Novato Sanitary District

GASB 75 OPEB Valuation Report as of June 30, 2018 for Disclosures for the Fiscal Year Ending June 30, 2018

November 26, 2018





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November 26, 2018

Laura Creamer CPA Novato Sanitary District 500 Davidson Street Novato, California 94945

Re: Novato Sanitary District GASB 75 OPEB Valuation as of June 30, 2018

Dear Ms. Creamer:

At your request, we completed an actuarial valuation of the retiree health and welfare benefits as of June 30, 2018, for the Novato Sanitary District. This is a roll-forward of the valuation produced for the fiscal year ending June 30, 2017. Please use the information in this report for your financial statements for the fiscal year ending June 30, 2018. This valuation is based on input from the District and from CalPERS, as well as our understanding of GASB Statement No. 75 "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions" (GASB 75).

We greatly appreciate your business. If you have any questions, please feel free to call us at (415) 801-5987.

Best Regards,

Roger T. Burton, FSA, FCA, MAAA

Rogen J Buston



DUNS: 079861610 CAGE: 7EC83 CA Supplier: 1798304

Contents

Executive Summary	
Overview	1
Accounting Summary	3
Reconciliation of the Change in the Total OPEB Liability	4
Accounting Information	
Statement of Fiduciary Net Position	5
Statement of Changes to the Fiduciary Net Position	6
Changes in the Net OPEB Liability	7
Schedule of Deferred Outflows and Inflows of Resources	9
Reconciliation of Expense	11
Amortization of Unfunded Actuarial Accrued Liability	12
Actuarially Determined Contribution (ADC)	13
Projection of ADC and Net OPEB Liability	14
OPEB Cash-Flow Projections	15
Ten Year Projection of Retiree Benefit Payments	16
Projection of Contributions	17
Projection of Contributions Charts	18
Projection of Fiduciary Net Position	19
Implicit Subsidy	20
Schedule of Changes in the Total OPEB Liability and Related Ratios	21
Schedule of Investment Returns	22
Schedule of Contributions	23
Draft Notes to the Financial Statements	24
Basis of Valuation	
Substantive Plan	28
Participant Summary	29
Participant Summary Charts	30
Actuarial Assumptions	31
Appendix	
About GASB 75	34
Decrement Tables	38

Purpose of the Report

Precision Actuarial prepared this report to meet employer financial accounting requirements under GASB Statement No. 75 "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions" (GASB 75), issued in June 2015. This report includes information with respect to the obligation to provide future retiree health and welfare benefits for the fiscal year ending June 30, 2018.

Valuation Date: June 30, 2017

Measurement Date: June 30, 2018

Report Date: June 30, 2018

Application to Financials

This report provides assets, liabilities, and expenses for use in the District's 2018 financial reports.

The District should use the liabilities and assets measured as of June 30, 2018, for its June 30, 2018, liabilities and assets, and it should use the expense for the measurement period ending June 30, 2018, as its expense in its financial statements for the year ending June 30, 2018.

The report also provides the actuarially determined contributions for funding purposes for reporting for the fiscal years ending June 30 for 2017, 2018, and 2019.

Changes Since the Prior Valuation

This valuation is a roll-forward of the valuation produced for the prior fiscal year. We updated:

- Discount rate from 5.25% to 4.85%
- Payroll growth rate from 3.00% to 2.75%
- · Benefit payments
- Contributions
- Assets

Actuarial Certification

Our determinations reflect the provisions and methods prescribed by GASB 75. In preparing this report, we relied on employee census, plan design, premium rates, and administrative fees provided directly or indirectly by the plan sponsor, and demographic assumptions provided by CalPERS. CalPERS' actuaries set the premium rates using community rating. We did not attempt to verify that the community-rated premium rates represent the true cost of claims and administrative fees.

Actuarial Certification (continued)

We based the results in this report on this information, along with the actuarial assumptions and methods used herein. In our opinion, the assumptions used represent reasonable expectations of anticipated plan experience. We reviewed the census information for reasonableness, but we did not audit it.

Actuarial computations under GASB 75 fulfill employer accounting and financial reporting requirements. The calculations are consistent with our understanding of GASB 75. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results in our report. Accordingly, additional determinations may be necessary for other purposes, such as judging benefit security at termination.

No third-party recipient of Precision Actuarial's work product should rely solely on Precision Actuarial's work product. Any third-party recipient should engage qualified professionals for advice appropriate to their own needs.

There is no relationship between Precision Actuarial, its owners, subcontractors, or staff; GovInvest; or the Novato Sanitary District beyond the contractual services that we perform for the Novato Sanitary District.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, the report is complete and accurate and that we prepared it in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable "Actuarial Standards of Practice" and "Actuarial Compliance Guidelines" as promulgated by the American Academy of Actuaries.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Roger T. Burton, FSA, FCA, MAAA

Fellow of the Society of Actuaries (FSA)

Member of the American Academy of Actuaries (MAAA)

Fellow of the Conference of Consulting Actuaries (FCA)

November 26, 2018

Date

Executive Summary

Accounting Summary

A summary of the key valuation results follows.					
Valuation Date:		Jı	une 30, 2017	Jı	une 30, 2017
Measurement Date:		Jı	une 30, 2017	Jı	une 30, 2018
Report Date:		Jı	une 30, 2017	Jı	une 30, 2018
Present Value of Future Benefits					
Active Employees		\$	2,702,405	\$	3,061,040
Retirees	+		3,353,406		3,394,337
Total Present Value of Future Benefits	=	\$	6,055,811	\$	6,455,377
OPEB Liability					
Active Employees		\$	1,663,245	\$	1,964,562
Retirees	+		3,353,406		3,394,337
Total OPEB Liability (TOL)	=		5,016,651		5,358,899
Fiduciary Net Position (FNP)	-		706,639		864,872
Net OPEB Liability (NOL)	=	\$	4,310,012	\$	4,494,027
Plan Fiduciary Net Position as a Percentage of the Total OPEB					
Liability			14.09%		16.14%
Covered-Employee Payroll		\$	1,991,580	\$	2,046,348
Net OPEB Liability as a Percentage of Covered-Employee Payroll			216.4%		219.6%
Measurement Period			2016-2017		2017-2018
Reporting Period			2016-2017		2017-2018
Expense		\$	352,374	\$	378,262
Actuarially Determined Contribution (ADC), End of Year*			411,241		401,663

Net Position Chart

TOL \$5,016,651

NOL \$841,770 FNP \$706,639 NOL \$517,725 FNP \$864,872

2017 2018

^{*}The Actuarially Determined Contribution includes the implicit subsidy. It is not the amount that the District contributes directly to the fund. See page 14 for the District's direct contribution.

Executive Summary

Reconciliation of the Change in the Total OPEB Liability

A reconciliation of the changes to the Total OPEB Liability since the prior valuation report follow.

Projected Total OPEB Liability as of Measurement Date June 30, 2017	\$ 5,016,651
Service Cost	 108,006
Interest Cost	256,099
Expected Benefit Payments	(202,880)
Implicit Rate Subsidy Fulfilled	 (74,262)
Projected Total OPEB Liability as of Measurement Date June 30, 2018	\$ 5,103,614
Difference Between Actual and Expected Benefit Payments	 (23,599)
Interest Rate Calculation Adjustment	5,505
Change in Experience	(3,718)
Change in Discount Rate from 5.25% to 4.85%	258,871
Change in Payroll Growth Rate	 18,226
Actual Total OPEB Liability as of Measurement Date June 30, 2018	\$ 5,358,899

Statement of Fiduciary Net Position

	Measurement Date: Report Date:	June 30, 2018 June 30, 2018
Assets		
Cash and Deposits		\$ -
Securities Lending Cash Collateral		-
Total Cash		-
Receivables:		
Contributions		-
Due from Broker for Investments Sold		-
Investment Income (Interest on Investments)		-
Other		-
Total Receivables		-
Investments:		
Domestic Fixed Income Securities		-
Domestic Equities		
Investment Funds		864,872
International Equities		-
Real Estate		-
Total Investments		864,872
Total Assets	=	\$ 864,872
Liabilities		
Payables:		
Investment Management Fees		\$ -
Due to Broker for Investments Purchased		-
Collateral Payable for Securities Lending		-
Other		-
Total Liabilities	_	\$ -
Net Position Restricted for Postemployment Benefits Other tha	an Pensions	\$ 864,872

