

**Las Gallinas Valley Sanitary District
OPEB Plan**

**Actuarial Valuation as of June 30, 2019
For Purposes of Actuarial Funding
For the 2019/2020 and 2020/2021 Plan Years**

August 19, 2020

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Mike Prinz
General Manager
Las Gallinas Valley Sanitary District
445 Montezuma Street
Rio Vista, CA 94571

Re: Las Gallinas Valley Sanitary District June 30, 2019 Actuarial Report for Funding for the Plan Year Beginning July 1, 2019

Dear Mr. Prinz,

Las Gallinas Valley Sanitary District (the "District") has retained Nicolay Consulting Group to complete this valuation of the District's postemployment medical program (the "Plan") as of June 30, 2019 valuation date compliant under Actuarial Standards of Practice for funding.

The purpose of this valuation is to determine the value of the expected postretirement benefits for current and future retirees and the Actuarial Accrued Liability and Actuarially Determined Contribution for the plan year ending June 30, 2020. The amounts reported herein are not necessarily appropriate for use for a different fiscal year without adjustment.

Based on the foregoing, the cost results and actuarial exhibits presented in this report were determined on a consistent and objective basis in accordance with applicable Actuarial Standards of Practice and generally accepted actuarial procedures. We believe they fully and fairly disclose the actuarial position of the Plan based on the plan provisions, employee and plan cost data submitted.

The actuarial calculations were completed under the supervision of Gary Cline, ASA, MAAA, FCA, Enrolled Actuary. He is a member of the American Academy of Actuaries whom meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. In our opinion, assumptions as approved by the plan sponsor are reasonably related to the experience of and expectations for the Plan.

We would be pleased to answer any questions on the material contained in this report or to provide explanation or further detail as may be appropriate.

Respectfully submitted,

NICOLAY CONSULTING GROUP



Gary E. Cline, ASA, MAAA, FCA, EA
Vice President & Chief Operating Officer

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Section I Management Summary

A) Highlights

Summary of Key Valuation Results

	2019	2017
Funded Status for Valuation on June 30:		
<u>Present Value of Future Benefits:</u>		
Active	\$2,015,186	\$2,077,550
Retiree	2,112,526	1,416,569
Total	\$4,127,712	\$3,494,119
<u>Actuarial Accrued Liability</u>		
Active	\$1,258,573	\$1,311,993
Retiree	2,112,526	1,416,569
Total	\$3,371,099	\$2,728,562
Market Value of Assets	1,422,668	1,011,581
Funded Status	\$1,948,431	\$1,716,981
Funded Status as a percentage of the AAL	42%	37%
Actuarially Determined Contribution for PY beginning July 1:		
Actuarially Determined Contribution (Exhibit 4)	\$222,196	\$213,168
Estimated Trust Contribution	\$77,940	\$71,693
Estimated Pay-Go	123,169	108,040
Active Implicit Subsidy	21,087	33,436
Funding Policy Contribution	\$222,196	\$213,168
Demographic data as of June 30⁽²⁾:		
Number of active members	20	20
Number of retired members and beneficiaries	22	19
Inactive Participants with deferred benefits	0	0
Total Participants	42	39
Key assumptions as of June 30:		
Discount rate	6.73%	6.73%
<u>Initial Trend Rate</u>		
Pre-65	6.90%	7.70%
Post-65	5.00%	5.50%
Ultimate Rate	5.00%	5.00%
Year Ultimate Rate is Reached	2029	2030
CalPERS Minimum	4.00%	4.00%

⁽¹⁾ Includes payments to trust and amounts paid directly by the plan sponsor

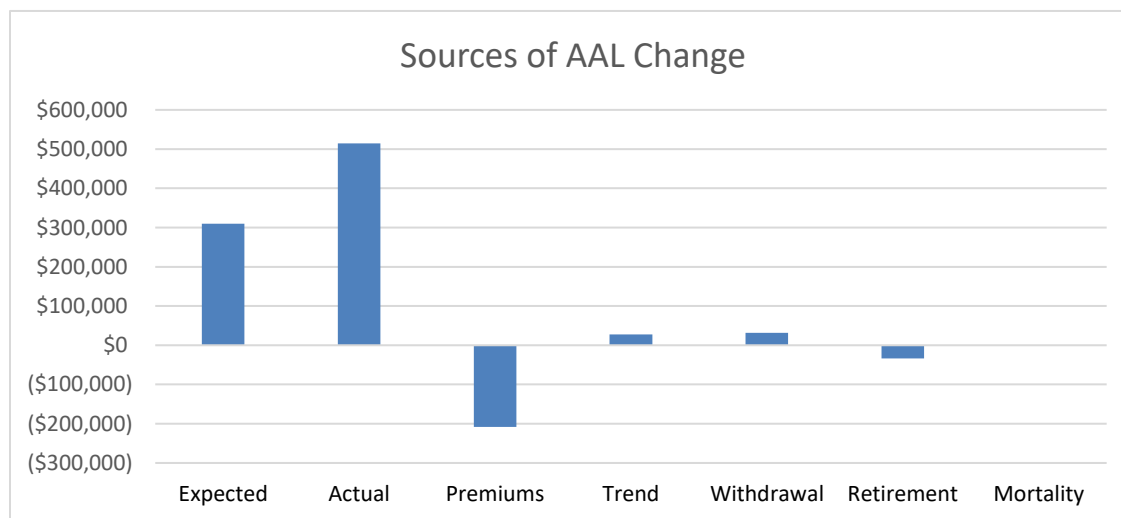
⁽²⁾ Census data as of June 30, 2019 is used in the measurement of the TOL as of June 30, 2019. See Section III for additional details on the demographic data.

