May 17, 2024

Matt Bowman, CPA
Chief Financial Officer
Truckee Meadows Water Authority
1355 Capital Blvd.
Reno, NV 89502

Re: Truckee Meadows Water Authority Section 115 Trust Plan Other Post-Employment Benefits Actuarial Valuation and GASB 75 Report for Fiscal Year Ending June 30, 2024

Dear Mr. Bowman:

We are pleased to enclose our actuarial report providing financial information about the other post-employment benefit (OPEB) liabilities of the Truckee Meadows Water Authority (TMWA) Section 115 Trust Plan. The primary purposes of this report are to:

1) Remeasure plan liabilities as of December 31, 2023, in accordance with GASB 75's biennial valuation requirement,
2) Develop Actuarially Determined Contributions levels for prefunding plan benefits, and
3) Provide information required by GASB 75 ("Accounting and Financial Reporting for Postemployment Benefits Other Than Pension") to be reported in TMWA's financial statements for the fiscal year ending June 30, 2024.

The exhibits presented in this report reflect TMWA's established practice to contribute 100% of the Actuarially Determined Contributions each year. We based the valuation on the employee data, details of plan benefits, trust information and OPEB contributions reported to us by TMWA. Please review our summary of this information to ensure that it is consistent with your records. **Note that contributions and payroll for fiscal year 23/24 shown in this report are estimates** and should be updated once final amounts are known after the close of the year.

We appreciate the opportunity to work on this analysis and acknowledge the efforts of TMWA staff 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

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

Enclosure

Truckee Meadows Water Authority
Section 115 Trust Plan

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

Development of OPEB Prefunding Levels
& GASB 75 Report for the FYE June 30, 2024

Submitted May 2024

MacLeod Watts

Table of Contents

A. Executive Summary 1
OPEB Obligations of TMWA 1
OPEB Funding Policy 2
Actuarial Assumptions 2
Important Dates for GASB 75 in this Report 2
Updates Since the Prior Report 3
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 6
D. Accounting Information (GASB 75) 9
Components of Net Position and Expense 9
Change in Net Position During the Fiscal Year 10
Change in Fiduciary Net Position During the Measurement Period 11
Expected Long-term Return on Trust Assets 11
Recognition Period for Deferred Resources 12
Deferred Resources as of Fiscal Year End and Expected Future Recognition 12
Sensitivity of Liabilities to Changes in the Discount Rate and Healthcare Cost Trend Rate 13
Schedule of Changes in TMWA's Net OPEB Liability and Related Ratios 14
Schedule of Contributions 16
Detail of Changes to Net Position 17
Schedule of Deferred Outflows and Inflows of Resources 18
Detail of TMWA Contributions to the Plan 19
Projected Benefit Payments (15-year projection) 20
Sample Journal Entries 21
E. Funding Information 22
F. Certification 26
G. Supporting Information 27
Section 1 - Summary of Employee Data 27
Section 2 - Summary of Retiree Benefit Provisions 29
Section 3 - Actuarial Methods and Assumptions 31
Appendix 1: Basic Valuation Results by Tier 37
Appendix 2: Important Background Information 38
Appendix 3: MacLeod Watts Age Rating Methodology 43
Appendix 4: MacLeod Watts Mortality Projection Methodology 44
Glossary 45

A. Executive Summary

This report presents the results of the December 31, 2023, actuarial valuation and accounting information regarding the other post-employment benefit (OPEB) program of the Truckee Meadows Water Authority (TMWA) Section 115 Trust Plan. The purposes of this report are to: 1) summarize the results of the valuation; 2) develop Actuarially Determined Contribution (ADC) levels for prefunding plan benefits; and 3) provide disclosure information as required by Statement No. 75 of the Governmental Accounting Standards Board (GASB 75) for the fiscal year ending June 30, 2024. Separate reports have been prepared for the TMWA Post-Retirement Medical Plan and Trust (PRMPT) and the TMWA Implicit Subsidy Only Plan.

Important background information regarding the valuation process can be found in Appendix 2. 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 exhibits and other information relevant for disclosures under GASB 75.

Results of the December 31, 2023, valuation may be applied to prepare TMWA's GASB 75 report for the fiscal year ending June 30, 2025. If there are any significant changes in plan members, plan benefits or eligibility and/or OPEB funding policy, however, an earlier valuation may be required or appropriate.

OPEB Obligations of TMWA

As required by Nevada Revised Statutes, TMWA offers continuation of medical, dental, vision and life insurance coverage to retiring employees under the Section 115 plan. Access to this coverage can potentially 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, TMWA contributes a portion of medical, dental, vision, and life insurance premiums for qualifying retirees. These benefits are described in Section 2.
- **Implicit subsidy liabilities**: An "implicit subsidy" exists when premiums are developed using blended active and retiree claims experience. In this program, premiums charged for retirees may not be sufficient to cover expected medical or life insurance claims[1] and the premiums charged for active employees are said to "implicitly subsidize" retirees. This OPEB program includes implicit subsidy liabilities for retiree coverage both before and after eligibility for Medicare.

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

We determine explicit subsidy liabilities using the expected direct payments promised by the plan toward retiree coverage. We determine the implicit subsidy liability as the projected difference between (a) estimated retiree medical or life insurance claim costs by age and (b) premiums charged for retiree coverage. For more information on MacLeod Watts' age rating methodology for medical coverage, see Appendix 3.

[1] In certain situations, including in this case, for Medicare-enrolled retirees enrolled in the coverage offered by TMWA, premiums for retiree coverage may be high enough that they subsidize pre-Medicare retiree and/or active employee claims.

Executive Summary
(Continued)

OPEB Funding Policy

TMWA'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 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.

TMWA continues to prefund its OPEB liability, consistently contributing 100% or more of the Actuarially Determined Contribution each year. With TMWA's approval, the discount rate used for accounting purposes and to develop Actuarially Determined Contributions for plan funding is 6.0%. Information on how this rate was determined is provided on page 11, Expected Long-term Return on Trust Assets.

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 TMWA 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 for GASB 75 in this Report

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	January 1, 2023, to December 31, 2023
Valuation Date	December 31, 2023

Executive Summary
(Continued)

Updates Since the Prior Report

No benefit changes were reported to MacLeod Watts that impacted our analysis since the December 2021 valuation was prepared. We reviewed and updated certain assumptions used to project the OPEB liability. We also collected updated census and premium data and developed "plan experience", the differences between projected and actual liability results. Investment experience, the difference between actual and expected return on trust assets, was also determined.

The Net OPEB Liability on the current measurement date is lower than that reported one year ago. Section C presents the new valuation results and provides additional information on the impact of the new assumptions and plan experience. See *Recognition Period for Deferred Resources* on page 12 for details on how these changes are recognized.

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

The plan's impact on Net Position will be the sum of the 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.

Items	For Reporting At Fiscal Year Ending June 30, 2024
Total OPEB Liability	$ 2,398,130
Fiduciary Net Position	(1,749,664)
Net OPEB Liability	**$ 648,466**
Adjustment for Deferred Resources:	
Deferred (Outflows)	(340,547)
Deferred Inflows	293,910
Impact on Statement of Net Position	**$ 601,829**
OPEB Expense, FYE 6/30/2024	**$ 41,260**

Important Notices

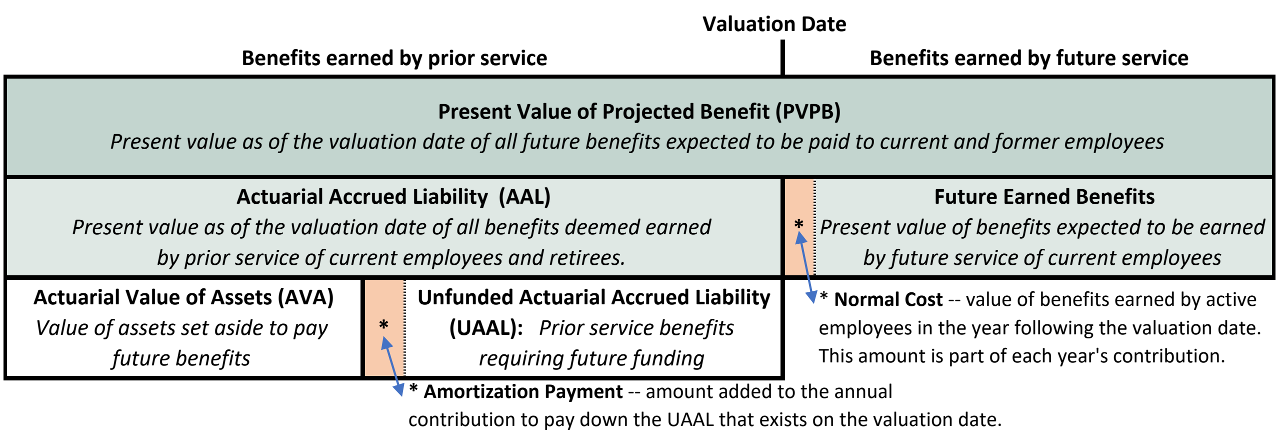
This report is intended to be used only to present the actuarial information relating to other post-employment benefits for TMWA's financial statements. The results of this report may not be appropriate for other purposes, where other assumptions, methodology and/or actuarial standards of practice may be required or more suitable. We note that various issues in this report may involve legal analysis of applicable law or regulations. TMWA 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 TMWA consult with their internal accounting staff, external auditor, or accounting firm about the accounting treatment of OPEB liabilities.

