

TOWN OF LOS GATOS RETIREE HEALTHCARE PLAN

BARTEL SSOCIATES, LLC

June 30, 2021 Actuarial Valuation Final Results

Bartel Associates, LLC

Mary Beth Redding, Vice President Wai Man Yam, Actuarial Analyst Katherine Moore, Associate Actuary June 15, 2022

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BENEFIT SUMMARY

■ Eligibility	 Retire directly from Town under CalPERS (service or disability) Town Council members in CalPERS eligible
Retiree Medical Benefit Tier 1	 Maximum Town contribution is Kaiser Region 1 single premium plus 90% of difference between Kaiser premium for coverage elected (2-party and family) and single premium using: Non-Medicare premium for employees who retired before 2/1/16 Non-Medicare and Medicare premiums for employees who retired on or after 2/1/16 Town contribution uses PEMHCA 5% unequal method Town joined PEMHCA in 1991 Maximum annual increase of \$100 per month - \$1,847.16 for family coverage (B/B/B) for 2021

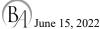




BENEFIT SUMMARY

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■ Retiree Medical Benefit Tier 2	PEMHCA minimum amount for: Employee Group TEA AFSCME POA Management Confidential Town Manager	Hired After 8/22/18 7/1/18 10/1/18 10/1/18 10/1/18 10/1/18 10/1/18			
	Town Attorney Town Council	10/1/18			
■ PEMHCA Minimum Amount	2021 \$143 / month 2022 \$149 / month 2023 \$151 / month (estimated) 2024+ Medical CPI increases				
■ Surviving Spouse Benefit	 Retiree benefit paid to surviving spouse of retiree with CalPERS joint and survivor payment option Retiree benefit paid to spouse of active employee who died while eligible to retire receiving CalPERS survivor benefit 				

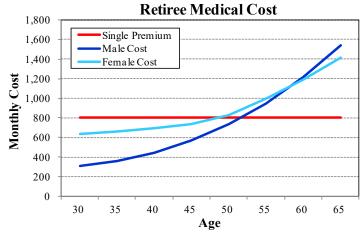




BENEFIT SUMMARY

■ Implicit Subsidy

- Retirees pay blended medical premiums rather than expected medical costs by age and gender
- Active premiums subsidize non-Medicare eligible retiree medical costs ("implicit subsidy")



• Implicit subsidy required by Actuarial Standards of Practice for actuarial valuations for PEMHCA plans after 3/31/15

B₁ June 15, 2022

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BENEFIT SUMMARY



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FUNDING POLICY

■ Funding Policy	 Contribute at least full ADC¹ less cash subsidy and implicit subsidy benefit payments with OPEB trust (CERBT Investment Strategy #1) Cash subsidy and implicit subsidy benefit payments and PEMHCA administrative fees currently paid by the Town and not reimbursed from OPEB trust Unfunded Liability amortized over 16 years for 2022/23 						
■ Pay-As-You-Go Cost (000's)	Fiscal <u>Year</u> 2020/21 2019/20 2018/19 2017/18 2016/17 2015/16 2014/15 2013/14 2012/13	Cash <u>Subsidy</u> \$1,279 1,199 1,104 1,138 1,040 943 859 754 687	Implicit Subsidy \$216 201 195 188 229 253 n/a n/a n/a	PEMHCA <u>Fees</u> \$11 8 8 9 9 n/a n/a n/a n/a	Total PayGo \$1,506 1,408 1,307 1,335 1,278 1,196 859 754 687	Trust Paid \$0 0 0 0 0 0 0 0 0 0	Town Paid \$1,506 1,408 1,307 1,335 1,278 1,196 859 754 687

Actuarially Determined Contribution (ADC) is GASBS 75's terminology for the recommended funding contribution.

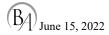


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FUNDING POLICY

■ Town Contributions ('000's)	Fiscal Year	Town PayGo	Trust Prefund	Total Contrib	ARC/ ADC	Discount Rate
	2020/21 2019/20	\$1,506	\$591 1 100	\$2,097	\$1,859	6.75% 6.75%
		1,408	1,100	2,508	2,172	
	2018/19	1,307	1,100	2,407	2,108	6.75%
	2017/18	1,335	1,600	2,935	2,129	7.25%
	2016/17	1,278	2,600	3,878	2,067	7.25%
	2015/16	1,196	1,500	2,696	1,913	7.25%
	2014/15	859	1,300	2,159	1,864	7.25%
	2013/14	754	1,300	2,054	2,619	S&U
	2012/13	687	1,200	1,887	2,492	S&U
	2011/12	636	1,060	1,696	2,129	S&U
	2010/11	581	850	1,431	1,990	S&U
	2009/10	400	550	950	1,953	S&U
	2008/09	346	400	746	1,801	S&U



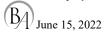


PARTICIPANT SUMMARY

Eligible Participants - June 30, 2021

CalPERS Classification	Misc		Safety		Total	
■ Actives						
 Participating 	88	78%	26	70%	114	76%
Waived Coverage	25	22%	11	30%	_36	24%
• Total Actives	113	100%	37	100%	150^{2}	100%
Average Age	2	45.4	4	12.2	44.6	
Average Town Service		8.0	9.9		8.5	
• Total Payroll (000's)	\$11,229		\$5,324		\$16,553	
■ Retirees						
 Participating 	101	77%	41	79%	142	77%
Waived Coverage	31	23%	<u>11</u>	21%	42	23%
• Total Retirees	132	100%	52	100%	184	100%
Average Age	73.1		63.8		7	0.4
Average Service Retirement Age	59.9		53.7		5	58.6
Average Disabled Retirement Age	49.8		45.8		46.0	
■ Retirees/Actives	11	17%	14	11%	12	3%

² 37 active employees on 6/30/21 are in Tier 2.



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PARTICIPANT SUMMARY

Eligible Participants - June 30, 2019

CalPERS Classification	Misc		Safety		Total	
■ Actives						
 Participating 	87	78%	30	79%	117	79%
Waived Coverage	24	22%	8	21%	32	21%
• Total Actives	111	100%	38	100%	149^{3}	100%
Average Age	2	14.8	2	43.1	44.4	
Average Town Service	8.0		10.7		8.7	
• Total Payroll (000's)	\$10,364		\$5,522		\$15,886	
■ Retirees						
 Participating 	94	74%	36	75%	130	74%
 Waived Coverage 	33	26%	<u>12</u>	25%	<u>45</u>	26%
Total Retirees	127	100%	48	100%	175	100%
Average Age	ĺ ·	72.3	64.6		7	70.2
Average Service Retirement Age	59.9		4	53.4	5	58.6
Average Disabled Retirement Age	49.8		46.3		46.5	
■ Retirees/Actives	11	4%	12	26%	11	7%

 $[\]overline{^3}$ 10 active employees on 6/30/19 are in Tier 2.





