MacLeod Watts

November 29, 2023

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

Re: Tahoe Douglas Fire Protection District Other Post-Employment Benefits

GASB 75 Actuarial Report for the Fiscal Year Ending June 30, 2023

Dear Chief Lindgren:

We are pleased to enclose our actuarial report providing financial information about the other postemployment benefit (OPEB) liabilities of the Tahoe Douglas Fire Protection District. **This report relates only to liabilities for current retirees and current employees projected to retiree with benefits from the Tahoe Douglas Fire Protection District Retiree Healthcare Plan (District RHP).** A separate report has been prepared for the District's PEBP retiree OPEB liability.

The primary purpose of this report is to 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, 2023. The information included in this report reflects the District's established practice to contribute, on average, 100% or more of the Actuarially Determined Contribution.

The exhibits presented are based on a roll forward of the December 31, 2021, valuation results and on the employee and plan data provided to us for that valuation. The District also provided information on retiree benefit payments and trust contributions/reimbursements for the current fiscal year. As with any analysis, the soundness of the report is dependent on the inputs. Please review the information shown in the report to be comfortable that it matches your records.

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

Sincerely,

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

Casherine L. Machen

Principal & Consulting Actuary

Enclosure



Tahoe Douglas Fire Protection District Retiree Health Plan

GASB 75 Actuarial Report Measured as of December 31, 2022 For Fiscal Year End June 30, 2023 Financial Reporting

Submitted November 2023

MacLeod Watts

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A. Executive Summary

This report presents actuarial information regarding the other post-employment benefit (OPEB) program of the Tahoe Douglas Fire Protection District Retiree Healthcare Plan (District RHP). The purpose of this valuation is to assess the OPEB liabilities and provide disclosure information as required by Statement No. 75 of the Governmental Accounting Standards Board (GASB 75) for the fiscal year ending June 30, 2023. A separate report has been prepared for the District's PEBP retiree OPEB liability.

Important background information regarding the valuation process can be found in the Appendices of this report. 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 present various exhibits and other relevant information appropriate for disclosures under GASB 75.

This report is based on a roll forward of the December 31, 2021, valuation results. An updated valuation of the OPEB liability will need to be prepared as of December 31, 2023. The results of that valuation will first be applied to prepare the GASB 75 report for the District's fiscal year end June 30, 2024.

OPEB Obligations of the District

The District provides continuation of health and life insurance coverage to its retiring employees. Access to this coverage may create one or more of the following types of OPEB liabilities:

- Explicit subsidy liabilities: An "explicit subsidy" exists when the employer contributes directly toward the cost of retiree healthcare. In this program, the District pays 100% of the retiree- only medical premiums for a limited period for those retirees who qualify for and enroll in the Early Retirement Incentive Program. After the expiration of these benefits and for all others, the retiree must pay 100% of the premiums to continue coverage. These benefits are described in Supporting Information, Section 2.
- Implicit subsidy liabilities: An "implicit subsidy" exists when the premiums charged for retiree coverage are lower than the expected retiree claims for that coverage. In the District's program, the claims experience of active employees and retirees is co-mingled in setting premium rates for the plans in which District employees and retirees participate.

As is the nature of group premium rate structures, at some ages, retirees may be expected to experience higher claims than the premiums they pay, where at other ages, the reverse may be true. We determine the implicit rate subsidy for retiree medical and life insurance coverage as the projected difference between (a) retiree claim costs by age and (b) premiums charged for retiree coverage. For more information on this process for medical claim costs, see Supporting Information Section 3 and Addendum 2: MacLeod Watts Age Rating Methodology.

We assumed no implicit liability exists with respect to dental or vision coverage available to retirees, or that it is insignificant.



Executive Summary (Continued)

OPEB Funding Policy

The District's OPEB funding policy affects the calculation of liabilities by impacting the discount rate 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.

The District continues to prefund its OPEB liability, maintaining a rolling 5-year average contribution greater than 100% of the Actuarially Determined Contributions each year for the District Retiree Healthcare Plan and Trust. With the District's approval, the discount rate used in this valuation is 6.5%, reflecting the District's expectation of the long-term return on trust assets as of the measurement date.

Actuarial Assumptions

The actuarial "demographic" assumptions (i.e., rates of retirement, death, disability or other termination of employment) used in this report were chosen, for the most part, to be the same as the actuarial demographic assumptions used for the most recent valuation of the retirement plan(s) covering District employees. Other assumptions, such as age-related healthcare claims, healthcare trend, retiree participation rates and spouse coverage, were selected based on demonstrated plan experience and/or our best estimate of expected future experience. All these assumptions, and more, impact expected future benefits.

Please note that this valuation has been prepared on a closed group basis. This means that only employees and retirees present as of the valuation date are considered. We do not consider replacement employees for those we project to leave the current population of plan participants until the valuation date following their employment.

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 this 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, 2023
Measurement Date December 31, 2022

Measurement Period December 31, 2021, to December 31, 2022

Valuation Date December 31, 2021



Executive Summary (Concluded)

Updates Since the Prior Report

This report is based on a roll forward of the December 31, 2021, valuation. No benefit changes and no material changes in plan members or premium rates were reported to MacLeod Watts from those provided to us for the 2021 valuation. Accordingly, no new census data was gathered, no plan experience was determined, and no assumptions were changed. Investment experience related to updated trust assets as of December 31, 2022, was determined and reflected in the report.

Impact on Statement of Net Position and OPEB Expense for Fiscal Year Ending 2023

The plan's impact to Net Position will be the sum of difference between assets and liabilities as of the measurement date plus the unrecognized net outflows and inflows of resources. Different recognition periods apply to deferred resources depending on their origin. The plan's impact on Net Position on the measurement date can be summarized as follows:

Items	Fisc	r Reporting At al Year Ending une 30, 2023
Total OPEB Liability	\$	13,200,714
Fiduciary Net Position		(12,753,306)
Net OPEB Liability	\$	447,408
Adjustment for Deferred Resources:		
Deferred (Outflows)		(3,705,677)
Deferred Inflows		1,841,226
Impact on Statement of Net Position	\$	(1,417,043)
OPEB Expense, FYE 6/30/2023	\$	520,876

Important Notices

This report is intended to be used only to present the actuarial information relating to other postemployment benefits 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. Results Measured as of December 31, 2022

The District's OPEB liability measured as of December 31, 2022, was determined based on a "roll-forward" of the December 31, 2021, valuation. A roll-forward valuation moves the plan liability forward based on expected changes. For this type of valuation, we do not collect new plan data, and we generally do not change any actuarial assumptions. One exception is that changes in the liability discount rate reflecting changes in the municipal bond index or updated trust earnings expectations are reflected as of the new measurement date. Updated trust assets as of the measurement date are also reflected in the roll-forward valuation.

