$463,611	3.8%
Totals	**$902,062,629**	**$796,166,376**	**$71,249,073**	**7.9%**

School Districts	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Bolinas-Stinson Union School District	$4,133,985	$3,839,557	$212,334	5.1%
Dixie Elementary School District	$21,577,176	$23,137,648	$1,223,806	5.7%
Kentfield School District	$17,024,884	$16,763,254	$879,311	5.2%
Larkspur-Corte Madera School District	$19,285,300	$22,676,756	$1,016,124	5.3%
Marin Community College District	$65,743,077	$76,103,061	$3,955,070	6.0%
Marin County Office of Education	$53,863,696	$53,522,613	$1,571,597	2.9%
Mill Valley School District	$46,142,878	$44,916,603	$2,194,414	4.8%
Novato Unified School District	$84,447,074	$86,629,909	$3,710,767	4.4%
Reed Union School District	$23,536,480	$22,614,955	$1,130,735	4.8%
Ross School District	$7,831,472	$8,062,949	$367,499	4.7%
Ross Valley School District	$26,202,736	$26,800,628	$1,343,461	5.1%
San Rafael City Schools - Elementary	$53,530,867	$52,374,844	$2,370,708	4.4%
San Rafael City Schools - High School	$34,638,111	$35,691,740	$1,672,501	4.8%
Sausalito Marin City School District	$6,650,074	$7,478,427	$243,111	3.7%
Shoreline Unified School District	$13,717,171	$15,547,928	$684,755	5.0%
Tamalpais Union High School District	$84,711,887	$82,324,797	$3,866,993	4.6%
Totals	**$563,036,868**	**$578,485,669**	**$26,443,186**	**4.7%**

Appendix: F: Public Agency Income Statement Data (cont'd)

Special Districts Safety	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Police Authority*	$11,087,891	$12,682,790	$1,486,735	13.4%
Kentfield Fire Protection District	$4,949,898	$4,477,793	$828,090	16.7%
Novato Fire Protection District	$25,295,007	$21,313,411	$4,604,649	18.2%
Ross Valley Fire Department	$8,900,504	$9,225,977	$973,697	10.9%
Southern Marin Fire Protection District	$14,038,197	$14,067,722	$759,752	5.4%
Tiburon Fire Protection District	$6,966,748	$7,294,411	$2,159,000	31.0%
Total	**$71,238,245**	**$69,062,104**	**$10,811,923**	**15.2%**

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Sanitation Agency	$17,873,113	$16,220,247	$2,319,236	13.0%
Las Gallinas Valley Sanitary District	$11,621,316	$7,930,633	$266,914	2.3%
Marin Municipal Water District	$61,455,537	$69,478,882	$4,633,745	7.5%
Marin/Sonoma Mosquito & Vector Control District	$8,396,908	$9,652,593	$856,583	10.2%
Marinwood Community Services District	$5,224,022	$4,919,009	$269,828	5.2%
North Marin Water District	$18,506,716	$17,456,194	$669,066	3.6%
Novato Sanitary District	$18,571,214	$15,799,078	$173,410	0.9%
Richardson Bay Sanitary District	$2,874,017	$2,976,836	$69,002	2.4%
Ross Valley Sanitary District	$22,228,230	$20,570,289	$443,292	2.0%
Sanitary District # 5 Tiburon-Belvedere	$6,316,447	$4,500,449	$1,600,837	25.3%
Sausalito Marin City Sanitary District	$7,640,843	$5,596,332	$302,863	4.0%
Tamalpais Community Services District	$5,161,781	$5,086,144	$306,954	5.9%
Total	**$185,870,144**	**$180,186,686**	**$11,911,730**	**6.4%**

Appendix: F: Public Agency Income Statement Data (cont'd)

