

**Town of Norton Other
Postemployment Benefits Plan**

GASB 45 Actuarial Valuation

as of

July 1, 2015

For the fiscal years ending

June 30, 2016

June 30, 2017

Delivered October 2016

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October 19, 2016

Personal and Confidential

Ms. Catherine VanDyne
Treasurer / Collector
Town of Norton
70 E. Main Street
Norton, MA 02766

Dear Ms. VanDyne:

We have performed an actuarial valuation of the Town of Norton Other Postemployment Benefits Plan for the fiscal year ending June 30, 2016. The figures presented in this report reflect the adoption, by the Town of Norton, of Statement No. 45 of the Governmental Accounting Standards Board ("GASB 45") effective July 1, 2007.

The financial results of the actuarial valuation are summarized in the report. The Executive Summaries highlight the results of the valuation. Additional information summarizing census data, actuarial assumptions, claim rates and the methodology for developing them, as well as a glossary of selected terms used in this study, is also included in the report.

All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the plan and reasonable expectations and, in combination, represent our best estimate of the anticipated experience under the plan.

We refer you to Section I of this report for a detailed summary and commentary on the results of the valuation and a comparison with the prior valuation. Section II is a summary of the plan provisions, and Section III describes the actuarial cost method and assumptions. Details for cost calculations, supporting data, and disclosures are provided in Exhibits A through C.

We will be pleased to answer any questions that you may have regarding this actuarial valuation report.

Very truly yours,



Parker E. Elmore, ASA, EA, FCA, MAAA
President, CEO & Actuary

October 19, 2016

ACTUARIAL CERTIFICATION

This is to certify that Odyssey Advisors has conducted an actuarial valuation of certain benefit obligations of the Town of Norton other postemployment benefit programs as of July 1, 2015 for the fiscal year ending June 30, 2016 in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Number 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial data is based on the plan of benefits verified by the Town and on participant claims or premium data provided by the Town and/or vendors employed by the Town.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may yield results significantly different than those reported here. As such, additional determinations may be needed for other purposes including determining the benefit security at termination and/or adequacy of the funding of an ongoing plan.

To the best of our knowledge, this report is complete and accurate and in our opinion represents the information necessary to comply with GASB Statements Number 43 and 45 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries and other professional actuarial organizations and meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained herein. Further, in our opinion, the assumptions as approved by the Town are reasonably related to the experience and expectations of the postemployment benefits programs.



Parker E. Elmore, ASA, EA, FCA, MAAA
President, CEO & Actuary

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

Town of Norton

Assuming Pay-as-you-go Funding - 3.50% discount rate

Comparison of Plan Liabilities to Prior Valuation

	<u>July 1, 2015</u>	<u>July 1, 2013</u>
I. Present Value of Future Benefits		
A. Actives	59,677,046	51,664,519
B. Retirees/Disabled	<u>28,751,707</u>	<u>31,099,154</u>
C. Total	88,428,753	82,763,673
II. Present Value of Future Normal Cost	28,458,344	27,775,735
III. Actuarial Accrued Liability (Individual Entry Age Normal)		
A. Actives	31,218,702	23,888,784
B. Retirees/Disabled	<u>28,751,707</u>	<u>31,099,154</u>
C. Total	59,970,409	54,987,938
IV. Plan Assets	111,437	41,052
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	59,858,972	54,946,886
VI. Funded Ratio [IV. / III.]	0.19%	0.07%
VII. Annual Covered Payroll	23,397,443	27,113,884
VIII. UAAL as % of Covered Payroll	255.80%	202.7%
IX. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	18,938,622	12,430,292
X. Number of Eligible Participants		
A. Actives	469	441
B. Retirees/Disabled	<u>379</u>	<u>370</u>
C. Total	848	811
For Fiscal Year Ending June 30, 2016	<u>June 30, 2016</u>	<u>June 30, 2014</u>
XI. Normal Cost	2,213,666	1,977,663
XII. Amortization of UAAL - 30 year flat dollar	1,909,355	1,994,323
XIII. Annual Required Contribution ('ARC') [XI. + XII.]	4,123,021	3,971,986
XIV. Interest on Net OPEB Obligation (Asset)	662,852	497,212
XV. Adjustment to Annual Required Contribution	(994,899)	(691,197)
XVI. Amortization of Actuarial (Gains) / Losses	1,569,990	1,296,894
XVII. Annual OPEB Expense [XIII. + XIV. + XV. + XVI.]	5,360,964	5,074,895
XVIII. Employer Share of Costs	1,764,976	1,935,630
XIX. Employer Payments (Withdrawals) to/from OPEB Trust	70,000	10,000
XX. Total Employer Contribution [XVIII. + XIX.]	1,834,976	1,945,630
XXI. Percentage of Annual OPEB Expense Contributed	34.2%	38.3%
XXII. Net OPEB Obligation (Asset) at Beginning of Year [IX.]	18,938,622	12,430,292
XXIII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVII. - XX.]	3,525,988	3,129,265
XXIV. Net OPEB Obligation (Asset) at End of Year [XXII. + XXIII.]	22,464,610	15,559,557
XXV. Discount Rate	3.50%	4.00%

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Norton

Comparison of Plan Funding vs. Pay-as-you-go Funding

	<u>Pay-as-you-go Funding -</u> <u>3.50% discount rate</u>	<u>Plan Funding -7.00%</u> <u>discount rate</u>
I. Present Value of Future Benefits		
A. Actives	59,677,046	24,567,403
B. Retirees/Disabled	28,751,707	19,930,913
C. Total	88,428,753	44,498,316
II. Present Value of Future Normal Cost	28,458,344	7,913,818
III. Actuarial Accrued Liability (Individual Entry Age Normal)		
A. Actives	31,218,702	16,653,585
B. Retirees/Disabled	28,751,707	19,930,913
C. Total	59,970,409	36,584,498
IV. Plan Assets	111,437	111,437
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	59,858,972	36,473,061
VI. Funded Ratio [IV. / III.]	0.19%	0.30%
VII. Annual Covered Payroll	23,397,443	23,397,443
VIII. UAAL as % of Covered Payroll	255.80%	155.90%
IX. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	18,938,622	18,938,622
X. Number of Eligible Participants		
A. Actives	469	469
B. Retirees/Disabled	379	379
C. Total	848	848
For Fiscal Year Ending June 30, 2016		
XI. Normal Cost	2,213,666	854,233
XII. Amortization of UAAL - 30 year flat dollar	1,909,355	2,532,460
XIII. Annual Required Contribution ('ARC') [XI. + XII.]	4,123,021	3,386,693
XIV. Interest on Net OPEB Obligation (Asset)	662,852	1,325,704
XV. Adjustment to Annual Required Contribution	(994,899)	(1,426,350)
XVI. Amortization of Actuarial (Gains) / Losses	1,569,990	489,548
XVII. Annual OPEB Expense [XIII. + XIV. + XV. + XVI.]	5,360,964	3,775,595
XVIII. Employer Share of Costs	1,764,976	1,764,976
XIX. Employer Payments (Withdrawals) to/from OPEB Trust	70,000	70,000
XX. Total Employer Contribution [XVIII. + XIX.]	1,834,976	1,834,976
XXI. Percentage of Annual OPEB Expense Contributed	34.2%	48.6%
XXII. Net OPEB Obligation (Asset) at Beginning of Year [IX.]	18,938,622	18,938,622
XXIII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVII. - XX.]	3,525,988	1,940,619
XXIV. Net OPEB Obligation (Asset) at End of Year [XXII. + XXIII.]	22,464,610	20,879,241
XXV. Discount Rate	3.50%	7.00%

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Norton

Assuming Pay-as-you-go Funding - 3.50% discount rate

Plan Liabilities as of July 1, 2015

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	58,029,025	0	105,435	1,542,586	59,677,046
B. Retirees/Disabled	<u>28,474,331</u>	<u>0</u>	<u>150,765</u>	<u>126,611</u>	<u>28,751,707</u>
C. Total	86,503,356	0	256,200	1,669,197	88,428,753
II. Present Value of Future Normal Cost	27,386,428	0	36,336	1,035,580	28,458,344
III. Actuarial Accrued Liability (Individual Entry Age Normal)					
A. Actives	30,642,597	0	69,099	507,006	31,218,702
B. Retirees/Disabled	<u>28,474,331</u>	<u>0</u>	<u>150,765</u>	<u>126,611</u>	<u>28,751,707</u>
C. Total	59,116,928	0	219,864	633,617	59,970,409
IV. Plan Assets	109,848	0	413	1,176	111,437
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	59,007,080	0	219,451	632,441	59,858,972
VI. Annual Covered Payroll	23,397,443	23,397,443	23,397,443	23,397,443	23,397,443
VII. UAAL as % of Covered Payroll	252.2%	0.0%	0.9%	2.7%	255.8%
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	18,669,093	0	69,433	200,096	18,938,622
IX. Number of Eligible Participants					
A. Actives	469	469	469	469	
B. Retirees/Disabled	<u>379</u>	<u>0</u>	<u>169</u>	<u>379</u>	
C. Total	848	469	638	848	

For Fiscal Year Ending June 30, 2016

X. Normal Cost	2,146,307	0	3,595	63,764	2,213,666
XI. Amortization of UAAL - 30 year flat dollar	1,882,182	0	7,000	20,173	1,909,355
XII. Annual Required Contribution ('ARC') [X. + XI.]	4,028,489	0	10,595	83,937	4,123,021
XIII. Interest on Net OPEB Obligation (Asset)	653,419	0	2,430	7,003	662,852
XIV. Adjustment to Annual Required Contribution	(980,739)	0	(3,648)	(10,512)	(994,899)
XV. Amortization of Actuarial (Gains) / Losses	1,547,647	0	5,756	16,587	1,569,990
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	5,248,816	0	15,133	97,015	5,360,964
XVII. Employer Share of Costs	1,746,747	0	18,229	0	1,764,976
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	69,003	0	257	740	70,000
XIX. Total Employer Contribution [XVII. + XVIII.]	1,815,750	0	18,486	740	1,834,976
XX. Percentage of Annual OPEB Expense Contributed	34.6%	0.0%	122.2%	0.8%	34.2%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	18,669,093	0	69,433	200,096	18,938,622
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	3,433,066	0	(3,353)	96,275	3,525,988
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	22,102,159	0	66,080	296,371	22,464,610

SECTION I
PRINCIPAL RESULTS OF THE VALUATION
(continued)

Town of Norton
Plan Liabilities as of July 1, 2015
Assuming Pay-as-you-go Funding Method