PARTICIPANT SUMMARY

Participant Reconciliation

		Retirees					
Participants	Actives	Service	Disabled	Survivors	Total		
■ June 30, 2019	149	139	17	19	175		
• Terminations ⁴	(13)	-	-	-	-		
• New Retirees & Survivors	(15)	13	2	0	15		
• Retiree Deaths with Survivor	-	(1)	(0)	1	-		
• Retiree Deaths without Survivor ⁵	-	(2)	(0)	(4)	(6)		
New Participants	29	-	-	-	-		
■ June 30, 2021	150	149	19	16	184		

⁴ Active employees reported for the 6/30/19 valuation and not reported for the 6/30/21 valuation were assumed to be terminations or deaths before retirement.

⁵ Retirees reported for the 6/30/19 valuation and not reported for the 6/30/21 valuation were assumed to be deaths without covered survivors.

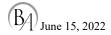


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PARTICIPANT SUMMARY



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ASSETS

Market Value of Plan Assets (Trust Only) (Amounts in 000's)

Market Value of Assets (MVA)	2017/18	2018/19	2019/20	2020/21	Projected 2021/22
■ MVA at Beginning of Year	\$13,601	\$16,277	\$18,380	\$20,124	\$26,235
• Trust Prefunding Contributions	1,600	1,100	1,100	591	149 ⁶
• Investment Earnings	1,088	1,017	660	5,539	1,650
Benefit Payments	0	0	0	0	0
• Investment Expenses	(5)	(6)	(7)	(8)	(11)
• CERBT Admin Expenses	(7)	(8)	(9)	(11)	(13)
■ MVA at End of Year	16,277	18,380	20,124	26,235	28,009
■ Estimated Annual Return	8.0%	6.2%	3.6%	27.5%	6.25%

⁶ Provided by the Town



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ASSETS

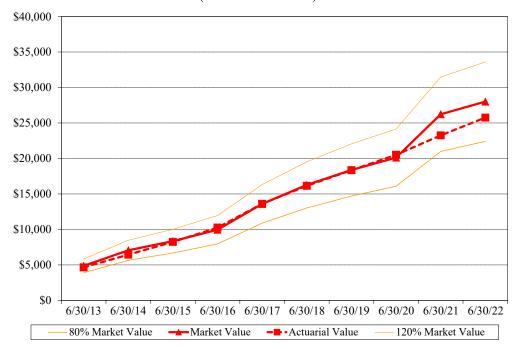
Actuarial Value of Plan Assets (AVA) (Amounts in 000's)

	Actual 6/30/21	Projected 6/30/22
■ Market Value of Assets	\$26,235	\$28,009
■ Unrecognized (Gain)/Loss		
• 1 year prior – 80%	(3,338)	-
• 2 years prior – 60%	353	(2,503)
• 3 years prior – 40%	35	235
• 4 years prior – 20%	(33)	18
■ Adjustment to MVA	(2,983)	(2,250)
■ AVA	23,252	25,759
■ Ratio: AVA/MVA	89%	92%



ASSETS

Historical Plan Assets (Amounts in 000's)





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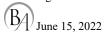


VALUATION RESULTS

Actuarial Obligations

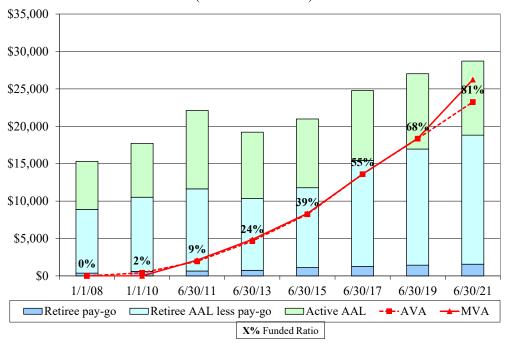
Actuarial Obligations (Amounts in 000's)	Actual 6/30/19	Actual 6/30/21	Projected 6/30/22
■ Discount Rate	6.75%	6.25%	6.25%
■ Present Value of Benefits			
Actives (future retirees)	\$19,848	\$18,251	
• Retirees	<u>16,952</u>	18,809	
• Total	36,800	37,060	
■ Actuarial Accrued Liability			
 Actives (future retirees) 	10,065	9,911	
• Retirees	<u>16,952</u>	<u>18,809</u>	
• Total	27,017	28,720	\$29,913
■ Actuarial (Smoothed) Asset Value	<u>18,341</u>	<u>23,252</u>	<u>25,759</u>
■ Unfunded AAL	8,676	5,468	4,154
■ Funded Percentage	67.9%	81.0%	86.1%
■ Normal Cost ⁷ (2020/21 and 2022/23)	1,203	n/a	1,022

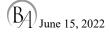
⁷ Including estimated administrative expenses.





Funded Status (Amounts in 000's)





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VALUATION RESULTS

Actuarial Obligations June 30, 2021

Actuarial Obligations	Cash	Implicit	Total
(Amounts in 000's)	Subsidy	Subsidy	Subsidy
■ Discount Rate	6.25%	6.25%	6.25%
■ Present Value of Benefits			
 Actives (future retirees) 	\$14,329	\$3,922	\$18,251
• Retirees	17,133	<u>1,676</u>	<u>18,809</u>
• Total	31,462	5,598	37,060
■ Actuarial Accrued Liability			
 Actives (future retirees) 	7,817	2,094	9,911
• Retirees	17,133	<u>1,676</u>	18,809
• Total	24,950	3,770	28,720
■ Actuarial (Smoothed) Asset Value ⁸	20,200	3,052	<u>23,252</u>
■ Unfunded AAL	4,750	718	5,468
■ Normal Cost 2022/23 ⁹	814	208	1,022

⁸ Actuarial Value of Assets allocated to cash subsidy and implicit subsidy in proportion to Actuarial Accrued Liability.
9 Including estimated administrative expenses.





