



December 4, 2013

Ms. Alyssa Schiffman
Finance Director
Southern Marin Fire Protection District
308 Reed Blvd.
Mill Valley, CA 94941

Re: Southern Marin Fire Protection District ("SMFPD")
GASB 45 Actuarial Valuation as of July 1, 2012

Dear Ms. Schiffman:

This report sets forth the results of our GASB 45 actuarial valuation of SMFPD's retiree health insurance program as of July 1, 2012.

In June, 2004 the Government Accounting Standards Board (GASB) issued its final accrual accounting standard for retiree healthcare benefits, GASB 45. GASB 45 requires public employers such as SMFPD to perform periodic actuarial valuations to measure and disclose their retiree healthcare liabilities for the financial statements of both the employer and the trust, if any, set aside to pre-fund these liabilities. SMFPD must obtain actuarial valuations of its retiree health insurance program under GASB 45 not less frequently than once every three years.

To accomplish these objectives SMFPD selected Demsey, Filliger and Associates (DF&A) to perform an actuarial valuation of the retiree health insurance program as of July 1, 2012. This report may be compared with the valuation performed by DF&A as of July 1, 2011, to see how the liabilities have changed since the last valuation. We are available to answer any questions SMFPD may have concerning the report.

Financial Results

We have determined that the amount of actuarial liability for current and future retirees, as of July 1, 2012, is \$8,010,911. This represents the present value of all benefits expected to be paid by SMFPD for its current and future retirees. If SMFPD were to place this amount in a fund earning interest at the rate of 6.5% per year, and all other actuarial assumptions were exactly met, the fund would have exactly enough to pay all expected benefits.

This includes benefits for 29 current retirees as well as 42 active employees who may become eligible to retire and receive benefits in the future. It does not include employees hired after the valuation date.

If we apportion the \$8,010,911 into past service and future service components under the Projected Unit Credit Cost Method, the past service liability (or Accrued Liability) component is \$5,670,516 as of July 1, 2012. This represents the present value of all benefits earned to date assuming that an employee earns retiree medical benefits ratably over his or her career. The \$5,670,516 is comprised of liabilities of \$2,430,782 for active employees and \$3,239,734 for retirees. SMFPD has adopted an irrevocable trust (the "Public Agency Retirement Services (PARS) GASB 45 Program") for the pre-funding of retiree healthcare benefits. Trust assets have an actuarial value of \$508,795 as of July 1, 2012, so the Unfunded Accrued Liability (called the UAL, equal to the AL less assets) is \$5,161,721.

We have determined that SMFPD's "Annual Required Contributions", or "ARC", for the fiscal year 2012-13, is \$626,917. The \$626,917 is comprised of the present value of benefits accruing in the current year, called the "Service Cost", and a 30-year amortization of the UAL. We estimate that SMFPD's pay-as-you-go cost for retiree healthcare for the 2012-13 fiscal year was approximately \$322,503, so the difference between the accrual accounting expense (ARC) and pay-as-you-go is an increase of \$304,414.

There are two adjustments to the ARC that are required in order to determine SMFPD's Annual OPEB Cost (AOC) for the 2012-13 fiscal year. We have calculated these adjustments based on a Net OPEB Obligation of \$248,641 as of June 30, 2012, resulting in an AOC for 2012-13 of \$624,039.

On June 24, 2012, SMFPD annexed the City of Sausalito's fire department and acquired 15 new employees. The City of Sausalito has agreed to pay retiree health benefits for 6 of the 15 employees directly, and those employees have been excluded from this report. The remaining 9 employees are the obligation of SMFPD and have been included in this report to the extent they were in active service as of the valuation date. The City of Sausalito has agreed to pay SMFPD \$58,000 per year for each of the next 30 years in consideration of the projected cost of retiree health benefits for those 9 employees. The liabilities shown in this report do not take into account the expected payments from the City of Sausalito to SMFPD, as those payments are considered an asset of SMFPD separate from the retiree health plan, and are thus accounted for separately.

We summarize the valuation results in the table on the next page and in Exhibit II at the end of the report. All amounts are net of expected future retiree contributions.

