



May 23, 2016

Ms. Sandy Wong
Executive Director
City/County Association of Governments of San Mateo County
555 County Center, 5th Floor
Redwood City, CA 94063

Re: July 1, 2015 Actuarial Report on GASB 45 Retiree Benefit Valuation

Dear Ms. Wong:

We are pleased to enclose our report providing the results of the July 1, 2015 actuarial valuation of other post-employment benefit (OPEB) liabilities for the City/County Association of Governments of San Mateo County (C/CAG). The report's text describes our analysis and assumptions in detail. *This report should be considered a draft until C/CAG has had an opportunity to review and comment.*

The primary purposes of the report are to develop the value of future OPEB expected to be provided by C/CAG, and the current OPEB liability and the annual OPEB expense to be reported in C/CAG's financial statements for the fiscal years ending June 30, 2016 and June 30, 2017. The report is required to be submitted to the California Employers' Retiree Benefit Trust (CERBT) to satisfy filing requirements for the trust.

This valuation was prepared *on the assumption* that C/CAG will continue to:

- Contribute 100% or more of the total ARC each year;
- Invest in CERBT Asset Allocation Strategy 2. Liabilities reflected in this report were calculated based on a 6.5% discount rate.

C/CAG now has or will establish and execute: (1) a PEMHCA "Minimum Employer Contribution" (MEC) resolution with CalPERS, and (2) a Flexible Benefit Plan to provide any healthcare benefits in excess of the MEC for active employees.

This report introduces an "implicit subsidy" liability, not previously required to be valued by C/CAG under GASB 45. This report includes analysis of any projected excise tax in the year 2020 or later relating to retiree coverage in high cost plans, per the Affordable Care Act. Discussion of these changes is included in the report.

We appreciate the opportunity to work on this analysis and acknowledge the efforts of C/CAG's staff, who provided valuable information and assistance to enable us to perform this valuation. Please let us know if we can be of further assistance.

Sincerely,

Catherine L. MacLeod, FSA, FCA, EA, MAAA
Director, Health and Benefit Actuarial Services

Enclosure

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A. Executive Summary

This report presents the results of the July 1, 2015 actuarial valuation of the City/County Association of Governments of San Mateo County (C/CAG) other post-employment benefit (OPEB) programs. The purposes of this valuation are to assess the OPEB liabilities and provide disclosure information as required by Statement No. 45 of the Governmental Accounting Standards Board (GASB 45) and to provide information to be reported to the California Employers' Retiree Benefit Trust (CERBT). This report reflects the valuation of two distinct types of OPEB liability.

- An "explicit subsidy" exists when the employer contributes directly toward retiree healthcare premiums. In this program, benefits include a monthly subsidy toward medical premiums for eligible retirees. Future excise taxes expected to be paid for "high cost" coverage are also explicit costs and are included with explicit liabilities.
- An "implicit subsidy" exists when the premiums charged for retiree coverage are lower than the expected retiree claims for that coverage. Pre-Medicare retirees able to continue medical coverage at the same premium rates as are charged for active employees creates an implicit benefit subsidy under GASB 45. *This is the first valuation required to include the implicit subsidy liability.*

How much C/CAG contributes each year affects the calculation of liabilities. C/CAG established an irrevocable OPEB trust account with CERBT in 2015 and began prefunding its OPEB obligations. Based on representations from C/CAG, we have assumed that the agency will consistently contribute an amount greater than or equal to the Annual Required Contribution (ARC) in each future year. Trust assets are currently invested in the CERBT with Asset Allocation Strategy 2. With C/CAG's approval, this valuation was prepared using a 6.5% discount rate. Please note that use of this rate is an assumption and is not a guarantee of future investment performance.

Exhibits presented in this report reflect our understanding that the results of this July 1, 2015 valuation will be applied in determining the annual OPEB expense for the fiscal years ending June 30, 2016 and 2017.

