

# Manchester Employees' Contributory Retirement System

GASB Statement Nos. 74 and 75, Accounting and Financial  
Reporting for Postemployment Benefits Other Than Pensions  
Measured as of December 31, 2024  
for Fiscal Year Ending June 30, 2025  
REVISED





May 14, 2025

Board of Trustees  
City of Manchester Employees'  
Contributory Retirement System  
1045 Elm Street, Suite 403  
Manchester, New Hampshire 03101-1824

Dear Board Members:

This revised report provides information related to the City of Manchester Employees Contributory Retirement System (MECRS) in connection with the Governmental Accounting Standards Board (GASB) Statement Nos. 74 and 75. GASB Statement No. 74 is the accounting standard, which applies to Other Postemployment Benefits (OPEB) plans that are administered through trusts or equivalent arrangements. GASB Statement No. 75 establishes accounting and financial reporting requirements for State and local government employers that provide their employees with postemployment benefits other than pensions.

The calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement Nos. 74 and 75. The calculation of the plan's liability for this report is not applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 74 and 75 may produce significantly different results. This report may be provided to parties other than MECRS and/or the City only in its entirety and only with the permission of MECRS and/or the City. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by MECRS, concerning OPEB, active members, deferred vested members, retirees and beneficiaries, and financial data. This information was checked for internal consistency, but it was not audited.

The data, actuarial assumptions, and benefit provisions used in this report are the same as those used in the December 31, 2024 actuarial valuation unless otherwise noted. Please refer to that valuation for additional discussion regarding the data, assumptions, benefit provisions, and the nature of actuarial calculations.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation, and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Based on the available data, the information contained in this report is accurate and fairly represents the actuarial position of the retiree health subsidy provided by the City of Manchester Employees' Contributory Retirement System as of the reporting date. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as the Actuarial Standards of Practice. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision.

The benefits provided by MECRS are dollar benefits. Although the City may provide health insurance access, MECRS does not. The liabilities computed herein are based on the dollar benefits, not claims costs or premiums. Therefore, this report comprises only a portion of the City's reporting under GASB Statement No. 75. It is our understanding that liabilities associated with any implicit subsidies are provided from other sources. A review of those liabilities was outside the scope of this engagement.

Future actuarial measurements may differ significantly from the current measurements 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; and changes in plan provisions or applicable law.

Section G of the report details the calculation of the single discount rate and is not required to be included in your financial statements. However, this information may be requested by your auditors; therefore, we have included it in this report.

Heidi G. Barry and Kevin T. Noelke are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,  
**Gabriel, Roeder, Smith & Company**



Heidi G. Barry, ASA, FCA, MAAA



Kevin T. Noelke, ASA, FCA, MAAA

HGB/KTN:sc



Auditor's Note – This information is intended to assist in preparation of the financial statements of the retiree health subsidy provided by the Manchester Employees' Contributory Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.



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# SECTION A

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## EXECUTIVE SUMMARY

# Executive Summary as of December 31, 2024

Actuarial Valuation Date	December 31, 2024
Measurement Date of the Net OPEB Liability	December 31, 2024
Employer's Fiscal Year Ending Date (Reporting Date)	June 30, 2025

## Membership

Number of	
- Retirees and Beneficiaries	483
- Inactive, Nonretired Members	134
- Active Members	1,183
- Total	1,800
Covered Payroll <sup>^</sup>	\$ 67,129,760

## Net OPEB Liability

Total OPEB Liability	\$ 36,396,809
Plan Fiduciary Net Position	24,185,988
Net OPEB Liability	\$ 12,210,821
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	66.45 %
Net OPEB Liability as a Percentage of Covered Payroll	18.19 %

## Development of the Single Discount Rate

Single Discount Rate	6.75 %
Long-Term Expected Rate of Investment Return	6.75 %
Long-Term Municipal Bond Rate*	4.08 %
Last year ending December 31 in the 2025 to 2124 projection period for which projected benefit payments are fully funded	2124

<b>Total OPEB Expense</b>	<b>\$ 795,028</b>
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## Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future OPEB Expenses<sup>#</sup>

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 358,871	\$ 4,425,380
Changes in assumptions	923,653	-
Net difference between projected and actual earnings on OPEB plan investments	1,630,772	1,415,041
<b>Total</b>	<b>\$ 2,913,296</b>	<b>\$ 5,840,421</b>

<sup>^</sup> Based on valuation payroll as of December 31, 2024.

<sup>\*</sup>Source: Source: "20-Bond GO Index" is the Bond Buyer Index, general obligation, 20 years to maturity, mixed quality. In describing this index, the Bond Buyer notes that the bonds' average credit quality is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA. The rate shown is as of December 26, 2024, the most recent date available on or before the measurement date.

<sup>#</sup> The deferred outflows and inflows originating from before 2019 that were used in the City's prior year's financial reports were provided by the City's auditor.



# Discussion

## Accounting Standard

For post-employment (OPEB) benefit plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 74, “Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,” replaces the requirements of GASB Statement No. 43, “Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans.” Similarly, GASB Statement No. 75 establishes standards for State and local government employers (as well as non-employer contributing entities) to account for and disclose net OPEB liability, OPEB expense, and other information associated with providing OPEB to their employees (and former employees) on their financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report. As a result, the plan sponsor will be responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

## Financial Statements

GASB Statement No. 75 requires State and local government employers to recognize the net OPEB liability and the OPEB expense on their financial statements, along with the related deferred outflows and inflows of resources. The net OPEB liability is the difference between the total OPEB liability and the plan’s fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets.

GASB Statement No. 75 states the employer contributions made to the OPEB plan subsequent to the measurement date and before the end of the employer’s reporting period should be reported as a deferred outflow of resources. The information contained in this report does not incorporate any employer contributions made subsequent to the measurement date of December 31, 2024.

The OPEB expense recognized each fiscal year is equal to the change in the net OPEB liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

GASB Statement No. 74 requires defined benefit OPEB plans which are administered as trusts or equivalent arrangements to present two financial statements: a statement of fiduciary net position and a statement of changes in fiduciary net position. The statement of fiduciary net position presents the assets and liabilities of the OPEB plan at the end of the OPEB plan’s reporting period. The statement of changes in fiduciary net position presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expense, and net increase or decrease in the fiduciary net position.



# Discussion

## Notes to Financial Statements

GASB Statement No. 75 requires the notes of the employer's financial statements to disclose the total OPEB expense, the OPEB plan's liabilities and assets, and deferred outflows of resources and inflows of resources related to OPEB.

GASB Statement Nos. 74 and 75 require the notes of the financial statements for employers and OPEB plans to include certain additional information. The list of disclosure items should include:

- The name of the OPEB plan, the administrator of the OPEB plan, and the identification of whether the OPEB plan is a single-employer, agent, or cost-sharing OPEB plan;
- A description of the benefits provided by the plan;
- A brief description of changes in benefit terms or assumptions that affected the measurement of the total OPEB liability since the prior measurement date;
- The number of plan members by category and if the plan is closed;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The OPEB plan's investment policies;
- The OPEB plan's fiduciary net position and the net OPEB liability (if applicable);
- The net OPEB liability using +/- 1% on the discount rate;
- The net OPEB liability using +/- 1% on the healthcare trend rate;
- Significant assumptions and methods used to calculate the total OPEB liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

OPEB plans that are administered through trusts or equivalent arrangements are required to disclose additional information in accordance with GASB Statement No. 74. This information includes:

- The composition of the OPEB plan's Board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

# Discussion

## Required Supplementary Information

GASB Statement No. 74 requires a 10-year fiscal history of:

- Sources of changes in the net OPEB liability;
- Information about the components of the net OPEB liability and related ratios, including the OPEB plan's fiduciary net position as a percentage of the total OPEB liability, and the net OPEB liability as a percent of covered-employee payroll;
- Comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy; and
- For plans with an actuarially determined contribution, the schedule covering each of the 10 most recent fiscal years of the actuarially determined contribution, contributions to the OPEB plan and related ratios.

## Frequency and Timing of the Actuarial Valuation

An actuarial valuation to determine the total OPEB liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net OPEB liability and OPEB expense should be measured as of the employer's "measurement date," which may not be earlier than the employer's prior fiscal year-end date. If the actuarial valuation used to determine the total OPEB liability is not calculated as of the measurement date, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total OPEB liability shown in this report is based on an actuarial valuation performed as of December 31, 2024 and a measurement date of December 31, 2024.

## Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate (SDR) that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on OPEB plan investments is 6.75%; the municipal bond rate is 4.08% (based on the daily rate closest to but not later than the measurement date of the Bond Buyer "20-Bond GO Index"); and the resulting Single Discount Rate is 6.75%.

Analysis of any implicit rate subsidy that may exist was outside the scope of this engagement. In particular we have not analyzed whether or not the implicit subsidy would affect the calculation of the SDR; nor have we been provided the data to perform such an analysis.



# Discussion

## Future Uncertainty or Risk

Future results may differ from those anticipated in this valuation. Reasons include, but are not limited to:

- Actual medical trend differing from expected;
- Changes in the healthcare plan designs offered to active and retired members; and
- Participant behavior differing from expected; e.g.,
  - Elections at retirement;
  - Time of retirement or termination.