Statement of Changes to the Fiduciary Net Position

Measurement Date Report Date		ne 30, 2017 ne 30, 2017	ne 30, 2018 ne 30, 2018
Additions			
Investment Income:			
Net Appreciation in the Fair Value of Investments	\$	6,933	\$ 4,186
Interest and Dividends		-	-
Less Investment Expense, Other than from Securities Lending		-	(1,956)
Net Income from Investing, Other than from Securities Lending		6,933	2,230
Securities Lending Income		-	-
Less Securities Lending Expense		-	-
Net Income from Securities Lending		-	-
Net Investment Income (a)	\$	6,933	\$ 2,230
Contributions:			
Employer — District's Contribution	\$	887,852	\$ 382,482
Employer — Implicit Subsidy		68,761	74,262
Employee		-	-
Total Contributions (b)	\$	956,613	\$ 456,744
Total Additions (c) = (a) + (b)	\$	963,546	\$ 458,974
Deductions			
Benefit Payments	\$	187,852	\$ 226,479
Implicit Rate Subsidy Fulfilled		68,761	74,262
Administrative Expense		294	-
Total Deductions (d)	\$	256,907	\$ 300,741
Net Increase in Net Position = (c) - (d)	\$	706,639	\$ 158,233
Net Position Restricted for Postemployment Benefits Other than Pe	ensions	;	
Beginning of Year	\$	-	\$ 706,639
Net Increase in Net Position		706,639	 158,233
End of Year	\$	706,639	\$ 864,872

Changes in the Net OPEB Liability

The funded status of the Plan as of the fiscal year-end, as well as other required disclosure information, follows.

	Increase (Decrease)					
		Total OPEB Liability		an Fiduciary Net Position		Net OPEB Liability
		(a)		(b)		(c) = (a) - (b)
Balance as of Report Date June 30, 2017	\$	5,016,651	\$	706,639	\$	4,310,012
Changes for the year:				_		
Service Cost		108,006				108,006
Interest		256,099				256,099
Changes of Benefit Terms		-				-
Differences Between Expected and Actual Experience		1,787				1,787
Changes of Assumptions		277,097				277,097
Net Investment Income				2,230		(2,230)
Contributions						
Employer — District's Contribution				382,482		(382,482)
Employer — Implicit Subsidy				74,262		(74,262)
Employee				-		-
Benefit Payments, Including Refunds of Employee Contributions		(226,479)		(226,479)		_
Implicit Rate Subsidy Fulfilled		(74,262)		(74,262)		-
Administrative Expense		, , ,		-		-
Other Changes				-		-
Net Changes		342,248		158,233		184,015
Balance as of Report Date June 30, 2018	\$	5,358,899	\$	864,872	\$	4,494,027

Development of Projected Deferred Outflows and Inflows of Resources

Balances as of Report Date June 30, 2018

Deferred Outflows and Inflows of Resources Arising from Differences Between Expected and Actual Experience

			Αn	nounts Recognized in	Deferred		
Measurement	Experience	Experience		Expense Through	Outflows of	D	eferred Inflows
Date —	Losses	Gains		June 30, 2018	Resources		of Resources
June 30:	(a)	(b)		(c)	(a) - (c)		(b) - (c)
2017	\$ -	\$ -	\$	-	\$ -	\$	-
2018	1,787	-		314	1,473		-
Total					\$ 1,473	\$	-

Deferred Outflows and Inflows of Resources Arising from Changes in Assumptions

			Amounts Recognized in	Deferred	
Measurement	Increase in	Decrease in	Expense Through	Outflows of	Deferred Inflows
Date —	Total Liability	Total Liability	June 30, 2018	Resources	of Resources
June 30:	(a)	(b)	(c)	(a) - (c)	(b) - (c)
2017	\$ -	\$ -	\$ -	\$ -	\$ -
2018	277,097	-	48,614	228,483	-
Total				\$ 228,483	\$ -

Deferred Outflows and Inflows of Resources Arising from Differences Between Projected and Actual Earnings on Investments

		Investment		Investment					
	Ea	rnings Less		Earnings	An	nounts Recognized in	Deferred		
Measurement		Than	G	reater Than		Expense Through	Outflows of	De	eferred Inflows
Date —		Projected		Projected		June 30, 2018	Resources		of Resources
June 30:		(a)		(b)		(c)	(a) - (c)		(b) - (c)
2017	\$	-	\$	(53,843)	\$	(21,538)	\$ -	\$	(32,305)
2018		44,030		-		8,806	35,224		-
Total							\$ 35,224	\$	(32,305)

Schedule of Deferred Outflows and Inflows of Resources

Schedule of Deferred Outflows and Inflows of Resources

	Measurement		Recognition	Remaining		Increase/(D	ecrease) in Exp	ense: Report Y	ears Ending Ju	ıne 30:	
	Period	Base Amount	Period	Period	2018	2019	2020	2021	2022	2023	Remaining
Differences Between Expected	2016-2017	\$ -	0.0	0.0 \$	- \$	-	\$ - \$	- \$	- \$	-	\$ -
and Actual Experience	2017-2018	1,787	5.7	5.7	314	314	314	314	314	217	-
Changes of Assumptions	2016-2017	-	0.0	-1.0	-	-	-	-	-	-	-
	2017-2018	277,097	5.7	5.7	48,614	48,614	48,614	48,614	48,614	34,027	-
Differences Between Projected	2016-2017	(53,843)	5.0	4.0	(10,769)	(10,769)	(10,769)	(10,767)	-	-	-
and Actual Earnings	2017-2018	44,030	5.0	5.0	8,806	8,806	8,806	8,806	8,806	-	-
Summary of Deferred Outflows	and Inflows of I	Resources – Me	asurement Perio	od 2017-2018 – F	iscal Reporti	ing Period 20	17-2018				
Differences Between Expected ar	nd Actual Experi	ience		\$	314 \$	314	\$ 314 \$	314 \$	314 \$	217	\$ -
Changes of Assumptions					48,614	48,614	48,614	48,614	48,614	34,027	-
Differences Between Projected a	nd Actual Earni	ngs			(1,963)	(1,963)	(1,963)	(1,961)	8,806	-	-
Total				\$	46,965	\$ 46,965	\$ 46,965 \$	46,967 \$	57,734 \$	34,244	\$ -

Calculation of Projected Expense under GASB 75

Measurement Period: Reporting Period:	2016-2017 2016-2017	2017-2018 2017-2018
Expense		
Service Cost	\$ 104,860	\$ 114,465
Interest on Total OPEB Liability	251,406	254,840
Changes of Benefit Terms	-	-
Recognized Changes of Assumptions	-	314
Recognized Differences Between Expected and Actual		
Experience	-	48,614
Employee Contributions	-	-
Projected Earnings on OPEB Plan Investments	(46,260)	(38,008)
Recognized Differences Between Projected and		
Actual Earnings	42,074	(1,963)
Administrative expenses	294	-
Total Expense	\$ 352,374	\$ 378,262

Deferred Outflows and Inflows of Resources June 30, 2018 **Deferred Outflows of Deferred Inflows of** Resources Resources 1,473 Differences Between Expected and Actual Experience **Changes of Assumptions** 228,483 Net Difference Between Projected and Actual Earnings on Plan Investments 2,919 District Contributions Subsequent to the Measurement Date 170,000 402,875 Total

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Report Year Ending June 30:	<u>Amount</u>
2019	\$ 46,965
2020	46,965
2021	46,967
2022	57,734
2023	34,244
Remaining	-

Reconciliation of Expense

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability	_	eferred nflows)	Deferred Outflows	Net Deferrals	Net OPEB Liability plus Net Deferrals	Annual Expense
Balance as of Report Date June 30, 2017	\$ (5,016,651)	\$ 706,639	\$ (4,310,012)					\$ (4,310,012)	
Service Cost	(108,006)		(108,006)						\$ 108,006
Interest on Total OPEB Liability	(256,099)		(256,099)						256,099
Effect of Changes of Benefit Terms	-		-	\$	-	9	\$ -		-
Effect of Liability Gains or Losses	(1,787)		(1,787)		1,787		1,787		
Effect of Assumption Changes or Inputs	(277,097)		(277,097)	2	77,097		277,097		
Expected Investment Income (Net of Investment Expenses)		46,260	46,260						(46,260)
Investment Gains or Losses on Expected Return		(44,030)	(44,030)		-	44,030	44,030		
Contributions									
Employer — District's Contribution		382,482	382,482					382,482	
Employer — Implicit Subsidy		74,262	74,262					74,262	
Employee		-	-						-
Benefit Payments, Including Refunds of Employee Contributions	226,479	(226,479)	-						
Implicit Rate Subsidy Fulfilled	74,262	(74,262)	-						
Administrative Expenses		-	-						-
Recognition of Liability Gains or Losses			-		-	(314)	(314)		314
Recognition of Assumption Changes or Inputs			-		-	(48,614)	(48,614)		48,614
Recognition of Investment Gains or Losses			-		1,963	-	1,963		(1,963)
Annual Expense								(364,810)	\$ 364,810
Balance as of Report Date June 30, 2018	\$ (5,358,899)	\$ 864,872	\$ (4,494,027)	\$ 2	80,847 \$	(4,898)	\$ 275,949	\$ (4,218,078)	

Amortization of Unfunded Actuarial Accrued Liability

A summary of the information used to establish the amortization amount for the current year, with respect to the Unfunded Actuarial Accrued Liability (UAAL), follows. We recalculate the amortization of the UAAL each fiscal year.