GASB allows roll-forward valuations to be performed in the year following the full biennial valuation if no material changes to the plan or the plan's members have occurred. Examples of material changes would include significantly different terminations or retirements during the year than were assumed, or a change in the retirement plan provisions. No such events or plan amendments were reported by the District in the current measurement period.

The chart below reconciles the liability reported last year to that obtained by the roll-forward valuation as of the end of the current fiscal year.

Reconciliation of Changes During Measurement Period		Total OPEB Liability (a)	Fiduciary Net Position (b)	(0	Net OPEB Liability c) = (a) - (b)
Balance at Fiscal Year Ending 6/30/2022 Measurement Date 12/31/2021		12,713,319	\$ 15,381,140	\$	(2,667,821)
Expected Changes During the Period:					
Service Cost		403,062			403,062
Interest Cost		828,383			828,383
Expected Investment Income			980,706		(980,706)
Tahoe Douglas FPD Contributions			187,532		(187,532)
Retiree premium co-pay into trust			28,117		(28,117)
Retiree premium co-pay from trust to insurers			(28,117)		28,117
Admin/Operating Expenses			(30,193)		30,193
Benefit Payments		(744,050)	 (744,050)		-
Total Expected Changes During the Period		487,395	393,995		93,400
Expected at Fiscal Year Ending 6/30/2023 Measurement Date 12/31/2022	\$	13,200,714	\$ 15,775,135	\$	(2,574,421)
Unexpected Changes During the Period:					
Change Due to Investment Experience			 (3,021,829)		3,021,829
Total Unexpected Changes During the Period		-	(3,021,829)		3,021,829
Balance at Fiscal Year Ending 6/30/2023 Measurement Date 12/31/2022	\$	13,200,714	\$ 12,753,306	\$	447,408



C. Accounting Information (GASB 75)

The following exhibits are designed to satisfy the reporting and disclosure requirements of GASB 75 for the fiscal year ending June 30, 2023. 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, 2023 Measurement Date is December 31, 2022	Tahoe Douglas FPD
Items Impacting Net Position:	
Total OPEB Liability	\$ 13,200,714
Fiduciary Net Position	(12,753,306)
Net OPEB Liability (Asset)	447,408
Deferred (Outflows) Due to:	
Assumption Changes	(914,364)
Plan Experience	(299,663)
Investment Experience	(2,417,463)
Deferred Contributions	(74,187)
Deferred Inflows Due to:	
Assumption Changes	-
Plan Experience	334,601
Investment Experience	1,506,625
Impact on Statement of Net Position, FYE 6/30/2023	\$ (1,417,043)
Items Impacting OPEB Expense:	
Service Cost	\$ 403,062
Cost of Plan Changes	-
Interest Cost	828,383
Expected Earnings on Assets	(980,706)
Retiree premium co-pay into trust	(28,117)
Retiree premium co-pay from trust to insurers	28,117
Admin/Operating Expenses	30,193
Recognition of Deferred Outflows:	
Assumption Changes	174,097
Plan Experience	34,844
Investment Experience	871,540
Recognition of Deferred (Inflows):	
Assumption Changes	-
Plan Experience	(73,863)
Investment Experience	(766,674)
OPEB Expense, FYE 6/30/2023	\$ 520,876



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 Measurement Date	6/30/2022 12/31/2021	6/30/2023 12/31/2022	Change During Period
Total OPEB Liability	\$ 12,713,319	\$ 13,200,714	\$ 487,395
Fiduciary Net Position	(15,381,140)	(12,753,306)	2,627,834
Net OPEB Liability (Asset)	(2,667,821)	447,408	3,115,229
Deferred (Outflows) Due to:			
Assumption Changes	(1,088,461)	(914,364)	174,097
Plan Experience	(334,507)	(299,663)	34,844
Investment Experience	(267,174)	(2,417,463)	(2,150,289)
Deferred Contributions	(75,755)	(74,187)	1,568
Deferred Inflows Due to:			
Assumption Changes	-	-	-
Plan Experience	408,464	334,601	(73,863)
Investment Experience	2,273,299	1,506,625	(766,674)
Impact on Statement of Net Position	\$ (1,751,955)	\$ (1,417,043)	\$ 334,912
Change in Net Position During the Fiscal Y	ear		
Impact on Statement of Net Position, FYE 6	5/30/2022	\$ (1,751,955)	
OPEB Expense (Income)		520,876	
Tahoe Douglas FPD Contributions During Fi	scal Year	(185,964)	_
Impact on Statement of Net Position, FYE 6	\$ (1,417,043)	=	
OPEB Expense			
Tahoe Douglas FPD Contributions During Fi	scal Year	\$ 185,964	
Deterioration (Improvement) in Net Position	on	334,912	_
OPEB Expense (Income), FYE 6/30/2023		\$ 520,876	-



Change in Fiduciary Net Position During the Measurement Period

	RBIF	١	Wells Fargo	Total
12/31/2021 Account Statement Balances	\$ 15,236,756.79	\$	199,459.13	\$ 15,436,215.92
Net Accrued/prepaid adjustments	\$ -	\$	(52,184.23)	\$ (52,184.23)
Uncleared Transactions	\$ -	\$	(2,891.38)	\$ (2,891.38)
Change to net accrued/prepaid adjustments	\$ -	\$	-	\$ -
Adjusted 12/31/2021 Balance	\$ 15,236,756.79	\$	144,383.52	\$ 15,381,140.31
Transfer Funds between RBIF and WF Checking	(540,000)		540,000	-
Retiree health co-payments in			28,117	28,117
Implicit subsidy contribution in			187,532	187,532
Benefit payments (excludes retiree co-pays)			(556,518)	(556,518)
Retiree health co-payments out to insurers			(28,117)	(28,117)
Implicit subsidy benefits out			(187,532)	(187,532)
Administrative/Operating fees (incl audit)			(30,193)	(30,193)
Investment income (net of related fees)	(2,093,307)		-	(2,093,307)
Accrued 2022 fees, payments to insurers, and HRA payments	-		-	-
Change in accruals	\$ -	\$	-	\$ -
Cleared accruals from prior period	-		52,184	\$ 52,184
Total changes	(2,633,307)		5,473	(2,680,019)
12/31/2022 Account Statement Balances	12,603,449.45		167,455.78	12,770,905.23
Net Accrued/prepaid adjustments	-		(14,707.82)	(14,707.82)
Uncleared Transactions	-		(2,891.38)	(2,891.38)
Adjusted 12/31/2022 Balance	12,603,449.45		149,856.58	12,753,306.03



Expected Long-term Return on Trust Assets

The District maintains a single employer irrevocable OPEB trust through the Retirement Benefits Investment Fund (RBIF). RBIF publishes Investment Objective & Policies and issues publicly available financial statements. Note 7 (Net Pension Liability § Actuarial Assumptions) of the June 30, 2021, RBIF audited financial statements stated that the long-term trust return assumption is 7.25%. This Note 7 (along with information from Note 5 – Deposit and Investment Disclosures) also states:

The System's policies which determine the investment portfolio target asset allocation are established by the Board. The asset allocation is reviewed annually and is designed to meet the future risk and return needs of the System.

