MacLeod Watts

September 27, 2019

Steven Smith
Assistant County Administrative Officer
Sutter County
1160 Civic Center Blvd. Suite A
Yuba City, CA 95993

Re: Sutter County Other Post-Employment Benefits

GASB 75 Actuarial Report for the Fiscal Year Ending June 30, 2019

Dear Mr. Smith:

We are pleased to enclose our actuarial report providing financial information about the other postemployment benefit (OPEB) liabilities of the Sutter County. 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 County's financial statements for the fiscal year ending June 30, 2019. The information included in this report reflects the assumption that the County will continue financing its OPEB liability on a pay-asyou-go basis. Please let us know if we can be of assistance in preparing illustrations of how prefunding impacts the OPEB liability required to be reported under GASB 75.

The results presented are based on the results of an actuarial valuation prepared as of June 30, 2017 and on the employee and plan data provided to us for that valuation. The County also provided information on retiree benefit payments and total covered employee payroll for the current fiscal year. The only change reflected in this report relative to the report for the prior fiscal year end is an update to the discount rate, reflecting the change in the underlying municipal bond index on which it is based.

As with any analysis, the soundness of the report is dependent on the inputs. Please review the information shown in the report to be comfortable that it matches your records.

We appreciate the opportunity to work on this analysis and acknowledge the efforts of County 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. MacLeoza Catherine L. MacLeod, FSA, FCA, EA, MAAA

Principal & Consulting Actuary

Enclosure



Sutter County

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

Submitted September 2019

MacLeod Watts

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A. Executive Summary

This report presents actuarial information regarding the other post-employment benefit (OPEB) program of the Sutter County (the County). The purpose of this valuation is to assess the OPEB liabilities and provide disclosure information as required by Statement No. 75 of the Governmental Accounting Standards Board (GASB 75) for the fiscal year ending June 30, 2019.

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 present various exhibits and other relevant information appropriate for disclosures under GASB 75. We anticipate that an updated valuation will be prepared as of June 30, 2019 with those results first applied for the County's fiscal year ending June 30, 2020.

OPEB Obligations of the County

The County provides continuation of medical coverage to its retiring employees. Access to this coverage may create one or more of the following types of OPEB liabilities:

- **Explicit subsidy liabilities**: An "explicit subsidy" exists when the employer contributes directly toward the cost of retiree healthcare. In this program, the County pays a portion of medical premiums for qualifying retirees. Details are provided in Supporting Information Section 2A.
 - 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 County's program, the claims experience of active employees and pre-Medicare retirees is co-mingled in setting premium rates for the plans in which County employees and retirees participate. As is the nature of group premium rate structures, at younger ages, retirees may be expected to experience higher claims than the premiums they pay, where at older ages, the reverse is likely to be true.
 - We determine the implicit rate subsidy for pre-Medicare retirees as the projected difference between (a) retiree medical 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.

Coverage under the County's self-funded medical plans does not continue once beyond the eligibility age for Medicare.

OPEB Funding Policy

The County's OPEB funding policy affects the calculation of liabilities by impacting the discount rate used to develop the plan liability and expense. "Prefunding" is the term used when an agency consistently contributes an amount based on an actuarially determined contribution (ADC) each year. GASB 75 allows prefunded plans to use a discount rate that reflects the expected earnings on trust



Executive Summary (Continued)

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.

Our understanding is that the County is currently financing its OPEB liability on a pay-as-you-go basis. With the County's approval, the discount rate used in this valuation is based on the S&P 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 3.13% on June 30, 2017 and 2.98% on June 30, 2018.

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 County employees. Other assumptions, such as age-related healthcare claims, healthcare trend, retiree participation rates and spouse coverage, were selected based on demonstrated plan experience and/or our best estimate of expected future experience. All these assumptions, and more, impact expected future benefits. Please note that this valuation has been prepared on a closed group basis. This means that only employees and retirees present as of the valuation date are considered. We do not consider replacement employees for those we project to leave the current population of plan participants until the valuation date following their employment.

