

CENTRAL MARIN SANITATION AGENCY

VALUATION OF RETIREE HEALTH BENEFITS

REPORT OF GASB 75 ACTUARIAL VALUATION AS OF JUNE 30, 2019

**Prepared by: North Bay Pensions LLC
July 14, 2020**

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Actuarial Certification

This report presents the determination of benefit obligations under **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)** as of June 30, 2019 for the retiree health and welfare benefits provided by the Central Marin Sanitation Agency (CMSA). I was retained by CMSA to perform these calculations.

GASB Statement 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions", was issued to provide standards for governmental employers to record expense for **Other Postemployment Benefits (OPEB)**.

The information contained in this report was based on a participant census as of June 30, 2019 provided to me by CMSA. The actuarial assumptions and methods used in this valuation were selected by CMSA after consultation with me. I believe the assumptions and methods are reasonable and appropriate for purposes of actuarial computations under GASB 75.

Actuarial computations under GASB 75 are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been made on a basis consistent with my understanding of GASB 75. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results reported herein. Due to the limited scope of my assignment, I did not perform an analysis of the potential range of future measurements.

To the best of my knowledge, this report is complete and accurate. This valuation has been conducted in accordance with generally accepted actuarial principles and practices. The undersigned is a Fellow of the Society of Actuaries, a Fellow of the Conference of Consulting Actuaries, and a Member of the American Academy of Actuaries, and meets their continuing education requirements and qualification standards for public statements of actuarial opinion relating to retirement plans. In my opinion, I am qualified to perform this valuation.



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7-14-2020

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Summary of Results

Background

CMSA maintains a program which pays part or all of monthly medical insurance premiums on behalf of certain retired former employees, provided that the employee has satisfied certain requirements. As of June 30, 2019, CMSA has accumulated \$2,715,110 in the CalPERS CERBT (California Employers' Retirement Benefit Trust) toward the cost of future benefits.

In June 2015, the Governmental Accounting Standards Board (GASB) released Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions". This statement, often referred to as **GASB 75**, requires governmental entities to (1) record annual expense for their OPEB and (2) disclose certain information in their year-end financial statements.

CMSA has requested this actuarial valuation to determine what its OPEB obligations under the program are, and what the impact of GASB 75 will be for the 2019-2020 year. This report also includes GASB 75 results that were accrued and disclosed by CMSA during the 2018-2019 year.

Actuarial Present Value of Projected Benefit Payments

The Actuarial Present Value of Projected Benefit Payments (APVPBP) for all current and former employees, as of June 30, 2019, is **\$5,075,395**. This is the amount that CMSA would theoretically need to set aside at this time to fully fund all those future benefits.

The total value of \$5,075,395 is the sum of these amounts:

Future benefits of current employees	\$ 2,810,127
Future benefits of current retirees	<u>2,265,268</u>
APVPBP	\$ 5,075,395

This figure may be compared to the APVPBP of \$5,244,054 that was shown in the 2018 valuation report. We would have expected the APVPBP to increase to approximately \$5,519,000 by 2019 as employees continue working and approach retirement age. The difference between the 2018 figure of \$5,244,054 and this year's \$5,075,395 is due to:

• Expected increase in the APVPBP since 2018	\$ 275,060
• Changes in assumptions	4,266
• Lower medical premiums than anticipated	(380,466)
• Miscellaneous experience gains and losses	<u>(67,519)</u>
Total of changes	\$ (168,659)

The assumption changes are explained below under “Actuarial Assumptions”. The experience gain of \$67,519 is due to demographic changes (retirements, terminations, deaths) which are different than those expected.

These figures are computed by (1) estimating the OPEB benefits that will be paid to each current and former employee and their beneficiaries (if applicable), upon the employee’s retirement from CMSA, (2) estimating the likelihood that each payment will be made, taking into consideration the likelihood of remaining employed until retirement age and the likelihood of survival after retirement, and (3) discounting each expected future payment back to the present date at an assumed rate of investment return.

Net OPEB Liability

The **Total OPEB Liability** (TOL) is the portion of the APVPBP which has been “earned” by employees based on past years of service (i.e. benefits allocated to past years of service).

The **Plan Fiduciary Net Position** (FNP) is equal to the value of assets that have been accumulated in an irrevocable trust for these benefits.

The **Net OPEB Liability** or **Asset** (NOL) is the excess of the Total OPEB Liability over the Plan Fiduciary Net Position. At the end of each fiscal year, CMSA must show a liability equal to the NOL.

