

# MacLeod Watts

December 18, 2024

Chief Scott Lindgren  
Fire Chief  
Tahoe Douglas Fire Protection District  
PO Box 919  
Zephyr Cove, NV 89448

Re: **PEBP** Other Postemployment Benefits of Tahoe Douglas Fire Protection District  
GASB 75 Actuarial Report for the Fiscal Year Ending June 30, 2024

Dear Chief Lindgren:

We are pleased to enclose our actuarial report providing financial information about the other post-employment benefit (OPEB) liabilities of Tahoe Douglas Fire Protection District (the District). **This report covers only former employees and retirees covered by the Nevada Public Employees' Benefit Plan (PEBP).** The report's text describes our analysis and assumptions in detail.

The primary purposes of this report are to:

1. Calculate the District's OPEB liabilities relating to PEBP as of December 31, 2023, in accordance with GASB 75's biennial valuation requirement.
2. Provide information required by GASB 75 ("Accounting and Financial Reporting for Postemployment Benefits Other Than Pension") to be reported in the District's financial statements for the fiscal year ending June 30, 2024.

We began the valuation process by collecting updated PEBP retiree data and current monthly subsidy amounts. Because the soundness of the report is dependent on the inputs, we encourage you to review our summary of this information to be sure it matches your records. Results presented in the report reflect that the District is financing its PEBP OPEB liability on a pay-as-you-go basis. Some assumptions have been updated since the prior valuation.

We appreciate the opportunity to work on this analysis and acknowledge the efforts of the District employees who provided valuable time and information to enable us to perform this valuation. Please let us know if we can be of further assistance.

Sincerely,



Catherine L. MacLeod, FSA, FCA, MAAA  
*Principal & Consulting Actuary*

Enclosure



Tahoe Douglas Fire Protection District  
*PEBP Retirees*

Actuarial Valuation of Other  
Post-Employment Benefit Programs  
As of December 31, 2023

& GASB 75 Report for the Fiscal Year Ending  
June 30, 2024

Submitted December 2024

MacLeod Watts

## Table of Contents

A.	Executive Summary .....	1
	OPEB Obligations of the District for PEBP Members .....	1
	OPEB Funding Policy .....	1
	Actuarial Assumptions .....	2
	Important Dates Used in the Valuation.....	2
	Updates Since the Prior Report.....	2
	Impact on Statement of Net Position and OPEB Expense for Fiscal Year Ending 2024.....	3
	Important Notices.....	3
B.	Valuation Process .....	4
C.	Valuation Results as of December 31, 2023.....	5
D.	Accounting Information (GASB 75) .....	8
	Components of Net Position and Expense .....	8
	Change in Net Position During the Fiscal Year .....	9
	Recognition Period for Deferred Resources .....	10
	Deferred Resources as of Fiscal Year End and Expected Future Recognition .....	10
	Schedule of Deferred Outflows and Inflows of Resources .....	10
	Sensitivity of Liabilities to Changes in the Discount Rate and Healthcare Cost Trend Rate ...	11
	Schedule of Changes in the District's Net OPEB Liability and Related Ratios .....	12
	Schedule of Contributions.....	13
	Detail of Changes to Net Position .....	14
	District Contributions to the Plan.....	15
	Projected Benefit Payments (15-year projection) .....	16
	Sample Journal Entries.....	17
E.	Funding Information .....	18
F.	Certification .....	19
G.	Supporting Information .....	20
	Section 1 - Summary of Employee Data .....	20
	Section 2 - Summary of Retiree Benefit Provisions .....	21
	Section 3 - Actuarial Methods and Assumptions.....	22
	Appendix 1: Important Background Information.....	25
	Appendix 2: MacLeod Watts Mortality Projection Methodology .....	29
	Glossary.....	30



## A. Executive Summary

This report presents the results of our December 31, 2023, actuarial valuation and other post-employment benefit liabilities for Tahoe Douglas Fire Protection District **retirees covered by the Nevada Public Employees' Benefit Plan (PEBP)**. The purpose of this report is to provide information about this plan required by Statement No. 75 of the Governmental Accounting Standards Board (GASB 75) for the District's fiscal year end June 30, 2024. A separate GASB 75 report has been prepared for OPEB liabilities of the Tahoe Douglas Fire Protection District Healthcare Plan.

Important background information regarding the valuation process can be found in Appendix 1. We recommend users of the report read this information to familiarize themselves with the process and context of actuarial valuations, including the requirements of GASB 75. The pages following this executive summary discuss the valuation results in detail and present various exhibits appropriate for disclosures under GASB 75.

The results of the December 31, 2023, valuation will likely also be applied to prepare the District's PEBP GASB 75 report for the fiscal year ending June 30, 2025. If there are any significant changes in the retiree population, plan benefits or eligibility, an earlier valuation may be required or appropriate.

### OPEB Obligations of the District for PEBP Members

Nevada has legislated certain unique rights to retiree medical coverage. Nevada Revised Statutes (NRS) 287.023 provide that, prior to December 1, 2008, (most) local agency retirees could elect to continue in their employer's health plan after retirement, or join PEBP, Nevada's health plan for non-State public agency employees (Section 1).

For retirees and former employees covered by a medical plan offered through PEBP:

- **Explicit subsidy liabilities:** As noted above, the District is required to provide a monthly subsidy toward the cost of medical coverage for retirees and their dependents covered under PEBP. Liabilities relating to these projected benefits are included in this valuation. These benefits are described in Supporting Information, Section 2.
- **Implicit subsidy liabilities:** It is MacLeod Watts's understanding that PEBP operates a separate pool from the State plan members for evaluating the claims and setting premiums for Nevada Public Agency PEBP participation. The Public Agency pool consists almost entirely of retired members. We have assumed that no significant subsidy, if any, of retiree premiums by active premiums exists under this program and as such have not included any implicit subsidy liability in this valuation.

### OPEB Funding Policy

The District's OPEB funding policy affects the calculation of liabilities by impacting the discount rate that is used to develop the plan liability and expense. "Prefunding" is the term used when an agency consistently contributes an amount based on an actuarially determined contribution (ADC) each year. GASB 75 allows prefunded plans to use a discount rate that reflects the expected earnings on trust assets. Pay-as-you-go, or "PAYGO", is the term used when an agency only contributes the required retiree benefits when due. When an agency finances retiree benefits on a pay-as-you-go basis, GASB 75 requires the use of a discount rate equal to a 20-year high grade municipal bond rate.



## Executive Summary

(Continued)

The District confirmed that it continues to finance this PEBP OPEB liability on a pay-as-you-go basis. With the District's approval, the discount rate used in this valuation is based on the Fidelity Municipal Bond AA 20 Year Maturity Index. At the beginning and end of the Measurement Period, use of this index results in discount rates of 4.05% as of December 31, 2022, and 3.77% as of December 31, 2023.

## Actuarial Assumptions

The basic mortality rates used in this report are the same as the rates used for the most recent valuation of the retirement plan(s) covering District employees, though a different table was applied to project future mortality improvement. Other assumptions, such as healthcare trend and retiree participation rates, were selected based on demonstrated plan experience and/or our best estimate of expected future experience. These assumptions, and more, impact expected future benefits. Please note that this valuation has been prepared on a closed group basis. This program is (essentially) closed to new District retirees and only the retirees covered by PEBP as of the valuation date are considered.