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

Important Dates Used in the Valuation

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

Fiscal Year End June 30, 2019
Valuation Date June 30, 2017
Measurement Date June 30, 2018

Measurement Period June 30, 2017 to June 30, 2018

Significant Results and Differences from the Prior Valuation

This report is based on a roll forward of the June 30, 2017 valuation. No benefit changes and no material changes in plan members or premium rates were reported to MacLeod Watts from those in place at the time the June 2017 valuation was prepared. No plan experience was recognized, and no assumptions were changed, other to update the discount rate as described above. The discount rate change increased the Total OPEB Liability by \$228,375 or roughly 1.5%.



Executive Summary (Continued)

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

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

Items	Fis	or Reporting At cal Year Ending June 30, 2019
Total OPEB Liability	\$	14,854,554
Fiduciary Net Position		-
Net OPEB Liability (Asset)		14,854,554
Deferred (Outflows) of Resources		(726,924)
Deferred Inflows of Resources		507,434
Impact on Statement of Net Position	\$	14,635,064
OPEB Expense, FYE 6/30/2019	\$	1,292,484

Recognition Period for Deferred Resources

Liability changes due to plan experience which differs from what was previously assumed and/or from assumption changes during the measurement period are recognized over the plan's Expected Average Remaining Service Life ("EARSL"). 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 County'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 County 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 County 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 County 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 Measurement Date is June 30, 2018	Sı	Sutter County		
Items Impacting Net Position:				
Total OPEB Liability	\$	14,854,554		
Fiduciary Net Position		-		
Net OPEB Liability (Asset)		14,854,554		
Deferred (Outflows) Inflows of Resources Due to:				
Assumption Changes		305,553		
Plan Experience		-		
Investment Experience		-		
Deferred Contributions		(525,043)		
Net Deferred (Outflows) Inflows of Resources		(219,490)		
Impact on Statement of Net Position, FYE 6/30/2019	\$	14,635,064		
Items Impacting OPEB Expense:				
Service Cost	\$	891,160		
Cost of Plan Changes	·	, -		
Interest Cost		451,482		
Expected Earnings on Assets		-		
Recognized Deferred Resource items:				
Assumption Changes		(50,158)		
Plan Experience		-		
Investment Experience		-		
OPEB Expense, FYE 6/30/2019	\$	1,292,484		



1,292,484

Accounting Information (Continued)

Change in Net Position During the Fiscal Year

OPEB Expense (Income), FYE 6/30/2019

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

For Reporting at Fiscal Year End Measurement Date		6/30/2018 6/30/2017	6/30/2019 6/30/2018			Change During Period
Total OPEB Liability	\$	13,782,843	\$	14,854,554	\$	1,071,711
Fiduciary Net Position		-		-		-
Net OPEB Liability (Asset)		13,782,843		14,854,554		1,071,711
Deferred Resource (Outflows) Inflows Due to:						
Assumption Changes		584,086		305,553		(278,533)
Plan Experience		-		-		-
Investment Experience		-		-		-
Deferred Contributions		(499,306)		(525,043)		(25,737)
Net Deferred (Outflows) Inflows		84,780		(219,490)		(304,270)
Impact on Statement of Net Position	\$	13,867,623	\$	14,635,064	\$	767,441
Change in Net Position During the Fiscal Year						
Impact on Statement of Net Position, FYE 6/30/20	18		\$	13,867,623		
OPEB Expense (Income)				1,292,484		
Employer Contributions During Fiscal Year				(525,043)		
Impact on Statement of Net Position, FYE 6/30/20	19		\$	14,635,064	:	
OPEB Expense						
Employer Contributions During Fiscal Year			\$	525,043		
Deterioration (Improvement) in Net Position				767,441		



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.