		<u>Actual</u>	Actual Pro			<u>l</u>
Measurement Period:		2016-2017		2017-2018		2018-2019
Reporting Period:		2016-2017		2017-2018		2018-2019
Actuarial Accrued Liability (AAL) — Entry Age Normal, Beginning of Fiscal Year		\$ 4,916,998	\$	5,016,651	\$	5,358,899
Actuarial Value of Plan Assets, Beginning of Fiscal Year	_	0		706,639		864,872
Unfunded Actuarial Accrued Liability (UAAL), Beginning of Fiscal Year	= _	\$ 4,916,998	\$	4,310,012	\$	4,494,027
Interest Rate Used to Determine Amortization						
Payment		5.25%		5.25%		4.85%
Assumed Rate of Payroll Growth		3.000%		3.000%		2.750%
Amortization Period		20 years		19 years		18 years
Amount Recognized, Beginning of Year		\$ 299,544	\$	273,622	\$	294,890
Amount Recognized (Principal & Interest), End						
of Year		\$ 306,087	\$	287,987	\$	309,192

Actuarially Determined Contribution (ADC)

The calculation of the Actuarially Determined Contribution (ADC) follows. The ADC is based on the District's funding policy.

	<u>Actual</u>		!		
Measurement Period:	2016-2017		2017-2018		2018-2019
Reporting Period:	2016-2017	2017-2018			2018-2019
Service Cost — Entry Age Normal	\$ 104,860	\$	108,006	\$	117,613
Amortization of the Unfunded Actuarial Accrued					
Liability (UAAL)	299,544		273,622		294,890
Actuarially Determined Contribution (ADC),					
Beginning of Year	\$ 404,404	\$	381,628	\$	412,503
Actuarially Determined Contribution (ADC), End of					
Year	\$ 411,241	\$	401,663	\$	432,509
ADC as a Percentage of Payroll	20.65%		19.63%		20.57%
Discount Rate for ADC Calculation	5.25%		5.25%		4.85%
ADC Components					
Benefit Payments	\$ 187,852	\$	202,880	\$	208,378
District's Contribution to Assets	154,628		124,521		150,673
District's Total Contribution	 342,480		327,401		359,051
Implied Contribution — Implicit Subsidy	68,761		74,262		73,458
Total ADC	\$ 411,241	\$	401,663	\$	432,509

District's Funding Policy

The District's funding policy is to contribute the full amount of the ADC each year.

The ADC is the sum of the service cost and the amortization of the unfunded liability. For payment of the ADC, however, it comprises three parts: the benefit payments made by the District, the implicit subsidy, and the contribution to the assets. The contribution to the assets is the difference between the ADC and the sum of the other two components.

The District is amortizing the UAAL on a closed basis. Remaining years of amortization as of the report date of June 30, 2018:

18

The discount rate assumed for ADC calculations is the expected long-term rate of return:

4.85%

The UAAL is amortized using a level percent of pay method.

Projections for fiscal year-end 2018 use an estimated expected rate of return, contributions, and benefit payments. We recommend that the District update these values for its 2018 financial statements.

Projection of ADC and Net OPEB Liability

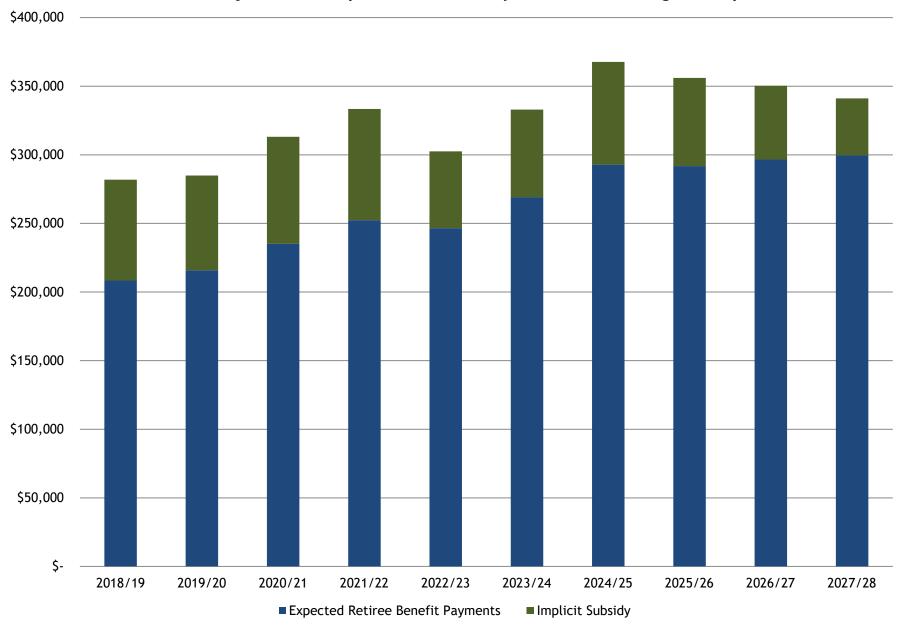
Measurement Date:	Actual June 30, 2017	Actual June 30, 2018	Projected June 30, 2019
Report Date:	 June 30, 2017	 June 30, 2018	 June 30, 2019
Estimated Liabilities			
OPEB Liability, Beginning of Year	\$ 4,916,998	\$ 5,016,651	\$ 5,358,899
Service Cost	104,860	108,006	114,465
Interest on Liabilities	251,406	256,099	255,412
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	-	1,787	-
Changes of Assumptions	-	277,097	-
Benefit Payments	(187,852)	(226,479)	(208, 378)
Implicit Rate Subsidy Fulfilled	(68,761)	(74,262)	(73,458)
OPEB Liability, End of Year (a)	\$ 5,016,651	\$ 5,358,899	\$ 5,446,940
Estimated Assets			
Assets, Beginning of Year	\$ -	\$ 706,639	\$ 864,872
Expected Earnings	6,933	2,230	50,605
Contributions			
Employer — District's Contribution	887,852	382,482	359,051
Employer — Implicit Subsidy	68,761	74,262	73,458
Employee	-	- 1,202	-
Total Contributions	 956,613	456,744	 432,509
Projected Benefit Payments	700,010	,.	,
Benefit Payments, Including Refunds of Employee			
Contributions	(187,852)	(226,479)	(208,378)
Implicit Rate Subsidy Fulfilled	(68,761)	(74,262)	(73,458)
Total Benefit Payments	(256,613)	(300,741)	(281,836)
Administrative Expenses	(294)	-	-
Assets, End of Year (b)	\$ 706,639	\$ 864,872	\$ 1,066,150
Net OPEB liability, End of Year = (a) - (b)	\$ 4,310,012	\$ 4,494,027	\$ 4,380,790
Expense	352,374	378,262	n/a
ADC	411,241	401,663	432,509
	•	•	•

OPEB Cash-Flow Projections

OPEB cash-flow projections for existing participants for the next twenty-five years follow.