Southern Marin Fire Protection District
Actuarial Liabilities and Annual Expense under
GASB 45 Accrual Accounting Standard

Item	Amounts for Fiscal 2012-13
Present Value of Future Benefits (PVFB)	
Active	\$4,771,177
Retired	<u>3,239,734</u>
Total: PVFB	\$8,010,911
Accrued Liability (AL)	
Actives	\$2,430,782
Retired	<u>3,239,734</u>
Total: AL	\$5,670,516
Assets	<u>(508,795)</u>
Total: Unfunded AL	\$5,161,721
Annual Required Contributions (ARC)	
Service Cost At Year-End	\$231,646
30-year Amortization of Unfunded AL	<u>395,271</u>
Total: ARC	\$626,917
Adjustments to ARC	
Interest on Net OPEB Obligation*	16,162
Adjustment to ARC*	<u>(19,040)</u>
Total: Annual OPEB Cost for 2012-13	\$624,039

*Amounts based on June 30, 2012 Net OPEB Obligation of \$248,641.

The ARC of \$626,917, shown above, should be used for the 2012-13, 2013-14 and 2014-15 fiscal years, but the Annual OPEB Costs for 2013-14 and 2014-15 must include adjustments based on the Net OPEB Obligation as reported in the prior year's financial statement, which is not known in advance.

When SMFPD begins preparation of the June 30, 2013 government-wide financial statements, DF&A will provide SMFPD and its auditors with complimentary assistance in preparation of footnotes and required supplemental information for compliance with GASB 45.

We determined the July 1, 2012 asset value of \$508,795 by using the June 30, 2012 value of the District's PARS GASB 45 Program account, without adjustment.

Differences from Prior Valuation

The most recent prior valuation was completed by DF&A as of July 1, 2011. The Accrued Liability as of that date was \$5,485,282, compared to \$5,670,516 on July 1, 2012. In this section, we provide a reconciliation between the 2011 AL and the 2012 AL, so that it is possible to track the numbers from one actuarial report to the next.

Several factors have caused the AL to change since 2011. The passage of time increases the AL as the employees accrue more service and get closer to receiving benefits. There are actuarial gains/losses from one valuation to the next, and changes in actuarial assumptions and methodology for the current valuation. The most important of these factors were as follows:

1. There was a gain (a decrease in the AL) of \$486,545 due to increases in healthcare premiums less than expected. This includes the savings resulting from the discontinuation, effective November 1, 2013, of the practice of paying Medicare Part B premiums for retirees age 65 and over.
2. We changed to more up-to-date mortality tables. This change increased the AL by \$282,457.
3. There was a net census loss (an increase in the AL) of \$207,106, in part from the addition of City of Sausalito employees with past service credits as a result of the annexation of the City's fire department by SMFPD as of June 24, 2012.

The changes to the AL since the July 1, 2011 valuation may be summarized as follows:

Changes to AL	AL
AL as of 7/1/11	\$5,485,282
Passage of time	182,216
Gain from premium increases < expected	(486,545)
Change in mortality tables	282,457
Census loss	<u>207,106</u>
AL as of 7/1/12	\$5,670,516

Sample Funding Schedules

There are many ways to approach the pre-funding of retiree healthcare benefits. In the *Financial Results* section, we determined the annual expense for all SMFPD-paid benefits. The expense is an orderly methodology, developed by the GASB, to account for retiree healthcare benefits. This amount will fluctuate from year to year based on the asset performance and as the population matures. However, the GASB 45 expense has no direct relation to amounts SMFPD may set aside to pre-fund healthcare benefits.

The table on the next page provides SMFPD with three alternative schedules for funding (as contrasted with expensing) retiree healthcare benefits. The schedules all assume SMFPD earns 6.5% on its trust assets and that contributions and benefits are paid mid-year. A starting asset value of \$508,795 as of July 1, 2012 is used for the projection.

The schedules are:

1. A level contribution amount for the next 20 years.
2. A level percentage of the Unfunded Accrued Liability (UAL).
3. A contribution that increases by 3% per year for the next 20 years.

We provide these funding schedules to give SMFPD a sense of the various alternatives available to it to pre-fund its retiree healthcare obligation. The three funding schedules are simply three different examples of how SMFPD may choose to spread its costs.