Section I Management Summary

B) Gap Analysis

The Actuarial Accrued Liability has increased \$642,538 from \$2,728,562 as of June 30, 2017 to \$3,371,099 as of June 30, 2019. A breakdown of the sources of this change in liability is shown below (thousands; amounts may not add due to rounding):

Change in TOL	Amount	Percentage
Liability Experience		
Expected Benefits Earned, Benefit Payments and Interest	\$310	11%
Actual Demographic and Other Experience*	<u>\$515</u>	<u>19%</u>
Total Liability Experience	\$825	30%
Changes in Assumptions		
New Premiums	(\$208)	(8%)
Change in Trend	\$28	1%
Change in Withdrawal	\$32	1%
Change in Retirement	(\$34)	(1%)
Change in Mortality	<u>\$1</u>	<u>0%</u>
Total Assumption Change	(\$181)	(7%)
Changes in Benefit Terms		
Benefit Change	<u>\$0</u>	<u>0%</u>
Total Benefit Change	\$0	0%
Total Change in TOL		
Liability Experience	\$825	30%
Changes in Assumptions	(\$181)	(7%)
Amendments	<u>\$0</u>	<u>0%</u>
Total	\$644	24%

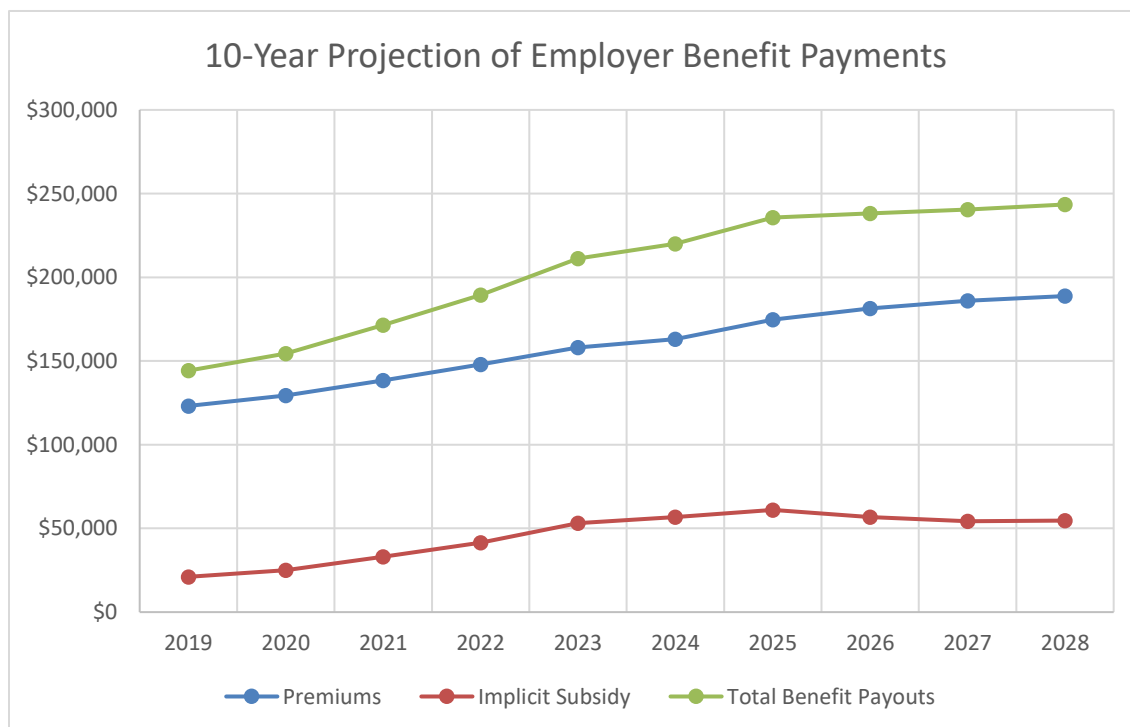


Section I Management Summary

C) 10-Year Projection of Employer Benefit Payments

In this table we show the projected pay-as-you-go costs (employer's share of premiums), the implicit subsidy, and total expected benefit payments. The implicit subsidy reflects the shortfall of premiums versus the true cost of coverage. The shortfall exists because claims for active employees are combined with claims of retirees (who generally are older and cost more) to develop a single flat premium paid by both groups.

