

# MacLeod Watts

July 26, 2019

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

Re: **PEBP** Other Postemployment Benefits of Tahoe Douglas Fire Protection District  
GASB 75 Actuarial Report for the Fiscal Year Ending June 30, 2019

Dear Chief Baker:

We are pleased to enclose our report providing the actuarial information for the June 30, 2019 accounting of other post-employment benefit (OPEB) liabilities for Tahoe Douglas Fire Protection District (the District) **relating to former employees and retirees covered by the Nevada Public Employees' Benefit Plan (PEBP)**. The report's text describes our analysis and assumptions in detail.

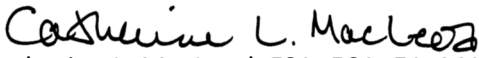
The primary purpose of this report is to provide information required by GASB 75 ("Accounting and Financial Reporting for Postemployment Benefits Other Than Pension") to be reported in the District's financial statements for the fiscal year ending June 30, 2019 relating to District retirees covered by PEBP. The OPEB liability relating to the District's retiree healthcare plan 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 the retiree data provided to us at the time that valuation was prepared. It is our understanding that the District will continue financing this PEBP OPEB liability on a pay-as-you-go basis. The only change reflected in this report relative to the report for the fiscal year ended June 30, 2018 is an update to the discount rate, in keeping with the change in the applicable municipal bond index on which it is based.

Please review our summary of this information shown in the report to be sure it matches your records. If contributions (in this case, retiree benefits paid) for FYE 2019 were estimates, this information should be updated once the final total amount is 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 prepare this report. Please let us know if we can be of further assistance.

Sincerely,

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

Enclosure



Tahoe Douglas Fire Protection District  
PEBP Plan

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

Submitted July 2019

MacLeod Watts

## Table of Contents

A.	Executive Summary .....	1
	OPEB Obligations of the District for PEBP Members.....	1
	OPEB Funding Policy for PEBP .....	1
	Actuarial Assumptions.....	2
	Important Dates Used in the Valuation.....	2
	Significant Results and Differences from the Prior Report .....	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
	Deferred Resources as of Fiscal Year End and Expected Future Recognition .....	6
	Sensitivity of Liabilities to Changes in the Discount Rate and Healthcare Cost Trend Rate .....	7
	Schedule of Changes in the District’s Net OPEB Liability and Related Ratios .....	8
	Detail of Changes to Net Position.....	9
	Schedule of Deferred Outflows and Inflows of Resources.....	10
	District Contributions to the Plan.....	10
	Projected Benefit Payments (15-year projection).....	11
	Sample Journal Entries .....	12
C.	Funding Information.....	13
D.	Certification .....	14
E.	Supporting Information.....	15
	Section 1 - Summary of Employee Data .....	15
	Section 2 - Summary of Retiree Benefit Provisions.....	16
	Section 3 - Actuarial Methods and Assumptions .....	17
	Addendum 1: Important Background Information.....	19
	<i>Important Dates</i> .....	21
	<i>Recognition of Plan Changes and Gains and Losses</i> .....	21
	Addendum 2: MacLeod Watts Mortality Projection Methodology.....	23
	Glossary.....	24



## A. Executive Summary

This report presents actuarial information for Tahoe Douglas Fire Protection District (the District) relating to former employees and retirees covered by the Nevada Public Employees' Benefit Plan (PEBP). The purpose of this report is to provide information about this plan as required by Statement No. 75 of the Governmental Accounting Standards Board (GASB 75) for the District's fiscal year ending June 30, 2019. A separate GASB 75 report will be prepared for OPEB liabilities stemming from the District's retiree healthcare program.

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 for PEBP Members

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

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

- **Explicit subsidy liabilities:** As noted above, the District is required to provide a monthly subsidy toward the cost of medical coverage for retirees and their dependents covered under PEBP. Liabilities relating to these projected benefits are included in this valuation.
- **Implicit subsidy liabilities:** It is MacLeod Watts's understanding that PEBP operates a separate pool from the State plan members for evaluating the claims and setting premiums for Nevada Public Agency PEBP participation. The Public Agency pool consists almost entirely of retired members. *We have assumed that an insignificant subsidy, if any, exists of retiree premiums by active premiums under this program and thus we have not included any implicit subsidy liability relating to PEBP in this valuation.*
- **Excise tax liability for "high cost" plans:** The Patient Protection and Affordable Care Act (ACA) includes a 40% excise tax on high-cost employer-sponsored health coverage. The tax was to be implemented beginning in 2018; however, implementation has been delayed by subsequent legislation until 2022. Because coverage through PEBP is not administered by the District, we have assumed there would be no excise tax payable by the District for PEBP retirees.

