

Oakland County Retirees' Health Care Trust

GASB Statement No. 74, Financial Reporting for Postemployment
Benefit Plans Other Than Pension Plans

September 30, 2021





December 17, 2021

The Oakland County VEBA Board
Waterford, Michigan

Dear Board Members:

This report provides actuarial information for the Oakland County Retirees' Health Care Trust with benefits provided through a VEBA in connection with the Governmental Accounting Standards Board Statement No. 74 (GASB 74) "Financial Reporting for Postemployment Benefit Plans Other than Pension Plans." The information provided herein was prepared for the purpose of assisting the VEBA in its efforts to comply with the financial reporting and disclosure requirements of GASB 74. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

The calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB 74. The Net OPEB Liability (NOL) is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The NOL is not an appropriate measure for assessing the need for or amount of future employer contributions. A 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 74 may produce significantly different results. This report may be provided to parties other than the Board only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The Total OPEB liability (TOL), NOL, and certain sensitivity information shown in this report are based on the retiree health benefits actuarial valuation performed as of September 30, 2020. The TOL was "rolled forward" from September 30, 2020 to September 30, 2021 using generally accepted actuarial principles.

This report is based upon information, furnished to us by the Plan, concerning Other Postemployment Benefits (OPEB), active members, deferred vested members, retirees and beneficiaries, and financial data. This information was checked for internal consistency, but it was not audited by us. As a result, we are unable to assume responsibility for the accuracy or completeness of the information provided.

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.

The assumptions and methods used in developing the Total OPEB Liability shown in this report are shown in our September 31, 2020 actuarial valuation of the Retiree Health Plan report dated May 24, 2021. 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 purpose 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.

This report was prepared during the recent and still-developing COVID-19 pandemic, which is likely to influence demographic and economic experience, at least in the short term. We will continue to monitor these developments and their impact on the Retirement System. Actual experience will be reflected in each subsequent report, as experience emerges.

To the best of our knowledge this report is accurate and all calculations have been made in conformity with generally accepted actuarial principles and practices as well as Actuarial Standards of Practice issued by the Actuarial Standards Board. Louise M. Gates and James D. Anderson 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.

Section E 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.

Section F of the report includes actuarial information necessary for completing the 2021 Form 5572 for State of Michigan reporting. This information is not required to be included in your financial statements.

Respectfully submitted,
Gabriel, Roeder, Smith & Company


Louise M. Gates, ASA, FCA, MAAA


James D. Anderson, FSA, EA, FCA, MAAA



Table of Contents

	<u>Page</u>
Section A	Executive Summary
	Executive Summary 1
	Discussion..... 2
Section B	Financial Statements
	Statement of Fiduciary Net Position 7
	Statement of Changes in Fiduciary Net Position 8
Section C	Required Supplementary Information
	Schedule of Changes in Net OPEB Liability and Related Ratios Multiyear 9
	Schedule of Net OPEB Liability Multiyear 10
	Schedule of Contributions Multiyear 11
	Notes to Schedule of Contributions..... 12
Section D	Notes to Financial Statements
	Expected Return on Plan Assets 13
	Single Discount Rate 14
	Summary of Membership Information 14
	Sensitivity of Net OPEB Liability 15
Section E	Calculation of the Single Discount Rate
	Calculation of the Single Discount Rate 16
	Projection of Contributions..... 17
	Projection of Plan Net Position 18
	Present Values of Projected Benefits..... 20
	Projection of Plan Net Position and Benefit Payments 22
Section F	Michigan Public Act 202 23
Section G	Glossary of Terms 24



SECTION A

EXECUTIVE SUMMARY

Executive Summary as of September 30, 2021

	2021
Actuarial Valuation Date	September 30, 2020
OPEB Plan's Fiscal Year Ending Date (Measurement & Reporting Date)	September 30, 2021
Membership ⁽¹⁾	
Number of	
- Retirees and Beneficiaries	2,649
- Inactive, Nonretired Members	189
- Active Members	1,578
- Total	4,416
Covered Payroll	N/A
Net OPEB Liability	
Total OPEB Liability	\$ 949,693,489
Plan Fiduciary Net Position	1,567,956,854
Net OPEB Liability	\$ (618,263,365)
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	165.10 %
Net OPEB Liability as a Percentage of Covered Payroll	N/A
Development of the Single Discount Rate	
Single Discount Rate	7.25 %
Long-Term Expected Rate of Return	7.25 %
Long-Term Municipal Bond Rate ⁽²⁾	2.19 %
Last year ending September 30 in the 2022 to 2121 projection period for which projected benefit payments are fully funded	2121

⁽¹⁾ Number counts are as of the Actuarial Valuation Date.

⁽²⁾ Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of September 30, 2021. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax-exempt securities.

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.” GASB Statement No. 74 establishes standards of financial reporting for separately issued financial reports of state and local government OPEB plans.

Reporting under GASB 74 is effective for plan fiscal years commencing after June 15, 2016.

The following discussion provides a summary of the information that is required to be disclosed under this new accounting standard. 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, and internal staff will be responsible for preparing that information to comply with this accounting standard.

Financial Statements

GASB Statement No. 74 requires defined benefit OPEB plans 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 following items as of the end of the OPEB plan’s reporting period:

- Assets;
- Receivables (deferred inflows and outflows of resources);
- Investments;
- Liabilities; and
- Fiduciary net position (assets, plus deferred outflows, minus liabilities, minus deferred inflows).

The *statement of changes in fiduciary net position* presents the following for the plan’s reporting period:

- Additions, such as contributions and investment income;
- Deductions, such as benefit payments and expenses; and
- Net increase or decrease in the fiduciary net position (the difference between additions and deductions).