B. Valuation Process

This valuation is based on employee census data and benefits initially submitted by TMWA and clarified in various related communications. A summary of the employee data is provided in Section 1 and a summary of the plan benefits 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 TMWA 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 projecting benefit values and liabilities, we first determine an expected premium or benefit stream over each current retiree's or active employee's future retirement. Benefits may include both direct employer payments (explicit subsidies) and any implicit subsidies arising when retiree premiums are expected to be partially subsidized by premiums paid for active employees. The projected benefit streams reflect assumed trends in the cost of those benefits and assumptions as to the expected dates when benefits will end. Assumptions regarding the probability that each employee will remain in service to receive benefits and the likelihood that employees will elect coverage for themselves and their dependents are also applied.

We then calculate the present value of these future benefit streams by discounting the value of each future expected employer payment back to the valuation date using the valuation discount rate. This present value is called the **Present Value of Projected Benefits (PVPB)** and represents the current value of all expected future plan payments to current retirees and current active employees. Note that this long-term projection does not anticipate entry of future employees.



The next step in the valuation process splits the Present Value of Projected Benefits into 1) the value of benefits already earned by prior service of current employees and retirees and 2) the value of benefits expected to be earned by future service of current employees. Actuaries employ an "attribution method" to divide the PVPB into prior service liabilities and future service liabilities. For this valuation we used the **Entry Age Normal** attribution method. This method is the most commonly used for government funding purposes and the only attribution method allowed for financial reporting under GASB 75.

We call the value of benefits deemed earned by prior service the **Actuarial Accrued Liability (AAL)**. Benefits deemed earned by service of active employees in a single year is called the **Normal Cost** of

Valuation Process
(Concluded)

benefits. The present value of all future normal costs (PVFNC) plus the Actuarial Accrued Liability will equal the Present Value of Projected Benefits (i.e., PVPB = AAL + PVFNC).

The difference between the value of trust assets (i.e., the Market Value of Assets), or a smoothed asset value (i.e., the Actuarial Value of Assets), and the Actuarial Accrued Liability yields the **Unfunded Actuarial Accrued Liability (UAAL)**. The UAAL represents, as of the valuation date, the present value of benefits already earned by past service that remain unfunded. A plan is generally considered "fully funded" when the UAAL is zero. The plan sponsor of a fully funded plan will still need to make future contributions for benefits earned by future service of active employees. But in a fully funded plan, the plan sponsor has set aside sufficient assets to pay for benefits that have been earned by past service of current retirees and active employees if all valuation assumptions are realized.

Future contributions by TMWA will fund 1) the remaining part of OPEB benefits earned by past service (the Unfunded Actuarial Accrued Liability) and 2) the value of benefits earned each year by service of active employees. Various strategies might be employed to pay down the UAAL such as longer or shorter amortization payments, and flat or escalating payments depending on the plan sponsors goals and funding philosophy.

Variation in Future Results

Please note that projections of future benefits over such long periods (frequently 70 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 TMWA 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, as shown below.

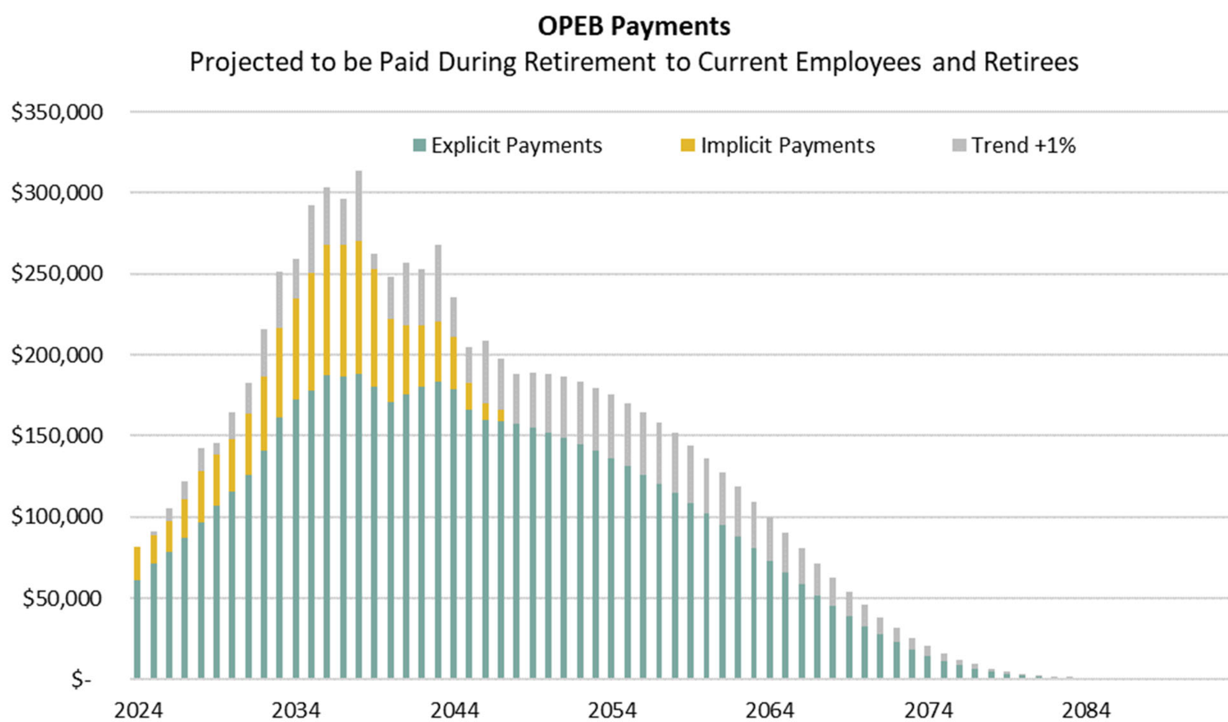
Actuarial Terminology	GASB 75 Terminology
Present Value of Projected Benefits (PVPB)	*No equivalent term*
Actuarial Accrued Liability (AAL)	Total OPEB Liability (TOL)
Market Value of Assets (MVA)	Fiduciary Net Position
Actuarial Value of Assets (AVA)	*No equivalent term*
Unfunded Actuarial Accrued Liability (UAAL)	Net OPEB Liability (NOL)
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 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 and life insurance benefits are paid for qualifying Section 115 plan retirees. 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 TMWA.



The amounts shown in green reflect the expected payment by TMWA toward Section 115 retiree premiums while those in yellow reflect the implicit subsidy benefits (i.e., the excess of estimated retiree medical and life insurance claims over the premiums expected to be charged during the year for retirees' coverage). 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 20.

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

Valuation Results as of December 31, 2023
(Continued)

This chart compares the results measured as of December 31, 2022, based on the prior valuation, with the results measured as of December 31, 2023, based on the current 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	6.00%			6.00%		
Number of Covered Employees						
Actives	14			12		
Retirees	8			10		
Total Participants	22			22		
OPEB Subsidy Type	Explicit	Implicit	Total	Explicit	Implicit	Total
Actuarial Present Value of Projected Benefits						
Actives	$ 939,943	$ 370,072	$ 1,310,015	$ 872,451	$ 508,762	$ 1,381,213
Retirees	1,245,722	(114,577)	1,131,145	1,237,207	(9,496)	1,227,711
Total APVPB	2,185,665	255,495	2,441,160	2,109,658	499,266	2,608,924
Total OPEB Liability (TOL)						
Actives	798,212	306,898	1,105,110	743,755	426,664	1,170,419
Retirees	1,245,722	(114,577)	1,131,145	1,237,207	(9,496)	1,227,711
TOL	2,043,934	192,321	2,236,255	1,980,962	417,168	2,398,130
Fiduciary Net Position			1,518,320			1,749,664
Net OPEB Liability			717,935			648,466
Service Cost For the period following the measurement date	21,107	9,368	30,475	17,525	11,548	29,073

The funded ratio (ratio of the trust assets to the TOL) improved from 62.2% to 67.1% since the prior GASB 75 measurement date. The Net OPEB Liability has decreased by $69,469 from that reported one year ago. Some of this change was expected and some was unexpected. Reasons for the change in the TOL are discussed on the following page.

