Bickmore

August 24, 2015

Wesley A. Maffei
Manager
Napa County Mosquito Abatement District
15 Melvin Road
American Canyon, CA 94503

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

Dear Mr. Maffei:

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 Napa County Mosquito Abatement District (the District). The report's text describes our analysis and assumptions in detail.

The primary purposes of the report are to develop the value of future OPEB expected to be provided by the District, and the current OPEB liability and the annual OPEB expense to be reported in the District'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 with the understanding that:

- The District will continue to follow its previously established policy of prefunding OPEB liabilities by contributing at least 100% of the Annual Required Contribution each year.
- The District will continue to invest in CERBT Asset Allocation Strategy 2. The 5.5% discount rate used in this valuation is slightly lower than the 6.0% discount used in the prior valuation, reflecting a decrease in the expected long term return on trust assets.
- There have been no changes to benefits since the 2013 valuation was prepared. The District will continue to follow the terms of its current PEMHCA resolution on file with CalPERS and other employment agreements defining retiree health benefits.

We appreciate the opportunity to work on this analysis and acknowledge the efforts of the District'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

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

Enclosure

Bickmore

Napa County Mosquito Abatement District

Actuarial Valuation of the Other Post-Employment Benefit Programs As of July 1, 2015

Submitted August 2015

Bickmore

Napa County Mosquito Abatement District

Actuarial Valuation of the Other Post-Employment Benefit Programs As of July 1, 2015

Submitted August 2015

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A. Executive Summary

This report presents the results of the July 1, 2015 actuarial valuation of the Napa County Mosquito Abatement District (the District) other post-employment benefit (OPEB) programs. Briefly, benefits include subsidized medical and dental coverage for eligible retirees. 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). Note that allowing retirees to continue medical coverage at the same premium rates as are charged for active employees is considered an "implicit" benefit subsidy under GASB 45.

How much the District contributes each year affects the calculation of liabilities. The District is prefunding its OPEB obligations by consistently making contributions greater than or equal to the Annual Required Contribution (ARC) each year. Trust assets are currently invested in the CERBT with Asset Allocation Strategy 2. While the 2013 valuation used a discount rate of 6.0%, this valuation was prepared using a 5.5% discount rate. This lower rate reflects a decrease in the projected long term rate of return on trust assets and intentionally includes a margin for potential adverse deviation in returns. Please note that use of this rate is an assumption and is not a guarantee of future investment performance.

Exhibits presented in this report are based on the assumption 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. Appendix 1 provides an updated development of the results for the fiscal year ending June 30, 2015, based on the July 1, 2013 valuation and on OPEB contributions expected to be made between July 1, 2014 and June 30, 2015.

The Actuarial Accrued Liability and Assets as of July 1, 2015 are shown below:

Subsidy	Explicit	Implicit	Total
Discount Rate	5.5%	5.5%	5.5%
Actuarial Accrued Liability	$ 1,675,855	$ 347,526	$ 2,023,381
Actuarial Value of Assets	2,152,043	84,121	2,236,164
Unfunded Actuarial Accrued Liability	(476,188)	263,405	(212,783)
Funded Ratio	128.4%	24.2%	110.5%

The following shows the Annual Required Contribution (ARC), estimated District contributions and projected net OPEB obligation for the fiscal year ending June 30, 2016:

Subsidy	Explicit	Implicit	Total
Annual Required Contribution (ARC) for FYE 2016	65,955	32,270	98,225
Expected District paid benefits for retirees	$ 52,344	$ -	$ 52,344
Current year's implicit subsidy credit	-	13,265	13,265
Expected contribution to OPEB trust	13,611	316,389	330,000
Projected Net OPEB Obligation at June 30, 2016	(521,180)	(254,114)	(775,294)

These results are shown in tables beginning on page 13. Projected results for the fiscal year ending June 30, 2017 are also shown in these tables. Additional information to facilitate OPEB reporting in the District's financial statements is provided in Appendix 2.

Executive Summary (Concluded)

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 6, followed by a description of changes affecting the results. In particular, we updated the methodology used to develop the implicit subsidy liability for retirees prior to qualifying for Medicare and, based on information from CalPERS, eliminated the implicit subsidy liability for retirees once they become covered by a Supplemental Medicare plan.

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. Possible causes 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 the District 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 than were assumed; and
- Implementation of GASB 75, the new OPEB accounting standard. Many provisions are similar to those adopted in GASB 68 for defined benefit retirement plan liabilities, including a shift in reporting 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 the District's financial statements and to provide the annual contribution information with respect to the District'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. The District 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 the District 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. We understand that the District implemented GASB 45 for the fiscal year ended June 30, 2008.

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 the District's OPEB contributions had been equal to the ARC each year, the net OPEB obligation would equal $0.
- If the District'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 the District'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.

The decision whether or not to prefund, and at what level, is at the discretion of the District, as are the manner and term for paying down the unfunded actuarial accrued liability. Once a funding policy has been established, however, the District'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.

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
- Vision
- Dental
- Life Insurance
- Prescription drug

Other possible post-employment benefits may include outside group legal, long-term care, or disability benefits outside of a pension plan. OPEB does not generally include vacation, sick leave[1] or COBRA or other direct payments to a retiree which fall under other GASB accounting statements.

A direct employer payment toward the cost of OPEB benefits is referred to as an "explicit subsidy" and these are included in the determination of OPEB liabilities. 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 certain types of coverage, such as medical 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.

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.

OPEB Obligations of the District

The District provides continuation of medical and dental to qualifying retired employees. For retirees and their dependent(s) who have chosen to retain this coverage:

- **Explicit subsidy liabilities**: The District contributes directly toward the cost of retiree coverage, as described in Table 3A, and liabilities 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 and 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 difference between (a) projected retiree medical claim costs by age and (b) premiums expected to be charged for retirees. For details, 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.