Sutter County	 ferred Outflows of Resources	Deferred Inflows of Resources		
Changes of Assumptions	\$ 201,881	\$	507,434	
Differences Between Expected and Actual Experience	-		-	
Net Difference Between Projected and Actual Earnings on Investments	-		-	
Deferred Contributions	525,043		-	
Total	\$ 726,924	\$	507,434	

The County 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	\$ (50,15	8)		
2021	(50,15	8)		
2022	(50,15	8)		
2023	(50,15	8)		
2024	(50,15	8)		
Thereafter	(54,76	3)		



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 2.98%. Healthcare cost trend rate was assumed to start at 8.0% (effective January 1, 2019) and grade down to 5% for years 2025 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% 1.98%	Current 2.98%	Current + 1% 3.98%
Total OPEB Liability Increase (Decrease) % Increase (Decrease)	16,528,179 1,673,625 11.3%	14,854,554	13,430,790 (1,423,764) -9.6%
Change in Heathcare Cost Trend Rate	Current Trend - 1%	Current Trend	Current Trend + 1%
Total OPEB Liability Increase (Decrease) % Increase (Decrease)	12,789,842 (2,064,712) -13.9%	14,854,554	18,658,970 3,804,416 25.6%



Schedule of Changes in the County'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 fiscal years 2018 and 2019 are shown in this table.

Fiscal Year End	FYE 2019	FYE 2018			
Measurement Date	6/30/2018	6/30/2017			
Total OPEB liability					
Service Cost	\$ 891,160				
Interest	451,482	382,921			
Changes of benefit terms	-	-			
Differences between expected and actual experience	-	-			
Changes of assumptions	228,375	(660,738)			
Benefit payments	(499,306)	(454,860)			
Net change in total OPEB liability	1,071,711	213,076			
Total OPEB liability - beginning	13,782,843	13,569,767			
Total OPEB liability - ending (a)	\$ 14,854,554	\$ 13,782,843			
Plan fiduciary net position - beginning	<u>-</u>				
Plan fiduciary net position - ending (b)	\$ -	\$ -			
Net OPEB liability - ending (a) - (b)	\$ 14,854,554	\$ 13,782,843			
Covered-employee payroll	\$ 56,781,386	\$ 53,626,420			
Net OPEB liability as a % ofcovered-employee payroll	26.16%	25.70%			
Summary of key assumptions					
Valuation Date:	6/30/2017				
Actuarial cost method		al, closed group, 6 of Pay			
Inflation		per year			
Healthcare cost trend rates	8.0% in 2018, step down 0.5% per year to 5.0% by 2024				
Salary increases	-	25%			
Discount rate	2.98% 3.13%				
Retirement age	50 to 75				
Mortality	CalPERS 2014 Experience Study;				
	Projected with	MW Scale 2017			



Accounting Information

(Continued)

Detail of Changes to Net Position

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

	Total	Fiduciary	Net	(d) D	eferred Outfl	ows (Inflows)	Due to:	Impact on
Sutter County	OPEB Liability (a)	Net Position (b)	OPEB Liability (c) = (a) - (b)	Assumption Changes	Plan Experience	Investment Experience	Deferred Contributions	Statement of Net Position (e) = (c) - (d)
Balance at Fiscal Year Ending 6/30/2018 Measurement Date 6/30/2017	\$ 13,782,843	\$ -	\$ 13,782,843	\$ (584,086)	\$ -	\$ -	\$ 499,306	\$ 13,867,623
Changes During the Period:								
Service Cost	891,160		891,160					891,160
Interest Cost	451,482		451,482					451,482
Expected Investment Income		-	-					-
Employer Contributions		499,306	(499,306)					(499,306)
Changes of Benefit Terms	-		-					-
Benefit Payments	(499,306)	(499,306)	-					-
Assumption Changes	228,375		228,375	228,375				-
Plan Experience	-		-		-			-
Investment Experience		-	-			-		-
Recognized Deferred Resources				50,158	-	-	(499,306)	449,148
Employer Contributions in Fiscal Year							525,043	(525,043)
Net Changes in Fiscal Year 2018-2019	1,071,711	-	1,071,711	278,533	-	-	25,737	767,441
Balance at Fiscal Year Ending 6/30/2019 Measurement Date 6/30/2018	\$ 14,854,554	\$ -	\$ 14,854,554	\$ (305,553)	\$ -	\$ -	\$ 525,043	\$ 14,635,064