Notes to Financial Statements

GASB Statement No. 74 also requires the notes of the plan's financial statements to include additional disclosure information. This disclosure information should include:

- **Plan Description:**
 - 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.
 - The number of participating employers (if agent or cost-sharing OPEB plan) and the number of nonemployer contributing entities.
 - The composition of the OPEB plan's Board and the authority under which benefit terms may be amended.
 - The number of plan members by category and if the plan is closed.
 - The authority under which benefit terms are established or may be changed, the types of benefit provided and the classes of plan members covered. A brief description of the benefits and the description of automatic postemployment benefit changes and the sharing of benefit-related costs with inactive plan members.
 - A brief description of contribution requirements, including (a) identification of the authority under which contribution requirements of employers, non-employer contributing entities, and plan members are established or may be amended; (b) the contribution rates of the employer, non-employer contributing entities, and plan members; and (c) legal or contractual maximum contribution rates. If the OPEB plan of the entity that administers the OPEB plan has the authority to establish or amend contribution requirements, disclose the basis for determining contributions.
- **Plan Investments:**
 - A description of investment policies, including procedures for making and amending investment decisions; policies for asset allocation; and description of any significant changes in investment policy occurring during the reporting period.
 - Identification of investments that represent 5% or more of the fiduciary net position.
 - The annual money-weighted rate of return on the OPEB plan investments.
- **Receivables:**
 - The terms of any long-term contracts for contributions to the OPEB plan and the outstanding balance on any such long-term contracts.
- **Allocated insurance contracts excluded from OPEB plan assets**
- **Reserves:**
 - A description of the policy related to reserves;
 - The authority for the reserve policy;
 - The conditions under which the reserves can be used; and
 - The balances of the reserves.

In addition, Single-Employer and Cost-Sharing OPEB plans should disclose the following information in the notes to financial statements:

- The components of the net OPEB liability:
 - The total OPEB liability;
 - The fiduciary net position;
 - The net OPEB liability; and
 - The OPEB plan's fiduciary net position as a percentage of the total OPEB liability.
- Significant assumptions and other inputs used to measure the total OPEB liability:
 - Significant assumptions include inflation, healthcare cost trend rates, salary changes, ad hoc postemployment benefit changes, and the sharing of benefit-related costs with inactive plan members.
 - If applicable, the patterns of practice relied upon for projecting the sharing of benefit-related costs with inactive plan members.
 - The source of the assumptions for mortality.
 - The dates of experience studies on which assumptions are based.
- Measure of the net OPEB liability using +/- 1% on the healthcare trend rate.
- On the discount rate:
 - The discount rate used and the change in the discount rate since the prior fiscal year-end.
 - Assumptions about projected cash flows.
 - The long-term expected rate of return on OPEB investments and a description of how it was determined.
 - The municipal bond rate used and the source of that rate.
 - The periods of projected benefit payments to which the long-term expected rate of return are used.
 - The assumed asset allocation of the portfolio and the long-term expected real rate of return for each major asset class, and whether the returns are arithmetic or geometric.
 - Measure of the net OPEB liability using +/- 1% on the discount rate.
- The date of the valuation and, if applicable, the fact that update procedures were used to roll forward the total OPEB liability.

Required Supplementary Information

For Single-Employer and Cost-Sharing OPEB Plans, 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 along with the significant methods and assumptions used in calculating the actuarially determined contributions; and
- The annual money-weighted rate of return on OPEB plan investments for each year.

For Agent OPEB Plans, GASB Statement No. 74 requires a 10-year history of the annual money-weighted rate of return on OPEB plan investments.

Notes to the required schedules should include factors that significantly affect trends in the amounts reported (for example, changes of benefit terms, changes in the size or composition of the population covered, or the use of different assumptions). Information about investment-related factors that significantly affect trends in the amounts reported should be limited to those factors over which the OPEB plan or the participating governments have influence.

Measurement of the Net OPEB Liability

The net OPEB liability is to be measured as the total OPEB liability, less the amount of the OPEB plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement). The net OPEB liability should be measured as of the OPEB plan's most recent fiscal year end.

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. If the actuarial valuation is not calculated as of the plan's fiscal year end, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the OPEB plan's fiscal year end. If update procedures are used to roll forward the total OPEB liability, the date of the actuarial valuation must be no more than 24 months earlier than the OPEB plan's most recent fiscal year end.

The total OPEB liability shown in this report is based on an actuarial valuation performed as of September 30, 2020 and a measurement date of September 30, 2021.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate 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 7.25%; the municipal bond rate is 2.19% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"); and the resulting Single Discount Rate is 7.25%.

Actuarial Assumptions

The actuarial assumptions used to value the liabilities are outlined in the September 30, 2020 retiree health benefits actuarial valuation. The assumptions include details on the healthcare trend assumption and premium amounts, as well as the cost method used to develop the OPEB expense.

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;
 - One-person versus two-person coverage elections; and
 - Time of retirement or termination.

Benefits Valued

The benefit provisions that were valued are described in the September 30, 2020 retiree health benefits actuarial valuation. 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 authors of this report, so they can ensure the proper provisions are valued.

Effective Date and Transition

GASB Statement No. 74 is effective for an OPEB plan's fiscal years beginning after June 15, 2016.

SECTION B

FINANCIAL STATEMENTS

Information in this section of the report was provided by the County and is included here as supporting documentation.

Statement of Fiduciary Net Position as of September 30, 2021

To be Provided by the System

	<u>2021</u>
Assets	
Cash and Deposits	
Receivables	
Accounts Receivable - Sale of Investments	
Accrued Interest and Other Dividends	
Contributions	
Accounts Receivable - Other	
Total Receivables	
Investments	
Fixed Income	
Domestic Equities	
International Equities	
Real Estate	
Other	
Total Investments	
Total Assets	
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	
Accrued Expenses	
Accounts Payable - Other	
Total Liabilities	
Net Position Restricted for OPEB	<u><u>\$ 1,567,956,854</u></u>

Statement of Changes in Fiduciary Net Position for Year Ended September 30, 2021

	<u>2021</u>
Additions	
Contributions	
Employer	\$ 0
Nonemployer contributing entities	0
Current Employees	0
Member	354,983
Other	<u>0</u>
Total Contributions	<u>\$ 354,983</u>
Investment Income	
Net Appreciation in Fair Value of Investments	\$ 252,904,422
Interest and Dividends	18,762,252
Less Investment Expense	<u>(3,871,140)</u>
Net Investment Income	<u>\$ 267,795,534</u>
Other Income	<u>\$ 5,849,415</u>
Total Additions	<u><u>\$ 273,999,932</u></u>
 Deductions	
Employer Paid Benefits	\$ 42,814,260
Member Paid Benefits	354,983
Administrative Expenses	380,146
Other	<u>0</u>
Total Deductions	<u>\$ 43,549,389</u>
 Net Increase in Net Position	 \$ 230,450,543
 Net Position Restricted for OPEB	
Beginning of Year	<u>\$ 1,337,506,311</u>
End of Year	<u><u>\$ 1,567,956,854</u></u>