FY 2014

Municipalities	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
City of Belvedere	$7,151,000	$7,771,000	$280,312	3.9%
City of Larkspur*	$23,430,272	$16,496,021	$1,174,703	5.0%
City of Mill Valley	$35,104,000	$36,651,000	$1,832,914	5.2%
City of Novato	$45,725,000	$42,849,000	$4,167,992	9.1%
City of San Rafael	$93,536,000	$90,637,000	$17,576,796	18.8%
City of Sausalito	$19,374,007	$18,302,083	$1,339,935	6.9%
County of Marin	$578,298,000	$566,596,000	$46,803,624	8.1%
Town of Corte Madera	$18,827,611	$16,188,853	$1,591,599	8.5%
Town of Fairfax	$9,854,550	$8,703,418	$964,694	9.8%
Town of Ross	$7,521,177	$5,161,437	$292,890	3.9%
Town of San Anselmo	$17,157,724	$15,292,443	$426,878	2.5%
Town of Tiburon	$11,283,722	$9,040,229	$460,630	4.1%
Totals	**$867,263,063**	**$833,688,484**	**$76,912,967**	**8.9%**

School Districts	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Bolinas-Stinson Union School District	$3,682,417	$3,611,583	$195,036	5.3%
Dixie Elementary School District	$20,650,150	$21,303,737	$1,075,058	5.2%
Kentfield School District	$15,874,438	$15,651,915	$782,734	4.9%
Larkspur-Corte Madera School District	$18,407,176	$18,693,706	$919,073	5.0%
Marin Community College District	$58,598,119	$69,675,296	$2,747,044	4.7%
Marin County Office of Education	$54,109,107	$53,845,241	$1,488,826	2.8%
Mill Valley School District	$43,586,940	$40,709,942	$1,931,950	4.4%
Novato Unified School District	$76,012,499	$80,693,043	$3,710,767	4.9%
Reed Union School District	$21,716,462	$22,510,117	$1,022,230	4.7%
Ross School District	$7,437,995	$7,755,357	$342,318	4.6%
Ross Valley School District	$25,052,122	$25,063,637	$1,202,960	4.8%
San Rafael City Schools - Elementary	$48,715,280	$48,643,315	$2,003,613	4.1%
San Rafael City Schools - High School	$33,065,771	$32,764,963	$1,458,967	4.4%
Sausalito Marin City School District	$6,831,391	$7,212,560	$223,849	3.3%
Shoreline Unified School District	$13,215,928	$14,468,849	$660,935	5.0%
Tamalpais Union High School District	$80,916,231	$78,209,897	$3,931,527	4.9%
Totals	**$527,872,026**	**$540,813,158**	**$23,696,887**	4.5%

Appendix: F: Public Agency Income Statement Data (cont'd)

Special Districts Safety	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Police Authority*	$10,971,094	$12,540,840	$2,202,617	20.1%
Kentfield Fire Protection District	$4,346,334	$4,410,646	$640,419	14.7%
Novato Fire Protection District	$24,921,522	$27,094,328	$4,365,000	17.5%
Ross Valley Fire Department	$8,319,924	$8,100,563	$757,240	9.1%
Southern Marin Fire Protection District	$13,177,067	$12,739,358	$1,661,560	12.6%
Tiburon Fire Protection District	$6,338,309	$5,793,305	$901,000	14.2%
Total	**$68,074,250**	**$70,679,040**	**$10,527,836**	**15.5%**

