

WEST BAY SANITARY DISTRICT

VALUATION OF RETIREE HEALTH BENEFITS FOR THE FISCAL YEAR ENDING JUNE 30 2018

REPORT OF GASB 75 ACTUARIAL VALUATION AS OF JUNE 30, 2017

**Prepared by: North Bay Pensions LLC
December 3, 2018**

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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, 2017 for the retiree health and welfare benefits provided by the West Bay Sanitary District. I was retained by the District 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)**. GASB 75 replaces GASB 45 for the District, effective July 1, 2017.

The information contained in this report was based on a participant census as of July 1, 2017 provided to me by the District. The actuarial assumptions and methods used in this valuation were selected by the District 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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Summary of Results

Background

The District maintains a program which pays part of monthly medical insurance premiums on behalf of retired former employees, provided that the employee has satisfied certain requirements. As of June 30, 2017, the District has accumulated \$235,234 in an irrevocable trust with PARS (Public Agency Retirement Services) 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.

The District 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 2017-2018 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, 2017, is **\$345,275**. This is the amount the District would theoretically need to set aside at this time to fully fund all those future benefits.

The total value of \$345,275 is the sum of these amounts:

Future benefits of current employees	\$ 190,859
Future benefits of current retirees	<u>154,416</u>
APVPBP	\$ 345,275

This figure may be compared to the Actuarial Present Value of Total Projected Benefits (APVTPB, the GASB 45 term for the same quantity) of \$268,186 that was reported in the 2015 valuation report. We would have expected the APVTPB to increase to approximately \$280,000 by 2017 as employees continue working and approach retirement age. The difference between the 2015 figure of \$268,186 and this year's figure of \$345,275 is due to:

• Expected increase in the APVPBP since 2015	\$ 12,114
• Change in the discount rate from 5% to 6%	(62,279)
• Miscellaneous experience gains and losses	<u>127,254</u>
Total of changes	\$ 77,089

The change in the discount rate is explained in more detail below under “Actuarial Assumptions”.

The experience loss of \$127,254 is mostly from a more accurate recognition of dependent spouses. In the 2015 valuation, it was assumed that 30% of employees and retirees would cover a dependent spouse – this mainly affects the present value of future subsidized premiums. Since more than 70% of current employees are covering a dependent spouse, it makes sense to use the actual current coverage of dependents instead.

These figures were 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 the District, (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 employment).

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, beginning June 30 2018, the District must show a liability equal to the NOL.

At June 30, 2016 and June 30, 2017, these amounts are:

	<u>June 30, 2016</u>	<u>June 30, 2017</u>
Present value of benefits for employees	\$ 125,192	\$ 139,217
Present value of benefits for retirees	<u>153,361</u>	<u>154,416</u>
Total OPEB Liability	\$ 278,553	\$ 293,633
Accumulated assets in the PARS trust	<u>\$ 0</u>	<u>\$ 235,234</u>
Plan Fiduciary Net Position	\$ 0	\$ 235,234

Total OPEB Liability	\$ 278,553	\$ 293,633
Plan Fiduciary Net Position	<u>(0)</u>	<u>(235,234)</u>
Net OPEB Liability	\$ 278,553	58,399

The TOL of \$293,633 may be compared to the Actuarial Accrued Liability (AAL) of \$217,440 that was reported in the 2015 valuation report.

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, 2017, this average for District employees is 10.2 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, 2018 is **\$20,942**. A derivation of this amount is shown in Exhibit 4.

Disclosure Information as of June 30, 2018

Amounts to be disclosed in the footnotes to the District’s audited financial statements as of June 30, 2018 are shown in Exhibits 2 through 6 of this report.

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 July 1, 2015 valuation, except for the discount rate. The assumptions are described in detail in Exhibit 9.

The discount rate has been changed by the District from 5.00% to 6.00%. The District has determined that 6.00% is a reasonable estimate for the long-term expected rate of return on the plan’s assets. A cash flow projection shows that if the assets in the irrevocable trust earn 6.00% per year, then the assets will always be sufficient to pay benefits to retired employees. Therefore, under the requirements of GASB 75, 6.00% is an appropriate discount rate for these benefits.

Exhibit 1 - Actuarial Values as of June 30, 2017

The Actuarial Present Value of Projected Benefit Payments (APVPBP) as of June 30, 2017 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	\$ 190,859	28
Retired former employees	<u>154,416</u>	<u>4</u>
Totals	\$ 345,275	32

As of June 30, 2017, the District has accumulated \$235,234 in an irrevocable trust toward this liability.

