

**NOVATO SANITARY DISTRICT**

**VALUATION OF RETIREE HEALTH BENEFITS**

**REPORT OF GASB 45 VALUATION  
AS OF JULY 1, 2012**

**Prepared by: North Bay Pensions  
April 19, 2013**

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## 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, 2012 for the retiree health and welfare benefits provided by the Novato Sanitary 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 participant census information 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. 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.

  
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Nick Franceschine, F.S.A.

4-19-13

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## Summary of Results

### Background

The District maintains a program which pays part or all of monthly medical insurance premiums on behalf of retired former employees, provided that the employee has satisfied certain requirements. This program is being funded on a pay-as-you-go basis. As of July 1, 2012, the District has funded \$0 in a secure trust toward the cost of future benefits.

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 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 2012-2013 and 2013-2014 fiscal years.

### Present Value of Future Benefits

The **Actuarial Present Value of Total Projected Benefits (APVTPB)** as of July 1, 2012, is **\$5,908,205**. This is the amount the District would theoretically need to set aside at this time to fully fund all future benefits for all current and former employees and their beneficiaries.

This figure of \$5,908,205 can be compared to the corresponding figure of \$6,112,283 as of July 1, 2010. The main reason for the decrease is that more employees have left employment than anticipated.

The total value of \$5,908,205 is the sum of these amounts:

Future benefits of current employees	\$ 2,044,705
Future benefits of current retirees	<u>3,863,500</u>
Total present value of all future benefits	\$ 5,908,205

These figures are 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 an assumed rate of investment return.

### **“Annual OPEB Cost” Under GASB 45**

GASB 45 requires that the cost of the program be recognized in a systematic manner over the working careers of employees. There are six different budgeting methods, called “actuarial funding methods”, that can be used to determine what the annual operating expense (called the **Annual OPEB Cost**) will be. The District has elected to use the Entry Age Normal actuarial funding method with a closed 30-year level dollar amortization of the unfunded actuarial accrued liability.

The actuarial funding method is used to compute the **Annual Required Contribution (ARC)**. The ARC is equal to the sum of (1) the value of benefits earned by employees in the current year, plus (2) an amortization of the value of benefits earned by employees in prior years. Annual OPEB Cost is equal to the sum of (a) the ARC, and (b) interest on any unfunded OPEB operating expense from prior years, less (c) an adjustment to reflect the amortization of unfunded OPEB which is already included in the ARC.

For the fiscal year beginning July 1, 2012, the District’s Annual OPEB Cost is **\$386,320**. For the 2013-2014 fiscal year, Annual OPEB Cost will be \$393,026.

Over the next 3 years, the total benefits that the District is expected to pay to retired employees and their beneficiaries, and the GASB 45 operating expense, are as follows:

	<u>Expected Benefits</u>	<u>Operating Expense</u>
2012-2013 Fiscal Year	\$ 212,088	\$ 386,320
2013-2014 Fiscal Year	228,301	393,026
2014-2015 Fiscal Year	226,568	399,327

Exhibit 3 shows a 5-year projection of expected benefits and GASB 45 operating expense.

### **Actuarial Assumptions**

The calculations of the program’s obligations involve various estimates of future events. These estimates are called “actuarial assumptions”. The assumptions are described in detail in Exhibit 5 of this report. The calculated results are highly dependent on the assumptions selected.

## Exhibit 1 - Actuarial Values as of July 1, 2012

The Actuarial Present Value of Total Projected Benefits as of July 1, 2012 of all future benefits from the program, for all current and former employees, is as follows:

	<u>Actuarial Present Values</u>	<u>Number of Persons</u>
Current employees	\$ 2,044,705	19
Retired former employees	<u>3,863,500</u>	<u>23</u>
Totals	\$ 5,908,205	42

### Data Averages as of July 1, 2012

#### Active Employees

Number	19 employees
Average Age	45.4
Average Service	8.8

#### Retired Former Employees and Surviving Spouses

Number	23 persons
Average Age	66.6

### Source of Information

A census of all eligible District employees and retirees as of July 1, 2012 was provided to me by the District.