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Sanitation Agency	$16,421,864	$18,386,011	$2,724,054	16.6%
Las Gallinas Valley Sanitary District	$11,490,884	$8,624,424	$262,743	2.3%
Marin Municipal Water District	$70,673,150	$70,431,104	$4,576,450	6.5%
Marin/Sonoma Mosquito & Vector Control District	$7,861,221	$8,860,632	$865,130	11.0%
Marinwood Community Services District	$5,096,846	$5,133,110	$408,037	8.0%
North Marin Water District	$20,817,357	$20,329,069	$819,854	3.9%
Novato Sanitary District	$17,963,721	$19,865,633	$258,904	1.4%
Richardson Bay Sanitary District	$2,824,511	$3,009,245	$88,999	3.2%
Ross Valley Sanitary District	$20,868,467	$18,309,740	$796,725	3.8%
Sanitary District # 5 Tiburon-Belvedere	$5,963,722	$4,748,503	$172,890	2.9%
Sausalito Marin City Sanitary District	$7,486,444	$5,131,337	$258,040	3.4%
Tamalpais Community Services District	$5,149,167	$5,396,435	$328,757	6.4%
Total	**$192,617,354**	**$188,225,243**	**$11,560,583**	**6.0%**

Appendix: F: Public Agency Income Statement Data (cont'd)

FY 2013

Municipalities	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
City of Belvedere	$6,898,000	$7,778,000	$360,315	5.2%
City of Larkspur*	$18,603,639	$15,991,539	$1,117,173	6.0%
City of Mill Valley	$32,911,000	$35,373,000	$1,690,435	5.1%
City of Novato	$42,845,000	$40,203,000	$3,600,767	8.4%
City of San Rafael	$97,329,000	$84,881,000	$15,522,832	15.9%
City of Sausalito	$17,435,854	$19,290,681	$1,885,718	10.8%
County of Marin	$539,291,000	$578,123,000	$82,141,000	15.2%
Town of Corte Madera	$16,917,648	$15,662,631	$1,420,037	8.4%
Town of Fairfax*	$8,185,597	$8,393,424	$861,992	10.5%
Town of Ross	$5,954,371	$6,908,283	$426,227	7.2%
Town of San Anselmo	$16,613,802	$15,335,139	$706,204	4.3%
Town of Tiburon	$10,080,056	$8,564,576	$473,302	4.7%
Totals	**$813,064,967**	**$836,504,273**	**$110,206,002**	**13.6%**

School Districts	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Bolinas-Stinson Union School District	$4,166,654	$3,431,372	$181,797	4.4%
Dixie Elementary School District	$19,038,568	$20,037,236	$1,025,538	5.4%
Kentfield School District	$15,347,703	$14,949,309	$751,520	4.9%
Larkspur-Corte Madera School District	$16,692,448	$17,232,998	$760,498	4.6%
Marin Community College District	$73,695,039	$78,071,240	$2,867,705	3.9%
Marin County Office of Education	$53,965,926	$55,824,402	$1,537,897	2.8%
Mill Valley School District	$37,909,411	$36,847,491	$1,708,730	4.5%
Novato Unified School District	$74,691,071	$78,375,760	$3,564,105	4.8%
Reed Union School District	$20,866,279	$20,722,970	$954,501	4.6%
Ross School District	$7,208,553	$7,757,976	$328,289	4.6%
Ross Valley School District	$23,544,533	$23,706,265	$1,126,078	4.8%
San Rafael City Schools - Elementary	$45,813,222	$45,904,573	$1,891,069	4.1%
San Rafael City Schools - High School	$29,829,654	$30,110,447	$1,349,835	4.5%
Sausalito Marin City School District	$7,348,906	$7,412,975	$222,638	3.0%
Shoreline Unified School District	$15,141,029	$13,384,148	$582,511	3.8%
Tamalpais Union High School District	$75,744,653	$73,616,062	$3,790,319	5.0%
Totals	**$521,003,649**	**$527,385,224**	**$22,643,030**	**4.3%**

Appendix: F: Public Agency Income Statement Data (cont'd)

Special Districts Safety	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Police Authority*	$8,760,972	$9,741,410	$1,546,456	17.7%
Kentfield Fire Protection District	$4,266,495	$4,027,584	$719,000	16.9%
Novato Fire Protection District	$23,981,238	$22,959,399	$4,347,000	18.1%
Ross Valley Fire Department	$8,283,616	$8,324,612	$1,352,592	16.3%
Southern Marin Fire Protection District	$13,009,009	$12,479,816	$1,798,760	13.8%
Tiburon Fire Protection District	$5,935,355	$5,505,107	$843,000	14.2%
Total	**$64,236,685**	**$63,037,928**	**$10,606,808**	**16.5%**