	Town Employees and Retirees	Police Employees	Sewer Enterprise Employees	Water Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits					
A. Actives	49,752,239	8,209,580	225,821	1,489,406	59,677,046
B. Retirees/Disabled	<u>28,113,358</u>	<u>0</u>	<u>0</u>	<u>638,349</u>	<u>28,751,707</u>
C. Total	77,865,597	8,209,580	225,821	2,127,755	88,428,753
II. Present Value of Future Normal Cost	23,142,149	4,556,276	97,045	662,874	28,458,344
III. Actuarial Accrued Liability (Individual Entry Age Normal)					
A. Actives	26,610,090	3,653,304	128,776	826,532	31,218,702
B. Retirees/Disabled	<u>28,113,358</u>	<u>0</u>	<u>0</u>	<u>638,349</u>	<u>28,751,707</u>
C. Total	54,723,448	3,653,304	128,776	1,464,881	59,970,409
IV. Plan Assets	101,742	6,721	242	2,732	111,437
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	54,621,706	3,646,583	128,534	1,462,149	59,858,972
VI. Annual Covered Payroll	20,849,242	53,102	478,042	2,017,057	23,397,443
VII. UAAL as % of Covered Payroll	262.0%	6867.1%	26.9%	72.5%	255.8%
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	17,204,221	1,148,471	65,668	520,262	18,938,622
IX. Number of Eligible Participants					
A. Actives	423	32	2	12	469
B. Retirees/Disabled	<u>376</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>379</u>
C. Total	799	32	2	15	848
For Fiscal Year Ending June 30, 2016					
X. Normal Cost	1,879,939	268,627	11,436	53,664	2,213,666
XI. Amortization of UAAL - 30 year flat dollar	1,737,746	119,482	4,212	47,915	1,909,355
XII. Annual Required Contribution ("ARC") [X. + XI.]	3,617,685	388,109	15,648	101,579	4,123,021
XIII. Interest on Net OPEB Obligation (Asset)	602,148	40,197	2,298	18,209	662,852
XIV. Adjustment to Annual Required Contribution	(903,785)	(60,333)	(3,450)	(27,331)	(994,899)
XV. Amortization of Actuarial (Gains) / Losses	1,432,628	95,641	3,371	38,350	1,569,990
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	4,748,676	463,614	17,867	130,807	5,360,964
XVII. Employer Share of Costs	1,723,480	2,211	23	39,262	1,764,976
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	63,876	4,264	150	1,710	70,000
XIX. Total Employer Contribution [XVII. + XVIII.]	1,787,356	6,475	173	40,972	1,834,976
XX. Percentage of Annual OPEB Expense Contributed	36.3%	0.5%	0.1%	30.0%	32.9%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	17,204,221	1,148,471	65,668	520,262	18,938,622
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	2,961,320	457,139	17,694	89,835	3,525,988
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	20,165,541	1,605,610	83,362	610,097	22,464,610

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Norton

Detail of Plan Liabilities by Group and Dependency Status

Assuming Pay-as-you-go Funding - 3.50% discount rate

Plan Liabilities as of July 1, 2015

	<u>Present Value of Future Benefits</u>	<u>Actuarial Accrued Liability (Individual Entry Age Normal)</u>	<u>Normal Cost</u>
Actives			
Under Age 65			
A. Participants	10,261,840	5,258,377	357,618
B. Spouses	<u>6,673,909</u>	<u>3,540,403</u>	<u>227,649</u>
C. Total	16,935,749	8,798,780	585,267
Age 65 and Over			
A. Participants	25,006,453	13,064,409	959,563
B. Spouses	<u>17,734,844</u>	<u>9,355,513</u>	<u>668,836</u>
C. Total	42,741,297	22,419,922	1,628,399
Actives Total			
A. Participants	35,268,293	18,322,786	1,317,181
B. Spouses	<u>24,408,753</u>	<u>12,895,916</u>	<u>896,485</u>
C. Total	59,677,046	31,218,702	2,213,666
Retirees/Disabled			
Under Age 65			
A. Participants	2,585,995	2,585,995	0
B. Spouses	<u>1,258,680</u>	<u>1,258,680</u>	<u>0</u>
C. Total	3,844,675	3,844,675	0
Age 65 and Over			
A. Participants	22,456,643	22,456,643	<u>0</u>
B. Spouses	<u>2,450,389</u>	<u>2,450,389</u>	<u>0</u>
C. Total	24,907,032	24,907,032	0
Retirees/Disabled Total			
A. Participants	25,042,638	25,042,638	0
B. Spouses	<u>3,709,069</u>	<u>3,709,069</u>	<u>0</u>
C. Total	28,751,707	28,751,707	0
Total Population			
A. Participants	60,310,931	43,365,424	1,317,181
B. Spouses	<u>28,117,822</u>	<u>16,604,985</u>	<u>896,485</u>
C. Total	88,428,753	59,970,409	2,213,666

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Norton

Assuming Funding over 30 years at 7.00% discount rate

Plan Liabilities as of July 1, 2015

	<u>Medical</u>	<u>Dental</u>	<u>Life</u>	<u>Excise Tax</u>	<u>Total</u>
I. Present Value of Future Benefits					
A. Actives	23,980,693	0	41,318	545,392	24,567,403
B. Retirees/Disabled	<u>19,766,642</u>	<u>0</u>	<u>100,779</u>	<u>63,492</u>	<u>19,930,913</u>
C. Total	43,747,335	0	142,097	608,884	44,498,316
II. Present Value of Future Normal Cost	7,631,123	0	9,097	273,598	7,913,818
III. Actuarial Accrued Liability (Individual Entry Age Normal)					
A. Actives	16,349,570	0	32,221	271,794	16,653,585
B. Retirees/Disabled	<u>19,766,642</u>	<u>0</u>	<u>100,779</u>	<u>63,492</u>	<u>19,930,913</u>
C. Total	36,116,212	0	133,000	335,286	36,584,498
IV. Plan Assets	110,011	0	405	1,021	111,437
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	36,006,201	0	132,595	334,265	36,473,061
VI. Annual Covered Payroll	23,397,443	23,397,443	23,397,443	23,397,443	23,397,443
VII. UAAL as % of Covered Payroll	153.9%	0.0%	0.6%	1.4%	155.9%
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	18,669,093	0	69,433	200,096	18,938,622
IX. Number of Eligible Participants					
A. Actives	469	469	469	469	
B. Retirees/Disabled	<u>379</u>	<u>0</u>	<u>169</u>	<u>379</u>	
C. Total	848	469	638	848	

For Fiscal Year Ending June 30, 2016

X. Normal Cost	828,838	0	1,201	24,194	854,233
XI. Amortization of UAAL - 30 year flat dollar	2,500,044	0	9,207	23,209	2,532,460
XII. Annual Required Contribution ('ARC') [X. + XI.]	3,328,882	0	10,408	47,403	3,386,693
XIII. Interest on Net OPEB Obligation (Asset)	1,306,837	0	4,860	14,007	1,325,704
XIV. Adjustment to Annual Required Contribution	(1,406,051)	0	(5,229)	(15,070)	(1,426,350)
XV. Amortization of Actuarial (Gains) / Losses	483,281	0	1,780	4,487	489,548
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	3,712,949	0	11,819	50,827	3,775,595
XVII. Employer Share of Costs	1,746,747	0	18,229	0	1,764,976
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	69,104	0	254	642	70,000
XIX. Total Employer Contribution [XVII. + XVIII.]	1,815,851	0	18,483	642	1,834,976
XX. Percentage of Annual OPEB Expense Contributed	48.9%	0.0%	156.4%	1.3%	48.6%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	18,669,093	0	69,433	200,096	18,938,622
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	1,897,098	0	(6,664)	50,185	1,940,619
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	20,566,191	0	62,769	250,281	20,879,241

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

(continued)

Town of Norton

Plan Liabilities as of July 1, 2015

Assuming Funding over 30 years at 7.00% discount rate

	Town Employees and Retirees	Police Employees	Sewer Enterprise Employees	Water Enterprise Employees and Retirees	Total
I. Present Value of Future Benefits					
A. Actives	20,481,632	3,379,659	92,964	613,148	24,567,403
B. Retirees/Disabled	<u>19,488,404</u>	<u>0</u>	<u>0</u>	<u>442,509</u>	<u>19,930,913</u>
C. Total	39,970,036	3,379,659	92,964	1,055,657	44,498,316
II. Present Value of Future Normal Cost	6,435,467	1,267,029	26,987	184,335	7,913,818
III. Actuarial Accrued Liability (Individual Entry Age Normal)					
A. Actives	14,195,126	1,948,851	68,695	440,913	16,653,585
B. Retirees/Disabled	<u>19,488,404</u>	<u>0</u>	<u>0</u>	<u>442,509</u>	<u>19,930,913</u>
C. Total	33,683,530	1,948,851	68,695	883,422	36,584,498
IV. Plan Assets	101,742	6,721	242	2,732	111,437
V. Unfunded Actuarial Accrued Liability ("UAAL") [III. - IV.]	33,581,788	1,942,130	68,453	880,690	36,473,061
VI. Annual Covered Payroll	20,849,242	53,102	478,042	2,017,057	23,397,443
VII. UAAL as % of Covered Payroll	161.1%	3657.4%	14.3%	43.7%	155.9%
VIII. Net OPEB Obligation (Asset) @ Beginning of Fiscal Year	17,204,221	1,148,471	65,668	520,262	18,938,622
IX. Number of Eligible Participants					
A. Actives	423	32	2	12	469
B. Retirees/Disabled	<u>376</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>379</u>
C. Total	799	32	2	15	848
For Fiscal Year Ending June 30, 2016					
X. Normal Cost	725,451	103,661	4,413	20,708	854,233
XI. Amortization of UAAL - 30 year flat dollar	2,304,847	158,474	5,587	63,552	2,532,460
XII. Annual Required Contribution ("ARC") [X. + XI.]	3,030,298	262,135	10,000	84,260	3,386,693
XIII. Interest on Net OPEB Obligation (Asset)	1,204,296	80,394	4,596	36,418	1,325,704
XIV. Adjustment to Annual Required Contribution	(1,295,724)	(86,497)	(4,946)	(39,183)	(1,426,350)
XV. Amortization of Actuarial (Gains) / Losses	446,717	29,822	1,051	11,958	489,548
XVI. Annual OPEB Expense [XII. + XIII. + XIV. + XV.]	3,385,587	285,854	10,701	93,453	3,775,595
XVII. Employer Share of Costs	1,723,480	2,211	23	39,262	1,764,976
XVIII. Employer Payments (Withdrawals) to/from OPEB Trust	64,450	3,729	131	1,690	70,000
XIX. Total Employer Contribution [XVII. + XVIII.]	1,787,930	5,940	154	40,952	1,834,976
XX. Percentage of Annual OPEB Expense Contributed	52.8%	2.1%	1.4%	43.8%	48.6%
XXI. Net OPEB Obligation (Asset) at Beginning of Year [VIII.]	17,204,221	1,148,471	65,668	520,262	18,938,622
XXII. Increase (Decrease) in Net OPEB Obligations (Asset) [XVI. - XIX.]	1,597,657	279,914	10,547	52,501	1,940,619
XXIII. Net OPEB Obligation (Asset) at End of Year [XXI. + XXII.]	18,801,878	1,428,385	76,215	572,763	20,879,241

Overview of GASB 43 and 45

GASB 43 requires retiree medical plans to disclose information about asset and liability levels and show historical contribution information. GASB 43 only applies in situations where a separate trust is established to prefund these benefits. GASB 45 requires employers to perform periodic actuarial valuations to determine annual accounting costs, and to keep a running tally of the extent to which these amounts are over or under funded.