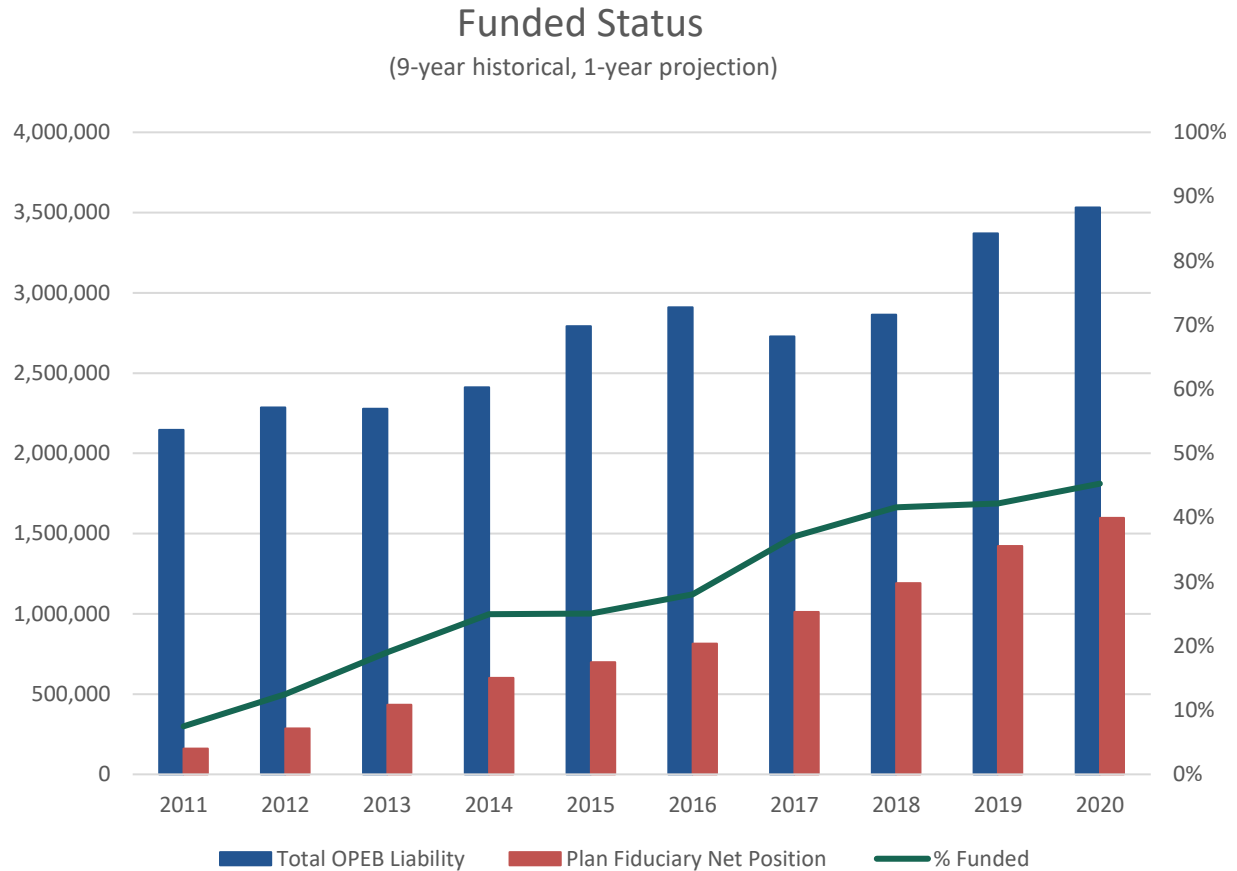
Plan Year Beginning 7/1	Employer's Share of Premiums	Implicit Subsidy	Total
2019	\$123,169	\$21,087	\$144,256
2020	\$129,401	\$25,105	\$154,506
2021	\$138,388	\$33,100	\$171,488
2021	\$147,920	\$41,463	\$189,383
2023	\$158,117	\$53,086	\$211,203
2024	\$163,110	\$56,837	\$219,947
2025	\$174,683	\$61,060	\$235,743
2026	\$181,479	\$56,711	\$238,190
2027	\$186,012	\$54,380	\$240,392
2028	\$188,799	\$54,702	\$243,501



Section I Management Summary

D) Funding Progress

Below is an illustration of the funded status of the Plan for the past 9 years, and a projection of the next year looking forward:



Section II Actuarial Funding Exhibits

A) Derivation of Significant Actuarial Assumptions (Exhibit 1)

Long-term Expected Rate of Return – As of June 30, 2019, the long-term expected rates of return for each major investment class in the Plan's portfolio are as follows:

Investment Class	Target Allocation	Long-Term Expected Real Rate of Return ¹
Equity	43.00%	5.45%
Fixed Income	49.00%	1.87%
REITs	8.00%	5.06%
Cash	0.00%	0.00%

¹JPMorgan arithmetic Long Term Capital Market assumptions and expected inflation of 2.26%.

The above table shows the target asset allocation in the CERBT Strategy 2 investment policy.

Discount rate – The discount rate is based on a blend of the long-term expected rate of return on assets for benefits covered by plan assets and a yield or index for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or better for benefits not covered by plan assets.

Above are the arithmetic long-term expected real rates of return by asset class for the next 10 years as provided in a report by JP Morgan. For years thereafter, returns were based on historical average index real returns over the last 30 years assuming a similar equity/fixed investment mix and a 2.26% inflation rate. Investment expenses were assumed to be 10 basis points per year. These returns were matched with cash flows for benefits covered by plan assets and the Bond Buyer 20-Bond General Obligation index was matched with cash flows not covered by plan assets to measure the reasonableness of the choice in discount rate.