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Sanitation Agency	$15,760,045	$16,292,627	$1,202,050	7.6%
Las Gallinas Valley Sanitary District	$11,585,053	$8,366,225	$411,624	3.6%
Marin Municipal Water District	$69,738,216	$63,938,837	$3,963,600	5.7%
Marin/Sonoma Mosquito & Vector Control District	$7,957,709	$8,665,503	$891,511	11.2%
Marinwood Community Services District	$4,770,868	$5,053,618	$414,833	8.7%
North Marin Water District	$18,605,081	$16,568,138	$1,608,211	8.6%
Novato Sanitary District	$17,332,035	$15,759,901	$316,059	1.8%
Richardson Bay Sanitary District	$2,646,912	$2,867,406	$61,929	2.3%
Ross Valley Sanitary District	$20,314,968	$16,831,688	$778,004	3.8%
Sanitary District # 5 Tiburon-Belvedere	$5,409,761	$3,786,385	$186,990	3.5%
Sausalito Marin City Sanitary District	$6,804,580	$5,047,168	$165,778	2.4%
Tamalpais Community Services District	$4,782,049	$4,925,928	$278,274	5.8%
Total	**$185,707,277**	**$168,103,424**	**$10,278,863**	**5.5%**

Appendix: F: Public Agency Income Statement Data (cont'd)

FY 2012

Municipalities	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
City of Belvedere	$6,809,417	$7,082,918	$386,682	5.7%
City of Larkspur*	$17,286,549	$18,920,650	$1,216,411	7.0%
City of Mill Valley	$30,695,904	$32,412,000	$1,939,954	6.3%
City of Novato	$47,129,000	$44,317,469	$3,897,198	8.3%
City of San Rafael	$87,243,000	$84,304,491	$14,627,709	16.8%
City of Sausalito	$19,515,672	$20,402,997	$2,407,997	12.3%
County of Marin	$452,987,000	$461,104,000	$47,541,000	10.5%
Town of Corte Madera	$15,809,424	$14,025,216	$1,734,141	11.0%
Town of Fairfax*	$8,032,233	$8,190,115	$783,933	9.8%
Town of Ross	$5,711,293	$6,086,653	$744,696	13.0%
Town of San Anselmo	$15,240,865	$15,053,414	$1,103,350	7.2%
Town of Tiburon	$8,838,698	$8,520,072	$509,588	5.8%
Totals	**$715,299,055**	**$720,419,995**	**$76,892,659**	**10.7%**

School Districts	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Bolinas-Stinson Union School District	$3,366,497	$3,171,763	$168,417	5.0%
Dixie Elementary School District	$19,027,021	$19,498,458	$1,000,029	5.3%
Kentfield School District	$14,441,839	$14,841,354	$731,248	5.1%
Larkspur-Corte Madera School District	$16,554,817	$16,167,730	$833,718	5.0%
Marin Community College District	$73,985,992	$76,108,423	$2,628,704	3.6%
Marin County Office of Education	$56,294,422	$56,662,756	$1,537,812	2.7%
Mill Valley School District	$34,740,584	$35,382,157	$1,657,232	4.8%
Novato Unified School District	$72,505,743	$77,553,300	$3,453,655	4.8%
Reed Union School District	$20,662,117	$19,941,589	$918,955	4.4%
Ross School District	$6,834,205	$7,670,742	$296,989	4.3%
Ross Valley School District	$22,059,245	$21,179,617	$1,023,687	4.6%
San Rafael City Schools - Elementary	$43,858,815	$43,856,979	$1,774,074	4.0%
San Rafael City Schools - High School	$29,847,934	$29,862,827	$1,311,053	4.4%
Sausalito Marin City School District	$7,285,990	$6,899,490	$197,027	2.7%
Shoreline Unified School District	$13,436,120	$12,479,865	$546,884	4.1%
Tamalpais Union High School District	$73,882,043	$71,289,091	$3,630,314	4.9%
Totals	**$508,783,384**	**$512,566,141**	**$21,709,798**	**4.3%**