  We believe no implicit liability exists with respect to dental or vision benefits provided to retirees, or that it is insignificant. .

[1] When a terminating employee's unused sick leave credits are converted to provide or enhance a defined benefit OPEB, e.g., healthcare benefits, such converted sick leave credits should be valued under GASB 45.

D. Valuation Process

The valuation has been based on employee census data and benefits initially submitted to us by the District in June 2015 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 the District 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 the District to receive benefits.
- To the extent assumed to retire from the District, the probability of various possible retirement dates 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 55 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 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' Costs	$ 2,023,381
plus Normal Cost	Current Year's Cost	102,934
plus Present Value of Future Normal Costs	Future Years' Costs	676,117
equals Present Value of Projected Benefits	Total Benefit Costs	$ 2,802,432

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 in the District's CERBT account. The market value as of June 30, 2015 is $2,236,164. 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, 2013 valuation.

Funding Policy	**Prefunding Basis**					
Valuation date	**7/1/2013**			**7/1/2015**		
Subsidy	Explicit	Implicit	Total	Explicit	Implicit	Total
Discount rate	6.0%	6.0%	6.0%	5.5%	5.5%	5.5%
Number of Covered Employees						
Actives	8	8	16	8	8	8
Retirees	4	4	8	5	2	5
Total Participants	12	12	24	13	10	13
Actuarial Present Value of Projected Benefits						
Actives	$ 1,744,064	$ 709,422	$ 2,453,486	$ 1,594,374	$ 355,881	$ 1,950,255
Retirees	498,497	273,356	771,853	725,796	126,381	852,177
Total APVPB	2,242,561	982,778	3,225,339	2,320,170	482,262	2,802,432
Actuarial Accrued Liability (AAL)						
Actives	1,220,133	500,409	1,720,542	950,059	221,145	1,171,204
Retirees	498,497	273,356	771,853	725,796	126,381	852,177
Total AAL	1,718,630	773,765	2,492,395	1,675,855	347,526	2,023,381
Actuarial Value of Assets	1,906,731	-	1,906,731	2,152,043	84,121	2,236,164
Unfunded AAL (UAAL)	(188,101)	773,765	585,664	(476,188)	263,405	(212,783)
Normal Cost	67,405	27,082	94,487	84,514	18,420	102,934
Benefit Payments	36,303	10,219	46,522	52,343	13,265	65,608
Percent funded	110.9%	0.0%	76.5%	128.4%	24.2%	110.5%
Reported covered payroll	680,305	680,305	680,305	693,147	693,147	693,147
UAAL as percent of payroll	-27.6%	113.7%	86.1%	-68.7%	38.0%	-30.7%

Basic Valuation Results (Concluded)

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 likely never to be exactly realized; the small size of the District's employee group makes it more likely that differences from what we anticipate will occur.

In comparing results shown above, we can see that the Unfunded Actuarial Accrued Liability (UAAL) decreased by about $798,000 between July 1, 2013 and July 1, 2015, from $585,664 to -$212,783. Over this two year period, we expected the UAAL to *increase* by $11,000 (from $585,664 to about $597,000), the net excess of contributions, trust earnings and retiree benefits paid over new costs accrued for active employees and the passage of time. Thus, the actual UAAL is about $809,000 less than expected.

This difference between the actual and expected UAAL is primarily a result of the following:

- A $114,000 increase in the AAL due to a change in discount rates used to develop the OPEB liability, from 6.0% to 5.5%;
- A $557,000 decrease in the implicit subsidy AAL. This substantial decrease is attributable both to (1) updates to the model we use for developing age related retiree medical claim costs and (2) the elimination of implicit subsidy liabilities once a retiree is covered by a Supplemental Medicare plan, based on recently provided information from CalPERS.
- Other changes collectively account for a net $366,000 decrease in the AAL, due to:
    - Revised assumptions for future service and disability retirements, to follow changes adopted by CalPERS in their experience study issued in 2014;
    - Changing the time at which we assume coverage for dependent children of future retirees will end. The prior valuation assumed coverage for dependent children would end 10 years following retirement; the new assumption is that it will end for future retirees at age 64, based on a review of current plan data and experience.
    - Adjustments in the service used to determine plan eligibility and rates of termination, disability and retirement, from District service to PERS service.
    - Favorable plan experience relative to prior assumptions. This includes factors such as changes in plan membership, retiree elections other than expected and changes in medical premiums and limits on benefits other than previously projected. Plan experience also includes asset performance relative to the expected contributions and rate of return. Between July 2013 and July 2015, the actual return on trust assets was about 5.9%, just slightly less than the (prior) assumed rate of 6.0%.

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 5.5%.
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 4.0%.
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 the District'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).

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

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 (*which the District opted to do in 2007*).
- 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).

After initially funding the entire initial unfunded AAL, the District's ongoing funding policy includes amortization of any changes in the unfunded AAL over an open, 30 year period, with payments determined as a level percent of payroll. It is our understanding that the District intends to apply this amortization approach to both the explicit subsidy and implicit subsidy components of its unfunded AAL.

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 the District 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 the portion of this year's premium payment attributable to the implicit subsidy and recommend netting this amount against the funding requirement for the implicit subsidy (see Tables 1B and 1D).