GASB 43 and 45 apply to those benefits provided after retirement except for pension benefits such as medical insurance, dental and life insurance. The philosophy behind the accounting standard is that these post-employment benefits are part of the compensation earned by employees in return for their services, and the cost of these benefits should be recognized while employees are providing those services, rather than after they have retired. This philosophy has already been applied for years to defined benefit pensions; GASB 43 and 45 extend this practice to all other post-employment benefits.

Overview of GASB 43 and 45

(continued)

The process of determining the liability for OPEB benefits is based on many assumptions about future events. The key actuarial assumptions are:

Turnover and retirement rates: How likely is it that an employee will qualify for post-employment benefits and when will they start?

Medical inflation and claims cost assumptions: When an employee starts receiving post-employment benefits many years from now, how much will be paid each year for the benefits and how rapidly will the costs grow?

Mortality assumption: How long is a retiree likely to receive benefits?

Discount rate assumption: What is the present value of those future benefit payments in terms of today's dollars?

Since the liability is being recognized over the employee's whole career with the Town, the present value is divided into three pieces: the part that is attributed to past years (the "Accrued Liability" or "Past Service Liability"), the part that is being earned this year (the "Normal Cost"), and the part that will be earned in future years (the "Future Service Liability").

Once the Accrued Liability and the Normal Cost have been calculated, the next step is to determine an annual contribution. This consists of two pieces:

- ✓ Normal Cost – because the benefits earned each year should be paid for each year
- ✓ Past Service Cost – a catch-up payment to fund the Accrued Liability over the next 10-30 years

The final step is to keep track going forward of how much of the contribution is actually paid. There is no requirement to actually fund these benefits, but the cumulative deficiency must be disclosed on the Town's financial statements as the Net OPEB Obligation. If you decide to fully fund the OPEB obligation this will appear in the financial statement as a Net OPEB Asset. In addition, the Discount Rate used to calculate the liabilities must reflect the expected investment income of whatever funds are set aside to prefund the benefits; if there is no prefunding then the Discount Rate will be much lower and the liabilities significantly higher than if the benefits are prefunded.

Commentary on Plan Experience and Contribution Amounts

1. **GASB 45 – How we got here:**

The Plan adopted and implemented GASB 45 (“Accounting and Financial Reporting by Employers for Postemployment Benefits other than Pensions”) effective for the fiscal year ending June 30, 2008. GASB 45 is designed to recognize the Other Postemployment Benefits (“OPEB”) earned by employees throughout their working career vs. when they are actually paid in retirement – accrual accounting vs. “pay-as-you-go” accounting. When GASB 45 was adopted, there was an Unfunded Actuarial Accrued Liability (“UAAL”) or “past service liability” which reflected all benefits earned until the date of such adoption. To smooth the impact of transitioning to GASB 45 on your financial statement, the UAAL was amortized over a 30 year period using a flat dollar amortization. Additionally, each eligible active employee earns benefits each year representing benefits to be paid in retirement or a “Normal Cost”. These amounts are reflected in your financial statement each year so that OPEB benefits for an eligible employee shall be fully charged to the financial statement when that eligible employee terminates employment.

2. **Summary of Results:**

During the fiscal year ending June 30, 2016, the Plan saw an experience loss of \$275,442 or 0.46%. Plan experience was in line with expectation. This was mainly due to preparations for GASB 75 including the introduction of a new Actuarial Cost Method and a decrease in the discount rate from 4% to 3.5% (increasing disclosed liabilities by \$3.75 million and \$4.5 million respectively), an increase in the number of eligible participants, and a more conservative mortality table as recommended by PERAC (increasing disclosed liabilities by \$4.25 million). This was mostly offset by premiums decreasing rather than the expected 10% increase. The actuarial experience loss is amortized into the annual OPEB costs over a 30-year period. The net impact of plan experience is an increase in the annual OPEB cost.

Commentary on Plan Experience and Contribution Amounts
(continued)

3. **Balance Sheet Items**

	July 1, 2015	July 1, 2013
Actuarial Accrued Liability	\$59,970,409	\$54,987,938
Plan Assets	\$111,437	\$41,052
Unfunded Actuarial Accrued Liability	\$59,858,972	\$54,946,886
Funded %	0.19%	0.07%
Net OPEB Obligation	\$18,938,622	\$12,430,292

4. **Income Statement Items**

	June 30, 2016	June 30, 2014
Normal Cost	\$2,213,666	\$1,977,663
Amortization of UAAL	\$1,909,355	\$1,994,323
Interest on Net OPEB Obligation	\$662,852	\$497,212
Adjustment to Annual Required Contribution	\$(994,899)	\$(691,197)
Amortization of Actuarial (Gains)/Losses	\$1,569,990	\$1,296,894
Annual OPEB Expense	\$5,360,964	\$5,074,895
Employer Share of Costs	\$1,764,976	\$1,935,630
Employer Contributions/(Withdrawals) to/from OPEB Trust	\$70,000	\$10,000
Total Employer Contribution	\$1,834,976	\$1,945,630
Discount Rate	3.50%	4.00%

Commentary on Plan Experience and Contribution Amounts
(continued)

5. **GASB 75 – Where we’re going:**

The Governmental Accounting Standards Board (“GASB”) issued GASB 75 *“Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions”* on June 2, 2015 which will become effective for your 2018 fiscal year. This standard largely mirrors the GASB 68 standard for pension plans. The new standards require increased disclosures and will tie interest rates used in the valuation to the plan’s underlying investment and funding policy. This may increase the pressure on many entities to begin funding their OPEB liabilities. For more information, please review our white papers at www.GASB75.com or on our website.

SECTION II

SUMMARY OF PLAN PROVISIONS

<u>Effective Date</u>	July 1, 2007; GASB 45 is adopted.
<u>Plan Year</u>	July 1 through June 30.
<u>Eligibility</u>	An employee hired before April 2, 2012 shall become eligible to retire under this plan upon attainment of age 55 as an active member and completion of 10 years of service or an employee shall be able to retire with 20 years of service regardless of age. Those hired on or after April 2, 2012 shall be eligible to retire upon attainment of age 60 with 10 years of creditable service.
<u>Creditable Service</u>	Elapsed time from date of hire to termination of service date.
<u>Participant Contributions</u>	Retirees pay 25-30% of premiums for Medical Insurance, 25% of premiums for Life Insurance, and 100% of premiums for Dental Coverage.
<u>Benefits Offered</u>	Comprehensive Medical Insurance offered through Blue Cross Blue Shield of Massachusetts as well as Group Term Life Insurance. Retirees can purchase Dental Insurance via DMS or Altus Dental by paying 100% of the premiums.
<u>Normal Retirement Date</u>	The normal retirement date is the first day of the month following a participant's 65th birthday.
<u>Early Retirement</u>	Early retirement is available for any participant who has attained benefit eligibility.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

A. ACTUARIAL COST METHOD

The actuarial cost method used to calculate the costs and liabilities of the plan is the Individual Entry Age Normal Actuarial Cost Method. Under this method, the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement, each individual's annual normal cost is a level dollar amount. The actuarial accrued liability is the actuarial present value of the projected benefit times the ratio of past service to expected total service at retirement/termination.

Actuarial gains and losses are calculated each year and amortized over a 30 year period.

All employees who are plan participants on a valuation date are included in the actuarial valuation.

B. ASSET VALUATION METHOD

The actuarial value of assets is equal to the Market Value of the Plan's assets as of the valuation date.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS

We used the following assumptions in this year's actuarial valuation:

Pre- and Post-Retirement Mortality

It is assumed that both pre-retirement and post-retirement mortality are represented by the RP-2000 Mortality Table projected generationally with scale BB and a base year 2009 for males and females. Disabled employees were assumed to follow the RP-2000 Mortality Table set forward 2 years for males and females.

Discount Rate

3.50% per annum (previously 4.00%)

Employee Termination

It was assumed that employees would terminate employment in accordance with the sample rates shown in the following table:

<u>Service</u>	<u>Non Public Safety Male</u>	<u>Non Public Safety Female</u>	<u>Public Safety</u>
0	15.00%	15.00%	1.50%
5	7.60%	7.60%	1.50%
10	5.40%	5.40%	1.50%
15	3.30%	3.30%	0.00%
20	2.00%	2.00%	0.00%
25	1.00%	1.00%	0.00%
30	0.00%	0.00%	0.00%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS (continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Retirement Rates

It was assumed that the following percentage of eligible employees would retire each year:

<u>Age</u>	<u>Non Public Safety Male</u>	<u>Non Public Safety Female</u>	<u>Public Safety</u>
45	0.00%	0.00%	1.00%
46	0.00%	0.00%	1.00%
47	0.00%	0.00%	1.00%
48	0.00%	0.00%	1.00%
49	0.00%	0.00%	1.00%
50	1.00%	1.50%	2.00%
51	1.00%	1.50%	2.00%
52	1.00%	2.50%	2.00%
53	1.00%	2.50%	5.00%
54	2.00%	2.50%	7.50%
55	2.00%	5.50%	15.00%
56	2.50%	6.50%	10.00%
57	2.50%	6.50%	10.00%
58	5.00%	6.50%	10.00%
59	6.50%	6.50%	15.00%
60	12.00%	5.00%	20.00%
61	20.00%	13.00%	20.00%
62	30.00%	15.00%	25.00%
63	25.00%	12.50%	25.00%
64	22.00%	18.00%	30.00%
65	40.00%	15.00%	100.00%
66	25.00%	20.00%	100.00%
67	25.00%	20.00%	100.00%
68	30.00%	25.00%	100.00%
69	30.00%	20.00%	100.00%
70	100.00%	100.00%	100.00%
71	100.00%	100.00%	100.00%
72	100.00%	100.00%	100.00%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Disability rates

It was assumed that the following percentage of eligible employees would become permanently disabled each year:

<u>Age</u>	<u>Non Public Safety</u>	<u>Public Safety</u>
20	0.01%	0.01%
25	0.02%	0.02%
30	0.03%	0.03%
35	0.07%	0.17%
40	0.10%	0.30%
45	0.15%	0.78%
50	0.19%	1.25%
55	0.24%	1.20%
60	0.28%	0.85%

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Healthcare Trend

It was assumed that healthcare costs would increase in accordance with the trend rates in the following table:

<u>Year</u>	<u>Medical</u>	<u>Dental</u>
FY 2013	6.0%	5.5%
FY 2014	5.0%	5.0%
FY 2015	5.0%	5.0%
FY 2016	5.0%	5.0%
FY 2017	5.0%	5.0%
FY 2018	5.0%	5.0%
FY 2019	5.0%	5.0%
FY 2020+	5.0%	5.0%

Participation Rate

It was assumed that 80% of employees eligible to receive retirement benefits would enroll in the retiree medical and dental plans upon retirement. For life insurance plans, it was assumed that 80% of eligible employees would elect coverage upon retirement.