We emphasize that this actuarial valuation provides a projection of future results based on many assumptions. Actual results are likely to vary to some extent and we will continue to monitor these assumptions in future valuations. See Section 3 for a description of assumptions used in the valuation.

## Important Dates Used in the Valuation

GASB 75 allows reporting liabilities as of any fiscal year end based on: (1) a *valuation date* no more than 30 months plus 1 day prior to the close of the fiscal year end; and (2) a *measurement date* up to one year prior to the close of the fiscal year. The following dates were used for this report:

Fiscal Year End	June 30, 2024
Measurement Date	December 31, 2023
Measurement Period	December 31, 2022, to December 31, 2023
Valuation Date	December 31, 2023

## Updates Since the Prior Report

No benefit changes were reported to MacLeod Watts from those provided to us for the 2021 valuation. The District provided an updated retiree census and benefit levels. With this information, we determined the difference between actual and expected results (referred to as "plan experience"). We also reviewed and updated certain assumptions used to project the OPEB liability.

The Total OPEB Liability on the current measurement date is higher than that reported one year ago. Section C. provides additional information on the impact of the new assumptions and plan experience and the assumption changes are described at the end of Supporting Information Section 3. See *Recognition Period for Deferred Resources* on page 10 for details on how these changes are recognized.



## Executive Summary

(Concluded)

### Impact on Statement of Net Position and OPEB Expense for Fiscal Year Ending 2024

The accounting impact of the PEBP retiree coverage for the District's fiscal year ending June 30, 2024, is shown below.

Items	For Reporting At Fiscal Year Ending June 30, 2024
Total OPEB Liability	\$ 85,501
Fiduciary Net Position	-
<b>Net OPEB Liability</b>	<b>\$ 85,501</b>
<i>Adjustment for Deferred Resources:</i>	
Deferred (Outflows)	(3,811)
Deferred Inflows	-
<b>Impact on Statement of Net Position</b>	<b>\$ 81,690</b>
<b>OPEB Expense, FYE 6/30/2024</b>	<b>\$ 8,932</b>

### Important Notices

This report is intended to be used only to present the actuarial information relating to other postemployment benefit liabilities for PEBP retirees for the District's financial statements. The results of this report may not be appropriate for other purposes, where other assumptions, methodology and/or actuarial standards of practice may be required or more suitable. We note that various issues in this report may involve legal analysis of applicable law or regulations. The District should consult counsel on these matters; MacLeod Watts does not practice law and does not intend anything in this report to constitute legal advice. In addition, we recommend the District consult with their internal accounting staff or external auditor or accounting firm about the accounting treatment of OPEB liabilities.



## B. Valuation Process

This valuation is based on retiree data and benefits initially submitted to us by the District and clarified in various related communications. A summary of the census data is provided in Section 1 and a summary of the benefits provided under the Plan is provided in Section 2. While individual member records were reviewed for reasonableness, the data has not been audited and we have otherwise relied on the District as to its accuracy. The valuation has been performed in accordance with the process described below using the actuarial methods and assumptions described in Section 3 and is consistent with our understanding of Actuarial Standards of Practice.

In developing the projected benefit values and liabilities in a situation where there are only retirees, we first determine an expected benefit stream over each retiree's anticipated future lifetime. We discount the value of each future expected benefit payment back to the valuation date, using the discount rate to develop the present value of these benefits as of the valuation date. The present value of benefits payable for each retiree reflects expected trends in the cost of those benefits and the assumptions as to the expected date(s) those benefit will be paid.

The sum of the present values for all retirees forms the Present Value of Projected Benefits" (PVPB). Where there are only retirees in the plan, the PVPB is equal to the "Total OPEB Liability" (TOL). There is no service cost in a plan with no active employees.

The District is financing the plan on a pay-as-you-go basis. This policy does not establish a trust to prefund benefits and pays retirees benefits each year as required. Therefore, the **Net OPEB Liability (NOL)** is equal to the Total OPEB Liability. The NOL represents, as of the valuation date, the present value of benefits already earned by past service that remain unfunded. Future contributions by the District will equal each year's retiree benefit payments.

Please note that projections of future benefits over long periods (frequently 25 or more years) which are dependent on numerous assumptions regarding future economic and demographic variables are subject to substantial revision as future events unfold. While we believe that the assumptions and methods used in this valuation are reasonable for the purposes of this report, the costs to the District reflected in this report are subject to future revision, perhaps materially. Demonstrating the range of potential future plan costs was beyond the scope of our assignment except to the limited extent of providing liability information at various discount rates.

Certain actuarial terms and GASB 75 terms may be used interchangeably. Some are shown below.

Actuarial Terminology	GASB 75 Terminology
Present Value of Projected Benefits (PVPB)	<i>No equivalent term</i>
Actuarial Accrued Liability (AAL)	Total OPEB Liability (TOL)
Market Value of Assets (MVA)	Fiduciary Net Position
Actuarial Value of Assets (AVA)	<i>No equivalent term</i>
Unfunded Actuarial Accrued Liability (UAAL)	Net OPEB Liability
Normal Cost	Service Cost

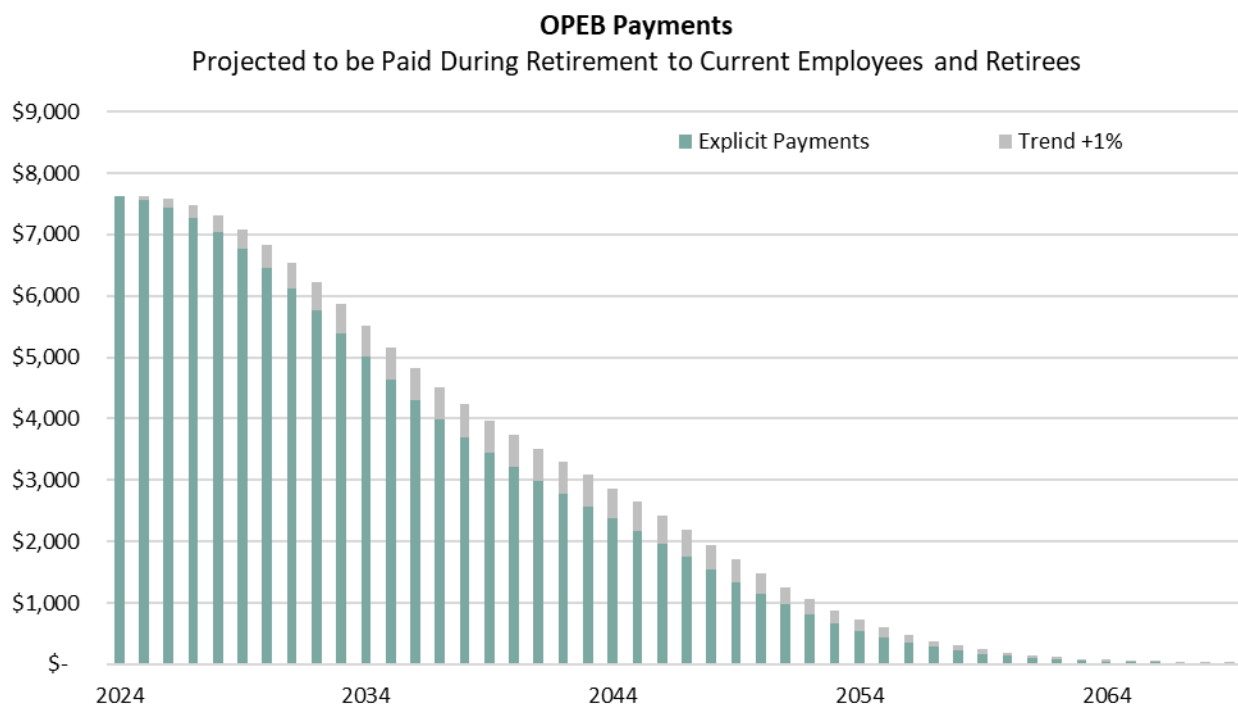


### C. Valuation Results as of December 31, 2023

This section presents the basic results of our recalculation of the OPEB liability using the updated employee data, plan provisions and asset information provided to us for the December 31, 2023, valuation. We described the general process for projecting all future benefits to be paid to retirees and current employees in the preceding Section. Expected annual benefits have been projected on the basis of the actuarial assumptions outlined in Supporting Information, Section 3.

