

MacLeod Watts

January 6, 2020

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

Re: **UPDATED** GASB 75 Report for the Fiscal Year Ending June 30, 2019 – **District Plan**

Dear Chief Baker:

We are pleased to enclose our report providing actuarial information relating to the other post-employment benefit (OPEB) liabilities for the Tahoe Douglas Fire Protection District **relating to employees and retirees covered by the District Retiree Healthcare Plan** (District Plan). The report's text describes our analysis and assumptions in detail.

The primary purposes of this report are to provide: (1) information required by GASB 75 ("Accounting and Financial Reporting for Postemployment Benefits Other Than Pension") to be reported in the District's financial statements for the fiscal year ending June 30, 2019 and (2) information required by GASB 74 ("Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans") for the plan year ended December 31, 2018. Please note that the OPEB liability relating to District retirees covered by PEBP is provided in a separate report.

Results shown in this report are based on the actuarial valuation prepared as of December 31, 2017 and on employee data and plan provisions provided to us at the time that valuation was prepared. The valuation results were adjusted (rolled forward) to the current measurement period. The information included in this report reflects our understanding and assumption that the District will continue contributing 100% or more of the Actuarially Determined Contributions each year.

As with any analysis, the soundness of the report is dependent on the inputs. Please review our summary of this information shown in the report to be sure that it matches your records. If contributions and covered-employee payroll provided for FYE 2019 were estimates, this information should be updated once actual values are available.

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

Sincerely,



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



Tahoe Douglas Fire Protection District
District Retirement Healthcare Plan

GASB 75 Actuarial Report
Measured as of December 31, 2018
For Fiscal Year End June 30, 2019 Financial Reporting

Submitted January 2020

MacLeod Watts

Table of Contents

A.	Executive Summary.....	1
	OPEB Obligations of the District.....	1
	OPEB Funding Policy.....	1
	Actuarial Assumptions.....	2
	Important Dates Used in the Valuation.....	2
	Significant Results and Differences from the Prior Valuation	2
	Impact on Statement of Net Position and OPEB Expense for Fiscal 2019.....	3
	Recognition Period for Deferred Resources.....	3
	Important Notices	3
B.	Accounting Information (GASB 75).....	4
	Components of Net Position and Expense	4
	Change in Net Position During the Fiscal Year	5
	Change in Fiduciary Net Position During the Measurement Period.....	6
	Deferred Resources as of Fiscal Year End and Expected Future Recognition	7
	Sensitivity of Liabilities to Changes in the Discount Rate and Healthcare Cost Trend Rate.....	8
	Schedule of Changes in the District’s Net OPEB Liability and Related Ratios	9
	Schedule of Contributions.....	10
	Detail of Changes to Net Position	11
	Schedule of Deferred Outflows and Inflows of Resources.....	12
	District Contributions to the Plan.....	13
	Projected Benefit Payments (15-year projection).....	14
	Sample Journal Entries	15
C.	Certification	16
D.	Supporting Information	17
	Section 1 - Summary of Employee Data	17
	Section 2A - Summary of Retiree Benefit Provisions.....	18
	Summary of Retiree Benefit Provisions.....	19
	Section 2B - Excise Taxes for High Cost Retiree Coverage.....	20
	Section 3 - Actuarial Methods and Assumptions	21
	Addendum 1: Important Background Information.....	25
	<i>Important Dates</i>	27
	<i>Recognition of Plan Changes and Gains and Losses</i>	27
	Addendum 2: MacLeod Watts Age Rating Methodology	30
	Addendum 3: MacLeod Watts Mortality Projection Methodology	31
	Glossary	32



A. Executive Summary

This report presents actuarial information needed by Tahoe Douglas Fire Protection District (the District) relating to the District's Retiree Healthcare Plan required by Statement No. 74 and 75 of the Governmental Accounting Standards Board (GASB 74/75) for the fiscal year ending June 30, 2019. A separate GASB 75 report has been prepared for the District's PEBP OPEB liability.

Important background information regarding the valuation process can be found in Addendum 1. We recommend users of the report read this information to familiarize themselves with the process and context of actuarial valuations, including the requirements of GASB 75. The pages following this executive summary discuss the valuation results and present various exhibits appropriate for disclosures under GASB 75. We anticipate that the next actuarial valuation will be dated December 31, 2019 and first be applied by the District for its fiscal year ending June 30, 2020.

OPEB Obligations of the District

The District provides continuation of medical, dental and vision coverage to its retiring employees under the District Plan as well as HRA contributions instead of medical coverage for retirees after age 65. These benefits create one or more of the following types of OPEB liabilities:

- **Explicit subsidy liabilities:** An "explicit subsidy" exists when the employer contributes directly toward the cost of retiree healthcare. In this program, the District pays a portion of retiree medical, dental and vision premiums for qualifying retirees. These benefits are described in Section 2.