At June 30, 2018 and June 30, 2019, these amounts are:

	<u>June 30, 2018</u>	<u>June 30, 2019</u>
Present value of benefits for employees	\$ 2,516,681	\$ 2,057,999
Present value of benefits for retirees	<u>2,061,866</u>	<u>2,265,268</u>
Total OPEB Liability	\$ 4,578,547	\$ 4,323,267
Accumulated assets in the CERBT trust	<u>\$ 2,510,756</u>	<u>\$ 2,715,110</u>
Plan Fiduciary Net Position	\$ 2,510,756	\$ 2,715,110
Total OPEB Liability	\$ 4,578,547	\$ 4,323,267
Plan Fiduciary Net Position	<u>(2,510,756)</u>	<u>(2,715,110)</u>
Net OPEB Liability	\$ 2,067,791	\$ 1,608,157

OPEB Expense under GASB 75

GASB 75 requires that the annual change in the NOL be recognized as OPEB expense, except for certain specific changes which are to be recognized over different periods of

time. Changes in actuarial assumptions, and experience gains and losses, are to be recognized over the average of the expected remaining service lives of all employees. As of June 30, 2018, this average for CMSA employees is 10.3 years. As of June 30, 2019, this average is 10.8 years. Differences between actual and expected investment earnings are to be recognized over 5 years. The unrecognized remaining amounts of assumption changes, experience gains/losses and investment earnings differences are called “deferred outflows and inflows of resources relating to OPEB” (see Exhibit 5).

The OPEB Expense for the fiscal year ending June 30, 2020 is **\$202,704**. For the year ending June 30, 2019, the OPEB Expense was **\$246,298**. Derivations of these amounts are shown in Exhibit 4.

Disclosure Information as of June 30, 2019 and June 30, 2020

Amounts to be disclosed in the footnotes to CMSA audited financial statements as of June 30, 2019 and as of June 30, 2020 are shown in Exhibits 2 through 6 of this report. Numbers labelled as “June 30, 2018” are to be disclosed at June 30, 2019. Numbers labelled as “June 30, 2019” are to be disclosed at June 30, 2020.

Exhibit 7 shows estimated retiree benefits and OPEB expense for the next nine years after that.

Actuarial Assumptions

All actuarial assumptions are unchanged from the January 1, 2018 valuation, except as described below. The assumptions are described in detail in Exhibit 9.

The probabilities of retirement, termination and mortality have been changed from the 2014 CalPERS assumptions to the 2017 CalPERS assumptions. This change had the effect of increasing the APVPBP by \$4,266.

Exhibit 1 - Actuarial Values as of June 30, 2019

The Actuarial Present Value of Projected Benefit Payments (APVPBP) as of June 30, 2019 of all future employer-paid benefits from the program, for all current and former employees, is as follows:

	<u>Actuarial Present Values</u>	<u>Number of Persons</u>
Current Employees	\$ 2,810,127	39
Retired Employees	<u>2,265,268</u>	<u>32</u>
	\$ 5,075,395	71

As of June 30, 2019, CMSA has accumulated \$2,715,110 in an irrevocable trust toward this liability.

The Total OPEB Liability (TOL) as of June 30, 2019 is the portion of the APVPBP which has been “earned” to date by current and former employees, based on the years of service already completed:

Current employees	\$ 2,057,999
Retired former employees	<u>2,265,268</u>
Totals	\$ 4,323,267

Summary of Participating Employees as of June 30, 2019

Active Employees

Number	39 employees
Average Age	46.1 years
Average Service	8.2 years

Retired Former Employees and Surviving Spouses

Number	32 persons
Average Age	70.7 years

Exhibit 2 - Net OPEB Liability

The Net OPEB Liability (NOL) is the excess of the Total OPEB Liability (TOL) over the Plan Fiduciary Net Position (FNP). As of June 30, 2017, June 30, 2018 and June 30, 2019 these are:

	<u>June 30, 2017</u>	<u>June 30, 2018</u>	<u>June 30, 2019</u>
Total OPEB Liability			
Value of benefits for employees	\$ 2,238,994	\$ 2,516,681	\$ 2,057,999
Value of benefits for retirees	<u>2,107,157</u>	<u>2,061,866</u>	<u>2,265,268</u>
Total OPEB Liability	\$ 4,346,151	\$ 4,578,547	\$ 4,323,267
Plan Fiduciary Net Position			
Fair value of assets in CERBT	<u>\$ 2,226,727</u>	<u>\$ 2,510,756</u>	<u>\$ 2,715,110</u>
Plan Fiduciary Net Position	\$ 2,226,727	\$ 2,510,756	\$ 2,715,110
Net OPEB Liability	\$ 2,119,424	\$ 2,067,791	\$ 1,608,157