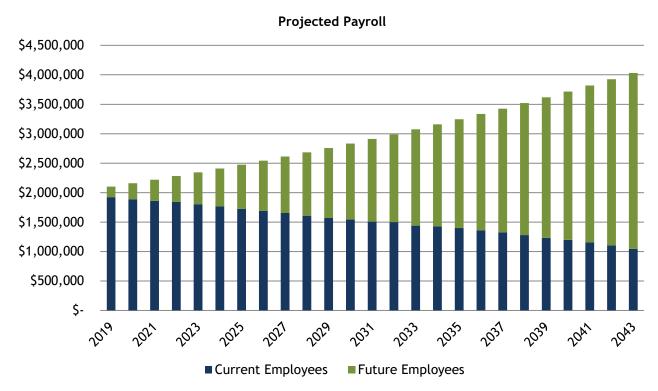
Measurement						
Period Ending	Expe	cted Retiree			То	tal Expected
June 30:	Benet	fit Payments	lmp	licit Subsidy	Bene	fit Payments
2018	\$	208,378	\$	73,458	\$	281,836
2019		215,939		69,034		284,973
2020		235,100		78,030		313,130
2021		252,408		81,030		333,438
2022		246,588		55,949		302,537
2023		269,233		63,787		333,020
2024		292,832		74,887		367,719
2025		291,843		64,236		356,079
2026		296,627		53,770		350,397
2027		299,492		41,682		341,174
2028		302,224		35,926		338,150
2029		311,234		34,688		345,922
2030		310,664		19,787		330,451
2031		315,203		16,228		331,431
2032		327,009		20,475		347,484
2033		332,466		19,351		351,817
2034		342,533		24,551		367,084
2035		352,819		30,901		383,720
2036		360,977		37,960		398,937
2037		369,923		34,622		404,545
2038		367,664		24,541		392,205
2039		373,303		29,217		402,520
2040		378,217		28,390		406,607
2041		373,342		25,722		399,064
2042		376,454		33,103		409,557

Ten-Year Projection of Expected Benefit Payments for Existing Participants



Measurement Period Ending June 30;	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll (c)	Employer Contributions Related to Payroll of all Plan Members (d) = (c) x 20.57% for 18 Years, 5.86% Thereafter	Employer Contributions Related to Payroll of Future Plan Members (e) = (b) x 5.86%	Portion of Employer Contribution for Current Plan Members (f) = (d) - (e)
2019	\$ 1,922,779	\$ 179,844	\$ 2,102,623	\$ 432,509	\$ 10,548	\$ 421,961
2020	1,886,460	273,985	2,160,445	444,403	16,069	428,334
2021	1,859,768	360,089	2,219,857	456,625	21,119	435,506
2022	1,842,935	437,968	2,280,903	469,182	25,686	443,496
2023	1,802,278	541,350	2,343,628	482,084	31,750	450,334
2024	1,765,647	642,431	2,408,078	495,342	37,678	457,664
2025	1,724,772	749,528	2,474,300	508,963	43,959	465,004
2026	1,688,859	853,484	2,542,343	522,960	50,056	472,904
2027	1,654,145	958,112	2,612,257	537,341	56,193	481,148
2028	1,607,670	1,076,424	2,684,094	552,118	63,131	488,987
2029	1,568,694	1,189,213	2,757,907	567,301	69,746	497,555
2030	1,541,837	1,291,912	2,833,749	582,902	75,770	507,132
2031	1,508,286	1,403,391	2,911,677	598,932	82,308	516,624
2032	1,498,037	1,493,711	2,991,748	615,402	87,605	527,797
2033	1,440,593	1,633,428	3,074,021	632,326	95,799	536,527
2034	1,427,906	1,730,651	3,158,557	649,715	101,501	548,214
2035	1,398,066	1,847,351	3,245,417	667,582	108,346	559,236
2036	1,359,446	1,975,220	3,334,666	685,941	115,845	570,096
2037	1,324,459	2,101,910	3,426,369	200,954	123,275	77,679
2038	1,279,092	2,241,502	3,520,594	206,480	131,462	75,018
2039	1,232,204	2,385,206	3,617,410	212,158	139,891	72,267
2040	1,196,678	2,520,211	3,716,889	217,993	147,808	70,185
2041	1,153,631	2,665,472	3,819,103	223,988	156,328	67,660
2042	1,104,285	2,819,843	3,924,128	230,147	165,382	64,765
2043	1,045,531	2,986,511	4,032,042	236,476	175,157	61,319

Projected Payroll for Current and Future Employees



Projected Employer Contributions for Current and Future Plan Members

Projection of Fiduciary Net Position

Existing Participants Only

Measurement Period Ending June 30:	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (Including Implicit Subsidy) (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2019	\$ 864,872	\$ 421,961	\$ 281,836	\$ -	\$ 45,344	\$ 1,050,341
2020	1,050,341	428,334	284,973	-	54,418	1,248,120
2021	1,248,120	435,506	313,130	-	63,501	1,433,997
2022	1,433,997	443,496	333,438	-	72,218	1,616,273
2023	1,616,273	450,334	302,537	-	81,973	1,846,043
2024	1,846,043	457,664	333,020	-	92,556	2,063,243
2025	2,063,243	465,004	367,719	-	102,426	2,262,954
2026	2,262,954	472,904	356,079	-	112,586	2,492,365
2027	2,492,365	481,148	350,397	-	124,050	2,747,166
2028	2,747,166	488,987	341,174	-	136,822	3,031,801
2029	3,031,801	497,555	338,150	-	150,908	3,342,114
2030	3,342,114	507,132	345,922	-	166,002	3,669,326
2031	3,669,326	516,624	330,451	-	182,477	4,037,976
2032	4,037,976	527,797	331,431	-	200,604	4,434,946
2033	4,434,946	536,527	347,484	-	219,679	4,843,668
2034	4,843,668	548,214	351,817	-	239,681	5,279,746
2035	5,279,746	559,236	367,084	-	260,727	5,732,625
2036	5,732,625	570,096	383,720	-	282,552	6,201,553
2037	6,201,553	77,679	398,937	-	292,985	6,173,280
2038	6,173,280	75,018	404,545	-	291,413	6,135,166
2039	6,135,166	72,267	392,205	-	289,797	6,105,025
2040	6,105,025	70,185	402,520	-	288,035	6,060,725
2041	6,060,725	67,660	406,607	-	285,726	6,007,504
2042	6,007,504	64,765	399,064	-	283,257	5,956,462
2043	5,956,462	61,319	409,557	-	280,444	5,888,668

Implicit Subsidy

Actuarial standard of practice (ASOP) number 6, "Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions", requires the inclusion of the implicit subsidy in OPEB valuations.

The implicit subsidy arises when an employer allows a retiree and their dependents to continue on the plans for active employees, and pay the active-employee premiums. Retirees are not paying the true cost of their benefits because they have higher costs than active employees, and therefore are partially subsidized by the active employees. Once a retiree reaches Medicare eligibility, the rates are set for Medicare retirees separately, and are set to be sufficient to cover the true costs of the Medicare retirees. Thus, there is no implicit subsidy for Medicare retirees.

Measurement Date:	June 30, 2017	June 30, 2018
Report Date:	June 30, 2017	June 30, 2018
Discount Rate	5.25%	4.85%
Retiree Benefit Payments	\$ 4,465,686	\$ 4,816,783
Implicit Subsidy	 550,965	 542,116
Total OPEB Liability	\$ 5,016,651	\$ 5,358,899

Schedule of Changes in the Total OPEB Liability and Related Ratios

GASB 75 requires a disclosure of the changes in Net OPEB Liability for the last ten fiscal years, or for as many years as are available.

Measurement Date:		June 30, 2017		June 30, 2018
Report Date:		June 30, 2017		June 30, 2018
Total OPEB Liability				
Service Cost	\$	104,860	\$	108,006
Interest		251,406		256,099
Changes of Benefit Terms		-		-
Differences Between Expected and Actual Experience		-		1,787
Changes of Assumptions		-		277,097
Benefit Payments, Including Refunds of Employee Contributions		(187,852)		(226,479)
Implicit Rate Subsidy Fulfilled		(68,761)		(74,262)
Net Change in Total OPEB liability		99,653		342,248
Total OPEB Liability — Beginning of Year		4,916,998		5,016,651
Total OPEB Liability — End of Year (a)	\$	5,016,651	\$	5,358,899
Plan Fiduciary Net Position		_		_
Net Investment Income	\$	6,933	\$	2,230
Contributions	Ą	0,733	Ą	2,230
Employer — District's Contribution		887,852		382,482
Employer — Implicit Subsidy		68,761		74,262
Employee		00,701		74,202
Benefit Payments, Including Refunds of Employee Contributions		(187,852)		(226,479)
Implicit Rate Subsidy Fulfilled		(68,761)		(74,262)
Administrative Expense		(294)		(74,202)
Other		(2 94) -		-
Net Change in Plan Fiduciary Net Position		706,639		158,233
Plan Fiduciary Net Position — Beginning of Year		· -		706,639
Plan Fiduciary Net Position — End of Year (b)	\$	706,639	\$	864,872
Net OPEB Liability		_		_
District's Net OPEB liability — End of Year = (a) — (b)	\$	4,310,012	\$	4,494,027
Plan Fiduciary Net Position as a Percentage of the Total	ş	4,310,012	ş	4,494,027
OPEB Liability		14.1%		16.1%
Covered-Employee Payroll	\$	1,991,580	\$	1,991,580
District's Net OPEB Liability as a Percentage of Covered-	7	1,771,300	7	1,,,1,500
Employee Payroll		216.4%		225.7%

Notes to schedule:

The District adopted GASB 75 for the fiscal Year Ending June 30, 2017.

