



October 9, 2009

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, 2009

Dear Ms. Schiffman:

This report sets forth the results of our GASB 45 actuarial valuation for SMFPD's retiree health insurance program as of July 1, 2009.

In June, 2004, the Government Accounting Standards Board (GASB) issued its final accrual accounting standards for retiree healthcare benefits, GASB 43 and GASB 45. GASB 43/45 require 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 benefits. SMFPD requires a determination of the liabilities and disclosure requirements of its retiree health insurance plan under the new standards.

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, 2009. We have set forth the results of the valuation in this report, and 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, 2009, is \$8,379,755. 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 5.0% 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 27 retirees (including covered dependents) and survivors, as well as 34 active employees who may become eligible to retire and receive benefits in the future. It excludes employees hired after the valuation date.

If the \$8,379,755 is apportioned into past service and future service components under the Projected Unit Credit Cost Method, the past service liability (or "Accrued Liability") component is \$6,456,667 as of July 1, 2009. This represents the present value of all benefits earned to date assuming that an employee earns retiree healthcare benefits ratably over his or her career. The \$6,456,667 is comprised of liabilities of \$1,720,667 for active employees and \$4,736,000 for retirees. Because SMFPD has not established a trust for pre-funding retiree healthcare benefits, the Unfunded Accrued Liability (also called the UAL, equal to the AL less Assets) is also \$6,456,667.

The scheduled implementation date for GASB 45 is July 1, 2009, assuming that SMFPD is a Phase III agency, defined by GASB 34 as having had revenues of less than \$10M for the fiscal year ended June 30, 1999.

We have determined that SMFPD's annual accrual expense for retiree healthcare benefits, for the fiscal year 2009-10, is \$575,707. This amount is referred to as the "Annual Required Contributions", or "ARC" under GASB 45. The \$575,707 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 will pay approximately \$304,477 for the 2009-10 fiscal year in healthcare costs for retirees, so the change to accrual accounting will represent a projected first-year increase in annual expense of \$271,230.

The above numbers are summarized in the table on the following page. All amounts are net of expected future retiree contributions, if any.

**Southern Marin Fire Protection District**  
**Liabilities and Annual Accrual Expense Under**  
**GASB 45 Accrual Accounting Standard**  
**Projected Unit Credit Cost Method**

Item	Amounts for FYE 2010
Present Value of Future Benefits (PVFB)	
Active	\$3,643,755
Retired	<u>4,736,000</u>
<b>Total: PVFB</b>	<b>\$8,379,755</b>
Accrued Liability (AL)	
Actives	\$1,720,667
Retired	<u>4,736,000</u>
<b>Total: AL</b>	<b>\$6,456,667</b>
Assets	<u>(0)</u>
<b>Total: Unfunded AL</b>	<b>\$6,456,667</b>
Annual Required Contributions (ARC)	
Service Cost At Year-End	\$155,692
30-year Amortization of Unfunded AL	<u>420,015</u>
<b>Total: ARC</b>	<b>\$575,707</b>

It's our understanding that SMFPD is a "Phase III Agency" as defined by GASB 45, and therefore must implement GASB 45 for the fiscal year beginning July 1, 2009. The ARC of \$575,707, shown above, may be used without adjustment for the 2009-10 fiscal year.

When SMFPD begins preparation of the June 30, 2010 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 (and GASB 43, if applicable).

All numbers set forth in the above table, as well as elsewhere in this report, are net of expected future retiree contributions, except where otherwise indicated.

## **GASB 43 and GASB 45 Compliance Issues**

There are two considerations regarding GASB 43 and GASB 45 that we would like to mention at this point:

(1) Both statements specify that in order for a retiree fund to be counted as "assets" for purposes of the statements, the fund must be set aside in a separate, irrevocable trust, that may not be used for any purpose besides the payment of plan benefits to retirees. The trust must also be beyond the reach of creditors of both the employer and/or the plan administrator, if any. For example, an earmarked reserve within the General Fund is not expected to meet this definition of "assets". We recommend that SMFPD consider taking steps to establish a retiree fund that meets the GASB requirements, as soon as possible.