Actuarial Obligations by Tier – Actives Only June 30, 2021

■ Benefit Tier	Tier 1	Tier 2	Total
■ Active Count	113	37	150
■ Projected 2022/23 Active			
Employee Payroll	\$14,583,000	\$2,893,000	\$17,476,000
■ 2022/23 Normal Cost	\$937,000	\$67,000	\$1,004,000
■ Normal Cost as % of Payroll	6.4%	2.3%	5.7%
■ Actuarial Accrued Liability	\$9,866,000	\$45,000	\$9,911,000





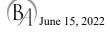
VALUATION RESULTS

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Estimated Gains & Losses

Actuarial Gains & Losses	Accrued	(Assets)	Unfunded
(Amounts in 000's)	Liability	(AVA)	(UAAL)
■ 6/30/19 Actual Amounts	\$27,017	\$(18,341)	\$ 8,676
■ 6/30/21 Expected Amounts	30,155	(21,949)	8,206
■ Experience Losses (Gains)			
• Actual versus expected premiums ¹⁰	(3,019)	-	(3,019)
• Demographic, primarily more retirees than expected	530	-	530
• Asset loss (gain)	-	(1,303)	(1,303)
■ Assumption Changes			
 Implicit subsidy added for Tier 1 Medicare eligible 	382		382
 Mortality improvement scale updated 	(88)	-	(88)
 CalPERS new demographic assumptions 	(91)	-	(91)
 Lower Kaiser Medicare healthcare trend 	(599)	-	(599)
 Retiree & family participation rates at retirement 	395	-	395
• Inflation, discount rate & salaries decrease 25 b.p.	282	-	282
• Discount rate lowered additional 25 b.p.	<u>773</u>		773
■ Total Changes	(1,435)	(1,303)	(2,738)
■ 6/30/21 Actual Amounts	28,720	(23,252)	5,468

¹⁰ Includes the impact of actual versus expected premiums and changes in claims aging factors.





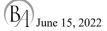
Actuarially Determined Contributions (ADC)¹¹

(Amounts in 000's)

Actuarially Determined	6/30/19 V	Valuation	6/30/21 V	Valuation
Contribution	2020/21	2021/22	2022/23	2023/2412
■ Discount Rate	6.75%	6.75%	6.25%	6.25%
■ ADC - \$				
 Normal Cost 	\$1,191	\$1,171	\$1,004	\$1,001
 Administrative Expenses 	12	13	18	19
 UAAL Amortization 	<u>656</u>	<u>676</u>	_350	<u>407</u>
Total ADC	1,859	1,860	1,372	1,427
■ Projected Payroll	16,853	17,359	17,476	17,957
■ ADC - %				
 Normal Cost 	7.0%	6.7%	5.7%	5.6%
 Administrative Expenses 	0.1%	0.1%	0.1%	0.1%
 UAAL Amortization 	3.9%	3.9%	2.0%	2.3%
• Total ADC%	11.0%	10.7%	7.9%	7.9%
■ UAAL Amortization Years	18	17	16	15

¹¹ 1-year lag period between valuation date and first fiscal year ADC. Due to rounding, the numbers may not add.

¹² Assumes Town requests cash and implicit subsidy benefit payment reimbursements from the trust in 2022/23 and makes no trust contributions in 2022/23.



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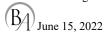


VALUATION RESULTS

Actuarially Determined Contribution (ADC)¹³ 2022/23 Fiscal Year

Actuarially Determined Contribution	Cash Subsidy	Implicit Subsidy	Total Subsidy
■ Discount Rate	6.25%	6.25%	6.25%
■ ADC - \$			
Normal Cost	\$796	\$208	\$1,004
 Administrative Expenses 	18	_	18
UAAL Amortization	303	<u>47</u>	350
• Total ADC	1,117	255	1,372
■ Projected Payroll	17,476	17,476	17,476
■ ADC - %			
 Normal Cost 	4.6%	1.2%	5.7%
 Administrative Expenses 	0.1%	0.0%	0.1%
 UAAL Amortization 	1.7%	0.3%	<u>2.0%</u>
Total ADC	6.4%	1.5%	7.9%
■ UAAL Amortization Years	16	16	16

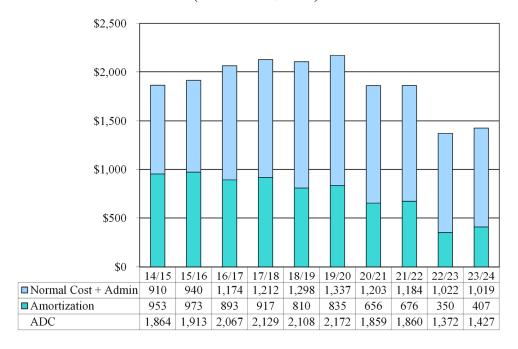
¹³ Due to rounding the numbers may not add.





Actuarially Determined Contributions (ADC)

(Amounts in \$000's)





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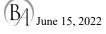


VALUATION RESULTS

Benefit Payment Projection

Fiscal	Cash Subsidy ¹⁴				Total
Year	Current	Current	Total	Implicit	Benefit
End	Actives	Retirees	Cash	Subsidy	Payments
2023	\$114	\$1,308	\$1,422	\$201	\$1,623
2024	194	1,299	1,493	181	1,674
2025	278	1,290	1,568	176	1,744
2026	362	1,320	1,682	214	1,896
2027	457	1,326	1,783	239	2,022
2028	564	1,315	1,879	266	2,144
2029	656	1,328	1,984	332	2,316
2030	726	1,308	2,034	340	2,374
2031	820	1,248	2,068	324	2,393
2032	942	1,260	2,202	444	2,646

¹⁴ Does not include estimated PEMHCA administrative fees.