Valuation Results as of December 31, 2023
(Concluded)

Expected NOL changes: The NOL was expected to increase by $32,835, from additional service and interest costs accruing for the period reduced by employer contributions and earnings on trust assets.

Unexpected NOL changes decreased the NOL by $102,304 and fall into one of these categories:

- *Investment experience:* Trust asset return exceeded the expected earnings by $184,096.
- *Plan experience* increased the NOL by $47,606, reflecting results different than expected based on the prior valuation data and assumptions. The primary reasons are shown in the chart below.
- *Assumption changes* increased the NOL by $34,186. Additional information is provided on the last page in Supporting Information, Section 3.

This chart reconciles results measured on December 31, 2022, to results measured December 31, 2023.

Reconciliation of Changes During Measurement Period	Total OPEB Liability (a)	Fiduciary Net Position (b)	Net OPEB Liability (c) = (a) - (b)
Balance at Fiscal Year Ending 6/30/2023 *Measurement Date 12/31/2022*	$ 2,236,255	$ 1,518,320	$ 717,935
Expected Changes During the Period:			
Service Cost	30,475		30,475
Interest Cost	133,487		133,487
Expected Investment Income		89,822	(89,822)
TMWA Contributions		59,115	(59,115)
Auditing Fees		(15,300)	15,300
Investment & Administrative Fees		(410)	410
Legal Fees		(2,100)	2,100
Retiree Contributions		18,520	(18,520)
Retiree Portion of Premiums		(18,520)	18,520
Benefit Payments	(83,879)	(83,879)	-
Total Expected Changes During the Period	80,083	47,248	32,835
Expected at Fiscal Year Ending 6/30/2024 *Measurement Date 12/31/2023*	$ 2,316,338	$ 1,565,568	$ 750,770
Unexpected Changes During the Period:			
Change Due to Investment Experience		184,096	(184,096)
Plan Experience:			
Premiums and Estimated Claims Other Than Expected	46,835		
Other Plan Experience	771		
Change Due to Plan Experience			47,606
Assumption Change:			
Change Due to Change in Healthcare Trend	34,186		34,186
Total Unexpected Changes During the Period	81,792	184,096	(102,304)
Balance at Fiscal Year Ending 6/30/2024 *Measurement Date 12/31/2023*	$ 2,398,130	$ 1,749,664	$ 648,466

D. 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, 2024. For GASB 75 purposes, TMWA is classified as a single employer. *Deferred Contributions and covered payroll for fiscal year 2023/24 shown in this Section are estimates subject to change based on the final reported amounts*.

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 *Measurement Date is December 31, 2023*	**TMWA Section 115**
Items Impacting Net Position:	
Total OPEB Liability	$ 2,398,130
Fiduciary Net Position	(1,749,664)
Net OPEB Liability (Asset)	648,466
Deferred (Outflows) Due to:	
Assumption Changes	(36,692)
Plan Experience	(60,674)
Investment Experience	(204,173)
Deferred Contributions	(39,008)
Deferred Inflows Due to:	
Assumption Changes	16,013
Plan Experience	44,542
Investment Experience	233,355
Impact on Statement of Net Position, FYE 6/30/2024	**$ 601,829**
Items Impacting OPEB Expense:	
Service Cost	$ 30,475
Interest Cost	133,487
Expected Investment Income	(89,822)
Auditing Fees	15,300
Investment & Administrative Fees	410
Legal Fees	2,100
Retiree Contributions	(18,520)
Retiree Portion of Premiums	18,520
Recognition of Deferred Outflows:	
Assumption Changes	15,141
Plan Experience	24,070
Investment Experience	68,057
Recognition of Deferred (Inflows):	
Assumption Changes	(7,887)
Plan Experience	(26,995)
Investment Experience	(123,076)
OPEB Expense, FYE 6/30/2024	**$ 41,260**

Accounting Information (GASB 75)
(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 *Measurement Date*	**6/30/2023** *12/31/2022*	**6/30/2024** *12/31/2023*	**Change During Period**
Total OPEB Liability	$ 2,236,255	$ 2,398,130	$ 161,875
Fiduciary Net Position	(1,518,320)	(1,749,664)	(231,344)
Net OPEB Liability (Asset)	717,935	648,466	(69,469)
Deferred (Outflows) Due to:			
Assumption Changes	(17,647)	(36,692)	(19,045)
Plan Experience	(37,138)	(60,674)	(23,536)
Investment Experience	(272,230)	(204,173)	68,057
Deferred Contributions	(40,904)	(39,008)	1,896
Deferred Inflows Due to:			
Assumption Changes	23,900	16,013	(7,887)
Plan Experience	71,537	44,542	(26,995)
Investment Experience	172,335	233,355	61,020
Impact on Statement of Net Position	$ 617,788	$ 601,829	$ (15,959)

Change in Net Position During the Fiscal Year	
Impact on Statement of Net Position, FYE 6/30/2023	$ 617,788
OPEB Expense (Income)	41,260
TMWA Contributions During Fiscal Year	(57,219)
Impact on Statement of Net Position, FYE 6/30/2024	$ 601,829

OPEB Expense	
TMWA Contributions During Fiscal Year	$ 57,219
Deterioration (Improvement) in Net Position	(15,959)
OPEB Expense (Income), FYE 6/30/2024	$ 41,260

Accounting Information (GASB 75)
(Continued)

Change in Fiduciary Net Position During the Measurement Period

Description	Trust Assets	Accruals	Fiduciary Net Position
Balance as of December 31, 2022	$ 1,522,966	$ (4,646)	$ 1,518,320
Income			
Employer Contribution to trust	33,596	-	33,596
Investment Income	273,919	-	273,919
Plan Members Contribution	18,522	(2)	18,520
Total Income	326,037	(2)	326,035
Expense			
Audit Fees	15,300	-	15,300
Administrative Fees	410	-	410
Legal Fees	3,300	(1,200)	2,100
Retiree health premiums	70,302	4,780	75,082
Retiree life premiums	1,799	-	1,799
Total Expense	91,111	3,580	94,691
Net Change During the Period	234,926	(3,582)	231,344
Balance as of December 31, 2023	**$ 1,757,892**	**$ (8,228)**	**$ 1,749,664**

Expected Long-term Return on Trust Assets

TMWA indicated that their long-term expected return on assets is 6.0% per year. Plan assets held by the trust were in the following two accounts as of December 31, 2023:

Wells Fargo (checking account)	$ 26,657
Retirement Benefits Investment Fund	1,731,235
Total Invested	**$ 1,757,892**

The expected long-term return on trust assets of 6.0% was approved by TMWA and was derived from information provided by the Retirement Benefits Investment Fund (RBIF).

Retirement Benefits Investment Fund December 31, 2023		
Asset Class	**Target Allocation**	**Actual Allocation**
U.S. Stocks- S&P 500 Index **Market Return**	49.5%	49.9%
Int'l Stocks- MSCI World x US Index **Market Return**	19.5%	19.2%
U.S. Bonds- U.S. Bond Index **Market Return**	28.0%	27.4%
Cash & Cash Equivalents	3.0%	3.5%
Total RBIF Fund	**100.0%**	**100.0%**

Accounting Information (GASB 75)
(Continued)

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 4.03 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, 2024.