Percent Married

It was assumed that 80% of male participants and 70% of female participants who elect retiree healthcare coverage for themselves would also elect coverage for a spouse upon retirement. It was further assumed that a male spouse is three years older than a female spouse and same sex spouses are assumed to be the same age. For current retirees, the actual census information was used.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

C. ACTUARIAL ASSUMPTIONS (continued)

Compensation Increases

3.00% per year.

Open Group Forecast

It was assumed for projecting plan liabilities in future years that the active population would remain unchanged and that those who terminate employment or retire will be replaced with new employees with the demographics below:

Open Group Forecast Population Demographics

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	8.0%	5.0%
30	7.0%	14.0%
40	20.0%	19.0%
50	10.0%	10.0%
60	<u>3.0%</u>	<u>4.0%</u>
Total	48.0%	52.0%

Additional Comments

The values in this report reflect a closed group and do not reflect any new entrants after the valuation date.

For purposes of this valuation, retiree contributions were assumed to increase with the same trend rate as health care claims.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

As part of the Other Post-Employment Benefits Program, there are situations where the cost is borne partly or entirely on the retirees. In most cases, the premium that is used to split the cost is lower than the true cost of providing the medical benefits, for two reasons:

- ✓ The cost sharing program is usually a fixed amount such as a COBRA premium that does not take into account the age of the retiree and his/her dependents. Since medical costs generally increase with age, the cost sharing premium is often lower than the true cost of the medical benefits:
- ✓ The cost sharing premium is usually a blended rate that takes into account the cost of medical benefits for active employees as well as retirees. Medical costs are generally higher for retirees than for active employees of the same age. This means that, again, the cost sharing premium is often lower than the true cost of the medical benefits.

Because of these two factors, a retiree who is paying 100% of the cost sharing premium is most likely not paying 100% of the true cost of the medical benefits. This situation is known as an "implicit subsidy". GASB 43 and 45 require the plan sponsor to measure the liability for this subsidy; that is, the difference between the true cost of the medical benefits and the cost sharing premiums paid by the retiree. To do this, our valuation consists of several steps:

First, we calculate the liability for the true cost of medical benefits expected to be received by retirees and their dependents. This liability is based factors developed by actuaries that reflect how the cost of medical benefits varies by age and gender, as well as the other assumptions discussed on the prior page.

Next, we calculate the liability for the future premiums expected to be paid by the retiree for their own and their dependents' coverage. This liability is based on the current premium rates without adjustment for age or gender. It also is based on the terms of the retiree medical program – different retirees pay different percentages based on their union, date of retirement, age at retirement, and other factors.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS (continued)

D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

I. CLAIMS COSTS DEVELOPMENT - Based on Active & Retiree Incurred Claims & Premiums

	Number of Participants			
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>	<u>Total</u>
HMO Blue New England	141		271	412
BCBS Blue Care Elect	14		4	18
Medex	164			164
Managed Blue	118			118
Total	437	0	275	712

	Per Contract Costs (monthly) - FY 2017		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
HMO Blue New England	694.00	0.00	1,818.00
BCBS Blue Care Elect	1,102.00	0.00	2,741.00
Medex	338.27	676.54	
Managed Blue	288.14	576.28	

Gross Expected FY 2017 Incurred Premiums	8,476,810
Adjustment to reflect children's claims	(1,424,136)
Total Expected FY 2017 Incurred Premiums (adults only)	7,052,674

II. PRE-65 AND POST-65 PER CAPITA RETIREE ANNUAL CLAIM COSTS

	<u>Employer</u> <u>Primary</u>	<u>Medicare</u> <u>Primary</u>
Age 65	12,164	3,808
Average Age	11,303	3,808

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS (continued)

D. DEVELOPMENT OF REPRESENTATIVE MEDICAL PER CAPITA CLAIMS COSTS

III. BREAKDOWN OF CLAIM COSTS

7,052,674 Active and Retired Claims (No Children)

ALL ACTIVE EMPLOYEES AND SPOUSES

Age Bracket	Number of Females	Number of Males	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
24 & Under	2	2	1.312	0.549	7,463	3,123	21,172
25 to 29	27	13	1.312	0.591	7,463	3,362	245,207
30 to 34	32	22	1.312	0.712	7,463	4,050	327,916
35 to 39	48	27	1.312	0.850	7,463	4,835	488,769
40 to 44	39	35	1.312	1.000	7,463	5,688	490,137
45 to 49	50	51	1.456	1.193	8,282	6,786	760,186
50 to 54	40	46	1.599	1.441	9,095	8,196	740,816
55 to 59	53	44	1.740	1.753	9,897	9,971	963,265
60 to 64	20	29	1.968	2.102	11,194	11,956	570,604
65 to 69	6	10	2.168	2.316	12,332	13,173	205,722
70 & Over	6	5	2.396	2.557	13,628	14,544	154,488
Total	323	284					4,968,282

ALL RETIREES AND SPOUSES - NOT MEDICARE ELIGIBLE

Age Bracket	Number of Females	Number of Males	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
44 & Under	1	1	1.312	1.000	7,463	5,688	13,151
45 to 49	3	3	1.456	1.193	8,282	6,786	45,204
50 to 54	1	0	1.599	1.441	9,095	8,196	9,095
55 to 59	8	4	1.740	1.753	9,897	9,971	119,060
60 to 64	33	15	1.968	2.102	11,194	11,956	548,742
65 to 69	5	0	2.168	2.316	12,332	13,173	61,660
70 to 74	3	2	2.396	2.557	13,628	14,544	69,972
75 to 79	2	2	2.593	2.769	14,749	15,750	60,998
80 to 84	0	1	2.724	2.910	15,494	16,552	16,552
85 to 89	1	0	2.864	3.059	16,290	17,400	16,290
90 & Over	0	0	3.010	3.215	17,121	18,287	0
Total	57	28					960,724

ALL RETIREES AND SPOUSES - MEDICARE ELIGIBLE

Age Bracket	Number of Females	Number of Males	Female Aging Factor	Male Aging Factor	Aged (F) Average Claims	Aged (M) Average Claims	Age Related Claims
65 to 69	54	46	2.168	2.316	3,808	3,808	380,800
70 to 74	62	38	2.396	2.557	3,808	3,808	380,800
75 to 79	27	23	2.593	2.769	3,808	3,808	190,400
80 to 84	15	7	2.724	2.910	3,808	3,808	83,776
85 to 89	10	8	2.864	3.059	3,808	3,808	68,544
90 & Over	3	2	3.010	3.215	3,808	3,808	19,040
Total	171	124					1,123,360
Grand Totals	551	436					7,052,366

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

E. DEVELOPMENT OF REPRESENTATIVE DENTAL PER CAPITA CLAIMS COSTS

I. CLAIMS COSTS DEVELOPMENT - with Active & Retiree Incurred Premiums

	Per Contract Costs (monthly) - FY 2017		
	<u>Single</u>	<u>Two-Person</u>	<u>Family</u>
DMS Dental Plan	21.00	41.40	59.60
ALTUS Low Option	43.62	83.70	120.66
ALTUS High Option	52.42	100.60	145.08

EXHIBIT AFinancial Statement Disclosure
(As of July 1, 2015)

The GASB Standards for accounting and financial reporting for postemployment benefits other than pensions require the following disclosures in the financial statements with regard to the retiree medical and life insurance benefits;

1. A DESCRIPTION OF THE RETIREE MEDICAL INSURANCE PROGRAM:

- a. Plan Type: Various Medical Insurance offerings via the Blue Cross Blue Shield of Massachusetts
- b. Administrator: Town of Norton
- c. Eligibility: An employee hired before April 2, 2012 shall become eligible to retire under this plan upon attainment of age 55 as an active member and completion of 10 years of service or an employee shall be able to retire with 20 years of service regardless of age. Those hired on or after April 2, 2012 shall be eligible to retire upon attainment of age 60 with 10 years of creditable service.
- d. Cost Sharing: Retirees pay 25%-30% of premiums

2. A DESCRIPTION OF THE DENTAL INSURANCE PROGRAM:

- a. Plan Type: Comprehensive Dental via Altus Dental & DMS
- b. Administrator: Town of Norton
- c. Eligibility: Same as above
- d. Cost sharing: Retirees pay 100% of premiums

3. A DESCRIPTION OF THE RETIREE LIFE INSURANCE PROGRAM:

- a. Plan Type: Group Term Life Insurance - \$2,000.
- b. Administrator: Town of Norton
- c. Eligibility: Same as above
- d. Cost sharing: Retirees pay 25% of premiums

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2015)

(continued)

4. RETIREE MEDICAL AND LIFE INSURANCE CONTRIBUTIONS:

Group	Individual	Family
Medical	Retirees pay 25%-30% of premiums	Retirees pay 25%-30% of premiums
Dental	Retirees pay 100% of premiums	Retirees pay 100% of premiums
Life	Retirees pay 25% of premiums	N/A

5. FUNDING POLICY

The contribution requirements of plan members and the Town are established and may be amended through Town ordinances. The Town expects to contribute \$70,000 beyond the pay-as-you-go. For the 2016 fiscal year, total Town premiums plus implicit costs for the retiree medical program are \$1,764,976. The Town is also projected to make a contribution to an OPEB Trust of \$70,000 for the 2016 fiscal year for a total contribution of \$1,834,976.