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Oakland County Retirees' Health Care Trust. 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 Multiyear

Last 10 Fiscal Years (which may be built prospectively)

Fiscal year ending September 30,	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Total OPEB liability										
Service cost	\$ 9,355,546	\$ 9,220,055	\$ 8,876,381	\$ 9,742,233	\$ 11,009,857					
Interest on the total OPEB liability	67,891,807	66,070,507	63,749,998	70,351,546	67,692,444					
Change in benefit terms	0	0	0	0	0					
Difference between expected and actual experience	(29,755,582)	(17,653,479)	(53,355,110)	(82,048,924)	(6,799,845)					
Change in assumptions	(8,152,094)	7,578,642	50,056,376	(51,205,346)	0					
Employer-financed benefit payments	(42,814,260)	(37,509,924)	(37,474,992)	(37,449,853)	(31,732,905)					
Net change in total OPEB liability	(3,474,583)	27,705,801	31,852,653	(90,610,344)	40,169,551					
Total OPEB liability - beginning	953,168,072	925,462,271	893,609,618	984,219,962	944,050,411					
Total OPEB liability - ending (a)	\$ 949,693,489	\$ 953,168,072	\$ 925,462,271	\$ 893,609,618	\$ 984,219,962					
Plan fiduciary net position										
Employer contributions	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0					
Employee contributions	0	0	0	0	0					
Member contributions	354,983	279,397	290,718	234,284	218,517					
OPEB plan net investment income	267,795,534	63,070,473	46,821,806	84,162,823	134,380,948					
Employer-financed benefit payments	(42,814,260)	(37,509,924)	(37,474,992)	(37,449,853)	(31,732,905)					
Member-financed benefit payments	(354,983)	(279,397)	(290,718)	(234,284)	(218,517)					
OPEB plan administrative expense	(380,146)	(399,973)	(251,109)	(234,935)	(204,215)					
Other Income	5,849,415	4,767,201	2,959,477	3,465,258	3,332,028					
Net change in plan fiduciary net position	230,450,543	29,927,777	12,055,182	49,943,293	105,775,856					
Plan fiduciary net position - beginning	1,337,506,311	1,307,578,534	1,295,523,352	1,245,580,059	1,139,804,203					
Plan fiduciary net position - ending (b)	\$ 1,567,956,854	\$ 1,337,506,311	\$ 1,307,578,534	\$ 1,295,523,352	\$ 1,245,580,059					
Net OPEB liability - ending (a) - (b)	\$ (618,263,365)	\$ (384,338,239)	\$ (382,116,263)	\$ (401,913,734)	\$ (261,360,097)					
Plan fiduciary net position as a percentage of total OPEB liability	165.10 %	140.32 %	141.29 %	144.98 %	126.56 %					
Covered-employee payroll	N/A	N/A	N/A	N/A	N/A					
Net OPEB liability as a percentage of covered-employee payroll	N/A	N/A	N/A	N/A	N/A					



Schedule of the Net OPEB Liability Multiyear

Last 10 Fiscal Years (which may be built prospectively)

FY Ending September 30,	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
2012						
2013						
2014						
2015						
2016						
2017	\$ 984,219,962	\$ 1,245,580,059	\$ (261,360,097)	126.56 %	N/A	N/A
2018	893,609,618	1,295,523,352	(401,913,734)	144.98 %	N/A	N/A
2019	925,462,271	1,307,578,534	(382,116,263)	141.29 %	N/A	N/A
2020	953,168,072	1,337,506,311	(384,338,239)	140.32 %	N/A	N/A
2021	949,693,489	1,567,956,854	(618,263,365)	165.10 %	N/A	N/A

Schedule of Contributions Multiyear

Last 10 Fiscal Years (which may be built prospectively)

<u>FY Ending September 30,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Actual Contribution as a % of Covered Payroll</u>
2012					
2013					
2014					
2015					
2016					
2017	\$ 0	\$ 0	\$ 0	N/A	N/A
2018	0	0	0	N/A	N/A
2019	0	0	0	N/A	N/A
2020	0	0	0	N/A	N/A
2021	0	0	0	N/A	N/A

Notes to Schedule of Contributions

Methods and Assumptions Used to Determine Contributions for the Fiscal Year Ending September 30, 2021:

Valuation Date	September 30, 2019
Actuarial Cost Method	Entry-Age Normal
Amortization Method	Level dollar, open if over 100% funded
Amortization Period	10 years
Asset Valuation Method	5-year smoothed market
Investment Rate of Return	7.25%, net of investment and administrative expenses
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	The RP-2014 Healthy Annuitant Mortality Table (unadjusted) projected to 2021 based on the 2-dimensional MP-2014 improvement scales.
Health Care Trend Rates	<u>Medical, Prescription Drug, Medicare Part B:</u> 8.00% trend, gradually decreasing to 3.50% in year 10 <u>Dental and Vision:</u> 3.50% trend for all years
Aging Factors	Based on the 2013 SOA Study "Health Care Costs - From Birth to Death"

Actuarially determined contribution amounts for fiscal year 2021 are calculated based upon the results of the September 30, 2019 funding actuarial valuation.

SECTION D

NOTES TO FINANCIAL STATEMENTS

Auditor's Note – This information is intended to assist in preparation of the financial statements of the Oakland County Retirees' Health Care Trust. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Long-Term Expected Return on Plan Assets

The assumed rate of investment return was adopted by the VEBA Board after considering input from the plan's investment consultant(s). Additional information about the assumed rate of investment return is included in our actuarial valuation report as of September 30, 2020.

