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City of Trenton
Retiree Health Care Plan

Actuarial Valuation of
Other Postemployment Benefits

Prepared as of June 30, 2022

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November 17, 2022

Ms. Karen E. Sall
City Controller/Deputy City Administrator
City of Trenton
2800 Third Street
Trenton, Michigan 48183

RE: City of Trenton Retiree Health Care Plan Actuarial Valuation as of June 30, 2022

Dear Ms. Sall:

We are pleased to submit the results of the biennial actuarial valuation of the City of Trenton Retiree Health Care Plan (the Plan), prepared as of June 30, 2022. The purposes of the valuation are to measure the Plan's funded status and to determine the Actuarially Determined Contribution for the fiscal years ending June 30, 2024 and June 30, 2025. The major findings of the valuation are contained in this report which reflects the plan provisions in place on June 30, 2022.

This is the first actuarial valuation report prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the June 30, 2020 actuarial valuation. Results were within acceptable limits, but as is typical in a takeover situation, there were some differences in the key valuation results. Based on our experience, these differences are neither unusual nor significant.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by the City's staff. This information includes, but it not limited to, plan provisions, employee and retiree data, and financial information. While not verifying the data at the source, the actuary performed tests for consistency and reasonability. 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 and results prior to June 30, 2022 was provided by the prior actuary.

All costs, liabilities, rates of interest, medical trend and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations) and which, in combination, offer our best estimate of anticipated experience affecting the Plan. Since the prior valuation, the initial per capita health care costs and rates of health care inflation used to project the per capita costs have been updated based on recent experience. In addition, the mortality, retirement and termination assumptions for ACT 345 participants were updated based on CMC's review of assumptions during transition.

In order to prepare the results in this report, we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the necessary results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as 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 additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The City has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A.

Actuarial computations presented in this report are for purposes of determining the actuarial recommended funding amounts for the Plan. Computations for other purposes, such as fulfilling financial accounting requirement under Governmental Accounting Standard Numbers 74 and 75 are provided in a separate report. The calculations in this report have been made on a basis consistent with our understanding of the employer's goals and funding of the Plan. Determinations for other purposes may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Larry Langer, ASA, Wendy Ludbrook, FSA, and Youveak Yeng, ASA, are members of the American Academy of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained herein, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the health care plans and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Plan.

If you have any questions about this information, please feel free to contact us.

Respectfully submitted,

Larry Langer, ASA, EA, FCA, MAAA
Principal and Consulting Actuary

Wendy Ludbrook
Wendy Ludbrook, FSA, EA, FCA, MAAA
Consulting Actuary

Youveak Yeng, ASA, MAAA
Senior Actuary

Ryan Gundersen
Ryan Gundersen
Senior Consultant

TABLE OF CONTENTS

Page No.

Summary of Principal Results 2

Exhibit

1. Valuation Results by Division 6
2. Plan Assets 7
3. Development of the Unfunded Actuarial Accrued Liability 8
4. Normal Cost Comparison by OPEB Report Group 9
5. Actuarially Determined Contribution (ADC) 10
6. Calculation of Actuarial (Gain)/Loss 11

Appendix

A. Actuarial Assumptions and Methods 12
B. Summary of Main Benefit Provisions 21
C. Membership Data 22
D. Projections 24
E. Public Act 202 Information 26

SUMMARY OF PRINCIPAL RESULTS

ACTUARIAL VALUATION OF
CITY OF TRENTON
RETIREE HEALTH CARE PLAN
AS OF JUNE 30, 2022

For convenience of reference, the principal results of the valuation and a comparison with the results of the previous valuation are summarized below:

Valuation Date	June 30, 2022	June 30, 2020	Change
Number of Members:			
Active	133	141	(5.7%)
Retirees and Benficiaries	192	194	(1.0%)
Total	325	335	(3.0%)
Active Payroll	$5,737,391	$6,696,150	(14.3%)
Actuarial Accrued Liability (AAL)			
Active	$10,032,986	$15,812,293	(36.5%)
Retirees and Beneficiaries	34,171,162	42,014,207	(18.7%)
Total AAL	$44,204,148	$57,826,500	(23.6%)
Market Value of Assets	14,570,797	12,658,808	
Unfunded Actuarial Accrued Liability (UAAL)	$29,633,351	$45,167,692	(34.4%)
Funded Ratio	33.0%	21.9%	
ACTUARIALLY DETERMINED CONTRIBUTION FOR FY 2024			
Employer Normal Cost	$451,378	$659,307	(31.5%)
UAAL Amortization Payment [(1)]	3,090,777	4,353,291	(29.0%)
Actuarially Determined Contribution (ADC)	$3,542,155	$5,012,598	(29.3%)
ACTUARIALLY DETERMINED CONTRIBUTION FOR FY 2025			
Actuarially Determined Contribution (ADC)	$ 3,684,674	$4,979,477	(26.0%)

(1) The Unfunded Actuarial Accrued Liability (UAAL) were amortized as a level dollar amount over a closed period of 15 years for the fiscal year ending June 30, 2024 and decreasing by 1 each year thereafter.

*Results prior to June 30, 2022 were provided by the prior actuary.

SUMMARY OF PRINCIPAL RESULTS

Actuarially Determined Contribution

Please note that beginning with Fiscal Year ending June 30, 2017, GASB Statement No. 43 was replaced with GASB Statement No. 74. Also, beginning with the fiscal year ending June 30, 2018, GASB Statement No. 45 was replaced by GASB Statement No. 75. The City of Trenton established a qualified trust, which is compliant with both GASB Statement Nos. 74 and 75. As a result, it is our understanding that the City of Trenton is required to comply with both GASB Statement Nos. 74 and 75, and as such requires GASB Statement Nos. 74 and 75 reporting information at the completion of each fiscal year. The financial accounting requirements under GASB Statement Nos. 74 and 75 are provided in a separate report.