The Actuarial Accrued Liability, Actuarial Value of Assets and funded ratio as of July 1, 2015 are:

Subsidy	Explicit	Implicit	Total
Discount Rate	6.5%	6.5%	6.5%
Actuarial Accrued Liability	\$ 204,433	\$ 24,876	\$ 229,309
Actuarial Value of Assets	30,000	-	30,000
Unfunded Actuarial Accrued Liability	174,433	24,876	199,309
Funded Ratio	14.7%	0.0%	13.1%

Results for the fiscal year ending June 30, 2016 are summarized below:

Subsidy	Explicit	Implicit	Total
Annual Required Contribution (ARC) for FYE 2016	\$ 41,593	\$ 9,197	\$ 50,790
Expected employer paid benefits for retirees	16,383	-	16,383
Current year's implicit subsidy credit	-	8,341	8,341
Expected contribution to OPEB trust	25,210	856	26,066
Expected net OPEB obligation at June 30, 2016	31,768	-	31,768

Executive Summary (Concluded)

Detailed results are shown in tables beginning on page 13. Additional information to facilitate OPEB reporting in C/CAG's financial statements is provided in Appendix 1.

The liabilities shown in the report reflect assumptions regarding continued future employment, rates of retirement and survival, and elections by future retirees to retain coverage for themselves and their dependents. Please note that this valuation has been prepared on a closed group basis; no provision is generally made for new employees until the valuation date following their employment.

An exhibit comparing current valuation results to those from the prior valuation is provided on page 7, followed by a description of changes. An actuarial valuation is, by its nature, a projection and to the extent that actual experience is not what we assumed, future results will be different. 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 medical premium rates or in the subsidy provided by C/CAG toward retiree medical 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
- Implementation of GASB 75, the new OPEB accounting standard, which should be not later than C/CAG's fiscal year ending June 30, 2018. One key change moves reporting of the unfunded OPEB liability from a footnote to the balance sheet.

Details of our valuation process and the various disclosures required by GASB 45 are provided on the succeeding pages. The next valuation is scheduled to be prepared as of July 1, 2017 as required for continued participation in CERBT. If there are any significant changes in the employee data, benefits provided or the funding policy, please contact us to discuss whether an earlier valuation is appropriate.

Important Notices

This report is intended to be used only to present the actuarial information relating to other postemployment benefits for C/CAG's financial statements and to provide the annual contribution information with respect to C/CAG's current OPEB funding policy. 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. C/CAG should consult counsel on these matters; Bickmore does not practice law and does not intend anything in this report to constitute legal advice. In addition, we recommend C/CAG consult with their internal accounting staff or external auditor or accounting firm about the accounting treatment of OPEB liabilities.

B. Requirements of GASB 45

The Governmental Accounting Standards Board (GASB) issued GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. This Statement establishes standards for the measurement, recognition, and display of OPEB expense/expenditures and related liabilities (assets), note disclosures, and, if applicable, required supplementary information (RSI) in the financial reports of state and local governmental employers. The underlying intent of GASB 45 is to systematically recognize the projected cost of OPEB during the years employees are working, rather than over the years when the benefits would be paid.

We understand that C/CAG implemented GASB 45 for the fiscal year ended June 30, 2013. For agencies with fewer than 200 members covered by or eligible for plan benefits, GASB 45 requires that a valuation be prepared no less frequently than every three years. However, participation in CERBT requires that valuations be performed every two years. GASB 45 disclosures include the determination of an annual OPEB cost. For the first year, the annual OPEB cost is equal to the annual required contribution (ARC) as determined by the actuary.

- If C/CAG's OPEB contributions had been equal to the ARC each year, the net OPEB obligation would equal \$0.
- If C/CAG's actual contribution is less than (greater than) the ARC, then a net OPEB obligation (asset) amount is established. In subsequent years, the annual OPEB expense will reflect adjustments made to the net OPEB obligation, in addition to the ARC (see Tables 1B and 1D).

GASB 45 provides for recognition of payments as contributions if they are made (a) directly to retirees or beneficiaries, (b) to an insurer, e.g., for the payment of premiums, or (c) to an OPEB fund set aside toward the cost of future benefits. Funds set aside for future benefits should be considered contributions to an OPEB plan only if the vehicle established is one that is capable of building assets that are separate from and independent of the control of the employer and legally protected from its creditors. Furthermore, the sole purpose of the assets should be to provide benefits under the plan. These conditions generally require the establishment of a legal trust, such as C/CAG's OPEB trust account with CERBT. Earmarked assets or reserves may be an important step in financing future benefits, but they may not be recognized as an asset for purposes of reporting under GASB 45.