By comparing the schedules, you can see the effect that pre-funding has on the total amount SMFPD will eventually have to pay. Because of investment earnings on fund assets, the earlier contributions are made, the less SMFPD will have to pay in the long run. Of course, the advantages of pre-funding will have to be weighed against other uses of the money.

The table on the following page shows the required annual outlay under the pay-as-you-go method and each of the above schedules. **The three funding schedules include the “pay-as-you-go” costs; therefore, the amount of pre-funding is the excess over the “pay-as-you-go” amount.**

These numbers are computed on a closed group basis, assuming no new entrants.

Southern Marin Fire Protection District

Sample Funding Schedules (Closed Group)

Starting Actuarial Asset Value of \$508,795 as of July 1, 2012

Fiscal Year	Pay-as-you-go	Level Contribution For 20 years	Level % of Unfunded Liability	Constant Percentage Increase
2012	\$322,503	\$659,785	\$954,918	\$522,010
2013	302,651	659,785	863,981	537,670
2014	283,432	659,785	783,267	553,800
2015	297,907	659,785	711,625	570,414
2016	323,437	659,785	649,707	587,526
2017	329,400	659,785	596,788	605,152
2018	352,235	659,785	550,720	623,307
2019	377,631	659,785	511,412	642,006
2020	404,390	659,785	478,050	661,266
2021	418,351	659,785	449,856	681,104
2022	435,835	659,785	425,552	701,537
2023	468,043	659,785	404,750	722,583
2024	505,645	659,785	387,524	744,261
2025	538,238	659,785	373,504	766,589
2026	583,509	659,785	361,961	789,586
2027	611,414	659,785	352,894	813,274
2028	657,616	659,785	345,235	837,672
2029	689,914	659,785	339,273	862,802
2030	718,692	659,785	334,183	888,686
2031	758,283	659,785	329,616	915,347
2032	791,518	0	325,680	0
2033	825,813	0	321,957	0
2034	850,344	0	318,297	0
2035	864,974	0	314,310	0
2036	888,081	0	309,705	0
2037	896,791	0	304,653	0
2038	873,559	0	298,824	0
2039	883,371	0	291,707	0
2040	896,028	0	284,067	0
2041	874,957	0	275,947	0
2042	884,027	0	266,890	0
2043	866,279	0	257,430	0
2044	856,578	0	247,280	0
2045	851,827	0	236,648	0
2046	808,040	0	225,642	0
2047	804,914	0	214,078	0
2048	791,337	0	202,363	0
2049	775,378	0	190,470	0
2050	759,496	0	178,448	0
2055	677,135	0	97,036	0
2060	551,947	0	49,714	0
2065	378,550	0	25,526	0
2070	207,867	0	14,994	0

Actuarial Assumptions

In order to perform the valuation, it is necessary for the actuary to make certain assumptions regarding such items as rates of employee turnover, retirement, and mortality, as well as economic assumptions regarding healthcare inflation and interest rates. Our assumptions are based on a standard set of assumptions we have used for similar studies, modified as appropriate for SMFPD. For example, turnover rates are taken from a standard actuarial table, T-5, reduced by 40% at all ages. This matches well with recent SMFPD experience. Retirement rates were also based on SMFPD experience. Both assumptions should be reviewed periodically to see if they are tracking well with actual turnover and retirement patterns.

The discount rate of 6.5% is based on our best estimate of expected long-term plan experience and is in accordance with our understanding of the guidelines for selection of these rates under GASB 45. The healthcare trend rates are based on our knowledge of the general healthcare environment and the specific coverages offered by SMFPD.

A complete description of the actuarial assumptions used in the valuation is set forth in the "Actuarial Assumptions" section later in the report.

Projected Pay-as-you-go Costs

As part of the valuation, we prepared a projection of the expected annual cash outlay of SMFPD to pay benefits on behalf of its retirees on a pay-as-you-go basis. These numbers are computed on a closed group basis, assuming no new entrants. Projected pay-as-you-go amounts for selected years are as follows:

FYB	Pay-as-you-go
2012	\$322,503
2013	302,651
2014	283,432
2015	297,907
2016	323,437
2017	329,400
2018	352,235
2019	377,631
2020	404,390
2025	538,238
2030	718,692
2035	864,974
2040	896,028
2045	851,827
2050	759,496
2055	677,135
2060	551,947
2065	378,550
2070	207,867

Breakdown by Employee/Retiree Group

Exhibit I, attached at the end of the report, shows a breakdown of the GASB 45 components (ARC, AL, Service Cost, and PVFB) by bargaining unit (or non-represented group) and separately by active employees (future retirees) and current retirees.