We have calculated the Actuarially Determined Contribution for the fiscal years ending June 30, 2024 and June 30, 2025, under an interest rate assumption of 5.75%. Below is a summary of the results.

For additional details please see Exhibit 5.

Fiscal Year Ending	Actuarially Determined Contribution	Estimated Premiums Paid for Retirees
June 30, 2024	$3,542,155	$2,280,780
June 30, 2025	3,684,673	2,389,750

The primary purpose of performing an actuarial valuation is to:

- Determine the employer contribution required to fund the Plan on an actuarial basis;
- Disclose asset and liability measures as of the valuation date;
- Compare the actual experience since the last valuation date to that expected; and
- Analyze and report on trends in contributions, assets, and liabilities over the past several years.

This is the first actuarial valuation report prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the June 30, 2020 actuarial valuation. Results were within acceptable limits, but as is typical in a takeover situation, there were some differences in the key valuation results. Based on our experience, these differences are neither unusual nor significant. A summary of the key actuarial measurements in the replication results is shown in the following table:

	June 30, 2020 Results		
	CMC	GRS	CMC/GRS
Present Value of Future Benefits	$63,204,052	$63,901,740	98.9%
Actuarial Accrued Liability	$57,203,826	$57,826,500	98.9%

SUMMARY OF PRINCIPAL RESULTS

In addition to replicating results, we reviewed the assumptions and methods and found most to be reasonable and recommended updates to the mortality, retirement and termination assumptions for ACT 345 participants which were approved by the Board on May 18, 2022.

The last valuation was performed as of June 30, 2020. The following changes have been made since the previous valuation:

- The assumed per capita costs of health care and rates of health care inflation used to project per capita costs were updated;
- The mortality assumptions for ACT 345 participants were changed to Pub-2010 Public Safety Mortality Tables with fully generational projection of mortality improvements using SOA Scale MP-2021; and
- The retirement and termination rates for ACT 345 participants were updated to reflect recent experience.

Appendix A of this report outlines the full set of actuarial assumptions and methods employed in the current valuation.

The valuation takes into account the provisions of the Plan in effect on June 30, 2022.

Plan Experience

The valuation results provide a "snapshot" view of the Plan's financial condition on June 30, 2022. The Unfunded Actuarial Accrued Liability (UAAL) decreased from $45.2 million as of the June 30, 2020 valuation to $29.6 million in this year's valuation. The funded ratio (market value of assets divided by actuarial accrued liability) improved from 21.9% in the June 30, 2020 valuation to 33.0% in the current valuation. In addition, the Actuarially Determined Contribution (ADC) decreased from $5.0 million in the June 30, 2020 valuation to $3.5 million in this year's valuation.

The valuation results reflect favorable experience for the past two plan years as demonstrated by a UAAL that was lower than expected. The favorable experience was due to the impact of an experience gain on actuarial liabilities. The net gain consisted of more favorable claims, premium and demographic experience than was projected and was slightly offset by change in health care cost trend rates.

Assets

As of the valuation date, the Plan had total assets of $14.6 million, when measured on a market value basis. This represents an increase of $1.9 million from the June 30, 2020 amount of $12.7 million. This market value of assets is used directly in the actuarial valuation.

The annualized rate of return, measured on the market value of assets, was about 28.5% during fiscal year 2021 and -13.9% during fiscal year 2022. The market value of assets as of June 30, 2022 was $14.6 million.

Liabilities

The actuarial accrued liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the asset value at the same date is referred to as the unfunded actuarial accrued liability, or surplus if the asset value exceeds the actuarial accrued liability. The unfunded actuarial accrued liability will be reduced if the employer's contributions exceed the employer's normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial accrued liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and procedures will also impact the total actuarial accrued liability and the unfunded portion thereof. The Unfunded Actuarial Accrued Liability for the Plan as of June 30, 2022 is $29.6 million.

Comments

The recommended contributions for the June 30, 2022 valuation have decreased since the prior valuation as of June 30, 2020. The primary source of this decrease was more favorable claims and premium experience than projected. Actual claims payments were approximately 13% less than expected during fiscal year 2021 and 23% less than expected during fiscal year 2022. This includes a significant reduction in prescription drug payments in 2022 due to the migration to a Medicare Advantage Prescription Drug (MAPD) program.

Partially offsetting this decrease was the change in the pre and post-65 health care cost trend assumption and changes to the mortality, retirement and termination assumptions for ACT 345 participants. The combined impact of the changes in assumptions increased the actuarial liability by $3.8 million.

The calculations within this report have been performed incorporating $14,570,797 in retiree health assets. We understand from plan sponsor that these assets reside in a qualifying trust and can, therefore, be used in determining the Actuarially Determined Contribution. Per the request of the City, assets were allocated in the following way: 49% of the assets were used for the Water/WWTP group, and the remaining 51% of the assets were divided equally among the remaining subgroups shown in this report in proportion to each group's Actuarial Accrued Liability on the valuation date.

It is our understanding that retiree health care benefits are paid through the General and Water Funds. Contributions into the trust consist of excess benefit payments above the Actuarially Determined Contribution for Water Fund retirees and a $50,000 contribution (through fiscal year 2023) from the General Fund as part of the PA 202 corrective action plan. Given the favorable claims, premium and demographic experience that occurred since the last valuation and an asset allocation of 49%, the Water/WWTP group is fully funded as of the valuation date. Because of this, the Water/WWTP group Actuarially Determined Contribution for fiscal year 2024 is a credit and reduces the overall Actuarially Determined Contribution for all groups. With the current market conditions and volatility in claims experience, we recommend that the Actuarially Determined Contribution for the Water/WWTP group be equal to the projected normal cost for the group, increasing the total Actuarially Determined Contribution representative of all subgroups combined.