The following was the Board adopted policy target asset allocation as of June 30, 2021:

Asset Class	Target Allocation	Long-Term Geometric Expected Real Rate of Return*
U.S. stocks	42%	5.50%
International stocks	18%	5.50%
U.S. bonds	28%	0.75%
Private markets	12%	6.65%

^{*} As of June 30, 2021, PERS' long term inflation assumption was 2.5%.

The long-term inflation assumption used in this valuation was 2.5%, which matches the PERS assumption imbedded in the RBIF long term return assumption. The District is less optimistic about the future expected returns and approved a 0.75% margin for adverse investment returns. Accordingly, with the District's approval, the assumed long term trust return applied in this valuation is 6.5%.



Recognition Period for Deferred Resources

Liability changes due to plan experience which differs from what was assumed in the prior measurement period and/or from assumption changes during the period are recognized over the plan's Expected Average Remaining Service Life ("EARSL"). The EARSL of 10.60 years is the period used to recognize such changes in the OPEB Liability arising during the current measurement period.

When applicable, changes in the Fiduciary Net Position due to investment performance different from the assumed earnings rate are always recognized over 5 years.

Liability changes attributable to benefit changes occurring during the period, if any, are recognized immediately.

Deferred Resources as of Fiscal Year End and Expected Future Recognition

The exhibit below shows deferred resources as of the fiscal year end June 30, 2023.

Tahoe Douglas FPD	ferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions	\$ 914,364	\$ -
Differences Between Expected and Actual Experience	299,663	334,601
Net Difference Between Projected and Actual Earnings on Investments	910,838	-
Deferred Contributions	74,187	-
Total	\$ 2,199,052	\$ 334,601

The District will recognize the Deferred Contributions in the next fiscal year. In addition, future recognition of these deferred resources is shown below.

For the Fiscal Year Ending June 30	Recognized Net Deferred Outflows (Inflows) of Resources
2024	\$ (27,228)
2025	272,307
2026	466,628
2027	739,443
2028	102,486
Thereafter	236,628



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

The discount rate used for accounting purposes for the fiscal year end 2023 is 6.5%. Healthcare Cost Trend Rate was assumed to start at 5.8% (increase effective January 1, 2023) and grade down to 3.9% for years 2076 and later. 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% 5.50%	Current 6.50%	Current + 1% 7.50%									
Total OPEB Liability	15,089,895	13,200,714	11,659,573									
Increase (Decrease)	1,889,181		(1,541,141)									
% Increase (Decrease)	14.3%		-11.7%									
Net OPEB Liability (Asset)	2,336,589	447,408	(1,093,733									
Increase (Decrease)	1,889,181		(1,541,141)									
% Increase (Decrease)	422.3%		-344.5%									
Change in Healthcare Cost Trend Rate	Current Trend - 1%	Current Trend	Current Trend + 1%									
Total OPEB Liability	11,536,610	13,200,714	15,288,938									
Increase (Decrease)	(1,664,104)		2,088,224									
% Increase (Decrease)	-12.6%		15.8%									
Net OPEB Liability (Asset)	(1,216,696)	447,408	2,535,632									
Increase (Decrease)	(1,664,104)		2,088,224									
% Increase (Decrease)	-371.9%		466.7%									



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

Fiscal Year Ending	6/30/2023		6/30/2022		6/30/2021		6/30/2020		6/30/2019		6	/30/2018
Measurement Date	1.	2/31/2022	1.	2/31/2021	1	12/31/2020	12/31/2019		12/31/2018		12/31/2017	
Discount Rate on Measurement Date		6.50%		6.50%		6.70%		6.70%		7.50%		7.50%
Total OPEB liability												
Service Cost	\$	403,062	\$	305,865	\$	296,956	\$	277,767	\$	267,084	\$	256,812
Interest		828,383		776,199		751,172		772,148		753,894		736,660
Changes of benefit terms		-		-		-		-		-		-
Differences between expected and actual experience		-		369,351		-		(630,053)		-		-
Changes of assumptions		-		327,380		-		1,221,602		-		-
Benefit payments		(744,050)		(689,332)		(677,688)		(811,181)		(765,360)		(782,565)
Net change in total OPEB liability		487,395		1,089,463		370,440		830,283		255,618		210,907
Total OPEB liability - beginning		12,713,319		11,623,856		11,253,416		10,423,133		10,167,515		9,956,608
Total OPEB liability - ending (a)	\$:	13,200,714	\$:	12,713,319	\$	11,623,856	\$	11,253,416	\$	10,423,133	\$:	10,167,515
Plan fiduciary net position												
Contributions - employer	\$	187,532	\$	142,253	\$	152,825	\$	851,748	\$	825,845	\$	1,304,783
Net investment income		(2,041,123)		2,262,615		1,788,974		2,263,955		(514,662)		1,987,307
Benefit payments		(744,050)		(689,332)		(677,688)		(811,181)		(765,360)		(782,565)
Retiree premium co-pay into trust		28,117		30,896		26,683		23,500		23,811		-
Retiree premium co-pay transferred from trust to insurers		(28,117)		(30,896)		(26,683)		(23,500)		(23,811)		-
Admin/Operating Expenses		(30,193)		(37,699)		(45,821)		(32,246)		(26,859)		(16,445)
Net change in plan fiduciary net position		(2,627,834)		1,677,837		1,218,290		2,272,276		(481,036)		2,493,080
Plan fiduciary net position - beginning		15,381,140		13,703,303		12,485,013		10,212,737		10,693,773		8,200,693
Plan fiduciary net position - ending (b)	\$:	12,753,306	\$:	15,381,140	\$	13,703,303	\$	12,485,013	\$	10,212,737	\$:	10,693,773
Net OPEB liability - ending (a) - (b)	\$	447,408	\$	(2,667,821)	\$	(2,079,447)	\$	(1,231,597)	\$	210,396	\$	(526,258)
Covered payroll	\$	6,873,513	\$	5,605,012	\$	5,053,642	\$	4,235,995	\$	3,867,910	\$	4,118,877
Net OPEB liability as a % of covered payroll		6.51%		-47.60%		-41.15%		-29.07%		5.44%		-12.78%