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

- Prefunding 100% of the ARC relating to both the explicit subsidy and implicit subsidy liabilities. *This is the approach illustrated in this report.*
- Prefunding 100% of the ARC relating to both the explicit subsidy and implicit subsidy liabilities, but intentionally allocating the entire trust contribution to more quickly pay-off the explicit subsidy liability, rather than allocating any toward the implicit subsidy liability.
- Prefunding 100% of the ARC developed for the explicit subsidy liability, but financing the implicit subsidy liability on a pay-as-you-go basis. We believe this approach would require determining the implicit subsidy liability using a pay-as-you-go discount rate (e.g., 4% rather than the 5.5% prefunding discount rate).

We are available to review these options further with the District.

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 the District. 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 District employees. CalPERS has previously issued a set of standardized actuarial methods and assumptions to be used by entities participating in CERBT and many assumptions used in this report for GASB 45 analysis are also consistent with that assumption model. Other assumptions, such as 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 the District and permitted by CERBT where its asset allocation Strategy #2 is employed, the discount rate used in this valuation is 5.5%.

H. Certification

This report presents the results of our actuarial valuation of the other post employment benefits provided by the Napa County Mosquito Abatement District. The purpose of this valuation was to provide the actuarial information required for the District'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 the District. 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: August 24, 2015

Catherine L. MacLeod

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

Table 1

The basic results of our July 1, 2015 valuation of OPEB liabilities for the District 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 the District for its fiscal years ending June 30, 2016 and June 30, 2017.

The ARC and other results shown in the following exhibits reflect our understanding that the District's intends to:

- Contribute 100% of the ARC or more each year for the foreseeable future.
- Intentionally maintain a significant net OPEB asset (for explicit, implicit and in total) to stabilize future funding requirements in the event of years with low or negative asset returns. Total trust assets, however, will be monitored to avoid exceeding the total benefit liability (a.k.a., the Actuarial Present Value of Projected Benefits), as shown in Tables 1A and 1C).

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

The ARC and AOE for the District's fiscal year ending June 30, 2015 were developed as part of the July 2013 valuation, but the financial statement for that period has not yet been finalized. We have illustrated what we anticipate will be reported for OPEB under GASB 45 and included this information in Appendix 1. We use the net OPEB asset projected from this Appendix as the starting point for developing the net OPEB asset as of June 30, 2016, shown in Table 1B.

The counts of active employees and retirees shown in Table 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 2013 in this July 2015 valuation.

Table 1A
Summary of Valuation Results and ARC Calculation for FYE 2016

The following summarizes the results of our valuation of OPEB liabilities for the District calculated under GASB 45 for the fiscal year ending June 30, 2016.

Funding Policy	**Prefunding**		
Valuation date	**7/1/2015**		
Subsidy	Explicit	Implicit	Total
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
Long term rate of return on assets	5.5%	5.5%	5.5%
Discount rate	5.5%	5.5%	5.5%
Number of Covered Employees			
Actives	8	8	8
Retirees	5	2	5
Total Participants	13	10	13
Actuarial Present Value of Projected Benefits			
Actives	$ 1,594,374	$ 355,881	$ 1,950,255
Retirees	725,796	126,381	852,177
Total APVPB	2,320,170	482,262	2,802,432
Actuarial Accrued Liability (AAL)			
Actives	950,059	221,145	1,171,204
Retirees	725,796	126,381	852,177
Total AAL	1,675,855	347,526	2,023,381
Actuarial Value of Assets	2,152,043	84,121	2,236,164
Unfunded AAL (UAAL)	(476,188)	263,405	(212,783)
Benefit Payments	52,344	13,265	65,609
Amortization method	Level % of Pay	Level % of Pay	Level % of Pay
Initial amortization period (in years)	30	30	30
Remaining period (in years)	30	30	30
Determination of Amortization Payment			
UAAL	(476,188)	263,405	(212,783)
Factor	21.6479	21.6479	21.6485
Payment	(21,997)	12,168	(9,829)
Annual Required Contribution (ARC)			
Normal Cost	84,514	18,420	102,934
Amortization of UAAL	(21,997)	12,168	(9,829)
Interest to fiscal year end	3,438	1,682	5,120
Total ARC at fiscal year end	65,955	32,270	98,225
Reported covered payroll	693,147	693,147	693,147
Normal Cost as a percent of payroll	12.2%	2.7%	14.9%
ARC as a percent of payroll	9.5%	4.7%	14.2%

Table 1B
Expected OPEB Disclosures for FYE 2016

The following exhibit develops the annual OPEB expense, estimates the expected OPEB contributions and estimates the net OPEB obligation as of June 30, 2016 based on the prefunding policy described in this report. Some of the entries in the table below should be updated after the close of the 2016 fiscal year to reflect the actual activity which occurred.

Funding Approach	**Prefunding**		
Fiscal year end	**6/30/2016**		
Subsidy	Explicit	Implicit	Total
Amortization method	Level % of Pay	Level % of Pay	Level % of Pay
Amortization period	30 year open	30 year open	30 year open
1. Calculation of the Annual OPEB Expense			
a. ARC for current fiscal year	$ 65,955	$ 32,270	$ 98,225
b. Interest on Net OPEB Obligation (Asset) at beginning of year	(28,486)	2,365	(26,121)
c. Adjustment to the ARC	25,241	(2,096)	23,145
d. **Annual OPEB Expense** (a. + b. + c.)	62,710	32,539	95,249
2. Calculation of Expected Contribution			
a. Estimated payments on behalf of retirees	52,344	-	52,344
b. Estimated contribution to OPEB trust	13,611	316,389	330,000
c. Estimated implicit subsidy	-	13,265	13,265
d. **Total Expected Employer Contribution**	65,955	329,654	395,609
3. Change in Net OPEB Obligation *(1.d. minus 2.d.)*	(3,245)	(297,115)	(300,360)
Net OPEB Obligation (Asset), beginning of fiscal year	(517,935)	43,001	(474,934)
Net OPEB Obligation (Asset) at fiscal year end	(521,180)	(254,114)	(775,294)

In the table above, we assumed that the District would pay the current year's retiree benefits and would contribute $330,000 to the trust.