(2) There has been some confusion among public agencies throughout California over what GASB 45 does and does not require. Specifically, many agencies initially believed that GASB 45 required pre-funding of retiree healthcare plans. This is not the case - the standard applies only to the expense to be charged to the agencies' income statements. Contributing to the confusion is the terminology used in both GASB 43 and GASB 45 for the annual expense - it's called the "Annual Required Contributions", even though it's neither required nor (necessarily) contributed.

### **Relationship between GASB 45 And SMFPD Funding Policy**

We do not believe that it is necessary or even desirable for an agency to establish a policy of funding exactly the ARC on a cash basis each year. The reasons for this are a bit complex and beyond the scope of this report, but the important thing to understand is that GASB 45 pertains to the income statement, and funding pertains to cash flow, and there is no need for the two to be directly linked, at least for now.

Despite these concerns, we do recommend that SMFPD adopt a policy of pre-funding its retiree healthcare plan as soon as possible. The benefits of pre-funding into an irrevocable retiree trust are numerous. To name a few, SMFPD can expect the establishment of an irrevocable trust to result in:

- (1) improved return on investments;
- (2) healthier SMFPD financial statements;
- (3) lower ARC in future years (since pre-funded amounts reduce future years' amortization charges on the Unfunded AL, and the actuary may be able to use a higher discount rate);
- (4) more predictable and manageable cash flows; and
- (5) greater economic security for SMFPD employees and retirees.

## **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. It will eventually reach zero when the last eligible retiree dies. 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 that the retiree fund earns 5.0% per annum on its investments, and that contributions and benefits are paid mid-year. All numbers are net of expected retiree contributions.

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 constant percentage (3%) increase in contribution each 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 early pre-funding has on the 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 next page shows the required annual outlay under the pay-as-you-go method and each of the above schedules. The three funding schedules represent SMFPD's total expected outlay, including "pay-as-you-go" costs; therefore, the amount remaining each year to build up the fund is the excess over the "pay-as-you-go" amount. All numbers shown on the next page are on a closed group basis; therefore, they do not consider employees hired after the valuation date.

**Southern Marin Fire Protection District**  
**Sample Funding Schedules (Closed Group)**

<b>Fiscal Year Beginning</b>	<b>Pay-as-you-go</b>	<b>Level Contribution for 20 years</b>	<b>Level % of Unfunded Liability*</b>	<b>Constant Percentage Increase</b>
2009	\$304,477	\$656,200	\$903,933	\$512,238
2010	318,402	656,200	838,363	527,605
2011	334,730	656,200	779,144	543,433
2012	356,060	656,200	725,713	559,736
2013	374,093	656,200	677,624	576,528
2014	380,851	656,200	634,221	593,824
2015	393,669	656,200	594,712	611,639
2016	405,776	656,200	558,868	629,988
2017	397,241	656,200	526,290	648,888
2018	407,006	656,200	496,153	668,354
2019	412,132	656,200	468,666	688,405
2020	417,275	656,200	443,453	709,057
2021	419,059	656,200	420,287	730,329
2022	425,456	656,200	398,896	752,239
2023	436,912	656,200	379,194	774,806
2024	450,999	656,200	361,086	798,050
2025	459,489	656,200	344,430	821,992
2026	485,764	656,200	328,961	846,651
2027	517,602	656,200	314,782	872,051
2028	552,520	656,200	301,754	898,212
2029	571,617	0	289,699	0
2030	584,491	0	278,242	0
2031	599,424	0	267,200	0
2032	606,530	0	256,502	0
2033	611,498	0	246,000	0
2034	613,839	0	235,630	0
2035	608,042	0	225,338	0
2036	605,453	0	215,066	0
2037	607,577	0	204,827	0
2038	574,277	0	194,620	0
2039	557,905	0	184,399	0
2040	553,726	0	171,561	0
2041	542,109	0	155,544	0
2042	536,713	0	141,024	0
2043	515,522	0	127,861	0
2044	508,500	0	115,928	0
2045	501,215	0	105,110	0
2046	477,078	0	95,304	0
2047	467,993	0	86,413	0
2048	458,498	0	78,354	0
2049	445,088	0	71,047	0
2050	433,070	0	64,423	0
2055	358,703	0	39,506	0
2060	261,659	0	24,239	0
2065	156,797	0	14,875	0
2070	71,589	0	9,126	0

\* Reverts to pay-as-you-go in 2077.