	June 30, 2019	June 30, 2018
Discount Rate	6.73%	6.73%
Bond Buyer 20-Bond GO Index	3.50%	3.87%

Section II Actuarial Funding Exhibits

B) Sensitivity Analysis (Exhibit 2)

Sensitivity of the Funded Status to changes in the discount rate – The following presents the District's Net OPEB Liability if it were calculated using a discount rate that is 1% point lower (5.73%) or 1% point higher (7.73%) than the current rate:

Sensitivity of the Funded Status to changes in the Trend rate – The following presents the District's Net OPEB Liability if it were calculated using a trend table that has rates that are 1% point lower or 1% point higher than the current set of rates:

Funded Status as of the June 30, 2019 valuation date: \$1,948,431

Sensitivity Analysis:

	Funded Status	\$ Change	%Change
Discount Rate			
+1%	\$1,565,402	(\$383,029)	(20%)
Base	\$1,948,431	-	-
-1%	\$2,414,744	\$466,313	24%
Trend Rate			
+1%	\$2,388,306	\$439,875	23%
Base	\$1,948,431	-	-
-1%	\$1,566,119	(\$382,312)	(20%)

Section II Actuarial Funding Exhibits

C) Breakdown of Explicit and Implicit Liabilities (Exhibit 3)

	Explicit	Implicit	Total
Present Value of Future Benefits			
Actives	\$1,467,853	\$547,333	\$2,015,186
Retirees	<u>1,755,750</u>	<u>356,776</u>	<u>2,112,526</u>
Total	\$3,223,603	\$904,109	\$4,127,712
Actuarial Accrued Liability			
Actives	\$924,977	\$333,596	\$1,258,573
Retirees	<u>1,755,750</u>	<u>356,776</u>	<u>2,112,526</u>
Total	\$2,680,727	\$690,372	\$3,371,099
Normal Cost (BOY)	\$55,966	\$21,145	\$77,111

Section II Actuarial Funding Exhibits

D) Schedule of Actuarially Determined Contributions (Exhibit 4)

Plan Year	2019 - 2020	2020 - 2021	2021 - 2022
Actuarial Accrued Liability	\$3,371,099	Projected ¹ \$3,531,244	Projected ¹ \$3,695,692
Actuarial Value of Assets ²	1,422,668	1,598,934	1,784,855
Unfunded Actuarial Accrued Liability	\$1,948,431	\$1,932,310	\$1,910,837
Amortization Period ³	20	19	18
Normal Cost (EOY)	\$82,301	\$86,416	\$90,737
Amortization of UAAL ⁴	139,895	143,894	147,980
Actuarially Determined Contribution	\$222,196	\$230,310	\$238,717
Discount Rate	6.73%	6.73%	6.73%
Expected Return on Assets	6.73%	6.73%	6.73%
Normal Cost Growth Rate	5.00%	5.00%	5.00%
Salary Growth Rate	3.25%	3.25%	3.25%

¹ Projections assume that the District funds according to their funding policy, the Fund earns 6.73% per year, the discount rate remains 6.73% and the Normal Cost component of the ADC increases by 5.00% per year throughout the projection period. We assumed mid-year benefit cash flows in the Trust.

² Asset Smoothing for Calculation of Unfunded: GASB 75 calculates the unfunded liability using market value of assets. This results in a volatile NOL due to the equity risk in the asset component. The above funding methodology to calculate the ADC also uses market value of assets. Since asset gains and losses are largely offsetting over a 3-5 year cycle, it would mitigate cash flow volatility to avoid introducing this short-term asset experience into expense recognition right away. To defer this recognition, the District may want to change the method for recognizing short-term asset gain/loss by adopting an "Actuarial Value of Assets" smoothing methodology. A typical Actuarial Value of Asset smoothing methodology amortizes each year's gain/loss over a fixed period of 3-5 years.

³ Amortization Method of Unfunded: GASB 75 amortizes asset gain/loss over 5 years, liability experience gain/loss and assumption change gain/loss over average working lifetime, and immediately recognizes plan amendment gain/loss. Under the GASB 45 methodology, the District was amortizing all of these items over a closed 30 year period, which is currently at 20 years as of June 30, 2019. the District should consider whether it is appropriate to maintain the old GASB 45 methodology, adopt a methodology similar to that used in GASB 75, or another methodology if it means better alignment with long-term goals for the District.

⁴ Amortizing UAAL for an Overfunded Plan: Under GASB 45 methodology, excess assets are amortized in the same way that an unfunded liability is amortized. This may result in the presence of an ADC even when the plan would be expected to remain fully funded at the end of the year without a contribution being made. Alternatives to this approach are to contribute nothing (if the plan is in wind down) or to continue contributing to create a "funded status volatility" margin. Typically, margins of 20-50% above full funding are often maintained to weather downside events, including market bubbles or downturns.

Section II Actuarial Funding Exhibits

E) Schedule of Funding Policy Contributions¹ (Exhibit 5)

Plan Year	2019 - 2020	2020 - 2021	2021 - 2022
Actuarially Determined Contribution ^{1,2}	\$222,196	\$230,310	\$238,717
Estimated Trust Contribution	\$77,940	\$75,804	\$67,229
Estimated Pay-Go	123,169	129,401	138,388
Active Implicit Subsidy	21,087	25,105	33,100
Funding Policy Contribution ¹	\$222,196	\$230,310	\$238,717
Covered-employee payroll ³	\$2,763,284	\$2,853,091	\$2,945,816
Contributions as a percentage	8%	8%	8%

¹ ADC and Contributions are for the associated plan year.

² Employers setting a discount rate based on the assumption that assets will be sufficient to cover all future benefit payments under the plan are assumed to annually make contributions equal to the actuarially determined contribution. Annual contributions made that are substantially less than the ADC would require additional support for use of a GASB 75 discount rate equal to the long-term expected return on trust assets.

³ Covered-Employee Payroll represented above is shown above if provided with future years projected using a 3.25% payroll increase assumption. GASB 75 defines covered-employee payroll as the payroll on which contributions to a pension plan are base, and ratios that use that measure. Accordingly, if OPEB covered-employee payroll shown above is different than total earnings for covered-employees, the employer should display in the disclosure footnotes the payroll based on total earnings for the covered group and recalculate the required payroll-related ratios.