## Benefits Valued

The benefit provisions that were valued are described in Section E. The valuation is required to be performed on the current benefit terms and existing legal agreements. Consideration is to be given to the written plan document as well as other communications between the employer and plan members and an established pattern of practice for cost sharing. The summary of major plan provisions is designed to outline principal plan benefits. If the plan summary is not in accordance with the actual provisions, please alert the actuaries IMMEDIATELY, so they can both be sure the proper provisions are valued.

## Actuarial Assumptions

There were no assumption changes during the year.

## Benefit Changes

There were no benefit changes during the year.

## SECTION B

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### FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Manchester Employees' Contributory Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

# Statement of OPEB Expense under GASB Statement No. 75 for Fiscal Year Ending June 30, 2025 with Measurement Date December 31, 2024

## A. Expense

1. Service Cost	\$	901,553
2. Interest on the Total OPEB Liability		2,327,878
3. Current-Period Benefit Changes		-
4. Employee Contributions (made negative for addition here)		(839,091)
5. Projected Earnings on Plan Investments (made negative for addition here)		(1,463,810)
6. OPEB Plan Administrative Expense		65,518
7. Other Changes in Plan Fiduciary Net Position		-
8. Recognition of Outflow (Inflow) of Resources due to Liabilities		(267,518)
9. Recognition of Outflow (Inflow) of Resources due to Assets		70,498
10. Total OPEB Expense	\$	795,028

# Statement of Outflows and Inflows Arising from Current Reporting Period for Fiscal Year Ending June 30, 2025 with Measurement Date December 31, 2024

## A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total OPEB Liability (gains) or losses	\$ (40,842)
2. Assumption Changes (gains) or losses	-
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	6.3915
4. Outflow (Inflow) of Resources to be recognized in the current OPEB expense for the difference between expected and actual experience of the Total OPEB Liability	(6,390)
5. Outflow (Inflow) of Resources to be recognized in the current OPEB expense for assumption changes	-
6. Outflow (Inflow) of Resources to be recognized in the current OPEB expense due to Liabilities	\$ (6,390)
7. Deferred Outflow (Inflow) of Resources to be recognized in future OPEB expenses for the difference between expected and actual experience of the Total OPEB Liability	(34,452)
8. Deferred Outflow (Inflow) of Resources to be recognized in future OPEB expenses for assumption changes	-
9. Deferred Outflow (Inflow) of Resources to be recognized in future OPEB expenses due to Liabilities	\$ (34,452)

## B. Outflows (Inflows) of Resources due to Assets

1. Net difference between projected and actual earnings on OPEB plan investments (gains) or losses	\$ (720,497)
2. Recognition period for Assets {in years}	5.0000
3. Outflow (Inflow) of Resources to be recognized in the current OPEB expense due to Assets	(144,099)
4. Deferred Outflow (Inflow) of Resources to be recognized in future OPEB expenses due to Assets	\$ (576,398)



# Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods for Fiscal Year Ending June 30, 2025 with Measurement Date December 31, 2024

## A. Outflows and Inflows of Resources by Source to be Recognized in Current OPEB Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ 251,587	\$ 1,039,562	\$ (787,975)
2. Assumption changes	520,457	-	520,457
3. Net difference between projected and actual earnings on OPEB plan investments	815,385	744,887	70,498
<b>4. Total</b>	<b>\$ 1,587,429</b>	<b>\$ 1,784,449</b>	<b>\$ (197,020)</b>

## B. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future OPEB Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	\$ 358,871	\$ 4,425,380	\$ (4,066,509)
2. Assumption changes	923,653	-	923,653
3. Net difference between projected and actual earnings on OPEB plan investments	1,630,772	1,415,041	215,731
<b>4. Total</b>	<b>\$ 2,913,296</b>	<b>\$ 5,840,421</b>	<b>\$ (2,927,125)</b>

## C. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future OPEB Expenses

Year Ending June 30	Net Deferred Outflows of Resources
2026	\$ (82,928)
2027	(64,002)
2028	(1,300,818)
2029	(1,129,112)
2030	(347,763)
Thereafter	(2,502)
<b>Total</b>	<b>\$ (2,927,125)</b>

Employer contributions that were made subsequent to the measurement date of the net OPEB liability and prior to the end of the employer's reporting period should be reported by the employer as a deferred outflow of resources related to OPEB. The information contained in this report does not incorporate any contributions made subsequent to the measurement date.

See paragraph 44 of GASB Statement No. 75 for single and agent employers with trusted plans.

Also, Question 4.32 of Implementation Guide No. 2017-1 provides additional guidance for trusted plans.



# Recognition of Deferred Outflows and Inflows of Resources

(Reporting) Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
<b>Deferred Outflow (Inflow) due to Differences Between Expected and Actual Experience on Liabilities</b>					
2019	\$ 871,321	7.2683	\$ 119,880	\$ 32,161	0.2683
2020	108,038	6.9381	15,572	14,606	0.9381
2021	(158,010)	6.7747	(23,324)	(41,390)	1.7747
2022	776,644	6.6874	116,135	312,104	2.6874
2023	(401,765)	6.4952	(61,856)	(216,197)	3.4952
2024	(6,029,325)	6.3601	(947,992)	(4,133,341)	4.3601
2025	(40,842)	6.3915	(6,390)	(34,452)	5.3915
<b>Total</b>			<b>\$ (787,975)</b>	<b>\$ (4,066,509)</b>	
<b>Deferred Outflow (Inflow) due to Assumption Changes</b>					
2019	\$ -	7.2683	\$ -	\$ -	0.2683
2020	-	6.9381	-	-	0.9381
2021	3,525,938	6.7747	520,457	923,653	1.7747
2022	-	6.6874	-	-	2.6874
2023	-	6.4952	-	-	3.4952
2024	-	6.3601	-	-	4.3601
2025	-	6.3915	-	-	5.3915
<b>Total</b>			<b>\$ 520,457</b>	<b>\$ 923,653</b>	
<b>Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments</b>					
2021	\$ (1,013,890)	5.0000	\$ (202,778)	\$ -	0.0000
2022	(888,466)	5.0000	(177,693)	(177,694)	1.0000
2023	4,076,927	5.0000	815,385	1,630,772	2.0000
2024	(1,101,583)	5.0000	(220,317)	(660,949)	3.0000
2025	(720,497)	5.0000	(144,099)	(576,398)	4.0000
<b>Total</b>			<b>\$ 70,498</b>	<b>\$ 215,731</b>	

Differences between expected and actual experience and changes in assumptions are recognized in OPEB expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with OPEB through the OPEB plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the current measurement period, the expected remaining service lives of all active employees in the plan was approximately 10,891 years. Additionally, the total plan membership (active employees and inactive employees) was 1,704. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 6.3915 years.

Additionally, differences between projected and actual earnings on OPEB plan investments should be recognized in OPEB expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the OPEB expense as a level dollar amount over the closed period identified above.

# Statement of Fiduciary Net Position as of December 31, 2024

## Assets

Cash and Deposits	\$ 9,326,835
Receivables	
Accounts Receivable - Sale of Investments	\$ 455,433
Accrued Interest and Other Dividends	28,423
Additional Contribution Account	-
Property, Plant, Equipment	2,652
Total Receivables	<u>\$ 486,508</u>
Investments	\$ 315,445,704
<b>Total Assets</b>	<u><u>\$ 325,259,047</u></u>

## Liabilities

Payables	
Accounts Payable and Accrued Expenses	\$ 173,199
Benefits Payable	2,222,288
<b>Total Liabilities</b>	<u>\$ 2,395,487</u>
 <b>Assets Held for Pensions</b>	 <u>\$ 298,677,572</u>
 <b>Net Position Restricted for OPEB</b>	 <u><u>\$ 24,185,988</u></u>

# Statement of Changes in Fiduciary Net Position for Year Ended December 31, 2024

## Additions

### Contributions

Employer	\$ 1,513,810
Nonemployer contributing entities	-
Active Employees	839,091
Other	-
<b>Total Contributions</b>	<u>\$ 2,352,901</u>

### Investment Income

Net Appreciation in Fair Value of Investments	\$ 2,026,225
Interest and Dividends	219,966
Less Investment Expense	(61,884)
<b>Net Investment Income</b>	<u>\$ 2,184,307</u>

Other	-
<b>Total Additions</b>	<u>\$ 4,537,208</u>

## Deductions

Benefit Payments	\$ 1,656,161
OPEB Plan Administrative Expense	65,518
Other	-
<b>Total Deductions</b>	<u>\$ 1,721,679</u>

<b>Net Increase in Net Position</b>	\$ 2,815,529
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## Net Position Restricted for OPEB

Beginning of Year	\$ 21,370,459
Prior Year Adjustment	-
<b>End of Year</b>	<u><u>\$ 24,185,988</u></u>