Total Payments Projection (Amounts in 000's)

Fiscal	Cash	PEMHCA	Implicit	Total	Percent
Year	Benefit	Admin	Subsidy	Benefit	of
End	Payments	Expense	Payments	Payments	Payroll
2023	\$1,422	\$4	\$201	\$1,627	9.3%
2024	1,493	4	181	1,678	9.3%
2025	1,568	4	176	1,748	9.5%
2026	1,682	5	214	1,901	10.0%
2027	1,783	5	239	2,027	10.4%
2028	1,879	5	266	2,149	10.7%
2029	1,984	6	332	2,322	11.3%
2030	2,034	6	340	2,380	11.3%
2031	2,068	6	324	2,399	11.0%
2032	2,202	7	444	2,653	11.9%





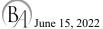
VALUATION RESULTS

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Contribution Projection - ADC Funding

Fiscal	Actuarially Determined Contribution				1	Town Con	tributions	15	
Year	Normal	UAAL		Projected	ADC	Cash	Implicit	Trust	Total
End	Cost	Amort	ADC	Payroll	% Pay	Subsidy	Subsidy	Funding	Contrib
2023	\$1,022	\$350	\$1,372	\$17,476	7.9%	\$1,426	\$201	\$(1,627)	\$-
2024	1,019	407	1,427	17,957	7.9%	1,497	181	(70)	1,608
2025	1,002	325	1,327	18,450	7.2%	1,572	176	(245)	1,503
2026	983	228	1,211	18,958	6.4%	1,687	214	(476)	1,425
2027	962	211	1,173	19,479	6.0%	1,788	239	(615)	1,412
2028	942	189	1,130	20,015	5.6%	1,884	266	(754)	1,396
2029	926	160	1,086	20,565	5.3%	1,990	332	(904)	1,418
2030	906	119	1,025	21,131	4.9%	2,040	340	(1,015)	1,365
2031	885	70	955	21,712	4.4%	2,074	324	(1,119)	1,279
2032	869	16	885	22,309	4.0%	2,209	444	(1,324)	1,329

¹⁵ Projection assumes Town requests cash and implicit subsidy benefit payment reimbursements from the trust in 2022/23 and thereafter contributes the ADC to the trust and requests reimbursements for cash benefit payments. Normal cost includes expenses partly based on asset value. Cash subsidy includes PEMHCA administrative expenses. Negative trust funding indicates reimbursement requested.





Funded Status Projection - ADC Funding (Amounts in 000's)

Fiscal	Actuarial Value of Assets (AVA) 16					Fui	nded Stat	us	
Year End	BOY AVA	Trust Funding	Cash Subsidy Reimbursed	Implicit Subsidy Payments	Expected Earnings	EOY AVA	BOY AAL	BOY UAAL ¹⁷	BOY Fund%
2023	\$25,759		\$(1,426)	\$(201)	\$2,385	26,517	\$29,913	\$4,154	86%
2024	26,517	-	(70)	-	2,411	28,858	31,113	4,596	85%
2025	28,858	-	(245)	-	2,626	31,239	32,333	3,475	89%
2026	31,239	-	(476)	-	1,885	32,648	33,539	2,300	93%
2027	32,648	-	(615)	-	1,968	34,001	34,643	1,995	94%
2028	34,001	-	(754)	-	2,050	35,297	35,664	1,663	95%
2029	35,297	-	(904)	-	2,127	36,520	36,602	1,305	96%
2030	36,520	-	(1,015)	-	2,201	37,706	37,404	884	98%
2031	37,706	-	(1,119)	-	2,274	38,861	38,176	470	99%
2032	38,861	-	(1,324)	-	2,342	39,879	38,955	94	100%

¹⁶ Projection assumes Town requests cash and implicit subsidy benefit payment reimbursements from the trust in 2022/23 and thereafter contributes the ADC to the trust and requests reimbursements for cash benefit payments.

¹⁷ UAAL is amortized over 16 years for 2022/23 and decreases by 1 year for each year thereafter.



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VALUATION RESULTS

CERBT Investment Options

■ 2018 Asset Allocation

	Strategy 1	Strategy 2	Strategy 3
Global Equity	59%	40%	22%
Fixed Income	25%	43%	49%
TIPS	5%	5%	16%
Commodities	3%	4%	5%
REITs	8%	8%	8%
Total	100%	100%	100%

■ **2022 Asset Allocation** (approved March 14, 2022)

	Strategy 1	Strategy 2	Strategy 3
Global Equity	49%	34%	23%
Fixed Income	23%	41%	51%
TIPS	5%	5%	9%
Commodities	3%	3%	3%
REITs		<u> 17%</u>	<u>14%</u>
Total	100%	100%	100%





Discount Rate

- Future expected returns
 - Stochastic simulations of geometric average returns over 20 years
 - 5,000 trials
 - 2.50% inflation assumption
 - Projections based on 8 independent Investment Advisors 2021 10-year Capital Market Assumptions and where available, investment advisors long-term trends
 - Confidence levels (based on 2022 asset allocations):

	Strategy 1	Strategy 2	Strategy 3
50% Confidence Level	6.25%	5.75%	5.25%
55% Confidence Level	6.00%	5.50%	5.00%
60% Confidence Level	5.75%	5.25%	4.75%

- Town currently in Strategy 1
 - Recommend 6.25% discount rate



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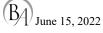


VALUATION RESULTS

CERBT Prefunding

■ Investment Strategy	CERBT #1	CERBT #2	CERBT #3
■ Discount Rate	6.25%	5.75%	5.25%
■ Present Value of Benefits	\$37,060	\$39,876	\$43,055
■ Funded Status - 6/30/21			
 Actuarial Accrued Liability 	28,720	30,376	32,194
 Actuarial Value of Assets 	<u>23,252</u>	<u>23,252</u>	<u>23,252</u>
Unfunded AAL	5,468	7,124	8,942
• Funded Percentage	81.0%	76.5%	72.2%
■ ADC 2022/23			
• Normal Cost + Admin. Expenses	1,022	1,117	1,222
• UAAL Amortization ¹⁸	<u>350</u>	<u>476</u>	605
• Total ADC	1,372	1,593	1,827
■ ADC% 2022/23	7.9%	9.1%	10.5%

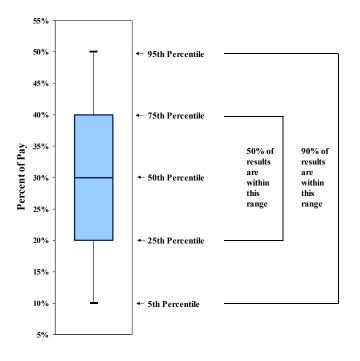
¹⁸ Amortized as a level percentage of payroll over a 16-year period.