EXHIBIT 1 – VALUATION RESULTS BY DIVISION

City of Trenton Retiree Health Care Plan - Valuation Results by Division as of June 30, 2022	TPOAM	Non-Union	Water/WWTP	Fire	Police	Total
A. Present Value of Future Benefits						
i) Retirees and Beneficiaries	$ 6,163,213	$ 5,184,827	$ 4,071,115	$ 8,826,861	$ 9,925,146	$ 34,171,162
ii) Vested Terminated Members	0	0	0	0	0	0
iii) Active Members	1,376,667	4,258,239	1,954,876	3,167,728	3,949,867	14,707,377
Total Present Value of Future Benefits	$ 7,539,880	$ 9,443,066	$ 6,025,991	$ 11,994,589	$ 13,875,013	$ 48,878,539
B. Present Value of Future Normal Costs	$ 215,529	$ 721,624	$ 289,508	$ 1,457,771	$ 1,989,959	$ 4,674,391
C. Actuarial Accrued Liability (A. - B.)	$ 7,324,351	$ 8,721,442	$ 5,736,483	$ 10,536,818	$ 11,885,054	$ 44,204,148
D. Actuarial Value of Assets	$ 1,414,903	$ 1,684,791	$ 7,139,691	$ 2,035,481	$ 2,295,931	$ 14,570,797
E. Unfunded Actuarial Accrued Liability (C. - D.)	$ 5,909,448	$ 7,036,651	$ (1,403,208)	$ 8,501,337	$ 9,589,123	$ 29,633,351
F. Funded Ratio (D. / C.)	19.3%	19.3%	124.5%	19.3%	19.3%	33.0%
G. Fiscal Year Ending June 30, 2024						
i) Employer Normal Cost	$ 36,101	$ 105,881	$ 42,193	$ 113,448	$ 153,755	$ 451,378
ii) Amortization of UAAL (15 years)*	$ 583,887	$ 705,168	$ -	$ 846,382	$ 955,340	$ 3,090,777
Actuarially Determined Contribution[1]	$ 619,989	$ 811,049	$ 42,193	$ 959,831	$ 1,109,094	$ 3,542,155
H. Fiscal Year Ending June 30, 2025						
i) Employer Normal Cost	$ 30,901	$ 95,083	$ 35,668	$ 116,582	$ 158,220	$ 436,454
ii) Amortization of UAAL (14 years)*	$ 610,197	$ 743,838	$ -	$ 889,317	$ 1,004,868	$ 3,248,221
Actuarially Determined Contribution[1]	$ 641,098	$ 838,922	$ 35,668	$ 1,005,899	$ 1,163,088	$ 3,684,674

*Unfunded Accrued Actuarial Liability

[1] In cases of an actuarial surplus, we recommend the Actuarially Determined Contribution be no lower than the employer normal cost.

The unfunded actuarial accrued liabilities were amortized as a level dollar amount over a period of 15 years beginning with the fiscal year ending June 30, 2024 and decreasing by 1 each year thereafter. The long-term rate of investment return used in the valuation is 5.75%.

Exhibit 2 – Plan Assets

As of June 30, 2022, assets of $14,570,797 were held in trust solely to provide benefits to retirees and their beneficiaries in accordance with the terms of the Plans.

RECONCILIATION OF MARKET VALUE OF ASSETS For the Period of June 30, 2020 through June 30, 2022	
(1) Market Value of Assets as of June 30, 2020	$ 12,658,808
(2) Contributions for FY 2021	
a. Employer	300,734
b. Member	0
c. Total	300,734
(3) Fiscal Year 2021 Benefit Payments,Administrative Expenses and Other	(993)
(4) Investment Income in FY 2021	3,651,278
(5) Market Value of Assets as of June 30, 2021 (1) + (2c) + (3) + (4)	$ 16,609,827
(6) Contributions for FY 2022	
a. Employer	285,636
b. Member	0
c. Total	285,636
(7) Fiscal Year 2022 Benefit Payments,Administrative Expenses and Other	0
(8) Investment Income in FY 2022	(2,324,666)
(9) Market Value of Assets as of June 30, 2022 (5) + (6c) + (7) + (8)	$ 14,570,797
(10) Estimated Annual Investment Rate of Return FY 2021: 28.51% FY 2022: (13.88%)	

EXHIBIT 3 – DEVELOPMENT OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

DEVELOPMENT OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY As of June 30, 2022			
	Pre 65	Post 65	Total
(1) Present Value of Future Benefits			
a. Active Members	$6,569,423	$8,137,954	$14,707,377
b. In Pay Members	7,286,291	26,884,871	34,171,162
c. Total	$13,855,714	$35,022,825	$48,878,539
(2) Present Value of Future Normal Costs	2,181,955	2,492,436	4,674,391
(3) Actuarial Liability (1c) - (2)	$11,673,759	$32,530,389	$44,204,148
(4) Market Value of Assets			14,570,797
(5) Unfunded Actuarial Liability (3) - (4)			$29,633,351

EXHIBIT 4 – NORMAL COST COMPARISON BY OPEB REPORT GROUP

OPEB Report Group	Normal Cost* for July 1, 2023 - June 30, 2024
TPOAM	$ 36,101
Non-Union	105,881
Water/WWTP	42,193
Fire	113,448
Police	153,755
Total	**$ 451,378**

OPEB Report Group	Normal Cost* for July 1, 2024 - June 30, 2025
TPOAM	$ 30,901
Non-Union	95,083
Water/WWTP	35,668
Fire	116,582
Police	158,220
Total	**$ 436,454**

* Costs shown on this page are the annual costs associated with current active members accruing one more year of service. This does not include health care liabilities already accrued. The normal costs shown above are as of the middle of year. Please see page 6 for the total liabilities of the Plan.