Appendix: F: Public Agency Income Statement Data (cont'd)

Special Districts Safety	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Police Authority*	$6,845,710	$7,930,868	$1,152,082	16.8%
Kentfield Fire Protection District	$4,040,717	$3,935,793	$706,000	17.5%
Novato Fire Protection District	$23,162,755	$23,503,892	$4,420,000	19.1%
Ross Valley Fire Department	$6,188,574	$6,222,678	$3,822,902	61.8%
Southern Marin Fire Protection District	$9,514,727	$8,852,899	$1,321,376	13.9%
Tiburon Fire Protection District	$5,692,247	$5,532,857	$900,000	15.8%
Total	**$55,444,730**	**$55,978,987**	**$12,322,360**	**22.2%**

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Central Marin Sanitation Agency	$15,242,715	$15,762,771	$1,130,652	7.4%
Las Gallinas Valley Sanitary District	$11,493,702	$6,665,852	$403,005	3.5%
Marin Municipal Water District	$61,957,837	$60,474,500	$3,962,731	6.4%
Marin/Sonoma Mosquito & Vector Control District	$7,573,456	$8,219,315	$1,820,548	24.0%
Marinwood Community Services District	$4,115,789	$4,592,674	$438,549	10.7%
North Marin Water District	$15,972,477	$16,405,522	$1,031,112	6.5%
Novato Sanitary District	$16,313,384	$16,052,483	$215,351	1.3%
Richardson Bay Sanitary District	$2,672,170	$2,658,572	$60,129	2.3%
Ross Valley Sanitary District	$22,056,782	$18,228,904	$702,054	3.2%
Sanitary District # 5 Tiburon-Belvedere	$4,927,600	$3,612,300	$240,305	4.9%
Sausalito Marin City Sanitary District	$6,350,068	$4,319,548	$315,887	5.0%
Tamalpais Community Services District	$4,938,176	$4,935,448	$249,495	5.1%
Total	**$173,614,156**	**$161,927,889**	**$10,569,818**	**6.1%**

Appendix: F: Public Agency Income Statement Data (cont'd)

Totals 2016

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Municipalities	$898,020,850	$836,450,138	$79,257,793	8.8%
School Districts	$618,917,590	$623,198,203	$31,040,471	5.0%
Special Districts Safety	$64,547,473	$54,317,090	$10,464,513	16.2%
Special Districts Utility	$190,639,174	$180,761,046	$12,345,450	6.5%
Total	**$1,772,125,087**	**$1,694,726,477**	**$133,108,227**	**7.5%**

Totals 2015

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Municipalities	$902,062,629	$796,166,376	$71,249,073	7.9%
School Districts	$563,036,868	$578,485,669	$26,443,186	4.7%
Special Districts Safety	$71,238,245	$69,062,104	$10,811,923	15.2%
Special Districts Utility	$185,870,144	$180,186,686	$11,911,730	6.4%
Total	**$1,722,207,886**	**$1,623,900,835**	**$120,415,912**	**7.0%**

Totals 2014

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Municipalities	$867,263,063	$833,688,484	$76,912,967	8.9%
School Districts	$527,872,026	$540,813,158	$23,696,887	4.5%
Special Districts Safety	$68,074,250	$70,679,040	$10,527,836	15.5%
Special Districts Utility	$192,617,354	$188,225,243	$11,560,583	6.0%
Total	**$1,655,826,693**	**$1,633,405,925**	**$122,698,273**	**7.4%**