Section III Data

A) Summary of Demographic Information

The participant data used in the valuation was provided by the District as of June 30, 2019. While the participant data was checked for reasonableness, the data was not audited. The valuation results presented in this report are dependent upon the accuracy of the participant data provided. The table below presents a summary of the basic participant information for the active and retired participants covered under the terms of the Plan.

	6/30/2019	6/30/2017
<u>Actives</u>		
Counts		
▪ Total	20	20
Averages		
▪ Age	45.2	43.2
▪ Service	8.1	7.3
<u>Retirees</u>		
Counts		
▪ Under age 65	6	6
▪ Age 65 and over	<u>16</u>	<u>13</u>
▪ Total	22	19
Averages		
▪ Age	69.9	71.4
▪ Age at Retirement	57.6	59.4
▪ Service at Retirement	16.3	15.5
Inactive Participants with deferred benefits	0	0
Total Participants	42	39
<u>Covered Dependents of Retirees</u>		
Counts		
▪ Spouses / Domestic Partners	5	4
▪ Children	<u>0</u>	<u>0</u>
▪ Total	5	4
Total Participants and Dependents	47	43

Section III Data

B) Distribution of Participants by Age and Service

Distribution of Service Groups by Age Groups								
Age Group	Retired* Participants	Active Participant – Years of Service						Total
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
< 25	0	0	0	0	0	0	0	0
25 - 29	0	2	1	0	0	0	0	3
30 - 34	0	0	0	0	0	0	0	0
35 - 39	0	1	1	2	0	0	0	4
40 - 44	0	1	1	0	1	0	0	3
45 - 49	0	2	0	0	2	0	0	4
50 - 54	2	1	0	0	0	0	0	1
55 - 59	2	1	0	1	0	0	1	3
60 - 64	2	1	0	0	0	0	0	1
65 - 69	5	0	1	0	0	0	0	1
> 70	11	0	0	0	0	0	0	0
Total	22	9	4	3	3	0	1	20

* Retired participants include retirees, disabled participants, and surviving family members. Does not include covered dependents.

Section IV Plan Provision Summary

A) Plan Description

Current Plan for Existing Employees:

The District provides lifetime postretirement medical coverage to employees who retire from the District at age 50 or older with at least 5 years of continuous PERS covered service.

Coverage may be extended to the spouse and dependents depending on the coverage in effect at retirement, and subject to applicable caps. Spousal coverage is only available if they were married to the retiree at the time of retirement from the District and if the retiree chose a dual retirement payout from PERS at the time of retirement.

The amount of medical retirement coverage is divided into four groups:

Group 1 Retired prior to January 1, 2003. Their benefit is based on a monthly cap which is increased by 6% each year. The monthly cap is \$825.61 as of 2019, \$875.15 as of 2020, and may be used to cover the retiree and their spouse. If the monthly premium for the retiree is less than these monthly caps, any overage will be paid to them if they have a qualifying spouse on their plan.

Group 2 employees were hired prior to January 1, 2003 and not retired as of that date. They receive the One Party rate which was \$734 as of 2019 and \$767 as of 2020. This rate is set by the California Department of Personnel Administration. This benefit is only available for the retiree so that if their individual cost falls below the \$734 for 2019 or \$767 for 2020, they only receive a benefit for the actual cost.

Group 3 employees were hired after January 1, 2003. They are part of the states' statutory plan per Government Code Section 22893. They can receive coverage for themselves and their dependents, up to a cap set annually by the California Department of Personnel Administration. The maximum amount of coverage is 100% for the retiree and 90% for dependents. Retirees have to work for the District for five years and have at least 10 years of PERS service to reach the minimum benefit of 50% coverage. The percentage of employer contribution increases 5% each year until 20 years of PERS service is reached with 100% coverage for the retiree and 90% for dependents. As of 2019 the contribution amounts are \$734 for an individual, \$1,398 for two party coverage and \$1,788 for family coverage. As of 2020 the contribution amounts are \$767 for an individual, \$1,461 for two party coverage and \$1,868 for family coverage. If a retiree has between five and less than ten years of service, they receive the contractual minimum monthly payment of \$136 for 2019, or \$139 for 2020.

Section IV Plan Provision Summary

A) Plan Description (continued)

Group 4 employees were hired after July 1, 2014. They can receive coverage for themselves up to a cap set annually by the California Department of Personnel Administration. The maximum amount of coverage is 100% for the retiree only. Retirees have to work for the District for 10 years and retire from the District to receive the minimum benefit of 50% coverage. The percentage of employer contribution increases 5% each year until 20 years of District service is reached with 100% coverage for the retiree. As of 2019 the contribution amounts are \$734, as of 2020 contributions amounts are \$676, for an individual. If a retiree has between five and less than ten years of service, they receive the contractual minimum monthly payment of \$136 for 2019, or \$139 for 2020.

For all retirees the contractual minimum monthly payment, which is determined each year by CalPERS, is remitted directly to CalPERS. For 2019 it is \$139 and for 2020 it is. This payment is included in the overall cap of coverage for each group. So if they are a Group 1 retiree, for 2019 the District remits \$136 to CalPERS and pays a maximum of \$689.61 to the retiree. For 2020, the District remits \$139 to CalPERS and pays a maximum of \$747.15 to the retiree.