EXHIBIT 5 – ACTUARIALLY DETERMINED CONTRIBUTION (ADC)

Actuarially Determined Contribution for Fiscal Year Ending June 30, 2024	Dollar Amount	Percentage of Payroll
Total Normal as of June 30, 2023	$438,935	8.01%
Estimated Actuarial Accrued Liability as of June 30, 2023	$44,993,243	
Esitmated Market Value of Assets as of June 30, 2023	15,866,184	
Estimated Unfunded Actuarial Liability as of June 30, 2023	$29,127,059	
Estimated UAAL Amortization Payment as of June 30, 2023*	$3,005,575	54.86%
Actuarially Determined Contribution for 2024:		
Normal Cost	$438,935	8.01%
UAAL Amortization Payment	3,005,575	54.86%
Total Actuarial Contribution	$3,444,510	62.88%
Adjustment for Mid-Year Timing	97,646	
Actuarially Determined Contribution	$3,542,155	
Active Payroll for Fiscal Year 2024	$5,478,149	

*Adjusted to reflect $0 amortization payment for the Water/WWTP subgroup.

Actuarially Determined Contribution for Fiscal Year Ending June 30, 2025	Dollar Amount	Percentage of Payroll
Total Normal as of June 30, 2024	$424,421	8.03%
Estimated Actuarial Accrued Liability as of June 30, 2024	$45,699,092	
Esitmated Market Value of Assets as of June 30, 2024	16,821,879	
Estimated Unfunded Actuarial Liability as of June 30, 2024	$28,877,213	
Estimated UAAL Amortization Payment as of June 30, 2024*	$3,158,678	59.74%
Actuarially Determined Contribution for 2025:		
Normal Cost	$424,421	8.03%
UAAL Amortization Payment	3,158,678	59.74%
Total Actuarial Contribution	$3,583,099	67.77%
Adjustment for Mid-Year Timing	101,574	
Actuarially Determined Contribution	$3,684,673	
Active Payroll for Fiscal Year 2025	$5,287,256	

*Adjusted to reflect $0 amortization payment for the Water/WWTP subgroup.

EXHIBIT 6 – CALCULATION OF ACTUARIAL (GAIN)/LOSS

CALCULATION OF ACTUARIAL (GAIN) / LOSS For the Period of June 30, 2020 through June 30, 2022		
Liabilities		
(1)	Actuarial Accrued Liability as of June 30, 2020	$57,826,500
(2)	Normal Cost During FY 2021	659,307
(3)	Benefit Payments During FY 2021	(2,369,912)
(4)	Interest at 5.75% on (1), (2) and (3) to June 30, 2021	3,410,897
(5)	Expected Actuarial Accrued Liability as of June 30, 2021 (1) + (2) + (3) + (4)	$59,526,792
(6)	Normal Cost During FY 2022	592,293
(7)	Benefit Payments During FY 2022	(2,239,320)
(8)	Interest at 5.75% on (5), (6) and (7) to June 30, 2022	3,503,062
(9)	Expected Actuarial Accrued Liability as of June 30, 2022 (6) + (7) + (8) + (9) + (10)	$61,382,827
(10)	Increase in Actuarial Accrued Liability Due to Assumption Changes and Transition	3,773,945
(11)	Expected Actuarial Accrued Liability after Change in Assumptions as of June 30, 2022 (9) + (10)	$65,156,772
(12)	Actuarial Accrued Liability as June 30, 2022	$44,204,148
Assets		
(13)	Market Value of Assets as of June 30, 2020	$12,658,808
(14)	Contributions During FY 2021	300,734
(15)	Benefit Payments and Other During FY 2021	(993)
(16)	Interest at 5.75% on (13), (14) and (15) to June 30, 2021	736,379
(17)	Expected Market Value of Assets as of June 30, 2021 (13) + (14) + (15) + (16)	$13,694,928
(18)	Contributions During FY 2022	285,636
(19)	Benefit Payments and Other During FY 2022	0
(20)	Interest at 5.75% on (17), (18) and (19) to June 30, 2022	795,556
(21)	Expected Market Value of Assets as of June 30, 2022 (17) + (18) + (19) + (20)	$14,776,120
(22)	Market Value of Assets as June 30, 2022	$14,570,797
(Gain)/Loss		
(23)	Expected Unfunded Actuarial Accrued Liability (11) - (21)	$50,380,652
(24)	Actual Unfunded Actuarial Accrued Liability (12) - (22)	$29,633,351
(25)	Actuarial (Gain)/Loss (24) - (23)	($20,747,301)
(26)	Actuarial (Gain)/Loss on Assets (21) - (22)	$205,323
(27)	Actuarial (Gain)/Loss on Actuarial Accrued Liabilities (12) - (11)	($20,952,624)

ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Date: June 30, 2022

Discount Rate: 5.75% per year, net of expenses

Valuation of Assets: Actual market value

Miscellaneous: The valuation was prepared on an on-going plan basis.

Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed contribution in this report.

Health Care Coverage at Retirement: The table below shows the assumed portion of future retirees electing one-person or two-person family coverage, or opting out of coverage entirely.

		Two-Person/Family		
	One-Person	Electing	Continuing	Opt-Out
Male	20%	80%	100%	0%
Female	20%	80%	100%	0%

Marriage Assumption: MERS: 80% of males and 80% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.

ACT 345: 100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.

Spouse Age: Husbands are assumed to be 3 years older than wives for future retirees.

Medicare Coverage: Assumed to be available for all covered employees on attainment of age 65. Disabled retirees were assumed to be eligible for Medicare coverage at age 65.

Administrative Expenses: No explicit assumption has been made for administrative expenses.

Decrement Operation: MERS: Disability and withdrawal do not operate during retirement eligibility.

ACT 345: Disability does not operate during retirement eligibility.

Decrement Timing: Decrements of all types are assumed to occur mid-year.