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

Fiscal Year Ending	6/30/2023	6/30/2022	6/30/2021	6/30/2020	6/30/2019	6/30/2018		
Measurement Date	12/31/2022	12/31/2021	12/31/2020	12/31/2019	12/31/2018	12/31/2017		
Discount Rate on Measurement Date	6.50%	6.50%	6.70%	6.70%	7.50%	7.50%		
Notes to Schedule								
Valuation Date	12/31	/2021	12/31	./2019	12/31	./2017		
Actuarial cost method	, -	e Normal 6 of pay		e Normal 6 of pay	, -	e Normal 6 of pay		
Asset valuation method	Marke	t Value	Market Value		Marke	t Value		
Inflation	2.5	50%	2.5	50%	2.75%			
Healthcare cost trend rates		5.8% in 2023, fluctuating		1, fluctuating	6.25% in 2019, step down			
	down to 3	.9% in 2076	down to 4.	.0% in 2076	0.25% per year to 5% in 2024			
Salary increases	3.0	00%	3.0	00%	4.00%			
Investment rate of return	6.5	50%	6.7	70%	7.5	50%		
Detinencent	From 45 to 75	(Regular) and	From 45 to 75	(Regular) and	From 45 to 75 (Regular) and			
Retirement age	40 to 70	(Safety)	40 to 70	(Safety)	40 to 70 (Safety)			
	2021 Nevada P	ERS Experience	2019 Nevada P	ERS Experience	ce 2016 Nevada PERS Experience			
Mortality	Sto	udy .	Stu	ıdy	Stu	udy		
Mortality Improvement	MacLeod Wa	tts Scale 2022	MacLeod Wa	tts Scale 2020	MacLeod Watts Scale 2017			



Schedule of Contributions

Fiscal Year Ending June 30	2023	2022	2021	2020	2019	2018
Actuarially Determined Contribution (ADC)	\$ 205,152 \$	272,446 \$	243,043 \$	239,197 \$	450,350 \$	432,127
Contributions relative to the ADC	185,964	146,881	147,539	502,211	950,635	775,697
Contribution deficiency (excess)	\$ 19,188 \$	125,565 \$	95,504 \$	(263,014) \$	(500,285) \$	(343,570)
Covered payroll	\$ 7,586,336 \$	5,272,486 \$	5,118,918 \$	4,669,347 \$	3,967,157 \$	4,118,877
Contributions as a % of covered payroll	2.45%	2.79%	2.88%	10.76%	23.96%	18.83%
Percent of ADC contributed	90.65%	53.91%	60.70%	209.96%	211.09%	179.51%

Notes to Schedule - assumptions used to developo Actuarially Determined Contributions

Valuation Date for determining ADCs

Actuarial cost method

Amortization method

Amortization period
Asset valuation method

Inflation

Healthcare cost trend rates

Salary increases

Investment rate of return

Retirement age

Mortality

Mortality Improvement

velopo Actualiany Det			
12/31/2021	12/31/2019	12/31	/2017
Entry Age Normal	Entry Age Normal	Entry Age	e Normal
Level % of pay	Level % of pay	Level % of pay	
Level \$	Level % of Pay	Level %	of Pay
30 yr open (surplus)	30 yr open (surplus)	30 yr (closed
30 years	30 years	21 yrs remain	22 yrs remain
Market Value	Market Value	Market Value	
2.50%	2.50%	2.75%	
5.8% in 2023, fluctuating down to 3.9% in 2076	5.4% in 2021, fluctuating down to 4.0% in 2076	6.25% in 2019, step down 0.25 per year to 5% in 2024	
3.00%	3.00%	4.0	0%
6.50%	6.70%	7.5	0%
From 45 to 75 (Regular) and 40 to 70 (Safety)	From 45 to 75 (Regular) and 40 to 70 (Safety)	From 45 to 75 (Regular) and 4 70 (Safety)	
2021 Nevada PERS Experience Study	2019 Nevada PERS Experience Study	2016 Nevada PERS Experience Study	
MacLeod Watts Scale 2022	MacLeod Watts Scale 2020	MacLeod Watts Scale 2017	



Detail of Changes to Net Position

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

	Total	Fiduciary	Net		(d) Deferr	ed Outflows:		(e)	Deferred Infl	ows:	Impact on
Tahoe Douglas FPD	OPEB Liability (a)	Net Position (b)	OPEB Liability (c) = (a) - (b)	Assumption Changes	Plan Experience	Investment Experience	Deferred Contributions	Assumption Changes	Plan Experience	Investment Experience	Statement of Net Position (f) = (c) - (d) + (e)
Balance at Fiscal Year Ending 6/30/2022 Measurement Date 12/31/2021	\$ 12,713,319	\$ 15,381,140			\$ 334,507	\$ 267,174	\$ 75,755	\$ -	\$ 408,464	\$ 2,273,299	
Changes During the Period:											
Service Cost	403,062		403,062								403,062
Interest Cost	828,383		828,383								828,383
Expected Investment Income		980,706	(980,706)								(980,706)
Tahoe Douglas FPD Contributions		187,532	(187,532)								(187,532)
Changes of Benefit Terms	-		-								-
Retiree premium co-pay into trust		28,117	(28,117)								(28,117)
Retiree premium co-pay from trust to insurers		(28,117)	28,117								28,117
Admin/Operating Expenses		(30,193)	30,193								30,193
Benefit Payments	(744,050)	(744,050)	-								-
Assumption Changes	-		-					-			-
Plan Experience	-		-						-		-
Investment Experience		(3,021,829)	3,021,829			3,021,829					-
Recognized Deferred Resources				(174,097)	(34,844)	(871,540)	(75 <i>,</i> 755)	-	(73,863)	(766,674)	315,699
Contributions After Measurement Date							74,187				(74,187)
Net Changes in Fiscal Year 2022-2023	487,395	(2,627,834)	3,115,229	(174,097)	(34,844)	2,150,289	(1,568)	-	(73,863)	(766,674)	334,912
Balance at Fiscal Year Ending 6/30/2023 Measurement Date 12/31/2022	\$ 13,200,714	\$ 12,753,306	\$ 447,408	\$ 914,364	\$ 299,663	\$ 2,417,463	\$ 74,187	\$ -	\$ 334,601	\$ 1,506,625	\$ (1,417,043)



Schedule of Deferred Outflows and Inflows of Resources

A listing of all deferred resource bases used to develop the Net Position and Pension Expense is shown below. Deferred Contributions are not shown.