Schedule of Deferred Outflows and Inflows of Resources

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

Measurement Date: June 30, 2018

	Deferred Resource					Recognition of Deferred Outflow or Deferred (Inflow) in Measurement Period					nt Period:	
					Balance							
Date		Initial	Period	Annual	as of	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	
Created	Cause	Amount	(Yrs)	Recognition	Jun 30, 2018	(FYE 2019)	(FYE 2020)	(FYE 2021)	(FYE 2022)	(FYE 2023)	(FYE 2024)	Thereafter
	Gain Due To											
6/30/2017	Assumption Changes	\$ (660,738)	8.62	\$ (76,652)	\$ (507,434)	\$ (76,652)	\$ (76,652)	\$ (76,652)	\$ (76,652)	\$ (76,652)	\$ (76,652)	\$ (124,174)
	Loss Due To											
6/30/2018	Assumption Changes	228,375	8.62	26,494	201,881	26,494	26,494	26,494	26,494	26,494	26,494	69,411

The Expected Average Remaining Service Life ("EARSL") of 8.62 years 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.



County Contributions to the Plan

County contributions to the Plan occur as benefits are paid to or on behalf of retirees. Benefit payments may occur in the form of direct payments for premiums 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 paid by the County during the measurement period and those made in the year following the measurement period but prior to the end of the fiscal year are shown below. Note that the implicit subsidy contribution does not represent cash payments to retirees, but rather a reclassification of a portion of the active healthcare expense to be recognized as a retiree healthcare expense.

Employer Contributions During the Measurement Period, Jul 1, 2017 thru Jun 30, 2018	Sutter County		
Employer Contributions to the Trust	\$	-	
Employer Contributions in the Form of Direct Benefit Payments (not reimbursed by trust)		113,053	
Implicit contributions		386,253	
Total Employer Contributions	\$	499,306	
During the Measurement Period		<u> </u>	
-			
During the Measurement Period Employer Contributions During the Fiscal Year, Jul 1, 2018 thru Jun 30, 2019		ter County	
Employer Contributions During the		ter County	
Employer Contributions During the Fiscal Year, Jul 1, 2018 thru Jun 30, 2019	Sutt	ter County - 144,253	
Employer Contributions During the Fiscal Year, Jul 1, 2018 thru Jun 30, 2019 Employer Contributions to the Trust Employer Contributions in the Form of	Sutt	-	



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 County. 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											
Fiscal Year	Ex	cplicit Subsid	dy	In								
Ending	Current Future		Future		Current Future							
June 30	Retirees	Retirees	Total	Retirees	Retirees	Total	Total					
2018	\$113,053	\$ -	\$113,053	\$386,253	\$ -	\$386,253	\$ 499,306					
2019	144,253	-	144,253	380,790	-	380,790	525,043					
2020	91,984	73,032	165,016	203,838	208,819	412,657	577,673					
2021	85,585	89,630	175,215	159,270	282,569	441,839	617,054					
2022	84,873	103,898	188,771	146,933	356,580	503,513	692,284					
2023	79,914	116,350	196,264	144,434	419,796	564,230	760,494					
2024	73,813	128,884	202,697	118,034	522,186	640,220	842,917					
2025	69,843	137,246	207,089	97,117	580,700	677,817	884,906					
2026	67,227	141,342	208,569	84,636	617,752	702,388	910,957					
2027	65,027	147,657	212,684	76,588	692,928	769,516	982,200					
2028	62,529	154,117	216,646	73,334	724,771	798,105	1,014,751					
2029	61,127	156,405	217,532	76,997	769,419	846,416	1,063,948					
2030	58,761	156,606	215,367	76,541	779,109	855,650	1,071,017					
2031	54,536	157,579	212,115	39,216	806,076	845,292	1,057,407					
2032	51,578	165,092	216,670	36,487	889,598	926,085	1,142,755					

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

The amounts shown in the Implicit Subsidy section 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.