We reiterate that GASB 45 applies only to the expense to be charged to an agency's income statements and to providing other related liability disclosures. While the Annual Required Contribution typically comprises the majority of the annual OPEB expense, it is a theoretical, not a required contribution amount. The decision whether or not to prefund, and at what level, is at the discretion of C/CAG, as are the manner and term for paying down the unfunded actuarial accrued liability. Once a funding policy has been established, however, C/CAG's auditor may have an opinion as to the timing and manner of any change to such policy in future years. The level of prefunding also affects the selection of the discount rate used for valuing the liabilities.

New GASB Statement 75, issued in June 2015, will impact the liabilities and/or expenses developed in future valuations and require changes beginning with C/CAG's fiscal year end 2018 reporting. Those calculations are outside the scope of this report.

C. Sources of OPEB Liabilities

General Types of 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 leave¹ or other direct retiree payments which fall under other GASB accounting statements.

A direct employer payment toward the cost of OPEB benefits is referred to as an “explicit subsidy”. In addition, if claims experience of employees and retirees are pooled when determining premiums, the retirees pay a premium based on a pool of members that, on average, are younger and healthier. For some 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. Paragraph 13.a. of GASB 45 generally requires an implicit subsidy of retiree premium rates be valued as an OPEB liability.

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

For actuarial valuations dated prior to March 31, 2015, an exception existed for plan employers with a very small membership in a large “community-rated” healthcare program. Following a change in Actuarial Standards of Practice, GASB no longer offers this exception. *This change had a material impact on C/CAG’s total OPEB liability, though, in the short term, had little impact on the ARC.*

OPEB Obligations of C/CAG

C/CAG provides continuation of medical coverage to its retiring employees, which may create one or both of the following types OPEB liabilities:

- **Explicit subsidy liabilities:** C/CAG contributes directly to the cost of retiree medical coverage, as described in Table 3A. Liabilities for these explicit benefits have been included in this valuation.
- **Implicit subsidy liabilities:** Employees are covered by the CalPERS medical program. The same monthly premiums are charged for active employees and for pre-Medicare retirees; CalPERS has confirmed that the claims experience of these members is considered together in setting these premium rates. 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. See Table 4 and Addendum 1: Bickmore Healthcare Claims Age Rating Methodology.

Different monthly premiums are charged for Medicare-eligible members and CalPERS has confirmed that only the claims experience of these Medicare eligible members is considered in setting these premium rates. We have assumed that this premium structure is adequate to cover the expected claims of these retirees and believe that there is no implicit subsidy of premiums for these members by active employees.

¹ Unless unused sick leave credits are converted to provide or enhance a defined benefit OPEB.

D. Valuation Process

The valuation has been based on employee census data and benefits initially submitted to us by C/CAG in April 2016 and clarified in various related communications. A summary of the employee data is provided in Table 2 and a summary of the benefits provided under the Plan is provided in Table 3A. 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 C/CAG as to its accuracy. The valuation described below has been performed in accordance with the actuarial methods and assumptions described in Table 4.

In projecting 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 with C/CAG to receive benefits.
- To the extent assumed to retire from C/CAG, the probability of various possible retirement dates for each retiree, based on current age and service; 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 50 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 "actuarial accrued liability" (AAL). The amount of future OPEB cost allocated for active employees in the current year is referred to as the "normal cost". The remaining active cost to be assigned to future years is called the "present value of future normal costs".

In summary:

Actuarial Accrued Liability	Past Years' Cost Allocations	Actives and Retirees
<i>plus</i> Normal Cost	Current Year's Cost Allocation	Actives only
<u>plus Present Value of Future Normal Costs</u>	<u>Future Years' Cost Allocations</u>	<u>Actives only</u>
<i>equals</i> Present Value of Projected Benefits	Total Benefit Costs	Actives and Retirees

Where contributions have been made to an irrevocable OPEB trust, the accumulated value of trust assets is applied to offset the AAL. In this valuation, we set the Actuarial Value of Assets equal to the market value of assets invested in C/CAG's CERBT account. The market value reported as of June 30, 2015 was \$30,000. The portion of the AAL not covered by assets is referred to as the unfunded actuarial accrued liability (UAAL).

E. Basic Valuation Results

The following chart compares the results of the July 1, 2015 valuation of OPEB liabilities to the results of the July 1, 2012 valuation.