The Net OPEB Liability has changed from June 30, 2017 to June 30, 2018 in this way:

	<u>TOL</u>	<u>FNP</u>	<u>NOL</u>
Values at June 30, 2017	\$ 4,346,151	\$ 2,226,727	\$ 2,119,424
Service cost	114,689		114,689
Interest	309,421		309,421
Differences between actual and expected experience	0		0
Employer contributions		299,028	(299,028)
Net investment income		177,929	(177,929)
Benefits paid to retirees	(191,714)	(191,714)	0
Administrative expense		(1,214)	1,214
Net changes	\$ 232,396	\$ 284,029	\$ (51,633)
Values at June 30, 2018	\$ 4,578,547	\$ 2,510,756	\$ 2,067,791

The Net OPEB Liability has changed from June 30, 2018 to June 30, 2019 in this way:

	<u>TOL</u>	<u>FNP</u>	<u>NOL</u>
Values at June 30, 2018	\$ 4,578,547	\$ 2,510,756	\$ 2,067,791
Service cost	118,130		118,130
Interest	326,176		326,176
Differences between actual and expected experience	(485,040)		(485,040)
Assumption changes	(18,331)		(18,331)
Employer contributions		239,297	(239,297)
Net investment income		161,815	(161,815)
Benefits paid to retirees	(196,215)	(196,215)	0
Administrative expense		(543)	543
Net changes	\$ (255,280)	\$ 204,354	\$ (459,634)
Values at June 30, 2019	\$ 4,323,267	\$ 2,715,110	\$ 1,608,157

Exhibit 3 - Sensitivity of the Net OPEB Liability

The following presents the Net OPEB Liability (NOL) as well as what the NOL would be if it were calculated using a discount rate that is 1-percentage-point higher or lower than the current discount rate, as of June 30, 2018 and June 30, 2019:

	<u>1% Decrease</u> 6.28 %	<u>Discount Rate</u> 7.28 %	<u>1% Increase</u> 8.28 %
Net OPEB Liability 6-30-2018	\$ 2,701,141	\$ 2,067,791	\$ 1,546,921
Net OPEB Liability 6-30-2019	\$ 2,179,802	\$ 1,608,157	\$ 1,136,484

The following presents the Net OPEB Liability (NOL) as well as what the NOL would be if it were calculated using healthcare cost trend rates that are 1-percentage-point higher or lower than the current healthcare cost trend rates, as of June 30, 2018 and June 30, 2019:

	<u>1% Decrease</u> 4.5 %	<u>Trend Rate</u> 5.5 %	<u>1% Increase</u> 6.5 %
Net OPEB Liability 6-30-2018	\$ 1,514,815	\$ 2,067,791	\$ 2,738,341
Net OPEB Liability 6-30-2019	\$ 1,127,883	\$ 1,608,157	\$ 2,186,594

Exhibit 4 - OPEB Expense for the Fiscal Year Ending June 30, 2020

For the year ending June 30, 2019, CMSA recognized OPEB expense of \$246,298, computed as follows:

Service cost	\$ 114,689
Interest	309,421
Expected investment return	(162,062)
Administrative expense	1,214
Change in NOL due to changes in benefits	0
Recognition of difference between actual and expected experience	0
Recognition of changes in assumptions	0
Recognition of difference between projected and actual earnings on investments	<u>(16,964)</u>
Total	\$ 246,298

For the year ending June 30, 2020, CMSA recognized OPEB expense of \$202,704, computed as follows:

Service cost	\$ 118,130
Interest	326,176
Expected investment return	(182,763)
Administrative expense	543
Change in NOL due to changes in benefits	0
Recognition of difference between actual and expected experience	(44,911)
Recognition of changes in assumptions	(1,697)
Recognition of difference between projected and actual earnings on investments	<u>(12,774)</u>
Total	\$ 202,704

Exhibit 5 - Deferred Outflows and Inflows of Resources

The values of deferred outflows and inflows of resources related to OPEB as of June 30, 2018, **to be reported as of June 30, 2019**, are:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 0	\$ 0
Changes of assumptions	0	0
Net difference between projected and actual earnings on OPEB plan investments	0	54,068
CMSA contributions subsequent to the measurement date	<u>239,297</u>	<u>0</u>
Total	\$ 239,297	\$ 54,068

Amounts reported as deferred outflows and inflows of resources related to OPEB as of June 30 2018, **to be reported as of June 30, 2019**, will be recognized in OPEB expense as follows:

Year Ended June 30	
2020	\$ (16,964)
2021	(16,964)
2022	(16,965)
2023	(3,175)
2024	0
Thereafter	0

The values of deferred outflows and inflows of resources related to OPEB as of June 30, 2019, **to be reported as of June 30, 2020**, are:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 0	\$ 440,129
Changes of assumptions	0	16,634
Net difference between projected and actual earnings on OPEB plan investments	16,758	37,104
CMSA contributions subsequent to the measurement date	<u>UNKNOWN</u>	<u>0</u>
Total	\$	\$ 493,867

“UNKNOWN” is the total of amounts contributed by CMSA to retirees’ benefits and to the CERBT trust during the 12 months ending June 30, 2020. This is the sum of (1) the total contributions to CERBT, (2) the actual benefits paid to retirees during the 12 months ending June 30, 2020, and (3) the total of subsidized premiums for the 12 months ending June 30, 2020 (\$34,735).

Amounts reported as deferred outflows and inflows of resources related to OPEB as of June 30 2019, **to be reported as of June 30, 2020**, will be recognized in OPEB expense as follows:

Year Ended June 30	
2021	\$ (59,382)
2022	(59,383)
2023	(45,593)
2024	(42,420)
2025	(46,608)
Thereafter	(223,723)

Exhibit 6 - Schedule of Changes in the Net OPEB Liability

Reporting date	<u>6/30/2019</u>	<u>6/30/2020</u>
Total OPEB liability		
Service cost	\$ 114,689	\$ 118,130
Interest	309,421	326,176
Changes of benefit terms	0	0
Differences between actual and expected experience	0	(485,040)
Changes of assumptions	0	(18,331)
Benefits paid to retirees	<u>(191,714)</u>	<u>(196,215)</u>
Net change in Total OPEB liability	232,396	(255,280)
Total OPEB liability – beginning	<u>4,346,151</u>	<u>4,578,547</u>
Total OPEB liability – ending	\$ 4,578,547	\$ 4,323,267
Plan fiduciary net position		
Contributions – employer	\$ 299,028	\$ 239,297
Net investment income	177,929	161,815
Benefits paid to retirees	(191,714)	(196,215)
Administrative expense	<u>(1,214)</u>	<u>(543)</u>
Net change in plan fiduciary net position	284,029	204,354
Plan fiduciary net position - beginning	<u>2,226,727</u>	<u>2,510,756</u>
Plan fiduciary net position - ending	\$ 2,510,756	\$ 2,715,110
Net OPEB Liability – ending	\$ 2,067,791	\$ 1,608,157
Plan fiduciary net position as a percentage of the Total OPEB liability	54.84 %	62.80 %
Covered-employee payroll	\$ 5,259,527	\$ 4,995,712
Net OPEB liability as a percentage of covered-employee payroll	39.32 %	32.19 %

Exhibit 7 - Ten-Year Projection of Costs

Shown below are estimates of (a) the benefits expected to be paid to retirees, (b) the projected subsidized premiums, and (c) the amounts CMSA is expected to accrue as GASB 75 OPEB expense, for the next ten years. For these estimates, it is assumed that all actuarial assumptions and the size of the workforce will remain unchanged, that the promised benefits will remain the same, that CMSA will contribute an amount to CERBT each year equal to the excess of the OPEB Expense over the retiree benefits and the subsidy payments, and that there are no experience gains or losses.

Fiscal Year Ending:	Employer-Paid Retiree <u>Payments</u>	Projected Implicit Rate <u>Subsidy Payments</u>	<u>GASB 75 OPEB Expense</u>
2020	\$ 175,000	\$ 34,735	\$ 202,704
2021	193,000	45,053	172,000
2022	184,000	35,000	176,000
2023	194,000	37,000	195,000
2024	209,000	40,000	203,000
2025	229,000	54,000	203,000
2026	244,000	57,000	206,000
2027	264,000	74,000	207,000
2028	278,000	86,000	207,000
2029	298,000	107,000	204,000

Exhibit 8 - Summary of Benefit Provisions

CMSA maintains a program which provides health benefits to employees who retire from CMSA, provided that the employee has satisfied the minimum CalPERS requirement of attaining age 50 with at least 5 years of service. CMSA contracts with CalPERS to provide medical coverage for both current and retired employees. CMSA does not provide post-retirement coverage for dental, vision or life insurance benefits. Retired employees are required to enroll in Medicare Part B when eligible.

Certain retirees who were first employed with the San Rafael Sanitation District and then subsequently transferred to CMSA are eligible to receive fully-paid health benefits (regardless of plan selection) for employee, spouse and surviving spouse provided that the employee had at least 30 years of combined SRSD and CMSA service.