Pre-Medicare Premiums	CalPERS Bay Area			
	2019 Plans	EE	EE+SP	EE+Fam
	Anthem HMO Select	\$831.44	\$1,662.88	\$2,161.74
	Anthem HMO Traditional	\$1,111.1	\$2,222.26	\$2,888.94
	Blue Shield Access+	\$970.90	\$1,941.80	\$2,524.34
	HealthNet SmartCare	\$901.55	\$1,803.10	\$2,344.03
	Kaiser	\$768.25	\$1,536.50	\$1,997.45
	PERS Choice	\$866.27	\$1,732.54	\$2,252.30
	PERS Select	\$543.19	\$1,086.38	\$1,412.29
	PERS Care	\$1,131.6	\$2,263.36	\$2,942.37
Medicare Premiums		EE	EE+SP	
	Anthem Traditional	\$357.44	\$714.88	
	Kaiser	\$323.74	\$647.48	
	PERS Choice	\$360.41	\$720.82	
	PERS Select	\$360.41	\$720.82	
	PERSCare	\$394.83	\$789.66	
	UnitedHealthcare	\$299.37	\$598.74	
PEMHCA Minimum				2019
				\$136.00

Section IV Plan Provision Summary

A) Plan Description (continued)

Pre-Medicare Premiums	CalPERS Region 1			
	2020 Plans	EE	EE+SP	EE+Fam
	Anthem HMO Select	\$868.98	\$1,737.96	\$2,259.35
	Anthem HMO Traditional	\$1,184.8	\$2,369.68	\$3,080.58
	Blue Shield Access+	\$1,127.7	\$2,255.54	\$2,932.20
	HealthNet SmartCare	\$1,000.5	\$2,001.04	\$2,601.35
	Kaiser	\$768.49	\$1,536.98	\$1,998.07
	PERS Choice	\$861.18	\$1,722.36	\$2,239.07
	PERS Select	\$520.29	\$1,040.58	\$1,352.75
	PERS Care	\$1,133.1	\$2,266.28	\$2,946.16
	UnitedHealthcare	\$899.94	\$1,799.88	\$2,339.84
Medicare Premiums		EE	EE+SP	
	Anthem Traditional	\$388.15	\$776.30	
	Kaiser	\$339.43	\$678.86	
	PERS Choice	\$351.39	\$702.78	
	PERS Select	\$351.39	\$702.78	
	PERSCare	\$384.78	\$769.56	
	UnitedHealthcare	\$327.03	\$654.06	
PEMHCA Minimum				2020
				\$139.00

Plan Provision Changes

There have been no plan amendments since the last measurement date.

Section V Actuarial Assumption, Methods, & Considerations

A) Actuarial Assumptions

Discount Rate	6.73%, based on the CERBT Strategy 2 investment policy.
Net Investment Return	6.73%, based on the CERBT Strategy 2 investment policy.
Inflation	We assumed 2.26% annual inflation.
Payroll increases	3.25% annual increases.
Administrative Expenses	The administrative expense was \$270 for the measurement period ending June 30, 2019.

Pre-Excise Tax Health Care Trend	Year Beginning	Increase in Premium Rates	
		Pre-65	Post-65
	2021	6.90%	5.00%
	2022	6.65%	5.00%
	2023	6.40%	5.00%
	2024	6.15%	5.00%
	2025	5.90%	5.00%
	2026	5.65%	5.00%
	2027	5.40%	5.00%
	2028	5.15%	5.00%
	2029 and later	5.00%	5.00%

Section V Actuarial Assumption, Methods, & Considerations

A) Actuarial Assumptions (continued)

Plan Distribution for Calculating Baseline Cost	<table border="1"> <thead> <tr> <th>Plan</th> <th>Pre-Medicare</th> <th>Post-Medicare</th> </tr> </thead> <tbody> <tr> <td>HealthNet SmartCare</td> <td>4%</td> <td>0%</td> </tr> <tr> <td>Kaiser</td> <td>71%</td> <td>50%</td> </tr> <tr> <td>PERSCare</td> <td>4%</td> <td>12%</td> </tr> <tr> <td>PERS Choice</td> <td>21%</td> <td>19%</td> </tr> <tr> <td>UnitedHealthcare</td> <td>0%</td> <td>19%</td> </tr> <tr> <td>Total</td> <td>100%</td> <td>100%</td> </tr> </tbody> </table>	Plan	Pre-Medicare	Post-Medicare	HealthNet SmartCare	4%	0%	Kaiser	71%	50%	PERSCare	4%	12%	PERS Choice	21%	19%	UnitedHealthcare	0%	19%	Total	100%	100%
Plan	Pre-Medicare	Post-Medicare																				
HealthNet SmartCare	4%	0%																				
Kaiser	71%	50%																				
PERSCare	4%	12%																				
PERS Choice	21%	19%																				
UnitedHealthcare	0%	19%																				
Total	100%	100%																				
Average Per Capita Claims Cost (Baseline Cost)	Pre-Medicare: \$9,523 per year Post-Medicare: \$4,073 per year																					
Health Plan Participation	We assumed that 100% of eligible participants will participate.																					
Medicare Coverage	We assumed that all future retirees will be eligible for Medicare when they reach age 65.																					
Morbidity Factors	CalPERS 2017 study																					
Population for Curving	CalPERS 2017 study																					
Age-Weighted Claims Costs	<table border="1"> <thead> <tr> <th>Age</th> <th>Claim</th> </tr> </thead> <tbody> <tr> <td>50</td> <td>\$9,768</td> </tr> <tr> <td>55</td> <td>\$11,775</td> </tr> <tr> <td>60</td> <td>\$14,261</td> </tr> <tr> <td>65</td> <td>\$4,137</td> </tr> <tr> <td>70</td> <td>\$3,644</td> </tr> <tr> <td>75</td> <td>\$4,254</td> </tr> <tr> <td>80</td> <td>\$4,776</td> </tr> <tr> <td>85</td> <td>\$4,983</td> </tr> </tbody> </table>	Age	Claim	50	\$9,768	55	\$11,775	60	\$14,261	65	\$4,137	70	\$3,644	75	\$4,254	80	\$4,776	85	\$4,983			
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Section V Actuarial Assumption, Methods, & Considerations