The Patient Protection and Affordable Care Act (ACA) includes a 40% excise tax on high-cost employer-sponsored health coverage. Any portion of such future excise tax paid by the employer is also a form of explicit subsidy. See Supporting Information Section 2B and Section 3 for further description and assumptions about this potential excise tax.

- **Implicit subsidy liabilities:** An "implicit subsidy" exists when the premiums charged for retiree coverage are lower than the expected retiree claims for that coverage. In the District's program, the claims experience of active employees and retirees is co-mingled in setting premium rates for the plans in which District employees and retirees participate.

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

While active and retiree claims are also pooled for determining dental and visions premiums, coverage limits are low, and we believe no implicit subsidy for retirees exists for this coverage.

OPEB Funding Policy

The District's OPEB funding policy affects the calculation of liabilities by impacting the discount rate used to develop the plan liability and expense. "Prefunding" is the term used when an agency consistently contributes an amount based on an actuarially determined contribution (ADC) each year.



Executive Summary

(Continued)

GASB 75 allows prefunded plans to use a discount rate that reflects the expected earnings on trust assets. Pay-as-you-go, or “PAYGO”, is the term used when an agency only contributes the required retiree benefits when due. When an agency finances retiree benefits on a pay-as-you-go basis, GASB 75 requires the use of a discount rate equal to a 20-year high grade municipal bond rate.

The District has been and continues to prefund this liability, contributing 100% or more of the Actuarially Determined Contributions each year. With the District’s approval, the discount rate used in this valuation is 7.5%, the long term expected 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 District employees. Other assumptions, such as age-related healthcare claims, healthcare trend, retiree participation rates and spouse coverage, were selected based on demonstrated plan experience and/or our best estimate of expected future experience. All these assumptions, and more, impact expected future benefits. Please note that this valuation has been prepared on a closed group basis. This means that only employees and retirees present as of the valuation date are considered. We do not consider replacement employees for those we project to leave the current population of plan participants until the valuation date following their employment.

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

Important Dates Used in the Valuation

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

Employer Fiscal Year End	June 30, 2019
Plan Year End	December 31, 2018
Measurement Date	December 31, 2018
Measurement Period	December 31, 2017 to December 31, 2018
Valuation Date	December 31, 2017

Significant Results and Differences from the Prior Valuation

The District reported to MacLeod Watts that there have been no changes in retiree healthcare benefits since the December 2017 valuation was prepared. In addition, the District reported no material changes in members covered by the plan or in premium costs relative to what we previously projected. Because no new valuation was prepared for this period, no plan experience was recognized, and no assumptions were changed.



Executive Summary

(Concluded)

Impact on Statement of Net Position and OPEB Expense for Fiscal 2019

The accounting impact as of the District's fiscal year end June 30, 2019 is shown below.

Items	For Reporting At Fiscal Year Ending June 30, 2019
Total OPEB Liability	\$ 12,884,755
Fiduciary Net Position	<u>10,214,234</u>
Net OPEB Liability (Asset)	2,670,521
Deferred (Outflows) of Resources	(736,968)
Deferred Inflows of Resources	<u>-</u>
Impact on Statement of Net Position	<u>\$ 1,933,553</u>
 OPEB Expense, FYE 6/30/2019	 <u><u>\$ 426,224</u></u>

Recognition Period for Deferred Resources

Liability changes due to plan experience which differs from what was assumed in the prior year and/or from assumption changes during the year are recognized over the plan's Expected Average Remaining Service Life ("EARSL"). The EARSL period is 8.21 years for deferred resources arising in this fiscal year. 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 are recognized immediately.

Important Notices

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



B. Accounting Information (GASB 75)

The following exhibits are designed to satisfy the reporting and disclosure requirements of GASB 75 for the fiscal year end June 30, 2019. The District is classified for GASB 75 purposes as a single employer.

Components of Net Position and Expense

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

Plan Summary Information for FYE June 30, 2019 <i>Measurement Date is December 31, 2018</i>	Tahoe Douglas FPD
Items Impacting Net Position:	
Total OPEB Liability	\$ 12,884,755
Fiduciary Net Position	10,214,234
Net OPEB Liability (Asset)	2,670,521
<i>Deferred (Outflows) Inflows of Resources Due to:</i>	
Assumption Changes	-
Plan Experience	-
Investment Experience	(262,174)
Deferred Contributions	(474,794)
Net Deferred (Outflows) Inflows of Resources	(736,968)
Impact on Statement of Net Position, FYE 6/30/2019	\$ 1,933,553
Items Impacting OPEB Expense:	
Service Cost	\$ 297,367
Cost of Plan Changes	-
Interest Cost	925,635
Expected Earnings on Assets	(803,995)
Retiree Contributions In	(23,811)
Retiree Contributions Out	23,811
Admin/Operating Expenses	4,665
Other Professional Expenses	3,698
Reimbursement to District for prior year retiree benefits paid	521
<i>Recognized Deferred Resource items:</i>	
Assumption Changes	-
Plan Experience	-
Investment Experience	(1,667)
OPEB Expense, FYE 6/30/2019	\$ 426,224