BARTEL ASSOCIATES OPEB DATABASE

Bartel Associates OPEB Database Sample Percentile Graph



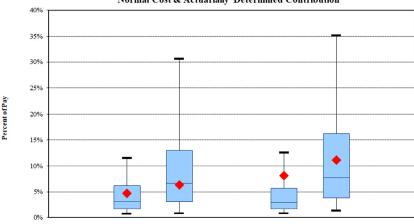




BARTEL ASSOCIATES OPEB DATABASE

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Bartel Associates OPEB Database Normal Cost & Actuarially Determined Contribution



	Miscell	aneous	Sat	fety
	NC	ADC	NC	ADC
95th Percentile	11.6%	30.7%	12.6%	35.2%
75th Percentile	6.2%	13.0%	5.7%	16.3%
50th Percentile	3.2%	6.7%	2.9%	7.7%
25th Percentile	1.8%	3.1%	1.7%	3.9%
5th Percentile	0.8%	0.9%	0.9%	1.4%
			,	
Percent of Pay (♦)	4.7%	6.3%	8.2%	11.1%
Percentile	67%	52%	87%	65%

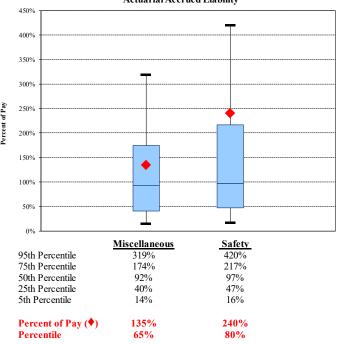
Discount Rate = 6.25%, Average Amortization Period = 16.0 Years





BARTEL ASSOCIATES OPEB DATABASE

Bartel Associates OPEB Database Actuarial Accrued Liability



Discount Rate = 6.25%

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ACTUARIAL CERTIFICATION

This report presents the Town of Los Gatos Retiree Healthcare Plan ("Plan") June 30, 2021 actuarial valuation. The purpose of this valuation is to calculate the June 30, 2021 funded status and 2022/23 and 2023/24 Actuarially Determined Contributions and provide the basis for the Town's GASBS 75 accounting information report for the fiscal years ending on June 30, 2022 and June 30, 2023. The report may not be appropriate for other purposes.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the assumptions; changes in assumptions; changes expected as part of the natural progression of the plan; and changes in plan provisions or applicable law. Actuarial models necessarily rely on the use of estimates and are sensitive to changes. Small variations in estimates may lead to significant changes in actuarial measurements. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of such measurements.

Information under Governmental Accounting Standards Board Statement No. 75 (GASBS 75) has been provided under a separate report.

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

To the best of our knowledge, this report is complete and accurate and has been completed using generally accepted actuarial principles and practices. As members of the American Academy of Actuaries meeting the Academy's Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,

Many Uzbek Redding

Mary Elizabeth Redding, FSA, EA, FCA,MAAA Vice President Bartel Associates, LLC June 15, 2022 Kathorine Moore

Katherine Moore, ASA, MAAA Associate Actuary Bartel Associates, LLC June 15, 2022





EXHIBITS

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Actuarial Methods	E-27
Definitions	E-29

B₁ June 15, 2022



PREMIUMS

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2021 PEMHCA Monthly Premiums Region 1

	Non-I	Medicare E	Eligible	Medicare Eligible		
Medical Plan	Single	2-Party	Family	Single	2-Party	Family
Anthem Select	\$925.60	\$1,851.20	\$2,406.56	\$383.37	\$766.74	\$1,150.11
Anthem Traditional	1,307.86	2,615.72	3,400.44	383.37	766.74	1,150.11
Blue Shield Access+	1,170.08	2,340.16	3,042.21	n/a	n/a	n/a
Health Net SmartCare	1,120.21	2,240.42	2,912.55	n/a	n/a	n/a
Kaiser	813.64	1,627.28	2,115.46	324.48	648.96	973.44
UnitedHealthcare	941.17	1,882.34	2,447.04	311.56	623.12	934.68
Western Health Adv.	757.02	1,514.04	1,968.25	n/a	n/a	n/a
PERS Choice	935.84	1,871.68	2,433.18	349.97	699.94	1,049.91
PERS Select	566.67	1,133.34	1,473.34	349.97	699.94	1,049.91
PERSCare	1,294.69	2,589.38	3,366.19	381.25	762.50	1,143.75
PORAC	799.00	1,725.00	2,199.00	513.00	1,022.00	1,635.00



PREMIUMS

2022 PEMHCA Monthly Premiums Region 1

	Non-N	Aedicare E	ligible	Medicare Eligible		
Medical Plan	Single	2-Party	Family	Single	2-Party	Family
Anthem Select	\$1,015.81	\$2,031.62	\$2,641.11	\$360.19	\$720.38	\$1,080.57
Anthem Traditional	1,304.00	2,608.00	3,390.40	360.19	720.38	1,080.57
Blue Shield Access+	1,116.01	2,232.02	2,901.63	353.11	706.22	1,059.33
Health Net SmartCare	1,153.00	2,306.00	2,997.80	n/a	n/a	n/a
Kaiser	857.06	1,714.12	2,228.36	302.53	605.06	907.59
UnitedHealthcare	1,020.28	2,040.56	2,652.73	294.65	589.30	883.95
UnitedHealthcare Edge	n/a	n/a	n/a	347.21	694.42	1,041.63
Western Health Adv.	741.26	1,482.52	1,927.28	314.94	629.88	944.82
PERS Platinum	1,057.01	2,114.02	2,748.23	381.94	763.88	1,145.82
PERS Gold	701.23	1,402.46	1,823.20	377.41	754.82	1,132.23
PORAC	799.00	1,725.00	2,219.00	461.00	919.00	1,471.00







PARTICIPANT STATISTICS

Medical Plan Participation Miscellaneous Non-Waived Participants

	Ju	ine 30, 201	19	Ju	ine 30, 202	21
		Reti	Retirees		Reti	rees
Medical Plan	Actives	< 65	≥ 65	Actives	< 65	≥ 65
Anthem HMO Select	15%	13%	1%	13%	14%	3%
Anthem HMO Traditional	3%	4%	0%	2%	0%	0%
Blue Shield Access+	0%	0%	0%	0%	0%	0%
Health Net SmartCare	1%	0%	0%	0%	0%	0%
Kaiser Permanente	63%	42%	30%	65%	41%	29%
UnitedHealthcare	0%	0%	16%	0%	0%	15%
Western Health Advantage	0%	0%	0%	0%	0%	0%
PERS Choice	17%	33%	30%	16%	36%	29%
PERS Select	1%	4%	0%	3%	0%	3%
PERSCare	0%	4%	23%	1%	9%	21%
Total	100%	100%	100%	100%	100%	100%





