TIBURON FIRE PROTECTION DISTRICT

VALUATION OF RETIREE HEALTH BENEFITS

REPORT OF GASB 45 VALUATION
AS OF JULY 1, 2013

Prepared by: North Bay Pensions
November 26, 2013

CONTENTS OF THIS REPORT

Actuarial Certification

This report presents the determination of benefit obligations under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45) as of July 1, 2013 for the retiree health and welfare benefits provided by the Tiburon Fire Protection District. I was retained by the District to perform these calculations.

GASB Statement 45, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions", was issued to provide standards for governmental employers to record expense for Other Postemployment Benefits (OPEB). OPEB includes postretirement health and welfare benefits, hence GASB 45 is the appropriate Standard to follow when recording the District's OPEB obligations.

The information contained in this report was based on a participant census as of July 1, 2013 provided to me by the District. The actuarial assumptions and methods used in this valuation were selected by the District after consultation with me. I believe the assumptions and methods are reasonable and appropriate for purposes of actuarial computations under GASB 45.

Actuarial computations under GASB 45 are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been made on a basis consistent with my understanding of GASB 45. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results reported herein.

To the best of my knowledge, this report is complete and accurate. This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including Actuarial Standards of Practice. The undersigned is a Fellow of the Society of Actuaries, a Fellow of the Conference of Consulting Actuaries, and a Member of the American Academy of Actuaries, and meets their continuing education requirements and qualification standards for public statements of actuarial opinion relating to retirement plans. In my opinion, I am qualified to perform this valuation.

11-26-13

Nick Franceschine, F.S.A.

North Bay Pensions
550 Du Franc Avenue
Sebastopol, CA 95472
1-800-594-4590
FAX 707-823-6189
nick@northbaypensions.com

Summary of Results

Background

The District pays monthly medical insurance premiums on behalf of retired former employees. As of July 1, 2013, the District continues to fund the benefits through the California Employers Retirement Benefit Trust (CERBT) sponsored by CalPERS.

In June 2004, the Governmental Accounting Standards Board (**GASB**) released Statement No. 45, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions". This statement, often referred to as **GASB 45**, requires governmental entities to (1) record annual expense for their **OPEB** (Other Post Employment Benefits) and (2) disclose certain information in their year-end financial statements.

The District has requested this actuarial valuation to determine what its OPEB obligations under the program are, and what the fiscal impact of GASB 45 will be for the 2013-2014 and 2014-2015 fiscal years.

Actuarial Present Value of Total Projected Benefits

The Actuarial Present Value of Total Projected Benefits (**APVTPB**) for all current and former employees, as of July 1, 2013, is **$4,080,669**. This is the amount that the District would theoretically need to set aside at this time to fully fund all those future benefits.

The total value of $4,080,669 is the sum of these amounts:

Employees	$ 1,828,790
Retirees	2,251,879
Subtotal	**$ 4,080,669**

The present value of medical insurance premiums that are expected to be paid by the District to retirees in the current and future years is $4,080,669. This figure was computed using a discount rate of 7.61%, which is the long-term rate of earnings that the District expects to earn on its investments in the CERBT. This figure may be compared to the APVTPB of $3,418,275 which was disclosed in the 2011 valuation report. The increase is due to a number of factors, including a change in the assumed future increases in the monthly benefits cap, and the fact that no persons have quit or died since the last valuation.

All these figures have been computed by (1) estimating the OPEB benefits that will be paid to each current and former employee and their beneficiaries, upon the employee's retirement from the District, (2) estimating the likelihood that each payment will be made, taking into consideration the likelihood of remaining employed until retirement age and the likelihood of survival after retirement, and (3) discounting each expected future payment back to the present date at the discount rate of 7.61% per year.

Actuarial Accrued Liability

Under the accounting rules, a portion of each employee's benefits is attributed to each year of employment. The portion of the APVTPB which is due to past years of employment is called the Actuarial Accrued Liability (**AAL**). The AAL can be thought of as the part of the APVTPB which was "earned" in prior years. The portion of the APVTPB which is being "earned" in the current year is called the **Normal Cost**.

As of July 1, 2013, the Actuarial Accrued Liability is $3,806,644. The Normal Cost in the 2013-2014 year is $46,683. One way to think of the APVTPB is like this:

Portion "earned" in prior years (AAL)	$ 3,806,644
Portion being "earned" this year (Normal Cost)	46,683
Portion to be "earned" in future years	227,342
APVTPB	$ 4,080,669

Annual OPEB Cost

The Annual Required Contribution (ARC) is equal to the Normal Cost plus an amortization of the Unfunded Actuarial Accrued Liability (UAAL).