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2015)

(continued)

6. ANNUAL OPEB COST AND NET OPEB OBLIGATION

The Town's annual other postemployment benefit ("OPEB") cost (expense) is calculated based on the annual required contribution of the employer ("ARC"), an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty (30) years. The following table shows the components of the Town's annual OPEB costs for the fiscal year, the amount actually contributed to the plan and changes in the Town's net OPEB obligation to the plan:

Annual Required Contribution	\$4,123,021
Interest on net OPEB Obligation (Asset)	\$662,852
Adjustment to annual required contribution	(\$994,899)
Amortization of Actuarial (Gains) / Losses	\$1,569,990
Annual OPEB expense	\$5,360,964
Contributions made to pay benefits	\$1,764,976
Contributions made to OPEB Trust	\$70,000
Increase (Decrease) in net OPEB Obligation (Asset)	\$3,525,988
Net OPEB Obligation (Asset) – beginning of year	\$18,938,622
Net OPEB Obligation (Asset) – end of year	\$22,464,610

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2015)

(continued)

The Town's annual OPEB cost, the percentage of the annual OPEB cost contributed to the plan, and the net OPEB obligation for the 2016 fiscal year and the three preceding years were as follows:

Fiscal Year Ended	Annual OPEB Cost	Expected Employer Payments	Percentage of OPEB Cost Contributed	Increase (Decrease) in Net OPEB Obligation (Asset)	Net OPEB Obligation (Asset)
06/30/2018 (est.)	\$5,869,600	\$1,852,292	31.6%	\$4,017,308	\$30,245,868
06/30/2017 (est.)	\$5,616,692	\$1,852,742	33.0%	\$3,763,950	\$26,228,560
06/30/2016	\$5,360,964	\$1,834,976	34.2%	\$3,525,988	\$22,464,610
06/30/2015	\$5,319,932	\$1,940,867	36.5%	\$3,379,065	\$18,938,622
06/30/2014	\$5,074,895	\$1,945,630	38.3%	\$3,129,265	\$15,559,557
06/30/2013	\$4,112,134	\$1,955,361	47.6%	\$2,156,773	\$12,430,292

Schedule of Funding Progress:

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
07/01/2017 (est.)	\$279,057	\$65,315,752	\$65,036,695	0.4%	\$24,822,347	262.0%
07/01/2016 (est.)	\$190,985	\$62,533,766	\$62,342,781	0.3%	\$24,099,366	258.7%
07/01/2015	\$111,437	\$59,970,409	\$59,858,972	0.2%	\$23,397,443	255.8%
07/01/2014	\$51,179	\$57,231,170	\$57,179,991	0.1%	\$27,927,301	204.7%
07/01/2013	\$41,052	\$54,987,938	\$54,946,886	0.1%	\$27,113,884	202.7%
07/01/2012	\$1,000	\$53,342,080	\$53,341,080	0.0%	\$23,596,845	226.1%

EXHIBIT A

Financial Statement Disclosure (As of July 1, 2015) (continued)

	Fiscal Year Ending June 30, 2016				
	Town Employees and Retirees	Police Employees	Sewer Enterprise Employees	Water Enterprise Employees and Retirees	Total
OPEB Obligation (Asset) at beginning of year	17,204,221	1,148,471	65,668	520,262	18,938,622
Annual Required Contribution	3,617,685	388,109	15,648	101,579	4,123,021
Interest on Net OPEB Obligation	602,148	40,197	2,298	18,209	662,852
Adjustment to the ARC	(903,785)	(60,333)	(3,450)	(27,331)	(994,899)
Amortization of Actuarial (Gains)/Losses	1,432,628	95,641	3,371	38,350	1,569,990
Annual OPEB Cost	4,748,676	463,614	17,867	130,807	5,360,964
Expected Employer Contribution	1,723,480	2,211	23	39,262	1,764,976
Contribution (Withdrawal) to/from Trust Fund over 30 Years	63,876	4,264	150	1,710	70,000
Total Expected Employer Payments	1,787,356	6,475	173	40,972	1,834,976
Increase (Decrease) in OPEB Obligation (Asset)	2,961,320	457,139	17,694	89,835	3,525,988
OPEB Obligation (Asset) at end of year	20,165,541	1,605,610	83,362	610,097	22,464,610
AAL as of July 1, 2015	54,723,448	3,653,304	128,776	1,464,881	59,970,409
Plan Assets as of July 1, 2015	101,742	6,721	242	2,732	111,437
Unfunded Actuarial Liability as of July 1, 2015	54,621,706	3,646,583	128,534	1,462,149	59,858,972

	Fiscal Year Ending June 30, 2017				
	Town Employees and Retirees	Police Employees	Sewer Enterprise Employees	Water Enterprise Employees and Retirees	Total
OPEB Obligation (Asset) at beginning of year	20,165,541	1,605,610	83,362	610,097	22,464,610
Annual Required Contribution	3,733,786	400,564	16,150	104,839	4,255,339
Interest on Net OPEB Obligation	714,256	47,681	2,726	21,599	786,262
Adjustment to the ARC	(1,072,049)	(71,566)	(4,092)	(32,419)	(1,180,126)
Amortization of Actuarial (Gains)/Losses	1,599,204	109,050	3,935	43,028	1,755,217
Annual OPEB Cost	4,975,197	485,729	18,719	137,047	5,616,692
Expected Employer Contribution	1,731,658	1,665	4	39,415	1,772,742
Contribution (Withdrawal) to/from Trust Fund over 30 Years	73,002	4,873	171	1,954	80,000
Total Expected Employer Payments	1,804,660	6,538	175	41,369	1,852,742
Increase (Decrease) in OPEB Obligation (Asset)	3,170,537	479,191	18,544	95,678	3,763,950
OPEB Obligation (Asset) at end of year	23,336,078	2,084,801	101,906	705,775	26,228,560
AAL as of July 1, 2016	57,062,531	3,809,460	134,280	1,527,495	62,533,766
Plan Assets as of July 1, 2016	174,721	11,294	403	4,567	190,985
Unfunded Actuarial Liability as of July 1, 2016	56,887,810	3,798,166	133,877	1,522,928	62,342,781

EXHIBIT AFinancial Statement Disclosure

(As of July 1, 2015)

(continued)

7. FUNDED STATUS AND FUNDING PROGRESS

As of July 1, 2015, the most recent valuation date, the plan was 0.19% funded. The actuarial liability for benefits was \$59,970,409, and the actuarial value of assets was \$111,437, resulting in an unfunded actuarial accrued liability (UAAL) of \$59,858,972. The covered payroll (annual payroll of active employees covered by the plan) was \$ 23,397,443 and the ratio of the UAAL to the covered payroll was 255.8%.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contribution of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented in the required supplementary information following the financial statements, presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

8. EFFECT OF 1% CHANGE IN HEALTHCARE TREND RATES

In the event that healthcare trend rates were 1% higher than forecast and employee contributions were to increase at the forecast rates, the Actuarial Accrued Liability would increase to \$76,593,627 or by 27.7% and the corresponding Normal Cost would increase to \$3,279,949 or by 48.2%. If such healthcare trend rates were 1% less than forecast and employee contributions were to increase at the forecast rate, the Actuarial Accrued Liability would decrease to \$47,295,069 or by 21.1% and the corresponding Normal Cost would decrease to \$1,478,294 or by 33.2%.

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2015)

(continued)

9. ACTUARIAL METHODS AND ASSUMPTIONS

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

Actuarial Cost Method:	Individual Entry Age Normal
Investment Rate of Return:	3.50% per annum (previously 4.00%)
Healthcare Trend Rates	

<u>Year</u>	<u>Medical</u>	<u>Dental</u>
FY 2013	6.0%	5.5%
FY 2014	5.0%	5.0%
FY 2015	5.0%	5.0%
FY 2016	5.0%	5.0%
FY 2017	5.0%	5.0%
FY 2018	5.0%	5.0%
FY 2019	5.0%	5.0%
FY 2020+	5.0%	5.0%

General Inflation Assumption:	2.75% per annum
Annual Compensation Increases:	3.00% per annum
Actuarial Value of Assets:	Market Value
Amortization of UAAL:	Level dollar amortization over 30 years
Remaining Amortization Period:	22 years at July 1, 2015

EXHIBIT A

Financial Statement Disclosure

(As of July 1, 2015)

(continued)

10. Remaining Amortization Bases

The initial Actuarial Accrued Liability as of the date GASB 45 was adopted is amortized as a component of the Annual Required Contribution ("ARC"). The Unfunded Actuarial Accrued Liability at transition was amortized over a 30 year period and a flat dollar amortization of the Unfunded Actuarial Accrued Liability at transition. For years subsequent to the initial adoption of GASB 45, cumulative gains/losses are amortized on a level dollar basis over a 30 year period. Gains and losses arise from experience and contribution deficiencies and excess contributions in relation to each year's ARC under GASB 45.

Changes in Unfunded Actuarial Liability Since Prior Valuation
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Expected Unfunded Actuarial Liability

1. Actuarial Accrued Liability at prior valuation date	54,987,938
2. Actuarial Value of Assets at prior valuation date	<u>41,052</u>
3. Unfunded Actuarial Accrued Liability at prior valuation date [1. - 2.]	54,946,886
4. Normal Cost for prior periods	3,955,326
5. Employer Contributions for prior periods	(3,886,497)
6. Interest to current valuation date	<u>4,567,815</u>
7. Expected Unfunded Actuarial Accrued Liability [3. + 4. + 5. + 6.]	59,583,530

Actual Unfunded Actuarial Liability

8. Actuarial Accrued Liability at current valuation date	59,970,409
9. Actuarial Value of Assets at current valuation date	<u>111,437</u>
10. Unfunded Actuarial Accrued Liability at current valuation date [8. - 9.]	59,858,972

<i>Net Actuarial (Gain) / Loss from Plan Experience [10. - 7.]</i>	275,442
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11. Unfunded Actuarial Accrued Liability at current valuation date [10.]	59,858,972
12. Remaining Initial Unfunded to be amortized	<u>29,972,999</u>
13. Actuarial (Gain) / Loss to be amortized: [11. - 12.]	29,885,973

EXHIBIT A

Financial Statement Disclosure (As of July 1, 2015) (continued)

Amortization of Initial Unfunded and Plan Experience under GASB 45						
Date Established	Description	Initial Amount	Initial Amortization Period	Remaining Balance at Valuation Date	Remaining Amortization Period	Annual Amortization Payment
July 1, 2007	GASB 45 Liability	34,468,501	30	29,972,999	22	1,909,355
July 1, 2015	Cumulative (Gain) / Loss	29,885,973	30	29,885,973	30	1,569,990
July 1, 2015	Adjustment to ARC	(18,938,622)	30	(18,938,622)	30	(994,897)
Total				40,920,350		2,484,448

11. Recognition of OPEB trust assets

The State of Massachusetts has recently passed legislation allowing municipal entities to establish a trust for Other Postemployment Benefits ("OPEB") under M.G.L. Chapter 32B, Section 20 for purposes of accumulating assets to pre-fund the liabilities under GASB 45. To the best of our knowledge, Town of Norton has established an irrevocable trust for the purposes of prefunding liabilities under GASB 45.

EXHIBIT AFinancial Statement Disclosure

(As of July 1, 2015)

(continued)

12. Impact of Patient Protection and Affordable Care Act ("PPACA") Excise Tax

Under the Patient Protection and Affordable Care Act ("PPACA"), an excise tax will be imposed for tax years beginning after December 31, 2019 (formerly December 31, 2017, but amended by Consolidated Appropriations Act) for high cost employer sponsored health coverage. The law specifies a 40% excise tax, to be paid by the provider of such coverage, of the excess value beyond a basic dollar amount plus an additional "kicker" for qualified retirees or those engaged in a high risk profession. The threshold amounts for 2018 (original legislation) were \$10,200 for single coverage and \$27,500 for family coverage and a "kicker" amount of \$1,650 for single coverage and \$3,450 for family coverage. These threshold and kicker amounts are expected to be updated because of the Consolidated Appropriations Act before the tax takes effect in 2020, but currently the updated amounts have not been released.