Section 115 Trust	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions	$ 36,692	$ 16,013
Differences Between Expected and Actual Experience	60,674	44,542
Net Difference Between Projected and Actual Earnings on Investments	-	29,182
Deferred Contributions	39,008	-
Total	$ 136,374	$ 89,737

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
2025	$ (19,047)
2026	11,224
2027	51,664
2028	(36,212)
2029	-
Thereafter	-

Accounting Information (GASB 75)
(Continued)

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 ending 2024 is 6.0%. Healthcare Cost Trend Rate was assumed to start at 6.5% (increase effective January 1, 2025) and grade down to 3.9% for years 2075 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% 5.00%**	**Current 6.00%**	**Current + 1% 7.00%**
Total OPEB Liability	$ 2,697,124	$ 2,398,130	$ 2,146,271
Increase (Decrease)	298,994		(251,859)
% Increase (Decrease)	12.5%		-10.5%
Net OPEB Liability (Asset)	$ 947,460	$ 648,466	$ 396,607
Increase (Decrease)	298,994		(251,859)
% Increase (Decrease)	46.1%		-38.8%
Change in Healthcare Cost Trend Rate	**Current Trend - 1%**	**Current Trend**	**Current Trend + 1%**
Total OPEB Liability	$ 2,137,243	$ 2,398,130	$ 2,709,714
Increase (Decrease)	(260,887)		311,584
% Increase (Decrease)	-10.9%		13.0%
Net OPEB Liability (Asset)	$ 387,579	$ 648,466	$ 960,050
Increase (Decrease)	(260,887)		311,584
% Increase (Decrease)	-40.2%		48.0%

Accounting Information (GASB 75)
(Continued)

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

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	*6.00%*	*6.00%*	*6.00%*	*6.00%*	*6.00%*	*6.00%*	*6.00%*
Total OPEB liability							
Service Cost	$ 30,475	$ 29,587	$ 35,820	$ 34,777	$ 59,239	$ 56,960	$ 54,769
Interest	133,487	128,719	122,661	117,350	119,591	111,978	103,644
Changes of benefit terms	-	-	-	-	-	-	-
Differences between expected and actual experience	47,606	-	61,652	-	(179,517)	-	-
Changes of assumptions	34,186	-	(39,674)	-	44,279	-	-
Benefit payments (employer paid)	(83,879)	(75,573)	(70,936)	(58,361)	(54,605)	(34,065)	(9,334)
Net change in total OPEB liability	161,875	82,733	109,523	93,766	(11,013)	134,873	149,079
Total OPEB liability - beginning	2,236,255	2,153,522	2,043,999	1,950,233	1,961,246	1,826,373	1,677,294
Total OPEB liability - ending (a)	$ 2,398,130	$ 2,236,255	$ 2,153,522	$ 2,043,999	$ 1,950,233	$ 1,961,246	$ 1,826,373
Plan fiduciary net position							
Contributions - employer	$ 59,115	$ 71,680	$ 117,922	$ 85,743	$ 121,798	$ 119,366	$ 103,441
Net investment income	273,918	(234,401)	248,073	193,517	220,823	(46,458)	126,004
Benefit payments (employer paid)	(83,879)	(75,573)	(70,936)	(58,361)	(54,605)	(34,065)	(9,334)
Auditing Fees	(15,300)	(14,800)	(14,000)	(14,000)	(12,100)	(13,690)	(6,000)
Investment & Administrative Fees	(410)	(496)	(517)	(306)	(315)	(770)	(780)
Legal Fees	(2,100)	(4,888)	-	-	(4,288)	(5,864)	(788)
Retiree Contributions	18,520	20,741	23,102	22,947	21,302	5,244	930
Retiree Portion of Premiums	(18,520)	(20,741)	(23,102)	(22,947)	(21,302)	(5,244)	(930)
Net change in plan fiduciary net position	231,344	(258,478)	280,542	206,593	271,313	18,519	212,543
Plan fiduciary net position - beginning	1,518,320	1,776,798	1,496,256	1,289,663	1,018,350	999,831	787,288
Plan fiduciary net position - ending (b)	$ 1,749,664	$ 1,518,320	$ 1,776,798	$ 1,496,256	$ 1,289,663	$ 1,018,350	$ 999,831
Net OPEB liability - ending (a) - (b)	$ 648,466	$ 717,935	$ 376,724	$ 547,743	$ 660,570	$ 942,896	$ 826,542
Covered payroll in mesurement period	$ 1,585,104	$ 1,623,630	$ 1,593,312	$ 1,558,683	$ 1,688,340	$ 1,866,073	$ 1,630,635
Net OPEB liability as % of covered payroll	40.91%	44.22%	23.64%	35.14%	39.13%	50.53%	50.69%

Accounting Information (GASB 75)
(Continued)

Schedule of Changes in TMWA'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	*6.00%*	*6.00%*	*6.00%*	*6.00%*	*6.00%*	*6.00%*	*6.00%*

Summary of methods and assumptions used in the valuations:

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	6.5% in 2025, fluctuating to an ultimate rate of 3.9% in 2075	5.8% in 2023, fluctuating to an ultimate rate of 3.9% in 2076	7.0% in 2021, fluctuating to an ultimate rate of 4% in 2076	6.25% in 2019, step down .5% per year to 5.0% by 2024
Salary increases	3.00%	3.00%	3.00%	4.00%
Retirement age	45-75	45-75	45-75	45-75
Mortality	NV PERS June 2021 Valuation	NV PERS June 2021 Valuation	NV PERS June 2017 Valuation	NV PERS June 2016 Valuation
Mortality Improvement	MW Scale 2022	MW Scale 2022	MW Scale 2018	MW Scale 2017

Accounting Information (GASB 75)
(Continued)

Schedule of Contributions

The chart below shows the Actuarially Determined Contribution (ADC), TMWA's contribution, and the excess or shortfall. *Contributions and covered employee payroll for the fiscal year ending 2024 are estimates and should be updated when known.*

Fiscal Year Ending June 30	2024	2023	2022	2021	2020	2019	2018
Actuarially Determined Contribution (ADC)	$ 57,219	$ 56,289	$ 87,404	$ 86,813	$ 85,743	$ 121,798	$ 119,366
Contributions in relation to the ADC	*57,219*	56,289	87,404	101,635	70,921	121,798	119,366
Contribution deficiency (excess)	*$ -*	$ -	$ -	$ (14,822)	$ 14,822	$ -	$ -
Covered payroll in the fiscal year	*$ 1,615,335*	$ 1,760,431	$ 1,623,630	$ 1,570,588	$ 1,714,076	$ 1,771,318	$ 1,886,143
Contributions as a % of covered payroll	*3.54%*	3.20%	5.38%	6.47%	4.14%	6.88%	6.33%

Notes to Schedule - assumptions used to develop the Actuarially Determined Contributions

Valuation Date	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	
Amortization method	Level % of Pay		Level % of Pay			Level % of Pay	
Amortization period	21 years closed	22 years closed	23 years closed	24 years closed	25 years closed	26 years closed	27 years closed
Asset valuation method	Market Value		Market Value			Market Value	
Inflation	2.50%		2.50%			2.75%	
Healthcare cost trend rates	5.8% in 2023, fluctuating to an ultimate rate of 3.9% in 2076		7.0% in 2021, fluctuating to an ultimate rate of 4% in 2076			6.25% in 2019, step down .5% per year to 5.0% by 2024	
Salary increases	3.00%		3.00%			4.00%	
Investment rate of return	6.00%		6.00%			6.00%	
Retirement age	45-75		45-75			45-75	
Mortality	NV PERS June 2021 Valuation		NV PERS June 2017 Valuation			NV PERS June 2016 Valuation	
Mortality Improvement	MacLeod Watts Scale 2022		MacLeod Watts Scale 2018			MacLeod Watts Scale 2017	

Accounting Information (GASB 75)
(Continued)

Detail of Changes to Net Position

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

Section 115 Trust	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 *Measurement Date 12/31/2022*	$ 2,236,255	$ 1,518,320	$ 717,935	$ 17,647	$ 37,138	$ 272,230	$ 40,904	$ 23,900	$ 71,537	$ 172,335	$ 617,788
Changes During the Period:											
Service Cost	30,475		30,475								30,475
Interest Cost	133,487		133,487								133,487
Expected Investment Income		89,822	(89,822)								(89,822)
TMWA Contributions		59,115	(59,115)								(59,115)
Changes of Benefit Terms	-		-								-
Auditing Fees		(15,300)	15,300								15,300
Investment & Administrative Fees		(410)	410								410
Legal Fees		(2,100)	2,100								2,100
Retiree Contributions		18,520	(18,520)								(18,520)
Retiree Portion of Premiums		(18,520)	18,520								18,520
Benefit Payments	(83,879)	(83,879)	-								-
Assumption Changes	34,186		34,186	34,186							-
Plan Experience	47,606		47,606		47,606						-
Investment Experience		184,096	(184,096)							184,096	-
Recognized Deferred Resources				(15,141)	(24,070)	(68,057)	(40,904)	(7,887)	(26,995)	(123,076)	(9,786)
Contributions After Measurement Date							39,008				(39,008)
Net Changes in Fiscal Year 2023-2024	161,875	231,344	(69,469)	19,045	23,536	(68,057)	(1,896)	(7,887)	(26,995)	61,020	(15,959)
Balance at Fiscal Year Ending 6/30/2024 *Measurement Date 12/31/2023*	$ 2,398,130	$ 1,749,664	$ 648,466	$ 36,692	$ 60,674	$ 204,173	$ 39,008	$ 16,013	$ 44,542	$ 233,355	$ 601,829

Accounting Information (GASB 75)

(Continued)