Medical Plan Participation Safety Non-Waived Participants

	June 30, 2019			June 30, 2021		
		Reti	Retirees		Reti	rees
Medical Plan	Actives	< 65	≥65	Actives	< 65	≥ 65
Anthem HMO Select	10%	10%	0%	8%	5%	5%
Anthem HMO Traditional	0%	0%	7%	0%	0%	0%
Blue Shield Access+	0%	0%	0%	0%	0%	0%
Health Net SmartCare	0%	0%	0%	0%	0%	0%
Kaiser Permanente	57%	33%	20%	54%	36%	21%
UnitedHealthcare	0%	0%	0%	0%	0%	0%
Western Health Advantage	0%	0%	0%	0%	0%	0%
PERS Choice	3%	24%	20%	4%	23%	21%
PERS Select	0%	0%	7%	0%	0%	5%
PERSCare	0%	0%	13%	4%	0%	11%
PORAC	30%	33%	33%	30%	36%	37%
Total	100%	100%	100%	100%	100%	100%





PARTICIPANT STATISTICS

E-4

Active Medical Coverage Miscellaneous

Medical Plan	Single	2-Party	Family	Cash	Total
Anthem HMO Select	3	3	5		11
Anthem HMO Traditional	2				2
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser Permanente	25	8	24		57
UnitedHealthcare					0
Western Health Advantage					0
PERS Choice	5	3	6		14
PERS Select	1	1	1		3
PERSCare	1				1
Waived				25	25
Total	37	15	36	25	113





Active Medical Coverage Safety

Medical Plan	Single	2-Party	Family	Cash	Total
Anthem HMO Select		1	1		2
Anthem HMO Traditional					0
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser Permanente	5	2	7		14
UnitedHealthcare					0
Western Health Advantage					0
PERS Choice	1				1
PERS Select					0
PERSCare	1				1
PORAC		2	6		8
Waived				11	11
Total	7	5	14	11	37







PARTICIPANT STATISTICS

Retiree Medical Coverage Miscellaneous - Under Age 65

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem HMO Select	2		1		3
Anthem HMO Traditional					0
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser Permanente	4	3	2		9
UnitedHealthcare					0
Western Health Advantage					0
PERS Choice	5	3			8
PERS Select					0
PERSCare	1	1			2
Waived				3	3
Total	12	7	3	3	25





Retiree Medical Coverage Safety - Under Age 65

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem HMO Select			1		1
Anthem HMO Traditional					0
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser Permanente	3	3	2		8
UnitedHealthcare					0
Western Health Advantage					0
PERS Choice	2	1	2		5
PERS Select					0
PERSCare					0
PORAC	2	3	3		8
Waived				4	4
Total	7	7	8	4	26







PARTICIPANT STATISTICS

<u>Retiree Medical Coverage</u> Miscellaneous - Age 65 & Over

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem HMO Select		1	1		2
Anthem HMO Traditional					0
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser Permanente	17	6			23
UnitedHealthcare	6	6			12
Western Health Advantage					0
PERS Choice	11	12			23
PERS Select		1	1		2
PERSCare	10	7			17
Waived				28	28
Total	44	33	2	28	107





Retiree Medical Coverage Safety - Age 65 & Over

Medical Plan	Single	2-Party	Family	Waived	Total
Anthem HMO Select		1			1
Anthem HMO Traditional					0
Blue Shield Access+					0
Health Net SmartCare					0
Kaiser Permanente	2	2			4
UnitedHealthcare					0
Western Health Advantage					0
PERS Choice	3	1			4
PERS Select		1			1
PERSCare	1		1		2
PORAC	2	5			7
Waived				7	7
Total	8	10	1	7	26







PARTICIPANT STATISTICS

Actives by Age and Town Service Miscellaneous

	Town Service							
Age	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	Total
< 25		1						1
25-29	4	7	2					13
30-34		8	5					13
35-39	1	4	6	1				12
40-44	1	6	5	1	2	1		16
45-49		2	6	3	2	2		15
50-54	2	4	4	3	2	1		16
55-59	1	2	5	2	4			14
60-64		4	3			1	1	9
≥ 65	1					1	2	4
Total	10	38	36	10	10	6	3	113





Actives by Age and Town Service Safety

		Town Service						
Age	< 1	1-4	5-9	10-14	15-19	20-24	≥ 25	Total
< 25		2						2
25-29	2	2						4
30-34	1	2	2					5
35-39		1		3				4
40-44			1	1	1			3
45-49	1	1	5		1	5		13
50-54		1			1	1		3
55-59						1		1
60-64								0
≥ 65		1			1			2
Total	4	10	8	4	4	7	0	37







PARTICIPANT STATISTICS

Retiree Medical Coverage by Age Group Miscellaneous

Age	Single	2-Party	Family	Waived	Total
Under 50					0
50-54	1				1
55-59	2	1	2		5
60-64	9	6	1	3	19
65-69	12	8	2	3	25
70-74	11	11		8	30
75-79	11	9		5	25
80-84	6	2		7	15
85+	4	3		5	12
Total	56	40	5	31	132





Retiree Medical Coverage by Age Group Safety

Age	Single	2-Party	Family	Waived	Total
Under 50			4	1	5
50-54	1	1	3	3	8
55-59	1	4	1		6
60-64	5	2			7
65-69	2	5	1	2	10
70-74	2	3		1	6
75-79	2	2		2	6
80-84	2			2	4
85+					0
Total	15	17	9	11	52





ACTUARIAL ASSUMPTIONS

E-14

Assumption	June 30, 2019 Valuation	June 30, 2021 Valuation
■ Valuation Date	 June 30, 2019 2020/21 and 2021/22 ADCs ADC calculated as of beginning of the year with interest to end of year 1-year lag period between valuation date and first fiscal year ADC 	 June 30, 2021 2022/23 and 2023/24 ADCs ADC calculated as of beginning of the year with interest to end of year 1-year lag period between valuation date and first fiscal year ADC
■ Funding Policy	 Prefund full ADC less cash and implicit subsidy benefit payments with CERBT #1 Benefit payments currently made from Town assets 	• Same
■ General Inflation	2.75% annuallyBasis for aggregate payroll and discount rate assumptions	 2.50% annually Basis for aggregate payroll and discount rate assumptions