## Exhibit 2 - Annual OPEB Cost

In the Entry Age Normal method, the cost of each individual's OPEB benefits is amortized on a straight-line basis over his/her working career. For each employee, a "normal cost" is computed, the amount which, if accumulated during each year of employment, will at retirement be sufficient to fund the expected benefits for that individual. The sum of all the individual normal costs for all employees is called the Normal Cost. The accumulated value of all normal costs attributed to prior years, including the full value of benefits for all currently retired employees, is called the Actuarial Accrued Liability. The Unfunded Actuarial Accrued Liability is amortized over a period of future years. The ARC is the sum of the Normal Cost and the amortization of the Unfunded Actuarial Accrued Liability.

The Annual OPEB Cost for the 2012-2013 year is computed in this way:

1.	Normal Cost for the 2012-13 fiscal year	\$ 74,686
2.	Actuarial Accrued Liability at July 1, 2012	5,347,276
3.	Value of Plan Assets	0
4.	Unfunded Actuarial Accrued Liability: 2. minus 3.	5,347,276
5.	Level-dollar Amortization of 4. over 27 years	327,459
6.	<b>Annual Required Contribution (ARC): 1. plus 5.</b>	<b>\$ 402,145</b>
7.	Net OPEB Obligation at beginning of year	745,079
8.	One year's interest on 7.	29,803
9.	ARC Adjustment: amortization of 7. over 29 years	(45,628)
10.	<b>Annual OPEB Cost: 6. plus 8. plus 9.</b>	<b>\$ 386,320</b>

### Exhibit 3 - Five-Year Projection of Costs

Shown below are estimates of the way in which Annual OPEB Cost might be expected to increase over the next five years. In this illustration, it is assumed that the Normal Cost will increase 0% per year, that all actuarial assumptions will remain unchanged, and that the District will continue to fund the plan on a pay-as-you-go basis.

Fiscal Year:	<u>2012-13</u>	<u>2013-14</u>	<u>2014-15</u>	<u>2015-16</u>	<u>2016-17</u>
<b>ARC</b>					
Normal cost	\$ 74,686	\$ 74,686	\$ 74,686	\$ 74,686	\$ 74,686
Amortization	<u>327,459</u>	<u>339,087</u>	<u>350,671</u>	<u>363,414</u>	<u>377,542</u>
Total ARC	\$ 402,145	\$ 413,773	\$ 425,357	\$ 438,100	\$ 452,228
Plus interest	29,803	36,772	43,361	50,272	57,558
Less ARC adjustment	<u>(45,628)</u>	<u>(57,519)</u>	<u>(69,391)</u>	<u>(82,429)</u>	<u>(96,854)</u>
<b>Annual OPEB Cost</b>	<b>\$ 386,320</b>	<b>\$ 393,026</b>	<b>\$ 399,327</b>	<b>\$ 405,943</b>	<b>\$ 412,932</b>
<b>Funding by the District</b>					
Benefits paid to retirees	\$ 212,088	\$ 228,301	\$ 226,568	\$ 223,791	\$ 232,413
Additional funding	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total Funding</b>	<b>\$ 212,088</b>	<b>\$ 228,301</b>	<b>\$ 226,568</b>	<b>\$ 223,791</b>	<b>\$ 232,413</b>
<b>Increase in net OPEB</b>					
Obligation	174,232	164,725	172,759	182,152	180,519
<b>Net OPEB Obligation at</b>					
beginning of year	\$ 745,079	\$ 919,311	\$ 1,084,036	\$ 1,256,795	\$ 1,438,947
<b>Net OPEB Obligation at</b>					
<b>end of year</b>	<b>\$ 919,311</b>	<b>\$ 1,084,036</b>	<b>\$ 1,256,795</b>	<b>\$ 1,438,947</b>	<b>\$ 1,619,466</b>

How to read this chart:

- Annual OPEB Cost: Each year's operating expense.
- Total Funding: Amount the District will contribute each year, equal to the amount paid to retired employees.
- Net OPEB Obligation at end of year: The amount on the District's balance sheet at the end of each year, as an unpaid liability.

