

# The City of Bristol Postemployment Benefits Other Than Pensions

Actuarial Valuation as of July 1, 2024  
To Determine Funding for Fiscal Year 2025-26

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## Certification

As part of our engagement with the City of Bristol ("City"), we have performed an actuarial valuation of the Plan as of July 1, 2024. Our findings are set forth in this actuary's report. The main purposes of this valuation are to determine funding for fiscal year 2025-26, to review the Plan's experience since the prior valuation, and to assess the funded position of the Plan.

Actuarial computations presented in this report are for the purposes of determining the recommended funding amounts for the Plan. The calculations in this report have been made on a basis consistent with our understanding of the Plan's funding policy and on our understanding of the plan provisions as summarized in this report. Determinations for purposes other than meeting these requirements, such as for financial reporting in accordance with GASB standards, may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

We believe that the measures of funded status contained herein are appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations and for assessing the need for or the amount of future contributions.

Actuarial assumptions, including interest rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by the City, who is responsible for selecting the Plan's funding policy, actuarial cost methods, asset valuation methods, and actuarial assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. The City is solely responsible for communicating to Milliman any changes thereto. All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated future experience affecting the Plan and are expected to have no significant bias.

This valuation is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or modifications to contribution calculations based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of future measurements.

## Certification (continued)

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the City. This information includes, but is not limited to, benefit provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different, and our calculations may need to be revised. Information relating to periods prior to July 1, 2018 was taken from reports prepared by the prior actuary.

Milliman's work is prepared solely for the use and benefit of the City. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the City may provide a copy of Milliman's work, in its entirety, to the City's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City; and (b) the City may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. Milliman has developed certain models to develop the expected long term rate of return on assets and estimate the claim costs and trend used in this analysis. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States*, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

  
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Jennifer M. Castelhana, FSA  
Consulting Actuary

i. Summary of Principal Results

Actuarial Valuation for Plan Year Beginning	July 1, 2022	July 1, 2024
<b>Membership</b>		
Active Members	553	557
Members Receiving Benefits	<u>218</u>	<u>217</u>
Total Count	771	774
<b>Assets and Liabilities</b>		
Market Value of Assets	\$19,244,862	\$27,284,814
Accrued Liability for Active Members	39,761,869	41,580,891
Accrued Liability for Members Receiving Benefits	<u>25,644,734</u>	<u>34,045,713</u>
Total Accrued Liability	65,406,603	75,626,604
Unfunded Accrued Liability	46,161,741	48,341,790
Funded Ratio	29.4%	36.1%
<b>Actuarially Determined Contribution</b>		
For Fiscal Year	2023-24	2025-26
Normal Cost	\$1,992,736	\$2,351,701
Past Service Cost	4,437,491	5,035,738
Interest	<u>417,964</u>	<u>480,184</u>
Actuarially Determined Contribution	6,848,191	7,867,623
Allocated to City	2,767,516	2,769,648
Allocated to Sewer	N/A*	156,782
Allocated to Water	573,106	675,573
Allocated to Police	2,179,547	2,640,659
Allocated to Fire	<u>1,328,022</u>	<u>1,624,961</u>
Total	6,848,191	7,867,623

\* Information for Sewer was not developed separately before 2024.

## ii. Changes Since the Prior Valuation

### Demographic Changes and Plan Experience

From July 1, 2022 to July 1, 2024 the overall membership decreased from 938 to 931. The number of active members increased from 553 to 557, and the total number of members and spouses/dependents receiving benefits decreased from 385 to 374.

The average age of active members decreased slightly from 43.5 to 43.0, and the average age of members receiving benefits stayed the same at 63.8.

We updated expected claims costs based on our analysis of the claims experience and premium information that was provided to us for this valuation. Per capita healthcare costs increased more than expected, which resulted in an increase in the Unfunded Accrued Liability.

### Plan Changes

None.

### Changes in Actuarial Methods and Assumptions

We updated the medical trend assumption to better reflect anticipated future experience. This change increased the Unfunded Accrued Liability by about \$853,000 and the Actuarially Determined Contribution by about \$147,000.

### Other Significant Changes

Effective with the July 1, 2024 valuation, the Board of Education information has been broken out into a separate report.

### iii. Asset Performance

The Market Value is a snapshot of the plan's investments as of the valuation date. For the two-year period since the last valuation, the plan's Market Value changed as follows:

Value as of July 1, 2022	\$19,244,862
City Contributions and Member Contributions	18,126,152
Investment Income	3,906,799
Benefit Payments and Administrative Expenses	<u>(13,992,999)</u>
Value as of July 1, 2024	27,284,814

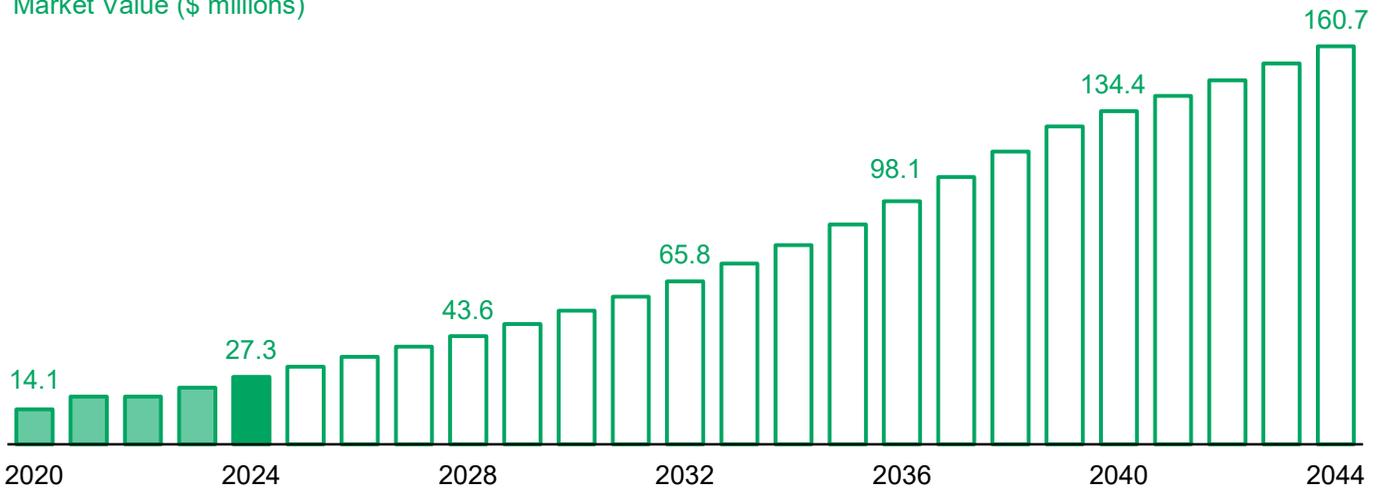
For fiscal year 2022-23, the plan's assets earned 7.83% on a Market Value basis. For fiscal year 2023-24, the plan's assets earned 9.71% on a Market Value basis. Historical rates of return are shown in the graph below:



### iv. Asset Forecast

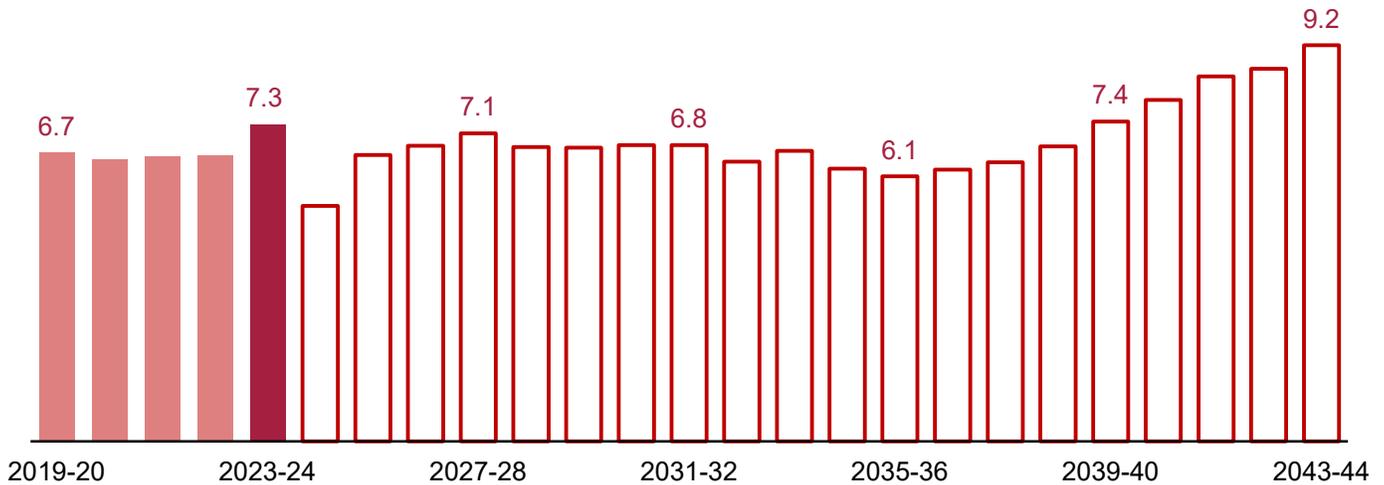
The graph below shows how this year's asset values compare to where the plan's assets have been over the past several years and how they are projected to change over the next 20 years. For purposes of this projection, we have assumed that the City always contributes the Actuarially Determined Contribution and the investments always earn the assumed interest rate each year.

Market Value (\$ millions)



In 2023-24, the plan paid out \$7.3 million in benefits to members. Over the next 20 years, the plan is projected to pay out a total of \$140 million in benefits to members.

Benefit Payments (\$ millions)

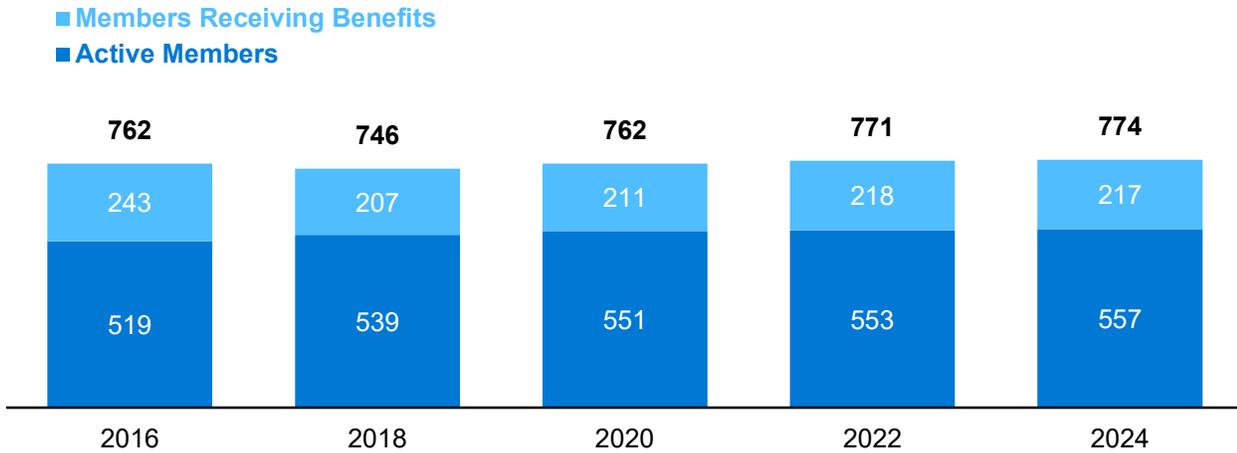


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Appendix A for more details of the long range forecast.

## v. Membership

### Overview

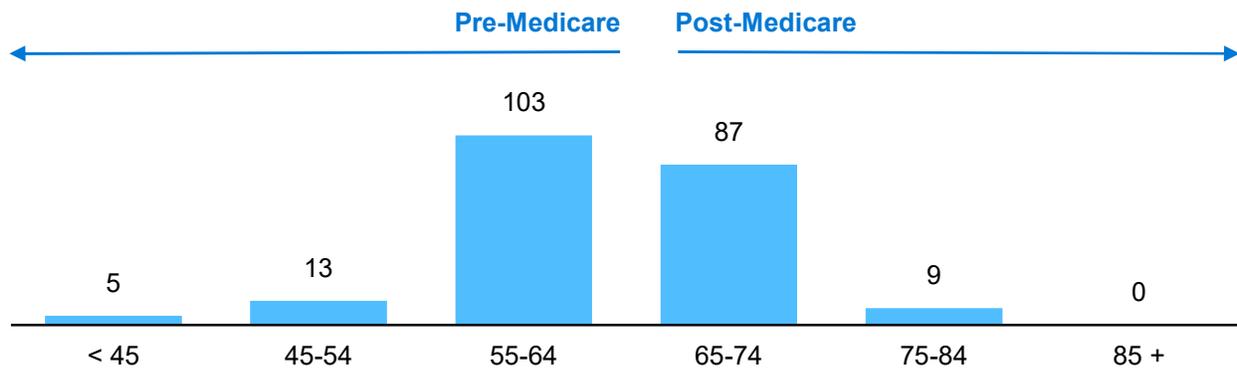
There are two basic categories of plan members included in the valuation: (1) members who are receiving benefits and (2) active employees who have met the eligibility requirements for membership.



### Members Receiving Benefits on July 1, 2024

	Members	Spouses/ Dependents		Average Age
City	112	79	Members	63.8
Sewer	3	1	Spouses/dependents	62.8
Water	13	9		
Police	60	42		
Fire	<u>29</u>	<u>26</u>		
Total	217	157		

As of July 1, 2024 there were also 157 Spouses/Dependents receiving benefits. The members receiving benefits fall across a wide distribution of ages:



v. Membership (continued)

Active Members on July 1, 2024

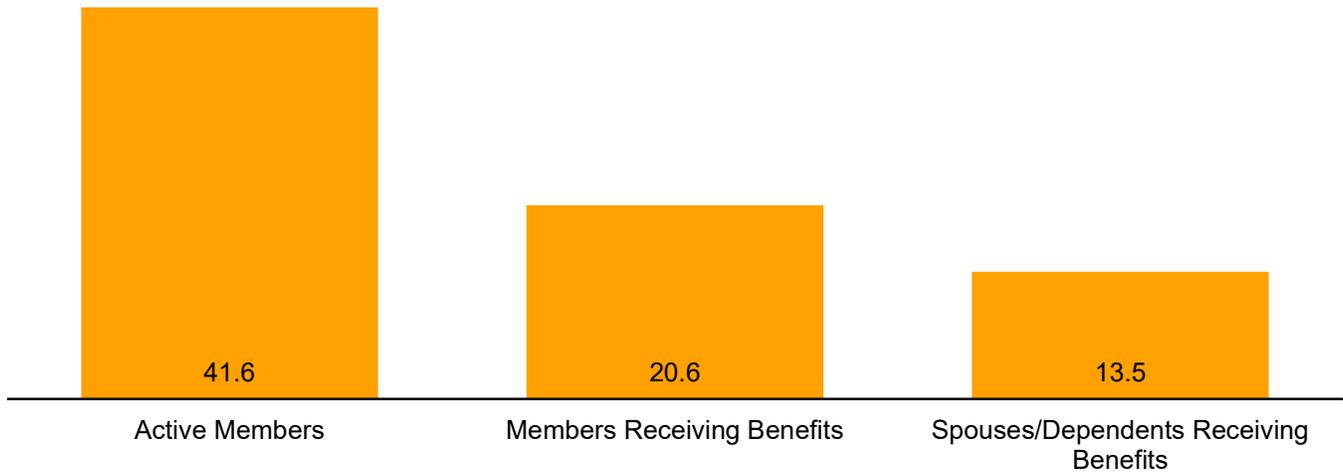
City	297	Average Age	43.0
Sewer	18	Average Service	10.2
Water	37	Payroll	\$43,964,567
Police	119	Average Payroll	78,931
Fire	86		
Total	557		