### OPEB Funding Policy for PEBP

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



## Executive Summary

(Continued)

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.

Our understanding is that the District is continuing to finance this PEBP OPEB liability on a pay-as-you-go basis. Therefore, with the District's approval, the discount rate used in this valuation is based on the S & P General Obligation Municipal Bond 20 Year High Grade Index. As of the beginning and end of the Measurement Period, use of this index results in discount rates of 3.31% as of December 31, 2017 and 3.71% as of December 31, 2018.

## Actuarial Assumptions

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

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

Fiscal Year End	June 30, 2019
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 Report

The assumptions used to develop the information as of the measurement date are the same assumptions used for the December 31, 2017 valuation, with the exception of the discount rate used to value the OPEB liability. The discount rate was updated in keeping with the change in the applicable municipal bond index (see above) on which it is based.

No plan experience was recognized and no changes in plan benefits occurring prior to the December 31, 2018 measurement date were reported to us.



## Executive Summary

(Continued)

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

The accounting impact of the PEBP retiree coverage 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	\$ 118,017
Fiduciary Net Position	-
Net OPEB Liability (Asset)	118,017
Deferred (Outflows) of Resources	(6,853)
Deferred Inflows of Resources	-
Impact on Statement of Net Position	<u>\$ 111,164</u>
 <b>OPEB Expense, FYE 6/30/2019</b>	 <u><u>\$ 96</u></u>

### Recognition Period for Deferred Resources

Liability changes due to plan experience that differs from what was assumed in the prior year and/or due to assumption changes during the year are recognized over the Expected Average Remaining Service Life ("EARSL"). Where applicable, changes in the Fiduciary Net Position due to investment performance different from the assumed earnings rate are always recognized over 5 years.

The period for recognizing differences between expected and actual experience and/or changes in assumptions in a closed plan with no active members, such as PEBP, is 1 year.

### Important Notices

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



**B. Accounting Information (GASB 75)**

The following exhibits are designed to satisfy the reporting and disclosure requirements of GASB 75 relating to retiree PEBP coverage for the fiscal year end June 30, 2019, as well as facilitate an audit of plan changes. The District is classified for GASB 75 purposes as a single employer.

**Components of Net Position and Expense**

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

<b>Plan Summary Information for FYE June 30, 2019</b> <i>Measurement Date is December 31, 2018</i>	<b>PEBP</b>
<b>Items Impacting Net Position:</b>	
Total OPEB Liability	\$ 118,017
Fiduciary Net Position	-
Net OPEB Liability (Asset)	118,017
<i>Deferred (Outflows) Inflows of Resources Due to:</i>	
Assumption Changes	-
Plan Experience	-
Investment Experience	-
Deferred Contributions	(6,853)
Net Deferred (Outflows) Inflows of Resources	(6,853)
<b>Impact on Statement of Net Position, FYE 6/30/2019</b>	<b>\$ 111,164</b>
<b>Items Impacting OPEB Expense:</b>	
Service Cost	\$ -
Cost of Plan Changes	-
Interest Cost	4,120
Expected Earnings on Assets	-
<i>Recognized Deferred Resource items:</i>	
Assumption Changes	(4,024)
Plan Experience	-
Investment Experience	-
<b>OPEB Expense, FYE 6/30/2019</b>	<b>\$ 96</b>



## Accounting Information

(Continued)

### Change in Net Position During the Fiscal Year

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

For Reporting at Fiscal Year End <i>Measurement Date</i>	6/30/2018 <i>12/31/2017</i>	6/30/2019 <i>12/31/2018</i>	Change During Period
Total OPEB Liability	\$ 131,010	\$ 118,017	\$ (12,993)
Fiduciary Net Position	-	-	-
Net OPEB Liability (Asset)	131,010	118,017	(12,993)
<i>Deferred Resource (Outflows) Inflows Due to:</i>			
Assumption Changes	-	-	-
Plan Experience	-	-	-
Investment Experience	-	-	-
Deferred Contributions	(6,238)	(6,853)	(615)
Net Deferred (Outflows) Inflows	(6,238)	(6,853)	(615)
Impact on Statement of Net Position	\$ 124,772	\$ 111,164	\$ (13,608)