Schedule of Investment Returns

GASB 75 requires a schedule of investment returns for the last ten fiscal years, or for as many years as are available if less than ten years are available.

	Report Date:	June 30, 2017	June 30, 2018
Expense	_	1.98%	0.28%

The annual money-weighted rate of return, net of investment expenses, is the net investment income for the year divided by the average net position for the year (less investment expenses).

Schedule of Contributions

GASB 75 requires a schedule of contributions for the last ten fiscal years, or for as many years as are available if less than ten years are available.

	Measurement Period: Reporting Period: Report Date:	2016-2017 2016-2017 June 30, 2017	 2017-2018 2017-2018 June 30, 2018
Actuarially Determined Contribution (ADC)		\$ 411,241	\$ 401,663
Less: Contributions Made in Relation to the ADC	-	956,613	 456,744
Contribution Deficiency (Excess)		(545,372)	(55,081)
Covered-Employee Payroll		\$ 1,991,580	\$ 2,046,348
Contributions as a Percentage of Covered-Employee P	ayroll	48.03%	22.32%

Notes to Schedule:

Assumptions and Methods

Actuarial Cost Method Entry age normal, level percent of pay

Amortization Method Closed period, level percent of pay

Amortization Period 20 years
Inflation 2.50%
Assumed Payroll Growth 2.750%

Healthcare Trend Rates 7.00%, trending down to 3.84%

Rate of Return on Assets 4.85%

Mortality Rate CalPERS Rates. See appendix.
Retirement Rates CalPERS Rates. See appendix.

Draft Notes to the Financial Statements

A draft of the required notes to the District's financial statements, based on the requirements of GASB 75 and our understanding of the District's retiree health plan, follows.

Notes to the Financial Statements for the Year Ended June 30, 2018

Summary of Significant Accounting Policies

Other Postemployment Benefits Other Than Pensions (OPEB).

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense information about the fiduciary net position of the District Retiree Benefits Plan (the Plan) and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, the Plan recognizes benefit payments when due and payable in accordance with the benefit terms.

Note X — Other Post-employment Benefits (OPEB)

Plan Description.

The District administers a single-employer defined-benefit post-employment healthcare plan. Participants are eligible for benefits on retirement. Benefits vary by hire date and employment status; benefits continue to surviving spouses.

Benefits Provided.

Employees hired before July 1, 2008 are eligible for the following benefits:

Retire at 55 with 10 years of service — District pays for retire only premium up to Kaiser Bay Area Retire at 60 with 15 years of service — District pays 100% pf premium for retiree and spouse or dependent for the duration of their lifetimes.

Retire at 55 with 25 years of service — District pays 100% of premium for retiree and spouse or dependent for the duration of their lifetimes.

Employees covered by benefit terms.

At June 30, 2017 (the census date), the benefit terms covered the following employees:

Category	Count
Active employees:	19
Inactive employees, spouses, or beneficiaries currently receiving benefit	
payments:	34
Inactive employees entitled to but not yet receiving benefit payment:	0
Total	53

Contributions.

The District makes contributions based on an actuarially determined rate.

Draft Notes to the Financial Statements

Net OPEB Liability

The District's net OPEB liability was measured as of June 30, 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of June 30, 2018.

Actuarial Assumptions.

The total OPEB liability in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation: 2.50%

Salary increases: 2.750%. Additional merit-based increases based on CalPERS merit salary increase tables.

Investment rate of return: 4.85%

Healthcare cost trend rates: 7.00% in the first year, trending down to 3.84% over 59 years.

Mortality rates were based on CalPERS tables.

Discount Rate.

The discount rate used to measure the total OPEB liability is 4.85%. This is the expected long-term rate of return on District assets using a Moderately Conservative Index PLUS plan within the Public Agency Retirement Services (PARS). The projection of cash flows used to determine the discount rate assumed that the District contribution will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position is projected to cover all future OPEB payments. Therefore, the discount rate was set equal to the long-term expected rate of return.

Draft Notes to the Financial Statements

Changes in the Net OPEB Liability	li	ncreas	ses (Decreases	5)	
	Total OPEB Liability		an Fiduciary Net Position		Net OPEB Liability
	(a)		(b)		(c)
Balance as of Report Date June 30, 2017	\$ 5,016,651	\$	706,639	\$	4,310,012
Changes for the year:					
Service Cost	108,006				108,006
Interest	256,099				256,099
Changes of Benefit Terms	-				-
Differences Between Expected and Actual	4 707				4 707
Experience	1,787				1,787
Changes of Assumptions	277,097				277,097
Contributions					
Employer — District's Contribution			382,482		(382,482)
Employer — Implicit Subsidy			74,262		(74,262)
Employee			-		-
Net Investment Income			2,230		(2,230)
Benefit Payments, Including Refunds of					
Employee Contributions	(226,479)		(226,479)		-
Implicit Rate Subsidy Fulfilled	(74,262)		(74,262)		-
Administrative Expenses			-		-
Net Changes	 342,248		158,233		184,015
Balance as of Report Date June 30, 2018	\$ 5,358,899	\$	864,872	\$	4,494,027

Sensitivity of the net OPEB liability to changes in the discount rate. The net OPEB liability of the District, as well as what the District's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (3.85%) or one percentage point higher (5.85%) follows:

	1% Decrease	<u>[</u>	Discount Rate	<u>1% Increase</u>
	 3.85%		4.85%	 5.85%
Net OPEB Liability (Asset)	\$ 5,146,623	\$	4,494,027	\$ 3,834,946

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The net OPEB liability of the District, as well as what the District's net OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (6.00%) or one percentage point higher (8.00%) than current healthcare cost trend rates follows:

	<u>1% Decrease</u>	<u>Trend Rate</u>	1% Increase		
	6.00% Decreasing to 2.84%	7.00% Decreasing to 3.84%			
Net OPEB Liability (Asset)	\$ 3,793,217	\$ 4,494,027	\$ 5,200,106		

Draft Notes to the Financial Statements

OPEB Expense and Deferred Inflows and Outflows of Resources Related to OPEB

For the year ended June 30, 2018, the District recognized an OPEB expense of \$352,374. At June 30, 2018, the District reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Defe	rred Outflows of Resources	Deferred Inflows of Resources
Differences Between Actual and Expected Experience	\$	1,473	\$ -
Changes of Assumptions		228,483	-
Net Difference Between Projected and Actual Earnings on OPEB Plan Investments		2,919	-
District Contributions Subsequent to the Measurement Date		170,000	
Total	\$	232,875	\$ -

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Report Year Ending June 30:	<u>Amount</u>
2019	\$ 46,965
2020	46,965
2021	46,967
2022	57,734
2023	34,244
Remaining	-

Substantive Plan

A summary of the substantive plan used as the basis of the valuation follows.

All Retirees — Description	of Benefits
Duration of Coverage	Retiree's lifetime.
Minimum Age	50
Type of Coverage	Medical only.
Medical Plan Choices	Same as actives.
РЕМНСА	Eligible for PEMHCA minimum at \$128 monthly (2017 amount) with annual
PEMICA	increase.
Service Requirement	5 years (CalPERS eligibility).

Employees hired before July 1, 2008						
Retire at 55 with 10 years	District pays for retiree only up to Kaiser Bay Area premium (\$733.39 for					
service	2017).					
Retire at 60 with 15 years						
service or	District pays 100% premiums for retiree and spouse or eligible dependent					
Retire at 55 with 25 years	for duration of their lifetimes.					
service						

Employees hired after July 1, 2008

The District contributes 1.5% of the employee's base monthly salary toward a Medical After Retirement Account (MARA) while employed. District contributions to the MARA are not included in OPEB accounting, but are accrued each year as an operating expense as they are contributed.