Appendix: F: Public Agency Income Statement Data (cont'd)

Totals 2013

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Municipalities	$813,064,967	$836,504,273	$110,206,002	13.6%
School Districts	$521,003,649	$527,385,224	$22,643,030	4.3%
Special Districts Safety	$64,236,685	$63,037,928	$10,606,808	16.5%
Special Districts Utility	$185,707,277	$168,103,424	$10,278,863	5.5%
Total	**$1,584,012,578**	**$1,595,030,849**	**$153,734,703**	**9.7%**

Totals 2012

Special Districts Utility	Revenue	Expenses	Pension Contribution	Pension Contribution as % of Revenue
Municipalities	$715,299,055	$720,419,995	$76,892,659	10.7%
School Districts	$508,783,384	$512,566,141	$21,709,798	4.3%
Special Districts Safety	$55,444,730	$55,978,987	$12,322,360	22.2%
Special Districts Utility	$173,614,156	$161,927,889	$10,569,818	6.1%
Total	**$1,453,141,325**	**$1,450,893,012**	**$121,494,635**	**8.4%**

Appendix G: CalPERS Termination Fees

The table below lists the estimated termination payments at assumed rates of 2.00% and 3.25% for participating agencies, excepting school districts, per the annual CalPERS Actuarial Report for 6/30/2015.

AGENCY	NPL as Reported in FY 2015 Financials	Assumed Discount Rate 2.00%	Assumed Discount Rate 3.25%
Central Marin Police Authority*	$6,024,473	$71,565,039	$51,696,369
Central Marin Sanitation Agency	$3,324,578	$45,302,181	$33,168,333
City of Belvedere	$2,821,673	$22,330,041	$16,034,899
City of Larkspur	$9,046,789	$64,068,837	$46,794,380
City of Mill Valley	$21,174,403	$164,006,306	$119,143,571
City of Novato	$29,915,448	$210,899,167	$154,434,070
City of Sausalito	$17,741,671	$111,095,700	$80,854,968
College of Marin - CalPERS	$14,503,000	$4,413,804	$3,117,900
Kentfield Fire Protection District	$5,202,429	$25,682,839	$18,599,480
Las Gallinas Valley Sanitary District	$1,693,868	$12,363,061	$9,004,250
Marin Municipal Water District	$62,139,077	$291,279,084	$222,708,365
Marinwood Community Services District	$3,142,286	$19,402,506	$13,677,782
North Marin Water District	$6,701,264	$46,278,897	$34,041,789
Novato Sanitary District	$3,335,896	$23,194,067	$17,250,223
Richardson Bay Sanitary District	$901,425	$6,964,774	$5,134,984
Ross Valley Fire Department	$7,679,794	$56,572,810	$40,834,714
Ross Valley Sanitary District	$3,708,693	$21,982,458	$16,055,544
Sanitary District # 5	$2,757,064	$11,272,815	$8,312,243
Sausalito Marin City Sanitation District	$1,759,386	$12,874,490	$9,642,427
Tiburon Fire Protection District	$6,315,892	$42,833,280	$30,695,410
Town of Corte Madera	$12,146,336	$77,386,425	$56,430,103
Town of Fairfax	$6,078,042	$40,460,118	$29,676,098
Town of Ross	$3,465,264	$24,932,090	$17,959,639
Town of San Anselmo	$4,002,434	$59,135,515	$44,288,748
Town of Tiburon	$5,232,395	$38,702,774	$28,540,001
TOTAL	**$240,813,580**	**$1,504,999,078**	**$1,108,096,290**

Appendix J: Private Pension Discount Rates

The table below lists the discount rates used by the 10 largest US corporate pension funds by total assets under management. Information was obtained from the 2015 Annual Reports and 10K filings of the listed corporations.