The Total OPEB Liability (TOL) as of June 30, 2017 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	\$ 139,217
Retired former employees	<u>154,416</u>
Totals	\$ 293,633

Summary of Participating Employees as of June 30, 2017

Active Employees

Number	28 employees
Average Age	45.3 years
Average Service	9.9 years

Retired Former Employees and Surviving Spouses

Number	4 persons
Average Age	71.3 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, 2016 and June 30, 2017 these are:

	<u>June 30, 2016</u>	<u>June 30, 2017</u>
Total OPEB Liability		
1. Value of benefits for employees	\$ 125,192	\$ 139,217
2. Value of benefits for retirees	<u>153,361</u>	<u>154,416</u>
3. Total OPEB Liability	\$ 278,553	\$ 293,633
Plan Fiduciary Net Position		
4. Fair value of accumulated assets in PARS	<u>\$ 0</u>	<u>\$ 235,234</u>
5. Plan Fiduciary Net Position	\$ 0	\$ 235,234
6. Net OPEB Liability: 3. minus 5.	\$ 278,553	\$ 58,399

The Net OPEB Liability has changed from June 30, 2016 to June 30, 2017 in this way:

	<u>TOL</u>	<u>FNP</u>	<u>NOL</u>
8. Values at June 30, 2016	\$ 278,553	\$ 0	\$ 278,553
9. Service cost	6,513		6,513
10. Interest	16,476		16,476
11. Differences between actual and expected experience	0		0
12. Employer contributions		232,909	(232,909)
13. Net investment income		10,234	(10,234)
14. Benefits paid to retirees	(7,909)	(7,909)	0
15. Administrative expense		(0)	0
16. Net changes	\$ 15,080	\$ 235,234	\$ (220,154)
17. Values at June 30, 2017	\$ 293,633	\$ 235,234	\$ 58,399

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, 2017:

	1% Decrease 5.0 %	Discount Rate 6.0 %	1% Increase 7.0 %
Net OPEB Liability (Asset)	\$ 100,454	\$ 58,399	\$ 24,354

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, 2017:

	1% Decrease 3% to 4%	Trend Rates 4% to 5%	1% Increase 5% to 6%
Net OPEB Liability (Asset)	\$ 23,388	\$ 58,399	\$ 101,679

Exhibit 4 - OPEB Expense for the Fiscal Year Ending June 30, 2018

For the year ending June 30, 2018, the District will recognize OPEB expense of **\$20,942**, computed as follows:

Service cost	\$ 6,513
Interest	16,476
Expected investment return	(0)
Administrative expense	0
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>(2,047)</u>
Total	\$ 20,942

Exhibit 5 - Deferred Outflows and Inflows of Resources

The values of deferred outflows and inflows of resources related to OPEB as of June 30, 2017, to be reported as of June 30, 2018, 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	8,187
District contributions subsequent to the measurement date	<u>UNKNOWN</u>	<u>0</u>
Total	\$ UNKNOWN	\$ 8,187

The amounts shown above as UNKNOWN are the total of:

- (a) amounts contributed by the District to or for retirees' benefits during the year ending June 30, 2018, plus
- (b) the subsidized premiums for the year (which is \$7,406), plus
- (c) the amounts, if any, contributed to PARS during the year ending June 30, 2018.

Amounts reported as deferred outflows and inflows of resources related to OPEB as of June 30 2017, to be reported as of June 30, 2018, will be recognized in OPEB expense as follows:

Year Ended June 30	
2019	\$ (2,047)
2020	(2,047)
2021	(2,047)
2022	(2,046)
2023	0
Thereafter	0

Exhibit 6 - Schedule of Changes in the Net OPEB Liability

Reporting date	<u>6/30/2018</u>
Total OPEB liability	
Service cost	\$ 6,513
Interest	16,476
Changes of benefit terms	0
Differences between actual and expected experience	0
Changes of assumptions	0
Benefits paid to retirees	(7,909)
Net change in Total OPEB liability	15,080
Total OPEB liability – beginning	<u>278,553</u>
Total OPEB liability - ending	\$ 293,633
Plan fiduciary net position	
Contributions - employer	\$ 232,909
Net investment income	10,234
Benefits paid to retirees	(7,909)
Administrative expense	<u>(0)</u>
Net change in plan fiduciary net position	\$ 235,234
Plan fiduciary net position - beginning	<u>0</u>
Plan fiduciary net position - beginning	\$ 235,234
Net OPEB Liability - ending	\$ 58,399
Plan fiduciary net position as a percentage of the Total OPEB liability	80.11 %
Covered-employee payroll	\$ 2,799,216
Net OPEB liability as a percentage of covered-employee payroll	2.09 %