The Annual OPEB Cost, the actual amount to be accrued each year under GASB 45 as an annual operating expense, is calculated as the sum of (1) the ARC, (2) one year's interest on prior years' ARC's that haven't been funded yet, and (3) an adjustment to prevent double-counting of the amortization of the UAAL.

The Annual OPEB Cost for the 2013-2014 fiscal year is **$272,228**. For the 2014-2015 fiscal year, the Annual OPEB Cost is estimated to be **$272,090**. Detailed derivations of these amounts are shown in Exhibit 2 of this report. Exhibit 3 provides *estimates* of the Annual OPEB Cost for the next three years after that.

At the end of each fiscal year, the District will carry a balance sheet liability or asset, called the "**Net OPEB Obligation/Asset**", which represents the cumulative amount of Annual OPEB Costs for all past years that haven't yet been funded, or which have been overfunded. The District has informed me that the Net OPEB Asset as of June 30, 2013 is $715,353, which means that the District has funded that amount in excess of annual GASB 45 operating expenses over the last four fiscal years.

Exhibit 1 - Actuarial Values as of July 1, 2013

The actuarial present value as of July 1, 2013 of all future benefits from the program, also known as the **Actuarial Present Value of Total Projected Benefits** (**APVTPB**), for all current and former employees, is as follows:

Current employees	$ 1,828,790
Retirees	2,251,879
Total (APVTPB)	**$ 4,080,669**

The portion of the APVTPB which is attributed to past years of employment is called the **Actuarial Accrued Liability** (**AAL**).

The **Actuarial Value of Assets** (**AVA**) is the total amount of assets that have been segregated for purposes of paying these benefits, and which cannot be used by the District for any other purpose. For accounting purposes, this segregation is accomplished by setting assets in an irrevocable trust, rather than merely allocating funds to an account of the District's balance sheet. As of July 1, 2013, the District has assets of $1,389,272 in the CERBT (the California Employers Retirement Benefit Trust sponsored by CalPERS).

The **Unfunded Actuarial Accrued Liability** (**UAAL**) is the excess, if any, of the AAL over the AVA.

As of July 1, 2013, these amounts are:

Current employees	$ 1,554,765
Retirees	2,251,879
Total (AAL)	**$ 3,806,644**
Actuarial Value of Assets (AVA)	**$ 1,389,272**
Unfunded Actuarial Accrued Liability (UAAL)	**$ 2,417,372**

Number of Employees Covered

Current employees	23
Average Age	43.4
Average Service	13.3
Retired Employees	18
Average Age	64.7

Exhibit 2 - Annual OPEB Cost

The **Annual Required Contribution** (**ARC**) is the sum of the Normal Cost and the amortization of the Unfunded Actuarial Accrued Liability (UAAL). For the 2014 and 2015 fiscal years, the ARC is computed like this:

Fiscal Year Ending	June 30, 2014	June 30, 2015
Actuarial Accrued Liability	3,806,644	$ 3,952,876
Actuarial Value of Assets	1,389,272	1,577,208
Unfunded Actuarial Accrued Liability (UAAL)	$ 2,417,372	$ 2,375,668
Years Remaining in Amortization Period	26	25
Amortization of UAAL	$ 216,049	$ 215,187
Normal Cost	46,683	46,683
Annual Required Contribution (ARC)	$ 262,732	$ 261,870

Annual OPEB Cost, which is the actual amount to be accrued each year under GASB 45 as an annual operating expense, is equal to the sum of (1) the ARC, plus (2) adjustments to reflect ARC's from prior years that have not yet been funded. For the 2014 and 2015 fiscal years, these amounts are:

Fiscal Year Ending	June 30, 2014	June 30, 2015
ARC	$ 262,732	$ 261,870
Interest adjustment	(54,438)	(53,716)
Amortization adjustment	63,934	63,936
Annual OPEB Cost	**$ 272,228**	**$ 272,090**

Exhibit 3 - Five-Year Projection of Costs

Shown below is an estimate of the way in which the Annual OPEB Cost might be expected to increase over the next five years. In this illustration, it is assumed that the District will fund each year an amount equal to the ARC, with the amount in excess of total payments to retirees being paid monthly into the CERBT. It is also assumed that the Normal Cost will remain unchanged and that all actuarial assumptions will remain unchanged.