# Schedule of Proportionate Employer Share for Fiscal Year Ending June 30, 2025 with Measurement Date December 31, 2024

## Deferred Outflows of Resources

Covered Payroll	Employer	Prop. Share End of Year	Prop. Share Beginning of Year	Net OPEB Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on OPEB Plan Investments*	Changes of Assum.	Changes in Proportion and Differences Between Employer Cont. and Share of Cont.	Total Deferred Outflows of Resources
\$ 5,952,541	Airport	8.87%	8.45%	\$ 1,083,100	\$ 31,832	\$ 19,135	\$ 81,928	\$ 203,568	\$ 336,463
562,387	Parking Control	0.84%	0.84%	102,571	3,015	1,812	7,759	18,121	30,707
2,785,250	Environmental Protection	4.15%	4.02%	506,749	14,893	8,953	38,332	89,195	151,373
14,455,651	School District	21.53%	20.38%	2,628,990	77,265	46,447	198,862	446,660	769,234
6,219,536	Water Works	9.26%	8.54%	1,130,722	33,231	19,977	85,530	217,441	356,179
37,154,395	General Fund City Departments	55.35%	57.77%	6,758,689	198,635	119,407	511,242	129,345	958,629
<b>\$ 67,129,760</b>	<b>Total for All Employers</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$ 12,210,821</b>	<b>\$ 358,871</b>	<b>\$ 215,731</b>	<b>\$ 923,653</b>	<b>\$ 1,104,330</b>	<b>\$ 2,602,585</b>

\* We understand that the recommendation of the American Institute of Certified Public Accountants (AICPA) is for the deferred inflows resulting from the net difference between projected and actual investment earnings on pension plan investments to be shown net of the respective outflows resulting from this difference. Beginning in the 2019 report, only the net amount is shown.



**Schedule of Proportionate Employer Share  
for Fiscal Year Ending June 30, 2025  
with Measurement Date December 31, 2024  
(Concluded)**

Deferred Inflows of Resources				OPEB Expense			
Differences Between Expected and Actual Experience	Changes of Assum.	Changes in Proportion and Differences Between Employer Cont. and Share of Cont.	Total Deferred Inflows of Resources	Prop. Share of Plan OPEB Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer OPEB Expense	
\$ 392,531	\$ -	\$ 148,991	\$ 541,522	\$ 70,519	\$ 38,493	\$ 109,012	
37,173	-	15,047	52,220	6,678	3,178	9,856	
183,653	-	64,389	248,042	32,994	23,629	56,623	
952,784	-	147,296	1,100,080	171,170	27,011	198,181	
409,790	-	110,617	520,407	73,620	56,434	130,054	
2,449,449	-	617,990	3,067,439	440,047	(148,745)	291,302	
<b>\$ 4,425,380</b>	<b>\$ -</b>	<b>\$ 1,104,330</b>	<b>\$ 5,529,710</b>	<b>\$ 795,028</b>	<b>\$ -</b>	<b>\$ 795,028</b>	

## SECTION C

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### **REQUIRED SUPPLEMENTARY INFORMATION**

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Manchester Employees' Contributory Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

# Schedule of Changes in Net OPEB Liability and Related Ratios

## Current Reporting Period

### for Fiscal Year Ending June 30, 2025

### with Measurement Date December 31, 2024

#### A. Total OPEB liability

1. Service cost	\$ 901,553
2. Interest on the total OPEB liability	2,327,878
3. Changes of benefit terms	-
4. Difference between expected and actual experience of the total OPEB liability	(40,842)
5. Changes of assumptions	-
6. Benefit payments, including refunds of employee contributions	(1,656,161)
<b>7. Net change in total OPEB liability</b>	<b>1,532,428</b>
<b>8. Total OPEB liability – beginning</b>	<b>34,864,381</b>
<b>9. Total OPEB liability – ending</b>	<b>\$ 36,396,809</b>

#### B. Plan fiduciary net position

1. Contributions – employer	\$ 1,513,810
2. Contributions – nonemployer contributing entities	-
3. Contributions – employee	839,091
4. Net investment income	2,184,307
5. Benefit payments, including refunds of employee contributions	(1,656,161)
6. OPEB plan administrative expense	(65,518)
7. Other	-
<b>8. Net change in plan fiduciary net position</b>	<b>2,815,529</b>
<b>9. Plan fiduciary net position – beginning*</b>	<b>21,370,459</b>
<b>10. Plan fiduciary net position – ending</b>	<b>\$ 24,185,988</b>

#### C. Net OPEB liability

**\$ 12,210,821**

#### D. Plan fiduciary net position as a percentage of the total OPEB liability

66.45 %

#### E. Covered-employee payroll

\$ 67,129,760

#### F. Net OPEB liability as a percentage of covered-employee payroll

18.19 %

\* Net of post-valuation adjustment (if any).



# Schedules of Required Supplementary Information

## Schedule of Changes in Net OPEB Liability and Related Ratios Multiyear

Ultimately 10 Fiscal Years Will be Displayed (which may be built prospectively)

Measurement Period Ending December 31,	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
<b>Total OPEB liability</b>										
Service cost	\$ 901,553	\$ 828,254	\$ 836,879	\$ 800,532	\$ 750,882	\$ 722,950	\$ 667,057			
Interest on the total OPEB liability	2,327,878	2,608,199	2,516,831	2,355,738	2,103,564	1,993,098	1,834,405			
Changes of benefit terms	-	-	-	-	-	-	-			
Difference between expected and actual experience	(40,842)	(6,029,325)	(401,765)	776,644	(158,010)	108,038	871,321			
Changes of assumptions	-	-	-	-	3,525,938	-	-			
Benefit payments, including refunds of employee contributions	(1,656,161)	(1,537,208)	(1,650,847)	(1,478,210)	(1,318,384)	(1,201,543)	(1,065,835)			
<b>Net change in total OPEB liability</b>	<b>1,532,428</b>	<b>(4,130,080)</b>	<b>1,301,098</b>	<b>2,454,704</b>	<b>4,903,990</b>	<b>1,622,543</b>	<b>2,306,948</b>			
<b>Total OPEB liability - beginning</b>	<b>34,864,381</b>	<b>38,994,461</b>	<b>37,693,363</b>	<b>35,238,659</b>	<b>30,334,669</b>	<b>28,712,126</b>	<b>26,405,178</b>			
<b>Total OPEB liability - ending (a)</b>	<b>\$ 36,396,809</b>	<b>\$ 34,864,381</b>	<b>\$ 38,994,461</b>	<b>\$ 37,693,363</b>	<b>\$ 35,238,659</b>	<b>\$ 30,334,669</b>	<b>\$ 28,712,126</b>			
<b>Plan fiduciary net position</b>										
Employer contributions	\$ 1,513,810	\$ 1,770,966	\$ 1,615,726	\$ 1,439,820	\$ 1,252,923	\$ 1,075,844	\$ 856,677			
Nonemployer contributing entities contributions	-	-	-	-	-	-	-			
Employee contributions	839,091	778,070	721,128	710,291	702,739	682,470	674,011			
OPEB plan net investment income	2,184,307	2,353,094	(2,696,932)	2,085,283	2,074,039	2,002,516	(688,995)			
Benefit payments, including refunds of employee contributions	(1,656,161)	(1,537,208)	(1,650,847)	(1,478,210)	(1,318,384)	(1,201,543)	(1,065,835)			
OPEB plan administrative expense	(65,518)	(58,905)	(52,011)	(48,968)	(58,908)	(47,490)	(37,111)			
Other	-	-	-	-	(128)	(2,239)	(3,484)			
<b>Net change in plan fiduciary net position</b>	<b>2,815,529</b>	<b>3,306,017</b>	<b>(2,062,936)</b>	<b>2,708,216</b>	<b>2,652,281</b>	<b>2,509,558</b>	<b>(264,737)</b>			
<b>Plan fiduciary net position - beginning</b>	<b>21,370,459</b>	<b>18,064,442</b>	<b>20,127,378</b>	<b>17,419,162</b>	<b>14,772,702</b>	<b>12,268,459</b>	<b>12,535,536</b>			
<b>Adjustment</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(5,821)</b>	<b>(5,315)</b>	<b>(2,340)</b>			
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 24,185,988</b>	<b>\$ 21,370,459</b>	<b>\$ 18,064,442</b>	<b>\$ 20,127,378</b>	<b>\$ 17,419,162</b>	<b>\$ 14,772,702</b>	<b>\$ 12,268,459</b>			
<b>Net OPEB liability - ending (a) - (b)</b>	<b>\$ 12,210,821</b>	<b>\$ 13,493,922</b>	<b>\$ 20,930,019</b>	<b>\$ 17,565,985</b>	<b>\$ 17,819,497</b>	<b>\$ 15,561,967</b>	<b>\$ 16,443,667</b>			
<b>Plan fiduciary net position as a percentage of total OPEB liability</b>	<b>66.45 %</b>	<b>61.30 %</b>	<b>46.33 %</b>	<b>53.40 %</b>	<b>49.43 %</b>	<b>48.70 %</b>	<b>42.73 %</b>			
<b>Covered-employee payroll</b>	<b>\$ 67,129,760</b>	<b>\$ 62,181,204</b>	<b>\$ 56,969,297</b>	<b>\$ 55,323,580</b>	<b>\$ 54,254,463</b>	<b>\$ 52,895,992</b>	<b>\$ 51,787,265</b>			
<b>Net OPEB liability as a percentage of covered-employee payroll</b>	<b>18.19 %</b>	<b>21.70 %</b>	<b>36.74 %</b>	<b>31.75 %</b>	<b>32.84 %</b>	<b>29.42 %</b>	<b>31.75 %</b>			
<b>Notes to Schedule:</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>			