The approach used to determine the long-term expected rate of return on OPEB plan investments was based on the building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of plan expenses and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The long-term expected rates of return for each major asset class included in the OPEB plan's current target asset allocation were provided by the VEBA's investment consultant and are summarized in the following table:

Asset Class	Target Allocation	Expected Real Rate of Return *
Domestic Equity	32.5 %	7.50 %
International Equity	12.5 %	8.50 %
Domestic Bonds	25.0 %	2.50 %
International Bonds	5.0 %	3.50 %
Real Estate	10.0 %	4.50 %
Alternative Assets	15.0 %	5.59 %
Total	100.0 %	

* The expected real rate of return shown above was based on an arithmetic calculation and a 10-15-year time horizon. The investment consultant's price inflation assumption was reported to be 2.5% per year.

The information shown in the table above was provided by the Plan's investment consultant. Gabriel, Roeder, Smith & Company does not provide investment advice.

The table above includes expected rates of return on VEBA trust assets for a 10-15-year time horizon. The nature of VEBA obligations is long term and a long term forecast of VEBA investment returns is needed to establish the expected rate of return on trust assets. A review of expected rates of return for a portfolio comparable to the VEBA's portfolio from 12 national investment firms produced 10-year arithmetic average returns varying from 5.05% to 7.2% per year (an average of 5.78%). Long term forward looking return expectations were not provided by these consulting firms. We believe that return expectations for longer time periods would likely produce higher average rates of investment return.

Single Discount Rate

A Single Discount Rate of 7.25% was used to measure the total OPEB liability as of September 30, 2020. This Single Discount Rate was based on the expected rate of return on OPEB plan investments of 7.25%. The projection of cash flows used to determine this Single Discount Rate assumed that in the future plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member 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. Section E of this report contains additional information related to the Single Discount Rate.

Summary of Membership Information[#]

The following table provides a summary of the number of participants in the plan:

Retired Plan Members or Surviving Spouses Currently Receiving Benefits	2,649
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	189
Active Plan Members	1,578
Total Plan Members	4,416

[#] As of the Actuarial Valuation Date

Sensitivity of Net OPEB Liability

As required by GASB Statement No. 74, we have determined the sensitivity of the net OPEB liability to changes in the Single Discount Rate. The following table presents the plan's net OPEB liability, calculated using a Single Discount Rate of 7.25%, 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

Results as of September 30, 2021

1% Decrease 6.25%	Current Single Discount Rate Assumption 7.25%	1% Increase 8.25%
\$ (506,057,953)	\$ (618,263,365)	\$ (712,480,114)

As required by GASB Statement No. 74, we have determined the sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The following table presents the plan's net OPEB liability, calculated using the assumed trend rates as well as what the plan's net OPEB liability would be if it were calculated using trend rates that are one percent lower or one percent higher:

Sensitivity of Net OPEB Liability to the Healthcare Cost Trend Rate Assumption

Results as of September 30, 2021

1% Decrease	Current Healthcare Cost Trend Rate Assumption	1% Increase
\$ (725,329,001)	\$ (618,263,365)	\$ (489,861,631)

SECTION E

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 7.25%; the municipal bond rate is 2.19%; and the resulting SDR is 7.25%.

The tables in this section provide background for the development of the SDR.

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 SDR. It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

Actuarially determined contributions from prior valuations were assumed to be received as due.

There may be cases where schedules do not add, or where they do not exactly balance to other related schedules due to rounding.

The projections in this report are strictly for the purpose of determining the GASB SDR and are different from funding projections for the Plan.

Single Discount Rate Development

Projection of Contributions

Year	Projected Contributions from Current Employees	Projected Service Cost and Expense Contributions	Projected UAL Contributions	Projected Total Contributions
1	\$ 0	\$ 8,869,250	\$ (8,869,250)	\$ 0
2	0	8,251,184	(8,251,184)	0
3	0	7,650,751	(7,650,751)	0
4	0	7,038,365	(7,038,365)	0
5	0	6,428,802	(6,428,802)	0
6	0	5,829,739	(5,829,739)	0
7	0	5,258,756	(5,258,756)	0
8	0	4,701,083	(4,701,083)	0
9	0	4,126,001	(4,126,001)	0
10	0	3,541,895	(3,541,895)	0
11	0	2,992,390	(2,992,390)	0
12	0	2,489,168	(2,489,168)	0
13	0	2,053,883	(2,053,883)	0
14	0	1,680,190	(1,680,190)	0
15	0	1,354,853	(1,354,853)	0
16	0	1,068,470	(1,068,470)	0
17	0	819,911	(819,911)	0
18	0	623,049	(623,049)	0
19	0	471,808	(471,808)	0
20	0	349,958	(349,958)	0
21	0	254,704	(254,704)	0
22	0	184,329	(184,329)	0
23	0	132,815	(132,815)	0
24	0	94,748	(94,748)	0
25	0	65,657	(65,657)	0
26	0	44,386	(44,386)	0
27	0	29,103	(29,103)	0
28	0	17,867	(17,867)	0
29	0	10,306	(10,306)	0
30	0	5,671	(5,671)	0
31	0	2,916	(2,916)	0
32	0	1,330	(1,330)	0
33	0	490	(490)	0
34	0	159	(159)	0
35	0	49	(49)	0
36	0	18	(18)	0
37	0	0	0	0
38	0	0	0	0
39	0	0	0	0
40	0	0	0	0
41	0	0	0	0
42	0	0	0	0
43	0	0	0	0
44	0	0	0	0
45	0	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	0	0	0
49	0	0	0	0
50	0	0	0	0

The projections in this report are strictly for the purpose of determining the GASB SDR and are different from funding projections for the plan.