Measurement Date: December 31, 2022

	D	eferred Outflow	or (I	Inflow)							Reco	ogn	ition of Def	erre	ed Outflow	v or	Deferred ((Infl	ow) in Mea	asure	ement Pe	riod:	
Date Created	Source	Impact on Net OPEB Liability (NOL)	,	Initial Amount	Period (Yrs)	Re	Annual ecognition	Balar as o Dec 31,	of	(1	2022 FYE 2023)	(2023 FYE 2024)	(F	2024 YE 2025)	(F	2025 YE 2026)	(F	2026 YE 2027)		2027 E 2028)	The	ereafter
	Investment	Increased																					
12/31/2018	Earnings	NOL	\$	1,335,862	5.00	\$	267,172	\$	-	\$	267,174	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
-	Plan	Decreased																					
12/31/2019	Experience	NOL		(630,053)	8.53		(73,863)	(33	4,601)		(73,863)		(73,863)		(73,863)		(73,863)		(73,863)		(39,149)		-
	Assumption	Increased																					
12/31/2019	Changes	NOL		1,221,602	8.53		143,212	64	8,754		143,212		143,212		143,212		143,212		143,212		75,906		-
-	Investment	Decreased																					
12/31/2019	Earnings	NOL		(1,497,688)	5.00		(299,538)	(29	9,536)		(299,538)		(299,536)		-		-		-		-		-
	Investment	Decreased																					
12/31/2020	Earnings	NOL		(971,596)	5.00		(194,319)	(38	8,639)		(194,319)		(194,319)		(194,320)		-		-		-		-
-	Plan	Increased																					
12/31/2021	Experience	NOL		369,351	10.60		34,844	29	9,663		34,844		34,844		34,844		34,844		34,844		34,844		125,443
	Assumption	Increased																					
12/31/2021	Changes	NOL		327,380	10.60		30,885	26	5,610		30,885		30,885		30,885		30,885		30,885		30,885		111,185
	Investment	Decreased																					
12/31/2021	Earnings	NOL		(1,364,084)	5.00		(272,817)	(81	8,450)		(272,817)		(272,817)		(272,817)		(272,816)		-		-		-
	Investment	Increased					<u> </u>				<u>-</u>		<u> </u>		·		<u> </u>						
12/31/2022	Earnings	NOL		3,021,829	5.00		604,366	2,41	7,463		604,366		604,366		604,366		604,366		604,365		-		_



District Contributions to the Plan

District contributions to the Plan occur as benefits are paid to or on behalf of 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 the Appendices.

District OPEB contributions paid during the measurement period are shown below.

For the Measurement Period,	Tahoe		
Jan 1, 2022 thru Dec 31, 2022	Douglas FPD		
Tahoe Douglas FPD			
(a) Contribution To Trust	\$ -		
(b) Benefits Paid Directly To or On Behalf of Retirees	92,7	26	
(c) Implicit Subsidy Payment	187,5	32	
Trust			
(d) Benefits Paid Directly To or On Behalf of Retirees	463,7	92	
(e) Reimbursements to Tahoe Douglas FPD	92,7	26	
Total Benefits Paid During the MP, $(b)+(c)+(d)$	744,0	50	
Tahoe Douglas FPD Contribution During the MP, (a)+(b)+(c)-(e)	187,5	32	

District OPEB contributions reported as made during the current fiscal year end are shown below.

For the Fiscal Year, Jul 1, 2022 thru Jun 30, 2023	Do	Tahoe Douglas FPD		
Tahoe Douglas FPD				
(f) Contribution To Trust	\$	-		
(g) Benefits Paid Directly To or On Behalf of Retirees		73,829		
(h) Implicit Subsidy Payment		185,964		
Trust				
(i) Benefits Paid Directly To or On Behalf of Retirees		482,297		
(j) Reimbursements to Tahoe Douglas FPD		73,829		
Total Benefits Paid During the Current FY, (g)+(h)+(i)		742,090		
Tahoe Douglas FPD Contribution During the Current FY, $(f)+(g)+(h)-(j)$		185,964		

Deferred contributions are those made after the measurement date and prior to the current fiscal year end. These contributions were reported to be \$74,187 for the period from January 1, 2023, through June 30, 2023.



Projected Benefit Payments (15-year projection)

The following is an estimate of other post-employment benefits to be paid on behalf of current retirees and current employees expected to retire from the District. Expected annual benefits have been projected on the basis of the actuarial assumptions outlined in Section 3.

These projections do not include any benefits expected to be paid on behalf of current active employees *prior to* retirement, nor do they include any benefits for potential *future employees* (i.e., those who might be hired in future years).

	Projected Annual Benefit Payments												
Calendar	Ex	xplicit Subsid	dy	In	nplicit Subsid	dy							
(Plan) Year Ending Dec 31	Current Retirees	Future Retirees	Total	Current Retirees	Future Retirees	Total	Total						
2022	\$556,518	\$ -	\$556,518	\$187,532	\$ -	\$187,532	\$ 744,050						
2023	555,426	15,482	570,908	181,643	2,753	184,396	755,304						
2024	562,008	21,755	583,763	182,916	4,728	187,644	771,407						
2025	549,763	27,461	577,224	165,464	7,066	172,530	749,754						
2026	519,962	32,613	552,575	124,774	9,702	134,476	687,051						
2027	508,124	37,173	545,297	103,834	12,617	116,451	661,748						
2028	508,859	44,499	553,358	98,869	19,019	117,888	671,246						
2029	508,175	51,787	559,962	90,943	26,738	117,681	677,643						
2030	490,955	70,039	560,994	60,808	36,988	97,796	658,790						
2031	467,611	98,605	566,216	24,840	55,451	80,291	646,507						
2032	468,295	130,481	598,776	16,795	76,861	93,656	692,432						
2033	476,937	157,164	634,101	19,012	95,213	114,225	748,326						
2034	484,352	230,092	714,444	21,482	129,529	151,011	865,455						
2035	479,891	308,082	787,973	10,510	149,114	159,624	947,597						
2036	483,955	378,203	862,158	11,836	175,934	187,770	1,049,928						
2037	486,222	462,577	948,799	13,301	228,356	241,657	1,190,456						

The amounts shown in the Explicit Subsidy table reflect the expected payment by the District toward retiree medical premiums in each of the years shown. The amounts are shown separately, and in total, for those retired on the valuation date ("current retirees") and those expected to retire after the valuation date ("future retirees").

The amounts shown in the Implicit Subsidy table reflect the estimated excess of retiree medical and prescription drug claims over the premiums expected to be charged during the year for retirees' coverage. These amounts are also shown separately and in total for those currently retired on the valuation date and for those expected to retire in the future.