Lifetime healthcare benefits are paid for qualified retirees enrolled in PEBP health coverage. Please see Supporting Information, Section 2 for details.

The following graph illustrates the annual other post-employment benefits projected to be paid on behalf of current retirees and current employees expected to retire from the District.



The amounts shown in green reflect the expected payment by the District toward monthly retiree PEBP benefits. The projections (in gray) reflect increases in benefit levels if healthcare trend were 1% higher.

The first 15 years of benefit payments from the graph above are shown in tabular form on page 16.

Liabilities relating to these projected benefits are shown beginning on the following page.





## Valuation Results as of December 31, 2023

(Continued)

This chart summarizes the results as of December 31, 2023 (the measurement date for FYE 2024 reporting), based on the current valuation. These results are compared to the results as of December 31, 2022, the measurement date for FYE 2023, which were based on the prior actuarial valuation.

Valuation Date	12/31/2021	12/31/2023
Fiscal Year Ending	6/30/2023	6/30/2024
Measurement Date	12/31/2022	12/31/2023
Discount rate	4.05%	3.77%
<b>Number of Covered Employees</b>		
Actives	0	0
Retirees	4	5
Total Participants	4	5
OPEB Subsidy Type	Total	Total
<b>Actuarial Present Value of Projected Benefits</b>	\$ 84,189	\$ 85,501
<b>Total OPEB Liability (TOL)</b>	84,189	85,501
Fiduciary Net Position	-	-
<b>Net OPEB Liability</b>	84,189	85,501

We can see from the chart above that the Total OPEB Liability increased by \$1,312 over the past year. Some of this change was expected and some was unexpected.

**Expected changes:** The TOL was expected to decrease by \$4,367, reflecting interest costs accruing for the period and reduced by benefits paid to retirees.

**Unexpected changes** increased the expected TOL by \$5,679 and fall into these categories:

- *Plan experience* increased the TOL by \$3,786 reflecting results different than expected based on the prior valuation data and assumptions. The primary reasons are shown in the chart on the next page.
- *Assumption changes:* Collectively, these changes increased the TOL by \$1,893. These changes are listed in the chart on the following page and described further on the last page in Supporting Information, Section 3.
- *Benefit changes:* There were no changes reported since the prior valuation was completed.



## Valuation Results as of December 31, 2023

(Concluded)

This chart reconciles the TOL measured December 31, 2022, to the TOL measured December 31, 2023.

Reconciliation of Changes During Measurement Period	Total OPEB Liability
<b>Balance at Fiscal Year Ending 6/30/2023</b> <i>Measurement Date 12/31/2022</i>	\$ 84,189
<b>Expected Changes During the Period:</b>	
Service Cost	-
Interest Cost	3,253
Benefit Payments	(7,620)
<b>Total Expected Changes During the Period</b>	(4,367)
<b>Expected at Fiscal Year Ending 6/30/2024</b> <i>Measurement Date 12/31/2023</i>	\$ 79,822
<b>Unexpected Changes During the Period:</b>	
<i>Plan Experience:</i>	
Lower Mortality Than Expected	6,599
Medicare Exchange Subsidies Lower Than Expected	(6,159)
New PEBP Retiree Added	2,769
Medicare Eligibility Status Change For One Retiree	1,915
Other Plan Experience	(1,338)
<i>Assumption Changes:</i>	
Change in Discount Rate	1,917
Change in Healthcare Trend	(24)
<b>Total Unexpected Changes During the Period</b>	5,679
<b>Balance at Fiscal Year Ending 6/30/2024</b> <i>Measurement Date 12/31/2023</i>	\$ 85,501



## D. Accounting Information (GASB 75)

The following exhibits are designed to satisfy the reporting and disclosure requirements of GASB 75 relating to retiree PEBP coverage for the fiscal year ending June 30, 2024, and to facilitate an audit of plan changes. The District is classified for GASB 75 purposes as a single employer.

### Components of Net Position and Expense

The exhibit below shows the development of Net Position and Expense as of the Measurement Date.

Plan Summary Information for FYE June 30, 2024 <i>Measurement Date is December 31, 2023</i>		PEBP
<b>Items Impacting Net Position:</b>		
Total OPEB Liability	\$	85,501
Fiduciary Net Position		-
Net OPEB Liability (Asset)		85,501
<b>Deferred (Outflows) Due to:</b>		
Assumption Changes		-
Plan Experience		-
Investment Experience		-
Deferred Contributions		(3,811)
<b>Deferred Inflows Due to:</b>		
Assumption Changes		-
Plan Experience		-
Investment Experience		-
<b>Impact on Statement of Net Position, FYE 6/30/2024</b>	<b>\$</b>	<b>81,690</b>
<b>Items Impacting OPEB Expense:</b>		
Service Cost	\$	-
Cost of Plan Changes		-
Interest Cost		3,253
Expected Earnings on Assets		-
<b>Recognition of Deferred Outflows:</b>		
Assumption Changes		1,893
Plan Experience		3,786
Investment Experience		-
<b>Recognition of Deferred (Inflows):</b>		
Assumption Changes		-
Plan Experience		-
Investment Experience		-
<b>OPEB Expense, FYE 6/30/2024</b>	<b>\$</b>	<b>8,932</b>



## Accounting Information

(Continued)

### Change in Net Position During the Fiscal Year

The exhibit below shows the year-to-year changes in the components of Net Position.

For Reporting at Fiscal Year End <i>Measurement Date</i>	6/30/2023 <i>12/31/2022</i>	6/30/2024 <i>12/31/2023</i>	Change During Period
Total OPEB Liability	\$ 84,189	\$ 85,501	\$ 1,312
Fiduciary Net Position	-	-	-
Net OPEB Liability (Asset)	84,189	85,501	1,312
<i>Deferred (Outflows) Due to:</i>			
Assumption Changes	-	-	-
Plan Experience	-	-	-
Investment Experience	-	-	-
Deferred Contributions	(3,808)	(3,811)	(3)
<i>Deferred Inflows Due to:</i>			
Assumption Changes	-	-	-
Plan Experience	-	-	-
Investment Experience	-	-	-
Impact on Statement of Net Position	<u>\$ 80,381</u>	<u>\$ 81,690</u>	<u>\$ 1,309</u>

### Change in Net Position During the Fiscal Year

Impact on Statement of Net Position, FYE 6/30/2023	\$ 80,381
OPEB Expense (Income)	8,932
Tahoe Douglas FPD Contributions During Fiscal Year	<u>(7,623)</u>
Impact on Statement of Net Position, FYE 6/30/2024	<u>\$ 81,690</u>

### OPEB Expense

Tahoe Douglas FPD Contributions During Fiscal Year	\$ 7,623
Deterioration (Improvement) in Net Position	<u>1,309</u>
OPEB Expense (Income), FYE 6/30/2024	<u>\$ 8,932</u>



## Accounting Information

(Continued)

### Recognition Period for Deferred Resources

Liability changes due to plan experience that differs from what was assumed in the prior year and/or due to assumption changes during the year are recognized over the Expected Average Remaining Service Life ("EARSLS"). In a closed plan with no active members, such as PEBP, these differences between expected and actual experience and/or changes in assumptions are recognized in full in the current measurement period.