Notes on calculations above:

- Interest on the net OPEB obligation (or asset), shown above in item 1.b. is equal to the discount rate (5.5%) 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 this factor).

Table 1C
ARC Calculation for Fiscal Year Ending June 30, 2017

In the following exhibit, 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 amortization payment and the annual required contribution (ARC) for the fiscal year ending June 30, 2017.

Funding Policy	**Prefunding**		
Valuation date	**7/1/2015**		
Subsidy	Explicit	Implicit	Total
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
Long term rate of return on assets	5.5%	5.5%	5.5%
Discount rate	5.5%	5.5%	5.5%
Number of Covered Employees			
Actives	8	8	8
Retirees	5	2	5
Total Participants	13	10	13
Actuarial Present Value of Projected Benefits			
Actives	$ 1,677,270	$ 374,083	$ 2,051,353
Retirees	718,166	121,438	839,604
Total APVPB	2,395,435	495,521	2,890,957
Actuarial Accrued Liability (AAL)			
Actives	1,086,680	251,370	1,338,050
Retirees	718,166	121,438	839,604
Total AAL	1,804,845	372,808	2,177,653
Actuarial Value of Assets	2,284,016	405,137	2,689,153
Unfunded AAL (UAAL)	(479,171)	(32,329)	(511,500)
Benefit Payments	64,797	18,524	83,321
Amortization method	Level % of Pay	Level % of Pay	Level % of Pay
Initial amortization period (in years)	30	30	30
Remaining period (in years)	30	30	30
Determination of Amortization Payment			
UAAL	(479,170)	(32,329)	(511,499)
Factor	21.6479	21.6479	21.6480
Payment	(22,135)	(1,493)	(23,628)
Annual Required Contribution (ARC)			
Normal Cost	87,261	19,019	106,280
Amortization of UAAL	(22,135)	(1,493)	(23,628)
Interest to fiscal year end	3,582	964	4,546
Total ARC at fiscal year end	68,708	18,490	87,198
Reported covered payroll	727,158	727,158	727,158
Normal Cost as a percent of payroll	12.0%	2.6%	14.6%
ARC as a percent of payroll	9.4%	2.5%	12.0%

Table 1D
Expected OPEB Disclosures for FYE 2017

The following exhibit develops the annual OPEB expense, estimates the expected OPEB contributions and estimates the net OPEB obligation as of June 30, 2017 based on the prefunding policy described in this report. Some of the entries in the table below should be updated after the close of the 2017 fiscal year to reflect the actual activity which occurred.

Funding Approach	**Prefunding**		
Fiscal year end	**6/30/2017**		
Subsidy	Explicit	Implicit	Total
Amortization method	Level % of Pay	Level % of Pay	Level % of Pay
Amortization period	30 year open	30 year open	30 year open
1. Calculation of the Annual OPEB Expense			
a. ARC for current fiscal year	$ 68,708	$ 18,490	$ 87,198
b. Interest on Net OPEB Obligation (Asset) at beginning of year	(28,665)	(13,976)	(42,641)
c. Adjustment to the ARC	25,399	12,384	37,783
d. **Annual OPEB Expense** (a. + b. + c.)	65,442	16,898	82,340
2. Calculation of Expected Contribution			
a. Estimated payments on behalf of retirees	64,797	-	64,797
b. Estimated contribution to OPEB trust	3,911	(34)	3,877
c. Estimated implicit subsidy	-	18,524	18,524
d. **Total Expected Employer Contribution**	68,708	18,490	87,198
3. Change in Net OPEB Obligation *(1.d. minus 2.d.)*	(3,266)	(1,592)	(4,858)
Net OPEB Obligation (Asset), beginning of fiscal year	(521,180)	(254,114)	(775,294)
Net OPEB Obligation (Asset) at fiscal year end	(524,446)	(255,706)	(780,152)

In the table above, we assumed that the District's total actual contributions would equal the total combined ARC of $87,198. The contribution to the trust may need to be adjusted (higher or lower) if retiree benefit payments are different (lower or higher) than shown above.

For details on how items 1.b., Interest on the beginning of year net OPEB obligation and 1.c., Adjustment to the ARC, are calculated, please refer to the notes below Table 1B.

Table 2
Summary of Employee Data

The District reported 8 active employees, all of whom are currently participating in the medical program. Age and service information for the reported individuals is provided below:

Distribution of Benefits-Eligible Active Employees								
Current Age	**Years of Service**						**Total**	**Percent**
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up		
Under 25							0	0%
25 to 29							0	0%
30 to 34							0	0%
35 to 39		1					1	13%
40 to 44							0	0%
45 to 49	1			1		1	3	38%
50 to 54	1				1		2	25%
55 to 59				2			2	25%
60 to 64							0	0%
65 to 69							0	0%
70 & Up							0	0%
Total	2	1	0	3	1	1	**8**	**100%**
Percent	25%	13%	0%	38%	13%	13%	**100%**	

	July 2013 Valuation	July 2015 Valuation
Annual Covered Payroll	$680,305	$693,147
Average Attained Age for Actives	48.9	50.34
Average Years of Service	13.0	9.48

There are also 5 retirees or their beneficiaries currently receiving benefits under this program. Their ages are summarized in the chart below.