Schedule of Deferred Outflows and Inflows of Resources

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

Measurement Date: December 31, 2023

Deferred Outflow or (Inflow)						Balance as of Dec 31, 2023	Recognition of Deferred Outflow or Deferred (Inflow) in Measurement Period:						
Date Created	Source	Impact on Net OPEB Liability (NOL)	Initial Amount	Period (Yrs)	Annual Recognition		2023 (FYE 2024)	2024 (FYE 2025)	2025 (FYE 2026)	2026 (FYE 2027)	2027 (FYE 2028)	2028 (FYE 2029)	Thereafter
12/31/2019	Plan Experience	Decreased NOL	$ (179,517)	6.65	$ (26,995)	$ (44,542)	$ (26,995)	$ (26,995)	$ (17,547)	$ -	$ -	$ -	$ -
12/31/2019	Assumption Changes	Increased NOL	44,279	6.65	6,658	10,989	6,658	6,658	4,331	-	-	-	-
12/31/2019	Investment Earnings	Decreased NOL	(158,207)	5.00	(31,641)	-	(31,643)	-	-	-	-	-	-
12/31/2020	Investment Earnings	Decreased NOL	(115,745)	5.00	(23,149)	(23,149)	(23,149)	(23,149)	-	-	-	-	-
12/31/2021	Plan Experience	Increased NOL	61,652	5.03	12,257	24,881	12,257	12,257	12,257	367	-	-	-
12/31/2021	Assumption Changes	Decreased NOL	(39,674)	5.03	(7,887)	(16,013)	(7,887)	(7,887)	(7,887)	(239)	-	-	-
12/31/2021	Investment Earnings	Decreased NOL	(157,324)	5.00	(31,465)	(62,929)	(31,465)	(31,465)	(31,464)	-	-	-	-
12/31/2022	Investment Earnings	Increased NOL	340,287	5.00	68,057	204,173	68,057	68,057	68,057	68,059	-	-	-
12/31/2023	Plan Experience	Increased NOL	47,606	4.03	11,813	35,793	11,813	11,813	11,813	11,813	354	-	-
12/31/2023	Assumption Changes	Increased NOL	34,186	4.03	8,483	25,703	8,483	8,483	8,483	8,483	254	-	-
12/31/2023	Investment Earnings	Decreased NOL	(184,096)	5.00	(36,819)	(147,277)	(36,819)	(36,819)	(36,819)	(36,819)	(36,820)	-	-

Accounting Information (GASB 75)
(Continued)

Detail of TMWA Contributions to the Plan

TMWA contributions to the Plan occur as benefits are paid to or on behalf of retirees. 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"). Note that the implicit subsidy contribution does not represent cash payments to retirees, but rather the reclassification of a portion of active healthcare expense to be recognized as a retiree healthcare cost. For details, see Appendix 2 – Important Background Information.

Benefits and other contributions paid by TMWA during the measurement period are shown below.

For the Measurement Period, Jan 1, 2023 thru Dec 31, 2023	TMWA Section 115
TMWA	
(a) Contribution To Section 115 Trust	$ 33,596
(b) Benefits Paid Directly To or On Behalf of Retirees	-
(c) Implicit Subsidy Payment	25,519
Section 115 Trust	
(d) Benefits Paid Directly To or On Behalf of Retirees	58,360
(e) Reimbursements to TMWA	-
Total Benefits Paid During the MP, (b)+(c)+(d)	83,879
TMWA Contribution During the MP, (a)+(b)+(c)-(e)	59,115

We *estimate* TMWA's OPEB contributions made after the measurement date but prior to the current fiscal year end in the chart below. *These estimates should be updated with the actual amounts once known after the close of the year.*

For the Fiscal Year, Jul 1, 2023 thru Jun 30, 2024	TMWA Section 115
TMWA	
(f) Contribution To Section 115 Trust	*$ 36,421*
(g) Benefits Paid Directly To or On Behalf of Retirees	-
(h) Implicit Subsidy Payment	20,798
Section 115 Trust	
(i) Benefits Paid Directly To or On Behalf of Retirees	*60,795*
(j) Reimbursements to TMWA	-
Total Benefits Paid During the Current FY, (g)+(h)+(i)	*81,593*
TMWA Contribution During the Current FY, (f)+(g)+(h)-(j)	*57,219*

Accounting Information (GASB 75)
(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 and current employees expected to retire from TMWA. Expected annual benefits have been projected on the basis of the actuarial assumptions outlined in Section 3.

Projected Annual Benefit Payments							
Fiscal Year Ending June 30	Explicit Subsidy			Implicit Subsidy			Total
	Current Retirees	Future Retirees	Total	Current Retirees	Future Retirees	Total	
2024	*$ 60,795*	*$ -*	*$ 60,795*	$ 20,798	$ -	$ 20,798	$ 81,593
2025	64,229	7,117	71,346	11,580	5,974	17,553	88,899
2026	66,943	11,322	78,265	8,536	10,269	18,804	97,069
2027	69,414	17,375	86,789	10,340	14,054	24,394	111,182
2028	71,836	24,548	96,384	12,706	19,135	31,841	128,225
2029	74,188	32,602	106,789	8,438	23,192	31,630	138,419
2030	76,405	39,116	115,520	3,423	28,696	32,118	147,638
2031	78,571	47,183	125,754	(1,528)	39,700	38,172	163,926
2032	80,687	60,346	141,033	(6,420)	51,754	45,334	186,366
2033	87,712	73,590	161,301	(4,592)	59,866	55,274	216,575
2034	94,725	77,552	172,277	(2,986)	65,255	62,269	234,546
2035	96,764	80,896	177,660	(1,840)	75,042	73,202	250,862
2036	94,721	92,858	187,579	(375)	81,039	80,664	268,243
2037	92,380	94,531	186,911	1,650	79,107	80,756	267,667
2038	93,643	94,382	188,024	3,782	78,332	82,114	270,138

The amounts shown in the Explicit Subsidy section of the table reflect the expected payment by TMWA 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 explicit subsidy benefit amount shown for FYE 2024 is currently an estimate and will be replaced with the actual amount, once known**.

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.

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).

Accounting Information (GASB 75)
(Concluded)

Sample Journal Entries

OPEB Accounts at Beginning of Fiscal Year	By Source Debit	By Source Credit	Sources Combined Debit	Sources Combined Credit
Net OPEB Liability		717,935		717,935
Deferred Outflow:				
Assumption Changes	17,647			
Plan Experience	37,138			
Investment Experience	272,230			
Contribution Subsequent to MD	40,904			
Deferred Outflows			367,919	
Deferred Inflow:				
Assumption Changes		23,900		
Plan Experience		71,537		
Investment Experience		172,335		
Deferred Inflows				267,772

Record Contributions to the Trust	Debit	Credit
Net OPEB Liability	36,421	
Cash		36,421

Record Implicit Subsidy Payment	Debit	Credit
Net OPEB Liability	20,798	
Premium Expense		20,798

Record End of Year Updates to OPEB Accounts	By Source Debit	By Source Credit	Sources Combined Debit	Sources Combined Credit
Net OPEB Liability	12,250		12,250	
Deferred Outflow:				
Assumption Changes	19,045			
Plan Experience	23,536			
Investment Experience		68,057		
Contribution Subsequent to MD		1,896		
Deferred Outflows				27,372
Deferred Inflow:				
Assumption Changes	7,887			
Plan Experience	26,995			
Investment Experience		61,020		
Deferred Inflows				26,138
OPEB Expense	41,260		41,260	

E. Funding Information

The employer's OPEB funding policy and level of contributions to an irrevocable OPEB trust directly affects the discount rate which is used to calculate the OPEB liability to be reported in the employer's financial statements. 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. Prefunding also improves the security of benefits for current and potential future recipients and contributes to intergenerational taxpayer equity by better matching the cost of the benefits to the service years in which they are "earned" and which correspond to years in which taxpayers benefit from those services.

Paying Down the UAAL

Once an employer decides to prefund, a decision must be made about how to pay for benefits related to accumulated prior service that have not yet been funded (the Unfunded Actuarial Accrued Liability, or UAAL[2]). This is most often, though not always, handled through structured amortization payments. The period and method chosen for amortizing this unfunded liability can significantly affect the Actuarially Determined Contribution (ADC) or other basis selected for funding the OPEB program.

Much like paying off a mortgage, when the Actuarial Accrued Liability (AAL) exceeds plan assets, choosing a longer amortization period to pay off the UAAL means smaller payments, but the payments will be required for more years; plan investments will have less time to work toward helping reduce required contribution levels. When the plan is in a surplus position, the reverse is true, and a longer amortization period is usually preferable.

There are several ways the amortization payment can be determined. The most common methods are calculating the amortization payment as a level dollar amount or as a level percentage of payroll. The employer might also choose to apply a shorter period when the UAAL is positive, i.e., when trust assets are lower than the AAL, but opt for a longer period or to exclude amortization of a negative UAAL, when assets exceed the AAL. The entire UAAL may be amortized as one single component or may be broken into multiple components reflecting the timing and source of each change, such as those arising from assumption changes, benefit changes and/or liability or investment experience.