### Deferred Resources as of Fiscal Year End and Expected Future Recognition

The exhibit below shows deferred resources for the fiscal year ending June 30, 2024.

Tahoe Douglas FPD	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions	\$ -	\$ -
Differences Between Expected and Actual Experience	-	-
Net Difference Between Projected and Actual Earnings on Investments	-	-
Deferred Contributions	3,811	-
<b>Total</b>	<b>\$ 3,811</b>	<b>\$ -</b>

### Schedule of Deferred Outflows and Inflows of Resources

Other than deferred contributions, there are no deferred resource bases which extend beyond the current measurement period for pay-as-you-go plans in which all participants are retired. The chart below shows the liability changes to be recognized in full during this measurement period.

Measurement Date: December 31, 2023

Deferred Outflow or (Inflow)						Balance as of Dec 31, 2023
Date Created	Source	Impact on Net OPEB Liability (NOL)	Initial Amount	Period (Yrs)	Annual Recognition	
12/31/2023	Plan Experience	Increased NOL	\$ 3,786	1.00	\$ 3,786	\$ -
12/31/2023	Assumption Changes	Increased NOL	1,893	1.00	1,893	-



## Accounting Information

(Continued)

### Sensitivity of Liabilities to Changes in the Discount Rate and Healthcare Cost Trend Rate

The discount rate used for the fiscal year ending 2024 is 3.77%. Healthcare cost trend rate prior to eligibility for Medicare was assumed to start at 6.5% (effective July 1, 2025) and grade down to 3.9% by 2075; medical cost inflation for those covered by Medicare is assumed to be 4.5% per year.

The impact of a 1% increase or decrease in these assumptions is shown in the chart below.

Sensitivity to:			
Change in Discount Rate	Current - 1% 2.77%	Current 3.77%	Current + 1% 4.77%
<b>Net OPEB Liability (Asset)</b>	93,034	85,501	78,996
Increase (Decrease)	7,533		(6,505)
% Increase (Decrease)	8.8%		-7.6%
Change in Healthcare Cost Trend Rate	Current Trend - 1%	Current Trend	Current Trend + 1%
<b>Net OPEB Liability (Asset)</b>	79,365	85,501	92,455
Increase (Decrease)	(6,136)		6,954
% Increase (Decrease)	-7.2%		8.1%



**Accounting Information**  
(Continued)

**Schedule of Changes in the District's Net OPEB Liability and Related Ratios**

GASB 75 requires presentation of the 10-year history of changes in the Net OPEB Liability. Results since GASB 75 was implemented are shown below.

<b>Fiscal Year Ending June 30</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
<i>Measurement Date</i>	<i>12/31/2023</i>	<i>12/31/2022</i>	<i>12/31/2021</i>	<i>12/31/2020</i>	<i>12/31/2019</i>	<i>12/31/2018</i>	<i>12/31/2017</i>
<i>Discount Rate on Measurement Date</i>	<i>3.77%</i>	<i>4.05%</i>	<i>1.84%</i>	<i>2.00%</i>	<i>2.75%</i>	<i>3.71%</i>	<i>3.31%</i>
<b>Total OPEB liability</b>							
Service Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest	3,253	1,901	2,853	3,913	4,109	4,120	4,829
Changes of benefit terms	-	-	-	-	-	-	-
Differences between expected and actual experience	3,786	-	(17,827)	-	7,604	-	-
Changes of assumptions	1,893	(17,499)	(14,560)	10,380	34,243	(4,024)	5,407
Benefit payments	(7,620)	(7,079)	(13,083)	(14,231)	(14,552)	(13,089)	(11,920)
<b>Net change in total OPEB liability</b>	<b>1,312</b>	<b>(22,677)</b>	<b>(42,617)</b>	<b>62</b>	<b>31,404</b>	<b>(12,993)</b>	<b>(1,684)</b>
<b>Total OPEB liability - beginning</b>	<b>84,189</b>	<b>106,866</b>	<b>149,483</b>	<b>149,421</b>	<b>118,017</b>	<b>131,010</b>	<b>132,694</b>
<b>Total OPEB liability - ending (a)</b>	<b>\$ 85,501</b>	<b>\$ 84,189</b>	<b>\$ 106,866</b>	<b>\$ 149,483</b>	<b>\$ 149,421</b>	<b>\$ 118,017</b>	<b>\$ 131,010</b>
<b>Plan fiduciary net position - beginning</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Net OPEB liability - ending (a) - (b)</b>	<b>\$ 85,501</b>	<b>\$ 84,189</b>	<b>\$ 106,866</b>	<b>\$ 149,483</b>	<b>\$ 149,421</b>	<b>\$ 118,017</b>	<b>\$ 131,010</b>

*There is no covered payroll in this plan; all members are retired.*



## Accounting Information

(Continued)

### Schedule of Changes in the District's Net OPEB Liability and Related Ratios (concluded)

Fiscal Year Ending June 30	2024	2023	2022	2021	2020	2019	2018
Measurement Date	12/31/2023	12/31/2022	12/31/2021	12/31/2020	12/31/2019	12/31/2018	12/31/2017
Discount Rate on Measurement Date	3.77%	4.05%	1.84%	2.00%	2.75%	3.71%	3.31%

### Notes to Schedule

Valuation Date	12/31/2023	12/31/2021	12/31/2019	12/31/2017
Actuarial cost method	Entry Age Normal Level % of Pay	Entry Age Normal Level % of Pay	Entry Age Normal Level % of Pay	Entry Age Normal Level % of Pay
Inflation	2.50%	2.50%	2.50%	2.75%
Healthcare cost trend rates	Pre-Medicare: 6.5% effective July 2025 grading down to 3.9% by 2075	Pre-Medicare: 6.0% effective January 2022 fluctuating down to 3.9% by 2076. Post-Medicare: 4.5%	Pre-Medicare: 5.4% effective July 2021 fluctuating down to 4.0% by 2076. Post-Medicare: 4.5%	Pre-Medicare: 6.5% effective July 2018 grading down to 5.0% by 2024. Post-Medicare: 4.5%
Salary increases	N/A; All Retired	N/A; All Retired	N/A; All Retired	N/A; All Retired
Retirement age	N/A; All Retired	N/A; All Retired	N/A; All Retired	N/A; All Retired
Mortality	NV PERS 2021 Experience Study	NV PERS 2021 Experience Study	RPH-2014 Healthy Annuitant	RP-2000 Combined Healthy Annuitant
Mortality Improvement	MW Scale 2022 Generationally	MW Scale 2022 Generationally	MW Scale 2020 Generationally	MW Scale 2017 Generationally

### Schedule of Contributions

This schedule is not required to be provided for an unfunded OPEB plan.