Sample Journal Entries

Beginning Account Balances						
As of the fiscal year beginning 7/1/2018	Debit	Credit				
Net OPEB Liability		13,782,843				
Deferred Resource Assumption Changes		584,086				
Deferred Resource Plan experience	-					
Deferred Resource Investment Experience	-					
Deferred Resource Contributions	499,306					
Net Position	13,867,623					

^{*} 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.

trust during the fiscal year	Debit	Credit
OPEB Expense	144,253	
Premium Expense		144,253
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 implicit subsidies

during the fiscal year	Debit	Credit
OPEB Expense	380,790	
Premium Expense		380.790

^{*} 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		1,071,711
Deferred Resource Assumption Changes	278,533	
Deferred Resource Plan experience	-	
Deferred Resource Investment Experience	-	
Deferred Resource Contributions	25,737	
OPEB Expense	767,441	



C. Funding Information

Our understanding is that the County is currently financing its 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 County 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 Sutter County (the County). 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 County. 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 County and may not be provided to third parties without prior written consent of MacLeod Watts. Exceptions are: The County may provide copies of this report to their professional accounting and legal advisors who are subject to a duty of confidentiality, and the County 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: September 27, 2019

Catherine L. MacLeosa

J. Kevin Watts, FSA, FCA, MAAA



E. Supporting Information

Section 1 - Summary of Employee Data

Active members: The County reported 865 active employees in the data provided to us for the June 2017 valuation. Of these, 824 were shown as currently participating in the County healthcare plans, while 41 employees were waiving coverage.

Distribution of Benefits-Eligible Active Employees								
			Years of	Service				
Current Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up	Total	Percent
Under 25	7	1					8	1%
25 to 29	28	60	2				90	10%
30 to 34	26	53	19	4			102	12%
35 to 39	18	46	26	28	6		124	14%
40 to 44	12	33	22	27	25	2	121	14%
45 to 49	12	19	16	24	33	16	120	14%
50 to 54	6	12	24	17	26	21	106	12%
55 to 59	6	11	9	20	26	28	100	12%
60 to 64	3	4	7	21	18	15	68	8%
65 to 69	1	3	3	5	4	6	22	3%
70 & Up		1	1			2	4	0%
Total	119	243	129	146	138	90	865	100%
Percent	14%	28%	15%	17%	16%	10%	100%	

Valuation	June 2015	June 2017
Average Attained Age for Actives	46.3	47.7
Average Years of Service	10.5	10.7

Retired members:

There were also 126 retirees or their survivors receiving benefits on the valuation date. This chart summarizes their ages.

Retirees by Age								
Current Age Misc Police Fire Total Perce								
Below 50	1			1	1%			
50 to 54	3	5		8	6%			
55 to 59	13			13	10%			
60 to 64	36	8	1	45	36%			
65 to 69	15			15	12%			
70 to 74	18	2		20	16%			
75 to 79	14			14	11%			
80 & up	10			10	8%			
Total	110	15	1	126	100%			
Average Age:								
On 6/30/2017	67.7	60.3	60.6	66.8				
At retirement	59.5	54.8	44.9	58.8				



Section 1 - Summary of Employee Data (continued)

Summary of Plan Member Counts				
Number of active plan members	865			
Number of inactive plan members currently receiving benefits	126			
Number of inactive plan members entitled to but not receiving benefits	0			



Section 2A - Summary of Retiree Benefit Provisions

OPEB provided: The County confirmed that the only OPEB provided is retiree medical coverage.

Access to coverage: This coverage is available to employees and their dependents who satisfy the requirements for retirement under CalPERS (generally attained age of 50 or older and 5 years of State or public agency service or approved disability retirement) and are receiving a pension benefit from CalPERS.

Benefits provided: The County contributes a monthly subsidy for retirees who participate in the medical plan offered by the County. The amounts are determined based on date of retirement.

- Employees who retire before 12/24/2005 receive a monthly amount of \$16, regardless of age.
- Employees who retire on or after 12/24/2005 receive a monthly amount of:
 - \circ \$55 as of $1/1/2018^1$, if they are 65 or older, and
 - o Prior to age 65, an amount based on years of County service, as shown in the chart below.

v	Monthly
Years of Service	Subsidy
5-9	\$16
10-14	56
15-19	96
20-24	136
25-29	176
30+	216

• Subsidies end with the death of the retiree, though a surviving spouse may continue coverage by paying the full monthly premiums. In addition, if the retiree reaches age 65 prior to his or her covered spouse, the spouse may continue coverage until age 65 by paying the full monthly premium, even if the retiree discontinues coverage on the County's plan.