Eligibility Testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

Salary Increases: (ACT 345)

Service	Wage Inflation	Merit and Longevity	Total
1	3.00%	6.00%	9.00%
2	3.00	5.25	8.25
3	3.00	4.50	7.50
4	3.00	3.75	6.75
5	3.00	3.00	6.00
10	3.00	1.20	4.20
15	3.00	0.68	3.68
20	3.00	0.30	3.30
25	3.00	0.15	3.15
30	3.00	0.15	3.15

(MERS)

Service	Wage Inflation	Merit and Longevity	Total
0	3.00%	6.70%	9.70%
1	3.00	4.60	7.60
2	3.00	3.20	6.20
3	3.00	2.70	5.70
4	3.00	2.30	5.30
5	3.00	1.90	4.90
6	3.00	1.70	4.70
7	3.00	1.30	4.30
8	3.00	1.20	4.20
9	3.00	1.20	4.20
10	3.00	1.10	4.10
11	3.00	1.10	4.10
12	3.00	0.90	3.90
13	3.00	0.90	3.90
14	3.00	0.80	3.80
15	3.00	0.70	3.70
16	3.00	0.70	3.70
17-21	3.00	0.60	3.60
22	3.00	0.50	3.50
23-25	3.00	0.40	3.40
26-29	3.00	0.30	3.30
30-34	3.00	0.20	3.20
35-39	3.00	0.10	3.10
40+	3.00	0.00	3.00

Retirement Rates: (ACT 345)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

Members Hired before January 1, 1996		Members Hired after January 1, 1996	
Years of Service	Rate of Retirement	Age	Rate of Retirement
25-31	33%	55-59	30%
32-41	55	60+	100
42+	100		

(MERS)

Normal Retirement		Early Retirement	
Years of Service	Rate of Retirement	Age	Rate of Retirement
0-9	15%	55-59	4%
10-20	20		
21	22		
22	24		
23	26		
24	30		
25	34		
26-30	25		
31-34	28		
35+	25		

Withdrawal Rates: (ACT 345)

Rates of withdrawal from active membership were as shown below (rates do not apply to members eligible to retire and do not include withdrawal on account of death and disability). The assumption measures the probabilities of members terminating employment before eligibility for an immediate benefit.

Age	Years of Service	Rates of Termination
All	0	7.00%
	1	6.00
	2	5.00
	3	4.00
	4	3.00
35	5 & Over	1.21
40+		0.44

(MERS)

Years of Service	Percent of Active Members Withdrawing Within the Next Year	
	Public Safety	All Others
0	13.90%	23.40%
1	11.60	19.50
2	9.40	15.80
3	7.40	12.50
4	6.10	10.30
5	4.90	8.30
6	4.30	7.20
7	3.90	6.60
8	3.60	6.00
9	3.40	5.70
10	3.20	5.40
11	3.10	5.20
12	2.80	4.70
13	2.70	4.50
14	2.50	4.20
15	2.40	4.00
16	2.30	3.90
17	2.20	3.70
18	2.00	3.40
19	1.90	3.20
20	1.80	3.10
21	1.80	3.00
22	1.70	2.80
23	1.70	2.80
24	1.60	2.70
25+	1.50	2.60

Disability Rates: (ACT 345)

This assumption measures the probability of members retiring with a disability benefit.

	Percent of Active Members Becoming Disabled within the Next Year	
Age	**Male**	**Female**
20	0.08%	0.10%
25	0.08	0.10
30	0.08	0.10
35	0.08	0.10
40	0.20	0.36
45	0.27	0.41
50	0.49	0.57
55	0.89	0.77

(MERS)

Age	Percent of Active Members Becoming Disabled within the Next Year
20	0.02%
25	0.02
30	0.02
35	0.05
40	0.08
45	0.20
50	0.29
55	0.38
60	0.39
65	0.39

Mortality Rates: (ACT 345)	Pub-2010 Public Retirement Mortality Tables (Amount-Weighted) with fully generational projection of mortality improvements using SOA Scale MP-2021: ***Pre-retirement:*** Safety Employees table for males and females ***Healthy Post-Retirement:*** Safety Retirees table for males and females ***Disability Retirement:*** Disabled Retirees table for males and females
(MERS)	Pub-2010 Public Retirement Mortality Tables (Amount-Weighted) with fully generational projection of mortality improvements using SOA Scale MP-2019: ***Pre-retirement:*** General Employees table for males and females ***Healthy Post-Retirement:*** General Retirees table for males and females scaled by 106% ***Disability Retirement:*** Disabled Retirees table for males and females
Development of Premium Rates and Per Capita Costs (PCCs):	Initial medical premium rates were developed for the two classes of retirees (pre-65 and post-65). For the pre-65 retirees, the medical rates were calculated by using actual incurred retiree claims and exposure data for the period of July 1, 2019 to June 30, 2022. The self-insured pre-65 medical data was provided by the City of Trenton. For the post-65 retirees, the fully-insured medical rates provided by the City of Trenton were utilized to determine the appropriate premium rates. The fully-insured Medicare Advantage medical rate is used as the basis of the initial per capita cost without demographic adjustment since the rate reflects the demographics of this segment. The prescription drug rates were calculated separately for pre-65 and post-65 retirees by using actual incurred retiree claims and exposure data for the period July 1, 2019 to June 30, 2022. The self-insured prescription drug data was provided by the City of Trenton. There are no differences between the benefit options available to future retirees/mirrored retirees and the non-mirrored existing retirees, other than cost sharing arrangements. Age graded and sex distinct premiums are utilized by this valuation. The premiums developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

Health Care Cost Trend Rates:

Year after Valuation	Medical/Drug Pre-Medicare	Medical/Drug Post-Medicare
1	7.25%	5.50%
2	7.00%	5.25%
3	6.75%	5.00%
4	6.50%	4.75%
5	6.25%	4.50%
6	6.00%	4.50%
7	5.75%	4.50%
8	5.50%	4.50%
9	5.25%	4.50%
10	5.00%	4.50%
11	4.75%	4.50%
12+	4.50%	4.50%
Year after Valuation	**Dental**	**Vision**
1	3.50%	3.50%
2	3.50%	3.50%
3	3.50%	3.50%
4	3.50%	3.50%
5+	3.50%	3.50%