Accounting Information

(Continued)

Change in Net Position During the Fiscal Year

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

For Reporting at Fiscal Year End <i>Measurement Date</i>	6/30/2018 <i>12/31/2017</i>	6/30/2019 <i>12/31/2018</i>	Change During Period
Total OPEB Liability	\$ 12,427,113	\$ 12,884,755	\$ 457,642
Fiduciary Net Position	10,693,773	10,214,234	(479,539)
Net OPEB Liability (Asset)	1,733,340	2,670,521	937,181
<i>Deferred Resource (Outflows) Inflows Due to:</i>			
Assumption Changes	-	-	-
Plan Experience	-	-	-
Investment Experience	1,075,355	(262,174)	(1,337,529)
Deferred Contributions	(350,731)	(474,794)	(124,063)
Net Deferred (Outflows) Inflows	724,624	(736,968)	(1,461,592)
Impact on Statement of Net Position	\$ 2,457,964	\$ 1,933,553	\$ (524,411)

Change in Net Position During the Fiscal Year

Impact on Statement of Net Position, FYE 6/30/2018	\$ 2,457,964
OPEB Expense (Income)	426,224
Employer Contributions During Fiscal Year	(950,635)
Impact on Statement of Net Position, FYE 6/30/2019	<u>\$ 1,933,553</u>

OPEB Expense

Employer Contributions During Fiscal Year	\$ 950,635
Deterioration (Improvement) in Net Position	(524,411)
OPEB Expense (Income), FYE 6/30/2019	<u>\$ 426,224</u>



Accounting Information

(Continued)

Change in Fiduciary Net Position During the Measurement Period

	RBIF	Wells Fargo	Total
12/31/2017 Account Statement Balances	10,637,335.19	298,960.24	10,936,295.43
Accrued Reimbursement to District	-	(242,522.01)	(242,522.01)
Adjusted 12/31/2017 Balance	\$ 10,637,335.19	\$ 56,438.23	\$ 10,693,773.42
Contributions - District	-	541,490.00	541,490.00
Contributions - Retirees	-	23,811.36	23,811.36
Payments to Insurers (cleared)	-	(383,757.25)	(383,757.25)
Payments to HRA	-	(60,828.61)	(60,828.61)
Admin/Operating	(1,689.93)	(2,975.30)	(4,665.23)
Other Professional	-	(3,697.95)	(3,697.95)
Investment -related	-	(17,955.00)	(17,955.00)
Reimbursement due to District for FYE 2018 retiree contribution overpayment	-	(521.05)	(521.05)
Accrued reimbursement due to District for 2018 retiree premiums	-	(27,690.85)	(27,690.85)
Accrued payment to Hometown Health for 2018 retiree premiums	-	(31,292.04)	(31,292.04)
Investment income*	(514,432.94)	-	(514,432.94)
Total changes	(516,122.87)	36,583.31	(479,539.56)
12/31/2018 Account Statement Balances	10,121,212.32	152,079.43	10,273,291.75
Net Accrued/prepaid adjustments	-	(59,057.89)	(59,057.89)
Adjusted 12/31/2018 Balance	10,121,212.32	93,021.54	10,214,233.86

* Investment income of \$(514,433) was reduced by \$(17,955) in investment-related expenses. The income is netted against the expenses in order to determine the excess or shortfall relative to the 7.5% assumed rate of return, which is stated as net of assumed investment related expenses.



Accounting Information
 (Continued)

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, 2019.

Tahoe Douglas FPD	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions	\$ -	\$ -
Differences Between Expected and Actual Experience	-	-
Net Difference Between Projected and Actual Earnings on Investments	262,174	-
Deferred Contributions	474,794	-
Total	\$ 736,968	\$ -

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

For the Fiscal Year Ending June 30	Recognized Net Deferred Outflows (Inflows) of Resources
2020	\$ (1,667)
2021	(1,667)
2022	(1,666)
2023	267,174
2024	-
Thereafter	-



Accounting Information
 (Continued)

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

The discount rate used for the fiscal year end 2019 is 7.5%. Healthcare Cost Trend Rate was assumed to start at 6.25% (beginning January 1, 2019) and grade down to 5% for years 2024 and thereafter. 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% 6.50%	Current 7.50%	Current + 1% 8.50%
Total OPEB Liability	15,002,002	12,884,755	11,273,573
Increase (Decrease)	2,117,247		(1,611,182)
% Increase (Decrease)	16.4%		-12.5%
Net OPEB Liability (Asset)	4,787,768	2,670,521	1,059,339
Increase (Decrease)	2,117,247		(1,611,182)
% Increase (Decrease)	79.3%		-60.3%
Change in Healthcare Cost Trend Rate	Current Trend - 1%	Current Trend	Current Trend + 1%
Total OPEB Liability	11,042,608	12,884,755	15,352,234
Increase (Decrease)	(1,842,147)		2,467,479
% Increase (Decrease)	-14.3%		19.2%
Net OPEB Liability (Asset)	828,374	2,670,521	5,138,000
Increase (Decrease)	(1,842,147)		2,467,479
% Increase (Decrease)	-69.0%		92.4%



Accounting Information
 (Continued)

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

GASB 75 requires presentation of the 10-year history of changes in the Net OPEB Liability. Since this is the second year of implementation, only results for the measurement periods applicable to fiscal years ending June 30, 2018 and 2019 are shown below.