Current premium rates: Pre-Medicare retirees and their dependents participate in the same medical plans available to active employees. The 2018 monthly premium rates are shown in this Medicare eligible retirees may continue coverage through the County's United Healthcare Medicare plans. For 2018, the single-party premium for Medicare retiree is \$431.38 per month.

CSAC-EIA 2018 Monthly Medical Premiums						
	Er	nployee	Employee	Employee		
Plan		Only	Plus 1	Plus Family		
PPO 1500	\$	609.50	\$ 1,217.50	\$ 1,723.50		
PPO 1000		623.50	1,243.50	1,759.50		
PPO 500		758.50	1,516.50	2,147.50		
PPO 250		872.50	1,744.50	2,469.50		
Kaiser High		718.50	1,437.50	2,033.50		
Kaiser Low		675.50	1,352.50	1,912.50		
PPO 3000 (HDHP)		433.50	865.50	1,222.50		
UHC Medicare Advantage		431.38	862.76	n/a		

¹ Prior to 1/1/2018, this benefit amount is \$16 per month.



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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 County'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 County alone, a combination of the County 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 County's current or future liability to absorb this potential tax. This valuation includes roughly \$1.2 million in projected liability related to this potential tax, which represents about 8% of the Total OPEB Liability.



Section 3 - Actuarial Methods and Assumptions

Valuation Date June 30, 2017

Measurement Date Last day of the prior fiscal year (June 30, 2018)

Funding Method Entry Age Normal Cost, level percent of pay

Asset Valuation Method Market value of assets (\$0; plan is not yet funded)

Municipal Bond Index S&P General Obligation 20-Year Municipal Bond Index

Discount Rate 3.13% as of June 30, 2017

2.98% as of June 30, 2018

Participants Valued Only current active employees and retired participants and

covered dependents are valued. No future entrants are

considered in this valuation.

Salary Increase 3.25% per year, since benefits do not depend on salary, this is

used only to allocate the cost of benefits between service years

General Inflation Rate 2.75% per year

Demographic actuarial assumptions used in this valuation are based on the 2014 experience study of the California Public Employees Retirement System using data from 1997 to 2011, except for a different basis used to project future mortality improvements. The representative mortality rates were those published by CalPERS adjusted to back out 20 years of Scale BB to central year 2008.

Mortality Improvement MacLeod Watts Scale 2017 applied generationally from 2008.

Service Retirement Rates Retirement rates from the CalPERS experience study described

above were applied for the following retirement plan formulas:

Employment Date with the County	Miscellaneous	Police & Fire
Hired by the County before 11/16/2011	2.7% at 55	3.0% at 50
Hired by the County on/after 11/16/2011, "Classic"	2.0% at 60	2.0% at 50
Hired by the County on/after 11/16/2011, "PEPRA"	2.0% at 62	2.7% at 57

Medicare Eligibility Absent contrary data, all individuals are assumed to be eligible

for Medicare Parts A and B at age 65.

Increases in County cost-sharing We assumed the fixed dollar maximum will increase by 1% per

year, up to the year of each employee's retirement, remaining

constant thereafter.



Section 3 - Actuarial Methods and Assumptions

Healthcare Trend

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

Effective	Premium	Effective	Premium
January 1	Increase	January 1	Increase
2018	Actual	2022	6.50%
2019	8.00%	2023	6.00%
2020	7.50%	2024	5.50%
2021	7.00%	2025 & later	5.00%

Participation Rate

Active employees currently enrolled in one of the medical plans offered through the County are assumed to continue their current plan election in retirement prior to age 65 at the percentages shown below.