## **Exhibit 4 - Summary of Plan Provisions**

The District contributes toward post-retirement benefits for employees who retire after age 50 with at least 5 years of service.

For those employed prior to July 1 2008, who retire after age 55 with at least 10 years of service, the District will pay the full monthly premiums for medical coverage for the retired employee, but not more than the Kaiser Bay Area amount. If the retiree is at least age 60 with at least 15 years of service, or age 55 with at least 25 years of service, the premium for the employee's eligible spouse or other eligible dependent is also paid. Coverage is for the lives of the retired employee (and spouse, if covered). Medical coverage is provided under any plans offered by CalPERS.

For all employees who retire after age 50 with at least 5 years of service, the District will pay the minimum CalPERS (PEMHCA) medical benefit for the employee only. In 2012, this minimum amount is \$112 per month, increasing to \$115 in 2013 and \$119 in 2014. This benefit is paid for as long as the retiree is living, provided he/she is covered under CalPERS medical plans.

The medical plans offered by CalPERS are considered "community rated"; that is, the premiums charged to contributing employers and participating retirees are not affected by the demographics of the specific employer, but are the same for all employers in the geographic region. For that reason, no explicit subsidized cost has been valued. If these medical plans ever cease to be community rated, GASB 45 may require a higher cost to be recognized. Such higher cost would reflect the fact that the true cost of healthcare coverage for retirees under age 65 is more than the premiums being assessed.

For employees hired after July 1, 2008, the District contributes 1.5% of the employee's base monthly salary toward a Medical After Retirement Account (MARA) while employed. District contributions to the MARA are not included in OPEB accounting, but are accrued each year as an operating expense as they are contributed.

## Exhibit 5 - Summary of Actuarial Assumptions

**Actuarial Assumptions:** The following assumptions as of July 1, 2012 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:** 4.0% per year.

**Medical Cost Increases (Trend):** Medical premiums for plans offered by CalPERS are assumed to increase as follows:

2014	7.0 %
2015	6.0 %
2016 and later	5.0 %

The CalPERS minimum contribution is assumed to increase 5.0% per year after 2013.

**Mortality:** Mortality rates used in the most recent CalPERS valuation for "Public Agency Miscellaneous", projected on a generational basis using Scale BB to approximate future increases in life expectancy.

**Coverage Elections:** All eligible employees are assumed to elect coverage under a CalPERS medical plan upon retirement, and to remain covered for life.

**Retirement:** Retirement rates used in the most recent CalPERS valuation for miscellaneous public employees with 2.0% at 55 retirement. Sample rates are:

<b>Years of Service:</b>	<b>10 Years</b>	<b>20 Years</b>	<b>30 Years</b>
Age 50	2.00 %	2.90 %	3.90 %
Age 55	6.40 %	9.40 %	12.70 %
Age 60	9.20 %	13.40 %	18.20 %
Age 62	16.20 %	23.70 %	32.20 %
Age 65	22.10 %	32.30 %	43.90 %
Age 70	17.60 %	25.70 %	34.90 %

**Turnover (withdrawal):** Likelihood of termination within the next year is taken from the most recent CalPERS valuations for miscellaneous public employees. Sample rates are:

	<u>5 Years Service</u>	<u>10 Years Service</u>	<u>15 Years Service</u>
Age 30	7.90 %	6.68 %	5.81 %
Age 35	7.11 %	5.87 %	5.03 %
Age 40	6.32 %	5.07 %	4.24 %
Age 45	5.54 %	4.27 %	3.47 %
Age 50	1.16 %	0.71 %	0.32 %

**Baseline Medical Costs:** The CalPERS medical plans are considered to be “community rated”, so there are no subsidized premiums to be valued.

**Family Status:** All employees are assumed to have the same family status (married, single) after retirement that they have now, and to be married to the same spouse at retirement.

**CalPERS Administrative Charge:** The administrative charge that CalPERS levies on all premium payments is assumed to remain 0.25%.