Fiscal Year End	6/30/2019	6/30/2018
<i>Measurement Date</i>	12/31/2018	12/31/2017
Total OPEB liability		
Service Cost	\$ 297,367	\$ 285,930
Interest	925,635	894,307
Benefit payments	(765,360)	(782,565)
Net change in total OPEB liability	457,642	397,672
Total OPEB liability - beginning	12,427,113	12,029,441
Total OPEB liability - ending (a)	<u>\$ 12,884,755</u>	<u>\$ 12,427,113</u>
Plan fiduciary net position		
Contributions - employer	\$ 826,572	\$ 1,304,783
Net investment income	(531,867)	1,987,307
Benefit payments	(765,360)	(782,565)
Retiree Contributions In	23,811	-
Retiree Contributions Out	(23,811)	-
Admin/Operating Expenses	(4,665)	(16,445)
Other Professional Expenses	(3,698)	-
Reimbursement to District for prior year retiree benefits paid	(521)	-
Net change in plan fiduciary net position	(479,539)	2,493,080
Plan fiduciary net position - beginning	10,693,773	8,200,693
Plan fiduciary net position - ending (b)	<u>\$ 10,214,234</u>	<u>\$ 10,693,773</u>
Net OPEB liability - ending (a) - (b)	<u>\$ 2,670,521</u>	<u>\$ 1,733,340</u>
Covered-employee payroll	\$ 3,867,910	\$ 4,118,877
Net OPEB liability as a % of covered-employee payroll	69.04%	42.08%



Accounting Information
 (Continued)

Schedule of Contributions

Since establishing the OPEB trust in December 2011, the District has contributed 100% of more of the Actuarially Determined Contribution (ADC) each year and confirmed its intention to continue doing so until the Net OPEB Liability is reduced to \$0. The ADC amounts for the following years were determined from the December 2017 valuation. This chart shows the contributions for the current and prior fiscal years:

	FYE 2019	FYE 2018
Actuarially Determined Contribution	\$ 450,350	\$ 432,127
Contributions in relation to the actuarially determined contribution	950,635	775,697
Contribution deficiency (excess)	\$ (500,285)	\$ (343,570)
Covered employee payroll	\$ 3,967,157	\$ 4,118,877
Contributions as a percentage of covered employee payroll	23.96%	18.83%

Notes to Schedule

Valuation Date: 12/31/2017
 The 2017 valuation developed the Actuarially Determined Contributions for the District's fiscal years ending June 30, 2018 and June 30, 2019

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level % of Pay
Amortization period	21 years closed 22 years closed
Asset valuation method	Market Value
Inflation	2.75%
Healthcare cost trend rates	6.25% in 2019, step down 0.25% per year to 5% in 2024
Salary increases	4%
Investment rate of return	7.50%
Retirement age	From 45 to 75 (Regular) and from 40 to 70 (Safety)
Mortality	From 2016 Nevada PERS Experience Study; Mortality improvement with MacLeod



Accounting Information (Continued)

Detail of Changes to Net Position

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

Tahoe Douglas FPD	Total OPEB Liability (a)	Fiduciary Net Position (b)	Net OPEB Liability (c) = (a) - (b)	(d) Deferred Outflows (Inflows) Due to:				Impact on Statement of Net Position (e) = (c) - (d)
				Assumption Changes	Plan Experience	Investment Experience	Deferred Contributions	
Balance at Fiscal Year Ending 6/30/2018 <i>Measurement Date 12/31/2017</i>	\$ 12,427,113	\$ 10,693,773	\$ 1,733,340	\$ -	\$ -	\$ (1,075,355)	\$ 350,731	\$ 2,457,964
Changes During the Period:								
Service Cost	297,367		297,367					297,367
Interest Cost	925,635		925,635					925,635
Expected Investment Income		803,995	(803,995)					(803,995)
Employer Contributions		826,572	(826,572)					(826,572)
Changes of Benefit Terms	-		-					-
Retiree Contributions In		23,811	(23,811)					(23,811)
Retiree Contributions Out		(23,811)	23,811					23,811
Admin/Operating Expenses		(4,665)	4,665					4,665
Other Professional Expenses		(3,698)	3,698					3,698
Reimbursement to District* for prior year retiree benefits paid		(521)	521					521
Benefit Payments	(765,360)	(765,360)	-					-
Assumption Changes	-		-	-				-
Plan Experience	-		-		-			-
Investment Experience		(1,335,862)	1,335,862			1,335,862		-
Recognized Deferred Resources				-	-	1,667	(826,572)	824,905
Employer Contributions in Fiscal Year							950,635	(950,635)
Net Changes in Fiscal Year 2018-2019	457,642	(479,539)	937,181	-	-	1,337,529	124,063	(524,411)
Balance at Fiscal Year Ending 6/30/2019 <i>Measurement Date 12/31/2018</i>	\$ 12,884,755	\$ 10,214,234	\$ 2,670,521	\$ -	\$ -	\$ 262,174	\$ 474,794	\$ 1,933,553