Fiscal Year:	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**
Years of Amortization Remaining	26	25	24	23	22
ARC					
Normal cost	$ 46,683	$ 46,683	$ 46,683	$ 46,683	$ 46,683
Amortization	216,049	215,187	214,306	213,408	212,494
Total ARC	$ 262,732	$ 261,870	$ 260,989	$ 260,091	$ 259,177
Plus interest	(54,438)	(53,716)	(52,938)	(52,101)	(51,200)
Less ARC adjustment	63,934	63,936	63,937	63,937	63,936
Annual OPEB Cost	**$ 272,228**	**$ 272,090**	**$ 271,988**	**$ 271,927**	**$ 271,913**
Funding by the District					
Pay-as-you-go amount	$ 183,290	$ 195,511	$ 203,873	$ 213,981	$ 220,737
Additional funding	79,442	66,359	57,116	46,110	38,440
Total paid each year	**$ 262,732**	**$ 261,870**	**$ 260,989**	**$ 260,091**	**$ 259,177**
Increase in net OPEB Obligation	9,496	10,220	10,999	11,836	12,736
Net OPEB (Asset) at beginning of year	$ (715,353)	$ (705,857)	$ (695,637)	$ (684,638)	$ (672,802)
Net OPEB (Asset) at end of year	**$ (705,857)**	**$ (695,637)**	**$ (684,638)**	**$ (672,802)**	**$ (660,066)**

Exhibit 4 - Summary of Plan Provisions

The District contributes toward post-retirement benefits for employees who retire after age 50 or who become disabled. The District will pay the full monthly premiums for medical coverage for the retired employee and eligible dependents (spouses and dependent children), but no more than the "cap" amounts which have been agreed upon. Medical coverage is provided under plans sponsored by CalPERS.

For an employee hired after March 1, 2005, the cap amounts are pro-rated if the employee has less than 20 years of service at retirement (unless the employee has retired due to disability), as follows:

Years of Service at Retirement	Percentage of Cap Payable
Less than 10 Years	0 %
10 Years	50 %
11 Years	55 %
12 Years	60 %
13 Years	65 %
14 Years	70 %
15 Years	75 %
16 Years	80 %
17 Years	85 %
18 Years	90 %
19 Years	95 %
20 or More Years	100 %

Effective in January 2013, the monthly caps in effect are $586 for single party coverage, $1,172 for two-party and $1,525 for family coverage.

Exhibit 5 - Summary of Actuarial Assumptions

Actuarial Assumptions: The following assumptions as of July 1, 2013 were selected by the District in accordance with the requirements of GASB 45. In my opinion, these assumptions are reasonable and appropriate for purposes of determining OPEB costs under GASB 45.

Discount rate: 7.61% per year.

Funding Method: The Entry Age Normal funding method, with the Normal Cost computed as a level dollar amount. The Unfunded Actuarial Accrued Liability is amortized as a level dollar amount over the closed 30-year period beginning July 1, 2009.

Turnover (withdrawal): Likelihood of termination within the next year is taken from the 2010 CalPERS OPEB Assumptions Model, rates for fire safety employees. Sample rates are:

	5 Years Service	10 Years Service	15 Years Service
Age 20	2.57 %		
Age 30	2.57 %	0.90 %	0.79 %
Age 40	2.57 %	0.90 %	0.79 %
Age 50	0.95 %	0.29 %	0.21 %

Mortality: Mortality rates are taken from the 2010 CalPERS OPEB Assumptions Model. Rates are projected to future years on a generational basis with Scale BB, to approximate the effect of future improvements in life expectancy.

Coverage Elections: 100% of future eligible retired employees are assumed to participate in this program. Employees are assumed to keep the same medical plan after retirement that they have while employed. Employees without current coverage are assumed to elect Blue Shield coverage. All participants are expected to qualify for Social Security Medicare. All employees are assumed to have the same family status (married, single) after retirement that they have now.

Baseline Medical Costs: CalPERS medical plans are considered to be "community rated" under GASB 45, so there is no inherent subsidy to be valued. **It is highly likely that the accounting standards will be changed in the near future, so that the value of subsidized premiums will need to be included in the District's annual cost. I roughly estimate that this might increase the District's annual operating expense by 20% to 60%.**

Retirement: Rates are taken from the 2010 CalPERS OPEB Assumptions Model for firefighters with a 3% at age 55 retirement formula. Sample rates are:

	10 Years Service	20 Years Service	30 Years Service
Age 55	9.2 %	13.4 %	24.6 %
Age 58	8.1 %	11.9 %	21.9 %
Age 61	7.8 %	11.3 %	20.8 %
Age 64	7.8 %	11.3 %	20.8 %

Medical Cost Increases (Trend): CalPERS medical premiums are assumed to increase as follows:

2015	6.7 %
2016	6.4 %
2017	6.1 %
2018	5.8 %
2019 and later	5.5 %

The caps on medical premiums are assumed to increase 3% per year for the years 2014 through 2018, then 4% every third year thereafter.

Assets: The actuarial value of assets is the fair market value of assets.

Disablement: Likelihood of retiring because of disability within the next year is taken from the most recent CalPERS valuations for fire safety employees. Sample rates are:

Age 25	0.13 %
Age 30	0.26 %
Age 35	0.38 %
Age 40	0.50 %
Age 45	0.63 %
Age 50	0.79 %