Participant Summary

Census Date:

June 30, 2017

Age and service determined as of the census date.

	Active Participants										
	Years of Service										
Age	< 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 25											0
25-29		1	1								2
30-34		1									1
35-39		2		1							3
40-44	1			1							2
45-49		1									1
50-54				3							3
55-59	1			1			1	1			4
60-64				1	2						3
65-69											0
70+											0
Total	2	5	1	7	2	0	1	1	0	0	19

Average Employee Age: 47.6

Average Years of Service: 10.7

Inactive Participants							
Age	Ret.	Sp.	Total Ret.	Sp.	Total		
< 50			0		0		
50-54			0		0		
55-59	1		1	4	6		
60-64	3		3	4	10		
65-69	5		5	2	12		
70-74	5		5	2	12		
75-79	4		4	1	9		
80-84	1		1		2		
85-89		1	1	1	3		
90+			0		0		
Total	19	1	20	14	34		

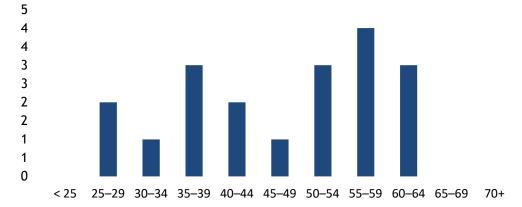
Average Inactive Age: 68.2

Participant Summary Charts

Census Date: June 30, 2017 Age and service determined as of the census date.

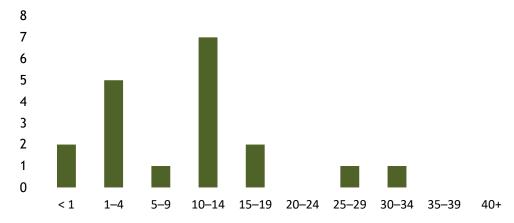
Count of Actives by Age Bracket

Average Employee Age: 47.6



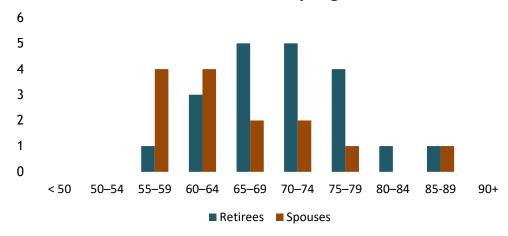
Count of Actives by Years of Service

Average Years of Service: 10.7



Count of Inactives by Age Bracket

Average Inactive Age: 68.2



Actuarial Assumptions

A summary of the actuarial assumptions used for this valuation follows. We considered the reasonableness of each assumption independently based on its own merits, consistent with each other assumption, and the combined impact of all assumptions.

Assumption	Rates					
Actuarial Cost Method	Entry Age Normal Level Percentage of Salary					
Measurement Date	June 30, 2018					
Valuation Date	June 30, 2017					
Report Date	June 30, 2018					
Discount Rate	The discount rate selected is 4.85%. The discount rate is the long-term rate of return for the plan's assets, as our projections show that the assets will be sufficient to cover the projected benefit payments should the District continue to contribute to the plan with an amount of at least the ADC each year. Should the assets not be sufficient to cover the projected benefit payments at any time in the future, we would employ a discount rate reflecting the 20-year tax-exempt municipal bond yield or index rate to the period after which we project assets to run out. We would then use a single, blended discount rate equivalent to the long-term rate of return and the 20-year tax-exempt municipal bond yield. If there are no assets, we would use only the 20-year tax-exempt municipal bond yield for the valuation.					
Mortality	Same as CalPERS. See appendix.					
Termination Rates	Same as CalPERS. See appendix. Also known as "turnover".					
Disability	Same as CalPERS. See appendix.					
Retirement	Same as CalPERS. See appendix.					
Annual Per Capita Claims Cost	Developed using CalPERS experience to calculate age-related risk scores, but using the District's actual premiums for all other purposes. Assumed annual per capita claims costs follow:					
Average Per Capita Cost for	Age Males Females 50 \$ 12,801 \$ 12,436 55 15,667 12,990 60-64 17,508 13,516 Developed based on premiums for the District's enrollment by plan,					
Implicit Subsidy Calculation	family demographics from CalPERS plans, and risk scores (both HMO and PPO) for the CalPERS population.					

Actuarial Assumptions

Assumption	Rates						
Aging or Morbidity Factors	Based on actual CalPERS HMO and PPO population data.						
Participant Contributions	Based on service at retirement and employee group.						
Salary Increases	2.750% The salary increase is used to determine the growth in the aggregate payroll.						
	Individual Salary Increases: 2015 CalPERS Merit Salary Increases.						
Inflation Rate	2.50%						
Marital Status	Current Retirees: Actual spouse coverage is used.						
	Future retirees: 80% assumed to be married.						
Spouse Gender	Assumes spouse of opposite gender for current and future retirees.						
Spouse Age Difference	Actual spouse age is used for current retirees. Assumes males are three years older than females for future retirees.						
Participation	Current Retirees: Assume current elections continue until decrement. Future Retiree election assumptions summarized Condition Participation Eligible for Supplemental Benefits 100% Eligible for PEMHCA Minimum Only 50%						
PEMHCA Administrative Fee	0.31% of retiree premium.						
Annual PEMHCA Amount	\$1,559 for the period June 30, 2017 through June 30, 2018						
ACA Excise Tax	Assumed that the District will pass the ACA Excise Tax on to the retirees.						

Actuarial Assumptions

Assumption

Rates

Premiums

Premiums used to develop aged claims	Employee-Only			-Only
Plan		2017		2018
Blue Shield Access+ Other Southern				
California	\$	1,024.85	\$	889.02
Kaiser Permanente California Other				
Southern California		733.39		779.86
PERS Choice Other Southern California		830.30		800.27
PERS Select Other Southern California		736.27		717.50
PERSCare Other Southern California		932.39		882.45

Trend Rates

Medical Long-Term Trends from Society of Actuaries "Long Term Healthcare Cost Trends Model v2018_c" using baseline assumptions.

	Pre-Medicare	Medicare	PEMHCA
Year	Trend	Trend	Trend
2017	7.00%	6.00%	3.00%
2018	6.50%	5.50%	3.00%
2019	6.00%	5.50%	3.00%
2020	5.50%	5.30%	3.00%
2021	5.20%	5.20%	3.00%
2022	5.20%	5.20%	3.00%
2023	5.20%	5.20%	3.00%
2024	5.19%	5.19%	3.00%
2025-2074	•••	•••	•••
2075+	3.84%	3.84%	3.00%

This section includes a brief summary of GASB 75, as well as definitions of some of the key terminology used in this report.

About GASB 75

In General. In June 2015 the Governmental Accounting Standards Board released GASB 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions". GASB 75 replaced GASB 45 for fiscal years beginning after June 15, 2017, for employers that sponsor OPEB plans. The provisions in GASB 75 are similar to the provisions of GASB 68 for pensions.

Accounting. GASB 75 requires a liability known as the Net OPEB Liability (NOL). The employer recognizes the NOL on its balance sheet. The employer also recognizes an OPEB expense in the income statement. GASB 45 recorded the Unfunded Accrued Actuarial Liability (UAAL) in the notes to the financial statement, whereas GASB 75 records the NOL, which is very similar to the UAAL with just a few technical differences, on the balance sheet.

Financial Statement Impact (Employers). One of the biggest changes to the financial statements of governmental employers that provide OPEB is the reporting of the OPEB liability on the face of the statements rather than in the footnotes. Governments that do not provide OPEB through a trust are required to recognize the entire OPEB liability in the financial statements. For governments that provide OPEB through an OPEB plan that is administered through a trust, the government's OPEB liability is recognized net of the amount of the OPEB plan's fiduciary net position.

Changes to the Measurement of the Total OPEB Liability. Measurement of the OPEB liability includes discounting future benefit payments for current and former employees and their beneficiaries to their present value and allocating the present value over past and future periods of the employee service (total OPEB liability), less the amount of the OPEB plan's fiduciary net position. The calculation continues to include employee-related events, such as projected salary increases and projected years of service, if they affect the amount of OPEB payments employees will receive, as well as provisions for automatic cost-of-living adjustments (COLAs) and other automatic benefits. Additionally, ad hoc COLAs and other ad hoc benefit changes, which are made at the discretion of the government, are included in projections as well, if they routinely recur.