Assumption	June 30, 2019 Valuation	June 30, 2021 Valuation
■ Discount Rate	• 6.75%	• 6.25%
■ Aggregate Payroll Increases	 3.00% annually Inflation plus 0.25% For Normal Cost calculation and UAAL amortization 	 2.75% annually Inflation plus 0.25% For Normal Cost calculation and UAAL amortization
■ Merit Payroll Increases	 CalPERS 1997-2015 Experience Study Added to aggregate payroll increase assumption for Normal Cost calculation 	 CalPERS 2000-2019 Experience Study Added to aggregate payroll increase assumption for Normal Cost calculation
■ Administration Expenses	 CERBT - 0.05% of assets added to Normal Cost PEMHCA - 0.27% of retiree premium added to Normal Cost (2019/20 PEMHCA administrative fee) 	 CERBT - 0.05% of assets included in ADC PEMHCA - 0.25% of retiree premium included in ADC (2021/22 PEMHCA administrative fee)





ACTUARIAL ASSUMPTIONS

E-16

Assumption	June 30, 2019 Valuation			June 3	30, 2021 V	Valuati	on
■ Medical Trend	Year 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031-2035 2036-2045 2046-2055 2056-2065 2066-2075 2076+	Increase from Non-Medicare n/a Premin Premin 7.25% 7.00% 6.75% 6.50% 6.25% 6.00% 5.80% 5.60% 5.40% 5.20% 5.05% 4.90% 4.75% 4.60% 4.30% 4.00%	Medicare Medicare	Year 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031-2035 2036-2045 2046-2055 2066-2075 2076+	Increase f Non Medicare Actua		r Year icare Other





Assumption	June 30, 2019 Valuation	June 30, 2021 Valuation
■ Medical Trend (continued)	■ n/a	■ PEMHCA medical premiums after 2022 and estimated claims after 2021 do not take into account buy-downs (CalPERS subsidizations of premium rates from reserves). 19
■ Mortality, Termination, Disability	 CalPERS 1997-2015 Experience Study Mortality Improvement Scale 2019 	 CalPERS 2000-2019 Experience Study Mortality Improvement Scale 2021
■ Service Retirement	• CalPERS 1997-2015 Experience Study	• CalPERS 2000-2019 Experience Study

Applies to Basic plans: Anthem Select, Anthem Traditional, Blue Shield Trio, Health Net Salud y Mas, UnitedHealthcare Alliance, Western Health Advantage, and PERS Platinum; Medicare Advantage plan: Anthem Medicare Preferred; Medicare Supplement plans: PERS Platinum and PERS Gold.



E-18



ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2019 Valuation	June 30, 2021 Valuation
■ Participation at Retirement	 Tier 1 Actives: Participating - 100% Waived - 80% Tier 2 Actives: Participating - 60% Waived: Agency service < 3 months - 60% Agency service ≥ 3 months - 40% Retirees: Participating - 100% Waived: 65 - 20% elect at 65 ≥ 65 - 0% 	 Tier 1 Actives: Participating - 100% Waived - 100% Tier 2 Actives: Participating - 60% Waived - 40% Retirees: Participating - 100% Waived: < 65 - 0% elect at 65 ≥ 65 - 0%





Assumption	June 30, 2019 Valuation	June 30, 2021 Valuation
■ Medical Plan at Retirement	 Participating: Current plan election UnitedHealthcare when eligible for Medicare if Medicare eligible plan not available for current plan election Waived - Kaiser 	 Same Participants with PERS Choice and PERSCare move to PERS Platinum Participants with PERS Select move to PERS Gold
■ Marital Status at Retirement	 Actives: Married if currently elect 2-party or family coverage Waived - 80% married Retirees - based on spouse information if provided 	• Same





ACTUARIAL ASSUMPTIONS

E-20

Assumption	June 30, 2019 Valuation	June 30, 2021 Valuation
Retiree Coverage Election at Retirement	 Covered - based on current coverage election Waived Single coverage if assumed to not be married 2-party coverage if assumed to be married 	• Same
■ Spouse Age	 Actives - males 3 years older than females Retirees - males 3 years older than females if spouse birth date not provided 	• Same





Assumption	June 30, 2019 Valuation	June 30, 2021 Valuation
■ Spouse & Dependent Coverage at Retirement	 Surviving spouse coverage - 100% of married retirees elect CalPERS joint and survivor annuity Family coverage: Current actives: Misc - 5% until age 65 Safety - 25% until age 65 Current retirees Current coverage until 65 No coverage after age 65 	 Surviving spouse coverage - 100% of married retirees elect CalPERS joint and survivor annuity Family coverage: Current Tier 1 actives: Misc - 10% until age 65 Safety - 35% until age 65 Current retirees Current coverage until 65 No coverage after age 65
■ Medicare Eligibility	 100% eligible for Medicare at age 65 Medicare eligible retirees will elect Part B coverage 	• Same





E-22

ACTUARIAL ASSUMPTIONS

Assumption	June 30, 2021 Valuation								
■ Medical Claims	Sample estimated monthly claims costs:								
Costs 2022	Region 1								
Calendar Year	Anthem								
	Anthem Select Traditional Kaiser UnitedHealthcare						ealthcare		
	<u>Age</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
	25	\$423	\$804	\$526	\$1,001	\$347	\$661	\$424	\$807
	35	495	832	616	1,035	407	683	497	835
	45	686	896	854	1,115	564	736	688	899
	55	1,134	1,138	1,412	1,416	932	934	1,138	1,142
	60 1,535 1,387 1,911 1,727 1,261 1,139 1,541 1,392						1,392		
	64	1,881	1,615	2,342	2,010	1,545	1,326	1,888	1,621
	65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a