* A total of \$521 was reimbursed through Nevada PERS to one retiree who overpaid his portion of the premium cost.



Accounting Information
 (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, 2018

Deferred Resource					Balance as of Dec 31, 2018	Recognition of Deferred Outflow or Deferred (Inflow) in Measurement Period:						
Date Created	Cause	Initial Amount	Period (Yrs)	Annual Recognition		2018 (FYE 2019)	2019 (FYE 2020)	2020 (FYE 2021)	2021 (FYE 2022)	2022 (FYE 2023)	2023 (FYE 2024)	Thereafter
Investment Earnings												
12/31/2017	Greater than Expected	\$ (1,344,194)	5.00	\$ (268,839)	\$ (806,516)	\$ (268,839)	\$ (268,839)	\$ (268,839)	\$ (268,838)	\$ -	\$ -	\$ -
Investment Earnings												
12/31/2018	Less than Expected	1,335,862	5.00	267,172	1,068,690	267,172	267,172	267,172	267,172	267,174	-	-

The Expected Average Remaining Service Life (“EARSL”) was 8.21 years. This is the period used to recognize changes in the OPEB Liability arising during the current measurement period *other than* those attributable to investment gains and losses or relating to improvements in plan benefits; there are no such changes to be recognized.



Accounting Information

(Continued)

District Contributions to the Plan

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

Benefits and other contributions paid by the District during the measurement period and those expected to be made in the year following the measurement period but prior to the end of the fiscal year are shown below. Estimates should be replaced with total actual employer payments toward retiree medical benefits and total trust contributions once known after the close of the fiscal year.

Benefit Payments During the Measurement Period, Jan 1, 2018 thru Dec 31, 2018	Tahoe Douglas FPD
Benefits Paid by Trust	\$ 480,278
Benefits Paid by Employer (not reimbursed by trust)	101,816
Implicit benefit payments	183,266
Total Benefit Payments During the Measurement Period	\$ 765,360

Employer Contributions During the Measurement Period, Jan 1, 2018 thru Dec 31, 2018	Tahoe Douglas FPD
Employer Contributions to the Trust	\$ 541,490
Employer Contributions in the Form of Direct Benefit Payments (not reimbursed by trust)	101,816
Implicit contributions	183,266
Total Employer Contributions During the Measurement Period	\$ 826,572

Employer Contributions During the Fiscal Year, Jul 1, 2018 thru Jun 30, 2019	Tahoe Douglas FPD
Employer Contributions to the Trust	\$ 654,701
Employer Contributions in the Form of Direct Benefit Payments (not reimbursed by trust)	99,752
Implicit contributions	196,182
Total Employer Contributions During the Fiscal Year	\$ 950,635



Accounting Information

(Continued)

Projected Benefit Payments (15-year projection)

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

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

Projected Annual Benefit Payments							
Calendar Year	Explicit Subsidy			Implicit Subsidy			Total
	Current Retirees	Future Retirees	Total	Current Retirees	Future Retirees	Total	
2018	\$ 480,278	\$ -	\$ 480,278	\$ 183,266	\$ -	\$ 183,266	\$ 663,544
2019	602,553	43,328	645,881	196,409	12,688	209,097	854,978
2020	556,742	72,434	629,176	153,870	21,065	174,935	804,111
2021	537,544	101,611	639,155	149,645	25,431	175,076	814,231
2022	526,946	127,762	654,708	153,053	35,297	188,350	843,058
2023	499,404	153,049	652,453	129,117	46,341	175,458	827,911
2024	482,473	168,693	651,166	117,082	53,801	170,883	822,049
2025	482,237	184,004	666,241	117,817	51,359	169,176	835,417
2026	442,195	202,526	644,721	80,985	56,203	137,188	781,909
2027	419,103	217,193	636,296	55,396	63,497	118,893	755,189
2028	409,387	216,323	625,710	47,815	63,054	110,869	736,579
2029	413,660	232,027	645,687	43,366	60,062	103,428	749,115
2030	400,356	258,099	658,455	33,132	64,345	97,477	755,932
2031	373,031	313,916	686,947	7,686	85,688	93,374	780,321
2032	369,167	353,438	722,605	-	103,765	103,765	826,370

The amounts shown in the Explicit Subsidy table reflect the expected payment by the District toward retiree medical, dental and vision premiums, HSA contributions and HRA contributions for post-65 retirees in each of the years shown. The amounts are shown separately, and in total, for those retired on the valuation date (“current retirees”) and those expected to retire after the valuation date (“future retirees”).