A) Actuarial Assumptions (continued)

Mortality* The mortality rates used in this valuation are those in the 2017 CalPERS experience study.
Pre-Retirement: CalPERS 2017 Mortality pre-retirement
Post-Retirement: CalPERS 2017 Mortality post-retirement

Age	Sample Mortality Rates			
	Active Employees		Retired Employees	
	Male	Female	Male	Female
55	0.17%	0.12%	0.44%	0.41%
60	0.26%	0.17%	0.67%	0.48%
65	0.36%	0.23%	0.93%	0.64%
70	0.62%	0.39%	1.34%	0.93%
75	1.06%	0.62%	2.32%	1.63%
80	1.66%	0.94%	3.98%	3.01%
85	0.00%	0.00%	7.12%	5.42%
90	0.00%	0.00%	13.04%	10.09%

Disability* Because of the anticipated low incidence of disability retirements, we did not value disability.

Percent Married We assumed 75% of future retirees will cover a spouse in retirement, and that male spouses were on average 3 years older than female spouses

Participation We assumed 100% of retirees will participate upon retirement.

*Source: NCG has not performed an experience study to select these assumptions. NCG has not observed materially consistent gains or consistent losses associated with these assumptions

Section V Actuarial Assumption, Methods, & Considerations

A) Actuarial Assumptions (continued)

Retirement*

We used the Public Agency Miscellaneous retirement rates that were produced from the 2017 experience study performed by CalPERS. 2.7% @ 55 for actives hired before January 1, 2013, and 2% @ 62 for actives hired on or after January 1, 2013.

2.7% @ 55
(for actives hired before
January 1, 2013)

Age	Years of Service				
	5	10	15	20	25
50	0.3%	1.0%	1.6%	3.4%	3.3%
55	3.3%	5.5%	7.8%	11.3%	15.6%
60	6.0%	8.6%	11.2%	15.0%	18.2%
65	14.0%	17.4%	20.8%	25.4%	30.6%
70	15.0%	18.1%	21.2%	24.3%	29.1%
75	100.0%	100.0%	100.0%	100.0%	100.0%

2% @ 62
(for actives hired on or after
January 1, 2013)

Age	Years of Service				
	5	10	15	20	25
50	0.0%	0.0%	0.0%	0.0%	0.0%
55	1.0%	1.9%	2.8%	3.6%	6.1%
60	3.1%	5.1%	7.1%	9.1%	11.1%
65	10.8%	14.1%	17.3%	20.6%	23.9%
70	12.0%	15.6%	19.3%	22.9%	26.5%
75	100.0%	100.0%	100.0%	100.0%	100.0%

Withdrawal*

We selected withdrawal rates that were used in the 2017 CalPERS Public Agency Miscellaneous experience study.

Age	Years of Service				
	0	5	10	15	20
25	16.7%	6.3%	4.3%	0.0%	0.0%
30	16.1%	6.2%	4.2%	2.6%	0.0%
35	15.4%	5.7%	4.0%	2.5%	1.8%
40	14.7%	5.2%	3.8%	2.4%	1.8%
45	14.0%	4.8%	3.5%	2.2%	1.7%
50	13.3%	4.4%	2.9%	1.9%	1.3%

*Source: NCG has not performed an experience study to select these assumptions. NCG has not observed materially consistent gains or consistent losses associated with these assumptions

Assumption Changes

The average per capita claims cost was updated to reflect actual 2019 and 2020 premiums and caps, the health care cost trend rate was updated to reflect 2018 industry survey data, the mortality, withdrawal, disablement, and retirement tables was updated to reflect the 2017 CalPERS studies. The population for curving and morbidity factors have also been updated to the 2017 CalPERS study.

There have been no other assumption changes since the last measurement date.

Section V Actuarial Assumption, Methods, & Considerations

B) Actuarial Methods

Actuarial Cost Method	<p>Entry Age Normal</p> <p>An actuarial cost method under which the Actuarial Present Value of the Projected Benefits of each individual included in the valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost.</p>
Amortization Methodology	<p>We used straight-line amortization. For assumption changes and experience gains/losses, we assumed Average Future Working Lifetime, averages over all actives and retirees (retirees are assumed to have no future working years). For asset gains and losses, we assumed 5 years.</p>
Financial and Census Data	<p>The District provided the participant data, financial information and plan descriptions used in this valuation. The actuary has checked the data for reasonableness, but has not independently audited the data. The actuary has no reason to believe the data is not complete and accurate, and knows of no further information that is essential to the preparation of the actuarial valuation.</p>
Plan Fiduciary Net Position	<p>Market value of assets as of the measurement date</p>
Measurement Date	<p>June 30, 2019</p>
Valuation Date	<p>June 30, 2019</p>
Funding Policy	<p>The District intends to contribute the full ADC to the CERBT each year.</p>

Section V Actuarial Assumption, Methods, & Considerations

C) Actuarial Considerations

Health Care Reform

Health care delivery is going through an evolution due to enactment of Health Care Reform. The Patient Protection and Affordable Care Act (PPACA), was signed March 23, 2010, with further changes enacted by the Health Care and Education Affordability Reconciliation Act (HCEARA), signed March 30, 2010. This valuation uses various assumptions that may have been modified based on considerations under PPACA. This section discusses particular legislative changes that were reflected in our assumptions. We have not identified any other specific provision of PPACA that would be expected to have a significant impact on the measured obligation. As additional guidance on the Act continues to be issued, we'll continue to monitor impacts.