June 30, 2021 Valuation							
Sample estimated monthly claims costs:							
•							
			RAC				
<u>Age</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	
25	\$364	\$715	\$285	\$573	\$324	\$643	
35	429	742	337	595	383	666	
45	604	803	481	646	542	720	
55	1,031	1,035	836	840	928	929	
60	1,420	1,277	1,162	1,042	1,278	1,147	
64	1,750	1,492	1,436	1,220	1,576	1,341	
65	378	329	379	330	436	377	
70	420	364	421	365	484	417	
75	452	393	453	394	521	450	
80	468	410	469	412	540	470	
	Age 25 35 45 55 60 64 65 70 75	Age M 25 \$364 35 429 45 604 55 1,031 60 1,420 64 1,750 65 378 70 420 75 452	● Sample estimated m PERS Platinum Age M F 25 \$364 \$715 35 429 742 45 604 803 55 1,031 1,035 60 1,420 1,277 64 1,750 1,492 65 378 329 70 420 364 75 452 393	● Sample estimated monthly control of the state of the s	Age M F M F 25 \$364 \$715 \$285 \$573 35 429 742 337 595 45 604 803 481 646 55 1,031 1,035 836 840 60 1,420 1,277 1,162 1,042 64 1,750 1,492 1,436 1,220 65 378 329 379 330 70 420 364 421 365 75 452 393 453 394	Age M F M F M 25 \$364 \$715 \$285 \$573 \$324 35 429 742 337 595 383 45 604 803 481 646 542 55 1,031 1,035 836 840 928 60 1,420 1,277 1,162 1,042 1,278 64 1,750 1,492 1,436 1,220 1,576 65 378 329 379 330 436 70 420 364 421 365 484 75 452 393 453 394 521	● Sample estimated monthly claims costs: PERS Platinum





ACTUARIAL ASSUMPTIONS

E-24

Assumption	June 30, 2021 Valuation			
■ Basis for Assumptions	 2021 CalPERS experience study covering 2000 to 2019 experience Mortality improvement based on Society of Actuaries table Inflation based on the Plan's very long time horizon Participation and coverage take into account Plan experience Capital market assumptions based on 2021 Bartel Associates stochastic analysis, taking into account capital market assumptions of investment advisory firms PEMHCA medical claims costs were developed by Axene Health Partners based on demographic data for the CalPERS health plans provided by CalPERS and Axene's proprietary AHP Cost Model. Short-term medical trend developed in consultation with Axene Health Partners' healthcare actuaries Long-term medical trend developed using Society of Actuaries' Getzen Model of Long-Run Medical Cost Trends 			





Assumption	June 30, 2021 Valuation	
■ Data Quality	Our valuation used census data provided by the Town and CalPERS OPEB data extract. We reviewed the data for reasonableness and resolved any questions with the Town. We believe the resulting data can be relied on for all purposes of this valuation without limitation.	
Actuarial Modeling	■ Our valuation was performed using and relying on ProVal, an actuarial model leased from WinTech. Our use of ProVal is consistent with its intended purpose. We have reviewed and understand ProVal and its operation, sensitivities and dependencies	
■ COVID-19	■ No adjustments to the assumptions have been made for COVID-19 since there is not yet enough data to evaluate the future impacts	





ACTUARIAL METHODS

E-26

Method	June 30, 2019 Valuation	June 30, 2021 Valuation
■ Cost Method	Entry Age NormalNormal Cost is a level percentage of payroll	• Same
■ Actuarial Value of Assets	 Investment gains and losses spread over a 5-year rolling period Not less than 80% nor more than 120% of market value 	 Investment gains and losses spread over a 5-year fixed period Not less than 80% nor more than 120% of market value
■ Amortization Method	• Level percent of payroll	• Same
■ Amortization Periods	 30-year fixed (closed) period for 2008/09 ARC 18-year fixed (closed) period for 6/30/20 projected UAAL for 2020/21 ADC 	 30-year fixed (closed) period for 2008/09 ARC 16-year fixed (closed) period for 6/30/22 projected UAAL for 2022/23 ADC





ACTUARIAL METHODS

Method	June 30, 2019 Valuation	June 30, 2021 Valuation
■ Implicit Subsidy	Implicit subsidy estimate included for non-Medicare eligible retirees	 Implicit subsidy estimate included for non-Medicare eligible retirees and Tier 1 Medicare eligible retirees in non-Medicare Advantage plans. Due to age-risk adjusted federal subsidies, no age-based claims cost were included for Medicare Advantage plans.
■ Projections	 Valuation Results - closed group, no new hires Projections - Simplified open group projection 	• Same







DEFINITIONS

Actuarial Obligations

- The Present Value of Benefits (PVB) is calculated as follows:
 - > Project future employer-provided retiree benefits for current retirees and current active employees (future retirees)
 - > Discount projected benefits to valuation date using the discount rate
 - Discount rate is the expected long-term net rate of return on assets for benefits projected to be paid from the OPEB trust and the expected long-term net rate of return on Town investments for benefits projected to be paid from Town assets
 - Allocate the PVB to past, current, and future working periods using the Entry Age Normal Cost Method
- Normal Cost (NC) is portion of the PVB allocated to one fiscal year
- Actuarial Accrued Liability (AAL) is the portion of the PVB allocated to prior Town service, that is, the accumulation of prior years' NCs
- Unfunded AAL (UAAL) is AAL less the Actuarial Value of Assets
- Actuarial Value of Assets (AVA) smooths market value of assets (MVA) volatility by spreading investment gains and losses over 5 years

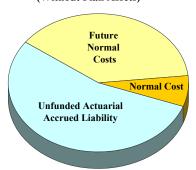




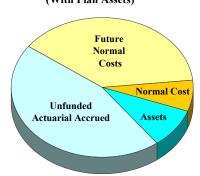
DEFINITIONS

Present Value of Benefits

Present Value of Benefits (Without Plan Assets)



Present Value of Benefits (With Plan Assets)



BA June 15, 2022





DEFINITIONS

■ PayGo Cost

- Cash Subsidy is the Town's pay-as-you-go cash payments for its portion of retiree premiums
- Implicit Subsidy is the difference between the expected cost of retiree healthcare benefits, by age and gender, and retiree premiums, that is, it is the portion of retiree healthcare costs subsidized by active employee premiums

■ Terminology

Used in Report

- AAL Actuarial Accrued Liability
- ADC Actuarially Determined Contribution
- AVA Actuarial Value of Assets
- GASBS 75 Governmental Accounting Standards Board Statement No. 75
- MVA Market Value of Assets
- NC Normal Cost
- OPEB Other (than pensions) Postemployment Benefits
- PVB Present Value of Benefits
- UAAL Unfunded Actuarial Accrued Liability





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