Annual Expected Medical/Prescription/ Drugs/Dental/Vision Claims:

Retiree Annual Expected Claims		
	Future Retirees	Current Retirees
Age Adjusted Claims		
Pre-65	$13,075	$13,075
Post-65 Medicare Eligible	$4,823	$4,978
Non-Age Adjusted Claims		
Dental	$369	$369
Vision	$139	$139

Age Related Morbidity: Per capita costs are adjusted to reflect expected cost changes related to age. Aging factors used in the premium development models were developed based on information and data from the 2013 study commissioned by the Society of Actuaries entitled "Health Care Costs – From Birth to Death."

Benefits Valued: The benefits below were valued for the stated upon duration:

Lifetime Benefits Valued:

- Medical Coverage
- Prescription Drug Coverage
- Dental Coverage
- Vision Coverage
- Life Insurance

Affordable Care Act: The impact of the Affordable Care Act (ACA) was addressed in this valuation. Review of the information currently available did not identify any specific provisions of the ACA that are anticipated to significantly impact results other than plan design features and fees currently mandated by the ACA and incorporated in the plan designs, which are included in the current baseline claims costs. Continued monitoring of the ACA's impact on the Plan's liability will be required.

Actuarial Cost Method:

Normal cost and the allocation of benefit values between service rendered and before and after the valuation date was determined using an Individual Entry-Age Actuarial Cost Method have the following characteristics:

- The annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Financing of Unfunded Actuarial Accrued Liability:

Unfunded Actuarial Accrued Liabilities (UAAL) were amortized using the level dollar amortization method. The UAAL was determined using the actuarial value of assets and actuarial accrued liability calculated as of the valuation date and projected to the beginning of the fiscal year at the assumed rate of investment return.

Actuarial Value of Assets:

The Actuarial Value of Assets is set equal to the reported market value of assets.

Amortization Method:

The unfunded actuarial accrued liability is amortized as a level-dollar amount over a closed 15-year period beginning with the fiscal year ending June 30, 2024 and decreasing by one year thereafter.

Amortization Factors:

The following amortization factors were used in developing the Actuarially Determined Contribution for the fiscal years shown:

	Fiscal Year Ending June 30,	
	2024	2025
Amortization Period	15	14
Level Dollar Factor	10.4406	9.9834

APPENDIX B – SUMMARY OF MAIN BENEFIT PROVISIONS

Leaving Employment as a Result of	Bargaining Unit	Hire Date	Point System	Eligibility for Benefit		Benefit Provided by Employer (A)			Post-6/30/2005	Retiree Share of Cost (C)		
				Age	Years of Service	Retiree	Spouse	Dependent (D)	Retirees (B)	Retiree	Spouse	Post-6/30/2005
Normal Retirement	TPOAM	Before 1/1/1996		60	10	All	All	All	Mirroring (eff 1/14/08)	None	None	Refer to Schedule Below
Normal Retirement	TPOAM	Before 1/1/1996		55	15	All	All	All	Mirroring (eff 1/14/08)	None	None	
Normal Retirement	TPOAM	Before 1/1/1996		50	25	All	All	All	Mirroring (eff 1/14/08)	None	None	
Normal Retirement	Non-Union	Before 1/1/1996		60	10	All	All	All	Mirroring	None	None	
Normal Retirement	Non-Union	Before 1/1/1996		55	15	All	All	All	Mirroring	None	None	
Normal Retirement	Non-Union	Before 1/1/1996		50	25	All	All	All	Mirroring	None	None	
Normal Retirement	TILA (Lieutenants)	Before 1/1/1996		Any	25	All	All	All	Mirroring	None	None	
Normal Retirement	MAP (Police)	Before 1/1/1996		Any	25	All	All	All	Mirroring	None	None	
Normal Retirement	IAFF (Fire)	Before 1/1/1996		Any	25	All	All	All	Mirroring	None	None	
Normal Retirement	TPOAM	Post 1/1/1996	80 point (age + service)		15	All	All	All	Mirroring	None	None	
Normal Retirement	Non-Union	Post 1/1/1996	80 point (age + service)		15	All	All	All	Mirroring	None	None	
Normal Retirement	TPOAM	Post 6/30/12							HCSP*	None	None	
Normal Retirement	Non-Union	Post 6/30/12							HCSP*	None	None	
Normal Retirement	MAP/IAFF (Police/Fire)	Post 6/30/16							HCSP*	None	None	
Normal Retirement	TILA (Lieutenants)	Post 1/1/1996		55	20	All	All	All	Mirroring	None	None	
Normal Retirement	MAP (Police)	Post 1/1/1996		55	20	All	All	All	Mirroring	None	None	
Normal Retirement	IAFF (Fire)	Post 1/1/1996		55	20	All	All	All	Mirroring	None	None	
Deferred Vested Termination						None	None	None				
Non-Duty Disability						None	None	None				
Duty Disability						None	None	None				
Non-Duty Death-In-Service	All units			Any	Any		All for 5 years	All for 5 years			None	
Duty Death-In-Service	All units			Any	Any		All for 5 years	All for 5 years			None	

A - All includes the following: Medical, prescription drugs, dental and vision.
Dental and vision only until the age of 65. Life insurance is currently provided in the amount of $10,000, older retirees have lesser amounts based on date of retirement

B - Employees, who retire(d) after 6/30/2005, except as noted otherwise, will have the same level of coverage as that provided to active employees.

C - Schedule for premium sharing becomes effective for all active employees and retirees post-6/30/2005 is as follows: 80/20 cost share.
For Medicare eligible retirees, premium sharing is offset by Medicare Premiums paid by the retiree.