GASB 75 requires governments to discount projected OPEB payments to their present value. Under the new standard, governments discount the projected OPEB payments to be made in each year and the amount of plan assets (if a government administers the OPEB through a trust) available for providing those benefits to current active and inactive employees and their beneficiaries. Similar to the pension standards, the discount rate used is based on whether the plan assets are projected to be sufficient to make future payments. If the plan assets are sufficient, governments discount future payments using the long-term expected rate of return. If projected plan assets are insufficient to make all future payments to current and inactive employees and their beneficiaries, or if there are no plan assets held in trust, the discount rate is based on a high-quality 20-year tax-exempt general obligation municipal bond yield or index rate. "High-quality" is defined as being rated AA or higher (or an equivalent rating).

Cost Method. The Entry Age Normal Cost method must be used.

Appendix

About GASB 75 (continued)

Factors that affect a government's OPEB liability, such as actual earnings on plan investments when the OPEB plan is administered as a trust, employee compensation changes, interest on the outstanding OPEB liability, contributions from employees and employers, and actual demographic and economic changes that are not in line with assumptions made in the actuarial calculations, are considered when determining the government's OPEB expense. A government's annual OPEB expense is calculated with consideration for factors affecting the OPEB liability within the reporting period. Several causes of changes in OPEB liability are immediately factored into the calculation of OPEB expense for the period, such as benefits earned each year, interest on the total OPEB liability, changes in benefit terms, and projected earnings on plan investments, if administered through a trust.

Governments are required to recognize deferred outflows of resources or deferred inflows of resources and then introduce into the expense calculation, systematically and rationally over the average remaining years of employment (active employees and inactive employees, including retirees), the effect on the total OPEB liability of differences between assumptions and actual experience.

Key Terminology

Actuarially Determined Contribution

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.

Actuarial Present Value of Projected Benefit Payments

Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

Agent Employer

An employer whose employees are provided with OPEB through an agent multiple-employer defined-benefit OPEB plan.

Closed Period

A specific number of years that is counted from one date, which declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth until no years remain.

Contributions

Additions to an OPEB plan's fiduciary net position for amounts from employers, non-employer contributing entities, or employees.

Dates and Periods

• Census Date

The date of the census. It is usually the same as the Valuation Date.

• Measurement Date

The date on which assets are measured. The liabilities are rolled forward to this date from the **Valuation Date**, should it differ, using actuarial roll-forward techniques.

• Measurement Period

The year ending on the **Measurement Date**.

Report Date

The date on which the amounts are reported in the financial statements. It is the same as the fiscal year-end. It may be up to one year ahead of the Measurement Date, with no roll-forward of liabilities or assets required.

Reporting Period

The year ending on the **Report Date**. It is the same as the fiscal year.

• Valuation Date

The date on which the liabilities are valued.

Defined-Benefit OPEB

OPEB for which the benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The OPEB may be stated as (a) a specified dollar amount (b) an amount that is calculated based on one or more factors such as age, years of service, and compensation, or (c) a type or level of coverage such a prescription drug coverage or a percentage of health insurance premiums. OPEB that does not have all of the terms of defined contribution OPEB is classified as defined-benefit OPEB.

Key Terminology (continued)

Discount Rate

The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

- a. The actuarial present value of benefit payments projected to be made in future periods in which (1) the amount of the OPEB plan's fiduciary net position is projected to be greater than the benefit payments that are projected to be made in that period and (2) OPEB plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on OPEB plan investments.
- b. The actuarial present value of projected benefit payments not included in (a), calculated using a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale).

Net OPEB Liability

The liability of employers and non-employer contributing entities to employees for benefits provided through a defined-benefit OPEB plan that is administered through a trust that meets the criteria in paragraph 4 of GASB 75.

Normal Cost

See Service Cost.

Other Postemployment Benefits (OPEB)

Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payment for sick leave.

Projected Benefit Payments

All benefits estimated to be payable through OPEB plan to current active and inactive employees as a result of their past service and their expected future service.

Service Cost

The portions of the actuarial present value of projected benefit payments that are attributed to valuation years. Also called **Normal Cost**.

Substantive Plan

The plan terms as understood by the employer and the plan members at the time of the valuation, including only changes to plan terms that have been made and communicated to employees.

Appendix

Decrement Tables

The valuation used the following decrement tables from the CalPERS OPEB Assumption Model, revised March 7, 2014:

Mortality <u>Source Table</u>

Miscellaneous Employees Mort and Disb Rates_PA Misc

Disability Rates

Miscellaneous Employees Mort and Disb Rates_PA Misc

Terminated Refund Rates

Miscellaneous Employees Terminated Refund Rates_Misc

Terminated Vested Rates

Miscellaneous Employees Terminated Vested Rates_PA Misc

Salary Scale Rates

Miscellaneous Employees Salary Scale Rates_PA Misc

Service Retirement Rates

Miscellaneous Employees

2.0% at 60
 2.0% at 62
 2.5% at 55
 Rx PA Misc 2% @ 60
 Rx PA Misc 2% @ 62
 Rx PA Misc 2.5% @ 55

Sample Mortality and Disability Rates

Public Agency Miscellaneous

	Pre-Retirement Mortality			Post-Retirement Mortality						Disability				
	Male Ass	umptions	Female As	sumptions	Male Assumptions			Female Assumptions			Male Assumptions		Female As	sumptions
	Non		Non			Non			Non		Non		Non	
Attained	Industrial	Industrial	Industrial	Industrial	Healthy		Industrially	Healthy	1	Industrially	Industrial	Industrial	Industrial	Industrial
Age	Death	Death	Death	Death	Recipients	Disabled	Disabled	Recipients	Disabled	Disabled	Disability	Disability	Disability	Disability
1	0.00000	0.00000	0.00000	0.00000	0.00023	0.00555	0.00128	0.00015	0.00346	0.00098	0.00000	0.00000	0.00000	0.00000
5	0.00000	0.00000	0.00000	0.00000	0.00023	0.00565	0.00129	0.00015	0.00350	0.00099	0.00000	0.00000	0.00000	0.00000
10	0.00000	0.00000	0.00000	0.00000	0.00024	0.00572	0.00130	0.00015	0.00354	0.00099	0.00000	0.00000	0.00000	0.00000
15	0.00023	0.00000	0.00017	0.00000	0.00024	0.00584	0.00132	0.00016	0.00361	0.00101	0.00017	0.00000	0.00010	0.00000
20	0.00031	0.00000	0.00020	0.00000	0.00025	0.00604	0.00135	0.00017	0.00372	0.00104	0.00017	0.00000	0.00010	0.00000
25	0.00040	0.00000	0.00023	0.00000	0.00029	0.00637	0.00141	0.00021	0.00392	0.00109	0.00017	0.00000	0.00010	0.00000
30	0.00049	0.00000	0.00025	0.00000	0.00039	0.00693	0.00153	0.00028	0.00428	0.00121	0.00019	0.00000	0.00024	0.00000
35	0.00057	0.00000	0.00035	0.00000	0.00060	0.00788	0.00178	0.00046	0.00492	0.00143	0.00049	0.00000	0.00081	0.00000
40	0.00075	0.00000	0.00050	0.00000	0.00110	0.00949	0.00225	0.00091	0.00605	0.00188	0.00122	0.00000	0.00155	0.00000
45	0.00106	0.00000	0.00071	0.00000	0.00227	0.01221	0.00318	0.00200	0.00804	0.00281	0.00191	0.00000	0.00218	0.00000
50	0.00155	0.00000	0.00100	0.00000	0.00501	0.01680	0.00501	0.00466	0.01158	0.00466	0.00213	0.00000	0.00229	0.00000
55	0.00228	0.00000	0.00138	0.00000	0.00599	0.01973	0.00599	0.00416	0.01149	0.00416	0.00221	0.00000	0.00179	0.00000
60	0.00308	0.00000	0.00182	0.00000	0.00710	0.02289	0.00754	0.00436	0.01235	0.00518	0.00222	0.00000	0.00135	0.00000
65	0.00400	0.00000	0.00257	0.00000	0.00829	0.02451	0.01122	0.00588	0.01607	0.00838	0.00210	0.00000	0.00118	0.00000
70	0.00524	0.00000	0.00367	0.00000	0.01305	0.02875	0.01635	0.00993	0.02211	0.01395	0.00180	0.00000	0.00114	0.00000
75	0.00713	0.00000	0.00526	0.00000	0.02205	0.03990	0.02834	0.01722	0.03037	0.02319	0.00142	0.00000	0.00118	0.00000
80	0.00990	0.00000	0.00814	0.00000	0.03899	0.06083	0.04899	0.02902	0.04725	0.03910	0.00142	0.00000	0.00118	0.00000
85	0.00000	0.00000	0.00000	0.00000	0.06969	0.09731	0.07679	0.05243	0.07762	0.06251	0.00000	0.00000	0.00000	0.00000
90	0.00000	0.00000	0.00000	0.00000	0.12974	0.14804	0.12974	0.09887	0.12890	0.09887	0.00000	0.00000	0.00000	0.00000
95	0.00000	0.00000	0.00000	0.00000	0.22444	0.22444	0.22444	0.18489	0.21746	0.18489	0.00000	0.00000	0.00000	0.00000
100	0.00000	0.00000	0.00000	0.00000	0.32536	0.32536	0.32536	0.30017	0.30017	0.30017	0.00000	0.00000	0.00000	0.00000
105	0.00000	0.00000	0.00000	0.00000	0.58527	0.58527	0.58527	0.56093	0.56093	0.56093	0.00000	0.00000	0.00000	0.00000
110	0.00000	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000
115	0.00000	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000
120	0.00000	0.00000	0.00000	0.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000