Funding Policy	Prefunding Basis			
	Valuation date	7/1/2012	7/1/2015	
Subsidy	Explicit	Explicit	Implicit	Total
Discount rate	4.00%	6.50%	6.50%	6.50%
Number of Covered Employees				
Actives	2	2	1	2
Retirees	1	2	2	2
Total Participants	3	4	3	4
Actuarial Present Value of Projected Benefits				
Actives	\$ 227,938	\$ 122,975	\$ 47,727	\$ 170,702
Retirees	117,584	184,521	16,619	201,140
Total APVPB	345,522	307,496	64,346	371,842
Actuarial Accrued Liability (AAL)				
Actives	80,227	19,912	8,257	28,169
Retirees	117,584	184,521	16,619	201,140
Total AAL	197,811	204,433	24,876	229,309
Actuarial Value of Assets	-	30,000	-	30,000
Unfunded AAL (UAAL)	197,811	174,433	24,876	199,309
Normal Cost	19,109	14,447	5,127	19,574
Percent funded	0.0%	14.7%	0.0%	13.1%
Reported covered payroll	247,208	239,064	239,064	239,064
UAAL as percent of payroll	80.0%	73.0%	10.4%	83.4%

Note: The projected excise tax liability relating to high cost retiree coverage under the Affordable Care Act was determined to be negligible (less than \$100) and was included as part of the Explicit Liability as of 7/1/2015.

Changes Since the Prior Valuation

Even if all of our previous assumptions were met exactly as projected, liabilities generally increase over time as active employees get closer to the date their benefits are expected to begin. Given the uncertainties involved and the long term nature of these projections, our prior assumptions are not likely ever to be exactly realized. The very small size of C/CAG's employee group makes it more likely that differences from what we anticipate will occur. Nonetheless, it is helpful to review why results are different than we anticipated.

In comparing results shown in the exhibit above, we can see that the Unfunded Actuarial Accrued Liability (UAAL) *increased* by about \$1,000 (from \$198,000 to \$199,000) between July 1, 2012 and July 1, 2015. However, over this three year period, we expected the UAAL to *decrease* by about \$37,000

Basic Valuation Results (Concluded)

(from \$198,000 to \$161,000), from establishment of the CERBT trust account and corresponding increase in the assumed discount rate plus the excess of additional costs accrued for active employees over benefits paid to retirees. Thus, the actual UAAL is \$38,000 higher than expected, primarily a result of the following:

- A \$25,000 increase in the AAL to begin recognizing the implicit subsidy of medical coverage for current and future retirees prior to becoming eligible for Medicare; in developing this liability, we added assumptions regarding expected claims cost by age and gender as well as expected future increases in medical premiums;
- A \$14,000 increase in the AAL due to revised assumptions for future disability and service retirements and updates in assumed future rates of mortality;
- A \$2,000 increase in the AAL from a change to assumption regarding future increases in medical premium levels;
- A \$3,000 decrease in the UAAL from favorable plan experience *relative to prior assumptions*. Plan experience includes factors such as changes in plan membership, retiree elections and changes in medical premiums other than previously projected.

F. Funding Policy

The specific calculation of the ARC and annual OPEB expense for an employer depends on how the employer elects to fund these benefits. The funding levels can generally be categorized as follows:

1. *Prefunding* - contributing an amount greater than or equal to the ARC each year. Prefunding generally allows the employer to have the liability calculated using a higher discount rate, which in turn lowers the liability. In addition, following a prefunding policy does not build up a net OPEB obligation (or gradually reduces it to \$0). Prefunding results in this report were developed using a discount rate of 6.5%.
2. *Pay-As-You-Go funding* – contributing only the amounts needed to pay retiree benefits in the current year; generally requires a lower discount rate, such as the 4.0% rate used previously.
3. *Partial prefunding* – contributing more than the current year’s retiree payments but less than 100% of the ARC; requires that liabilities be developed using a discount rate that “blends” the relative portions of benefits that are prefunded and those not.

Determination of the ARC

The Annual Required Contribution (ARC) consists of two basic components, which have been adjusted with interest to C/CAG’s fiscal year end:

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

ARCs for the fiscal years ending June 30, 2016 and June 30, 2017 are developed in Tables 1A and 1C.