D - No family continuation for all employee groups was revoked with the adoption of the 2010 Healthcare Act.

** -Plan Closures: TPOAM, General, Non-Union: 6/30/2012. Police and Fire: 6/30/2016. Employees hired after these dates are in the HCSP. It was assumed that these members do no have access to the Retiree Health Care Plan.*

TOTAL ELIGIBLE ACTIVE MEMBERS* AS OF JUNE 30, 2022
BY AGE AND YEARS OF SERVICE

	Completed Years of Service							
Age	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Over	Total
Under 25	4							4
25 to 29	10							10
30 to 34	13	7						20
35 to 39	12	5	5	1				23
40 to 44	5	5	6	3	1			20
45 to 49	7	3		8	2	1		21
50 to 54	2	7	1		4	4		18
55 to 59	1	4	2	2	2			11
60 to 64		1		1	1	1	1	5
65 & Over				1				1
Total Count	54	32	14	16	10	6	1	133

*Includes members eligible for future life insurance benefits only.

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

OPEB Report Group	No.	Average Age	Average Service
TPOAM	26	40.9	6.3
Non-Union	38	47.9	10.8
Water/WWTP	14	45.4	13.3
Fire	27	37.3	8.5
Police	28	37.4	9.0
Total	133	41.9	9.3

INACTIVE MEMBERS AS OF JUNE 30, 2022

Number of Retiree and Beneficiary Contracts

	Opt-Out/ Ineligible#	One-Person Coverage	Two-Person Coverage*	Total
Male	13	30	98	141
Female	8	53	11	72
Total	21	83	109	213

Contract counts are based on retiree medical/prescription drug coverage elections.
* Includes family coverage.

Age	Current Retirees with Medical Coverage Number of Those Covered TPOAM	Non-Union	Water/WWTP	Fire	Police	Total
49 and Under						
50 – 54		2		5	1	8
55 – 59	5	1	2	6	8	22
60 – 64	8	4	3	7	6	28
65 – 69	10	3	6	5	12	36
70 – 74	4	8	6	7	7	32
75 – 79	3	4	3	2	3	15
80 – 84	1	6	2	4	7	20
85 – 89	1	7	1	3	6	18
90 – 94	2	1	1	3	2	9
95 and Over	1	2			1	4
Total	35	38	24	42	53	192

There are no terminated members eligible for deferred Plan benefits.

APPENDIX D – PROJECTIONS

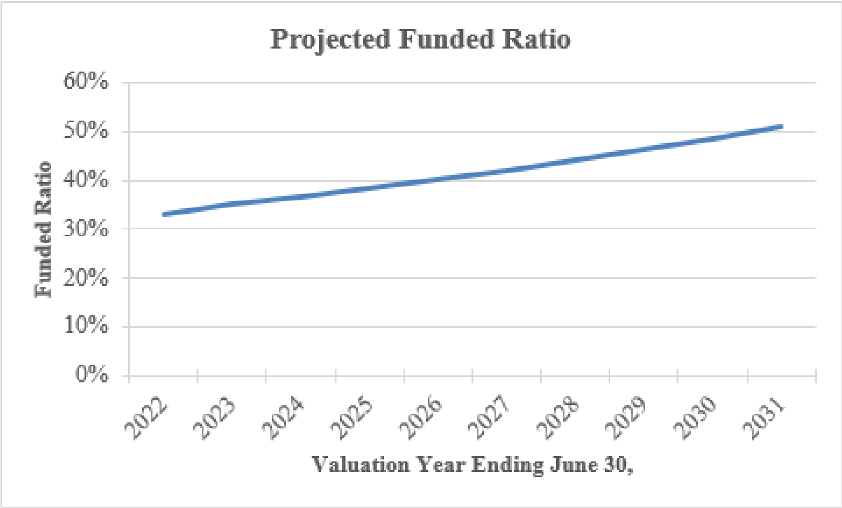
The appendix shows projections of the plan's funded ratio and Actuarially Determined Contributions (ADC) under the actuarial assumptions used in the June 30, 2022 valuation.

The projection schedule provided in this report is based on the following assumptions:

1. The City contributes the minimum of the Actuarially Determined Contribution or normal cost for the Water/WWTP group annually;
2. The City contributes the pay-go cost (estimated premiums paid for retirees) for all other groups annually;
3. The City contributes an additional $50,000 in fiscal year ending June 30, 2023;
4. The City will be willing and able to afford the costs discussed in items 1 and 2 above; and
5. Contributions and benefit payments occur halfway through the year.

Fiscal Year	Actuarial Accrued Liability (EOY)	Market Value of Assets (EOY)	Unfunded Liability (EOY)	Funded Ratio	Actuarially Determined Contribution
	(a)	(b)	(c) = (a) - (b)	(d) = (b) / (a)	
7/1/2021 - 6/30/2022	$44,204,148	$14,570,797	$29,633,351	33.0%	$5,012,598
7/1/2022 - 6/30/2023	44,993,243	15,866,184	29,127,059	35.3%	4,979,477
7/1/2023 - 6/30/2024	45,699,092	16,821,879	28,877,213	36.8%	3,320,251
7/1/2024 - 6/30/2025	46,318,120	17,825,816	28,492,304	38.5%	3,410,974
7/1/2025 - 6/30/2026	46,850,932	18,883,046	27,967,886	40.3%	3,511,073
7/1/2026 - 6/30/2027	47,395,914	19,997,890	27,398,024	42.2%	3,621,100
7/1/2027 - 6/30/2028	47,902,047	21,174,689	26,727,358	44.2%	3,749,601
7/1/2028 - 6/30/2029	48,396,124	22,417,486	25,978,638	46.3%	3,898,043
7/1/2029 - 6/30/2030	48,877,376	23,729,062	25,148,314	48.5%	4,077,643
7/1/2030 - 6/30/2031	49,325,486	25,113,853	24,211,633	50.9%	4,299,033