Exhibit 7 - Ten-Year Projection of Costs

Shown below are estimates of (a) the benefits expected to be paid to retirees, and (b) the amounts the District is expected to accrue as GASB 75 OPEB expense, for the next ten years. For these estimates, it is assumed that the service cost will increase 3% per year, that all actuarial assumptions and the size of the workforce will remain unchanged, that the promised benefits will remain the same, that the District will fund the retiree benefits each year, and that there are no experience gains or losses.

Fiscal Year Ending:	Employer-Paid Retiree Payments	Projected Implicit Rate Subsidy Payments	GASB 75 OPEB Expense
2018	\$ 6,492	\$ 7,406	\$ 20,942
2019	6,888	7,649	8,000
2020	7,000	10,000	8,000
2021	8,000	12,000	8,000
2022	8,000	14,000	7,000
2023	8,000	8,000	9,000
2024	9,000	9,000	8,000
2025	9,000	10,000	8,000
2026	9,000	7,000	8,000
2027	10,000	9,000	7,000

Exhibit 8 - Summary of Benefit Provisions

The District contributes toward post-retirement benefits for employees who retire under PERS after age 50 and choose coverage under CalPERS medical plans.

The District pays the amount of the PEMHCA minimum contribution, which is \$128 per month in 2017, \$133 in 2018, and is expected to increase in future years. Payments are made for the lifetime of the retired employee and covered dependent spouse (or domestic partner), provided that they remain covered under CalPERS medical plans.

Retirees are required to pay the balance of the monthly medical premiums.

The District does not provide any other post-retirement health and welfare benefits.

Exhibit 9 - Summary of Actuarial Assumptions

Actuarial Assumptions: The following assumptions as of June 30, 2017 were selected by the District 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: The long-term expected rate of return on investments was determined to be 6.00%. This was computed as PARS's expected long-term mean rate of return of 6.25%, minus an adjustment for conservatism.

Discount rate: 6.0% per year. The cash flows of the OPEB plan were projected to future years, assuming that the District will contribute an amount each year at least equal to retirees' benefits. Under that assumption, 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, 6.0%. In the 2015 valuation, the discount rate was 5.0%.

Medical Cost Increases (Trend): Medical premiums for plans offered by CalPERS are assumed to increase 5% per year after 2018. The CalPERS minimum (PEMHCA) contribution is assumed to increase 4.0% per year after 2018.

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

Coverage Elections: 12% of eligible employees are assumed to elect coverage upon retirement, and to remain covered under District plans for life. Employees who have waived medical coverage are assumed to elect Kaiser employee-only coverage upon retirement.

Mortality: Mortality rates are taken from the 2014 CalPERS OPEB Assumptions Model for "public agency miscellaneous".

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 2014 CalPERS OPEB Assumptions Model for miscellaneous public employees with 2.5% at 55 retirement. Sample rates are:

Years of Service:	<u>10 Years</u>	<u>20 Years</u>	<u>30 Years</u>
Age 50	0.9 %	2.9 %	9.4 %
Age 55	8.8 %	14.2 %	24.1 %

Age 60	8.8 %	14.2 %	24.1 %
Age 62	13.0 %	20.2 %	31.9 %
Age 65	16.0 %	24.5 %	37.4 %
Age 70	16.5 %	25.3 %	38.5 %

Turnover (withdrawal): Likelihood of termination within the next year is taken from the 2014 CalPERS OPEB Assumptions Model for miscellaneous public employees. Sample rates are:

	<u>5 Years Service</u>	<u>10 Years Service</u>	<u>15 Years Service</u>
Age 30	7.90 %	6.68 %	5.81 %
Age 35	7.11 %	5.87 %	5.03 %
Age 40	6.32 %	5.07 %	4.24 %
Age 45	5.54 %	4.27 %	3.47 %
Age 50	1.16 %	0.71 %	0.32 %

Disability: Incidence of disability is considered to be included in the rates above, so no explicit recognition of disability benefits has been included.

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

Age-Specific Medical Claims: The estimated per person medical claims (true costs of coverage) during the 2017-18 fiscal year are as follows (rates are shown for certain ages only):

<u>Age</u>	
40	\$ 7,305
45	9,153
50	11,336
55	13,519
60	16,542
64	16,542
70	3,800
75	4,498

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