### Change in Net Position During the Fiscal Year

Impact on Statement of Net Position, FYE 6/30/2018	\$ 124,772
OPEB Expense (Income)	96
Employer Contributions During Fiscal Year	(13,704)
Impact on Statement of Net Position, FYE 6/30/2019	\$ 111,164

### OPEB Expense

Employer Contributions During Fiscal Year	\$ 13,704
Deterioration (Improvement) in Net Position	(13,608)
OPEB Expense (Income), FYE 6/30/2019	\$ 96





**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	-	-
Deferred Contributions	6,853	-
<b>Total</b>	<b>\$ 6,853</b>	<b>\$ -</b>

The District will recognize the Deferred Contributions in the next fiscal year. There are no deferred resources to be recognized.

The period for recognizing changes in the Total OPEB Liability arising from assumptions changes and/or plan experience is the expected average remaining service lifetime (EARSL) of active members. Because there are no active employees in this program, all changes are recognized immediately in the current year.



**Accounting Information**

(Continued)

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

The discount rate used for the December 31, 2018 measurement date is 3.71%. Healthcare cost trend rate prior to eligibility for Medicare was assumed to start at 6.5% and grade down to 5% for years 2023 and thereafter; medical cost inflation for those covered by Medicare is 4.5% per year. The impact of a 1% increase or decrease in these assumptions is shown in the chart below.

Sensitivity to:			
Change in Discount Rate	Current - 1% 2.71%	Current 3.71%	Current + 1% 4.71%
<b>Total OPEB Liability</b>	128,587	118,017	108,992
Increase (Decrease)	10,570		(9,025)
% Increase (Decrease)	9.0%		-7.6%
<b>Net OPEB Liability (Asset)</b>	128,587	118,017	108,992
Increase (Decrease)	10,570		(9,025)
% Increase (Decrease)	9.0%		-7.6%
Change in Heathcare Cost Trend Rate	Current Trend - 1%	Current Trend	Current Trend + 1%
<b>Total OPEB Liability</b>	108,486	118,017	128,969
Increase (Decrease)	(9,531)		10,952
% Increase (Decrease)	-8.1%		9.3%
<b>Net OPEB Liability (Asset)</b>	108,486	118,017	128,969
Increase (Decrease)	(9,531)		10,952
% Increase (Decrease)	-8.1%		9.3%



**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, results for fiscal years 2018 and 2019 are shown in the following table.

Fiscal Year Ended	<b>6/30/2019</b>	<b>6/30/2018</b>
<i>Measurement Date</i>	<b>12/31/2018</b>	<b>12/31/2017</b>
<b>Total OPEB liability</b>		
Service Cost	\$ -	\$ -
Interest	4,120	4,829
Changes of benefit terms	-	-
Differences between expected and actual experience	-	-
Changes of assumptions	(4,024)	5,407
Benefit payments	(13,089)	(11,920)
<b>Net change in total OPEB liability</b>	<b>(12,993)</b>	<b>(1,684)</b>
<b>Total OPEB liability - beginning</b>	<b>131,010</b>	<b>132,694</b>
<b>Total OPEB liability - ending (a)</b>	<b>\$ 118,017</b>	<b>\$ 131,010</b>
<b>Plan fiduciary net position</b>		
Contributions - employer	\$ 13,089	\$ 11,920
Net investment income	-	-
Benefit payments	(13,089)	(11,920)
<b>Net change in plan fiduciary net position</b>	<b>-</b>	<b>-</b>
<b>Plan fiduciary net position - beginning</b>	<b>-</b>	<b>-</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Net OPEB liability - ending (a) - (b)</b>	<b>\$ 118,017</b>	<b>\$ 131,010</b>



## 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	
<b>Balance at Fiscal Year Ending 6/30/2018</b> <i>Measurement Date 12/31/2017</i>	\$ 131,010	\$ -	\$ 131,010	\$ -	\$ -	\$ -	\$ 6,238	\$ 124,772
<b>Changes During the Period:</b>								
Service Cost	-		-					-
Interest Cost	4,120		4,120					4,120
Expected Investment Income		-	-					-
Employer Contributions		13,089	(13,089)					(13,089)
Changes of Benefit Terms	-		-					-
Benefit Payments	(13,089)	(13,089)	-					-
Assumption Changes	(4,024)		(4,024)	(4,024)				-
Plan Experience	-		-		-			-
Investment Experience		-	-			-		-
Recognized Deferred Resources				4,024	-	-	(13,089)	9,065
Employer Contributions in Fiscal Year							13,704	(13,704)
<b>Net Changes in Fiscal Year 2018-2019</b>	(12,993)	-	(12,993)	-	-	-	615	(13,608)
<b>Balance at Fiscal Year Ending 6/30/2019</b> <i>Measurement Date 12/31/2018</i>	\$ 118,017	\$ -	\$ 118,017	\$ -	\$ -	\$ -	\$ 6,853	\$ 111,164



## Accounting Information

(Continued)

### Schedule of Deferred Outflows and Inflows of Resources

Besides deferred contributions, there are no deferred resource bases for pay-as-you-go plans in which all participants are retired.