Individual Mandate

Under PPACA, individuals (whether actively employed or otherwise) must be covered by health insurance or else pay a penalty tax to the government. While it is not anticipated that the Act will result in universal coverage, it has increased the overall portion of the population with coverage. We believe this will result in an increased demand on health care providers, resulting in higher trend for medical services for non-Medicare eligible retirees. (Medicare costs are constrained by Medicare payment mechanisms already in place, plus additional reforms added by PPACA and HCEARA.) The penalty tax was eliminated effective January 1, 2019 and this has effectively eliminated the individual mandate on a Federal level. The individual mandate still can apply at the state level (e.g. Massachusetts since 2006). California adopted the individual mandate effective January 1, 2020. The CBO estimates the impact this will have in 2019 is a decrease of enrollees of 2% of all insureds (18% of enrollees in the individual market) and expects this to grow to 5% (28%) by 2027.

Employer Mandate

Health Care Reform includes various provisions mandating employer coverage for active employees, with penalties for non-compliance. Those provisions do not directly apply to the postemployment coverage included in this valuation.

Section V Actuarial Assumption, Methods, & Considerations

C) Actuarial Considerations (continued)

Medicare Advantage Plans	Effective January 1, 2011, the Law provides for reductions to the amounts that would be provided to Medicare Advantage plans starting in 2011. We considered the effect of these reductions in federal payments to Medicare Advantage plans when setting our trend assumption.
Expansion of Child Coverage to Age 26	Health Care Reform mandates that coverage be offered to any child, dependent or not, through age 26, consistent with coverage for any other dependent. We assume that this change has been reflected in current premium rates. While this plan covers dependents, we do not currently assume non-spouse dependent coverage other than for firefighters. We believe the impact this assumption has on the valuation is immaterial due to the lack of retirees that have had or are expected to have non-spouse dependents for any significant amount of time during retirement.
Elimination of Annual or Lifetime Maximums	Health Care Reform provides that annual or lifetime maximums have to be eliminated for all “essential services.” We assume that current premium rates already reflect the elimination of any historic maximums.
Cadillac Tax (High Cost Plan Excise Tax)	<p>The PPACA legislation added a new High-Cost Plan Excise Tax (also known as the “Cadillac Tax”) starting in calendar year 2022. For valuation purposes, we assumed that the value of the tax will be passed back to the plan in higher premium rates.</p> <ul style="list-style-type: none">• The tax is 40% of the excess of (a) the cost of coverage over (b) the limit. We modeled the cost of the tax by calculating (a) using the working rates projected with trend. We calculated (b) starting with the statutory limits (\$10,200 single and \$27,500 family), adjusted for the following:<ul style="list-style-type: none">○ Limits will increase from 2018 to 2019 by 4.25% (CPI plus 1%);○ Limits will increase after 2019 by 3.25% (CPI); and○ For retirees over age 55 and not on Medicare, the limit is increased by an additional dollar amount of \$1,650 for single coverage and \$3,450 for family coverage. <p>On December 20, 2019 the Secure Act was signed and eliminated the tax effective January 1, 2020.</p>

Section VI Glossary

A) Key Terms

Actuarially Determined Contribution	The annual contribution amount required to fund the plan based on an actuarial funding method. The intent of a funding method is to ensure enough assets would be set aside during the working careers of participants in a plan in order to fully pay all future benefits after participants retire.
Present Value of Future Benefits (PVFB)	The value, as of the valuation date, of the projected benefits payable to all members for their accrued service and their expected future service, discounted to reflect the time value (present value) of money and adjusted for the probabilities of retirement, withdrawal, death and disability
Actuarial Accrued Liability (AAL)	The portion of the actuarial present value of projected benefit payments that is attributed to past period of member service in conformity with the actuarial funding method. The actuarial accrued liability is the liability of the plan sponsor and represents how much assets should be set aside as of the current valuation date.
Normal Cost or Service Cost	The portion of the Present Value of Future Benefits attributed to employee service during the current fiscal year by the actuarial cost method. These terms are used interchangeably.
Unfunded Actuarial Accrued Liability	The amount of the actuarial accrued liability that has not yet been funded
Covered Payroll	Annual compensation paid (or expected to be paid) to active employees covered by an OPEB plan, in aggregate.
Other Postemployment Benefits (OPEB)	Retiree health care benefits and post-employment benefits provided separately from a pension plan (excluding termination offers and benefits).
Actuarial Value of Assets	Usually set equal to the market value of assets as of the valuation date. Sometimes, however, asset smoothing methods are used to reduce the impact of short term market volatility. In these cases the actuarial value of assets can be more or less than the market value. Often a corridor of up to 20% is used to cap how much the actuarial value of assets is more or less than the market value.
Implicit Subsidy	This phenomena arises when actives claims are mixed with pre-Medicare retiree claims to develop a single flat premium that both groups pay for medical coverage. The flat premium does not recognize that retirees generally have higher costs than active employees, thus active employees are subsidizing the retirees.