Single Discount Rate Development

Projection of Plan Net Position

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
1	\$ 1,567,956,854	\$ 0	\$ 48,879,265	\$ 111,936,000	\$ 1,631,013,588
2	1,631,013,588	0	53,337,085	116,348,844	1,694,025,347
3	1,694,025,347	0	57,615,450	120,764,820	1,757,174,717
4	1,757,174,717	0	61,967,008	125,188,165	1,820,395,874
5	1,820,395,874	0	66,372,884	129,614,780	1,883,637,770
6	1,883,637,770	0	70,459,638	134,054,265	1,947,232,398
7	1,947,232,398	0	74,255,197	138,529,694	2,011,506,895
8	2,011,506,895	0	78,242,584	143,047,581	2,076,311,891
9	2,076,311,891	0	82,338,295	147,600,071	2,141,573,667
10	2,141,573,667	0	85,888,880	152,205,093	2,207,889,880
11	2,207,889,880	0	88,368,627	156,924,701	2,276,445,953
12	2,276,445,953	0	90,686,691	161,812,456	2,347,571,719
13	2,347,571,719	0	92,539,430	166,903,088	2,421,935,376
14	2,421,935,376	0	93,117,621	172,273,860	2,501,091,615
15	2,501,091,615	0	93,204,315	178,009,600	2,585,896,900
16	2,585,896,900	0	93,219,092	184,157,457	2,676,835,265
17	2,676,835,265	0	92,851,764	190,763,571	2,774,747,072
18	2,774,747,072	0	92,277,541	197,882,628	2,880,352,159
19	2,880,352,159	0	91,275,350	205,574,691	2,994,651,500
20	2,994,651,500	0	89,738,553	213,916,127	3,118,829,074
21	3,118,829,074	0	88,227,710	222,972,811	3,253,574,176
22	3,253,574,176	0	86,508,869	232,803,049	3,399,868,355
23	3,399,868,355	0	84,121,444	243,494,407	3,559,241,318
24	3,559,241,318	0	81,651,370	255,136,920	3,732,726,868
25	3,732,726,868	0	79,235,044	267,800,682	3,921,292,506
26	3,921,292,506	0	76,559,259	281,566,991	4,126,300,237
27	4,126,300,237	0	73,756,313	296,529,880	4,349,073,804
28	4,349,073,804	0	71,242,604	312,770,491	4,590,601,692
29	4,590,601,692	0	68,852,160	330,366,401	4,852,115,933
30	4,852,115,933	0	66,442,035	349,412,022	5,135,085,920
31	5,135,085,920	0	64,075,953	370,011,615	5,441,021,582
32	5,441,021,582	0	61,836,526	392,271,710	5,771,456,766
33	5,771,456,766	0	59,664,963	416,305,603	6,128,097,406
34	6,128,097,406	0	57,404,495	442,242,557	6,512,935,469
35	6,512,935,469	0	55,008,133	470,228,665	6,928,156,001
36	6,928,156,001	0	52,571,656	500,418,931	7,376,003,276
37	7,376,003,276	0	50,105,819	532,975,681	7,858,873,138
38	7,858,873,138	0	47,540,064	568,075,127	8,379,408,201
39	8,379,408,201	0	44,882,146	605,908,583	8,940,434,638
40	8,940,434,638	0	42,238,625	646,677,151	9,544,873,164
41	9,544,873,164	0	39,574,314	690,593,835	10,195,892,685
42	10,195,892,685	0	36,857,758	737,889,503	10,896,924,430
43	10,896,924,430	0	34,180,549	788,809,655	11,651,553,536
44	11,651,553,536	0	31,503,354	843,615,616	12,463,665,798
45	12,463,665,798	0	28,876,071	902,587,327	13,337,377,054
46	13,337,377,054	0	26,251,899	966,024,855	14,277,150,010
47	14,277,150,010	0	23,704,733	1,034,249,114	15,287,694,390
48	15,287,694,390	0	21,312,103	1,107,598,797	16,373,981,084
49	16,373,981,084	0	19,031,386	1,186,435,811	17,541,385,509
50	17,541,385,509	0	16,874,343	1,271,149,457	18,795,660,624

The projections in this report are strictly for the purpose of determining the GASB SDR and are different from funding projections for the plan.



Single Discount Rate Development

Projection of Plan Net Position

Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Investment Earnings at 7.25%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)=(a)+(b)-(c)+(d)
51	\$ 18,795,660,624	\$ 0	\$ 14,780,543	\$ 1,362,158,975	\$ 20,143,039,055
52	20,143,039,055	0	12,876,552	1,459,911,723	21,590,074,227
53	21,590,074,227	0	11,139,875	1,564,883,626	23,143,817,978
54	23,143,817,978	0	9,558,831	1,677,586,358	24,811,845,505
55	24,811,845,505	0	8,133,764	1,798,569,109	26,602,280,850
56	26,602,280,850	0	6,863,439	1,928,420,915	28,523,838,326
57	28,523,838,326	0	5,744,417	2,067,773,687	30,585,867,596
58	30,585,867,596	0	4,769,485	2,217,305,532	32,798,403,643
59	32,798,403,643	0	3,930,443	2,377,744,278	35,172,217,479
60	35,172,217,479	0	3,218,229	2,549,871,148	37,718,870,397
61	37,718,870,397	0	2,621,208	2,734,524,747	40,450,773,937
62	40,450,773,937	0	2,125,517	2,932,605,408	43,381,253,828
63	43,381,253,828	0	1,719,132	3,145,079,674	46,524,614,370
64	46,524,614,370	0	1,390,354	3,372,985,023	49,896,209,039
65	49,896,209,039	0	1,126,272	3,617,435,042	53,512,517,809
66	53,512,517,809	0	914,523	3,879,624,970	57,391,228,256
67	57,391,228,256	0	744,849	4,160,837,520	61,551,320,927
68	61,551,320,927	0	609,296	4,462,449,067	66,013,160,698
69	66,013,160,698	0	500,925	4,785,936,310	70,798,596,082
70	70,798,596,082	0	413,621	5,132,883,485	75,931,065,946
71	75,931,065,946	0	342,564	5,504,990,080	81,435,713,463
72	81,435,713,463	0	284,326	5,904,079,100	87,339,508,236
73	87,339,508,236	0	236,620	6,332,105,920	93,671,377,536
74	93,671,377,536	0	196,737	6,791,167,864	100,462,348,663
75	100,462,348,663	0	162,871	7,283,514,477	107,745,700,269
76	107,745,700,269	0	133,966	7,811,558,498	115,557,124,801
77	115,557,124,801	0	109,230	8,377,887,658	123,934,903,229
78	123,934,903,229	0	88,133	8,985,277,345	132,920,092,441
79	132,920,092,441	0	70,250	9,636,704,200	142,556,726,390
80	142,556,726,390	0	55,275	10,335,360,695	152,892,031,810
81	152,892,031,810	0	42,874	11,084,670,779	163,976,659,715
82	163,976,659,715	0	32,719	11,888,306,664	175,864,933,660
83	175,864,933,660	0	24,539	12,750,206,816	188,615,115,937
84	188,615,115,937	0	18,064	13,674,595,262	202,289,693,135
85	202,289,693,135	0	13,073	14,666,002,287	216,955,682,349
86	216,955,682,349	0	9,275	15,729,286,640	232,684,959,714
87	232,684,959,714	0	6,439	16,869,659,350	249,554,612,625
88	249,554,612,625	0	4,369	18,092,709,260	267,647,317,516
89	267,647,317,516	0	2,893	19,404,430,417	287,051,745,040
90	287,051,745,040	0	1,868	20,811,251,449	307,862,994,621
91	307,862,994,621	0	1,175	22,320,067,068	330,183,060,514
92	330,183,060,514	0	719	23,938,271,862	354,121,331,657
93	354,121,331,657	0	428	25,673,796,530	379,795,127,759
94	379,795,127,759	0	248	27,535,146,754	407,330,274,264
95	407,330,274,264	0	140	29,531,444,879	436,861,719,003
96	436,861,719,003	0	77	31,672,474,625	468,534,193,552
97	468,534,193,552	0	41	33,968,729,031	502,502,922,542
98	502,502,922,542	0	22	36,431,461,883	538,934,384,403
99	538,934,384,403	0	11	39,072,742,869	578,007,127,261
100	578,007,127,261	0	0	41,905,516,726	619,912,643,987