Decisions Affecting the Amortization Payment

The period and method for amortizing the AAL can significantly affect the ARC. GASB 45:

- Prescribes a maximum amortization period of 30 years and requires no minimum amortization period (except 10 years for certain actuarial gains). Immediate full funding of the liability is also permitted.
- Allows amortization payments to be determined (a) as a level percentage of payroll, designed to increase over time as payroll increases, or (b) as a level dollar amount much like a conventional mortgage, so that this component of the ARC does not increase over time. Where a plan is closed and has no ongoing payroll base, a level percent of payroll basis is not permitted.
- Allows the amortization period to decrease annually by one year (closed basis) or to be maintained at the same number of years (open basis).

Funding Policy Illustrated in This Report

It is our understanding that C/CAG’s prefunding policy includes amortization of the unfunded AAL over a closed 10-year period initially effective July 1, 2012; the remaining period applicable in determining the ARC for the fiscal year ending June 30, 2016 is 9 years. Amortization payments are determined with level dollar payments.

**Funding Policy
(Concluded)**

Funding of the Implicit Subsidy

The implicit subsidy liability created when expected retiree medical claims exceed the retiree premiums was described earlier in Section C. In practical terms, when C/CAG pays the premiums for active employees each year, their premiums include an amount expected to be transferred to cover the portion of the retirees' claims not covered by their premiums. This transfer represents the current year's implicit subsidy. Paragraph 13.g. of GASB 45 allows for recognition of payments to an irrevocable trust *or directly to the insurer* as an employer's contribution to the ARC. We have estimated each current year's implicit subsidy and recommend netting this amount against the funding requirement for the implicit subsidy (see Tables 1B and 1D).

The following hypothetical example illustrates this treatment:

Hypothetical Illustration Of Implicit Subsidy Recognition	For Active Employees	For Retired Employees	Total
Annual Agency Contribution Toward Premiums	\$ 20,000	\$ 16,000	\$ 36,000
Current Year's Implicit Subsidy Adjustment	\$ (8,000)	\$ 8,000	\$ -
Adjusted contributions reported in Financial St	\$ 12,000	\$ 24,000	\$ 36,000

While total Agency contributions paid toward active and retired employee healthcare premiums in this example are the same, by shifting the recognition of the current year's implicit subsidy from actives to retirees, this amount may be recognized as a contribution toward the OPEB ARC.

There is a larger question about whether or not C/CAG will want to prefund the implicit subsidy liability. Some possible options include:

- Prefunding 100% of the ARC relating to both the explicit subsidy and implicit subsidy liabilities. *Exhibits in this report reflect our assumption that C/CAG will follow this approach.*
- Prefunding 100% of the ARC relating to both the explicit subsidy and implicit subsidy liabilities, but intentionally allocate the entire trust contribution to more quickly pay-off the explicit subsidy liability, rather than allocating any toward the implicit subsidy liability. We believe this would allow the implicit subsidy liability to be developed using the prefunding discount rate of 6.5%.
- Prefunding 100% of the ARC developed for the explicit subsidy liability, but not prefund the implicit subsidy liability. We believe this approach would require determining the implicit subsidy liability using a pay-as-you-go discount rate (e.g., 4.0% rather than the 6.5%).

We are available to review these options further with C/CAG.

G. Choice of 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”. Methods that produce higher initial annual (prefunding) costs will produce lower annual costs later. Conversely, methods that produce lower initial costs will produce higher annual costs later relative to the other methods. GASB 45 allows the use of any of six actuarial funding methods; a brief description of each is in the glossary.

Factors Impacting the Selection of Funding Method

While the goal of GASB 45 is to match recognition of retiree medical expense with the periods during which the benefit is earned, the funding methods differ because they focus on different financial measures in attempting to level the incidence of cost. Appropriate selection of a funding method contributes to creating intergenerational equity between generations of taxpayers. The impact of potential new employees entering the plan may also affect selection of a funding method, though this is not a factor in this plan.

We believe it is most appropriate for the plan sponsor to adopt a theory of funding and consistently apply the funding method representing that theory. This valuation was prepared using the entry age normal cost method with normal cost determined on a level percent of pay basis. The entry age normal cost method often produces initial contributions between those of the other more common methods and is generally regarded by pension actuaries as the most stable of the funding methods and is one of the most commonly used methods for GASB 45 compliance.