Accounting Information  
(Continued)

Detail of Changes to Net Position

The chart below details changes to all components of Net Position.

Tahoe Douglas FPD	Total OPEB Liability (a)	Fiduciary Net Position (b)	Net OPEB Liability (c) = (a) - (b)	(d) Deferred Outflows:				(e) Deferred Inflows:			Impact on Statement of Net Position (f) = (c) - (d) + (e)
				Assumption Changes	Plan Experience	Investment Experience	Deferred Contributions	Assumption Changes	Plan Experience	Investment Experience	
Balance at Fiscal Year Ending 6/30/2023 <i>Measurement Date 12/31/2022</i>	\$ 84,189	\$ -	\$ 84,189	\$ -	\$ -	\$ -	\$ 3,808	\$ -	\$ -	\$ -	\$ 80,381
Changes During the Period:											
Service Cost	-		-								-
Interest Cost	3,253		3,253								3,253
Expected Investment Income		-	-								-
Tahoe Douglas FPD Contributions		7,620	(7,620)								(7,620)
Changes of Benefit Terms	-		-								-
Benefit Payments	(7,620)	(7,620)	-								-
Assumption Changes	1,893		1,893	1,893							-
Plan Experience	3,786		3,786		3,786						-
Investment Experience		-	-							-	-
Recognized Deferred Resources				(1,893)	(3,786)	-	(3,808)	-	-	-	9,487
Contributions After Measurement Date							3,811				(3,811)
Net Changes in Fiscal Year 2023-2024	1,312	-	1,312	-	-	-	3	-	-	-	1,309
Balance at Fiscal Year Ending 6/30/2024 <i>Measurement Date 12/31/2023</i>	\$ 85,501	\$ -	\$ 85,501	\$ -	\$ -	\$ -	\$ 3,811	\$ -	\$ -	\$ -	\$ 81,690



## Accounting Information

(Continued)

### District Contributions to the Plan

District contributions to the Plan occur as benefits are paid to retirees and/or to the OPEB trust. Benefit payments may occur in the form of direct payments for premiums (“explicit subsidies”) and/or indirect payments to retirees in the form of higher premiums for active employees (“implicit subsidies”). For details, see Appendix 1 – Important Background Information.

Benefits paid during the measurement period (January 1 through December 31, 2023):	\$ 7,620
Benefits paid during the fiscal year (July 1, 2023 through June 30, 2024):	\$ 7,623
Deferred contributions (paid January 1, 2024 through June 30, 2024):	\$ 3,811



## Accounting Information

(Continued)

### Projected Benefit Payments (15-year projection)

The following is an estimate of other post-employment benefits to be paid on behalf of current retirees covered by PEBP. Expected annual benefits have been projected using the actuarial assumptions outlined in Section 3.

Projected Annual Benefit Payments	
Ending June 30	PEBP Subsidy
2024	\$ 7,623
2025	7,560
2026	7,435
2027	7,263
2028	7,045
2029	6,761
2030	6,458
2031	6,123
2032	5,763
2033	5,389
2034	5,012
2035	4,646
2036	4,302
2037	3,987
2038	3,702



## Accounting Information

(Concluded)

### Sample Journal Entries

OPEB Accounts at Beginning of Fiscal Year	By Source		Sources Combined	
	Debit	Credit	Debit	Credit
Net OPEB Liability		84,189		84,189
<i>Deferred Outflow:</i>				
Assumption Changes	-			
Plan Experience	-			
Investment Experience	-			
Contribution Subsequent to MD	3,808			
<b>Deferred Outflows</b>			3,808	
<i>Deferred Inflow:</i>				
Assumption Changes		-		
Plan Experience		-		
Investment Experience		-		
<b>Deferred Inflows</b>				-
<b>Record Benefits Paid to Retirees</b>	<b>Debit</b>		<b>Credit</b>	
Net OPEB Liability	7,623			
Cash			7,623	
<b>Record End of Year Updates to OPEB Accounts</b>	<b>Debit</b>	<b>Credit</b>	<b>Debit</b>	<b>Credit</b>
Net OPEB Liability		8,935		8,935
<i>Deferred Outflow:</i>				
Assumption Changes				
Plan Experience				
Investment Experience				
Contribution Subsequent to MD	3			
<b>Deferred Outflows</b>			3	
<i>Deferred Inflow:</i>				
Assumption Changes	-			
Plan Experience	-			
Investment Experience	-			
<b>Deferred Inflows</b>				-
OPEB Expense	8,932		8,932	



## **E. Funding Information**

Our understanding is that the District is currently financing its PEBP OPEB liability on a pay-as-you-go basis. Prefunding (setting aside funds to accumulate in an irrevocable OPEB trust) has certain advantages, one of which is the ability to (potentially) use a higher discount rate in the determination of liabilities for GASB 75 reporting purposes.

Should the District wish to explore potential future prefunding for this plan we can prepare illustrations of various funding levels and, if appropriate, perform a formal funding valuation at that time. Results under a funding scenario may be materially different from the results presented in this report.



## F. Certification

The purpose of this report is to provide actuarial information in compliance with Statement 75 of the Governmental Accounting Standards Board (GASB 75) for other postemployment benefits provided by the Tahoe Douglas Fire Protection District for retired employees covered by PEBP.

In preparing this report we relied without audit on information provided by the District. This information includes, but is not limited to, plan provisions, census data, and financial information. We summarized the benefits in this report and our calculations were based on our understanding of the benefits as described herein. A limited review of this data was performed, and we found the information to be reasonably consistent. The accuracy of this report is dependent on this information and if any of the information we relied on is incomplete or inaccurate, then the results reported herein will be different from any report relying on more accurate information.

We consider the actuarial assumptions and methods used in this report to be individually reasonable under the requirements imposed by GASB 75 and taking into consideration reasonable expectations of plan experience. The results, and the assumptions on which they depend, provide an estimate of the plan's financial condition at one point in time. Future actuarial results may be significantly different due to a variety of reasons including, but not limited to, demographic and economic assumptions differing from future plan experience, changes in plan provisions, changes in applicable law, or changes in the value of plan benefits relative to other alternatives available to plan members.

Alternative assumptions may also be reasonable; however, demonstrating the range of potential plan results based on alternative assumptions was beyond the scope of our assignment except to the limited extent required by GASB 75. Plan results for accounting purposes may be materially different than results obtained for other purposes such as plan termination, liability settlement, or underlying economic value of the promises made by the plan.

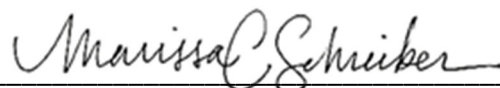
This report is prepared solely for the use and benefit of the District and may not be provided to third parties without prior written consent of MacLeod Watts. Exceptions: The District may provide copies of this report to their professional accounting and legal advisors who are subject to a duty of confidentiality, and the District may provide this work to any party if required by law or court order. No part of this report should be used as the basis for any representations or warranties in any contract or agreement without the written consent of MacLeod Watts.

The undersigned actuaries are unaware of any relationship that might impair the objectivity of this work. Nothing within this report is intended to be a substitute for qualified legal or accounting counsel. Both actuaries are members of the American Academy of Actuaries and meet the qualification standards for rendering this opinion.