# Schedules of Required Supplementary Information

## Schedule of the Net OPEB Liability Multiyear

(Ultimately 10 Years Will Be Displayed)

Measurement Date December 31	Total OPEB Liability	Plan Net Position	Net OPEB Liability	Plan Net Position as a % of Total OPEB Liability	Covered Payroll*	Net OPEB Liability as a % of Covered Payroll
2017	\$ 26,405,178	\$ 12,535,536	\$ 13,869,642	47.47 %	\$ 53,364,536	25.99 %
2018	28,712,126	12,268,459	16,443,667	42.73 %	51,787,265	31.75 %
2019	30,334,669	14,772,702	15,561,967	48.70 %	52,895,992	29.42 %
2020	35,238,659	17,419,162	17,819,497	49.43 %	54,254,463	32.84 %
2021	37,693,363	20,127,378	17,565,985	53.40 %	55,323,580	31.75 %
2022	38,994,461	18,064,442	20,930,019	46.33 %	56,969,297	36.74 %
2023	34,864,381	21,370,459	13,493,922	61.30 %	62,181,204	21.70 %
2024	36,396,809	24,185,988	12,210,821	66.45 %	67,129,760	18.19 %

*\*Based on valuation payroll as of plan year ending December 31.*



# Schedule of Contributions Multiyear

(Ultimately 10 Years Will Be Displayed)

Fiscal Year Ending June 30	Actuarially Determined Contribution (ADC) <sup>#</sup>	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll*	Actual Contribution as a % of Covered Payroll
2018	\$ 715,870	\$ 715,870	\$ -	\$ 53,364,536	1.34 %
2019	856,677	856,677	-	51,787,265	1.65 %
2020	1,075,844	1,075,844	-	52,895,992	2.03 %
2021	1,252,923	1,252,923	-	54,254,463	2.31 %
2022	1,439,820	1,439,820	-	55,323,580	2.60 %
2023	1,615,726	1,615,726	-	56,969,297	2.84 %
2024	1,770,966	1,770,966	-	62,181,204	2.85 %
2025	1,513,810	1,513,810	-	67,129,760	2.26 %

\* Based on valuation payroll as of plan year ending December 31.

# Employer contributions based on percent of payroll. Employer pays ADC percentage.



# Notes to Schedule of Contributions

**Valuation Date:** December 31, 2022 and December 31, 2023  
**Notes** Actuarially determined contribution rates are calculated as of December 31 for the contribution period starting 6 months later. Actual contributions reported during the plan year are therefore based on two consecutive ADCs.

## Methods and Assumptions Used to Determine the Fiscal Year Ending June 30, 2024 Contribution Rate:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	17 years
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage Inflation	2.50%
Salary Increases	3.25% to 6.93%, including inflation
Investment Rate of Return	6.75% (net of investment expenses)
Retirement Age	Age and Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	Pub-2010 Mortality Table projected to 2039 for males and females using projection scale MP-2019.
Expense Load	None.
Increases	Annual health subsidy amounts are assumed to increase by 4% annually.
Health Care Trend Rates	Not applicable, given that the benefits are fixed stipends.
Aging Factors	Not applicable, given that the benefits are fixed stipends.

**Other Information:**  
**Notes** There were no changes to benefit provision or actuarial assumptions or methods.

## Methods and Assumptions Used to Determine the Fiscal Year Ending June 30, 2025 Contribution Rate:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	16 years
Asset Valuation Method	5-Year smoothed market; 20% corridor
Wage Inflation	2.50%
Salary Increases	3.25% to 6.93% including inflation
Investment Rate of Return	6.75% (net of investment expenses)
Retirement Age	Age and Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	Pub-2010 Mortality Table projected to 2039 for males and females using projection scale MP-2019.
Expense Load	None.
Increases	Annual health subsidy amounts are assumed to increase by 4% annually.
Health Care Trend Rates	Not applicable, given that the benefits are fixed stipends.
Aging Factors	Not applicable, given that the benefits are fixed stipends.

**Other Information:**  
**Notes** There were no changes to benefit provision or actuarial assumptions or methods.



## SECTION D

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### NOTES TO FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Manchester Employees' Contributory Retirement System. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

## Single Discount Rate

A Single Discount Rate of 6.75% was used to measure the total OPEB liability. This Single Discount Rate was based on the expected rate of return on OPEB plan investments of 6.75%. The projection of cash flows used to determine this Single Discount Rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rate. Based on these assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

## Summary of Population Statistics

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	483
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	134
Active Plan Members	1,183
Total Plan Members	<u>1,800</u>

## Sensitivity of Net OPEB Liability

Regarding the sensitivity of the net OPEB liability to changes in the Single Discount Rate, the following presents the plan's net OPEB liability, calculated using a Single Discount Rate of 6.75%, as well as what the plan's net OPEB liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

### Sensitivity of Net OPEB Liability to the Single Discount Rate Assumption

	1% Decrease 5.75%	Current Single Discount Rate Assumption 6.75%	1% Increase 7.75%
Total OPEB Liability (TOL)	\$ 41,080,508	\$ 36,396,809	\$ 32,498,378
Net Position Restricted for OPEB	24,185,988	24,185,988	24,185,988
Net OPEB Liability	\$ 16,894,520	\$ 12,210,821	\$ 8,312,390

## SECTION E

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### SUMMARY OF BENEFITS

## Summary of Health Subsidy Benefits

Current and future retired members who are in receipt of an annuity benefit may elect to participate in a monthly health insurance subsidy. Spouses, dependents, and/or beneficiaries are not eligible for any subsidy. The full amount of the monthly health insurance subsidy is \$200 as of January 1, 2006 and increases by 4% annually beginning January 1, 2007, subject to a maximum of the plan's monthly premium. The full \$200 is prorated based on the member's service at retirement, as shown in the schedule below. Members who were already retired as of March 2006 are entitled to 50% of the subsidy available to members retired after March 2006. Active members must contribute 1.25% of pay. Member contributions for the health subsidy are non-refundable.

Service at Retirement	% of Full Subsidy Payable	
	Active on or after March 1, 2006	Terminated Vested or Retired on March 1, 2006
Less than 10 years	25.0%	12.5%
10 years or more, but less than 15 years	50.0%	25.0%
15 years or more, but less than 20 years	75.0%	37.5%
20 years or more	100.0%	50.0%

## SECTION F

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### **ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS**

## Actuarial Cost Method

**Normal cost and the allocation of benefit values** between service rendered before and after the valuation date was determined using the *individual entry-age actuarial cost method*. GASB Statement Nos. 74 and 75 require the use of this method having 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;
- Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay; and
- The use of Market Value of Assets for the Net Position Restricted for OPEB.

## Actuarial Assumptions

The contribution requirements and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and member information furnished, using the actuarial cost method described on the previous page.

The principal areas of financial risk which require assumptions about future experience are:

- Long-term rates of investment return to be generated by the assets of the System;
- Patterns of pay increases to members;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives - - - a period of time which can be as long as a century.

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Actual experience of the System will not coincide exactly with assumed experience, regardless of the accuracy of the assumptions, or the skill of the actuary and the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). The Board has established a policy of performing an Experience Study every 3-5 years to evaluate/modify valuation assumptions. Assumptions used in this report are based on the January 1, 2017 – December 31, 2019 experience study of the MECRS and were adopted by the Board. These assumptions were first used in the December 31, 2020 actuarial valuation. We believe the assumptions are reasonable individually and in the aggregate.

## Actuarial Assumptions

**The rate of investment return was 6.75% per year**, compounded annually (net of investment expenses). This assumption is used to make money payable at one point in time equal in value to a different amount of money payable at another point in time. The assumed real rate of return (the net return in excess of the wage inflation rate) is 4.25%. Experience over the last 5 years has been as follows:

	Year Ended December 31					5-Year Average
	2024	2023	2022	2021	2020	
1) Nominal rate of return#	6.40 %	7.00 %	4.00 %	9.70 %	8.60 %	7.12 %
2) Increase in CPI	2.89 %	3.35 %	6.45 %	7.04 %	1.36 %	4.20 %
3) Average Salary Increase (ASI)	2.12 %	3.20 %	4.14 %	3.69 %	5.49 %	3.72 %
4) Real Return						
- Total: CPI (1) - (2)						2.93 %
- Total: ASI (1) - (3)						3.40 %
- Assumption	4.25 %	4.25 %	4.25 %	4.25 %	4.25 %	4.25 %

# The nominal rate of return was computed using the approximate formula:  $i = I$  divided by  $\frac{1}{2}(A+B-I)$ , where  $I$  is realized investment income net of expenses,  $A$  is the beginning of year asset funding value and  $B$  is the end of year funding asset value.