District Retirees by Age		
Current Age	**Number**	**Percent**
Below 50	0	0%
50 to 54	0	0%
55 to 59	1	20%
60 to 64	1	20%
65 to 69	0	0%
70 to 74	2	40%
75 to 79	0	0%
80 & up	1	20%
Total	**5**	**100%**
Average Attained Age for Retirees:		68.6

Table 2 Summary of Employee Data (Concluded)

The chart below reconciles the number of actives and retirees included in the July 1, 2013 valuation of the District plan with those included in the July 1, 2015 valuation:

Reconciliation of District Plan Members Between Valuation Dates				
Status	Covered Actives	Covered Retirees	Covered Surviving Spouses	Total
Number reported as of July 1, 2013	8	2	2	12
New employees	2			2
Terminated employees	(1)			(1)
New retiree, elected coverage	(1)	1		0
New retiree, waiving coverage				0
Number reported as of July 1, 2015	**8**	**3**	**2**	**13**

From this, we observe that:

- Overall the eligible population has remained quite stable during the two year period between valuations. Employees leaving the District, whether due to retirement or other reasons for departure, appear to have been replaced with new employees.
- The one new retiree since July 1, 2013 chose to remain on the District's medical plan in retirement, as expected.

The following chart separates active and retired employees by medical plan election:

Counts by Medical Plan			
Medical Plan	Actives	Retirees	Total
Kaiser	7	3	10
PERS Choice	1	2	3
Total	**8**	**5**	**13**

The following chart separates active and retired employees by medical plan election:

Employee Counts by Coverage Level				
Coverage Type	**Actives**	**Pre-Medicare Retirees**	**Post-Medicare Retirees**	**Total**
Employee only	4	1	2	7
Employee + Spouse	0	0	1	1
Employee + Child(ren)	0	0	0	0
Employee+ Family	4	1	0	5
Total	**8**	**2**	**3**	**13**

Table 3A
Summary of Retiree Benefit Provisions

OPEB provided: The District reported that the only OPEB provided are medical and dental insurance coverage.

Access to coverage: Medical coverage is currently provided through CalPERS as permitted under the Public Employees' Medical and Hospital Care Act (PEMHCA).

- This coverage requires the employee to satisfy the requirements for retirement under CalPERS, which requires attainment of age 50 (age 52, if a new member on or after January 1, 2013) with 5 years of State or public agency service or approved disability retirement.
- The employee must begin his or her retirement warrant within 120 days of terminating employment with the District to be eligible to continue medical coverage through the District and be entitled to the employer subsidy described below.
- If an eligible employee is not already enrolled in the medical plan, he or she may enroll within 60 days of retirement or during any future open enrollment period.
- Coverage may be continued at the retiree's option for his or her lifetime. A surviving spouse and other eligible dependents may also continue coverage.

Medical benefits provided: As a PEMHCA employer, the District is obligated to contribute toward the cost of retiree medical coverage for the retiree's lifetime or until coverage is discontinued. As defined in a resolution with CalPERS, the District contributes 100% of the medical premium for active and retired employees and their dependents, not to exceed an amount which varies by coverage level.

The maximum benefit provided in 2015 is the pre-Medicare premium level for single, two-party or family coverage, as applicable, for the highest CalPERS plan in the Bay area region offered to District employees. In 2015, the available plans are Kaiser, PERS Care and PERS Choice.

Dental benefits provided: The District also pays 100% of the dental premiums for retired management employees and their eligible dependents.

Current premium rates: The 2015 CalPERS monthly medical plan rates in the Bay Area rate group are shown in the table below. If different rates apply where the member resides outside of this area, those rates are reflected in the valuation, but not listed here.

Bay Area 2015 Health Plan Rates						
	Actives and Pre-Med Retirees			**Medicare Eligible**		
Plan	**Ee Only**	**Ee & 1**	**Ee & 2+**	**Ee Only**	**Ee & 1**	**Ee & 2+**
Kaiser HMO	$ 714.45	$ 1,428.90	$ 1,857.57	$ 295.51	$ 591.02	$ 1,019.69
PERS Choice PPO	700.84	1,401.68	1,822.18	339.47	678.94	1,099.44
PERSCare PPO	775.08	1,550.16	2,015.21	368.76	737.52	1,202.57

Note that the additional CalPERS administration fee is not included in this valuation.

The monthly dental premiums for retired employees are $60.20 (single coverage rate), $135.40 (two party rate) and $201.70 (family coverage rate) as of July 2015.

Table 3B
General CalPERS Annuitant Eligibility Provisions

The content of this section has been drawn from Section C, Summary of Plan Provisions, of the State of California OPEB Valuation as of June 30, 2014, issued December 2014, to the State Controller from Gabriel Roeder & Smith. It is provided here as a brief summary of general annuitant and survivor coverage.

<u>Health Care Coverage</u>

Retired Employees

A member is eligible to enroll in a CalPERS health plan if he or she retires within 120 days of separation from employment and receives a monthly retirement allowance. If the member meets this requirement, he or she may continue his or her enrollment at retirement, enroll within 60 days of retirement, or enroll during any Open Enrollment period. If a member is currently enrolled in a CalPERS health plan and wants to continue enrollment into retirement, the employee will notify CalPERS and the member's coverage will continue into retirement.

Eligibility Exceptions*:* Certain family members are not eligible for CalPERS health benefits:

- Children age 26 or older
- Children's spouses
- Former spouses
- Disabled children over age 26 who were never enrolled or were deleted from coverage
- Grandparents
- Parents
- Children of former spouses
- Other relatives

Coordination with Medicare

CalPERS retired members who qualify for premium-free Part A, either on their own or through a spouse (current, former, or deceased), must sign up for Part B as soon as they qualify for Part A. A member must then enroll in a CalPERS sponsored Medicare plan. The CalPERS-sponsored Medicare plan will pay for costs not paid by Medicare, by coordinating benefits.