Net OPEB Obligation and Annual OPEB Cost (AOC)

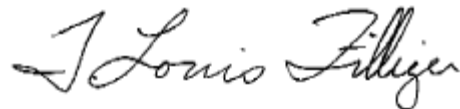
Exhibit II shows a development of SMFPD's Net OPEB Obligation as of June 30, 2010 through June 30, 2012, and the Annual OPEB Cost for the fiscal years 2009-10 through 2012-13.

Certification

The actuarial certification, including a caveat regarding limitations of scope, if any, is contained in the "Actuarial Certification" section at the end of the report.

We have enjoyed working with SMFPD on this report, and are available to answer any questions you may have concerning any information contained herein.

Sincerely,
DEMSEY, FILLIGER AND ASSOCIATES



T. Louis Filliger, FSA, EA, MAAA
Partner & Actuary

Benefit Plan Provisions

This report analyzes the actuarially projected costs of SMFPD's retiree health insurance program. Our findings and assumptions are based on census data as of July, 2012 and a 50-50 blend MCERA premiums effective for calendar years 2012 and 2013.

Active Employee Coverage

SMFPD provides health care for employees, and dependents (and also for retirees and their dependents) through the Marin County Employees' Retirement Association (MCERA). Employees may choose one of two medical options: Kaiser Plan L and Anthem Blue Cross PPO. SMFPD also offers dental and vision insurance through BRMS.

Retiree Coverage

Firefighters

Effective for the 2011-12 fiscal year, Firefighters receive retiree health benefits pursuant to the terms of Section 11.1 of their Memorandum of Understanding (MOU), which states in relevant part that retired unit members with at least 20 years of service will receive a District contribution equal to 100% of the Kaiser Plan L retiree-only premium. Members with at least 10 but fewer than 20 years of service at retirement will receive a District contribution equal to the Kaiser L rate multiplied by 50% plus 5% per year of service in excess of 10 years. Members other than former Sausalito employees hired prior to July 1, 2010 with at least 30 years of service at retirement will also receive District-paid spousal coverage (up to 100% of the Kaiser "Plus 1" rate).

Administrative Employees

Retired administrative employees are eligible to receive an employer contribution equal to the retiree-only premium for the Kaiser Plan L rate (similar to Firefighters).

Fire Chief Officers' Association (SMFCOA)

Retired Deputy Chief and Battalion Chiefs covered by IAFF Local 1775 are eligible to receive an employer contribution towards medical and dental insurance after the completion of 5 years of service and retirement from SMFPD through the Marin County Retirement System. Full-time employees of SMFCOA with 15 years of service qualify for continuation of District-paid spousal coverage. These provisions apply only to existing members of SMFCOA and Fire Chiefs who were employed and promoted prior to July 1, 2001. SMFCOA members hired or promoted after that date are subject to the same provisions as Firefighters, with the exception that SMFCOA retirees with at least 15 years of service are also eligible to receive District-paid dental insurance.

Benefit Plan Provisions (Continued)
--

Implementation of MOU provisions

The provisions governing amount of SMFPD's contribution, described on the previous page, are to be implemented as of November 1, 2013. Retirees currently receiving amounts in excess of the MOU provisions will continue to do so between the valuation date of July 1, 2012 and the implementation date of November 1, 2013. The November 1, 2013 implementation date has been reflected in this actuarial report.