**The rate of assumed price inflation** was 2.00% per year. This results in a real rate of return over price inflation of 4.75%.

These economic assumptions were updated for the December 31, 2020 valuation.

## Actuarial Assumptions (Continued)

**The rates of salary increase** used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

Years of Service	Salary Increase Assumptions for an Individual Member		
	Merit & Seniority	Base (Economic)	Increase Next Year
1	3.46%	2.50%	5.96%
2	4.43%	2.50%	6.93%
3	4.22%	2.50%	6.72%
4	3.70%	2.50%	6.20%
5	3.38%	2.50%	5.88%
6	2.93%	2.50%	5.43%
7	2.55%	2.50%	5.05%
8	2.26%	2.50%	4.76%
9	2.06%	2.50%	4.56%
10	1.85%	2.50%	4.35%
15	1.08%	2.50%	3.58%
20	0.77%	2.50%	3.27%
25	0.75%	2.50%	3.25%
30	0.75%	2.50%	3.25%
35	0.75%	2.50%	3.25%
40	0.75%	2.50%	3.25%

If the number of active members remains constant, then the total active member payroll will increase 2.50% annually, the base portion of the individual salary increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities.

Rates of salary increase were updated for the December 31, 2020 valuation.

## Actuarial Assumptions (Continued)

**The rates of retirement** used to measure the probability of eligible members retiring during the next year were updated for the December 31, 2020 valuation and are as follows:

Active Members Retiring Next Year Under Normal Retirement			Active Members Retiring Next Year Under Early Retirement			
Ages	% Retiring		Ages	% Retiring		
				Age and Service		Rule of 80
	Male	Female		Male	Female	
60	12%	8%	50			10%
61	11%	15%	51			4%
62	22%	19%	52			7%
63	18%	10%	53			5%
64	18%	10%	54			5%
65	24%	19%	55	5%	10%	5%
66	38%	27%	56	5%	15%	4%
67	15%	19%	57	5%	8%	8%
68	39%	15%	58	5%	7%	8%
69	15%	22%	59	5%	7%	10%
70	27%	25%				
71	50%	19%				
72	42%	19%				
73	50%	19%				
74	50%	19%				
75	100%	19%				
76	100%	19%				
77	100%	19%				
78	100%	19%				
79	100%	19%				
80	100%	100%				

A member was assumed to be eligible for normal retirement after attaining age 60 regardless of service. A member was assumed to be eligible for early retirement after attaining age 55 with at least 20 years of service or if the sum of age and service is at least 80.

## Actuarial Assumptions (Continued)

**The post-retirement healthy mortality table** was the Pub-2010 General Healthy Retiree Table projected to 2039 using projection scale MP-2019.

Sample Attained Ages	Single Life Retirement Values					
	Present Value of \$1 Monthly for Life		Percent Dying Next Year		Future Life Expectancy (Years)	
	Male	Female	Male	Female	Male	Female
50	\$158.10	\$162.48	0.2552%	0.1899%	34.83	37.64
55	150.84	156.27	0.3655%	0.2572%	30.30	33.01
60	141.83	148.25	0.5441%	0.3494%	25.91	28.46
65	130.71	137.94	0.7880%	0.5138%	21.66	23.99
70	117.05	125.04	1.2298%	0.8314%	17.58	19.67
75	101.05	109.55	2.0765%	1.4535%	13.77	15.59
80	83.40	91.89	3.6906%	2.6437%	10.36	11.86

This assumption is used to measure the probabilities of members dying after retirement. The projection to 2039 is the margin for mortality improvement.

**Post-retirement disabled mortality table** is the Pub-2010 General Disabled Retiree Table projected to 2039 using projection scale MP-2019.

**Pre-retirement mortality** is modeled using the Pub-2010 General Employee Table projected to 2039 using projection scale MP-2019.

These tables were updated for the December 31, 2020 valuation in accordance with an experience study for the System of the 3-year period ended December 31, 2019.

## Actuarial Assumptions (Concluded)

**Rates of separation from active membership** are shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment. These rates were updated for the December 31, 2020 valuation.

Sample Ages	Years of Service	% of Active Members Separating within Next Year	
		Male	Female
	0-1	24.00%	36.00%
	1-2	18.00%	26.00%
	2-3	13.00%	22.00%
	3-4	7.00%	14.00%
	4-5	7.00%	14.00%
	5-6	n/a	11.00%
30	5 & Up (Men)		
35	6 & Up (Women)	4.00%	6.89%
40		2.96%	5.79%
45		2.33%	5.01%
50		2.00%	4.42%
		1.87%	3.84%

**Rates of disability** are divided two-thirds toward duty and one-third toward non-duty disability and are as follows:

Sample Ages	% of Active Members Becoming Disabled within Next Year	
	Male	Female
20	0.003%	0.003%
25	0.003%	0.003%
30	0.003%	0.003%
35	0.013%	0.013%
40	0.051%	0.051%
45	0.105%	0.105%
50	0.173%	0.173%
55	0.256%	0.256%
60	0.382%	0.382%

## Miscellaneous and Technical Assumptions

<b>Decrement Timing:</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing:</b>	Eligibility for benefits is determined based upon the age nearest birthday and exact fractional service on the date the decrement is assumed to occur.
<b>Decrement Relativity:</b>	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
<b>Decrement Operation:</b>	Disability and withdrawal decrements do not operate after member reaches retirement eligibility.
<b>Benefit Service:</b>	Exact fractional service as of the valuation date is used to determine the amount of benefit payable.
<b>Incidence of Contributions:</b>	Contributions are assumed to be received continuously throughout the year based upon the actual payroll payable at the time contributions are made.
<b>Subsidy COLA Assumption:</b>	The only increases in subsidy benefits valued are the 4% annual increases called for in the plan provisions.
<b>Utilization:</b>	55% of current actives and 25% of current terminated vested members were assumed to elect to receive the post-retirement health subsidy upon retirement. Current retirees were assumed not to alter their initial election after retirement.
<b>Data Processing:</b>	The Retirement System provides data in Excel format. GRS reviews the data for reasonableness and completeness. Questions are sent to the System. Data is then modified based on the answers provided. For new members with less than one year of earnings, reported pay is annualized based on reported service.
<b>Data Adjustments:</b>	For members who have no salary provided, their prior year's salary was used.

## SECTION G

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### CALCULATION OF THE SINGLE DISCOUNT RATE

## Calculation of the Single Discount Rate

GASB Statement No. 74 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total OPEB Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on OPEB plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on OPEB plan investments is 6.75%; the municipal bond rate is 4.08%; and the resulting Single Discount Rate is 6.75%.

The tables in this section provide background for the development of the Single Discount Rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate. It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

The projections in this report are strictly for the purpose of determining the GASB single discount rate and are different from a funding projection for the ongoing plan. Contribution amounts shown are strictly for the purpose of testing for a GASB depletion date and may differ from those determined by a funding valuation.

This analysis was performed without regard to any implicit rate subsidy that might exist. An analysis of how the implicit rate subsidy (if any) affects this calculation was outside the scope of this engagement.

# Single Discount Rate Development

## Projection of Contributions Ending December 31 for 2025 to 2074

Year	Projected Payroll for Current Employees	Projected Contributions from Current Employees	Projected Service Cost and Expense Contributions	Projected UAL Contributions	Projected Total Contributions
2024	\$ 67,129,760				
2025	70,330,273	\$ 500,294	\$ 476,280	\$ 1,100,718	\$ 2,077,292
2026	63,984,105	439,349	418,260	1,128,236	1,985,845
2027	59,414,266	395,701	376,707	1,156,442	1,928,850
2028	55,894,728	364,376	346,886	1,185,353	1,896,615
2029	52,950,013	338,347	322,106	1,214,987	1,875,439
2030	50,260,284	314,315	299,227	1,245,361	1,858,903
2031	47,903,732	294,907	280,752	1,276,495	1,852,154
2032	45,730,060	277,174	263,869	1,308,408	1,849,451
2033	43,578,762	260,762	248,244	1,341,118	1,850,124
2034	41,569,464	246,289	234,466	1,374,646	1,855,401
2035	39,543,343	232,004	220,868	1,409,012	1,861,884
2036	37,597,639	218,606	208,113	1,444,237	1,870,957
2037	35,839,029	206,261	196,360	1,480,343	1,882,964
2038	34,097,525	194,226	184,903	1,517,352	1,896,481
2039	32,454,314	183,425	174,621	1,555,286	1,913,331
2040	30,780,934	172,265	163,996	0	336,261
2041	29,256,135	161,689	153,927	0	315,616
2042	27,796,544	152,022	144,726	0	296,748
2043	26,410,063	143,061	136,194	0	279,255
2044	25,012,456	133,990	127,558	0	261,548
2045	23,568,749	124,571	118,591	0	243,162
2046	22,193,942	115,771	110,213	0	225,984
2047	20,794,607	107,506	102,345	0	209,851
2048	19,466,118	99,663	94,879	0	194,542
2049	18,056,877	91,450	87,060	0	178,510
2050	16,762,527	84,085	80,050	0	164,135
2051	15,374,823	76,181	72,525	0	148,706
2052	14,090,528	69,196	65,875	0	135,071
2053	12,774,650	62,149	59,165	0	121,314
2054	11,499,716	55,403	52,743	0	108,146
2055	10,287,455	49,047	46,693	0	95,740
2056	9,120,651	43,027	40,962	0	83,989
2057	7,993,580	37,371	35,577	0	72,948
2058	6,977,373	32,376	30,822	0	63,198
2059	6,062,598	27,876	26,538	0	54,414
2060	5,166,346	23,674	22,538	0	46,212
2061	4,374,864	19,981	19,021	0	39,002
2062	3,665,072	16,600	15,803	0	32,403
2063	3,016,924	13,630	12,976	0	26,606
2064	2,478,632	11,068	10,537	0	21,605
2065	1,991,192	8,853	8,429	0	17,282
2066	1,572,712	6,905	6,573	0	13,478
2067	1,209,512	5,360	5,103	0	10,463
2068	948,204	4,212	4,010	0	8,222
2069	710,032	3,140	2,989	0	6,129
2070	526,274	2,266	2,157	0	4,423
2071	389,937	1,720	1,638	0	3,358
2072	286,045	1,218	1,160	0	2,378
2073	211,110	896	852	0	1,748
2074	157,221	680	647	0	1,327