### District Contributions to the Plan

District contributions to the Plan occur as benefits are paid to retirees. In this PEBP program, the only benefit payments occur in the form of direct payments to PEBP on behalf of currently covered retirees. The chart below shows the benefits paid by the District on behalf of PEBP retirees during the measurement period as well as contributions (in the form of retiree medical benefits) made in the year following the measurement period but prior to the end of fiscal 2019.

<b>Employer Contributions During the Measurement Period, Jan 1, 2018 thru Dec 31, 2018</b>	<b>PEBP</b>
Employer Contributions to the Trust	\$ -
Employer Contributions in the Form of Direct Benefit Payments (not reimbursed by trust)	13,089
Implicit contributions	-
<b><i>Total Employer Contributions During the Measurement Period</i></b>	<b>\$ 13,089</b>

<b>Employer Contributions During the Fiscal Year, Jul 1, 2018 thru Jun 30, 2019</b>	<b>PEBP</b>
Employer Contributions to the Trust	\$ -
Employer Contributions in the Form of Direct Benefit Payments (not reimbursed by trust)	13,704
Implicit contributions	-
<b><i>Total Employer Contributions During the Fiscal Year</i></b>	<b>\$ 13,704</b>



**Accounting Information**

(Continued)

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

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

<b>Projected Benefits</b>	
<b>Fiscal Year Ending June 30</b>	<b>PEBP Retirees</b>
2018	\$ 12,475
2019	13,704
2020	13,609
2021	13,946
2022	7,470
2023	7,332
2024	7,255
2025	7,142
2026	6,994
2027	6,812
2028	6,591
2029	6,330
2030	6,042
2031	5,733
2032	5,407



## Accounting Information

(Concluded)

### Sample Journal Entries

#### Beginning Account Balances

As of the fiscal year beginning 7/1/2018

	Debit	Credit
Net OPEB Liability		131,010
Deferred Resource -- Assumption Changes	-	
Deferred Resource -- Plan experience	-	
Deferred Resource -- Investment Experience	-	
Deferred Resource -- Contributions	6,238	
Net Position	124,772	

\* 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	13,704	
Premium Expense		13,704
OPEB Expense	-	
Cash		-

\* 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 other account activity during the fiscal year

	Debit	Credit
Net OPEB Liability	12,993	
Deferred Resource -- Assumption Changes	-	
Deferred Resource -- Plan experience	-	
Deferred Resource -- Investment Experience	-	
Deferred Resource -- Contributions	615	
OPEB Expense		13,608



### **C. Funding Information**

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

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





## D. Certification

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

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


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


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

This report is prepared solely for the use and benefit of the District and may not be provided to third parties without prior written consent of MacLeod Watts. Exceptions are: 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: July 26, 2019

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

  
J. Kevin Watts, FSA, FCA, MAAA



## E. Supporting Information

### Section 1 - Summary of Employee Data

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

**Retired members:** As of the December 31, 2017 valuation date, there were 5 former employees for whom the District pays a subsidy toward the cost of PEBP coverage.

PEBP Retirees by Age		
Current Age	Number	Percent
Below 50	0	0%
50 to 54	0	0%
55 to 59	0	0%
60 to 64	2	40%
65 to 69	0	0%
70 to 74	2	40%
75 to 79	1	20%
80 & up	0	0%
<b>Total</b>	<b>5</b>	<b>100%</b>
<b>Average Age:</b>		
On 1/1/2018:	68.7	
At retirement:	<i>not available</i>	

While the plan is generally closed to District retirees after September 1, 2008, former employees covered by PEBP at the time of their retirement (through a subsequent employer) may join the plan and, if this occurs, the District is assessed a portion of their cost. We will review changes, if any, in covered PEBP retirees when the next valuation is prepared on December 31, 2019.