Factors Affecting the Selection of Assumptions

Special considerations apply to the selection of actuarial funding methods and assumptions for C/CAG. The actuarial assumptions used in this report were chosen, for the most part, to be the same as the actuarial assumptions used for the most recent actuarial valuations of the retirement plans covering C/CAG employees. Other assumptions, such as healthcare trend, age related healthcare claims, retiree participation rates and spouse coverage, were selected based on demonstrated plan experience and/or our best estimate of expected future experience. We will continue to gather information and monitor these assumptions for future valuations, as more experience develops.

In selecting an appropriate discount rate, GASB states that the discount rate should be based on the expected long-term yield of investments used to finance the benefits. CERBT provides participating employers with three possible asset allocation strategies; a maximum discount rate is assigned to each of these strategies, which may be rounded or reduced to include a margin for adverse deviation. As requested by C/CAG and permitted by CERBT where its asset allocation Strategy #2 is employed, the discount rate used in this valuation is 6.5%.

H. Certification

This report presents the results of our actuarial valuation of the other post-employment benefits provided by the City/County Association of Governments of San Mateo County. The purpose of this valuation was to provide the actuarial information required for C/CAG's reporting under Statement 45 of the Governmental Accounting Standards Board. The calculations were focused on determining the plan's funded status as of the valuation date, developing the Annual Required Contribution and projecting the Net OPEB Obligations for the years to which this report is expected to be applied.

We certify that this report has been prepared in accordance with our understanding of GASB 45. To the best of our knowledge, the report is complete and accurate, based upon the data and plan provisions provided to us by C/CAG. We believe the assumptions and method used are reasonable and appropriate for purposes of the financial reporting required by GASB 45. The results may not be appropriate for other purposes.

The undersigned individual is a Fellow in the Society of Actuaries and Member of the American Academy of Actuaries who satisfies the Academy Qualification Standards for rendering this opinion.

Signed: May 23, 2016

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

Table 1

Results for fiscal years 2016 and 2017: The basic results of our July 1, 2015 valuation of OPEB liabilities for C/CAG calculated under GASB 45 were summarized in Section E. Those results are applied to develop the annual required contribution (ARC), annual OPEB expense (AOE) and the net OPEB obligation (NOO) or net OPEB asset (NOA) to be reported by C/CAG for its fiscal years ending June 30, 2016 and June 30, 2017.

As noted earlier in this report, the development of the ARC reflects the assumption that C/CAG will contribute at least 100% of the total ARC each year, with contributions comprised of:

- direct payments to insurers toward retiree premiums,
- each current year's implicit subsidy, and
- contributions to the OPEB trust.

If this understanding is incorrect or if actual C/CAG contributions differ by more than an immaterial amount, some of the results in this report will need to be revised.

Employees reflected in future years' costs: The counts of active employees and retirees shown in Tables 1A and 1C are the same as the counts of active and retired employees on the valuation date. While we do not adjust these counts between valuation dates, the liabilities and costs developed for those years already anticipate the likelihood that some active employees may leave employment forfeiting benefits, some may retire and elect benefits and coverage for some of the retired employees may cease. However, because this valuation has been prepared on a closed group basis, no potential future employees are included. We will incorporate any new employees in the next valuation, in the same way we included new employees hired after July 2012 in this July 2015 valuation.

We also note that the number of active employees and retirees expected to create an implicit subsidy OPEB liability are lower than the number of those which create an explicit subsidy liability. CalPERS medical premiums for those over age 65 (active or retired) and expected to be eligible for Medicare are not subsidized by active employee medical premiums, so do not create an implicit subsidy liability.

Table 1A
ARC Calculation for FYE 2016

This table develops the ARC for C/CAG's fiscal year ending June 30, 2016 determined on a prefunding basis. Calculations are shown separately, and in total, relating to Explicit and Implicit OPEB benefits.