# Single Discount Rate Development

## Projection of Contributions Ending December 31 for 2075 to 2124

Year	Projected Payroll for Current Employees	Projected Contributions from Current Employees	Projected Service Cost and Expense Contributions	Projected UAL Contributions	Projected Total Contributions
2075	\$ 112,687	\$ 454	\$ 432	\$ 0	\$ 886
2076	78,667	344	327	0	671
2077	55,821	224	213	0	437
2078	39,254	162	154	0	316
2079	26,738	120	114	0	234
2080	16,092	66	62	0	128
2081	9,183	45	43	0	88
2082	5,449	21	20	0	41
2083	2,107	13	13	0	26
2084	1,515	7	6	0	13
2085	494	2	1	0	3
2086	125	1	0	0	1
2087	0	0	0	0	0
2088	0	0	0	0	0
2089	0	0	0	0	0
2090	0	0	0	0	0
2091	0	0	0	0	0
2092	0	0	0	0	0
2093	0	0	0	0	0
2094	0	0	0	0	0
2095	0	0	0	0	0
2096	0	0	0	0	0
2097	0	0	0	0	0
2098	0	0	0	0	0
2099	0	0	0	0	0
2100	0	0	0	0	0
2101	0	0	0	0	0
2102	0	0	0	0	0
2103	0	0	0	0	0
2104	0	0	0	0	0
2105	0	0	0	0	0
2106	0	0	0	0	0
2107	0	0	0	0	0
2108	0	0	0	0	0
2109	0	0	0	0	0
2110	0	0	0	0	0
2111	0	0	0	0	0
2112	0	0	0	0	0
2113	0	0	0	0	0
2114	0	0	0	0	0
2115	0	0	0	0	0
2116	0	0	0	0	0
2117	0	0	0	0	0
2118	0	0	0	0	0
2119	0	0	0	0	0
2120	0	0	0	0	0
2121	0	0	0	0	0
2122	0	0	0	0	0
2123	0	0	0	0	0
2124	0	0	0	0	0

# Single Discount Rate Development

## Projection of Plan Net Position

### Ending December 31 for 2025 to 2074

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.75%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2025	\$ 24,185,988	\$ 2,077,292	\$ 1,270,773	\$ 0	\$ 1,659,330	\$ 26,651,837
2026	26,651,837	1,985,845	1,427,973	0	1,817,520	29,027,229
2027	29,027,229	1,928,850	1,583,107	0	1,970,816	31,343,788
2028	31,343,788	1,896,615	1,733,770	0	2,121,112	33,627,745
2029	33,627,745	1,875,439	1,892,351	0	2,269,311	35,880,144
2030	35,880,144	1,858,903	2,047,000	0	2,415,665	38,107,713
2031	38,107,713	1,852,154	2,209,171	0	2,560,418	40,311,115
2032	40,311,115	1,849,451	2,366,274	0	2,703,842	42,498,133
2033	42,498,133	1,850,124	2,513,986	0	2,846,584	44,680,856
2034	44,680,856	1,855,401	2,667,800	0	2,988,987	46,857,444
2035	46,857,444	1,861,884	2,821,614	0	3,131,015	49,028,729
2036	49,028,729	1,870,957	2,964,205	0	3,273,145	51,208,625
2037	51,208,625	1,882,964	3,106,939	0	3,415,948	53,400,597
2038	53,400,597	1,896,481	3,248,157	0	3,559,666	55,608,588
2039	55,608,588	1,913,331	3,380,881	0	3,704,859	57,845,896
2040	57,845,896	336,261	3,507,506	0	3,799,316	58,473,967
2041	58,473,967	315,616	3,633,410	0	3,836,846	58,993,019
2042	58,993,019	296,748	3,754,618	0	3,867,231	59,402,380
2043	59,402,380	279,255	3,868,428	0	3,890,504	59,703,711
2044	59,703,711	261,548	3,975,821	0	3,906,691	59,896,129
2045	59,896,129	243,162	4,081,921	0	3,915,546	59,972,916
2046	59,972,916	225,984	4,173,126	0	3,917,131	59,942,905
2047	59,942,905	209,851	4,256,448	0	3,911,803	59,808,112
2048	59,808,112	194,542	4,337,788	0	3,899,496	59,564,362
2049	59,564,362	178,510	4,418,429	0	3,879,834	59,204,277
2050	59,204,277	164,135	4,483,187	0	3,852,901	58,738,125
2051	58,738,125	148,706	4,541,076	0	3,819,002	58,164,756
2052	58,164,756	135,071	4,585,366	0	3,778,376	57,492,837
2053	57,492,837	121,314	4,623,690	0	3,731,292	56,721,754
2054	56,721,754	108,146	4,663,156	0	3,677,497	55,844,241
2055	55,844,241	95,740	4,686,174	0	3,617,089	54,870,897
2056	54,870,897	83,989	4,698,261	0	3,550,597	53,807,221
2057	53,807,221	72,948	4,702,308	0	3,478,298	52,656,159
2058	52,656,159	63,198	4,692,702	0	3,400,596	51,427,251
2059	51,427,251	54,414	4,676,483	0	3,317,892	50,123,075
2060	50,123,075	46,212	4,654,819	0	3,230,307	48,744,774
2061	48,744,774	39,002	4,621,573	0	3,138,136	47,300,339
2062	47,300,339	32,403	4,578,653	0	3,041,842	45,795,930
2063	45,795,930	26,606	4,527,783	0	2,941,791	44,236,544
2064	44,236,544	21,605	4,467,813	0	2,838,357	42,628,693
2065	42,628,693	17,282	4,397,752	0	2,732,010	40,980,233
2066	40,980,233	13,478	4,316,925	0	2,623,296	39,300,082
2067	39,300,082	10,463	4,228,405	0	2,512,724	37,594,863
2068	37,594,863	8,222	4,133,164	0	2,400,710	35,870,631
2069	35,870,631	6,129	4,033,114	0	2,287,576	34,131,222
2070	34,131,222	4,423	3,927,085	0	2,173,629	32,382,190
2071	32,382,190	3,358	3,815,298	0	2,059,246	30,629,495
2072	30,629,495	2,378	3,698,136	0	1,944,796	28,878,532
2073	28,878,532	1,748	3,575,500	0	1,830,656	27,135,437
2074	27,135,437	1,327	3,447,836	0	1,717,222	25,406,149