Sample Journal Entries

OPEB Accounts at	By Sou	ırce	Sources Co	ombined
Beginning of Fiscal Year	Debit	Credit	Debit	Credit
Net OPEB Liability	2,667,821		2,667,821	
Deferred Outflow:				
Assumption Changes	1,088,461			
Plan Experience	334,507			
Investment Experience	267,174			
Contribution Subsequent to MD	75,755			
Deferred Outflows			1,765,897	
Deferred Inflow:				
Assumption Changes		-		
Plan Experience		408,464		
Investment Experience		2,273,299		2 (04 762
Deferred Inflows				2,681,763
Record Benefits Paid to Retirees	Deb	oit	Cred	dit
Net OPEB Liability	73,8	329		
Cash			73,8	329
Record Reimbursements from the Trust	Deb	oit	Cred	dit
Cash	73,8	329		
Net OPEB Liability			73,8	329
Record Implicit Subsidy Payment	Deb	oit	Cred	dit
Net OPEB Liability	185,	964		
Premium Expense			185,	964
Record End of Year	By Sou	ırce	Sources Co	ombined
Updates to OPEB Accounts	Debit	Credit	Debit	Credit
Net OPEB Liability		3,301,193		3,301,193
Deferred Outflow:				
Assumption Changes		174,097		
Plan Experience		34,844		
Investment Experience	2,150,289			
Contribution Subsequent to MD		1,568		
Deferred Outflows			1,939,780	
Deferred Inflow:				
Assumption Changes	-			
Plan Experience	73,863			
Investment Experience	766,674			
Deferred Inflows			840,537	
OPEB Expense	520,876		520,876	



D. Funding Information

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. The District has been prefunding its OPEB liability by contributing 100% or more of the Actuarially Determined Contribution (ADC) each year.

Different terminology is sometimes used by actuaries and accountants when referring to key liability and expense components. Here are some of these terms which are often interchangeable:

Actuarial Funding Terminology

Present Value of Projected Benefits (PVPB) Actuarially Accrued Liability (AAL) Market Value of Assets Unfunded Actuarially Accrued Liability (UAAL) Normal Cost

GASB 75 Terminology

N/A; typically not reported for accounting purposes Total OPEB Liability (TOL) Fiduciary Net Position Net OPEB Liability Service Cost

The District approved development of Actuarially Determined Contributions (ADC) based on the following two components, which are then adjusted with interest to the District's fiscal year end:

- The amounts attributed to service performed in the current fiscal year (the normal cost) and
- Amortization of the unfunded actuarial accrued liability (UAAL).

The ADC determined for the District's fiscal year ending June 30, 2023, was developed based on the December 31, 2021, actuarial valuation using a 6.50% discount rate. A summary is shown below:

Discount Rate	6.50%
Actuarial Accrued Liability (projected)	\$ 13,380,837
Actuarial Value of Assets (projected)	16,380,914
Unfunded Actuarial Accrued Liability (UAAL)	(3,000,077)
Amortization Factor*	13.9075
Actuarially Determined Contribution for FYE 2023	
Amortization of UAAL	(215,717)
Normal Cost	415,153
Interest to Fiscal Year End	5,716
Total ADC	\$ 205,152

^{*}Determined on a level \$ basis over a open 30 year period

The ADC determined on this basis should provide for trust sufficiency, based on the current plan provisions and employee data, if all assumptions are exactly realized and providing that the District contribute 100% or more of the total ADC each year. When an agency commits to funding the trust at or above the ADC, GASB 75 allows use of the expected long term trust return to be used as the discount rate in determining the plan liability. Even so, the ADC developed on this basis does not guarantee trust sufficiency due to the non-trivial risk that the assumptions used to determine plan contributions may not be realized.



E. 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 Retiree Healthcare Plan (District RHP). We summarized the benefits in this report and our calculations were based on our understanding of the benefits as described herein.

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 performed a limited review of this data and 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 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. The signing actuaries are members of the American Academy of Actuaries and meet the qualification standards for rendering this opinion.

Signed: November 29, 2023

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

Michael J. Papendieck, EA, ACA, MAAA



F. Supporting Information

Section 1 - Summary of Employee Data

Active employees: The District reported 65 active members in the data provided to us for the December 2021 valuation. All 65 active employees were enrolled in a healthcare plan offered by the District on the valuation date.

	Distribution of Benefits-Eligible Active Employees											
Current Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up	Total	Percent				
Under 25		3					3	5%				
25 to 29	5	8					13	20%				
30 to 34	2	3	8	1			14	22%				
35 to 39	1	1	6				8	12%				
40 to 44	1		6	6	4		17	26%				
45 to 49			1	1	2		4	6%				
50 to 54	1			3		2	6	9%				
55 to 59							0	0%				
60 to 64							0	0%				
65 to 69							0	0%				
70 & Up							0	0%				
Total	10	15	21	11	6	2	65	100%				
Percent	15%	23%	32%	17%	9%	3%	100%					

Valuation	December 2019	December 2021
Average Attained Age for Actives	38.9	37.2
Average Years of Service	10.3	8.0

Retirees: The District reported 51 retirees participating in the District's Retiree Healthcare Plan and receiving benefits on the valuation date. Information on these individuals is summarized in the chart below.

	Retire	es by Age		
Current Age	Misc	Fire	Total	Percent
Below 50	0	0	0	0%
50 to 54	0	1	1	2%
55 to 59	1	5	6	12%
60 to 64	0	16	16	31%
65 to 69	0	15	15	29%
70 to 74	0	10	10	20%
75 to 79	0	3	3	6%
80 & up	0	0	0	0%
Total	1	50	51	100%
Average Age:				
On 12/31/2021	58.4	65.9	65.7	
At retirement	56.2	54.7	54.7	



Section 1 - Summary of Employee Data (continued)

Summary of Plan Member Counts: GASB 75 requires the employer to report specific plan member counts. The chart below shows these counts as of the December 31, 2021, valuation date.

Summary of Plan Member Counts						
Number of active plan members	65					
Number of inactive plan members currently receiving benefits	51					
Number of inactive plan members entitled to but not receiving benefits	0					



Section 2 - Summary of Retiree Benefit Provisions

OPEB provided: Employees who retire from the District are eligible to continue their coverage under the medical (including vision) and dental plans offered by the District to its active employees or, if they retired prior to September 1, 2008, could elect to participate in the Public Employees' Benefit Plan (PEBP).

Access to District plan coverage and benefits paid: Retirees and their spouses under age 65 may elect to continue their medical, dental, vision coverage under the programs made available to the District's active employees. The District currently contributes toward the cost of retiree healthcare coverage as follows:

Employees hired prior to June 1, 2003
retiring from the District after June 30,
1999 at age 50 or older with at least 15
years of service who elect to remain in
the District's plans receive a percentage
of the employee and spouse premiums
paid by the District for their lifetimes.
The percentage is based on the following
service schedule:

Years of District Service	% of Employee Premium Paid	% of Spouse Premium Paid
Less than 15	0%	0%
15	50%	50%
16	60%	60%
17	70%	70%
18	80%	80%
19	90%	90%
20 or more	100%	100%

 Employees hired on or after June 1, 2003 and retiring from the District at age 55 or older with at least 20 years of service who elect to remain in the District's plans receive a percentage of the employee and spouse premiums paid by the District until they become eligible for Medicare benefits after which the District contribution ceases. The percentage is based on the following service schedule:

Years of District	% of Employee	% of Spouse
Service	Premium Paid	Premium Paid
Less than 20	0%	0%
20	100%	0%
21	100%	20%
22	100%	40%
23	100%	60%
24	100%	80%
25 or More	100%	100%

If an employee completes the minimum service requirement (as determined based on his or her employment date) but terminates employment with the District prior to reaching the minimum required age, the employee *may* remain qualified for future postemployment healthcare benefits from the District. If, after leaving District employment, the employee retains District coverage and pays the entire premium, once the employee reaches the minimum required benefit age, the District will provide the postemployment healthcare benefits to which the employee would have been entitled had he or she terminated employment after meeting the minimum age requirement.