Active Employee Currently Covered by the County's Medical Plan Assumed to Elect Medical Coverage in Retirement Until Age 65								
	0/ accumed to	% assumed to	Dograda in	Minimum				
	% assumed to Elect if Retired	Elect if Retiring in	Decrease in Percent Electing	Minimum Percent				
Years of County Service	in 2013	2017	Coverage	Electing				
Less than 10	25%	25%	The % of new	25.0%				
10 but less than 15	40%	32%	retirees assumed to elect coverage	20.0%				
15 but less than 20	55%	47%	decreases by 2%	27.5%				
20 but less than 25	70%	62%	each calendar year until it reaches the	35.0%				
25 but less than 30	85%	77%	Minimum % (see	42.5%				
30 or more	100%	92%	next column)	50.0%				

The percentages in the table above are multiplied by .25 to arrive at the applicable participation rates for active employees *not currently covered* by a County medical plan.

20% of future retirees are assumed to continue County coverage after age 65, regardless of their years of County service.

Retired participants currently age 65 and older: Existing medical plan elections are assumed to continue until death.

Retired participants currently under age 65: 30% are assumed to continue County medical coverage beyond age 65; the remaining 70% are assumed to find other coverage.



Section 3 - Actuarial Methods and Assumptions

Spouse Coverage

Active employees: 40% are assumed to be married and to elect coverage for their spouse in retirement. Surviving spouses are assumed to continue coverage until their death. Husbands are assumed to be 3 years older than their wives.

Retired participants: Existing elections for spouse coverage are assumed to continue until the spouse's death. Actual spouse ages are used, where known; if not, husbands are assumed to be 3 years older than their wives.

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 Age Rating Methodology is provided in Addendum 2 to this report.

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

Representative claims costs derived for retirees not currently covered by Medicare are shown in the chart below:

Expected Monthly Claims by Medical Plan for Selected Ages												
	Male					Female						
Medical Plan		48		53	58	63		48	53		58	63
Kaiser High	\$	650	\$	859	\$1,094	\$1,357	\$	842	\$	992	\$1,121	\$1,317
Kaiser Low		611		808	1,029	1,276		791		932	1,054	1,238
PPO 1000		561		741	945	1,171		726		856	968	1,137
PPO 1500		628		830	1,058	1,311		813		958	1,084	1,273
PPO 250		609		805	1,025	1,271		788		929	1,050	1,234
PPO 3000		390		515	656	813		504		594	672	789
PPO 500		584		771	983	1,218		756		890	1,007	1,183

All current and future Medicare-eligible retirees are understood to be covered by plans that are rated based solely on the experience of Medicare retirees. Therefore, no implicit subsidy is calculated for Medicare-eligible retirees.



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 absorbed by the County.

Changes recognized during the current measurement period:

Discount Rate:

Changed from 3.13% as of June 30, 2017 to 2.98% as of June 30, 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 f	Covered by higher active premiums				
Retiree portion of premium	Agency portion of premium Explicit subsidy	Implicit subsidy			

This chart shows the sources of funds needed to cover expected medical claims for pre-Medicare retirees. 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 County. A summary of the employee data is provided in Table 1 and a summary of the benefits provided under the Plan is provided in Section 2. While individual employee records were reviewed to verify that they are reasonable in various respects, the data has not been audited and we have otherwise relied on the County as to its accuracy. The valuation was based on the actuarial methods and assumptions described in Section 3.

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



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



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.



Implicit Subsidy Plan Contributions

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

The following hypothetical example illustrates this treatment:

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

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

Discount Rate

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



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

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

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

<u>CalPERS</u> – Many state governments maintain a public employee retirement system; CalPERS is the California program, covering all eligible state government employees as well as other employees of other governments within California who have elected to join the system

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

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

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

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

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

<u>Excise Tax</u> – The Affordable Care Act created an excise tax on the value of employer sponsored coverage which exceeds certain thresholds ("Cadillac Plans"). The tax is first effective is 2022.

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

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

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

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



Glossary (Continued)

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

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

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

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

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

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

<u>PEMHCA</u> – The Public Employees' Medical and Hospital Care Act, established by the California legislature in 1961, provides community-rated medical benefits to participating public employers. Among its extensive regulations are the requirements that a contracting Agency contribute toward medical insurance premiums for retired annuitants and that a contracting Agency file a resolution, adopted by its governing body, with the CalPERS Board establishing any new contribution.

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

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

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

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

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

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