# Single Discount Rate Development

## Projection of Plan Net Position

### Ending December 31 for 2075 to 2124

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 6.75%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
2075	\$ 25,406,149	\$ 886	\$ 3,315,353	\$ 0	\$ 1,604,878	\$ 23,696,561
2076	23,696,561	671	3,178,041	0	1,494,033	22,013,224
2077	22,013,224	437	3,036,153	0	1,385,110	20,362,619
2078	20,362,619	316	2,890,151	0	1,278,537	18,751,321
2079	18,751,321	234	2,740,664	0	1,174,735	17,185,625
2080	17,185,625	128	2,588,220	0	1,074,108	15,671,641
2081	15,671,641	88	2,433,392	0	977,053	14,215,390
2082	14,215,390	41	2,277,047	0	883,945	12,822,329
2083	12,822,329	26	2,120,011	0	795,126	11,497,470
2084	11,497,470	13	1,963,237	0	710,902	10,245,148
2085	10,245,148	3	1,807,768	0	631,532	9,068,916
2086	9,068,916	1	1,654,544	0	557,223	7,971,596
2087	7,971,596	0	1,504,588	0	488,132	6,955,140
2088	6,955,140	0	1,358,897	0	424,358	6,020,601
2089	6,020,601	0	1,218,429	0	365,940	5,168,112
2090	5,168,112	0	1,084,042	0	312,859	4,396,928
2091	4,396,928	0	956,506	0	265,038	3,705,460
2092	3,705,460	0	836,519	0	222,347	3,091,288
2093	3,091,288	0	724,673	0	184,604	2,551,218
2094	2,551,218	0	621,428	0	151,577	2,081,367
2095	2,081,367	0	527,112	0	122,993	1,677,248
2096	1,677,248	0	441,904	0	98,544	1,333,888
2097	1,333,888	0	365,827	0	77,892	1,045,953
2098	1,045,953	0	298,765	0	60,683	807,871
2099	807,871	0	240,449	0	46,549	613,971
2100	613,971	0	190,468	0	35,120	458,623
2101	458,623	0	148,306	0	26,033	336,350
2102	336,350	0	113,359	0	18,940	241,931
2103	241,931	0	84,949	0	13,510	170,492
2104	170,492	0	62,332	0	9,439	117,599
2105	117,599	0	44,731	0	6,453	79,320
2106	79,320	0	31,359	0	4,313	52,274
2107	52,274	0	21,454	0	2,816	33,636
2108	33,636	0	14,311	0	1,795	21,120
2109	21,120	0	9,301	0	1,117	12,936
2110	12,936	0	5,886	0	678	7,728
2111	7,728	0	3,625	0	401	4,504
2112	4,504	0	2,173	0	232	2,563
2113	2,563	0	1,268	0	131	1,426
2114	1,426	0	721	0	72	777
2115	777	0	401	0	39	416
2116	416	0	218	0	21	218
2117	218	0	117	0	11	112
2118	112	0	61	0	6	57
2119	57	0	32	0	3	28
2120	28	0	16	0	1	13
2121	13	0	8	0	1	6
2122	6	0	4	0	0	2
2123	2	0	2	0	0	1
2124	1	0	1	0	0	0

# Single Discount Rate Development

## Present Values of Projected Benefits

### Ending December 31 for 2025 to 2074

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=(c)/(1+SDR)^(a-.5)
2025	\$ 24,185,988	\$ 1,270,773	\$ 1,270,773	\$ 0	\$ 1,229,940	\$ 0	\$ 1,229,940
2026	26,651,837	1,427,973	1,427,973	0	1,294,697	0	1,294,697
2027	29,027,229	1,583,107	1,583,107	0	1,344,592	0	1,344,592
2028	31,343,788	1,733,770	1,733,770	0	1,379,443	0	1,379,443
2029	33,627,745	1,892,351	1,892,351	0	1,410,413	0	1,410,413
2030	35,880,144	2,047,000	2,047,000	0	1,429,205	0	1,429,205
2031	38,107,713	2,209,171	2,209,171	0	1,444,901	0	1,444,901
2032	40,311,115	2,366,274	2,366,274	0	1,449,793	0	1,449,793
2033	42,498,133	2,513,986	2,513,986	0	1,442,899	0	1,442,899
2034	44,680,856	2,667,800	2,667,800	0	1,434,361	0	1,434,361
2035	46,857,444	2,821,614	2,821,614	0	1,421,134	0	1,421,134
2036	49,028,729	2,964,205	2,964,205	0	1,398,549	0	1,398,549
2037	51,208,625	3,106,939	3,106,939	0	1,373,201	0	1,373,201
2038	53,400,597	3,248,157	3,248,157	0	1,344,840	0	1,344,840
2039	55,608,588	3,380,881	3,380,881	0	1,311,280	0	1,311,280
2040	57,845,896	3,507,506	3,507,506	0	1,274,372	0	1,274,372
2041	58,473,967	3,633,410	3,633,410	0	1,236,643	0	1,236,643
2042	58,993,019	3,754,618	3,754,618	0	1,197,093	0	1,197,093
2043	59,402,380	3,868,428	3,868,428	0	1,155,390	0	1,155,390
2044	59,703,711	3,975,821	3,975,821	0	1,112,380	0	1,112,380
2045	59,896,129	4,081,921	4,081,921	0	1,069,850	0	1,069,850
2046	59,972,916	4,173,126	4,173,126	0	1,024,594	0	1,024,594
2047	59,942,905	4,256,448	4,256,448	0	978,971	0	978,971
2048	59,808,112	4,337,788	4,337,788	0	934,594	0	934,594
2049	59,564,362	4,418,429	4,418,429	0	891,774	0	891,774
2050	59,204,277	4,483,187	4,483,187	0	847,629	0	847,629
2051	58,738,125	4,541,076	4,541,076	0	804,285	0	804,285
2052	58,164,756	4,585,366	4,585,366	0	760,777	0	760,777
2053	57,492,837	4,623,690	4,623,690	0	718,628	0	718,628
2054	56,721,754	4,663,156	4,663,156	0	678,934	0	678,934
2055	55,844,241	4,686,174	4,686,174	0	639,143	0	639,143
2056	54,870,897	4,698,261	4,698,261	0	600,273	0	600,273
2057	53,807,221	4,702,308	4,702,308	0	562,801	0	562,801
2058	52,656,159	4,692,702	4,692,702	0	526,137	0	526,137
2059	51,427,251	4,676,483	4,676,483	0	491,165	0	491,165
2060	50,123,075	4,654,819	4,654,819	0	457,976	0	457,976
2061	48,744,774	4,621,573	4,621,573	0	425,953	0	425,953
2062	47,300,339	4,578,653	4,578,653	0	395,314	0	395,314
2063	45,795,930	4,527,783	4,527,783	0	366,203	0	366,203
2064	44,236,544	4,467,813	4,467,813	0	338,504	0	338,504
2065	42,628,693	4,397,752	4,397,752	0	312,127	0	312,127
2066	40,980,233	4,316,925	4,316,925	0	287,017	0	287,017
2067	39,300,082	4,228,405	4,228,405	0	263,355	0	263,355
2068	37,594,863	4,133,164	4,133,164	0	241,146	0	241,146
2069	35,870,631	4,033,114	4,033,114	0	220,429	0	220,429
2070	34,131,222	3,927,085	3,927,085	0	201,063	0	201,063
2071	32,382,190	3,815,298	3,815,298	0	182,988	0	182,988
2072	30,629,495	3,698,136	3,698,136	0	166,153	0	166,153
2073	28,878,532	3,575,500	3,575,500	0	150,485	0	150,485
2074	27,135,437	3,447,836	3,447,836	0	135,937	0	135,937