## **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 valuations, modified as appropriate for SMFPD. For example, turnover rates were taken from a standard actuarial table, T-5, reduced by 40% at all ages. This was found to provide a good match for historical SMFPD turnover experience.

Retirement rates were also based on recent SMFPD experience, but are less reliable due to the relatively small size of the retiree group. Both of these assumptions should be reviewed in the next valuation to make sure they are tracking well with experience.

The discount rate of 5.0% 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 for unfunded plans such as SMFPD's. The healthcare trend rates are based on our knowledge of the general healthcare environment and the specific coverages offered by SMFPD.

Please see the "Actuarial Assumptions" section of the report for further details.

## **Projected Pay-as-you-go Costs**

As part of the valuation, we prepared a projection of the expected annual cost to SMFPD to pay benefits on behalf of its retirees on a pay-as-you-go basis. These numbers are on a closed group basis. Projected pay-as-you-go costs for selected future years are as follows:

<b>FYB</b>	<b>Pay-as-you-go*</b>
2009	\$304,477
2010	318,402
2011	334,730
2012	356,060
2013	374,093
2014	380,851
2015	393,669
2020	417,275
2025	459,489
2030	584,491
2035	608,042
2040	553,726
2045	501,215
2050	433,070
2055	358,703
2060	261,659

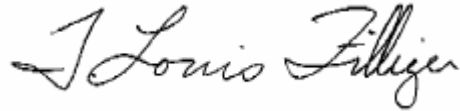
\*These numbers decrease and eventually reach zero by the year 2090 because the group is valued on a closed basis (does not consider future hires).

**Certification**

The actuarial certification, including a caveat regarding limitations of scope, if any, is contained in “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

A handwritten signature in cursive script that reads "T. Louis Filliger".

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



## **Benefit Plan Provisions**

This report analyzes the actuarially projected costs of the SMFPD's retiree health insurance program. Our findings and assumptions are based on census data as of July, 2009 and MCERA premiums effective for calendar 2009, adjusted by medical trend to the valuation date.

### **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 three medical options: Kaiser HMO High Option, Blue Cross Prudent Buyer Plus, and Blue Cross Prudent Buyer Classic. SMFPD also offers dental and vision insurance through BRMS.

### **Retiree Coverage**

Upon retirement with 20 or more years of service under MCERA, at least 10 of which must be with SMFPD, retirees are eligible to receive the following employer-paid health benefits for life, depending on job classification and tier:

#### **Firefighters**

Plan 1 - hired prior to October 1, 1987. The retiree receives 100% coverage for retiree only. If the retiree elects spousal coverage, it must be self-paid unless the retiree has at least 30 years of service and elects Plan 3, in which case benefits are paid up to the Plan 3 maximum for spousal coverage.

Plan 2 - hired on or after October 1, 1987 but before October 1, 1993. The retiree receives a contribution equal to \$2,275 per year towards the retiree-only medical coverage. If the retiree elects spousal coverage, it must be self-paid unless the retiree has at least 30 years of service and elects Plan 3, in which case benefits are paid up to the Plan 3 maximum for spousal coverage.

Plan 3 - hired on or after October 1, 1993 but before January 1, 2008. Each year a Plan 3 allocation amount is determined. This amount is multiplied by years of service to a maximum of 20 years. Historically, the allocation amount has been set at 1/20 of the Kaiser single retiree rate. Retirees with at least 30 years of service receive an additional Plan 3 allocation amount towards the cost of spousal coverage.