Survivors of an Annuitant

If a CalPERS annuitant satisfied the requirement to retire within 120 days of separation, the survivor may be eligible to enroll within 60 days of the annuitant's death or during any future Open Enrollment period. Note: A survivor cannot add any new dependents; only dependents that were enrolled or eligible to enroll at the time of the member's death qualify for benefits.

Surviving registered domestic partners who are receiving a monthly annuity as a surviving beneficiary of a deceased employee or annuitant on or after January 1, 2002, are eligible to continue coverage if currently enrolled, enroll within 60 days of the domestic partner's death, or enroll during any future Open Enrollment period.

Surviving enrolled family members who do not qualify to continue their current coverage are eligible for continuation coverage under COBRA.

Table 4
Actuarial Methods and Assumptions

Valuation Date	July 1, 2015
Funding Method	Entry Age Normal Cost, level percent of pay[2]
Asset Valuation Method	Market value of assets
Long Term Return on Assets	5.5%, net of expenses and assumed margin for adverse deviation
Discount Rate	5.5%
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, used only to allocate the cost of benefits between service years
Assumed Wage Inflation	3.0% per year; used to determine amortization payments if developed on a level percent of pay basis
General Inflation Rate	2.75% per year

The 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. Rates for selected age and service are shown below and on the following pages.

Mortality Before Retirement

Representative mortality rates as of the CalPERS study's central year (2008) are shown in the chart below.

CalPERS Public Agency Miscellaneous Non-Industrial Deaths		
Age	Male	Female
15	0.00027	0.00020
20	0.00037	0.00024
30	0.00057	0.00030
40	0.00091	0.00062
50	0.00192	0.00121
60	0.00374	0.00224
70	0.00667	0.00470
80	0.01270	0.01039

These rates were then adjusted on a generational basis by Scale AA to anticipate future mortality improvement.

In laymen's terms, that means mortality is projected to improve each year until the payments anticipated in any future year occur.

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

Table 4 - Actuarial Methods and Assumptions (Continued)

Mortality After Retirement

Representative mortality rates as of the CalPERS study's central year (2008) are shown in the charts below. These rates were then adjusted on a generational basis by Scale AA to anticipate future mortality improvement.

Healthy Lives

Miscellaneous, Police & Fire Post Retirement Mortality		
Age	Male	Female
40	0.00133	0.00112
50	0.00621	0.00565
60	0.00862	0.00536
70	0.01662	0.01271
80	0.05003	0.03703
90	0.16176	0.12237
100	0.37218	0.34337
110	1.00000	1.00000

Disabled Lives

CalPERS Public Agency Disabled Miscellaneous Post Retirement Mortality		
Age	Male	Female
20	0.00716	0.00446
30	0.00803	0.00506
40	0.01150	0.00746
50	0.02083	0.01405
60	0.02779	0.01518
70	0.03660	0.02830
80	0.07806	0.06029
90	0.18457	0.15954

Termination Rates

For miscellaneous employees: sum of CalPERS Terminated Refund and Terminated Vested rates for miscellaneous employees – Illustrative rates

Attained Age	Years of Service					
	0	3	5	10	15	20
15	0.1812	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.1742	0.1193	0.0946	0.0000	0.0000	0.0000
25	0.1674	0.1125	0.0868	0.0749	0.0000	0.0000
30	0.1606	0.1055	0.0790	0.0668	0.0581	0.0000
35	0.1537	0.0987	0.0711	0.0587	0.0503	0.0450
40	0.1468	0.0919	0.0632	0.0507	0.0424	0.0370
45	0.1400	0.0849	0.0554	0.0427	0.0347	0.0290

Service Retirement Rates

For miscellaneous employees hired before 1/1/2013: CalPERS Public Agency 2.7% @ 55 – Illustrative rates

Current Age	Years of Service					
	5	10	15	20	25	30
50	0.0040	0.0090	0.0140	0.0350	0.0550	0.0950
55	0.0760	0.1010	0.1250	0.1650	0.2050	0.2650
60	0.0690	0.0930	0.1160	0.1540	0.1920	0.2500
65	0.1340	0.1740	0.2150	0.2700	0.3260	0.4010
70	0.1410	0.1830	0.2260	0.2830	0.3410	0.4180
75 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 4 - Actuarial Methods and Assumptions (Continued)

Miscellaneous employees joining CalPERS on or after 1/1/2013:
CalPERS Public Agency 2% @ 62 – sample rates

Current Age	Years of Service					
	5	10	15	20	25	30
52	0.0103	0.0132	0.0160	0.0188	0.0216	0.0244
55	0.0440	0.0560	0.0680	0.0800	0.0920	0.1040
60	0.0616	0.0784	0.0952	0.1120	0.1288	0.1456
65	0.1287	0.1638	0.1989	0.2340	0.2691	0.3042
70	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964
75 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Disability Retirement Rates

Illustrative rates:

CalPERS Public Agency Miscellaneous Disability		
Age	Male	Female
20	0.00017	0.00010
25	0.00017	0.00010
30	0.00019	0.00024
35	0.00049	0.00081
40	0.00122	0.00155
45	0.00191	0.00218
50	0.00213	0.00229
55	0.00221	0.00179
60	0.00222	0.00135

Healthcare Trend

Medical plan premiums 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 January 1	Premium Increase	Effective January 1	Premium Increase
2016	8.00%	2021	5.50%
2017	7.50%	2022	5.00%
2018	7.00%	2023	4.50%
2019	6.50%	2024	4.50%
2020	6.00%	2025 & later	4.64%

Dental premiums are assumed to increase 4.5% annually.