The table below illustrates the age and years of service of the active membership:

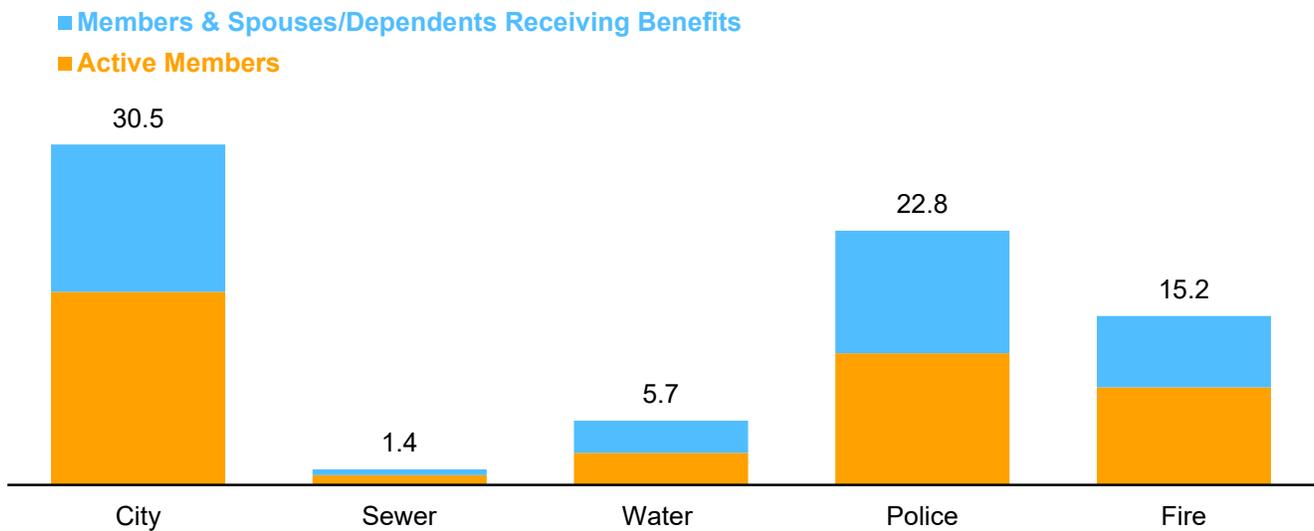
Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	16							16
25-29	56	9						65
30-34	44	27	9					80
35-39	30	23	30	8				91
40-44	19	15	9	22	8			73
45-49	13	13	9	16	13			64
50-54	11	5	4	17	14	8	3	62
55-59	6	9	4	18	10	6	4	57
60-64	11	7	6	4	5	2	2	37
65+	2	3	2	3	1		1	12
Total	208	111	73	88	51	16	10	557

## vi. Accrued Liability

The Accrued Liability as of July 1, 2024 equals \$75,626,604, which consists of the following pieces (in \$ millions):



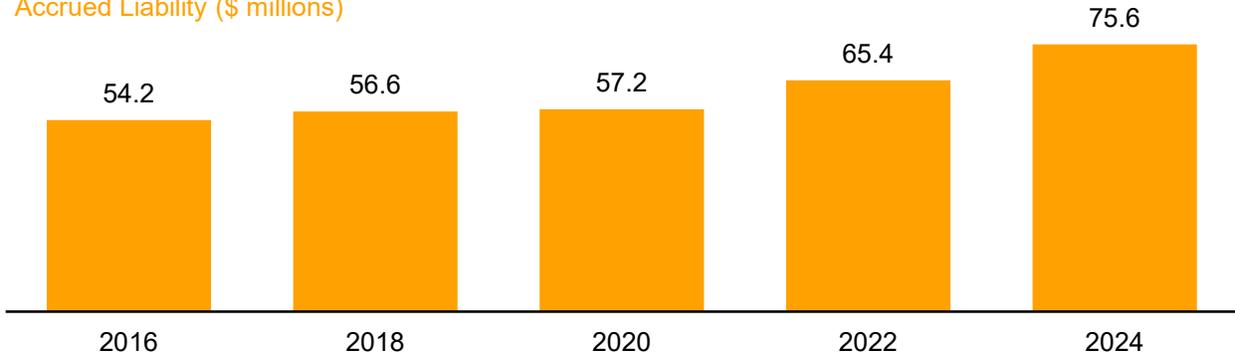
The breakdown of the Accrued Liability by department is shown below (\$ millions):



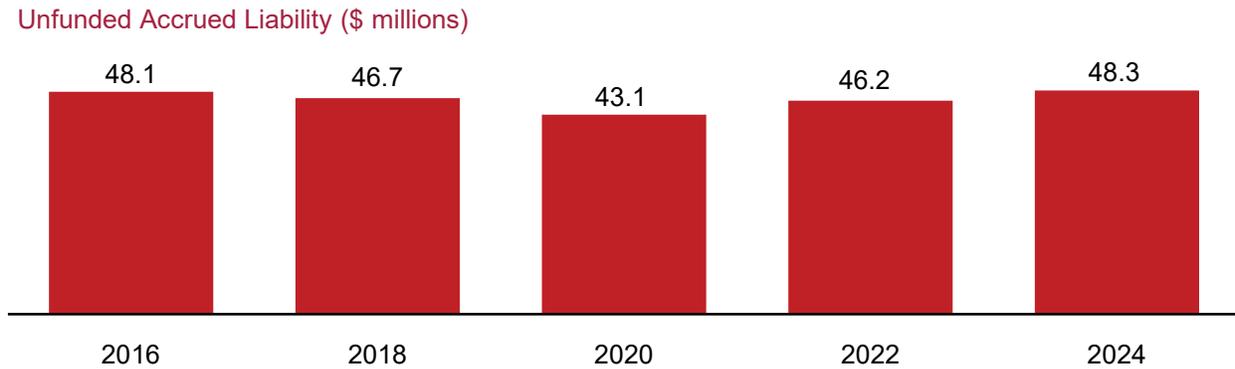
## vii. Funded Status

The Accrued Liability grows over time as active members earn additional benefits, and goes down over time as members receiving benefits receive benefits; it may also change when there are changes to the plan provisions or changes in the actuarial assumptions. The Unfunded Accrued Liability is the dollar difference between the Accrued Liability and the Actuarial Value of Assets; the Funded Ratio is the ratio of the two.