The projections in this report are strictly for the purpose of determining the GASB SDR and are different from funding projections for the plan.



Single Discount Rate Development

Present Values of Projected Benefits

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 ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/((1+SDR) ^a ((a)-.5)
1	\$ 1,567,956,854	\$ 48,879,265	\$ 48,879,265	\$ 0	\$ 47,198,263	\$ 0	\$ 47,198,263
2	1,631,013,588	53,337,085	53,337,085	0	48,021,235	0	48,021,235
3	1,694,025,347	57,615,450	57,615,450	0	48,366,617	0	48,366,617
4	1,757,174,717	61,967,008	61,967,008	0	48,503,153	0	48,503,153
5	1,820,395,874	66,372,884	66,372,884	0	48,439,855	0	48,439,855
6	1,883,637,770	70,459,638	70,459,638	0	47,946,317	0	47,946,317
7	1,947,232,398	74,255,197	74,255,197	0	47,113,395	0	47,113,395
8	2,011,506,895	78,242,584	78,242,584	0	46,287,469	0	46,287,469
9	2,076,311,891	82,338,295	82,338,295	0	45,417,666	0	45,417,666
10	2,141,573,667	85,888,880	85,888,880	0	44,173,578	0	44,173,578
11	2,207,889,880	88,368,627	88,368,627	0	42,376,633	0	42,376,633
12	2,276,445,953	90,686,691	90,686,691	0	40,548,482	0	40,548,482
13	2,347,571,719	92,539,430	92,539,430	0	38,579,852	0	38,579,852
14	2,421,935,376	93,117,621	93,117,621	0	36,196,644	0	36,196,644
15	2,501,091,615	93,204,315	93,204,315	0	33,781,206	0	33,781,206
16	2,585,896,900	93,219,092	93,219,092	0	31,502,622	0	31,502,622
17	2,676,835,265	92,851,764	92,851,764	0	29,257,330	0	29,257,330
18	2,774,747,072	92,277,541	92,277,541	0	27,110,857	0	27,110,857
19	2,880,352,159	91,275,350	91,275,350	0	25,003,652	0	25,003,652
20	2,994,651,500	89,738,553	89,738,553	0	22,920,901	0	22,920,901
21	3,118,829,074	88,227,710	88,227,710	0	21,011,659	0	21,011,659
22	3,253,574,176	86,508,869	86,508,869	0	19,209,615	0	19,209,615
23	3,399,868,355	84,121,444	84,121,444	0	17,416,763	0	17,416,763
24	3,559,241,318	81,651,370	81,651,370	0	15,762,566	0	15,762,566
25	3,732,726,868	79,235,044	79,235,044	0	14,262,098	0	14,262,098
26	3,921,292,506	76,559,259	76,559,259	0	12,848,918	0	12,848,918
27	4,126,300,237	73,756,313	73,756,313	0	11,541,725	0	11,541,725
28	4,349,073,804	71,242,604	71,242,604	0	10,394,749	0	10,394,749
29	4,590,601,692	68,852,160	68,852,160	0	9,366,870	0	9,366,870
30	4,852,115,933	66,442,035	66,442,035	0	8,427,962	0	8,427,962
31	5,135,085,920	64,075,953	64,075,953	0	7,578,398	0	7,578,398
32	5,441,021,582	61,836,526	61,836,526	0	6,819,148	0	6,819,148
33	5,771,456,766	59,664,963	59,664,963	0	6,134,894	0	6,134,894
34	6,128,097,406	57,404,495	57,404,495	0	5,503,466	0	5,503,466
35	6,512,935,469	55,008,133	55,008,133	0	4,917,224	0	4,917,224
36	6,928,156,001	52,571,656	52,571,656	0	4,381,749	0	4,381,749
37	7,376,003,276	50,105,819	50,105,819	0	3,893,917	0	3,893,917
38	7,858,873,138	47,540,064	47,540,064	0	3,444,776	0	3,444,776
39	8,379,408,201	44,882,146	44,882,146	0	3,032,337	0	3,032,337
40	8,940,434,638	42,238,625	42,238,625	0	2,660,825	0	2,660,825
41	9,544,873,164	39,574,314	39,574,314	0	2,324,463	0	2,324,463
42	10,195,892,685	36,857,758	36,857,758	0	2,018,557	0	2,018,557
43	10,896,924,430	34,180,549	34,180,549	0	1,745,395	0	1,745,395
44	11,651,553,536	31,503,354	31,503,354	0	1,499,941	0	1,499,941
45	12,463,665,798	28,876,071	28,876,071	0	1,281,912	0	1,281,912
46	13,337,377,054	26,251,899	26,251,899	0	1,086,635	0	1,086,635
47	14,277,150,010	23,704,733	23,704,733	0	914,873	0	914,873
48	15,287,694,390	21,312,103	21,312,103	0	766,928	0	766,928
49	16,373,981,084	19,031,386	19,031,386	0	638,559	0	638,559
50	17,541,385,509	16,874,343	16,874,343	0	527,911	0	527,911

The projections in this report are strictly for the purpose of determining the GASB SDR and are different from funding projections for the plan.