## Supporting Information

(Continued)

### Section 2 - Summary of Retiree Benefit Provisions

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

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

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

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

There are exceptions to the amounts shown below:

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

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

The subsidy provided to pre-Medicare retirees varies based on the type of plan selected (PPO or HMO) and by the level of coverage taken (e.g., single, two party, family, etc.). This chart shows the monthly amounts payable beginning July 2018 for those with 15 years of PERS service.

Actual pre-Medicare subsidies for July 2018, as invoiced to the District by individual, were used for the valuation. Some subsidy increases are expected pursuant to SB 552, to be phased in through 2022.

Coverage Level	PPO CDHP		Statewide EPO/HMO	
	Base Subsidy	SB 552 Subsidy	Base Subsidy	SB 552 Subsidy
<i>For 15 years of PERS service</i>				
Retiree Only	\$ 813.80	\$ 163.65	\$ 398.00	\$ (11.66)
Retiree + Spouse	1,389.86	419.51	630.93	(28.22)
Retiree + Children	1,212.52	384.79	527.69	(5.39)
Retiree + Family	1,788.58	640.65	760.62	(21.95)

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

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

On July 1, 2018, the monthly subsidy for retirees on the Medicare Exchange is \$12 per month per year of PERS service. The maximum benefit payable is \$240 per month.



## Supporting Information

(Continued)

### Section 3 - Actuarial Methods and Assumptions

Valuation Date	December 31, 2017
Funding Method	Entry Age Normal Cost, closed group, level percent of pay <sup>1</sup>
Asset Valuation Method	Market value of assets (\$0; no OPEB trust has been established)
Municipal Bond Index	S & P General Obligation Municipal Bond 20 Year High Grade Index
Discount Rate	3.31% as of December 31, 2017 3.71% as of December 31, 2018
Participants Valued	Only current PEBP retirees are valued.
Salary Increase	Not applicable; there are no active employees in this plan.
General Inflation Rate	2.75% per year
Mortality	<p><i>The basic mortality rates used in the December 31, 2017 valuation were 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.</i></p> <p><u>Non-disabled life rates for Regular employees:</u></p> <p><i>Males:</i> RP-2000 Combined Healthy Table <i>Females:</i> RP-2000 Combined Healthy Table set back 1 year</p> <p><u>Non-disabled life rates for Safety employees:</u></p> <p><i>Males &amp; Females:</i> RP-2000 Combined Healthy Table, set forward 1 year</p> <p><u>Disabled life rates for Regular and Safety employees:</u></p> <p><i>Males and Females:</i> RP-2000 Disabled Retiree Table, set forward 3 years</p>
Mortality Improvement	In the June 30, 2016 Nevada PERS Valuation, the mortality rates described above were stated to “reasonably reflect the projected mortality experience of the Plan as of the measurement date.” We then adjusted these rates to anticipate future mortality improvement by applying MacLeod Watts Scale 2017 on a generational basis from 2016 forward (see Addendum 2 for additional details).

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<sup>1</sup> 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**  
 (Concluded)

**Section 3 - Actuarial Methods and Assumptions**  
 (Continued)

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

Healthcare Trend                         The District’s subsidy toward the cost of PEBP retiree coverage are assumed to increase at the following rates:

Effective July 1	PEBP	
	Pre-Medicare	Medicare Exchange
2018	6.50%	4.50%
2019	6.25%	4.50%
2020	6.00%	4.50%
2021	5.75%	4.50%
2022	5.50%	4.50%
2023	5.25%	4.50%
2024	5.00%	4.50%
2025	5.00%	4.50%

**Changes reflected during the current Measurement Period:**

Discount rate                                The discount rate was changed from 3.31% as of December 31, 2017 to 3.71% as of December 31, 2018 based on the published change in return for the applicable municipal bond index.



## 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 medical claims for pre-Medicare retirees. The implicit subsidy is not affected by how much or little of the premium might be paid by the District.*

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

### Valuation Process

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

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



## Important Background Information

(Continued)

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

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

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

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

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

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

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



## Important Background Information

(Continued)

### Requirements of GASB 75

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

#### *Important Dates*

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

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

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

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

### Discount Rate

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





## **Important Background Information**

(Continued)

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

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

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

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



## **Addendum 2: MacLeod Watts Mortality Projection Methodology**

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

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

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

The **MacLeod Watts Scale 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.

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

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

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

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

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

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

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.



## **Glossary**

(Continued)

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

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

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

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

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

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

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

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

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

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

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