Signed: December 18, 2024



Catherine L. MacLeod, FSA, FCA, EA, MAAA



Marissa C. Schreiber, Actuarial Analyst



## G. Supporting Information

### Section 1 - Summary of Employee Data

**Active members:** There are no active District employees covered by or eligible for coverage under PEBP.

**Retired members:** As of the December 2023 valuation date, there were 5 former employees or retirees for whom the District pays a subsidy toward the cost of PEBP coverage. We estimated the age of one new retiree added to the invoice based on the coverage selected (not on the Medicare Exchange).

Retirees by Age		
Current Age	Number	Percent
Below 50	0	0%
50 to 54	0	0%
55 to 59	0	0%
60 to 64	1	20%
65 to 69	2	40%
70 to 74	0	0%
75 to 79	0	0%
80 & up	2	40%
<b>Total</b>	<b>5</b>	<b>100%</b>
Average Attained Age for Retirees:		71.1

While the plan is generally closed to District retirees after June 30, 2008, former employees covered by PEBP at the time of their retirement (through a subsequent employer) may join the plan and, if this occurs, the District is assessed a portion of their cost.

The chart below summarizes the change in the number of PEBP retirees between valuations:

Reconciliation of PEBP Retiree Population	
Retirees as of December 2021	4
Deceased or dropped coverage	0
Added to PEBP invoice	1
<b>Retirees as of December 2023</b>	<b>5</b>



## Supporting Information

(Continued)

### Section 2 - Summary of Retiree Benefit Provisions

**PEBP Eligibility:** PEBP closed to non-State public agency retirees on September 1, 2008, unless the agency's active employees are participating in PEBP. However, the District is responsible for a portion of the PEBP subsidy for a former employee retiring after September 1, 2008, from the State or from a Non-State public agency whose active employees participate in PEBP.

For a retiree to participate in the PEBP program, the participant must be receiving a PERS benefit. PERS eligibility requirements vary by employee group and benefit type.

**Benefits for PEBP retirees:** Those retirees and former employees who were eligible and elected PEBP coverage are entitled to a subsidy toward their premium cost based on their years of covered employment under Nevada PERS. The subsidy is shared on a pro-rata basis by the employers for which the retiree has worked and earned PERS service credit. Thus, the District is obligated to subsidize health care premiums for former employees as well as those who retired directly from the District.

The Nevada Legislature changes the benefit subsidies from time to time. The monthly subsidy continues to be based on years of credited service under Nevada PERS, though the level differs for pre-Medicare and Medicare eligible retirees. The subsidy ends at the earlier of the retiree's death or the date he or she discontinues coverage.

There are exceptions to the amounts shown below:

- (a) Participants who retired before June 30, 1994, receive the 15 year subsidy, regardless of their years of covered service and
- (b) Participants do not receive a subsidy if they were hired by their last employer on or after June 30, 2010, retired with less than 15 years of service and were not disabled.

#### ***Agency Subsidy for PEBP Coverage for Non-State pre-Medicare retirees:***

The subsidy provided to pre-Medicare retirees varies based on the type of plan selected (PPO or HMO) and by the level of coverage taken (e.g., single, two party, family, etc.). This chart shows the monthly amounts payable beginning July 2023 for those with 15 years of PERS service. Actual pre-Medicare subsidies for Dec 31, 2023, as invoiced to the District by individual, were used for the valuation.

Coverage Level	PPO CDHP	PPO Low Deductible	Statewide EPO/HMO
	Base Subsidy	Base Subsidy	Base Subsidy
<i>For 15 years of PERS service</i>			
Retiree Only	\$ 688.61	\$ 729.92	\$ 622.70
Retiree + Spouse	1,259.92	1,342.52	1,128.09
Retiree + Children	902.87	959.64	812.19
Retiree + Family	1,474.16	1,572.29	1,317.59

#### ***HRA Contributions for non-State Medicare Retirees covered by the Exchange:***

Amounts paid for Medicare eligible retirees covered by the Exchange do not vary by type of plan or coverage level; they vary only by years of PERS membership service.

On December 31, 2023, the monthly subsidy for retirees on the Medicare Exchange was \$13 per month per year of PERS service, with a maximum benefit payable of \$260 per month.





## Supporting Information

(Continued)

### Section 3 - Actuarial Methods and Assumptions

The ultimate real cost of an employee benefit plan is the value of all benefits and other expenses of the plan over its lifetime. These payments depend only on the terms of the plan and the administrative arrangements adopted. Actuarial assumptions are used to estimate the cost of these benefits; the funding method spreads the expected costs on a level basis over the life of the plan.

#### Important Dates

Valuation Date	December 31, 2023
GASB 75 Measurement Date	December 31, 2023
Fiscal Year End	June 30, 2024

#### Valuation Methods

Funding Method	Entry Age Normal Cost, level percent of pay
Asset Valuation Method	Not applicable (\$0, no OPEB trust has been established)
Participants Valued	Only current PEBP retirees are valued.

#### Economic Assumptions

Municipal Bond Index	Fidelity Municipal Bond AA 20 Year Maturity Yield
Discount Rate	4.05% as of December 31, 2022 3.77% as of December 31, 2023
General Inflation Rate	2.5% per year
Salary Increase	Not applicable; there are no active employees in this plan.
Healthcare Trend	Post-Medicare healthcare cost increase trend is 4.5%.
The District's payments toward the pre-Medicare PEBP retiree premiums are assumed to increase at the following rates:	

Effective July 1	Subsidy Increase	Effective July 1	Subsidy Increase
2024	actual	2040-2043	4.8%
2025	6.5%	2044-2049	4.7%
2026	6.0%	2050-2059	4.6%
2027	5.5%	2060-2065	4.5%
2028	5.4%	2066-2067	4.4%
2029	5.3%	2068-2069	4.3%
2030	5.2%	2070	4.2%
2031	5.1%	2071-2072	4.1%
2032-2037	5.0%	2073-2074	4.0%
2038-2039	4.9%	2075 & later	3.9%



## Supporting Information

(Continued)

### Section 3 - Actuarial Methods and Assumptions

Healthcare Trend (concluded)

The healthcare trend shown above was developed using the Getzen Model 2023 published by the Society of Actuaries using the following settings: CPI 2.5%; Real GDP Growth 1.4%; Excess Medical Growth 1.0%; Expected Health Share of GDP in 2032 20%; Resistance Point 21%; Year after which medical growth is limited to growth in GDP 2075.

### Participant Election Assumptions

Participation Rate

*Retirees:* All retirees currently covered by PEBP are assumed to retain their existing election until death.

Medicare Eligibility

Absent contrary data, all individuals are assumed to be eligible for Medicare Parts A and B at 65. Retirees over age 65 who are not eligible for Medicare are assumed to remain ineligible.

### Demographic Assumptions

Mortality

The rates described below were described in the September 2021 experience study report of the Nevada PERS program as being reasonably representative of mortality experience as of that date.

#### Non-disabled life rates for Regular employees:

*Males:* Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table with rates increased by 30%

*Females:* Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table with rates increased by 15%

Mortality Improvement

The mortality rates described above were adjusted to anticipate future mortality improvement by applying MacLeod Watts Scale 2022 on a generational basis from 2010 forward (see Appendix 2 for details).

### Software and Models Used in the Valuation

**ProVal** - MacLeod Watts utilizes ProVal, a licensed actuarial valuation software product from Winklevoss Technologies (WinTech) to project future retiree benefit payments and develop the OPEB liabilities presented in this report. ProVal is widely used by the actuarial community. We review results at the plan level and for individual sample lives and find them to be reasonable and consistent with the results we expect. We are not aware of any material inconsistencies or limitations in the software that would affect this actuarial valuation.