For unrepresented employees hired before January 1, 2010 and represented employees hired before June 1, 2010 who retire under CalPERS on or after age 50 with at least 5 years of service, CMSA's contribution to retiree health benefits is based on the monthly CalPERS premiums for single party enrollment in the Kaiser Bay Area Region Health Plan. After age 65, the amount paid will be the lesser of the Kaiser Bay Area Region Health Plan or the enrolled CalPERS Medicare supplement plan premium. A retiree is eligible to include his/her spouse on a CalPERS health plan however CMSA does not contribute toward the premium for spousal coverage. Surviving spouses are paid the CalPERS minimum monthly benefit (\$128 per month in 2017, increases each year) when enrolled in the plan at the time of retirement.

For unrepresented employees hired after January 1, 2010 and represented employees hired after June 1, 2010 who retire under CalPERS on or after age 50 with at least 5 years of service, CMSA's contribution to retiree health benefits is based on the CalPERS minimum monthly benefit (as described above) for as long as the retiree or surviving spouse is living, assuming they were enrolled to receive the benefit at the time of retirement.

Exhibit 9 - Summary of Actuarial Assumptions

Actuarial Assumptions: The following assumptions as of June 30, 2019 were selected by CMSA in accordance with the requirements of GASB 75. These assumptions, in my opinion, are reasonable and appropriate for purposes of determining OPEB costs under GASB 75.

Long-Term Expected Rate of Return on Investments: CalPERS' own long-term expected rate of return for the Strategy #1 Fund (the one that CMSA is invested in) has a mean expected yield of 7.59%. In prior years, the expected yield was 7.28%, which was the rate that CMSA had assumed. CMSA believes that 7.28% is still a reasonable long-term return for those CERBT assets.

Discount rate: 7.28% per year. The cash flows of the OPEB plan were projected to future years, assuming that CMSA will contribute an amount so that the assets always exceed expected benefits to retirees. Under that projection, the plan assets are projected to be adequate to pay all benefits to retirees in all future years, so the discount rate has been set equal to the long-term expected rate of return on investments, 7.28%.

Medical Cost Increases (Trend): Medical premiums are assumed to increase 5.5% per year.

Payroll Growth: Total payroll is assumed to increase 3.0% per year in the future.

Coverage Elections: 100% of eligible employees are assumed to elect coverage upon retirement, and to remain covered for life. Employees with no current medical coverage are assumed to elect Kaiser employee-only coverage upon retirement.

Mortality: Mortality rates are taken from the 2017 CalPERS valuation. In the 2017 valuation, mortality was taken from the 2014 CalPERS OPEB Assumptions Model.

Funding Method: The Entry Age actuarial cost method has been used, with normal costs calculated as a level percentage of payroll, as required by GASB 75.

Retirement: Retirement rates are taken from the 2017 CalPERS pension valuation for “public agency miscellaneous 2.7% at 55”. Sample rates are:

	<u>10 Years Service</u>	<u>20 Years Service</u>	<u>30 Years Service</u>
Age 55	5.5 %	11.3 %	23.4 %
Age 58	6.6 %	12.4 %	20.1 %
Age 61	9.4 %	15.3 %	24.1 %
Age 64	14.7 %	22.1 %	30.8 %

In the 2017 valuation, rates were taken from the 2014 CalPERS OPEB Assumptions Model for “public agency miscellaneous 2.7% at 55”.

Disability: Incidence of disability is considered to be included in the termination and retirement rates here, so no explicit recognition of disablement has been included.

Inflation: Long-term inflation is assumed to be 2.75% per year.

Turnover (withdrawal): Likelihood of termination within the next year is taken from the 2017 CalPERS valuation. Sample rates are:

	<u>5 Years Service</u>	<u>10 Years Service</u>	<u>15 Years Service</u>
Age 20	6.54 %		
Age 30	6.15 %	4.16 %	2.62 %
Age 40	5.19 %	3.75 %	2.43 %
Age 50	4.41 %	2.86 %	1.88 %

In the 2017 valuation, turnover rates were taken from the 2014 CalPERS OPEB Assumptions Model.

Age-Specific Medical Claims: The estimated per person medical claims (true costs of coverage) during the 2019-2020 fiscal year are as follows (rates are shown for certain ages only):

<u>Age</u>	<u>Annual Claims</u>
40	\$ 7,055
45	8,531
50	10,541
55	13,000
60	15,152
64	16,255

These age-specific rates were developed so as to reproduce in the aggregate the same total premiums that would be paid to the carriers for all current employees and all current retirees.