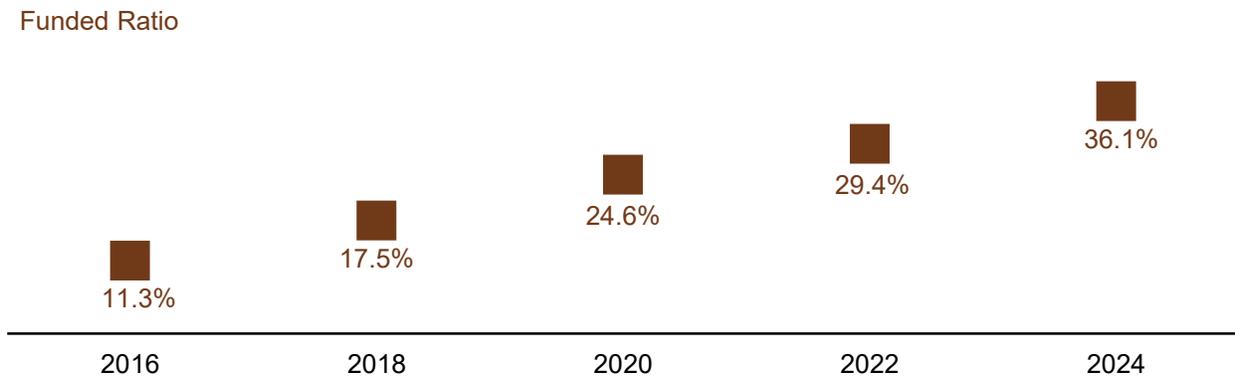
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)



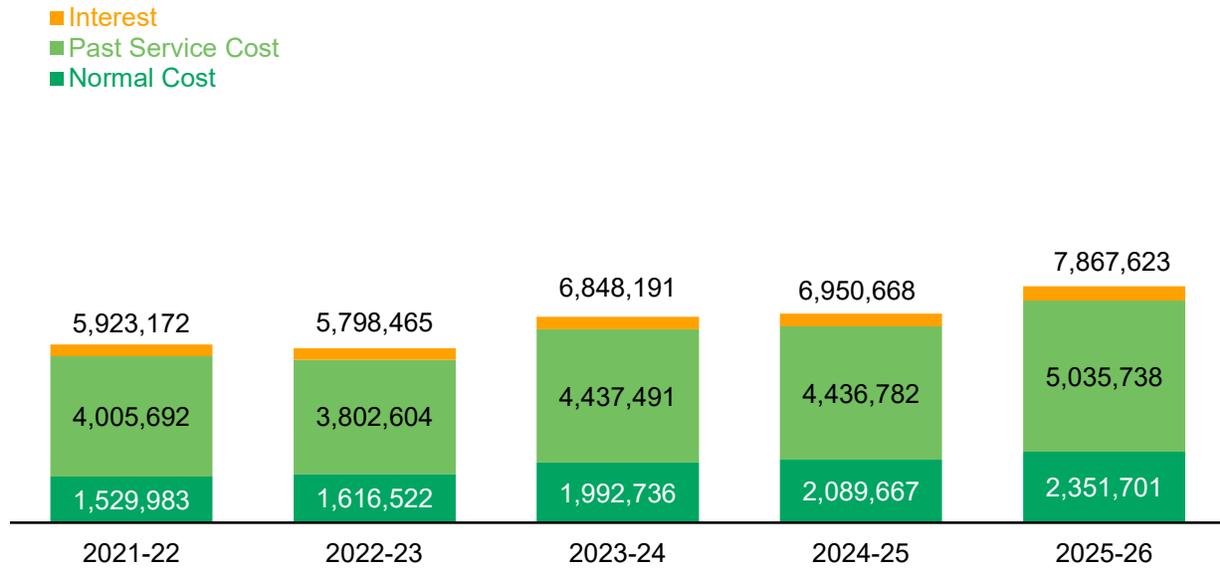
Funded Ratio



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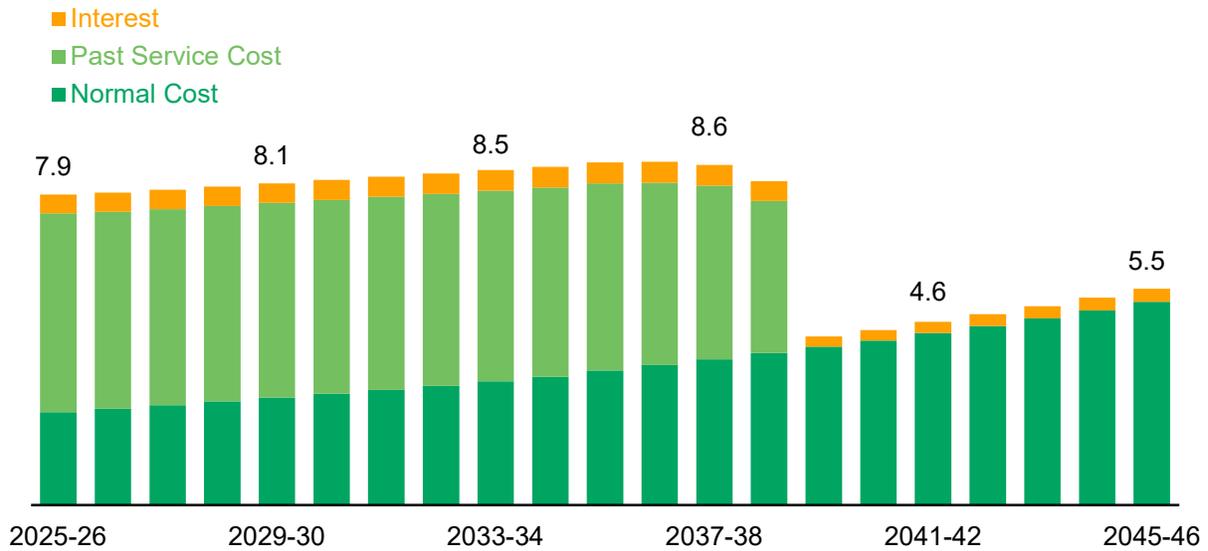
### viii. Actuarially Determined Contribution (ADC)

The ADC consists of three pieces: a Normal Cost payment to fund the benefits earned each year, a Past Service Cost to gradually reduce any unfunded or surplus liability, and Interest to reflect the timing of the contribution relative to the valuation date. The chart below shows the Actuarially Determined Contribution for the past five fiscal years.



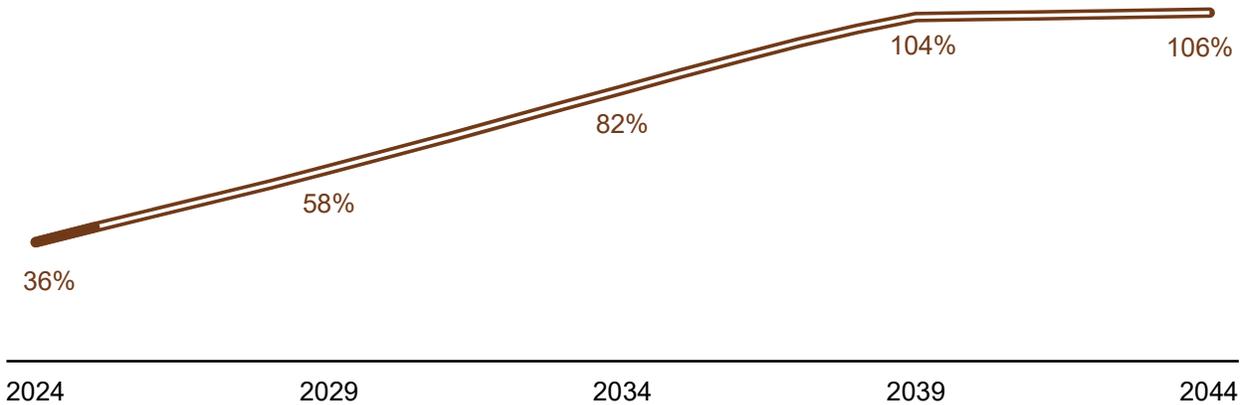
### ix. Long-Range Forecast

If the City pays the Actuarially Determined Contribution each year, the investments earn exactly the assumed interest rate each year, and there are no changes in the plan provisions or in the actuarial methods and assumptions, then we project the following long-range Actuarially Determined Contributions (in \$ millions):



On the basis of this forecast, the Actuarially Determined Contribution currently exceeds the sum of the Normal Cost plus one year's interest on the Unfunded Accrued Liability and the Unfunded Accrued Liability is expected to be fully amortized by 2038. Over time, the funded ratio is expected to change as follows:

Funded Ratio

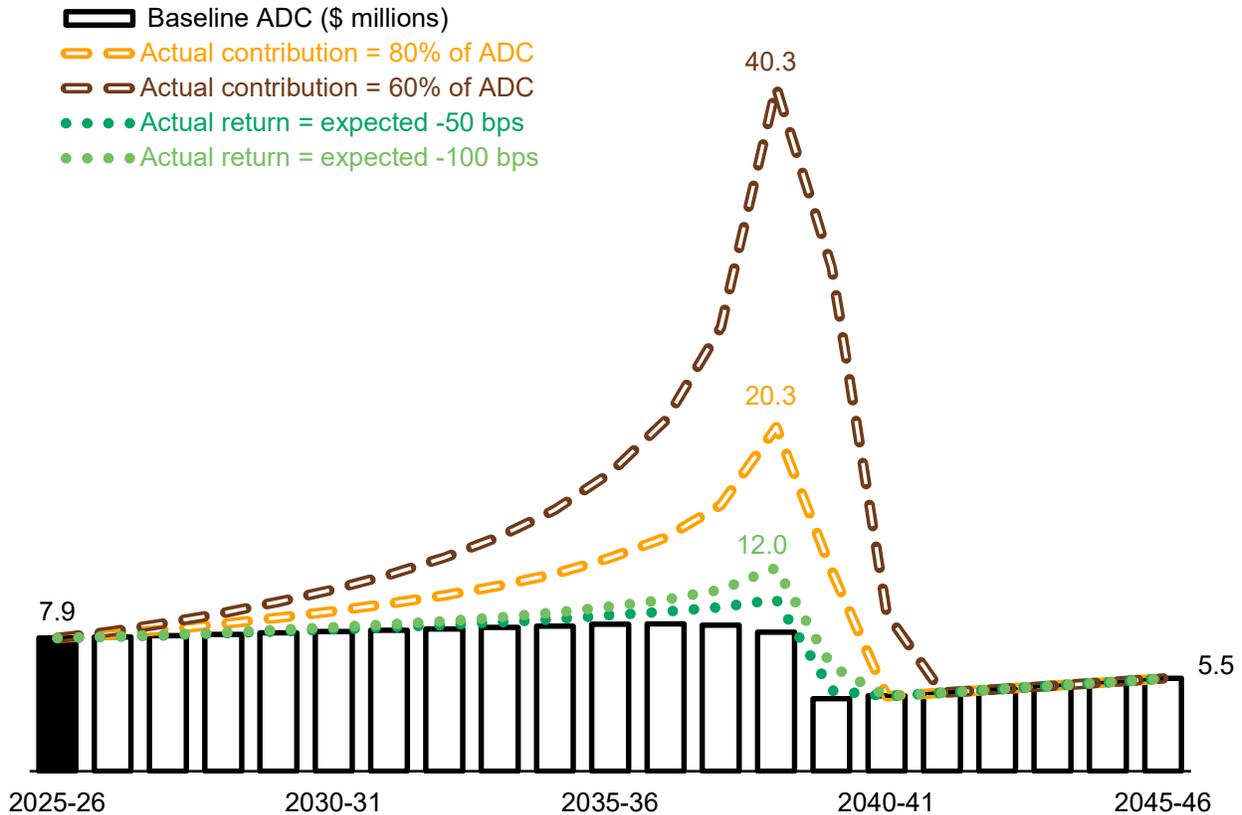


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Appendix A for more details of the long range forecast.

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### ix. Long-Range Forecast (continued)

OPEB benefits are paid for through a combination of contributions from the City and from active members, and investment income. If the City pays less than the Actuarially Determined Contribution each year, or if the investments persistently earn less than the assumed interest rate, then the plan's funded status would suffer, and to compensate, the City's contribution levels would be pushed higher. The risks of underfunding and underearning are illustrated in the hypothetical scenarios below:



The scenarios illustrated above are based on deterministic projections that assume emerging plan experience always exactly matches the actuarial assumptions; in particular that actual asset returns will be constant in every year of the projection period. Variation in asset returns, contribution amounts, and many other factors may have a significant impact on the long-term financial health of the plan, the liquidity constraints on plan assets, and the City's future contribution levels. Stochastic projections could be prepared that would enable the City to understand the potential range of future results based on the expected variability in asset returns and other factors. Such analysis was beyond the scope of this engagement.

## 1. Summary of Fund Transactions

<b>Market Value as of July 1, 2023</b>	\$19,244,862
City Contributions	8,001,173
Member Contributions	664,213
Net Investment Income	1,586,586
Benefit Payments	(6,624,173)
Administrative Expenses	(25,860)
<b>Market Value as of June 30, 2023</b>	22,846,801
Approximate Rate of Return, 2022-23 *	7.83%
<hr/>	
<b>Market Value as of July 1, 2023</b>	\$22,846,801
City Contributions	8,751,406
Member Contributions	709,360
Net Investment Income	2,320,213
Benefit Payments	(7,333,866)
Administrative Expenses	(9,100)
<b>Market Value as of June 30, 2024</b>	27,284,814
Approximate Rate of Return, 2023-24 *	9.71%

\* The rates shown here are not the dollar or time weighted investment yield rates which measure investment performance. They are approximate net returns assuming all activity occurred on average midway through the year.

## 2. Accrued Liability

We have calculated the Accrued Liability separately for 5 groups, who are eligible for different OPEB benefits. We have broken the Accrued Liability into several pieces: benefits that are expected to be paid prior to age 65 (i.e., prior to Medicare) and after age 65 (i.e., after Medicare) that current active members and their covered dependents will receive once the member retires, and the same figures for members who have already retired and are currently receiving benefits. In all cases, the Accrued Liability only reflects benefits that are paid for by the City, taking into account any implicit rate subsidies.

	City	Sewer	Water	Police	Fire	Total
<b>Current Active Members</b>						
Members under 65	\$7,562,944	\$330,673	\$1,241,162	\$5,940,909	\$3,839,600	\$18,915,288
Members over 65	2,560,474	139,635	387,279	891,727	994,528	4,973,643
Spouses/Dependents under 65	5,091,360	322,199	1,001,539	4,586,998	3,543,522	14,545,618
Spouses/Dependents over 65	<u>2,090,057</u>	<u>64,597</u>	<u>240,648</u>	<u>385,325</u>	<u>365,715</u>	<u>3,146,342</u>
Total	17,304,835	857,104	2,870,628	11,804,959	8,743,365	41,580,891
<b>Current Members Receiving Benefits</b>						
Members under 65	\$5,097,351	\$215,598	\$1,610,611	\$6,044,729	\$2,641,141	\$15,609,430
Members over 65	2,808,081	142,357	163,447	1,040,677	787,143	4,941,705
Spouses/Dependents under 65	3,464,157	158,617	1,045,530	3,323,955	2,565,919	10,558,178
Spouses/Dependents over 65	<u>1,866,330</u>	<u>17,274</u>	<u>56,383</u>	<u>576,825</u>	<u>419,588</u>	<u>2,936,400</u>
Total	13,235,919	533,846	2,875,971	10,986,186	6,413,791	34,045,713
<b>Total</b>	<b>30,540,754</b>	<b>1,390,950</b>	<b>5,746,599</b>	<b>22,791,145</b>	<b>15,157,156</b>	<b>75,626,604</b>

### Accrued Liability Sensitivity

#### 1% Decrease

#### Baseline

#### 1% Increase

Discount Rate  
Trend Rate

81,109,356  
69,323,210

75,626,604  
75,626,604

70,623,692  
82,922,394

### 3. Actuarially Determined Contribution for FY 2025-26

The Actuarially Determined Contribution (ADC) for the OPEB program consists of three pieces: a Normal Cost (the cost of benefits earned each year) plus a Past Service Cost (a catch-up accrual to amortize the Unfunded Accrued Liability as a level annual amount) plus Interest to reflect the timing lag between the valuation date and the fiscal year. On this basis, the ADC is determined as follows:

	City	Sewer	Water	Police	Fire	Total
Accrued Liability	\$30,540,754	\$1,390,950	\$5,746,599	\$22,791,145	\$15,157,156	\$75,626,604
Market Value of Assets*	12,750,796	418,897	651,567	7,078,604	6,384,950	27,284,814
Unfunded Accrued Liability	17,789,958	972,053	5,095,032	15,712,541	8,772,206	48,341,790
Funded Ratio	41.8%	30.1%	11.3%	31.1%	42.1%	36.1%
Amortization Period	14	14	14	14	14	14
Amortization Growth Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Past Service Cost	1,853,170	101,258	530,747	1,636,767	913,796	5,035,738
<b>Total Normal Cost</b>	<b>1,072,194</b>	<b>67,542</b>	<b>143,862</b>	<b>1,034,087</b>	<b>683,380</b>	<b>3,001,065</b>
Employee Contributions	328,552	21,760	40,982	194,195	73,275	658,764
Expenses**	3,796	173	714	2,833	1,884	9,400
Net Normal Cost	747,438	45,955	103,594	842,725	611,989	2,351,701
Interest	169,040	9,569	41,232	161,167	99,176	480,184
<b>ADC for FY 2025-26</b>	<b>2,769,648</b>	<b>156,782</b>	<b>675,573</b>	<b>2,640,659</b>	<b>1,624,961</b>	<b>7,867,623</b>
Expected Benefit Payouts	(3,170,938)	(73,940)	(520,645)	(1,597,436)	(1,259,771)	(6,622,730)
<b>Net Budget Impact</b>	<b>(401,290)</b>	<b>82,842</b>	<b>154,928</b>	<b>1,043,223</b>	<b>365,190</b>	<b>1,244,893</b>

\* Allocation provided by the City

\*\* Allocated in proportion to each group's Accrued Liability

## 4. Long Range Funded Status Forecast

This forecast is based on the results of the July 1, 2024 actuarial valuation and assumes that the City will pay the Actuarially Determined Contribution each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. For purposes of this forecast the amortization period declines to 1 year to illustrate the progress of the plan towards becoming fully funded; in actual practice the amortization period will not be less than 10 years in order to shield the City from contribution volatility. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

Valuation Date	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
7/1/2024	\$75,626,604	\$27,284,814	\$48,341,790	36.1%
7/1/2025	77,033,000	31,288,000	45,745,000	40.6%
7/1/2026	78,512,000	35,298,000	43,214,000	45.0%
7/1/2027	79,986,000	39,418,000	40,568,000	49.3%
7/1/2028	81,387,000	43,602,000	37,785,000	53.6%
7/1/2029	83,328,000	48,496,000	34,832,000	58.2%
7/1/2030	85,544,000	53,832,000	31,712,000	62.9%
7/1/2031	87,958,000	59,556,000	28,402,000	67.7%
7/1/2032	90,666,000	65,765,000	24,901,000	72.5%
7/1/2033	94,079,000	72,874,000	21,205,000	77.5%
7/1/2034	97,604,000	80,306,000	17,298,000	82.3%
7/1/2035	101,791,000	88,760,000	13,031,000	87.2%
7/1/2036	106,613,000	98,085,000	8,528,000	92.0%
7/1/2037	111,762,000	107,907,000	3,855,000	96.6%
7/1/2038	117,237,000	118,138,000	(901,000)	100.8%
7/1/2039	122,921,000	128,253,000	(5,332,000)	104.3%
7/1/2040	128,542,000	134,402,000	(5,860,000)	104.6%
7/1/2041	134,202,000	140,639,000	(6,437,000)	104.8%
7/1/2042	139,852,000	146,959,000	(7,107,000)	105.1%
7/1/2043	145,957,000	153,744,000	(7,787,000)	105.3%

## 5. Long Range Cash Flow Forecast

This forecast is based on the results of the July 1, 2024 actuarial valuation and assumes that the City will pay the Actuarially Determined Contribution each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. For purposes of this forecast the amortization period declines to 1 year to illustrate the progress of the plan towards becoming fully funded; in actual practice the amortization period will not be less than 10 year in order to shield the City from contribution volatility. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

Fiscal Year	City Contributions	Member Contributions	Benefit Payments	Administrative Expenses	Net Cash Flows
2025-26	\$7,867,623	\$678,527	\$6,622,730	\$9,654	\$1,913,766
2026-27	7,912,000	699,000	6,833,000	10,000	1,768,000
2027-28	7,983,000	720,000	7,122,000	10,000	1,571,000
2028-29	8,069,000	741,000	6,806,000	11,000	1,993,000
2029-30	8,150,000	764,000	6,788,000	11,000	2,115,000
2030-31	8,233,000	787,000	6,853,000	11,000	2,156,000
2031-32	8,312,000	810,000	6,847,000	12,000	2,263,000
2032-33	8,393,000	835,000	6,470,000	12,000	2,746,000
2033-34	8,482,000	860,000	6,719,000	12,000	2,611,000
2034-35	8,561,000	885,000	6,302,000	13,000	3,131,000
2035-36	8,674,000	912,000	6,130,000	13,000	3,443,000
2036-37	8,693,000	939,000	6,281,000	13,000	3,338,000
2037-38	8,612,000	967,000	6,451,000	14,000	3,114,000
2038-39	8,201,000	996,000	6,824,000	14,000	2,359,000
2039-40	4,268,000	1,026,000	7,398,000	15,000	(2,119,000)
2040-41	4,433,000	1,057,000	7,896,000	15,000	(2,421,000)
2041-42	4,636,000	1,089,000	8,442,000	15,000	(2,732,000)
2042-43	4,832,000	1,122,000	8,618,000	16,000	(2,680,000)
2043-44	5,034,000	1,155,000	9,160,000	16,000	(2,987,000)
2044-45	5,253,000	1,190,000	9,854,000	17,000	(3,428,000)

## 6. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
July 1, 2016	\$6,127,608	\$54,205,056	\$48,077,448	11.3%
July 1, 2018	9,926,387	56,646,284	46,719,897	17.5%
July 1, 2020	14,091,431	57,205,587	43,114,156	24.6%
July 1, 2022	19,244,862	65,406,603	46,161,741	29.4%
July 1, 2024	27,284,814	75,626,604	48,341,790	36.1%

## 7. History of City Contributions

Fiscal Year	Actuarially Determined Contribution	Actual City Contribution	Contribution Deficiency (Excess)
2019-20	\$6,045,943	\$8,127,555	(\$2,081,612)
2020-21	6,084,344	7,818,237	(1,733,893)
2021-22	5,923,172	7,858,513	(1,935,341)
2022-23	5,798,465	8,001,173	(2,202,708)
2023-24	6,848,191	8,751,406	(1,903,215)
2024-25	6,950,668	TBD	TBD
2025-26	7,867,623	TBD	TBD

## 8. Statistics of Active Membership

	July 1, 2022	July 1, 2024
<b>Number of Active Members</b>		
City	308	297
Sewer*	N/A	18
Water	36	37
Police	115	119
Fire	<u>94</u>	<u>86</u>
Total	553	557
<b>Average Age</b>		
City	45.2	44.6
Sewer*	N/A	45.8
Water	47.8	44.5
Police	38.0	38.8
Fire	43.1	42.0
Total	43.5	43.0
<b>Average Service</b>		
City	9.5	8.9
Sewer*	N/A	7.7
Water	13.8	10.2
Police	11.7	11.8
Fire	14.7	13.1
Total	11.1	10.2

\* Information for Sewer was not developed separately before 2024.