**Getzen model** – published by the Society of Actuaries; used to derive medical trend assumptions described earlier in this section.



## Supporting Information

(Concluded)

### Section 3 - Actuarial Methods and Assumptions

#### Assumption Changes Since the Prior Valuation

Discount Rate:	Changed from 4.05% on December 31, 2022, to 3.77% on December 31, 2023, based on the published change in return for the applicable municipal bond index.
Medical trend	For pre-Medicare PEBP retiree benefits, updated from the Getzen Model 2022_b to the Getzen Model 2023, as published by the Society of Actuaries



## Appendix 1: Important Background Information

### General Types of Other Post-Employment Benefits (OPEB)

Post-employment benefits other than pensions (OPEB) comprise a part of compensation that employers offer for services received. The most common OPEB are medical, prescription drug, dental, vision, and/or life insurance coverage. Other OPEB may include outside group legal, long-term care, or disability benefits outside of a pension plan. OPEB does not generally include COBRA, vacation, sick leave (unless converted to defined benefit OPEB), or other direct retiree payments.

A direct employer payment toward the cost of OPEB benefits is referred to as an “explicit subsidy”. In addition, if claims experience of employees and retirees are pooled when determining premiums, retiree premiums are based on a pool of members which, on average, are younger and healthier. For certain types of coverage such as medical insurance, this results in an “implicit subsidy” of retiree premiums by active employee premiums since the retiree premiums are lower than they would have been if retirees were insured separately. GASB 75 and Actuarial Standards of Practice generally require that an implicit subsidy of retiree premium rates be valued as an OPEB liability.

Expected retiree claims		
Premium charged for retiree coverage		Covered by higher active premiums
Retiree portion of premium	Agency portion of premium Explicit subsidy	Implicit subsidy

*This chart shows the sources of funds needed to cover expected medical claims for pre-Medicare retirees in a program where a uniform premium rate is charged for all active and retired members regardless of their age. This is not how premiums are currently designed under the District’s Plan.*

However, for virtually all Nevada public agencies with retirees in PEBP, these retirees are in a separate pool consisting almost exclusively of retirees. The claims experience of this pool is developed separately from that of other PEBP members; thus, no implicit subsidy liability exists or it is insignificant for these retirees.

### Valuation Process

The valuation was based on employee census data and benefits provided by the District. A summary of the employee data is provided in Section 1 and a summary of the benefits provided under the Plan is provided in Section 2. While individual employee records have been reviewed to verify that they are reasonable in various respects, the data has not been audited and we have otherwise relied on the District as to its accuracy. The valuation was also based on the actuarial methods and assumptions described in Section 3.

In developing the projected benefit values and liabilities, we first determine an expected premium or benefit stream over the employee’s future retirement. Benefits may include both direct employer payments (explicit subsidies) and/or an implicit subsidy, arising when retiree premiums are expected to be subsidized by active employee premiums. The projected benefit streams reflect assumed trends



## Important Background Information

(Continued)

in the cost of those benefits and assumptions as to the expected date(s) when benefits will end. We then apply assumptions regarding:

- The probability that each individual employee will or will not continue in service to receive benefits.
- The probability of when such retirement will occur for each retiree, based on current age, service and employee type; and
- The likelihood that future retirees will or will not elect retiree coverage (and benefits) for themselves and/or their dependents.

We then calculate a present value of these benefits by discounting the value of each future expected benefit payment, multiplied by the assumed expectation that it will be paid, back to the valuation date using the discount rate. These benefit projections and liabilities have a very long time horizon. The final payments for currently active employees may not be made for 25 years or more.

The resulting present value for each employee is allocated as a level percent of payroll each year over the employee's career using the entry age normal cost method and the amounts for each individual are then summed to get the results for the entire plan. This creates a cost expected to increase each year as payroll increases. Amounts attributed to prior fiscal years form the "Total OPEB Liability". The OPEB cost allocated for active employees in the current year is referred to as "Service Cost". *Note that there is no service cost in this PEBP valuation, because there are no active employees covered by this plan.*

Where contributions have been made to an irrevocable OPEB trust, the accumulated value of trust assets ("Fiduciary Net Position") is applied to offset the "Total OPEB Liability", resulting in the "Net OPEB Liability". If a plan is not being funded, then the Net OPEB Liability is equal to the Total OPEB Liability.

It is important to remember that an actuarial valuation is, by its nature, a projection of one possible future outcome based on many assumptions. To the extent that actual experience is not what we assumed, future results will differ. Some possible sources of future differences may include:

- A significant change in the number of covered or eligible plan members;
- A change in the subsidy provided by the District toward PEBP coverage;
- Longer life expectancies of retirees;
- Establishment of and recurring the District contributions to an irrevocable OPEB trust; and
- Changes in the discount rate used to value the OPEB liability



## Important Background Information

(Continued)

### Requirements of GASB 75

The Governmental Accounting Standards Board (GASB) issued GASB Statement No. 75, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. This Statement establishes standards for the measurement, recognition, and disclosure of OPEB expense and related liabilities (assets), note disclosures, and required supplementary information (RSI) in the financial reports of state and local governmental employers.

#### *Important Dates*

GASB 75 requires that the information used for financial reporting falls within prescribed timeframes. Actuarial valuations of the total OPEB liability are generally required at least every two years. If a valuation is not performed as of the Measurement Date, then liabilities are required to be based on roll forward procedures from a prior valuation performed no more than 30 months and 1 day prior to the most recent year-end. In addition, the net OPEB liability is required to be measured as of a date no earlier than the end of the prior fiscal year (the "Measurement Date").

#### *Recognition of Plan Changes and Gains and Losses*

Under GASB 75, gains and losses related to changes in Total OPEB Liability and Fiduciary Net Position are recognized in OPEB expense systematically over time.

- *Timing of recognition:* Changes in the Total OPEB Liability relating to changes in plan benefits are recognized immediately (fully expensed) in the year in which the change occurs. Gains and Losses are amortized, with the applicable period based on the type of gain or loss. The first amortized amounts are recognized in OPEB expense for the year the gain or loss occurs. The remaining amounts are categorized as deferred outflows and deferred inflows of resources related to OPEB and are to be recognized in future OPEB expense.
- *Deferred recognition periods:* These periods differ depending on the source of the gain or loss.
  - Difference between projected and actual trust earnings: 5 year straight-line recognition
  - All other amounts: Straight-line recognition over the expected average remaining service lifetime (EARS�) of all members that are provided with benefits, determined as of the beginning of the Measurement Period. Because PEBP is closed and there are no active members, all differences between expected and actual experience and/or changes in assumptions are recognized immediately.

### Discount Rate

When the financing of OPEB liabilities is on a pay-as-you-go basis, GASB 75 requires that the discount rate used for valuing liabilities be based on the yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). When a plan sponsor makes regular, sufficient contributions to a trust in order to prefund the OPEB liabilities, GASB 75 allows use of a rate up to the expected rate of return of the trust. Therefore, prefunding has an advantage of potentially being able to report overall lower liabilities due to future expected benefits being discounted at a higher rate.