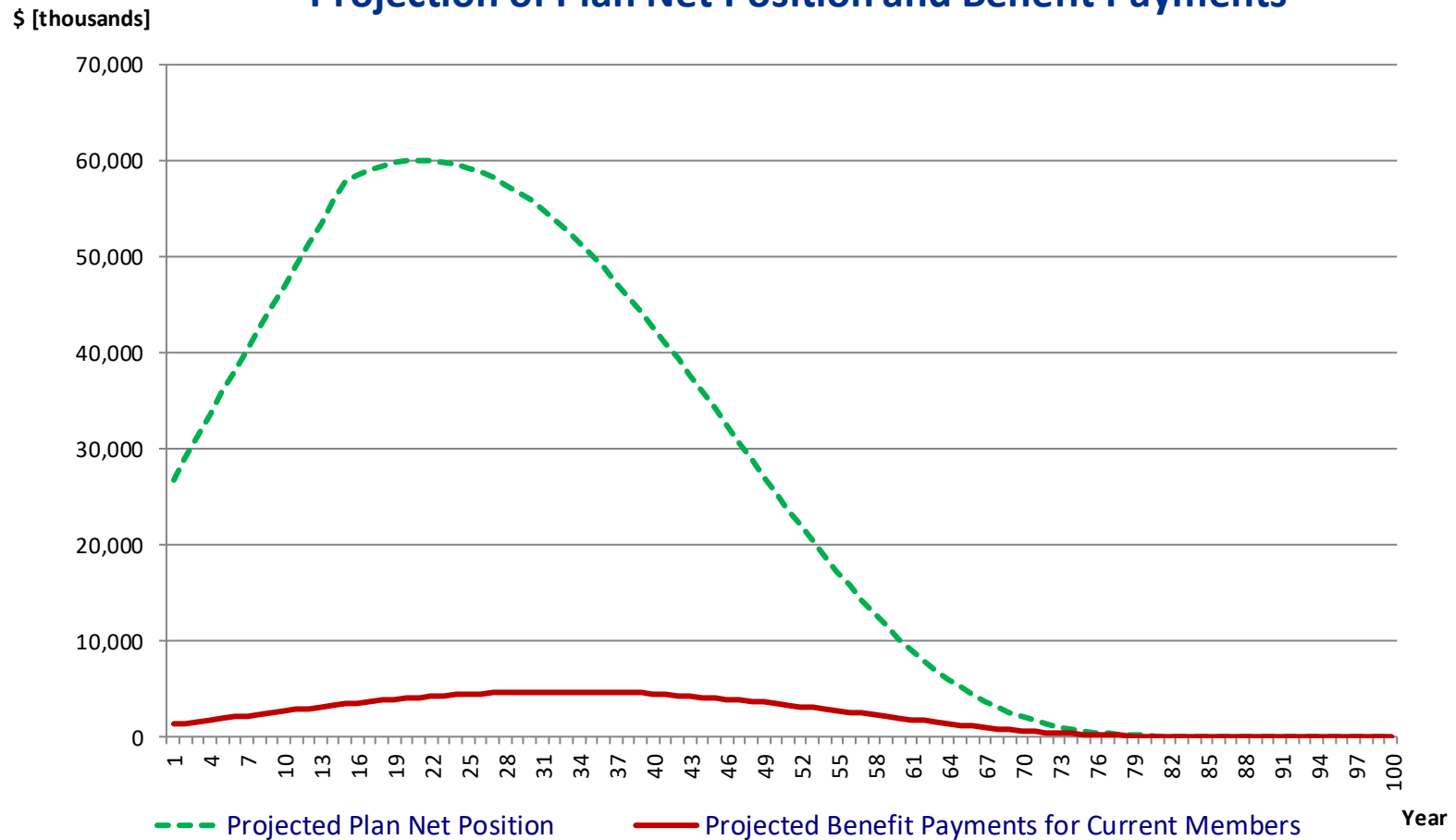
# Single Discount Rate Development

## Present Values of Projected Benefits

### Ending December 31 for 2075 to 2124

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of All Benefit Payments using Single Discount Rate (SDR)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v <sup>a</sup> ((a)-.5)	(g)=(e)*vf <sup>a</sup> ((a)-.5)	(h)=(c)/(1+SDR) <sup>a</sup> ((a)-.5)
2075	\$ 25,406,149	\$ 3,315,353	\$ 3,315,353	\$ 0	\$ 122,448	\$ 0	\$ 122,448
2076	23,696,561	3,178,041	3,178,041	0	109,955	0	109,955
2077	22,013,224	3,036,153	3,036,153	0	98,403	0	98,403
2078	20,362,619	2,890,151	2,890,151	0	87,748	0	87,748
2079	18,751,321	2,740,664	2,740,664	0	77,948	0	77,948
2080	17,185,625	2,588,220	2,588,220	0	68,958	0	68,958
2081	15,671,641	2,433,392	2,433,392	0	60,733	0	60,733
2082	14,215,390	2,277,047	2,277,047	0	53,238	0	53,238
2083	12,822,329	2,120,011	2,120,011	0	46,432	0	46,432
2084	11,497,470	1,963,237	1,963,237	0	40,279	0	40,279
2085	10,245,148	1,807,768	1,807,768	0	34,744	0	34,744
2086	9,068,916	1,654,544	1,654,544	0	29,789	0	29,789
2087	7,971,596	1,504,588	1,504,588	0	25,376	0	25,376
2088	6,955,140	1,358,897	1,358,897	0	21,470	0	21,470
2089	6,020,601	1,218,429	1,218,429	0	18,033	0	18,033
2090	5,168,112	1,084,042	1,084,042	0	15,030	0	15,030
2091	4,396,928	956,506	956,506	0	12,423	0	12,423
2092	3,705,460	836,519	836,519	0	10,178	0	10,178
2093	3,091,288	724,673	724,673	0	8,259	0	8,259
2094	2,551,218	621,428	621,428	0	6,635	0	6,635
2095	2,081,367	527,112	527,112	0	5,272	0	5,272
2096	1,677,248	441,904	441,904	0	4,140	0	4,140
2097	1,333,888	365,827	365,827	0	3,211	0	3,211
2098	1,045,953	298,765	298,765	0	2,456	0	2,456
2099	807,871	240,449	240,449	0	1,852	0	1,852
2100	613,971	190,468	190,468	0	1,374	0	1,374
2101	458,623	148,306	148,306	0	1,002	0	1,002
2102	336,350	113,359	113,359	0	718	0	718
2103	241,931	84,949	84,949	0	504	0	504
2104	170,492	62,332	62,332	0	346	0	346
2105	117,599	44,731	44,731	0	233	0	233
2106	79,320	31,359	31,359	0	153	0	153
2107	52,274	21,454	21,454	0	98	0	98
2108	33,636	14,311	14,311	0	61	0	61
2109	21,120	9,301	9,301	0	37	0	37
2110	12,936	5,886	5,886	0	22	0	22
2111	7,728	3,625	3,625	0	13	0	13
2112	4,504	2,173	2,173	0	7	0	7
2113	2,563	1,268	1,268	0	4	0	4
2114	1,426	721	721	0	2	0	2
2115	777	401	401	0	1	0	1
2116	416	218	218	0	1	0	1
2117	218	117	117	0	0	0	0
2118	112	61	61	0	0	0	0
2119	57	32	32	0	0	0	0
2120	28	16	16	0	0	0	0
2121	13	8	8	0	0	0	0
2122	6	4	4	0	0	0	0
2123	2	2	2	0	0	0	0
2124	1	1	1	0	0	0	0
<b>Totals</b>					\$ 43,328,916	\$ 0	\$ 43,328,916

## Projection of Plan Net Position and Benefit Payments



## SECTION H

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### GLOSSARY OF TERMS

## Glossary of Terms

<b>Accrued Service</b>	Service credited under the system that was rendered before the date of the actuarial valuation.
<b>Actuarial Accrued Liability (AAL)</b>	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as “accrued liability” or “actuarial liability.”
<b>Actuarial Assumptions</b>	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
<b>Actuarial Cost Method</b>	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the OPEB trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
<b>Actuarial Equivalent</b>	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
<b>Actuarial Gain (Loss)</b>	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
<b>Actuarial Present Value (APV)</b>	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
<b>Actuarial Valuation</b>	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total OPEB liability, and related actuarial present value of projected benefit payments for OPEB.
<b>Actuarial Valuation Date</b>	The date as of which an actuarial valuation is performed.

## Glossary of Terms

<b>Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)</b>	A calculated contribution into an OPEB plan for the reporting period, most often determined based on the funding policy of the plan. Typically, the Actuarially Determined Contribution has a normal cost payment and an amortization payment.
<b>Amortization Method</b>	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).
<b>Amortization Payment</b>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<b>Cost-of-Living Adjustments</b>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<b>Cost-Sharing Multiple-Employer Defined Benefit OPEB Plan (cost-sharing OPEB plan)</b>	A multiple-employer defined benefit OPEB plan in which the OPEB obligations to the employees of more than one employer are pooled and OPEB plan assets can be used to pay the benefits of the employees of any employer that provides benefits through the OPEB plan.
<b>Covered-Employee Payroll</b>	The payroll of employees that are provided with benefits through the OPEB plan.
<b>Deferred Inflows and Outflows</b>	The deferred inflows and outflows of OPEB resources are amounts used under GASB Statement No. 75 in developing the annual OPEB expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in the OPEB expense should be included in the deferred inflows or outflows of resources.
<b>Discount Rate</b>	<p>For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:</p> <ol style="list-style-type: none"><li>1. The benefit payments to be made while the OPEB plans’ fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and</li><li>2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.</li></ol>

## Glossary of Terms

<b>Entry Age Actuarial Cost Method (EAN)</b>	The EAN is a cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
<b>Fiduciary Net Position</b>	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
<b>GASB</b>	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
<b>Long-Term Expected Rate of Return</b>	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
<b>Money-Weighted Rate of Return</b>	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 74, the money-weighted rate of return is calculated as the internal rate of return on OPEB plan investments, net of OPEB plan investment expense.
<b>Multiple-Employer Defined Benefit OPEB Plan</b>	A multiple-employer plan is a defined benefit OPEB plan that is used to provide OPEB payments to the employees of more than one employer.
<b>Municipal Bond Rate</b>	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
<b>Net OPEB Liability (NOL)</b>	The NOL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit OPEB plan.
<b>Non-Employer Contributing Entities</b>	Non-employer contributing entities are entities that make contributions to an OPEB plan that is used to provide OPEB payments to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contributing entities.

## Glossary of Terms

<b>Normal Cost</b>	The portion of the actuarial present value allocated to a valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of service cost.
<b>Other Postemployment Benefits (OPEB)</b>	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
<b>Real Rate of Return</b>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<b>Service Cost</b>	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<b>Total OPEB Expense</b>	<p>The total OPEB expense is the sum of the following items that are recognized at the end of the employer's fiscal year:</p> <ol style="list-style-type: none"><li>1. Service Cost</li><li>2. Interest on the Total OPEB Liability</li><li>3. Current-Period Benefit Changes</li><li>4. Employee Contributions (made negative for addition here)</li><li>5. Projected Earnings on Plan Investments (made negative for addition here)</li><li>6. OPEB Plan Administrative Expense</li><li>7. Other Changes in Plan Fiduciary Net Position</li><li>8. Recognition of Outflow (Inflow) of Resources due to Liabilities</li><li>9. Recognition of Outflow (Inflow) of Resources due to Assets</li></ol>
<b>Total OPEB Liability (TOL)</b>	The TOL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	The UAAL is the difference between actuarial accrued liability and valuation assets.
<b>Valuation Assets</b>	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 74 and 75, the valuation assets are equal to the market value of assets.