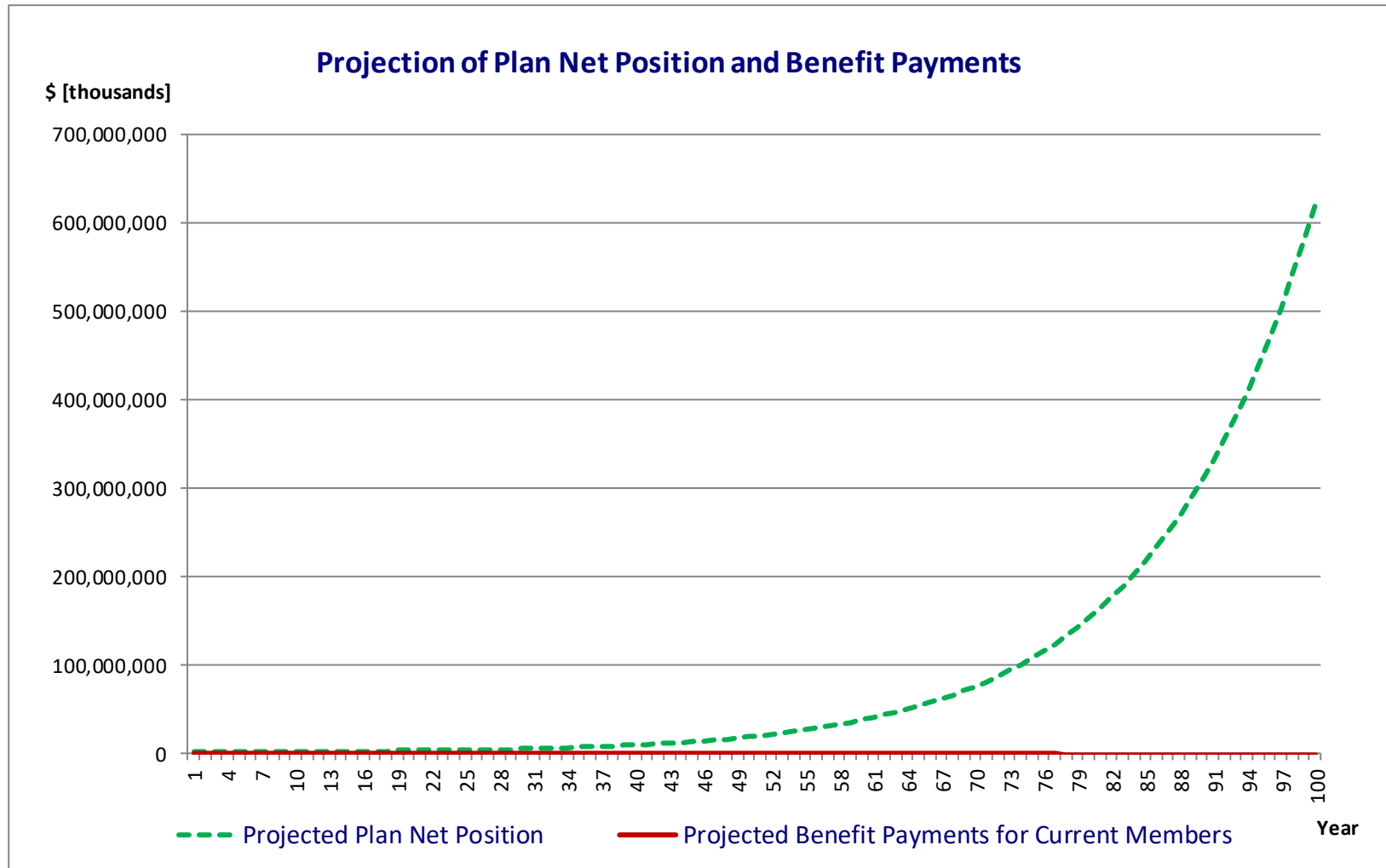
Single Discount Rate Development

Present Values of Projected Benefits

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 ((a)-.5)	(g)=(e)*vf ^a ((a)-.5)	(h)=(c)/(1+SDR) ^a ((a)-.5)
51	\$ 18,795,660,624	\$ 14,780,543	\$ 14,780,543	\$ 0	\$ 431,148	\$ 0	\$ 431,148
52	20,143,039,055	12,876,552	12,876,552	0	350,218	0	350,218
53	21,590,074,227	11,139,875	11,139,875	0	282,502	0	282,502
54	23,143,817,978	9,558,831	9,558,831	0	226,021	0	226,021
55	24,811,845,505	8,133,764	8,133,764	0	179,324	0	179,324
56	26,602,280,850	6,863,439	6,863,439	0	141,088	0	141,088
57	28,523,838,326	5,744,417	5,744,417	0	110,103	0	110,103
58	30,585,867,596	4,769,485	4,769,485	0	85,237	0	85,237
59	32,798,403,643	3,930,443	3,930,443	0	65,494	0	65,494
60	35,172,217,479	3,218,229	3,218,229	0	50,001	0	50,001
61	37,718,870,397	2,621,208	2,621,208	0	37,972	0	37,972
62	40,450,773,937	2,125,517	2,125,517	0	28,710	0	28,710
63	43,381,253,828	1,719,132	1,719,132	0	21,651	0	21,651
64	46,524,614,370	1,390,354	1,390,354	0	16,327	0	16,327
65	49,896,209,039	1,126,272	1,126,272	0	12,332	0	12,332
66	53,512,517,809	914,523	914,523	0	9,336	0	9,336
67	57,391,228,256	744,849	744,849	0	7,090	0	7,090
68	61,551,320,927	609,296	609,296	0	5,408	0	5,408
69	66,013,160,698	500,925	500,925	0	4,145	0	4,145
70	70,798,596,082	413,621	413,621	0	3,191	0	3,191
71	75,931,065,946	342,564	342,564	0	2,465	0	2,465
72	81,435,713,463	284,326	284,326	0	1,907	0	1,907
73	87,339,508,236	236,620	236,620	0	1,480	0	1,480
74	93,671,377,536	196,737	196,737	0	1,147	0	1,147
75	100,462,348,663	162,871	162,871	0	886	0	886
76	107,745,700,269	133,966	133,966	0	679	0	679
77	115,557,124,801	109,230	109,230	0	516	0	516
78	123,934,903,229	88,133	88,133	0	388	0	388
79	132,920,092,441	70,250	70,250	0	289	0	289
80	142,556,726,390	55,275	55,275	0	212	0	212
81	152,892,031,810	42,874	42,874	0	153	0	153
82	163,976,659,715	32,719	32,719	0	109	0	109
83	175,864,933,660	24,539	24,539	0	76	0	76
84	188,615,115,937	18,064	18,064	0	52	0	52
85	202,289,693,135	13,073	13,073	0	35	0	35
86	216,955,682,349	9,275	9,275	0	23	0	23
87	232,684,959,714	6,439	6,439	0	15	0	15
88	249,554,612,625	4,369	4,369	0	10	0	10
89	267,647,317,516	2,893	2,893	0	6	0	6
90	287,051,745,040	1,868	1,868	0	4	0	4
91	307,862,994,621	1,175	1,175	0	2	0	2
92	330,183,060,514	719	719	0	1	0	1
93	354,121,331,657	428	428	0	1	0	1
94	379,795,127,759	248	248	0	0	0	0
95	407,330,274,264	140	140	0	0	0	0
96	436,861,719,003	77	77	0	0	0	0
97	468,534,193,552	41	41	0	0	0	0
98	502,502,922,542	22	22	0	0	0	0
99	538,934,384,403	11	11	0	0	0	0
100	578,007,127,261	0	0	0	0	0	0
Totals					\$ 1,002,238,318	\$ 0	\$ 1,002,238,318

The projections in this report are strictly for the purpose of determining the GASB SDR and are different from funding projections for the plan.





SECTION F

MICHIGAN PUBLIC ACT 202

State Reporting Assumptions as of September 30, 2021

The Protecting Local Government Retirement and Benefits Act, Public Act 202 of 2017 (the Act), has created new reporting requirements for local units of government that sponsor defined benefit plans. Sec. 5(1) of the Act provides the State Treasurer with the authority to annually establish uniform actuarial assumptions (UAA) for the purpose of developing the required disclosures. The UAA are available in a memo from the Department of Treasury (DOT) dated October 22, 2020.

The Local unit of government must report certain actuarial information related to the retiree health plan on the Form 5572. The chart below is an excerpt of this form and includes the information needed for the Fiscal Year 2021 Form 5572 UAA disclosures for the County's Retiree Health Care Plan (a.k.a. VEBA).

27	Uniform Assumptions	
28	Enter retirement health care system's actuarial value of assets using uniform assumptions	\$ 1,381,203,422
29	Enter retirement health care system's actuarial accrued liabilities using uniform assumptions	\$ 959,468,845
30	Funded ratio using uniform assumptions	144.0%
31	Actuarially Determined Contribution (ADC) using uniform assumptions ¹	\$ -
32	All systems combined ADC/Governmental fund revenues	Auto ²