The amounts shown in the Implicit Subsidy table reflect the expected 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.



Accounting Information
 (Concluded)

Sample Journal Entries

Beginning Account Balances

As of the fiscal year beginning 7/1/2018

	Debit	Credit
Net OPEB Liability		1,733,340
Deferred Resource -- Assumption Changes	-	
Deferred Resource -- Plan experience	-	
Deferred Resource -- Investment Experience		1,075,355
Deferred Resource -- Contributions	350,731	
Net Position	2,457,964	

** The entries above assume nothing is on the books at the beginning of the year. So to the extent that values already exist in, for example, the Net OPEB Liability account, then only the difference should be adjusted. The entries above represent the values assumed to exist at the start of the fiscal year.*

Journal entry to recharacterize retiree benefit payments not reimbursed by a trust, and record cash contributions to the trust during the fiscal year

	Debit	Credit
OPEB Expense	99,752	
Premium Expense		99,752
OPEB Expense	654,701	
Cash		654,701

** This entry assumes a prior journal entry was made to record the payment for retiree premiums. This entry assumes the prior entry debited an account called "Premium Expense" and credited Cash. This entry reverses the prior debit to "Premium Expense" and recharacterizes that entry as an "OPEB Expense". Also, the entry for cash contributions to the trust is shown.*

Journal entries to record implicit subsidies during the fiscal year

	Debit	Credit
OPEB Expense	196,182	
Premium Expense		196,182

** This entry assumes that premiums for active employees were recorded to an account called "Premium Expense". This entry reverses the portion of premium payments that represent implicit subsidies and assigns that value to OPEB Expense.*

Journal entries to record other account activity during the fiscal year

	Debit	Credit
Net OPEB Liability		937,181
Deferred Resource -- Assumption Changes	-	
Deferred Resource -- Plan experience	-	
Deferred Resource -- Investment Experience	1,337,529	
Deferred Resource -- Contributions	124,063	
OPEB Expense		524,411



C. Certification

The purpose of this report is to provide actuarial information in compliance with Statement 75 of the Governmental Accounting Standards Board (GASB 75) for other postemployment benefits provided by the Tahoe Douglas Fire Protection District (the District) Retiree Healthcare Plan. We summarized the benefits in this report and our calculations were based on our understanding of the benefits as described herein.

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

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

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

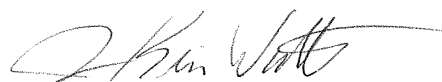
This report is prepared solely for the use and benefit of the District and may not be provided to third parties without prior written consent of MacLeod Watts. Exceptions: The District may provide copies of this report to their professional accounting and legal advisors who are subject to a duty of confidentiality,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

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

Signed: January 6, 2020



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



J. Kevin Watts, FSA, FCA, MAAA



D. Supporting Information

Section 1 - Summary of Employee Data

The District reported 50 active employees and 44 retirees participating in the District’s healthcare plans or receiving Medicare HRA contributions. Information on these individuals is summarized in the charts below.

Distribution of Benefits-Eligible Active Employees								
Current Age	Years of Service						Total	Percent
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up		
Under 25							0	0%
25 to 29	1	6	1				8	16%
30 to 34	1	6	1				8	16%
35 to 39		4	6	4	2		16	32%
40 to 44			2	2	1		5	10%
45 to 49		1	1	1	1	3	7	14%
50 to 54					2		2	4%
55 to 59						3	3	6%
60 to 64						1	1	2%
65 to 69							0	0%
70 & Up							0	0%
Total	2	17	11	7	6	7	50	100%
Percent	4%	34%	22%	14%	12%	14%	100%	

<u>Valuation</u>	<u>January 2015</u>	<u>December 2017</u>
Annual Covered Payroll	\$3,933,282	\$4,118,877
Average Attained Age for Actives	38.7	39.5
Average Years of Service	9.7	10.3

District Retirees by Age		
Current Age	Number	Percent
Below 50	0	0%
50 to 54	2	5%
55 to 59	12	27%
60 to 64	17	39%
65 to 69	8	18%
70 to 74	4	9%
75 to 79	1	2%
80 & up	0	0%
Total	44	100%
Average Age:		
On 1/1/2018:	62.7	
At retirement:	54.2	



Supporting Information

(Continued)

Section 2A - Summary of Retiree Benefit Provisions

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

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

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

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

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

Years of District Service	% of Employee Premium Paid	% of Spouse Premium Paid
Less than 20	0%	0%
20-25	100%	0%
26	100%	20%
27	100%	40%
28	100%	60%
29	100%	80%
30 or more	100%	100%

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



Supporting Information

(Continued)

Summary of Retiree Benefit Provisions

(Continued)

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

- Upon eligibility for Medicare, the District's monthly allowance (HRA) toward health insurance for a retired employee is equal to \$225 multiplied by his or her vested percentage (see tables above). Similarly, eligible spouses receive a monthly health insurance allowance equal to \$225 multiplied by their applicable vested percentage.
- The District will also pay the same vested percentage of Medicare Part A premiums for retired employees and their spouses who are not Part A Medicare premium qualified. The premium is \$422 in 2018.