Funding Policy Valuation date	Prefunding Basis		
	7/1/2015		
	Explicit	Implicit	Total
Subsidy			
For fiscal year beginning	7/1/2015	7/1/2015	7/1/2015
For fiscal year ending	6/30/2016	6/30/2016	6/30/2016
Expected long-term return on assets	6.5%	6.5%	6.5%
Discount rate	6.5%	6.5%	6.5%
Number of Covered Employees			
Actives	2	1	2
Retirees	2	2	2
Total Participants	4	3	4
Actuarial Present Value of Projected Benefits			
Actives	\$ 122,975	\$ 47,727	\$ 170,702
Retirees	184,521	16,619	201,140
Total APVPB	307,496	64,346	371,842
Actuarial Accrued Liability (AAL)			
Actives	19,912	8,257	28,169
Retirees	184,521	16,619	201,140
Total AAL	204,433	24,876	229,309
Actuarial Value of Assets	30,000	-	30,000
Unfunded AAL (UAAL)	174,433	24,876	199,309
Normal Cost	14,447	5,127	19,574
Amortization method	Level Dollar	Level Dollar	Level Dollar
Initial amortization period (in years)	10	10	10
Remaining period (in years)	9	9	9
Determination of Amortization Payment			
UAAL	\$ 174,433	\$ 24,876	\$ 199,309
Factor	7.0888	7.0888	7.0888
Payment	24,607	3,509	28,116
Annual Required Contribution (ARC)			
Normal Cost	14,447	5,127	19,574
Amortization of UAAL	24,607	3,509	28,116
Interest to fiscal year end	2,539	561	3,100
Total ARC at fiscal year end	41,593	9,197	50,790
Projected covered payroll	\$ 239,064	\$ 239,064	\$ 239,064
Normal Cost as a percent of payroll	6.0%	2.1%	8.2%
ARC as a percent of payroll	17.4%	3.8%	21.2%
ARC per active ee	20,797	9,197	25,395

Table 1B
Expected OPEB Disclosures for FYE 2016

This table develops the annual OPEB expense, estimates the expected OPEB contributions and projects the net OPEB obligation as of June 30, 2016 based on the assumed prefunding policy described in this report.

Fiscal Year End	Prefunding Basis		
	6/30/2016	6/30/2016	6/30/2016
Subsidy	Explicit	Implicit	Total
1. Calculation of the Annual OPEB Expense			
a. ARC for current fiscal year	\$ 41,593	\$ 9,197	\$ 50,790
b. Interest on Net OPEB Obligation (Asset)	2,257	-	2,257
c. Adjustment to the ARC	(5,217)	-	(5,217)
d. Annual OPEB Expense (a. + b. + c.)	38,633	9,197	47,830
2. Calculation of Expected Contribution			
a. Estimated payments on behalf of retirees	16,383	-	16,383
b. Estimated current year's implicit subsidy	-	8,341	8,341
c. Estimated contribution to OPEB trust	25,210	856	26,066
d. Total Expected Employer Contribution	41,593	9,197	50,790
3. Change in Net OPEB Obligation (1.d. minus 2.d.)	(2,960)	-	(2,960)
Net OPEB Obligation (Asset), beginning of fiscal year	34,728	-	34,728
Net OPEB Obligation (Asset) at fiscal year end	31,768	-	31,768

In the table above, we assumed that C/CAG would contribute 100% of the total ARC of \$50,790.

- We assumed that C/CAG would take credit for the \$8,341 current year's implicit subsidy as an OPEB contribution by shifting recognition of this amount from an active healthcare expense to a retiree healthcare benefit expense. If so, this would reduce C/CAG's additional cash outlay to fund the full ARC to \$42,449.
- Funding 100% of the ARC may require adjusting the estimated \$26,066 contribution to the trust if actual retiree benefit payments are higher or lower than projected payments of \$16,383 shown above.

Additional notes on the calculations above:

- Interest on the net OPEB obligation (or asset), shown above in item 1.b. is equal to the applicable discount rate (6.5%) multiplied by the net OPEB obligation (or asset) at the beginning of the year.
- The Adjustment to the ARC, shown above in item 1.c., is always the opposite sign of the net OPEB obligation or asset and exists to avoid double-counting of the amounts previously expensed but imbedded in the current ARC. This adjustment is calculated as *the opposite* of the net OPEB obligation (or asset) at the beginning of the year, plus interest on that amount (item 1.b.) with the sum then divided by the same amortization factor used to determine the ARC for this year (see the prior page for these factors).

Table 1C
ARC Calculation for FYE 2017

In this table, the July 1, 2015 valuation results have been adjusted (rolled forward) one year based on the underlying actuarial assumptions. These results are used to develop the annual required contribution (ARC) for the fiscal year ending June 30, 2017.