The amortization period(s) should not exceed the number of years which would allow current trust assets plus future contributions and earnings to be sufficient to pay all future benefits and trust expenses each year. Prefunding of OPEB is optional and contributions at any level are permitted. However, if trust sufficiency is not expected, a discount rate other than the assumed trust return will likely be required for accounting purposes.

Funding and Prefunding of the Implicit Subsidy

An implicit subsidy liability is created when retiree medical and prescription drug claims are expected to exceed the premiums charged for retiree coverage. Recognition of the estimated implicit subsidy each year is handled by an accounting entry, reducing the amount paid for active employees and shifting that amount to be treated as a retiree healthcare expense/contribution (see Sample Journal Entries). The implicit subsidy is a true benefit to the retiree but can be difficult to see when medical premiums are set as a flat rate for both actives and pre-Medicare retirees.

[2] We use actuarial, rather than accounting, terminology to describe the components used to develop the ADCs.

Funding Information
(Continued)

This might lead some employers to believe the benefit is not real or is merely an accounting construct, and thus to forgo prefunding of retiree implicit benefits.

Consider what would happen if the retiree premiums were based only on expected retiree claims experience. Almost certainly, retiree premiums would increase while premiums for active employees would go down if the active premiums no longer had to help support the higher retiree claims. *Who would pay the increases in retiree premiums*? Current plan documents and bargaining agreements would have to be consulted. Depending on circumstances, the increase in retiree premiums might remain the responsibility of the employer, pass entirely to the retirees, or some blending of the two. The answer would determine whether separate retiree-only premium rates would result in a higher or lower employer OPEB liability. In the current premium structure, with blended active and pre-Medicare retiree premiums, the employer is clearly, though indirectly, paying the implicit retiree cost.

The prefunding decision is complex. OPEB materiality, budgetary concerns, desire to use the full trust rate in developing the liability for GASB 75, and other factors must be weighed by each employer. Since prefunding OPEB benefits is not required, each employer's OPEB prefunding strategy will depend on how they balance these competing perspectives.

Development of the Actuarially Determined Contributions

TMWA has approved development of ADCs based on the following two components, which are then adjusted with interest to each 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) over a closed 30-year period. Amortization payments are determined on a level dollar basis; 21 years remain for the fiscal year ending June 30, 2024.

Actuarially Determined Contributions, developed as described above for TMWA's fiscal years ending June 30, 2025, and 2026 are shown in the exhibit on the next page. These ADCs incorporate both explicit (cash benefit) and implicit subsidy benefit liabilities. Contributions credited toward meeting the ADC will be comprised of:

1) direct payments to insurers toward retiree premiums, to the extent not reimbursed to TMWA by the trust; plus
2) each year's implicit subsidy payment; and
3) contributions to the OPEB trust.

ADCs determined on this basis should provide for trust sufficiency, based on the current plan provisions and census data, provided all assumptions are exactly realized and if TMWA contributes 100% or more of the ADC each year. When an agency commits to funding the trust at or above the ADC, the expected long-term trust return may be used as the discount rate in determining the plan liability for accounting purposes. Trust sufficiency cannot be guaranteed to a certainty, however, because of the non-trivial risk that the assumptions used to project future benefit liabilities may not be realized.

Funding Information
(Continued)

We develop the Actuarially Determined Contributions for fiscal years ending June 30, 2025, and June 30, 2026, from the results of this valuation. The ADC for fiscal year end June 30, 2024, was developed from the prior (2021) valuation and we have included this for reference as well.

Valuation date	**12/31/2021**	**12/31/2023**	
Discount rate	6.00%	6.00%	
Number of Covered Employees			
Actives	14	12	
Retirees	8	10	
Total Participants	22	22	
For fiscal year ending	6/30/2024	6/30/2025	6/30/2026
Actuarial Present Value of Projected Benefits	$ 2,526,970	$ 2,681,419	$ 2,750,738
Actuarial Accrued Liability (AAL)			
Actives	1,169,408	1,271,461	1,379,491
Retirees	1,155,999	1,217,333	1,198,807
Total AAL	2,325,407	2,488,794	2,578,298
Actuarial Value of Assets	2,029,585	1,829,538	1,939,641
Unfunded AAL (UAAL)	295,822	659,256	638,657
UAAL Amortization method	Level Dollar	Level Dollar	Level Dollar
Remaining amortization period (years)	21	20	19
Amortization Factor	12.4699	12.1581	11.8276
Actuarially Determined Contribution (ADC)			
Normal Cost	$ 31,389	$ 29,945	$ 30,844
Amortization of UAAL	24,201	54,224	53,997
Interest to fiscal year end	1,629	5,050	5,090
Total ADC	**57,219**	**89,219**	**89,931**

Funding of the ADC

Accounting for current year implicit subsidy	$ 20,798	$ 17,553	$ 18,804
Trust contribution (refund) needed to equal the ADC	36,421	71,666	71,127

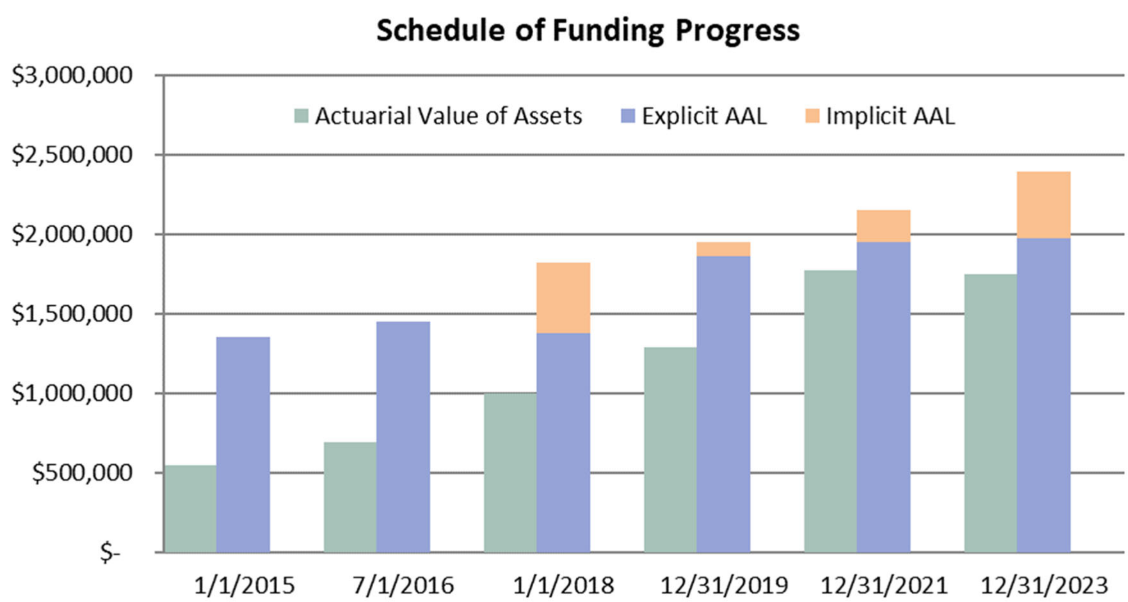
Retiree benefits (explicit) are paid from the trust. The chart above shows the contribution required to be made to the trust to meet the ADC funding level in each of these fiscal years.

Funding Information

(Concluded)

In this section, we provide a review of key components of valuation results from 2015 through 2023.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)	Discount Rate
1/1/2015	$ 546,873	$ 1,357,972	$ 811,099	40.3%	$ 786,385	103.1%	6.0%
7/1/2016	$ 695,940	$ 1,453,919	$ 757,979	47.9%	$ 1,658,227	45.7%	6.0%
1/1/2018	$ 999,831	$ 1,826,373	$ 826,542	54.7%	$ 1,630,635	50.7%	6.0%
12/31/2019	$ 1,289,663	$ 1,950,233	$ 660,570	66.1%	$ 1,406,020	47.0%	6.0%
12/31/2021	$ 1,776,798	$ 2,153,522	$ 376,724	82.5%	$ 1,570,588	24.0%	6.0%
12/31/2023	$ 1,749,664	$ 2,398,130	$ 648,466	73.0%	$ 1,585,104	40.9%	6.0%



Significant changes in recent years include:

- *January 1, 2018:* Increase in liability from change in cost method from Projected Unit Credit to Entry Age Normal; largely offset by a net of assumption changes, notably changes in demographic assumptions and assumed spouse coverage.
- *December 31, 2019:* Liabilities lower than expected from lower premiums and expected retiree claim costs; partially offset by assumption changes, including the updates to demographic assumptions and future healthcare trend.
- *December 31, 2021*: Updated NV PERS assumptions incorporated into valuation; investment returns greater than expected.
- *December 31, 2023*: Investment returns less than expected since the prior valuation date, plus higher than expected premiums and expected retiree claim costs.