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

Plan	80/20 HDHP	70/30 HDHP
Retiree Only	\$ 159.01	\$ 185.00
Retiree & Spouse	313.84	370.00



Supporting Information

(Continued)

Section 2B - Excise Taxes for High Cost Retiree Coverage

The Patient Protection and Affordable Care Act (ACA) includes a 40% excise tax on high-cost employer-sponsored health coverage. The tax applies to the aggregate annual cost of an employee's applicable coverage that exceeds a dollar limit. Implementation of this tax has been delayed by subsequent legislation to 2022; while there are discussions in Congress of eliminating or again delaying the tax, this report assumes that it will take effect as current law provides.

For those current and future retirees assumed to retain coverage in the District's medical program, we determined the excess, if any, of projected annual plan premiums for the retiree and his or her covered dependents over the projected applicable excise tax threshold beginning in 2022. The excise tax burden will ultimately fall on the District alone, a combination of the District and plan participants, or be entirely borne by the affected retirees. The practicalities of how the tax will be recovered by insurers will likely affect the eventual cost-sharing result.

See Section 3 for assumptions about this excise tax in the valuation. Please note that any assumptions applied in this valuation are not intended to imply any legal obligation as to the District's current or future liability to absorb this potential tax.



Supporting Information

(Continued)

Section 3 - Actuarial Methods and Assumptions

Valuation Date	December 31, 2017
Funding Method	Entry Age Normal Cost, level percent of pay ¹
Asset Valuation Method	Market value of assets
Long Term Return on Assets	7.5% as of December 31, 2017 & December 31, 2018 net of plan investment expenses and including inflation
Discount Rate	7.5% as of December 31, 2017 & December 31, 2018
Participants Valued	Only current active employees and retired participants and covered spouses are valued. No future entrants are considered in this valuation.
Salary Increase	4.0% per year
Assumed Wage inflation	3.0% per year; a component of assumed average annual payroll increases
General Inflation Rate	2.75% per year

The demographic actuarial assumptions used in this valuation are based on the most recently published report of the Nevada Public Employees Retirement System, dated June 30, 2016, except for a different basis used to project future mortality improvements.

Mortality:

The rates referenced here were described in the June 30, 2016 actuarial valuation of the Nevada PERS program as being reasonably representative of mortality experience as of that measurement date.

Non-disabled life rates for Regular employees:

Males: RP-2000 Combined Healthy Table

Females: RP-2000 Combined Healthy Table set back 1 year

The rates described above were then adjusted to anticipate future mortality improvement by applying MacLeod Watts Scale 2017 on a generational basis from 2015 forward (see Addendum 2 for additional details). In laymen's terms, this means mortality is projected to improve each year until the payments anticipated in any future year occur.

¹ The level percent of pay aspect of the funding method refers to how the normal cost is determined. Use of level percent of pay cost allocations in the funding method is separate from and has no effect on a decision regarding use of a level percent of pay or level dollar basis for determining amortization payments.



Supporting Information
 (Continued)

Section 3 - Actuarial Methods and Assumptions

Healthcare Trend

District plan healthcare premiums, claims, HSA contributions and premium co-pays for pre-65 retirees are assumed to increase at the following rates:

Effective January 1	Increase
2019	6.25%
2020	6.00%
2021	5.75%
2022	5.50%
2023	5.25%
2024	5.00%
2025 & later	5.00%

Other Employer Cost-Sharing in the District plan

The District’s subsidy toward coverage for those covered by Medicare (HRA contribution) is assumed to increase by 5% annually.

Medicare Eligibility

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

Participation Rate

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

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

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



Supporting Information
 (Continued)

Section 3 - Actuarial Methods and Assumptions

Spouse Coverage

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

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

Development of Age-related Medical Premiums

Medical claims by age were estimated based on data provided in the 2013 paper “Health Care Costs – From Birth to Death”, prepared by Dale H. Yamamoto, and sponsored by the Society of Actuaries. A description of MacLeod Watts’s Age Rating Methodology is provided in Addendum 1 to this report.

Actual premium rates for retirees and their spouses under the 80/20 HDHP PPO plan were adjusted to an age-related basis by applying the medical claim cost factors to monthly baseline premium costs. The monthly baseline premium costs were set equal to the active employee-only premiums shown in the chart at the bottom of Table 2.

The overall average number of children assumed per employee (subscriber) covering children is 1.8 and the average age of children covered is 11.3. The same assumptions regarding spouse ages were used as described above.