The excise tax liability will vary significantly over time as it is highly leveraged with the basic threshold amount increased with general CPI and medical costs increasing with medical trend (generally higher). For purposes of the fiscal year ending June 30, 2016, the AAL for the excise tax is \$633,617 and the increase in annual OPEB Cost is \$97,015. Given your premiums through the 2017 fiscal year and the excise tax threshold, your average single premiums are \$4,632 below the excise tax threshold and your average family premiums are \$5,523 below the excise tax threshold. As more regulatory guidance becomes available, the calculation of the excise tax liability will evolve.

EXHIBIT AFinancial Statement Disclosure

(As of July 1, 2015)

(continued)

13. Impact of Section 9A 1/2 of M.G.L. Chapter 32B

For employees who retire on or after January 1, 2011 whenever a retired employee or beneficiary receives a healthcare premium contribution from a governmental unit in a case where a portion of the retiree's creditable service is attributable to service in 1 or more other governmental units, the first governmental unit shall be reimbursed in full, in accordance with this paragraph, by the other governmental units for the portion of the premium contributions that corresponds to the percentage of the retiree's creditable service that is attributable to each governmental unit. The other governmental units shall be charged based on their own contribution rate or the contribution rate of the first employer, whichever is lower.

For purposes of the valuation we have not attempted to value the impact of prior governmental service at other entities in the State of Massachusetts for current employees of the Town of Norton nor have we attempted to value the impact of prior Town of Norton employees currently working at other governmental entities in the State of Massachusetts.

EXHIBIT B

Reconciliation of Plan Participation (As of July 1, 2015)

ACTIVE EMPLOYEES

	<u>July 1, 2015</u>	<u>July 1, 2013</u>
A. Average Age at Hire	33.68	34.09
B. Average Service	10.75	10.58
C. Average Current Age	44.43	44.67

RETIRED EMPLOYEES & DEPENDENTS

	<u>July 1, 2015</u>	<u>July 1, 2013</u>
I. Retirees		
A. Under Age 65	70	85
B. Age 65 & Over	<u>281</u>	<u>261</u>
C. Total Retirees	351	346
II. Dependents of Retirees		
A. Under Age 65	21	18
B. Age 65 & Over	<u>7</u>	<u>6</u>
C. Total Retirees	28	24
III. Retirees & Dependents		
A. Under Age 65	91	103
B. Age 65 & Over	<u>288</u>	<u>267</u>
C. Total Retirees	379	370

EXHIBIT C

Projected Cash Flows (Open Group) – Pay-as-you-go Funding Approach

Total Medical, Dental & Life Insurance - Pay-as-you-go Funding - 3.50% discount rate										
Fiscal Year	I. Total Actuarial Accrued Liability ("AAL") as of July 1	II. Plan Assets as of July 1	III. Unfunded Accrued Actuarial Liability ("UAAAL") [I. - II.]	IV. Funded Ratio [II. / I.]	V. OPEB Obligation (Asset) as of June 30	VI. Normal Cost	VII. Expected Annual OPEB Expense	VII. Employer Share of Premiums / Claims	IX. Excess Employer Payments (beyond claims)	X. Total Employer Contribution [VIII. + IX.]
					18,938,622					
2016	59,970,409	111,437	59,858,972	0.19%	22,464,610	2,213,666	5,360,964	1,764,976	70,000	1,834,976
2017	62,533,766	190,985	62,342,781	0.31%	26,228,560	2,345,984	5,616,692	1,772,742	80,000	1,852,742
2018	65,315,752	279,057	65,036,695	0.43%	30,245,868	2,467,155	5,869,600	1,842,292	10,000	1,852,292
2019	68,248,537	298,997	67,949,540	0.44%	34,450,622	2,584,184	6,127,236	1,912,482	10,000	1,922,482
2020	71,332,446	319,635	71,012,811	0.45%	38,823,333	2,703,894	6,394,112	2,011,401	10,000	2,021,401
2021	74,545,811	340,996	74,204,815	0.46%	43,349,116	2,832,175	6,675,438	2,139,655	10,000	2,149,655
2022	77,871,670	363,104	77,508,566	0.47%	48,053,869	2,965,748	6,967,413	2,252,660	10,000	2,262,660
2023	81,335,224	385,986	80,949,238	0.47%	52,969,413	3,119,145	7,285,476	2,359,932	10,000	2,369,932
2024	84,967,742	409,669	84,558,073	0.48%	58,081,876	3,269,681	7,608,056	2,485,593	10,000	2,495,593
2025	88,753,145	434,181	88,318,964	0.49%	63,393,128	3,438,051	7,955,599	2,634,347	10,000	2,644,347
2026	92,691,340	459,551	92,231,789	0.50%	68,964,817	3,613,801	8,318,053	2,736,365	10,000	2,746,365
2027	96,843,682	485,809	96,357,873	0.50%	74,748,519	3,789,822	8,689,940	2,896,238	10,000	2,906,238
2028	101,158,070	512,986	100,645,084	0.51%	80,724,448	3,977,159	9,080,613	3,094,684	10,000	3,104,684
2029	105,611,963	541,114	105,070,849	0.51%	86,912,323	4,182,140	9,495,704	3,297,829	10,000	3,307,829
2030	110,223,644	570,226	109,653,418	0.52%	93,328,750	4,388,936	9,920,070	3,493,643	10,000	3,503,643
2031	115,008,101	600,357	114,407,744	0.52%	99,964,586	4,614,390	10,371,135	3,725,299	10,000	3,735,299
2032	119,953,594	631,543	119,322,051	0.53%	106,832,640	4,843,208	10,833,279	3,955,225	10,000	3,965,225
2033	125,028,783	663,820	124,364,963	0.53%	114,030,615	5,096,238	11,327,796	4,119,822	10,000	4,129,822
2034	130,415,379	697,227	129,718,152	0.53%	121,544,113	5,348,663	11,833,277	4,309,779	10,000	4,319,779
2035	136,055,164	731,803	135,323,361	0.54%	129,454,825	5,611,918	12,360,650	4,439,938	10,000	4,449,938
2036	141,999,322	767,590	141,231,732	0.54%	137,805,691	5,897,440	12,924,206	4,563,339	10,000	4,573,339
2037	148,277,959	804,629	147,473,330	0.54%	146,585,827	6,189,462	13,509,675	4,719,538	10,000	4,729,538
2038	154,989,060	842,965	154,146,095	0.54%	153,891,572	6,497,094	12,216,429	4,900,685	10,000	4,910,685
2039	162,017,726	882,642	161,135,084	0.54%	161,587,170	6,834,597	12,811,171	5,105,574	10,000	5,115,574
2040	169,382,145	923,708	168,458,437	0.55%	169,667,291	7,181,250	13,428,694	5,338,573	10,000	5,348,573
2041	176,942,229	966,211	175,976,018	0.55%	178,167,955	7,559,476	14,091,229	5,580,565	10,000	5,590,565
2042	185,100,880	1,010,202	184,090,678	0.55%	187,079,958	7,952,779	14,783,544	5,861,540	10,000	5,871,540
2043	193,743,841	1,055,733	192,688,108	0.54%	196,520,181	8,362,139	15,506,286	6,056,063	10,000	6,066,063
2044	203,010,303	1,102,857	201,907,446	0.54%	206,564,621	8,793,320	16,269,313	6,214,873	10,000	6,224,873
2045	212,784,358	1,151,630	211,632,728	0.54%	217,146,368	9,246,614	17,075,574	6,483,827	10,000	6,493,827
2046	223,121,035	1,202,111	221,918,924	0.54%	227,736,684	9,729,445	17,355,061	6,754,745	10,000	6,764,745
2047	233,976,983	1,254,358	232,722,625	0.54%	239,002,321	10,230,833	18,228,589	6,952,951	10,000	6,962,951