Funding Policy	Prefunding Basis		
	7/1/2015		
Valuation date	Explicit	Implicit	Total
Subsidy			
For fiscal year beginning	7/1/2016	7/1/2016	7/1/2016
For fiscal year ending	6/30/2017	6/30/2017	6/30/2017
Expected long-term return on assets	6.5%	6.5%	6.5%
Discount rate	6.5%	6.5%	6.5%
Number of Covered Employees			
Actives	2	1	2
Retirees	2	2	2
Total Participants	4	3	4
Actuarial Present Value of Projected Benefits			
Actives	\$ 130,938	\$ 50,829	\$ 181,767
Retirees	179,427	9,358	188,785
Total APVPB	310,365	60,187	370,552
Actuarial Accrued Liability (AAL)			
Actives	36,562	14,254	50,816
Retirees	179,427	9,358	188,785
Total AAL	215,989	23,612	239,601
Actuarial Value of Assets	57,160	856	58,016
Unfunded AAL (UAAL)	158,829	22,756	181,585
Normal Cost	14,917	5,294	20,211
Amortization method	Level Dollar	Level Dollar	Level Dollar
Initial amortization period (in years)	10	10	10
Remaining period (in years)	8	8	8
Determination of Amortization Payment			
UAAL	\$ 158,829	\$ 22,756	\$ 181,585
Factor	6.4845	6.4845	6.4845
Payment	24,494	3,509	28,003
Annual Required Contribution (ARC)			
Normal Cost	14,917	5,294	20,211
Amortization of UAAL	24,494	3,509	28,003
Interest to fiscal year end	2,562	572	3,134
Total ARC at fiscal year end	41,973	9,375	51,348
Projected covered payroll	\$ 246,834	\$ 246,834	\$ 246,834
Normal Cost as a percent of payroll	6.0%	2.1%	8.2%
ARC as a percent of payroll	17.0%	3.8%	20.8%
ARC per active ee	20,987	9,375	25,674

Table 1D
Expected OPEB Disclosures for FYE 2017

The following exhibit develops the annual OPEB expense, estimates the expected OPEB contributions and projects the net OPEB obligation as of June 30, 2017 reflecting the assumed prefunding policy.

Fiscal Year End	Prefunding Basis		
	6/30/2017	6/30/2017	6/30/2017
Subsidy	Explicit	Implicit	Total
1. Calculation of the Annual OPEB Expense			
a. ARC for current fiscal year	\$ 41,973	\$ 9,375	\$ 51,348
b. Interest on Net OPEB Obligation (Asset)	2,065	-	2,065
c. Adjustment to the ARC	(5,218)	-	(5,218)
d. Annual OPEB Expense (a. + b. + c.)	38,820	9,375	48,195
2. Calculation of Expected Contribution			
a. Estimated payments on behalf of retirees	17,714	-	17,714
b. Estimated current year's implicit subsidy	-	9,382	9,382
c. Estimated contribution to OPEB trust	24,259	(7)	24,252
d. Total Expected Employer Contribution	41,973	9,375	51,348
3. Change in Net OPEB Obligation (1.d. minus 2.d.)	(3,153)	-	(3,153)
Net OPEB Obligation (Asset), beginning of fiscal year	31,768	-	31,768
Net OPEB Obligation (Asset) at fiscal year end	28,615	-	28,615

In the table above, we assumed that C/CAG would contribute 100% of the total ARC of \$51,348.

- We assumed that C/CAG would take credit for the \$9,382 current year's implicit subsidy as an OPEB contribution by shifting recognition of this amount from an active healthcare expense to a retiree healthcare benefit expense. If so, this would reduce C/CAG's additional cash outlay to fund the full ARC to \$41,966.
- Funding 100% of the ARC may require adjusting the estimated \$24,252 contribution to the trust if actual retiree benefit payments are higher or lower than projected payments of \$17,714 shown above

Notes on calculations above:

- Interest on the net OPEB obligation (or asset), shown above in item 1.b. is equal to the applicable discount rate (6.5%) multiplied by the net OPEB obligation (or asset) at the beginning of the year.
- The Adjustment to the ARC, shown above in item 1.c., is always the opposite sign of the net OPEB obligation or asset and exists to avoid double-counting of the amounts previously expensed but imbedded in the current ARC. This adjustment is calculated as *the opposite of* the net OPEB obligation (or asset) at the beginning of the year, plus interest on that amount (item 1.b.) with the sum then divided by the same amortization factor used to determine the ARC for this year (see the prior page for these factors).