Section 2 - Summary of Retiree Benefit Provisions

Retirees are no longer permitted to remain on the District's plans after age 65.

- Upon eligibility for Medicare, the District's monthly allowance (HRA) toward health insurance for a retired employee is equal to \$299 multiplied by his or her vested percentage (see tables above). Eligible spouses also receive a monthly health insurance allowance equal to \$299 multiplied by their applicable vested percentage (the percentage may be different from the retiree).
- The District will also pay the same vested percentage of Medicare Part A premiums for retired employees and their spouses who are not Part A Medicare premium qualified. The premium is \$499 in 2022.

The only plan currently available to employees before Medicare eligibility is a high-deductible PPO plan. In addition to the applicable percent of premium (described above based on the employee's employment date and retirement date), the District also makes contributions to a Health Savings Account (HSA) for pre-65 retirees who elect a high deductible PPO. The amount of the District's subsidy to the HSA is the applicable *vested percent* of the applicable amount shown below:

Plan	80/20 HDHP
Retiree Only	\$185
Retiree & Spouse	\$370

Current premiums rates: The 2022 monthly healthcare plan rates are shown in the table below.

2022 Tahoe Douglas FPD Monthly Health Premium Rates									
		Medical Dental Vision							
Plan		HDHP	Th	e Standard		VSP			
Employee	\$	553.98	\$	46.76	\$	5.58			
Employee & Spouse		1,107.95		104.32		8.93			
Employee & Child(ren)		969.46		119.32		9.12			
Family		1,661.93		172.32		14.70			



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. The 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

Fiscal Year End June 30, 2023

GASB 75 Measurement Date December 31, 2022

Valuation Date December 31, 2021

Valuation Methods

Funding Method Entry Age Normal Cost, level percent of pay

Asset Valuation Method Market value of assets

Participants Valued Only current active employees and retired participants and

covered dependents are valued. No future entrants are

considered in this valuation.

Development of Age-related Medical Premiums

Medical claims by age and gender were estimated based on data provided in the 2013 paper "Health Care Costs – From Birth to Death", prepared by Dale H. Yamamoto, and sponsored by the Society of Actuaries. A description of MacLeod Watts's Age Rating Methodology is provided in Addendum 2 to this report.

The premium costs used to develop expected retiree claims by age and gender were the fully burdened premium rates shown on the last page of Section 2. Sample age-based expected claims are shown in the chart below.

Expected Monthly Claims by Medical Plan for Selected Ages														
Medical	edical Male							Fen	nale					
Plan		48 53 58 63					48	53		58	63			
HSA	\$	525	\$	693	\$	883	\$	1,095	\$	679	\$ 800	\$	905	\$ 1,063



Section 3 - Actuarial Methods and Assumptions

Economic Assumptions

Long Term Return on Assets 6.50% on December 31, 2022 and 6.50% on December 31, 2021

Discount Rate 6.50% on December 31, 2022 and 6.50% on December 31, 2021

General Inflation Rate 2.5% per year

Salary Increase 3.0% per year. Since benefits do not depend on salary, this is

used to allocate the cost of benefits between service years and to determine the amortization payment component of the

Actuarially Determined Contributions.

Healthcare Trend Medical plan premiums and estimated claims costs by age are assumed to increase once each year. The increases over the prior year's levels are assumed to be effective on the dates

shown below:

Effective January 1	Premium Increase	Effective January 1	Premium Increase
2021	5.8%	2061-2066	4.8%
2022	5.7%	2067	4.7%
2023	5.6%	2068	4.6%
2024	5.5%	2069	4.5%
2025-2026	5.4%	2070-2071	4.4%
2027-2029	5.3%	2072	4.3%
2030-2051	5.2%	2073-2074	4.2%
2052	5.1%	2075	4.1%
2053-2055	5.0%	2076	4.0%
2056-2060	4.9%	& later	4.0%

The healthcare trend shown above was developed using the Getzen Model 2022_b 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 2028 20.0%; Resistance Point 22.5%; Year after which medical growth is limited to growth in GDP 2075.

Other Employer Cost-Sharing in the District plan

The District's HRA contribution for retirees covered by Medicare (HRA contribution) is assumed to increase by 5% annually.



Section 3 - Actuarial Methods and Assumptions

Participant Election Assumptions

Participation Rate

Active employees: (a) 100% who qualify for a subsidy in retirement assumed to elect coverage in retirement; employees with high-deductible PPO coverage are assumed to elect 80/20 HDHP PPO coverage in retirement. (b) Those who do not qualify for a subsidy are assumed *not* to elect coverage. (c) Those who separate from the District after meeting the minimum service requirement but prior to the minimum retirement age and who will be eligible for a District subsidy upon reaching the minimum age if they pay their own premiums until such age are assumed to elect the District healthcare coverage at the following rates:

Years Before Subsidy Starts	5	4	3	2	1
% Assumed to elect to continue District health coverage until minimum benefit age	5%	10%	20%	40%	80%

Current retirees: All are assumed to retain their existing election until death.

Spouse Coverage

Active employees: 90% of those assumed to elect coverage in retirement are assumed to be married participants eligible for coverage or HRA contributions for their spouse until their death. Male employees are assumed to be 3 years older than their wives, and female employees are assumed to be 3 years younger than their husbands.

Retired employees: Existing elections for spouse coverage are assumed to continue until age 65 and HRA contributions are assumed to apply until the spouse's death. Actual spouse information is used where available; otherwise, the assumptions for spouses of active employees are applied.

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

The demographic actuarial assumptions used in this valuation are based on the most recently published (September 2021) report of the Nevada Public Employees Retirement System, which covers the employees included in this valuation, except for a different basis used to project future mortality improvements.

Mortality Improvement

MacLeod Watts Scale 2022 applied generationally from 2010 (see Appendices)



Section 3 - Actuarial Methods and Assumptions

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.

Age-based premiums model – developed internally and reviewed by an external consultant at the time it was developed. See discussion on Development of Age-Related Medical Premiums the Appendices.

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

Changes in assumptions or methods as of the Measurement Date

None.



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 active premium							
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. The portion of the premium paid by the Agency does not impact the amount of the implicit subsidy.

Under GASB 45, for actuarial valuations dated prior to March 31, 2015, an exception allowed plan employers with a very small membership in a large "community-rated" healthcare program to avoid reporting of implicit subsidy liability. Following a change in Actuarial Standards of Practice and in accordance with GASB 75 requirements, this exception is no longer available.