Medicare Eligibility

Absent contrary data, all individuals are assumed to be eligible for Medicare Parts A and B at age 65.

Table 4 - Actuarial Methods and Assumptions (Continued)

Participation Rate	*Active employees:* 100% are assumed to continue their current plan election in retirement. *Retired participants*: Existing medical plan elections are assumed to continue until the retiree's death.
Spouse Coverage	*Active employees:* 85% of future retirees are assumed to be married and 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. Spouse gender is assumed to be the opposite of the employee.
Dependent Coverage	*Active employees*: 60% of future retirees are assumed to cover at least one dependent other than a spouse. This dependent coverage is assumed to end at age 64. *Retired participants:* Coverage for dependent children of current retirees is assumed to end when the youngest currently covered dependent reaches age 26.
Development of Age-related Medical Premiums	Actual premium rates for employees, retirees and their spouses were adjusted to an age-related basis by applying medical claim cost factors developed from the data presented in the report, "Health Care Costs – From Birth to Death", sponsored by the Society of Actuaries. A description of the use of claims cost curves can be found in Bickmore's Age Rating Methodology provided in Addendum 1 to this report. All current and future Medicare-eligible retirees are assumed 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. Representative claims costs derived from the dataset provided by CalPERS for retirees not currently covered or not expected to be eligible for Medicare appear at the top of the following page:

Table 4 - Actuarial Methods and Assumptions (Concluded)

Development of Age-related
Medical Premiums - continued

Kaiser		
Retiree Age	Males	Females
50	$ 700	$ 868
53	826	953
56	959	1,026
59	1,099	1,108
62	1,250	1,222

PERS Choice		
Retiree Age	Males	Females
50	$ 629	$ 779
53	741	855
56	861	920
59	987	995
62	1,122	1,096

PERSCare		
Retiree Age	Males	Females
50	$ 561	$ 696
53	662	764
56	769	822
59	881	888
62	1,002	979

Changes Since the Prior Valuation:

Discount rates	Decreased from 6.0% to 5.5%
Assumed Wage Inflation	Decreased from 3.25% to 3.0%
General Inflation Rate	Decreased from 3.0% to 2.75%
Demographic assumptions	Rates of assumed termination, disability and retirement rates were updated from those provided in the CalPERS 2010 experience study report to those provided in the CalPERS 2014 experience study report. Rates of mortality were updated to those in the CalPERS 2014 experience study and then projected from the midpoint year (2008) on a generational basis by Scale AA.
Age-Related Medical Premiums	We implemented a model for developing age-related medical premiums based on research and data sponsored by the Society of Actuaries.

Table 5
Projected Benefit Payments

The following is an estimate of other post-employment benefits to be paid on behalf of current retirees and current employees expected to retire from the District. Expected annual benefits have been projected on the basis of the actuarial assumptions outlined in Table 4.

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	Explicit Subsidy			Implicit Subsidy			
Ending June 30	Current Retirees	Future Retirees	Total Explicit	Current Retirees	Future Retirees	Total Implicit	Total
2016	$47,549	$4,795	$52,344	$11,894	$1,371	$13,265	$65,609
2017	52,530	12,267	64,797	14,786	3,738	18,524	83,321
2018	55,614	22,452	78,066	17,434	7,577	25,011	103,077
2019	52,237	30,594	82,831	10,526	8,853	19,379	102,210
2020	54,661	40,883	95,544	12,285	13,283	25,568	121,112
2021	56,868	51,707	108,575	14,208	19,280	33,488	142,063
2022	58,814	61,956	120,770	16,310	19,257	35,567	156,337
2023	52,682	76,022	128,704	18,595	26,216	44,811	173,515
2024	53,854	87,876	141,730	21,102	34,786	55,888	197,618
2025	46,820	96,637	143,457	10,119	35,484	45,603	189,060

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

The 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.

Appendix 1
Expected Disclosures for Fiscal Year End June 30, 2015

The annual OPEB expense and net OPEB obligation (asset) for the fiscal year ending June 30, 2015 were projected in the July 1, 2013 valuation and reflected Bickmore's understanding of OPEB contributions prior to that date. Since that valuation was prepared, the District has adjusted and updated its payments toward retiree premiums and contributions to CERBT through June 30, 2015.

The following exhibit provides anticipated changes to entries reported for the fiscal year ending June 30, 2014 and updates entries expected to be reported in the District's financial statement for the fiscal year ending June 30, 2015.

Fiscal Year Ending	**6/30/2014**	**6/30/2015**
Subsidy	Total	Total
Discount rate	6.00%	6.00%
Amortization method	Level % of Pay	Level % of Pay
Amortization period	30 year open	30 year open
1. Calculation of the Annual OPEB Expense		
a. ARC for current fiscal year	$ 129,681	$ 133,324
b. Interest on Net OPEB Obligation (Asset)	(32,711)	(27,331)
c. Adjustment to the ARC	27,484	22,964
d. **Annual OPEB Expense** (a. + b. + c.)	124,454	128,957
2. Calculation of Expected Contribution		
a. Estimated payments on behalf of retirees	24,567	42,022
b. Estimated contribution to OPEB trust	-	95,000
c. Current year's implicit subsidy	10,219	11,348
d. **Total Expected Employer Contribution**	34,786	148,370
3. Change in Net OPEB Obligation *(1.d. minus 2.d.)*	89,668	(19,413)
Net OPEB Obligation (Asset), beginning of fiscal year	(545,189)	(455,521)
Net OPEB Obligation (Asset) at fiscal year end	(455,521)	(474,934)