¹ For Fiscal Year 2021

² Automatically calculated by State of Michigan Form 5572 based on user inputs

The actuarial information provided above was based on the September 30, 2020 actuarial valuation of the VEBA. The actuarial assumptions and methods used to develop this information comply with the UAA established by the DOT and are shown in Section F of the 2020 report of the actuarial valuation of the VEBA with the following exceptions:

Assumed rate of investment return: 7.0% net of expenses.

Mortality table: A version of Pub-2010 with mortality projected generationally to 2025 using scale MP-2019.

Medical and prescription drug increases:

Pre-65: Initial rate of 7.50% decreasing by 0.25% per year to an ultimate rate of 4.50% per year.

Age 65 and beyond: Initial rate of 5.75% decreasing by 0.25% per year to an ultimate rate of 4.50% per year.

SECTION G

GLOSSARY OF TERMS

Glossary of Terms

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Actuarial Accrued Liability (AAL)	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."
Actuarial Assumptions	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.
Actuarial Cost Method	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.
Actuarial Equivalent	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.
Actuarial Gain (Loss)	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.
Actuarial Present Value (APV)	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.
Actuarial Valuation	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.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.

Glossary of Terms

Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	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.
Amortization Method	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).
Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit OPEB Plan (cost-sharing OPEB plan)	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.
Covered-Employee Payroll	The payroll of employees that are provided with benefits through the OPEB plan.
Deferred Inflows and Outflows	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.
Discount Rate	<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> <p>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</p> <p>The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.</p>

Glossary of Terms

Entry Age Actuarial Cost Method (EAN)

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.

Fiduciary Net Position

The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.

GASB

The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

Long-Term Expected Rate of Return

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.

Money-Weighted Rate of Return

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.

Multiple-Employer Defined Benefit OPEB Plan

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.

Municipal Bond Rate

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.

Net OPEB Liability (NOL)

The NOL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit OPEB plan.

Non-Employer Contributing Entities

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

Normal Cost	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.
Other Postemployment Benefits (OPEB)	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.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total OPEB Expense	<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">1. Service Cost2. Interest on the Total OPEB Liability3. Current-Period Benefit Changes4. Employee Contributions (made negative for addition here)5. Projected Earnings on Plan Investments (made negative for addition here)6. OPEB Plan Administrative Expense7. Other Changes in Plan Fiduciary Net Position8. Recognition of Outflow (Inflow) of Resources due to Liabilities9. Recognition of Outflow (Inflow) of Resources due to Assets
Total OPEB Liability (TOL)	The TOL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
Unfunded Actuarial Accrued Liability (UAAL)	The UAAL is the difference between actuarial accrued liability and valuation assets.
Valuation Assets	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.