F. Certification

The primary purposes of this report are: (1) to provide actuarial information of the other postemployment benefits (OPEB) provided by the Truckee Meadows Water Authority Section 115 Trust Plan (TMWA) in compliance with Statement 75 of the Governmental Accounting Standards Board (GASB 75); and (2) to provide Actuarially Determined Contributions for prefunding of this program in conformity with TMWA's OPEB funding policy. TMWA is not required to contribute the ADC shown in this report and we make no representation that it will, in fact, fund the OPEB trust at any particular level.

In preparing this report we relied without audit on information provided by TMWA. 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 and in accordance with TMWA's stated OPEB funding policy. 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 TMWA and may not be provided to third parties without prior written consent of MacLeod Watts. Exceptions: TMWA may provide copies of this report to their professional accounting and legal advisors who are subject to a duty of confidentiality, and TMWA 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 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: May 17, 2024

Catherine L. MacLeod

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

Michael J. Papendieck, EA, ACA, MAAA

G. Supporting Information

Section 1 - Summary of Employee Data

Active employees: TMWA reported 12 active members in the Section 115 plan data provided to us for the December 2023 valuation. Their age and service information are summarized below.

Distribution of Benefits-Eligible Active Employees					
	Years of Service				
Current Age	Under 15	15 to 19	20 & Up	Total	Percent
Under 40				0	0%
40 to 44		1		1	8%
45 to 49			1	1	8%
50 to 54		1	4	5	42%
55 to 59		1	2	3	25%
60 to 64			1	1	8%
65 to 69			1	1	8%
70 & Up				0	0%
Total	0	3	9	**12**	**100%**
Percent	0%	25%	75%	**100%**	

Valuation	December 2021	December 2023
Average Attained Age for Actives	54.6	54.0
Average Years of Service	20.2	21.8

This chart shows the number of active employees by benefit tier. Please refer to Section 2 for benefit details.

Summary of Active Participants by Tier				
Tier	Number	Average Age	Average Service	Payroll
Tier 1	0	N/A	N/A	N/A
Tier 2	12	54.0	21.8	$ 1,291,545
Total	**12**	**54.0**	**21.8**	**$ 1,291,545**

There are currently 5 retirees receiving Tier 1 benefits under this program and 4 retirees receiving Tier 2 benefits; 1 other retiree is eligible for but currently deferring Tier 2 benefits. The ages of these retirees are summarized in this chart.

Retirees by Age				
Current Age	Tier 1	Tier 2	Total	Percent
Below 50	1		1	10%
50 to 54		1	1	10%
55 to 59			0	0%
60 to 64	2		2	20%
65 to 69	2	1	3	30%
70 to 74		3	3	30%
75 to 79			0	0%
80 & up			0	0%
Total	**5**	**5**	**10**	**100%**
Average Age:				
On 12/31/2023	61.5	68.2	64.9	
At retirement	56.9	65.1	61.0	

Supporting Information
(Continued)

Section 1 - Summary of Employee Data
(continued)

The chart below reconciles the number of actives and retirees included in the December 2021 valuation of TMWA plan with those included in the December 2023 valuation:

Reconciliation of Section 115 Plan Members Between Valuation Dates					
Status	Covered Actives	Covered Retirees	Retirees Deferring Benefits	Covered Surviving Spouses	Total
Number reported as of Dec 31, 2021	14	7	1	0	22
New retiree, elected coverage	(2)	2	0	0	0
Number reported as of Dec 31, 2023	**12**	**9**	**1**	**0**	**22**

In the two years since the prior valuation, 2 active employees retired and are now receiving benefits. All prior retirees continue to receive benefits. Because this plan is closed, there are no new employees added.

Summary of Plan Member Counts: The number of members currently or potentially eligible to receive benefits under the OPEB plan are required to be reported in the notes to the financial statements. Here are the counts as of the December 31, 2023, valuation date.

Summary of Plan Member Counts	
Number of active plan members	12
Number of inactive plan members currently receiving benefits	9
Number of inactive plan members entitled to but not receiving benefits	1

Supporting Information
(Continued)

Section 2 - Summary of Retiree Benefit Provisions

Section 115 Trust OPEB provided: TMWA reported that retiree medical, dental, vision and life insurance coverage are provided for employees who transferred from Washoe County prior to July 1, 2010, and meet the eligibility requirements below.

Access to coverage: Employees who retire from TMWA are eligible to continue their coverage under the health plans offered by TMWA to its active employees. The only conditions to be eligible for coverage are satisfaction of the service and retirement guidelines consistent with eligibility for receiving retirement benefits from Nevada PERS. Retirees may elect coverage for their spouse or other qualifying dependents; however, coverage ends at the retiree's death (except under COBRA).

Healthcare Subsidies under the Section 115 Trust Plan: Employees who transferred from Washoe County and retire from TMWA on or after age 55 with at least 10 years of service are eligible for a subsidy toward the cost of their health and life insurance premiums. Service at Washoe County is included in determining both benefit eligibility and benefit amount. Benefits provided by this plan vary by Tier as follows:

- **Tier 1 (Hired on or before September 16, 1997):** All current and future retirees in this group qualify for fully subsidized TMWA medical, dental, vision and life insurance for the retiree only. No subsidy is provided for any dependent coverage.
- **Tier 2 (Hired after September 16, 1997, and before July 1, 2010):** TMWA's current practice is to provide healthcare subsidies equivalent to those provided to retirees enrolled in single party coverage in the Standard HMO through the Public Employees' Benefit Program (PEBP). Subsidies in effect as of the valuation date are shown in the chart below.

2024 Monthly Subsidy for Tier 2 Retirees					
Years of Service*	Pre-65 Subsidy	Post-65 Subsidy	Years of Service*	Pre-65 Subsidy	Post-65 Subsidy
Less than 10	n/a - all Tier 2 employees have at least 10 years of service		15	$ 622.70	$ 195.00
			16	661.33	208.00
11	$ 468.20	$ 143.00	17	699.95	221.00
12	506.82	156.00	18	738.58	234.00
13	545.45	169.00	19	777.20	247.00
14	584.07	182.00	20	815.83	260.00

* Includes service with Washoe County

Current premium rates: The 2024 monthly healthcare premiums for plans available to TMWA retirees are shown in the chart below:

2024 Healthcare Rates for TMWA Retirees				
Plan	Retiree Only	Retiree & Spouse	Retiree & Child(ren)	Retiree & Family
Medical	$ 747.54	$ 1,307.62	$ 1,240.54	$ 1,630.28
Vision	5.46	8.74	8.93	14.42
Dental	78.56	132.10	124.79	171.40

Supporting Information
(Continued)

Section 2 - Summary of Retiree Benefit Provisions
(concluded)

Life Insurance: Both Tier 1 and 2 retirees who qualify for healthcare subsidies are eligible for fully-subsidized life insurance coverage. The face amount of the policy varies by age as follows:

- Before age 70: 100% of annual salary on retirement date
- Ages 70-74: 50% of annual salary on retirement date
- Ages 75+: $2,000

The premium rate for $1,000 in coverage is $0.24 plus an additional $0.03 for AD&D coverage.

A retiree may elect coverage for his or her spouse in TMWA's life insurance plan provided they pay 100% of the applicable premium. The premium for spouse life insurance is $0.48 per month for a face amount of $1,500.

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

Fiscal Year End — June 30, 2024

GASB 75 Measurement Date — December 31, 2023

Valuation Methods

Funding Method — Entry Age Normal Cost, level percent of pay

Asset Valuation Method — Market value of assets

Participants Valued — Only current TMWA active employees and retired participants and covered dependents are valued. This plan is now closed.

Development of Age-related Medical Premiums — Actual premium rates for retirees and their spouses were adjusted to an age-related basis by applying medical claim cost factors developed from the data presented in the report, "Health Care Costs – From Birth to Death", sponsored by the Society of Actuaries. A description of the use of claims cost curves can be found in MacLeod Watts's Age Rating Methodology (Appendix 3 to this report).

Retiree claims experience, whether or not enrolled in Medicare, is blended with the claims experience of active members for TMWA plan members and all others enrolled in the health and life insurance plans offered by the City of Reno.

Monthly baseline premium costs were set equal to the UMR recommended 2024 premium rates, i.e., the 2023 premium rates increased by 7.5%. Representative claims costs derived from the premium rates provided by TMWA are shown in the chart below.