Appendix 2
General OPEB Disclosure and Required Supplementary Information

The Information necessary to complete the OPEB footnote in the District's financial reports is summarized below, or we note the location of the information contained elsewhere in this report:

Summary of Plan Provisions:	See Table 3A
OPEB Funding Policy:	See Section F; details are also provided in Tables 1A and 1C
Annual OPEB Cost and Net OPEB Obligation:	See Tables 1B and 1D
Actuarial Methods and Assumptions:	See Table 4
Funding Status and Funding Progress:	See Section E – Basic Valuation Results

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
7/1/2009	$ 825,391	$ 622,074	$ (203,317)	132.7%	$ 685,534	-29.7%
7/1/2011	$ 1,288,250	$ 1,449,495	$ 161,245	88.9%	$ 617,960	26.1%
7/1/2013	$ 1,906,731	$ 2,492,395	$ 585,664	76.5%	$ 680,305	86.1%
7/1/2015	$ 2,236,164	$ 2,023,381	$ (212,783)	110.5%	$ 693,147	-30.7%

Required Supplementary Information: Three Year History of Amounts Funded
See chart below:

OPEB Cost Contributed

Fiscal Year Ended	Annual OPEB Cost	Employer OPEB Contributions	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation (Asset)
6/30/2013	$ 64,439	$ 104,143	161.6%	$ (545,189)
6/30/2014	$ 124,454	$ 34,786	28.0%	$ (455,521)
6/30/2015	*$ 128,957*	*$ 148,370*	*115.1%*	*$ (474,934)*
6/30/2016	*$ 95,249*	*$ 395,609*	*415.3%*	*$ (775,294)*
6/30/2017	*$ 82,340*	*$ 87,198*	*105.9%*	*$ (780,152)*

Italicized values above are estimates which may change if contributions are other than projected.

Addendum 1: Bickmore Healthcare Claims Age Rating Methodology

Both accounting standards (e.g. GASB 45) 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 to better approximate what the insurer might be expecting in actual claims costs.

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 old 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. Table 4 provides the source of information used to develop such a curve and shows sample relative claims costs developed for your plan.
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 Table 4.
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 the underlying claims cost curve. These methodologies and assumptions can be found in the referenced paper cited in Table 4.

Glossary

Actuarial Accrued Liability (AAL) – 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; see "Actuarial Present Value"

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

Actuarial Present Value (APV) – The amount presently required to fund a payment or series of payments in the future, it is determined by discounting the future payments by an appropriate interest rate and the probability of nonpayment.

Aggregate – An actuarial funding method under which the excess of the actuarial present value of projected benefits over the actuarial accrued liability is levelly spread over the earnings or service of the group forward from the valuation date to the assumed exit date, based not on individual characteristics but rather on the characteristics of the group as a whole

Annual Required Contribution (ARC) – The amount the employer would contribute to a defined benefit OPEB plan for a given year, it is the sum of the normal cost and some amortization (typically 30 years) of the unfunded actuarial accrued liability

Annual OPEB Expense – The OPEB expense reported in the Agency's financial statement, which is comprised of three elements: the ARC, interest on the net OPEB obligation at the beginning of the year and an ARC adjustment.

Attained Age Normal Cost (AANC) – An actuarial funding method where, for each plan member, the excess of the actuarial present value of benefits over the actuarial accrued liability (determined under the unit credit method) is levelly spread over the individual's projected earnings or service forward from the valuation date to the assumed exit date

CalPERS – 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

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

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

Entry Age Normal Cost (EANC) – 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

Glossary
(Continued)

Frozen Attained Age Normal Cost (FAANC) – An actuarial funding method under which the excess of the actuarial present value of projected benefits over the actuarial accrued liability (determined under the unit credit method) is levelly spread over the earnings or service of the group forward from the valuation date to the assumed exit date, based not on individual characteristics but rather on the characteristics of the group as a whole

Frozen Entry Age Normal Cost (FEANC) – An actuarial funding method under which the excess of the actuarial present value of projected benefits over the actuarial accrued liability (determined under the entry age normal cost method) is levelly spread over the earnings or service of the group forward from the valuation date to the assumed exit date, based not on individual characteristics but rather on the characteristics of the group as a whole

Financial Accounting Standards Board (FASB) – A private, not-for-profit organization designated by the Securities and Exchange Commission (SEC) to develop generally accepted accounting principles (GAAP) for U.S. public corporations

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

Net OPEB Obligation (Asset) - The net OPEB obligation (NOO) represents the accumulated shortfall of OPEB funding since GASB 45 was implemented. If cumulative contributions have exceeded the sum of the prior years' annual OPEB expenses, then a net OPEB asset results.

Non-Industrial Disability (NID) – Unless specifically contracted by the individual Agency, PAM employees are assumed to be subject to only non-industrial disabilities.

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

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

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

PEMHCA – 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 medical insurance contributions for retired annuitants and paid for by a contracting Agency be equal to the medical insurance contributions paid for its active employees, and that a contracting Agency file a resolution, adopted by its governing body, with the CalPERS Board establishing any new contribution.

Glossary
(Concluded)

Projected Unit Credit (PUC) – An actuarial funding method where, for each individual, the projected plan benefit is allocated by a consistent formula from entry date to assumed exit date

Public Agency Miscellaneous (PAM) – Actuarial assumptions used by CalPERS for most non-safety public employees.

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

Trend – The healthcare cost trend rate, defined as the rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design and technological developments

Unfunded Actuarial Accrued Liability (UAAL) – The excess of the actuarial accrued liability over the actuarial value of plan assets

Unit Credit (UC) -- An actuarial funding method where, for each individual, the unprojected plan benefit is allocated by a consistent formula from entry date to assumed exit date

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