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Funding over 30 years at 7.00% discount rate increasing at 0.00% per year										
Fiscal Year	I. Total Actuarial Accrued Liability ("AAL") as of July 1	II. Plan Assets as of July 1	III. Unfunded Accrued Actuarial Liability ("UAAAL") [I. - II.]	IV. Funded Ratio [II. / I.]	V. OPEB Obligation (Asset) as of June 30	VI. Normal Cost	VII. Expected Annual OPEB Expense	VII. Employer Share of Premiums / Claims	IX. Excess Employer Payments (beyond claims)	X. Total Employer Contribution [VIII. + IX.]
2016	36,584,498	111,437	36,473,061	0.30%	20,879,241	854,233	3,775,595	1,764,976	70,000	1,834,976
2017	38,170,917	190,985	37,979,932	0.50%	21,571,010	911,406	3,968,611	1,772,742	1,504,100	3,276,842
2018	39,921,252	1,760,207	38,161,045	4.41%	22,293,531	963,285	4,068,913	1,842,292	1,504,100	3,346,392
2019	41,775,203	3,439,275	38,335,928	8.23%	23,045,395	1,012,241	4,168,446	1,912,482	1,504,100	3,416,582
2020	43,736,209	5,235,877	38,500,332	11.97%	23,800,184	1,061,454	4,270,290	2,011,401	1,504,100	3,515,501
2021	45,781,299	7,158,242	38,623,057	15.64%	24,531,644	1,113,544	4,375,215	2,139,655	1,504,100	3,643,755
2022	47,888,050	9,215,172	38,672,878	19.24%	25,256,071	1,167,135	4,481,187	2,252,660	1,504,100	3,756,760
2023	50,078,702	11,416,087	38,662,615	22.80%	25,987,025	1,228,758	4,594,986	2,359,932	1,504,100	3,864,032
2024	52,373,856	13,771,066	38,602,790	26.29%	26,704,984	1,288,764	4,707,652	2,485,593	1,504,100	3,989,693
2025	54,759,418	16,290,894	38,468,524	29.75%	27,393,677	1,356,471	4,827,140	2,634,347	1,504,100	4,138,447
2026	57,225,252	18,987,110	38,238,142	33.18%	28,100,460	1,426,825	4,947,248	2,736,365	1,504,100	4,240,465
2027	59,829,810	21,872,061	37,957,749	36.56%	28,767,601	1,496,013	5,067,479	2,896,238	1,504,100	4,400,338
2028	62,519,656	24,958,958	37,560,698	39.92%	29,358,041	1,569,470	5,189,224	3,094,684	1,504,100	4,598,784
2029	65,264,052	28,261,938	37,002,114	43.30%	29,868,804	1,649,997	5,312,692	3,297,829	1,504,100	4,801,929
2030	68,069,355	31,796,127	36,273,228	46.71%	30,301,305	1,730,174	5,430,244	3,493,643	1,504,100	4,997,743
2031	70,947,298	35,577,709	35,369,589	50.15%	30,622,124	1,818,242	5,550,218	3,725,299	1,504,100	5,229,399
2032	73,873,057	39,624,002	34,249,055	53.64%	30,825,480	1,906,614	5,662,681	3,955,225	1,504,100	5,459,325
2033	76,833,307	43,953,535	32,879,772	57.21%	30,978,901	2,005,410	5,777,343	4,119,822	1,504,100	5,623,922
2034	79,949,217	48,586,136	31,363,081	60.77%	31,053,058	2,103,752	5,888,036	4,309,779	1,504,100	5,813,879
2035	83,185,215	53,543,019	29,642,196	64.37%	31,105,599	2,205,516	5,996,579	4,439,938	1,504,100	5,944,038
2036	86,603,095	58,846,883	27,756,212	67.95%	31,150,638	2,316,180	6,112,478	4,563,339	1,504,100	6,067,439
2037	90,223,402	64,522,018	25,701,384	71.51%	31,156,777	2,428,809	6,229,777	4,719,538	1,504,100	6,223,638
2038	94,087,962	70,594,412	23,493,550	75.03%	28,569,839	2,547,438	3,817,847	4,900,685	1,504,100	6,404,785
2039	98,131,687	77,091,874	21,039,813	78.56%	25,729,475	2,677,873	3,769,310	5,105,574	1,504,100	6,609,674
2040	102,351,809	84,044,158	18,307,651	82.11%	22,592,668	2,811,206	3,705,866	5,338,573	1,504,100	6,842,673
2041	106,667,563	91,483,102	15,184,461	85.76%	19,141,997	2,956,929	3,633,994	5,580,565	1,504,100	7,084,665
2042	111,285,475	99,442,772	11,842,703	89.36%	15,321,588	3,107,809	3,545,231	5,861,540	1,504,100	7,365,640
2043	116,128,966	107,959,619	8,169,347	92.97%	11,197,378	3,264,134	3,435,953	6,056,063	1,504,100	7,560,163
2044	121,385,636	117,072,645	4,312,991	96.45%	6,801,954	3,428,505	3,323,549	6,214,873	1,504,100	7,718,973
2045	126,901,216	126,823,583	77,633	99.94%	3,442,516	3,601,694	3,202,022	6,483,827	77,633	6,561,460
2046	132,735,003	135,781,538	(3,046,535)	102.30%	3,835,361	3,785,749	4,101,055	6,754,745	(3,046,535)	3,708,210
2047	138,839,746	142,134,885	(3,295,139)	102.37%	4,509,148	3,976,024	4,331,599	6,952,951	(3,295,139)	3,657,812

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Funding over 30 years at 7.00% discount rate increasing at 2.75% per year										
Fiscal Year	I. Total Actuarial Accrued Liability ("AAL") as of July 1	II. Plan Assets as of July 1	III. Unfunded Accrued Actuarial Liability ("UAAL") [I. - II.]	IV. Funded Ratio [II. / I.]	V. OPEB Obligation (Asset) as of June 30	VI. Normal Cost	VII. Expected Annual OPEB Expense	VII. Employer Share of Premiums / Claims	IX. Excess Employer Payments (beyond claims)	X. Total Employer Contribution [VIII. + IX.]
2016	36,584,498	111,437	36,473,061	0.30%	18,938,622	854,233	3,775,595	1,764,976	70,000	1,834,976
2017	38,170,917	190,985	37,979,932	0.50%	20,879,241	911,406	3,968,611	1,772,742	1,135,400	2,908,142
2018	39,921,252	1,378,821	38,542,431	3.45%	22,999,707	963,285	4,068,913	1,842,292	1,166,624	3,008,916
2019	41,775,203	2,682,104	39,093,099	6.42%	24,056,965	1,012,241	4,168,446	1,912,482	1,198,706	3,111,188
2020	43,736,209	4,109,802	39,626,407	9.40%	25,084,184	1,061,454	4,270,290	2,011,401	1,231,670	3,243,071
2021	45,781,299	5,671,537	40,109,762	12.39%	26,054,203	1,113,544	4,375,215	2,139,655	1,265,541	3,405,196
2022	47,888,050	7,377,630	40,510,420	15.41%	26,982,387	1,167,135	4,481,187	2,252,660	1,300,343	3,553,003
2023	50,078,702	9,239,149	40,839,553	18.45%	27,881,339	1,228,758	4,594,986	2,359,932	1,336,102	3,696,034
2024	52,373,856	11,267,964	41,105,892	21.51%	28,730,553	1,288,764	4,707,652	2,485,593	1,372,845	3,858,438
2025	54,759,418	13,476,803	41,282,615	24.61%	29,512,748	1,356,471	4,827,140	2,634,347	1,410,598	4,044,945
2026	57,225,252	15,879,313	41,345,939	27.75%	30,274,242	1,426,825	4,947,248	2,736,365	1,449,389	4,185,754
2027	59,829,810	18,490,125	41,339,685	30.90%	30,956,236	1,496,013	5,067,479	2,896,238	1,489,247	4,385,485
2028	62,519,656	21,324,923	41,194,733	34.11%	31,520,575	1,569,470	5,189,224	3,094,684	1,530,201	4,624,885
2029	65,264,052	24,400,520	40,863,532	37.39%	31,963,156	1,649,997	5,312,692	3,297,829	1,572,282	4,870,111
2030	68,069,355	27,734,938	40,334,417	40.75%	32,284,237	1,730,174	5,430,244	3,493,643	1,615,520	5,109,163
2031	70,947,298	31,347,491	39,599,807	44.18%	32,449,209	1,818,242	5,550,218	3,725,299	1,659,947	5,385,246
2032	73,873,057	35,258,878	38,614,179	47.73%	32,451,069	1,906,614	5,662,681	3,955,225	1,705,596	5,660,821
2033	76,833,307	39,491,282	37,342,025	51.40%	32,356,090	2,005,410	5,777,343	4,119,822	1,752,500	5,872,322
2034	79,949,217	44,068,472	35,880,745	55.12%	32,133,653	2,103,752	5,888,036	4,309,779	1,800,694	6,110,473
2035	83,185,215	49,015,917	34,169,298	58.92%	31,840,081	2,205,516	5,996,579	4,439,938	1,850,213	6,290,151
2036	86,603,095	54,360,906	32,242,189	62.77%	31,488,126	2,316,180	6,112,478	4,563,339	1,901,094	6,464,433
2037	90,223,402	60,132,676	30,090,726	66.65%	31,044,991	2,428,809	6,229,777	4,719,538	1,953,374	6,672,912
2038	94,087,962	66,362,549	27,725,413	70.53%	27,955,061	2,547,438	3,817,847	4,900,685	2,007,092	6,907,777
2039	98,131,687	73,084,080	25,047,607	74.48%	24,556,510	2,677,873	3,769,310	5,105,574	2,062,287	7,167,861
2040	102,351,809	80,333,212	22,018,597	78.49%	20,804,803	2,811,206	3,705,866	5,338,573	2,119,000	7,457,573
2041	106,667,563	88,148,447	18,519,116	82.64%	16,680,959	2,956,929	3,633,994	5,580,565	2,177,273	7,757,838
2042	111,285,475	96,571,027	14,714,448	86.78%	12,127,502	3,107,809	3,545,231	5,861,540	2,237,148	8,098,688
2043	116,128,966	105,645,123	10,483,843	90.97%	7,208,722	3,264,134	3,435,953	6,056,063	2,298,670	8,354,733
2044	121,385,636	115,418,044	5,967,592	95.08%	1,955,515	3,428,505	3,323,549	6,214,873	2,361,883	8,576,756
2045	126,901,216	125,940,458	960,758	99.24%	(2,287,048)	3,601,694	3,202,022	6,483,827	960,758	7,444,585
2046	132,735,003	135,750,106	(3,015,103)	102.27%	(1,925,635)	3,785,749	4,101,055	6,754,745	(3,015,103)	3,739,642
2047	138,839,746	142,133,767	(3,294,021)	102.37%	(1,252,966)	3,976,024	4,331,599	6,952,951	(3,294,021)	3,658,930