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 Table 1 and a summary of the benefits provided under the Plan is provided in Section 2. While individual employee records were 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 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 many decades.

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".

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 significant increase or decrease in the future premium rates;
- A change in the subsidy provided by the Agency toward retiree premiums;
- Longer life expectancies of retirees;
- Significant changes in estimated retiree healthcare claims by age, relative to healthcare claims for active employees and their dependents;
- Higher or lower returns on plan assets or contribution levels other than were assumed; and/or
- 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 (EARSL) of all members that are provided with benefits, determined as of the beginning of the Measurement Period. In determining the EARSL, all active, retired and inactive (vested) members are counted, with the latter two groups having 0 remaining service years.



Important Background Information (Continued)

Implicit Subsidy Plan Contributions

An implicit subsidy occurs when estimated retiree claims exceed the premiums charged for retiree coverage. When this occurs, we expect part of the premiums paid for active employees to cover a portion of retiree claims. This transfer represents the current year's "implicit subsidy". Because GASB 75 treats payments to an irrevocable trust or directly to the insurer as employer contributions, each year's implicit subsidy is treated as a contribution toward the payment of retiree benefits.

The following hypothetical example illustrates this treatment:

Hypothetical Illustration	For Active	For Retired						
of Implicit Subsidy Recognition	Employees	Employees						
Prior to Implicit Subsidy Adjustment								
Premiums Paid by Agency During Fiscal Year	\$ 411,000	\$ 48,000						
Accounting Treatment	Compensation Cost for Active Employees	Contribution to Plan & Benefits Paid from Plan						
After Implicit Sub	sidy Adjustment							
Premiums Paid by Agency During Fiscal Year	\$ 411,000	\$ 48,000						
Implicit Subsidy Adjustment	(23,000)	23,000						
Accounting Cost of Premiums Paid	\$ 388,000	\$ 71,000						
	Reduces Compensation	Increases Contributions						
Accounting Treatment Impact	Cost for Active	to Plan & Benefits Paid						
	Employees	from Plan						

The example above shows that total payments toward active and retired employee healthcare premiums is the same, but for accounting purposes part of the total is shifted from actives to retirees. This shifted amount is recognized as an OPEB contribution and reduces the current year's premium expense for active employees.

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 (Concluded)

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 percentage 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 Age Rating Methodology

Both accounting standards (e.g., GASB 75) and actuarial standards (e.g., ASOP 6) require that expected retiree claims, not just premiums paid, be reflected in most situations where an actuary is calculating retiree healthcare liabilities. Unfortunately, the actuary is often required to perform these calculations without any underlying claims information. In most situations, the information is not available, but even when available, the information may not be credible due to the size of the group being considered.

Actuaries have developed methodologies to approximate healthcare claims from the premiums being paid by the plan sponsor. Any methodology requires adopting certain assumptions and using general studies of healthcare costs as substitutes when there is a lack of credible claims information for the specific plan being reviewed.

Premiums paid by sponsors are often uniform for all employee and retiree ages and genders, with a drop in premiums for those participants who are Medicare-eligible. While the total premiums are expected to pay for the total claims for the insured group, on average, the premiums charged would not be sufficient to pay for the claims of older insureds and would be expected to exceed the expected claims of younger insureds. An age-rating methodology takes the typically uniform premiums paid by plan sponsors and spreads the total premium dollars to each age and gender intended to better approximate what the insurer might be expecting in actual claims costs at each age and gender.

The process of translating premiums into expected claims by age and gender generally follows the steps below.

- 1. Obtain or Develop Relative Medical Claims Costs by Age, Gender, or other categories that are deemed significant. For example, a claims cost curve might show that, if a 50-year-old male has \$1 in claims, then on average a 50-year-old female has claims of \$1.25, a 30-year male has claims of \$0.40, and an 8-year-old female has claims of \$0.20. The claims cost curve provides such relative costs for each age, gender, or any other significant factor the curve might have been developed to reflect. Section 3 provides the source of information used to develop such a curve and shows sample relative claims costs developed for the plan under consideration.
- 2. Obtain a census of participants, their chosen medical coverage, and the premium charged for their coverage. An attempt is made to find the group of participants that the insurer considered in setting the premiums they charge for coverage. That group includes the participant and any covered spouses and children. When information about dependents is unavailable, assumptions must be made about spouse age and the number and age of children represented in the population. These assumptions are provided in Section 3.
- 3. Spread the total premium paid by the group to each covered participant or dependent based on expected claims. The medical claims cost curve is used to spread the total premium dollars paid by the group to each participant reflecting their age, gender, or other relevant category. After this step, the actuary has a schedule of expected claims costs for each age and gender for the current premium year. It is these claims costs that are projected into the future by medical cost inflation assumptions when valuing expected future retiree claims.

The methodology described above is dependent on the data and methodologies used in whatever study might be used to develop claims cost curves for any given plan sponsor. These methodologies and assumptions can be found in the referenced paper cited as a source in the valuation report.



Appendix 3: 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 obtained from 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 down in 2045 which is reflected in the MacLeod Watts scale for years 2045 and thereafter. Over the ages 95 to 118, the SSA 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

<u>Actuarial Funding Method</u> – 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

<u>Actuarial Present Value of Projected Benefits (APVPB)</u> – 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.

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

<u>Defined Contribution (DC)</u> – 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

<u>Discount Rate</u> - 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.

<u>Expected Average Remaining Service Lifetime (EARSL)</u> – 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

<u>Entry Age Actuarial Cost Method</u> – 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

<u>Excise Tax</u> – The Affordable Care Act created an excise tax on the value of employer sponsored coverage which exceeds certain thresholds ("Cadillac Plans"). The tax was repealed in December 2019.

<u>Explicit Subsidy</u> — 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

<u>Fiduciary Net Position</u> —The value of trust assets used to offset the Total OPEB Liability to determine the Net OPEB Liability.

<u>Government Accounting Standards Board (GASB)</u> – A private, not-for-profit organization which develops generally accepted accounting principles (GAAP) for U.S. state and local governments.

<u>Health Care Trend</u> – 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.

<u>Implicit Subsidy</u> – 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.



Glossary (Concluded)

<u>Net OPEB Liability (NOL)</u> – 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.

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

<u>NV PERS</u> - Many state governments maintain a public employee retirement system; NV 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

<u>OPEB Expense</u> – 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

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

<u>Public Employees' Benefit Plan (PEBP)</u> – The state of Nevada's health plan for State and non-State public agency employees. This program is generally closed to non-State employees who retired after November 30, 2008.

<u>Plan Assets</u> – 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.

Public Agency Miscellaneous (PAM) - Non-safety public employees.

<u>Select and Ultimate</u> – 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)

<u>Service Cost</u> – 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

<u>Total OPEB Liability (TOL)</u> – 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"

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