Medical and Dental Premiums

The following table shows January 1, 2012 premiums for retirees in MCERA:

	Kaiser HMO Plan L	Anthem Blue Cross PPO	Delta Dental
<u>Basic Plan</u>			
Retiree	\$616.68	\$926.93	\$65.19
Retiree + 1	1,233.36	1,740.50	123.37
<u>Medicare Coordinated</u>			
Retiree	\$378.44	\$264.90	\$65.19
Retiree + 1ME	756.88	529.82	123.37

Valuation Data

Active and Retiree Census

Age distribution of eligible retirees and surviving spouses

Age	Count
Under 50	0
50-54	3
55-59	6
60-64	9
65-69	7
70-74	4
75-79	0
80-84	0
85-89	0
90+	<u>0</u>
Total	29
Average Age	62.31

Age/Years of service distribution of active employees included in the valuation*

Years→	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
<u>Age</u>									
<25	0								0
25-29	3	0							3
30-34	4	4	1						9
35-39	2	4	3	0					9
40-44	0	3	4	1	1				9
45-49	0	3	2	0	1	0			6
50-54	0	1	0	1	1	1	0		4
55-59	0	0	0	0	0	0	1	1	2
60-64	0	0	0	0	0	0	0	0	0
65+	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
All Ages	9	15	10	2	3	1	1	1	42

*includes prior service credits with the City of Sausalito where applicable.

Average Age: 40.26
 Average Service: 10.29

Actuarial Assumptions

The liabilities set forth in this report are based on the actuarial assumptions described in this section.

Valuation Date:	July 1, 2012
Actuarial Cost Method:	Projected Unit Credit
Discount Rate:	6.5% per annum
Return on Assets:	6.5% per annum
Amortization Method:	30 year, level dollar, open period
Pre-retirement Turnover:	According to the Crocker-Sarason Table T-5 less mortality, reduced by 40% at all ages. Sample rates are as follows:

Age	Turnover (%)
25	4.6%
30	4.3
35	3.8
40	3.1
45	2.4
50	1.5
55	0.6

Pre-retirement Mortality: RP-2000 Combined Mortality, static projection to 2012 by scale AA. Sample deaths per 1,000 employees are as follows:

Age	Males	Females
25	0.33	0.18
30	0.42	0.23
35	0.73	0.42
40	0.98	0.59
45	1.29	0.93
50	1.72	1.36
55	2.88	2.47
60	5.56	4.76

Post-retirement Mortality: RP-2000 Combined Mortality, static projection to 2012 by scale AA. Sample deaths per 1,000 retirees are as follows:

Age	Males	Females
60	5.56	4.76
65	10.75	9.14
70	18.52	15.77
75	31.95	25.52
80	57.06	42.17
85	101.80	72.05
90	174.80	127.02

Actuarial Assumptions (Continued)
--

Claim Cost per Retiree or Spouse:

Age	Medical/Rx	Dental
45-64	\$8,871	\$782
65+	4,561	782

Retirement Rates:

Age	Percent Retiring*
45-49	3.0%
50	15.0
51	20.0
52	25.0
53	30.0
54	40.0
55	50.0
56	60.0
57	70.0
58	80.0
59	90.0
60	100.0

* Of those having met eligibility to receive retirement benefits. The percentage refers to the probability that an active employee who has reached the stated age will retire within the following year.

Trend Rates:

Year	Medical/Rx	Dental
2012	7.0%	4.0%
2013	6.0	4.0
2014+	5.0	4.0

Claim Cost Derivation:

We used unadjusted premiums for the valuation because we believe that the retiree rates charged by MCERA are actuarially sufficient to pay for expected retiree claim costs.

Percent of Retirees with Spouses:

Future Retirees: 25% of future retirees were assumed to have spouses. Female spouses assumed three years younger than male spouses.

Current Retirees: Based on actual spousal data.

Actuarial Certification

The liabilities set forth in this report are based on our actuarial valuation of SMFPD's retiree health insurance program as of July 1, 2012.

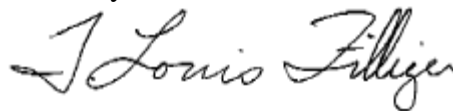
The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by SMFPD in October, 2013. We made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by SMFPD. We have also relied on monthly asset statements for amounts held in trust provided to SMFPD by PARS.

The assumptions used in performing the valuation, as summarized in this report, and the results based thereupon, represent our best estimate of the actuarial costs of the program under GASB 43 and GASB 45, and the existing and proposed Actuarial Standards of Practice for measuring post-retirement healthcare benefits. We have assumed no post-valuation mortality improvements, consistent with our belief that there will be no further significant, sustained increases in life expectancy in the United States over the projection period covered by the valuation.