UMR Plan Estimated Monthly Claims for Selected Ages										
Retiree Age	48	53	58	63	68	73	78	83	88	93
Male	$ 630	$ 832	$ 1,060	$ 1,315	$ 538	$ 594	$ 630	$ 640	$ 612	$ 598
Female	$ 816	$ 961	$ 1,086	$ 1,276	$ 520	$ 573	$ 605	$ 620	$ 613	$ 600

Supporting Information
(Continued)

Section 3 - Actuarial Methods and Assumptions
(continued)

Economic Assumptions

Long-term Return on Assets	6.0 % as of December 31, 2023, and 6.0% as of December 31, 2022, net of plan investment and trust expenses
Discount Rate	6.0% on December 31, 2023, and 6.0% on December 31, 2022
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.
Healthcare Trend	Medical plan premiums and estimated claims costs by age are assumed to increase once each year. Increases over the prior year's levels are assumed to be effective on the dates shown in the chart below.

Effective January 1	Premium Increase	Effective January 1	Premium 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%

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.

Dental premiums are assumed to increase by 3.5% per year.

Vision premiums are assumed to increase by 2.5% per year.

Life Insurance Costs	The rate per $1,000 in life insurance coverage is assumed to remain fixed at the current rate.

Supporting Information
(Continued)

Section 3 - Actuarial Methods and Assumptions
(continued)

Employer Cost Sharing	**Tier 1:** The Trust-paid portion of healthcare premiums is assumed to increase at the same rates as medical trend (described on the preceding page). **Tier 2:** • The TMWA subsidy provided prior to age 65 is assumed to increase at the same rates as medical trend. • The subsidy provided at ages 65 and above is assumed to increase by 4.5% per year.

Participant Election Assumptions

Participation Rate	*Future retirees*: 100% of qualifying future retirees are assumed to receive benefits, electing coverage as follows: **Tier 1:** Upon retirement, all (100% of) retirees are assumed to elect coverage in the Reno UMR Plan and to continue this coverage until their death. **Tier 2:** Prior to age 65, all (100% of) retirees are assumed to elect coverage in the Reno UMR Plan. Upon reaching age 65, retirees are assumed to elect coverage in non-TMWA healthcare plans. *Retired participants*: Existing medical plan elections are assumed to be continued until retiree's death, with the following exception: Tier 2 retirees currently under age 65 are assumed to elect coverage in non-TMWA healthcare plans upon reaching age 65.
Spouse Coverage	*Active employees:* 40% of Tier 2 employees[3] are assumed to be married and elect coverage for their spouse in retirement. Surviving spouses are assumed to retain coverage until their death. Husbands are assumed to be 3 years older than their wives. *Retired participants*: Existing elections for spouse coverage are assumed to be continued until the spouse's death. Actual spouse ages are used, where known; if not, husbands are assumed to be 3 years older than their wives.
Medicare Eligibility	Absent contrary data, all individuals are assumed to be eligible for Medicare Parts A and B at age 65.

[3] There are no remaining active Tier 1 employees in this plan.

Supporting Information
(Continued)

Section 3 - Actuarial Methods and Assumptions
(continued)

Demographic Assumptions

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

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 measurement date.

Non-disabled life rates for Regular employees & future survivors:

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%

Life rates for current surviving spouses

Males: Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table with rates increased by 15%

Females: Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table with rates increased by 30%

Pre-retirement life rates for Regular employees:

Males & Females: Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table

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 Appendices for details).

Retirement Rates

Regular Employees Hired before January 1, 2010						
	Years of Service					
Age	5-9	10-19	20-24	25-27	28-29	30 or more
45	0%	0%	0%	1%	20%	20%
50	0.2%	0.6%	0.7%	2%	20%	20%
55	0.8%	1.5%	3%	3%	20%	20%
60	5%	11%	18%	25%	21%	21%
65	18%	19%	22%	22%	25%	25%
70	20%	20%	25%	30%	30%	30%
75 & Over	100%	100%	100%	100%	100%	100%

Supporting Information
(Continued)

Section 3 - Actuarial Methods and Assumptions
(continued)

Retirement Rates
(continued)

Regular Employees Hired before July 1, 2015 but on or after January 1, 2010						
	Years of Service					
Age	5-9	10-19	20-24	25-27	28-29	30 or more
45	0%	0%	0%	0%	20%	20%
50	0%	0%	0%	0%	20%	20%
55	0.2%	1%	2%	2%	20%	20%
60	2%	4%	6%	10%	21%	21%
65	17%	18%	21%	21%	25%	25%
70	19%	19%	23%	28%	30%	30%
75 & Over	100%	100%	100%	100%	100%	100%

Regular Employees Hired on or after July 1, 2015						
	Years of Service					
Age	5-9	10-19	20-24	25-29	30-33	34 or more
45	0%	0%	0%	0%	7%	20%
50	0%	0%	0%	0%	13%	20%
55	0.2%	0.9%	2%	2%	18%	20%
60	1.8%	4%	5%	9%	19%	21%
65	15%	16%	19%	19%	23%	25%
70	17%	17%	21%	25%	27%	30%
75 & Over	100%	100%	100%	100%	100%	100%

Termination Rates

These rates reflect the assumed probability that an employee will leave TMWA in the next 12 months for reasons other than a service retirement, disability retirement, or death.

Years of Service	Regular Employees	Years of Service	Regular Employees
0	15.75%	13	2.75%
1	12.75%	14	2.25%
2	10.25%	15	2.25%
3	8.25%	16	2.25%
4	7.50%	17	2.00%
5	6.50%	18	1.75%
6	5.75%	19	1.75%
7	5.25%	20	1.75%
8	4.75%	21	1.75%
9	4.50%	22	1.75%
10	4.25%	23	1.75%
11	3.25%	24	1.50%
12	3.00%	25 & Over	1.50%

Supporting Information
(Concluded)

Section 3 - Actuarial Methods and Assumptions
(Concluded)

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 in Appendix 3.

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

Changes in assumptions or methods since the prior Measurement Date

Healthcare Trend	Updated the base healthcare trend scale for projecting medical premiums and expected claims from Getzen Model 2022_b to Getzen Model 2023, as published by the Society of Actuaries. Dental premium rate increases were lowered from 4.0% per year to 3.5% per year and vision premium rate increases were lowered from 4.0% per year to 2.5% per year, following a review of rate changes over the past 6 years.

Appendix 1: Basic Valuation Results by Tier

The chart below summarizes the valuation results on the December 31, 2023, measurement date by Benefit Tier, specifically:

- Tier 1: those hired on or before September 16, 1997
- Tier 2: those hired after September 16, 1997, but before the plan closed on July 1, 2010.

Amounts shown in the Total column correspond to those shown in the Total column on page 7.

Valuation Date	**12/31/2023**		
Fiscal Year Ending	**6/30/2024**		
Measurement Date	**12/31/2023**		
Discount rate	6.00%		
Group	Tier 1	Tier 2	Total
Number of Covered Employees			
Actives	0	12	12
Retirees	5	5	10
Total Participants	5	17	22
Actuarial Present Value of Projected Benefits			
Actives	$ -	$ 1,381,213	$ 1,381,213
Retirees	1,034,683	193,028	1,227,711
Total APVPB	1,034,683	1,574,241	2,608,924
Total OPEB Liability (TOL)			
Actives	-	1,170,419	1,170,419
Retirees	1,034,683	193,028	1,227,711
TOL	1,034,683	1,363,447	2,398,130
Service Cost For the period following the measurement date	-	29,073	29,073

Appendix 2: 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.

<table>
<tr><td colspan="3">Expected retiree claims</td></tr>
<tr><td colspan="2">Premium charged for retiree coverage</td><td>Covered by higher active premiums</td></tr>
<tr><td>Retiree portion of premium</td><td>Agency portion of premium
Explicit subsidy</td><td>Implicit subsidy</td></tr>
</table>

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.

Valuation Process

The valuation was based on employee census data and benefits provided by TMWA. 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 TMWA 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 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

Important Background Information
(Continued)

- 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 of Implicit Subsidy Recognition	For Active Employees	For Retired 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 Subsidy 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
Accounting Treatment Impact	Reduces Compensation Cost for Active Employees	Increases Contributions to Plan & Benefits Paid 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.

Important Background Information

(Concluded)

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.

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 3: 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 4: 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.

Deferred Contributions – When an employer makes contributions after the measurement date and prior to the fiscal year end, recognition of these contributions is deferred to a subsequent accounting period by creating a deferred resource. We refer to these contributions as Deferred Contributions.

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 (EARSL) – 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.

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.

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.

NV PERS – 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.

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.

Public Employees' Benefit Plan (PEBP) – 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.

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.

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

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.