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Funding Annual Normal Cost - 3.50% discount rate											
Fiscal Year	I. Total Actuarial Accrued Liability ("AAL")	II. Normal Cost	III. Employer Share of Premiums / Claims including "implicit cost"	IV. Funding Normal Cost beyond claims	V. Total Funding Costs [III. + IV.]	VI. Present Value at 2.75% of Employer Share of Premiums / Claims including "implicit cost"	VII. Present Value at 2.75% of Funding Normal Cost beyond claims	VIII. Present Value at 2.75% of Total Funding Costs + VII.]	IX. Plan Assets at Beginning of year	X. Unfunded Accrued Actuarial Liability ("UAAL") - IX.]	XI. Present Value at 2.75% of Unfunded Accrued Actuarial Liability ("UAAL")
2016	59,970,409	2,213,666	1,764,976	448,690	2,213,666	1,764,976	448,690	2,213,666	111,437	59,858,972	59,858,972
2017	62,533,766	2,345,984	1,772,742	573,242	2,345,984	1,725,296	557,900	2,283,196	564,027	61,969,739	60,311,182
2018	65,315,752	2,467,155	1,842,292	624,863	2,467,155	1,744,997	591,863	2,336,860	1,157,010	64,158,742	60,770,412
2019	68,248,537	2,584,184	1,912,482	671,702	2,584,184	1,762,998	619,200	2,382,198	1,822,368	66,426,169	61,234,153
2020	71,332,446	2,703,894	2,011,401	692,493	2,703,894	1,804,560	621,281	2,425,841	2,557,853	68,774,593	61,702,208
2021	74,545,811	2,832,175	2,139,655	692,520	2,832,175	1,868,248	604,677	2,472,925	3,339,871	71,205,940	62,173,751
2022	77,871,670	2,965,748	2,252,660	713,088	2,965,748	1,914,276	605,971	2,520,247	4,149,286	73,722,384	62,648,170
2023	81,335,224	3,119,145	2,359,932	759,213	3,119,145	1,951,761	627,900	2,579,661	5,007,599	76,327,625	63,126,097
2024	84,967,742	3,269,681	2,485,593	784,088	3,269,681	2,000,670	631,117	2,631,787	5,942,078	79,025,664	63,608,259
2025	88,753,145	3,438,051	2,634,347	803,704	3,438,051	2,063,652	629,593	2,693,245	6,934,139	81,819,006	64,094,051
2026	92,691,340	3,613,801	2,736,365	877,436	3,613,801	2,086,199	668,955	2,755,154	7,980,538	84,710,802	64,583,338
2027	96,843,682	3,789,822	2,896,238	893,584	3,789,822	2,148,989	663,033	2,812,022	9,137,293	87,706,389	65,077,535
2028	101,158,070	3,977,159	3,094,684	882,475	3,977,159	2,234,778	637,266	2,872,044	10,350,682	90,807,388	65,575,139
2029	105,611,963	4,182,140	3,297,829	884,311	4,182,140	2,317,738	621,500	2,939,238	11,595,431	94,016,532	66,075,496
2030	110,223,644	4,388,936	3,493,643	895,293	4,388,936	2,389,642	612,378	3,002,020	12,885,582	97,338,062	66,578,969
2031	115,008,101	4,614,390	3,725,299	889,091	4,614,390	2,479,897	591,860	3,071,757	14,231,870	100,776,231	67,085,808
2032	119,953,594	4,843,208	3,955,225	887,983	4,843,208	2,562,488	575,301	3,137,789	15,619,076	104,334,518	67,595,646
2033	125,028,783	5,096,238	4,119,822	976,416	5,096,238	2,597,690	615,664	3,213,354	17,053,727	107,975,056	68,082,002
2034	130,415,379	5,348,663	4,309,779	1,038,884	5,348,663	2,644,734	637,520	3,282,254	18,627,023	111,788,356	68,599,922
2035	136,055,164	5,611,918	4,439,938	1,171,980	5,611,918	2,651,686	699,947	3,351,633	20,317,853	115,737,311	69,122,368
2036	141,999,322	5,897,440	4,563,339	1,334,101	5,897,440	2,652,443	775,447	3,427,890	22,200,958	119,798,364	69,632,867
2037	148,277,959	6,189,462	4,719,538	1,469,924	6,189,462	2,669,814	831,527	3,501,341	24,312,093	123,965,866	70,126,744
2038	154,989,060	6,497,094	4,900,685	1,596,409	6,497,094	2,698,091	878,909	3,577,000	26,632,940	128,356,120	70,666,944
2039	162,017,726	6,834,597	5,105,574	1,729,023	6,834,597	2,735,662	926,443	3,662,105	29,161,502	132,856,224	71,186,854
2040	169,382,145	7,181,250	5,338,573	1,842,677	7,181,250	2,783,949	960,916	3,744,865	31,911,178	137,470,967	71,688,097
2041	176,942,229	7,559,476	5,580,565	1,978,911	7,559,476	2,832,255	1,004,339	3,836,594	34,870,746	142,071,483	72,104,298
2042	185,100,880	7,952,779	5,861,540	2,091,239	7,952,779	2,895,237	1,032,942	3,928,179	38,070,133	147,030,747	72,624,068
2043	193,743,841	8,362,139	6,056,063	2,306,076	8,362,139	2,911,260	1,108,573	4,019,833	41,493,827	152,250,014	73,189,354
2044	203,010,303	8,793,320	6,214,873	2,578,447	8,793,320	2,907,642	1,206,332	4,113,974	45,252,187	157,758,116	73,807,493
2045	212,784,358	9,246,614	6,483,827	2,762,787	9,246,614	2,952,285	1,257,982	4,210,267	49,414,461	163,369,897	74,387,326
2046	223,121,035	9,729,445	6,754,745	2,974,700	9,729,445	2,993,326	1,318,221	4,311,547	53,906,754	169,214,281	74,986,330

EXHIBIT D

Projected Cash Flows (Open Group) – Funded Approach

Total Medical, Dental & Life Insurance - Pay-as-you-go Funding

Fiscal Year	Number of Retirees, Spouses & Surviving Spouses	Total Actuarial Accrued Liability ("AAL")	Present Value at 2.75% of Total Actuarial Accrued Liability ("AAL")	Employer Share of Premiums / Claims including "implicit cost"	Present Value at 2.75% of Employer Share of Premiums / Claims including "implicit cost"
2016	379	59,970,409	59,970,409	1,764,976	1,764,976
2017	387	62,533,766	60,860,113	1,772,742	1,725,296
2018	391	65,315,752	61,866,318	1,842,292	1,744,997
2019	393	68,248,537	62,914,081	1,912,482	1,762,998
2020	395	71,332,446	63,997,026	2,011,401	1,804,560
2021	399	74,545,811	65,089,973	2,139,655	1,868,248
2022	403	77,871,670	66,174,170	2,252,660	1,914,276
2023	409	81,335,224	67,267,588	2,359,932	1,951,761
2024	414	84,967,742	68,391,075	2,485,593	2,000,670
2025	418	88,753,145	69,526,005	2,634,347	2,063,652
2026	422	92,691,340	70,667,683	2,736,365	2,086,199
2027	427	96,843,682	71,857,343	2,896,238	2,148,989
2028	431	101,158,070	73,049,722	3,094,684	2,234,778
2029	436	105,611,963	74,224,848	3,297,829	2,317,738
2030	439	110,223,644	75,392,672	3,493,643	2,389,642
2031	442	115,008,101	76,559,832	3,725,299	2,479,897
2032	445	119,953,594	77,714,843	3,955,225	2,562,488
2033	447	125,028,783	78,834,966	4,119,822	2,597,690
2034	447	130,415,379	80,030,560	4,309,779	2,644,734
2035	446	136,055,164	81,256,900	4,439,938	2,651,686
2036	446	141,999,322	82,537,186	4,563,339	2,652,443
2037	444	148,277,959	83,879,949	4,719,538	2,669,814
2038	443	154,989,060	85,329,809	4,900,685	2,698,091
2039	442	162,017,726	86,812,134	5,105,574	2,735,662
2040	441	169,382,145	88,329,078	5,338,573	2,783,949
2041	440	176,942,229	89,801,942	5,580,565	2,832,255
2042	440	185,100,880	91,428,351	5,861,540	2,895,237
2043	438	193,743,841	93,136,193	6,056,063	2,911,260
2044	437	203,010,303	94,978,832	6,214,873	2,907,642
2045	436	212,784,358	96,887,246	6,483,827	2,952,285
2046	436	223,121,035	98,874,796	6,754,745	2,993,326
2047	435	233,976,983	100,910,507	6,952,951	2,998,696
2048	434	245,682,912	103,123,198	7,236,107	3,037,291
2049	434	257,968,042	105,381,773	7,570,087	3,092,434
2050	434	270,882,079	107,695,619	7,959,001	3,164,290
2051	434	284,632,946	110,133,920	8,337,386	3,226,011
2052	435	299,059,216	112,618,903	8,667,585	3,264,015
2053	435	314,253,704	115,173,529	9,044,471	3,314,786
2054	436	330,320,059	117,821,728	9,377,021	3,344,686
2055	436	348,152,656	120,858,812	9,751,833	3,385,282

EXHIBIT E**GLOSSARY**

AAL – Actuarial Accrued Liability. That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Accrual Accounting - A system of accounting in which revenues are recorded when earned and outlays are recorded when goods are received or services performed, even though the actual receipt of revenues and payment for goods or services may occur, in whole or in part, at a different time.

Actuarial Value of Assets – The value of cash, investments, other assets and property belonging to an OPEB trust, pension fund or similar entity, as used by the actuary for the purpose of actuarial valuation. Some funds may be restricted for other purposes, and “smoothing” of investment gains and losses often make the actuarial value of assets different from the market value of assets.

Annual Required Contribution – Normal Cost plus an amortization of the funding shortfall over a period of no more than 30 years.

Cash Basis Accounting - A system of accounting in which revenues are recorded when actually received and outlays are recorded when payment is made.

Discount Rate – The interest rate used to calculate present value of a series of future cash flows. Under GASB 45, the rate should be “long term expected yield on the investments that are expected to be used to pay benefits as they come due. These would be plan investments for a funded plan, the employer’s investments for a pay as you go plan [e.g. short term county investment pool], or a weighted average of expected plan and employer investments for a plan that is partially funded”.

FASB – Financial Accounting Standards Board. “Since 1973, the Financial Accounting Standards Board (FASB) has been the designated organization in the private sector for establishing standards of financial accounting and reporting”.

GASB - Government Accounting Standards Board. “The Governmental Accounting Standards Board (GASB) was organized in 1984 by the Financial Accounting Foundation (FAF) to establish standards of financial accounting and reporting for state and local governmental entities. Its standards guide the preparation of external financial reports of those entities.”

EXHIBIT E**GLOSSARY***(continued)*

GFOA – Government Finance Officers Association. “GFOA is the professional association of state/provincial and local finance officers in the United States and Canada, and has served the public finance profession since 1906. Approximately 16,000 GFOA members are dedicated to the sound management of government financial resources.”

Implicit Subsidy – “The difference between a premium rate charged to retirees for a particular benefit and the estimated rate that would have been applicable to those retirees if that benefit was acquired for them as a separate group.”

Irrevocable Contribution – “Irrevocably transferred assets to a qualifying trust, or equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator. The preceding criteria preclude counting as [irrevocable] contributions (a) designations of net assets of a governmental or proprietary fund to be used for OPEB or (b) internal transfers of assets to a separate governmental or proprietary fund for the same purpose. Rather, such actions should be regarded as earmarking of employer assets.”

Level Dollar Amortization – Funding a shortfall in OPEB assets with equal dollar payments over a designated number of years (no more than 30 years). The present value of the level payments equals the present value of unfunded liabilities, the UAAL.

Level Percent of Payroll Amortization – Funding a shortfall in OPEB assets as a level percent of payroll over a designated number of years (no more than 30 years). The present value of the payments equals the present value of unfunded liabilities, the UAAL. Level percent of payroll typically has lower payments in the early years than level dollar amortization. When using level payroll amortization, employee count is assumed to be constant, and the payroll differences arise from overall wage trends.

EXHIBIT E**GLOSSARY***(continued)*

Normal Cost - The actuarially determined present value contribution needed to fund benefits which are earned for employee service rendered during the current year. Normal cost depends on many factors, including the interest rate used to discount future cashflows, and expected inflation.

NOA – Net OPEB Asset. The amount recognized by an employer for contributions to an OPEB plan greater than OPEB expenses.

NOO – Net OPEB Obligation. The cumulative difference since the effective date of GASB Statement number 45 between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

OPEB – Other Post Employment Benefits

OPEB Trust – An entity other than a pension or retirement system which manages OPEB assets. In many respects it is similar to a pension fund for OPEB. For reasons detailed in GASB 45, contributions to an OPEB trust should be irrevocable in order to obtain the most favorable accounting treatment.

Pay-as-you-go funding – Paying benefits (such as pensions or OPEB) on a cash basis, with no money set aside for future liabilities which are already incurred.

POB – Pension Obligation Bond. Generally yielding taxable interest, POBs are issued to help fund a previously unfunded or underfunded pension liability.

UAAL – Unfunded Accrued Actuarial Liability. Actuarial Accrued Liability minus the Actuarial Value of Assets.