Throughout the report, we have used unrounded numbers, because rounding and the reconciliation of the rounded results would add an additional, and in our opinion unnecessary, layer of complexity to the valuation process. By our publishing of unrounded results, no implication is made as to the degree of precision inherent in those results. Clients and their auditors should use their own judgment as to the desirability of rounding when transferring the results of this valuation report to the clients' financial statements.

The undersigned actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Certified by:



T. Louis Filliger, FSA, EA, MAAA Date: 12/4/13
Partner & Actuary

Southern Marin Fire Protection District
GASB 45 Valuation Results By Employee Group

	<u>7/1/2012</u> Valuation Results <u>Firefighters</u>	<u>7/1/2012</u> Valuation Results <u>Chiefs</u>	<u>7/1/2012</u> Valuation Results <u>Administrators</u>	<u>7/1/2012</u> Valuation Results <u>Total All Groups</u>
District-paid Present Value of Benefits:				
Actives	\$ 4,241,849	\$ 437,544	\$ 91,784	\$ 4,771,177
Retirees	<u>1,740,294</u>	<u>1,435,714</u>	<u>63,726</u>	<u>3,239,734</u>
Total District-Paid PVFB:	\$ 5,982,143	\$ 1,873,258	\$ 155,510	\$ 8,010,911
District-paid Accrued Liability:				
Actives	\$ 2,011,778	\$ 357,815	\$ 61,189	\$ 2,430,782
Retirees	<u>1,740,294</u>	<u>1,435,714</u>	<u>63,726</u>	<u>3,239,734</u>
Total District-Paid AL:	\$ 3,752,072	\$ 1,793,529	\$ 124,915	\$ 5,670,516
Assets*	<u>(336,660)</u>	<u>(160,927)</u>	<u>(11,208)</u>	<u>(508,795)</u>
District-paid Unfunded Accrued Liability ("UAL")	\$ 3,415,412	\$ 1,632,602	\$ 113,707	\$ 5,161,721
 <u>GASB 45 ARC ("Annual Required Contributions")</u>				
Service Cost at Year-end	\$ 211,771	\$ 11,729	\$ 8,146	\$ 231,646
30-year amortization of District-paid UAL	<u>261,544</u>	<u>125,020</u>	<u>8,707</u>	<u>395,271</u>
Total ARC (District's Annual Expense)	\$ 473,315	\$ 136,749	\$ 16,853	\$ 626,917

*Assets, if any, allocated in proportion to AL for illustration purposes only; GASB 45 does not provide authority for this calculation.

**Southern Marin Fire Protection District
Development of Annual OPEB Costs**

Exhibit II

	Amount
ARC for 2009-10	575,707
Interest on Net OPEB Obligation	-
Amortization adjustment to ARC	-
Annual OPEB Cost 2009-10	575,707
Employer Contribution	<u>(296,844)</u>
Change in Net OPEB Obligation 2009-10	278,863
Net OPEB Obligation 6/30/2009	<u>-</u>
Net OPEB Obligation 6/30/2010	278,863
ARC for 2010-11	575,707
Interest on Net OPEB Obligation	13,943
Amortization adjustment to ARC	<u>(18,140)</u>
Annual OPEB Cost 2010-11	571,510
Employer Contribution	<u>(532,337)</u>
Change in Net OPEB Obligation 2010-11	39,173
Net OPEB Obligation 6/30/2010	<u>278,863</u>
Net OPEB Obligation 6/30/2011	318,036
ARC for 2011-12	577,830
Interest on Net OPEB Obligation	20,672
Amortization adjustment to ARC	<u>(24,354)</u>
Annual OPEB Cost 2011-12	574,148
Employer Contribution	<u>(643,543)</u>
Change in Net OPEB Obligation 2011-12	(69,395)
Net OPEB Obligation 6/30/2011	<u>318,036</u>
Net OPEB Obligation 6/30/2012	248,641
ARC for 2012-13	626,917
Interest on Net OPEB Obligation	16,162
Amortization adjustment to ARC	<u>(19,040)</u>
Annual OPEB Cost 2012-13	624,039