Corporation	Pension Fund Assets ($Mils.)	Pension Discount Rate	OPEB Discount Rate
Boeing	$101,931	4.20%	3.80%
IBM	$96,382	4.00%	3.70%
AT&T	$83,414	4.60%	4.50%
General Motors	$82,427	3.73%	3.83%
General Electric	$70,566	4.38%	NA
Lockheed Martin	$63,370	4.38%	4.25%
Ford	$55,344	4.27%	4.22%
Bank of America	$51,000	4.51%	4.32%
UPS	$46,443	4.40%	4.18%
Northrop Grumman	$43,387	4.53%	4.47%
Average		**4.30%**	**4.14%**

BOARD MEMORANDUM

June 9, 2017

To: CMSA Commissioners and Alternates

From: Jason Dow, General Manager JD

Subject: Resolution of Appreciation for Kathy Hartzell

Recommendation: Adopt Resolution #314 – a Resolution of Appreciation for Kathy Hartzell.

Summary: Commission Chair Kathy Hartzell recently informed the Board that she is retiring as the City of Larkspur representative on the CMSA Board, and her last meeting will be on June 13. Dan Hillmer, Kathy's alternate, has been appointed by the Larkspur City Council as their commission representative to replace her.

Kathy served as Larkspur's alternate commissioner until Bob Sinnott retired from the Board in September 2010, after which Kathy was appointed the Larkspur representative. From a staff perspective, Kathy has been a great Board member. She has learned the wastewater business, regularly engaged staff in discussions about operations, regulations, and capital projects, and has supported the Agency in its many initiatives and activities. On a personal level, I have enjoyed very much working with Kathy as the Board Chair and she has taught me many things to help me grow and be more effective in my position.

Kate Brouillet, Vice-Chair Diane Furst, and I prepared the attached Resolution of Appreciation for Kathy, and we recommend the Board approve and adopt it.

Attachment
CMSA Resolution #314 – Resolution of Appreciation for Kathy Hartzell

CMSA Resolution No. 314

Resolution of Appreciation for
Kathy Hartzell

*WHEREAS, **Kathy Hartzell*** has served as a representative of the City of Larkspur on the Central Marin Sanitation Agency (CMSA) Board as a Commissioner since January 2010; and

*WHEREAS, **Kathy*** has demonstrated her dedication to the work of the Board by serving as Board Chair since July 2014, and by bringing a fair and thoughtful perspective to the meetings; and

*WHEREAS, **Kathy*** spent many years serving on the Board's Finance Committee where she reviewed numerous budgets, capital improvement plans, and financial forecasts, and assisted in crafting the Agency's first five-year revenue program; and

*WHEREAS, **Kathy*** tirelessly attended North Bay Watershed Association Board meetings on a monthly basis as a representative for CMSA, and reported back with enthusiasm; and

*WHEREAS, **Kathy*** has utilized her Larkspur City Council experience and common-sense approach to bring a collaborative spirit to Board meetings; and

*WHEREAS, **Kathy*** participated in the development of Agency's 2011 and 2017 five-year Strategic Business Plans, and consistently supported Agency staff as they endeavored to achieve the Strategic Plan's Vision, Mission, Goals, and Values; and

*WHEREAS, **Kathy*** encouraged the development of the Central Marin Food-to-Energy Program, and the public-private partnership with Marin Sanitary Service to make the Program a success; and

*WHEREAS, **Kathy*** has proven her commitment to protecting the environment and public health by fully supporting the Agency's programs and initiatives, financial sustainability, and green business practices; and

WHEREAS, ***Kathy*** has always shown the intention to act in the best interest of the Agency and its customers during her tenure at CMSA, and will be missed by all.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Central Marin Sanitation Agency express their appreciation to ***Kathy*** for her years of service and dedication to the Agency.

PASSED, APPROVED, AND ADOPTED the 13th day of June, 2017.

____

Diane Furst, Vice-Chair

ATTEST:

____

Maribeth Bushey, Commissioner