Sample age-based claims are shown in the following chart:

Retiree Age	HDHP	
	Males	Females
48	\$ 493	\$ 637
50	552	684
52	617	730
54	685	771
56	756	808
58	829	849
60	904	900
62	985	963
64	1,073	1,034
65 & Older	N/A - Plan not available to post-65 retirees	



Supporting Information
(Concluded)

Section 3 - Actuarial Methods and Assumptions

Excise tax on high-cost plans

We assumed the excise tax for high cost plan coverage for retirees will go into effect in the year 2022. Annual threshold amounts under the Affordable Care Act (ACA) are shown below.

2018 Thresholds	Ages 55-64	All Other Ages
Single	11,850	10,200
Other than Single	30,950	27,500

Note: Thresholds for disability retirements are assumed to be set at a level high enough to prevent taxation on disabled retiree benefits.

Actual limits may be higher, depending on cost increases prior to the effective date. The thresholds are scheduled to increase by CPI plus 1% in 2019 and by CPI annually thereafter. A 40% excise tax rate was applied to the portion of premiums projected to exceed the threshold each year. We assumed that 100% of any excise tax liability for high cost retiree coverage will be borne by the District.

Assumption changes recognized during the current measurement period:

None.



Addendum 1: Important Background Information

General Types of Other Post-Employment Benefits (OPEB)

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

A direct employer payment toward the cost of OPEB benefits is referred to as an “explicit subsidy”. Upcoming excise taxes under the Affordable Care Act for retirees covered by high cost plans is another potential source of explicit subsidies.

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

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

This chart shows the sources of funds needed to cover expected claims for retirees. The portion of the premium paid by the Agency does not impact the amount of the implicit subsidy.

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

Valuation Process

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

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



Important Background Information

(Continued)

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

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

We then calculate a present value of these benefits by discounting the value of each future expected benefit payment, multiplied by the assumed expectation that it will be paid, back to the valuation date using the discount rate. These benefit projections and liabilities have a very long time horizon. The final payments for currently active employees may not be made for 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 expected 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 liability is created when expected retiree claims exceed the premiums charged for retiree coverage. This typically occurs when the same premium rates are charged for active and retired members prior to coverage under Medicare. In practical terms, when premiums for active employees each year exceed active employee claims, their premiums include an amount expected to be transferred to cover a portion of the retirees' claims not covered by the premiums charged for retiree coverage. This transfer represents the current year's implicit subsidy. GASB 75 allows for recognition of payments to an irrevocable trust *or directly to the insurer* as an employer's contribution. Therefore, each year's implicit subsidy is 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
<i>Prior to Implicit Subsidy Adjustment</i>		
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
<i>After Implicit Subsidy Adjustment</i>		
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

In this example, while total contributions paid toward active and retired employee healthcare premiums is the same, by shifting the recognition of the current year's implicit subsidy from actives to retirees, this amount is recognized as an OPEB contribution and at the same time reduces premium expense for active employees.

Discount Rate

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



Important Background Information
(Continued)

Actuarial Funding Method and Assumptions

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

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



Addendum 2: MacLeod Watts Age Rating Methodology

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

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

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

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

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

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



Addendum 3: MacLeod Watts Mortality Projection Methodology

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

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

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

The **MacLeod Watts Scale 2017** was developed from a blending of data and methodologies found in two published sources: (1) the Society of Actuaries Mortality Improvement Scale MP-2016 Report, published in October 2016 and (2) the demographic assumptions used in the 2016 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, published June 2016.

MacLeod Watts Scale 2017 is a two-dimensional mortality improvement scale reflecting both age and year of mortality improvement. The underlying base scale is Scale MP-2016 which has two segments – (1) historical improvement rates for the period 1951-2012 and (2) an estimate of future mortality improvement for years 2013-2015 using the Scale MP-2016 methodology but utilizing the assumptions obtained from Scale MP-2015. The MacLeod Watts scale then transitions from the 2015 improvement rate to the Social Security Administration (SSA) Intermediate Scale linearly over the 10 year period 2016-2025. After this transition period, the MacLeod Watts Scale uses the constant mortality improvement rate from the SSA Intermediate Scale from 2025-2039. The SSA's Intermediate Scale has a final step down in 2040 which is reflected in the MacLeod Watts scale for years 2040 and thereafter. Over the ages 100 to 115, the SSA improvement rate is graded to zero.

Scale MP-2016 can be found at the SOA website and the projection scales used in the 2016 Social Security Administrations Trustees Report at the Social Security Administration website.



Glossary

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

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

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

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

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

Expected Average Remaining Service Lifetime (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

Excise Tax – The Affordable Care Act created an excise tax on the value of employer sponsored coverage which exceeds certain thresholds (“Cadillac Plans”). The tax is first effective in 2022.

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

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

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

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

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



Glossary

(Continued)

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

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

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

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

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

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

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

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