## 9. Information on Members Receiving Benefits

	July 1, 2023	July 1, 2024
<b>Number of Members Receiving Benefits</b>		
City	122	112
Sewer*	N/A	3
Water	15	13
Police	57	60
Fire	<u>24</u>	<u>29</u>
Total	218	217
<b>Average Age of Members Receiving Benefits</b>		
City	66.0	66.5
Sewer*	N/A	63.1
Water	63.6	60.5
Police	59.7	60.5
Fire	62.4	61.9
Total	63.8	63.8
<b>Number of Spouses/Dependents Receiving Benefits</b>		
City	84	79
Sewer*	N/A	1
Water	10	9
Police	52	42
Fire	<u>21</u>	<u>26</u>
Total	167	157
<b>Average Age of Spouses/Dependents Receiving Benefits</b>		
City	65.0	65.5
Sewer*	N/A	57.6
Water	63.2	57.9
Police	59.3	60.3
Fire	61.9	60.6
Total	62.7	62.8

\* Information for Sewer was not developed separately before 2024.

## Appendix A - Actuarial Funding Method

### Cost Method

The actuarial cost method used in the valuation of this Plan is known as the Entry Age Normal Method. The Actuarially Determined Contribution consists of three pieces: Normal Cost plus a Past Service Cost payment to gradually eliminate the Unfunded Accrued Liability plus Interest to reflect the timing of the contribution relative to the valuation date.

The Normal Cost is determined by calculating the present value of future benefits for present Active Members that will become payable as the result of death, disability, retirement or termination. This cost is then spread as a level percentage of earnings from entry age to termination for each individual. If Normal Costs had been paid at this level for all prior years, a fund would have accumulated. Because this fund represents the portion of benefits that would have been funded to date, it is termed the Accrued Liability. In fact, it is calculated by adding the present value of benefits for Members Receiving Benefits to the present value of benefits for Active Members and subtracting the present value of future Normal Cost contributions.

The funding cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc. which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the costs determined by the valuation must be regarded as estimates of the true costs of the Plan.

### Amortization Method

The Unfunded Accrued Liability is the excess of the Accrued Liability less the assets which have been accumulated for the plan. This Unfunded Accrued Liability is amortized as a level dollar amount over a closed 20 year period starting July 1, 2018. The amortization period will decrease each year until it reaches 10 years, after which time it will remain at 10 years.

### Long-Range Forecast

The long-range forecasts included in this report have been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years.

## Appendix B - Actuarial Assumptions

Each of the assumptions used in this valuation was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

**Discount Rate** 6.50%

**Inflation Rate** 2.40%

**Amortization  
Growth Rate** 0.00%

Salary Scale	Service	Police	Fire	City
1		11.00%	10.00%	10.00%
2		7.00%	10.00%	5.00%
3		7.00%	7.00%	5.00%
4		3.25%	3.25%	5.00%
5		3.25%	3.25%	4.00%
10		4.00%	3.25%	4.00%
15		3.25%	3.25%	3.50%
26+		3.25%	3.25%	3.00%

### Mortality

**Police and Fire:** PubS-2010 Mortality Table with generational projection per the MP-2021 Ultimate scale, with employee rates before benefit commencement and healthy or disabled annuitant rates after benefit commencement. This assumption includes a margin for improvements in longevity beyond the valuation date.

**City:** PubG-2010 Mortality Table with generational projection per the MP-2021 Ultimate scale, with employee rates before benefit commencement and healthy or disabled annuitant rates after benefit commencement. This assumption includes a margin for improvements in longevity beyond the valuation date.

## Appendix B - Actuarial Assumptions (continued)

**Dental Trend** 4.00%

**Medical Trend** The medical trend assumption used in this valuation is based on long-term healthcare trend rates generated by the Society of Actuaries' Getzen Trend Model and was developed with this actuarial valuation. Inputs to the model are consistent with other assumptions used in the valuation.

Fiscal Year	Pre-65	Fiscal Year	Post-65
2024 to 2025	6.50%	2024 to 2025	8.10%
2025 to 2026	5.90%	2025 to 2026	6.80%
2026 to 2027	5.40%	2026 to 2027	5.80%
2027 to 2028	5.10%	2027 to 2028	5.30%
2028 to 2029	4.90%	2028 to 2029	5.10%
2029 to 2030	4.80%	2029 to 2030	4.90%
2030 to 2031	4.70%	2030 to 2031	4.80%
2031 to 2032	4.60%	2031 to 2032	4.60%
2032 to 2033	4.40%	2032 to 2033	4.50%
2033 to 2034	4.30%	2033 to 2034	4.30%
2034 to 2066	4.20%	2034 to 2059	4.20%
2066 to 2068	4.10%	2059 to 2061	4.30%
2068 to 2070	4.00%	2061 to 2066	4.20%
2070 to 2073	3.90%	2066 to 2068	4.10%
2073 +	3.80%	2068 to 2070	4.00%
		2070 to 2073	3.90%
		2073 +	3.80%

Prior:

Year Beginning	Rate	Year Beginning	Rate
2022	5.90%	2030	4.50%
2023	6.40%	2031	4.30%
2024	6.50%	2032	4.20%
2025	6.00%	2059	4.30%
2026	5.30%	2061	4.20%
2027	5.00%	2066	4.10%
2028	4.80%	2068	4.00%
2029	4.60%	2070	3.90%
		2073	3.80%

## Appendix B - Actuarial Assumptions (continued)

**Turnover**                      **Police and Fire:** None

**City:**

Service	Rate
<5	10.00%
5-7	5.00%
8-9	2.00%
10-11	5.00%
12-14	3.00%
15-24	1.50%
25+	0.00%

**Retirement**                      **Police:** Members who have satisfied normal retirement eligibility are assumed to retire according to the following rates.

Service	Rate
25	35.00%
26+	10.00%

Additionally, 100% of Police members are assumed to retire upon attaining age 65.

**Fire:** Members who have satisfied normal retirement eligibility are assumed to retire according to the following rates.

Age	Rate
49	5.00%
50-54	10.00%
55-56	10.00%
57-59	10.00%
60	40.00%
61	40.00%
62-64	40.00%
65+	100.00%

## Appendix B - Actuarial Assumptions (continued)

**Retirement**      **City:** Members who have satisfied normal retirement eligibility are assumed to retire according to the following rates:

Age	Attained Rule of 80	Not Yet Attained
55	50.00%	2.00%
56-59	20.00%	2.00%
60	22.00%	2.00%
61	25.00%	2.00%
62	40.00%	2.00%
63	30.00%	2.00%
64	25.00%	2.00%
65	28.00%	2.00%
66	40.00%	2.00%
67-69	25.00%	2.00%
70-74	30.00%	30.00%
75+	100.00%	100.00%

**Disability**      **Police and Fire:** 1985 Pension Disability Table (DP-85) Class 4 with 100% of disabilities assumed to be service-connected.

**City:** 50% of the 1985 Pension Disability Table (DP-85) Class 1. 40% of disabilities are assumed to be service-connected.

**Future Retiree Coverage**      95% of active members are assumed to elect coverage at retirement.

**Future Dependent Coverage**      80% of current active members are assumed to elect dependent coverage at retirement. All female spouses are assumed to be 3 years younger than males.

**Valuation of Benefits for Children**      Benefits attributed to children have been excluded from this valuation for all groups, as they were determined to be de minimis.

**Valuation of Dental Benefits**      These benefits were valued without aging, per guidance from a March 2021 ASOP No. 6 Practice Note.

**Valuation of Post-65 Medical Benefits**      For retirees paying 100% of the premium, it is assumed that there is no implicit rate subsidy associated with post-65 medical benefits, as Medicare premiums are intended to be self-supporting.