Plan 4 - hired on or after January 1, 2008: Retiree receives a contribution equal to \$150 per year of credited service up to a maximum of 20 years (\$3,000 annual maximum). There is no 30-year spousal allocation, so if spousal coverage is elected it must be entirely self-paid by the retiree.

<b>Benefit Plan Provisions (Continued)</b>
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**Retiree Coverage (continued)**

Administrative Employees

Retired administrative employees are eligible to receive an employer contribution equal to the retiree-only premium for the Kaiser HMO High Option (similar to Plan 3 for 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 provisions similar to Plan 3 for firefighters.

**Medical and Dental Premiums**

The following table shows January 1, 2009 premiums for retirees in MCERA:

	Kaiser HMO High Option	BC Prudent Buyer Classic	BC Prudent Buyer Plus	Delta Dental
<u>Basic Plan</u>				
Retiree	\$518.19	\$793.87	\$1,190.21	\$49.72
Retiree + 1	1,036.38	1,618.51	2,441.49	93.31
<u>Medicare Coordinated</u>				
Retiree	\$371.18	\$536.49	\$860.49	\$49.72
Retiree + 1ME	742.36	1,072.98	1,720.98	93.31

<b>Valuation Data</b>
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Age distribution of retirees included in the valuation

Age	Count
Under 50	1
50-54	4
55-59	6
60-64	9
65-69	7
70+	<u>0</u>
All Ages	27
Average Age	60.59

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+	Total
<u>Age</u>								
20-24	0							0
25-29	2	0						2
30-34	3	1	0					4
35-39	3	6	1	0				10
40-44	2	3	0	0	0			5
45-49	1	1	2	1	2	0		7
50-54	0	0	0	1	0	4	0	5
55-59	0	0	0	0	0	0	1	1
60-64	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>
All Ages	11	11	3	2	2	4	1	34

Average Age: 41.18  
Average Service: 10.88

## Actuarial Assumptions

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

Valuation Date:	July 1, 2009
Actuarial Cost Method:	Projected Unit Credit
Amortization Method:	30-year level dollar, open (suggested)
Discount Rate:	5.0% per annum
Return on Assets:	5.0% per annum
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: 1994 Group Annuity Mortality, Male and Female tables. Sample deaths per 1,000 employees are as follows:

Age	Males	Females
25	0.71	0.31
30	0.86	0.38
35	0.92	0.51
40	1.15	0.76
45	1.70	1.05
50	2.77	1.54
55	4.76	2.47
60	8.58	4.77

Post-retirement Mortality: 1994 Group Annuity Mortality, Male and Female tables. Sample deaths per 1,000 retirees are as follows:

Age	Males	Females
65	15.63	9.29
70	25.52	14.73
75	40.01	24.39
80	66.70	42.36
85	104.56	72.84
90	164.44	125.02

<b>Actuarial Assumptions (Continued)</b>
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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 (including disability retirement) 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
2009	7.0%	4.0%
2010	6.0	4.0
2011+	5.0	4.0

Percent of Retirees Electing Spousal Coverage:

Future Retirees: 25% of future retirees were assumed to elect spousal coverage at the time of retirement. Female spouses assumed three years younger than male spouses.

Current Retirees: Based on actual spousal data.

Claim Costs:

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.

## Actuarial Certification

The liabilities set forth in this report are based on our actuarial valuation of the SMFPD's retiree health insurance program as of July 1, 2009.

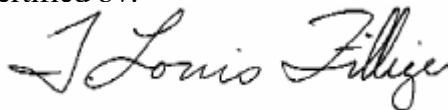
The valuation was performed in accordance with generally accepted actuarial principles and practices. We relied on census data for active employees and retirees provided to us by the SMFPD in August-September, 2009. We also made use of claims, premium, expense, and enrollment data, and copies of relevant sections of healthcare documents provided to us by SMFPD.

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.

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: 10/9/09  
Partner & Actuary