## **Important Background Information**

(Continued)

### **Actuarial Funding Method and Assumptions**

The “ultimate real cost” of an employee benefit plan is the value of all benefits and other expenses of the plan over its lifetime. These expenditures are dependent only on the terms of the plan and the administrative arrangements adopted, and as such are not affected by the actuarial funding method.

The actuarial funding method attempts to spread recognition of these expected costs on a level basis over the life of the plan, and as such sets the “incidence of cost”. GASB 75 specifically requires that the actuarial present value of projected benefit payments be attributed to periods of employee service using the Entry Age Actuarial Cost Method, with each period’s service cost determined as a level percent of pay.

The results of this report may not be appropriate for other purposes, where other assumptions, methodology and/or actuarial standards of practice may be required or more suitable.



## Appendix 2: MacLeod Watts Mortality Projection Methodology

Actuarial standards of practice (e.g., ASOP 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations, and ASOP 6, Measuring Retiree Group Benefits Obligations) indicate that the actuary should reflect the effect of mortality improvement (i.e., longer life expectancies in the future), both before and after the measurement date. The development of credible mortality improvement rates requires the analysis of large quantities of data over long periods of time. Because it would be extremely difficult for an individual actuary or firm to acquire and process such extensive amounts of data, actuaries typically rely on large studies published periodically by organizations such as the Society of Actuaries or Social Security Administration.

As noted in a recent actuarial study on mortality improvement, key principles in developing a credible mortality improvement model would include the following:

- (1) Short-term mortality improvement rates should be based on recent experience.
- (2) Long-term mortality improvement rates should be based on expert opinion.
- (3) Short-term mortality improvement rates should blend smoothly into the assumed long-term rates over an appropriate transition period.

The **MacLeod Watts Scale 2022** was developed from a blending of data and methodologies found in two published sources: (1) the Society of Actuaries Mortality Improvement Scale MP-2021 Report, published in October 2021 and (2) the demographic assumptions used in the 2021 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, published August 2021.

MacLeod Watts Scale 2022 is a two-dimensional mortality improvement scale reflecting both age and year of mortality improvement. The underlying base scale is Scale MP-2021 which has two segments – (1) historical improvement rates for the period 1951-2017 and (2) an estimate of future mortality improvement for years 2018-2020 using the Scale MP-2021 methodology but utilizing the assumptions used in generating Scale MP-2015. The MacLeod Watts scale then transitions from the 2020 improvement rate to the Social Security Administration (SSA) Intermediate Scale linearly over the 10-year period 2021-2030. After this transition period, the MacLeod Watts Scale uses the constant mortality improvement rate from the SSA Intermediate Scale from 2030-2044. The SSA's Intermediate Scale has a final step in 2045 which is reflected in the MacLeod Watts scale for years 2045 and thereafter. Over the ages 95 to 117, the age 95 improvement rate is graded to zero.

Scale MP-2021 can be found at the SOA website and the projection scales used in the 2021 Social Security Administrations Trustees Report at the Social Security Administration website.





## Glossary

Actuarial Funding Method – A procedure which calculates the actuarial present value of plan benefits and expenses, and allocates these expenses to time periods, typically as a normal cost and an actuarial accrued liability

Actuarial Present Value of Projected Benefits (APVPB) – The amount presently required to fund all projected plan benefits in the future. This value is determined by discounting the future payments by an appropriate interest rate and the probability of nonpayment.

Defined Benefit (DB) – A pension or OPEB plan which defines the monthly income or other benefit which the plan member receives at or after separation from employment

Defined Contribution (DC) – A pension or OPEB plan which establishes an individual account for each member and specifies how contributions to each active member's account are determined and the terms of distribution of the account after separation from employment

Discount Rate – Interest rate used to discount future potential benefit payments to the valuation date. Under GASB 75, if a plan is prefunded, then the discount rate is equal to the expected trust return. If a plan is not prefunded (pay-as-you-go), then the rate of return is based on a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

Expected Average Remaining Service Lifetime (EARS�) – Average of the expected remaining service lives of all employees that are provided with benefits through the OPEB plan (active employees and inactive employees), beginning in the current period

Entry Age Actuarial Cost Method – An actuarial funding method where, for each individual, the actuarial present value of benefits is levelly spread over the individual's projected earnings or service from entry age to the last age at which benefits can be paid

Explicit Subsidy – The projected dollar value of future retiree healthcare costs expected to be paid directly by the Employer, e.g., the Employer's payment of all or a portion of the monthly retiree premium billed by the insurer for the retiree's coverage

Fiduciary Net Position – The value of trust assets used to offset the Total OPEB Liability to determine the Net OPEB Liability.

Government Accounting Standards Board (GASB) – A private, not-for-profit organization which develops generally accepted accounting principles (GAAP) for U.S. state and local governments; like FASB, it is part of the Financial Accounting Foundation (FAF), which funds each organization and selects the members of each board

Health Care Trend – The assumed rate(s) of increase in future dollar values of premiums or healthcare claims, attributable to increases in the cost of healthcare; contributing factors include medical inflation, frequency or extent of utilization of services and technological developments.

Implicit Subsidy – The projected difference between future retiree claims and the premiums to be charged for retiree coverage; this difference results when the claims experience of active and retired employees are pooled together and a 'blended' group premium rate is charged for both actives and retirees; a portion of the active employee premiums subsidizes the retiree premiums.

Net OPEB Liability (NOL) – The liability to employees for benefits provided through a defined benefit OPEB. Only assets administered through a trust that meet certain criteria may be used to reduce the Total OPEB Liability.



## **Glossary**

(Continued)

Net OPEB Liability (NOL) – The liability to employees for benefits provided through a defined benefit OPEB. Only assets administered through a trust that meet certain criteria may be used to reduce the Total OPEB Liability.

Net Position – The Impact on Statement of Net Position is the Net OPEB Liability adjusted for deferred resource items

Nevada PERS – Many state governments maintain a public employee retirement system; Nevada PERS is the Nevada program, covering all eligible state government employees as well as other employees of other governments within Nevada who have elected to join the system

OPEB Expense – The OPEB expense reported in the Agency's financial statement. OPEB expense is the annual cost of the plan recognized in the financial statements.

Other Post-Employment Benefits (OPEB) – Post-employment benefits other than pension benefits, most commonly healthcare benefits but also including life insurance if provided separately from a pension plan

Pay-As-You-Go (PAYGO) – Contributions to the plan are made at about the same time and in about the same amount as benefit payments and expenses coming due

Plan Assets – The value of cash and investments considered as 'belonging' to the plan and permitted to be used to offset the AAL for valuation purposes. To be considered a plan asset, GASB 75 requires (a) contributions to the OPEB plan be irrevocable, (b) OPEB assets to dedicated to providing OPEB benefit to plan members in accordance with the benefit terms of the plan, and (c) plan assets be legally protected from creditors, the OPEB plan administrator and the plan members.

Select and Ultimate – Actuarial assumptions which contemplate rates which differ by year initially (the select period) and then stabilize at a constant long-term rate (the ultimate rate)

Service Cost – Total dollar value of benefits expected to be earned by plan members in the current year, as assigned by the actuarial funding method; also called normal cost

Total OPEB Liability (TOL) – Total dollars required to fund all plan benefits attributable to service rendered as of the valuation date for current plan members and vested prior plan members; a subset of "Actuarial Present Value"

Vesting – As defined by the plan, requirements which when met make a plan benefit nonforfeitable on separation of service before retirement eligibility