## Appendix C - Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

<b>Eligibility</b>	<p><b>Police:</b> Retirement with 25 Years of Service or Disabled with any Years of Service.</p> <p><b>Fire:</b> Retirement at (i) any age with 25 Years of Service or (ii) age 65 with 20 Years of Service or Disabled with any Years of Service.</p> <p><b>City:</b> Rule of 80 with minimum age 55.</p>
<b>Benefits</b>	<p><b>Police:</b> Retirees receive medical and drug coverage for self and spouse for 10 years at no cost. Retirees can continue on Medicare supplement plans at age 65. Some current Police retirees are eligible to receive benefits for 15 years and are identified by the City.</p> <p><b>Fire:</b> Retirees receive medical and drug coverage for self and spouse for 10 years at no cost. Retirees can continue on Medicare supplement plans at age 65. Retirees may elect to defer their retiree health coverage until the retiree reaches a maximum of age 55. Benefits will be the same if a retiree elects immediate or deferred commencement.</p> <p><b>City:</b> Retirees receive medical and drug coverage for self and spouse for 10 years when hired before the respective dates in the below table. Retirees hired after the dates in the table receive 5 years of coverage. Effective cost shares are also shown in the table. Retirees can continue on Medicare supplement plans at age 65.</p>

Group	Effective Date	Cost Share
Local 1338	12/01/2010	None
Local 233	09/08/2010	None
BPSA	06/30/2011	None
Non Bargaining	04/11/2011	None
Health District	07/01/2012 *	5.0%

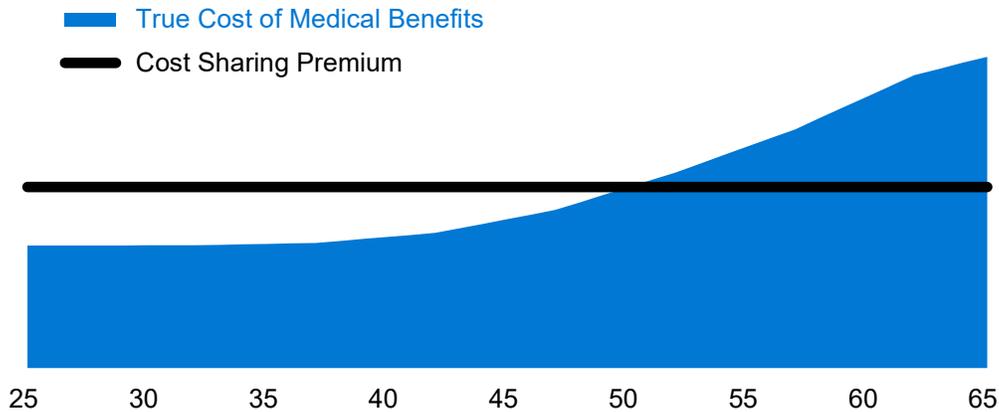
\* 10 month health aides hired before this date get 5 years of coverage instead of 10 years. 10 month health aides hired after this date can elect coverage at their own expense.

<b>Employee Contributions</b>	<p><b>Police:</b> Officers hired before March 10, 2020 contribute 1.625% of compensation to the OPEB Program and officers hired on or after March 10, 2020 contribute 1.875% of compensation to the OPEB Program.</p> <p><b>Fire:</b> Effective July 1, 2020, employees contribute 1.00% of compensation to the OPEB Program.</p> <p><b>City:</b> Employees contribute 1.50% of compensation to the OPEB Program.</p>
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## Appendix D - Healthcare Information - Introduction

In many cases, the cost sharing premium is lower than the true cost of providing the medical benefits, for two reasons:

- The cost sharing premium is usually a fixed amount such as a COBRA premium that does not take into account the age of the retiree and his/her dependents. Since medical costs generally increase with age, the cost sharing premium is often lower than the true cost of the medical benefits:



- The cost sharing premium is usually a blended rate that takes into account the cost of medical benefits for active employees as well as retirees. Medical costs are generally higher for retirees than for active employees of the same age. This means that, again, the cost sharing premium is often lower than the true cost of the medical benefits.

Because of these two factors, a retiree who is paying 100% of the cost sharing premium is most likely not paying 100% of the true cost of the medical benefits. This situation is known as an **implicit rate subsidy**. GASB 74 and 75 require the plan sponsor to measure the liability for this subsidy; that is, the difference between the true cost of the medical benefits and the cost sharing premiums paid by the retiree. To do this, our valuation consists of several steps:

First, we calculate the liability for the true cost of medical benefits expected to be received by retirees and their dependents. This liability is based on factors developed by Milliman's health actuaries that reflect how the cost of medical benefits varies by age and gender, as well as the other assumptions discussed in this report. We term this amount the **gross liability**.

Next, we calculate the liability for the future premiums expected to be paid by the retiree for their own and their dependents' coverage. This liability is based on the current premium rates without adjustment for age or gender. It also is based on the terms of the Other Post Employment Benefits Program – different retirees pay different percentages based on their union or department, date of retirement, age at retirement, and other factors. We term this amount the **offset liability**.

Finally, the net Accrued Liability for the City is calculated as the difference between the gross liability and the offset liability.

## Appendix D - Healthcare Information - Current Premiums

The annual blended premiums as of July 1, 2024 are shown below.

	Retiree	Spouse
<b>Pre-65 Medical Premiums</b>		
HDHP	\$13,381.92	\$14,655.12
Non-HDHP	15,677.28	17,451.84
<b>Post-65 Medical Premiums</b>		
	7,156.68	8,371.20
<b>Dental Premium</b>		
	319.92	873.60

## Appendix D - Healthcare Information - Expected Healthcare Costs

Milliman's Health Cost Guidelines were used to develop the expected true cost of healthcare benefits by age and gender, separately for employees and spouses/dependents. Representative healthcare cost factors are shown in the tables below. These factors were then applied to the plan's healthcare rates for the year beginning July 1, 2024 to arrive at the expected annual per capita claims costs for a 65-year-old, which are also shown below.

Age	Retiree		Spouse	
	Male	Female	Male	Female
45	0.53705	0.87157	0.40495	0.57469
50	0.62119	0.81351	0.50991	0.67023
55	0.73114	0.80408	0.64091	0.75841
60	0.84766	0.88741	0.77956	0.83625
65	1.00000	1.00000	1.00000	1.00000
70	1.10117	1.07708	1.10117	1.07708
75	1.21533	1.14139	1.21533	1.14139
80	1.28160	1.15446	1.28160	1.15446
85	1.22247	1.06695	1.22247	1.06695
90	1.13462	0.96691	1.13462	0.96691
<b>Age 65 per capita claims cost</b>				
Pre-65 - HDHP	\$28,143.04	\$26,996.33	\$24,421.27	\$23,752.07
Pre-65 - Non-HDHP	33,163.23	31,811.97	28,777.57	27,989.00
Post-65	7,259.44	6,434.69	7,259.44	6,434.69

## Appendix E - Glossary

<b>Actuarial Cost Method</b>	This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Accrued Liability and the Normal Cost.
<b>Accrued Liability</b>	This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).
<b>Actuarial Assumptions</b>	With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. Some examples of key assumptions include the interest rate, salary scale, and rates of mortality, turnover and retirement.
<b>Actuarial Present Value of Benefits</b>	This is the present value, as of the valuation date, of future payments for benefits and expenses under the Plan, where each payment is: a) multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and b) discounted at the assumed interest rate.
<b>Actuarial Value of Assets</b>	This is the value of cash, investments and other property belonging to the plan, typically adjusted to recognize investment gains or losses over a period of years to dampen the impact of market volatility on the Actuarially Determined Contribution.
<b>Attribution Period</b>	The period of an active member's service to which the expected benefit obligation for that member is assigned. The beginning of the attribution period is the member's date of hire and costs are spread across all service.
<b>Interest Rate</b>	This is the long-term expected rate of return on any investments set aside to pay for the benefits. In a financial reporting context (e.g., GASB 75) this is termed the Discount Rate.
<b>Normal Cost</b>	This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.
<b>Past Service Cost</b>	This is a catch-up payment to fund the Unfunded Accrued Liability over time (generally 10 to 30 years). A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each valuation date. Also known as the Amortization Payment.
<b>Return on Plan Assets</b>	This is the actual investment return on plan assets during the fiscal year.
<b>Unfunded Accrued Liability</b>	This is the excess of the Accrued Liability over the Actuarial Value of Assets.