APPENDIX D – PROJECTIONS



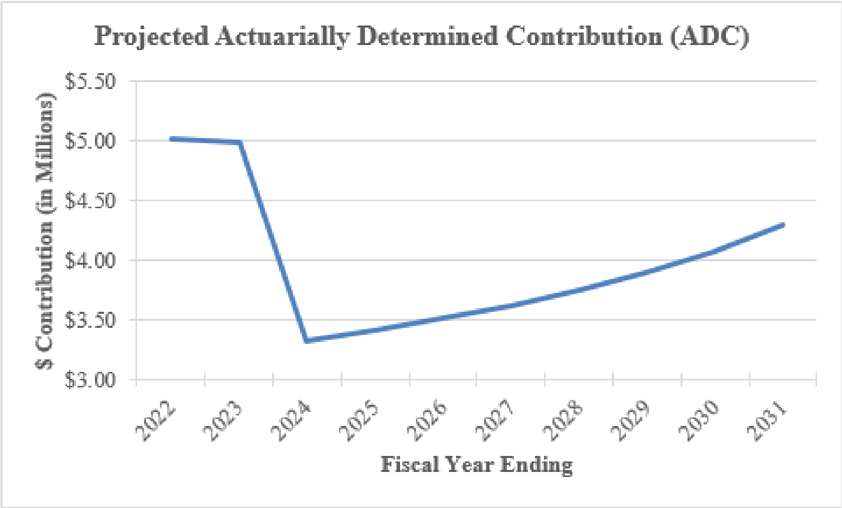


EXHIBIT 7

EMPLOYER CONTRIBUTION UNDER UNIFORM ASSUMPTIONS PER PUBLIC ACT 202

The exhibit below reports the funded status and nominal actuarially determined contribution reflecting the set of uniform assumptions established under Public Act 202 of 2017.

Line	Description	
1	Is this a primary unit?	Yes
2	Name of your retirement health care system	City of Trenton Retiree Health Care Plan
3	**Financial Information - Most Recent Audit Report**	
4	Retirement health care system's assets	14,570,797
5	Retirement health care system's liabilities	60,015,579
6	Funded ratio	24.3%
7	Actuarially determined contribution [1]	5,012,598
7a	ADC in compliance with Letter 2018-3?	Yes
8	Governmental fund revenues	to be provided by City of Trenton
9	All systems combined ADV/Gov. Revenues	to be provided by City of Trenton
10	**Membership - Most Recent Actuarial Funding Valuation**	
11	Number of active members	133
12	Number of inactive members	0
13	Number of retirees and beneficiaries	192
14	Premiums paid on behalf of retirants	2,239,320
15	**Investment Performance**	
16	Actual rate of return - prior 1 year period	-13.88%
17	Actual rate of return - prior 5 year period	to be provided by City of Trenton
18	Actual rate of return - prior 10 year period	to be provided by City of Trenton
19	**Actuarial Assumptions - Most Recent Actuarial Funding Valuation**	
20	Investment return	5.75%
21	Discount rate	5.75%
22	Amortization method	Level Dollar
23	Amortization period	15 years
24	Closed to new entrants?	Yes
25	Health care inflation for next year	Pre-Medicare - 7.25% Post-Medicare - 5.50% Dental - 3.50% Vision - 3.50%
26	Health care inflation assumption - long term	Pre-Medicare - 4.50% Post-Medicare - 4.50% Dental - 3.50% Vision - 3.50%
27	**Uniform Assumptions**	
28	Actuarial value of assets	14,570,797
29	Actuarial accrued liabilities	44,204,148
30	Funded ratio	33.0%
31	Actuarially determined contribution [2]	3,542,155
32	All systems combined ADV/Gov. Revenues	to be provided by City of Trenton
33	**Summary Report**	
34	Local Gov Pay Retiree Insurance Premiums?	Yes
35	Local Gov Pay Normal Cost for employees hired after June 30, 2018	N/A
36	Does the system trigger "underfunded status"?	Yes

[1] For the fiscal year ending June 30, 2023

[2] For the fiscal year ending June 30, 2024

EXHIBIT 8

PUBLIC ACT 202 ASSUMPTIONS

A comparison of the uniform assumptions and the valuation assumptions is shown below. All other assumptions and methods not included in this table were based on the same assumptions and methods that were used for the valuation.

Assumptions	Uniform Assumptions	Assumptions Used in the Calculations
Investment Return	Maximum of 6.85%	5.75%
Discount Rate	Maximum of 5.75% for periods which projected assets are sufficient to make projected benefit payments, Maximum of 2.2% in other years	5.75%
Salary Increase	Minimum of 3.00% or based on experience study within last 5 years	MERS: 3.00%; ACT 345: 3.20% + Merit and longevity (based on experience study)
Mortality Table	A version of the Pub-2010 mortality tables with future mortality improvements projected generationally using scale MP-2020 or based on an actuarial experience study conducted within the last 5 years	MERS: A version of Pub-2010 mortality tables with future mortality improvement projected generationally using scale MP-2019 based on experience study issued by MERS Pension actuary) ACT 345: A version of the Pub-2010 mortality tables with future mortality improvements projected generationally using scale MP-2021
Health Care Inflation		
- Non-Medicare	7.25% decreasing by 0.25% to an ultimate rate of 4.50%	7.25% decreasing by 0.25% to an ultimate rate of 4.50%
- Medicare	5.50% decreasing by 0.25% to an ultimate rate of 4.50%	5.50% decreasing by 0.25% to an ultimate rate of 4.50%
Amortization of Unfunded Actuarial Accrued Liability	Maximum closed period of 27 years. Closed plans mut use a level-dollar amortization method	15 years, level dollar