Notes:

¹⁾ Pre-Retirement and Post-Retirement mortality rates include 20 years of projected on-going mortality improvement using Scale BB published by the Society of Actuaries.

²⁾ Miscellaneous Plans usually have Industrial Death rates set to zero unless the agency has specifically contracted for Industrial Death benefits. If so, each Non-Industrial Death rate shown above will be split into two components: 99% will become the Non-Industrial Death rate and 1% will become the Industrial Death rate.

³⁾ The Miscellaneous Non-Industrial Disability rates are used for Local Prosecutors.

⁴⁾ Normally, Industrial Disability rates are zero for miscellaneous plans unless the agency has specifically contracted for Industrial Disability benefits. If so, each miscellaneous non-industrial disability rate will be split into two components: 50% will become the Non-Industrial Disability rate and 50% will become the Industrial Disability rate.

Sample Termination Rates

Sample Terminated Refund Rates
Public Agency Miscellaneous

	Entry Ages			Public A	gency Misc	ellaneous				
Service	15	20	25	30	35	40	45	50	55	59
0	0.18120	0.17420	0.16740	0.16060	0.15370	0.14680	0.14000	0.13320	0.12620	0.12080
5	0.02320	0.02120	0.01930	0.01740	0.01550	0.01360	0.01160	0.00970	0.00780	0.00620
10	0.01550	0.01380	0.01210	0.01040	0.00880	0.00710	0.00550	0.00380	0.00210	0.00080
15	0.00700	0.00600	0.00510	0.00420	0.00320	0.00230	0.00140	0.00040	0.00020	0.00020
20	0.00450	0.00370	0.00290	0.00210	0.00130	0.00050	0.00010	0.00010	0.00010	0.00010
25	0.00240	0.00170	0.00110	0.00050	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010
30	0.00110	0.00050	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000
35	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000
40	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000
45	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000
	0.00010	0.00010	0.00010	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Sample Terminated Vested Rates

i	Entry Ages	Public A	gency Misc	ellaneous						
Service	15	20	25	30	35	40	45	50	55	59
0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
5	0.07140	0.06560	0.05970	0.05370	0.04770	0.04180	0.00000	0.00000	0.00000	0.00000
10	0.05940	0.05300	0.04660	0.04030	0.03390	0.00000	0.00000	0.00000	0.00000	0.00000
15	0.05110	0.04430	0.03730	0.03050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20	0.04050	0.03330	0.02610	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
25	0.02880	0.02120	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
30	0.01500	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
35	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
40	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
45	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
50	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

When a member is eligible to retire, the termination with vested benefits probability is set to zero

Appendix

Sample Salary Scale Rates

Entry Ages Public Agency Miscellaneous														
Service	15	20	25	30	35	40	45	50	55	60	65	70	75	79
0	0.1220	0.1220	0.1220	0.1160	0.1090	0.1020	0.0950	0.0950	0.0950	0.0950	0.0950	0.0950	0.0950	0.0950
5	0.0640	0.0640	0.0640	0.0600	0.0550	0.0520	0.0480	0.0480	0.0480	0.0480	0.0480	0.0480	0.0480	0.0480
10	0.0460	0.0460	0.0460	0.0430	0.0410	0.0390	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370	0.0370
15	0.0420	0.0420	0.0420	0.0400	0.0380	0.0360	0.0340	0.0340	0.0340	0.0340	0.0340	0.0340	0.0340	0.0340
20	0.0390	0.0390	0.0390	0.0380	0.0360	0.0340	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330
25	0.0370	0.0370	0.0370	0.0360	0.0340	0.0330	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310
30	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300
35	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300
40	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300
45	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300
50	0.0350	0.0350	0.0350	0.0340	0.0330	0.0320	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300	0.0300

Appendix

Matrix of Sample Service Retirement Assumption Rates

Attained Ages Public Agency Miscellaneous 2%											
50	55	60	65	70	75	79					
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					
0.0080	0.0400	0.0580	0.1450	0.1500	1.0000	1.0000					
0.0130	0.0400	0.0750	0.1730	0.1710	1.0000	1.0000					
0.0180	0.0560	0.0930	0.2010	0.1920	1.0000	1.0000					
0.0210	0.0930	0.1260	0.2330	0.2390	1.0000	1.0000					
0.0220	0.1090	0.1430	0.2660	0.3040	1.0000	1.0000					
0.0330	0.1540	0.1690	0.2890	0.3300	1.0000	1.0000					
0.0500	0.2100	0.2070	0.3160	0.3300	1.0000	1.0000					
0.0000	0.2400	0.2800	0.3300	0.3300	1.0000	1.0000					
0.0000	0.0000	0.2800	0.3300	0.3300	1.0000	1.0000					
0.0000	0.0000	0.0000	0.3300	0.3300	1.0000	1.0000					
Attained Ages Public Agency Miscellaneous 2% @ 60											
		60	65		_	79					
						0.0000					
						1.0000					
		0.0740				1.0000					
		0.0890				1.0000					
0.0200	0.0920	0.1130	0.2640	0.2640	1.0000	1.0000					
0.0200	0.1360	0.1370	0.3210	0.3210	1.0000	1.0000					
0.1500	0.1460	0.1610	0.3770	0.3770	1.0000	1.0000					
0.1500	0.1500	0.2460	0.4120	0.4120	1.0000	1.0000					
0.0000	0.1500	0.2960	0.4200	0.4200	1.0000	1.0000					
0.0000	0.0000	0.2960	0.4200	0.4200	1.0000	1.0000					
0.0000	0.0000	0.0000	0.4200	0.4200	1.0000	1.0000					
Attained Age				Public Agen	cv Miscellane	ous 2% @ 62					
		60	65			79					
						0.0000					
						1.0000					
						1.0000					
						1.0000					
						1.0000					
						1.0000					
		0.1380	0.3000	0.3330	1.0000	1.0000					
		0.1830	0.3480	0.3870	1.0000	1.0000					
0.0000		0.2040	0.3600	0.4000	1.0000	1.0000					
		0.2040		0.4000	1.0000	1.0000					
		0.0000	1.0000	1.0000	1.0000	1.0000					
	50 0.0000 0.0080 0.0130 0.0180 0.0210 0.0220 0.0330 0.0500 0.0000 0.0000 0.0000 0.0000 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0200 0.0000	50 55 0.0000 0.0000 0.0080 0.0400 0.0130 0.0400 0.0180 0.0560 0.0210 0.0930 0.0220 0.1090 0.0330 0.1540 0.0500 0.2100 0.0000 0.0000 0.0000 0.0000 Attained Ages 50 55 0.0000 0.0260 0.0200 0.0330 0.0200 0.0190 0.0200 0.0330 0.0200 0.0330 0.0200 0.0360 0.1500 0.1500 0.0000 0.0000 Attained Ages 50 55 0.0000 0.1500 0.0000 0.1500 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0190 0.0000 0.0000 0.0000 0.0190 0.0000 0.0000 0.0000 0.0190 0.0000 0.0000 0.0000 0.0190 0.0000 0.0000 0.0000 0.01520 0.0000 0.0960 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.1520 0.0000 0.0000	SO	S0	S0	S0					