

Section 2: Valuation Results

Exhibit 1 – General Information

At June 30, 2016, Town of Provincetown plan membership consisted of the following:

	June 30, 2016
Retired members of beneficiaries currently receiving benefits	209
Active members	<u>140</u>
Total	349

We have assumed other general information about the Plan will be provided by the Town of Provincetown’s auditors.

Exhibit 2 – Net OPEB Liability

The components of the net OPEB liability of the Town of Provincetown are as follows:

	June 30, 2017	June 30, 2016
Total OPEB Liability	\$20,650,325	\$19,903,076
Plan Fiduciary Net Position	2,419,151	1,612,832
Net OPEB Liability	18,231,174	18,290,244
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability*	11.71%	8.10%

* These funded percentages are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

Actuarial assumptions. The total OPEB liability as of June 30, 2017 was measured by an actuarial valuation as of June 30, 2016 using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Actuarial Assumptions:

Inflation:	3.5%
Salary increases:	<p>Service-related increases for Group 1 (excluding Teachers) and Group 2 employees: 6.0% decreasing over 9 years to an ultimate level of 4.25%</p> <p>Service-related increases for Group 4 employees: 7.0% decreasing over 5 years to an ultimate level of 4.75%</p> <p>Service-related increases for Teachers: 7.5% decreasing over 20 years to an ultimate level of 4.0%</p>
Discount rate:	7.25% as of June 30, 2017 and 7.25% as of June 30, 2016
Investment rate of return:	7.25%
Health care trend rates:*	<ul style="list-style-type: none"> • CCMHG <ul style="list-style-type: none"> – Under 65: 10.5% for 1 year, then 7.0% decreasing by 0.5% each year to an ultimate level of 4.5% per year – Over 65: 1.9% for 1 year, then 7.0% decreasing by 0.5% each year to an ultimate level of 4.5% per year • GIC <ul style="list-style-type: none"> – Under 65: 6.8% for 1 year, then 8.5% decreasing by 0.5% each year to an ultimate level of 5.0% per year – Over 65: 1.6% for 1 year, then 8.5% decreasing by 0.5% each year to an ultimate level of 5.0% per year • Dental: N/A • Part B: 4.5% • Contributions: Retiree contributions are expected to increase with respective trend shown above. <p>*Trends reflect known increases</p>

Mortality Rates:

- Preretirement mortality rates:
 - Healthy Non-Teachers: RP-2000 Employee Mortality Table projected generationally with Scale BB2D from 2009
 - Healthy Non-Teachers: (Falmouth): RP-2000 Employee Mortality Table projected generationally with Scale BB from 2009
 - Healthy Teachers: RP-2014 White Collar Employee Mortality Table projected generationally with Scale MP-2016
 - Postretirement mortality rates:
 - Healthy Non-Teachers: RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB2D from 2009
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 - Disabled Non-Teachers: (Falmouth): RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB from 2012
 - Disabled Teachers: RP-2014 Healthy Annuitant Table set forward 4 years and projected generationally with Scale BB2D from 2014
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Exhibit 3 – Determination of Discount Rate and Investment Rate of Return

Development of Long-Term Rate

The long-term expected rate of return on OPEB plan investments was determined using a building block method in which best estimate ranges of expected future rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation as of June 30, 2017 and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized below:

Asset Class	Long-Term Expected Real Rate of Return
Domestic equity	6.44%
International developed markets equity	7.40%
International emerging markets equity	9.42%
Core fixed income	2.02%
High Yield Fixed Income	4.43%
Real Estate	5.00%
Commodities	4.43%
Hedge fund, GTAA, Risk parity	3.75%
Private equity	10.47%

Nature of Assets: The assets are in an irrevocable OPEB Trust and are invested in the State Retiree Benefits Trust Fund.

Exhibit 4 – Schedule of Changes in the Net OPEB Liability

	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)
Balance at June 30, 2016	\$19,903,076	\$1,612,832	\$18,290,244
Changes for the year:			
• Service cost	\$514,047	\$0	\$514,047
• Interest	1,437,355	0	1,437,355
• Differences between expected and actual experience	0	0	0
• Changes of assumptions	0	0	0
• Contributions - employer	0	1,781,734	-1,781,734
• Net investment income	0	228,738	-228,738
• Benefit payments	-1,204,153	-1,204,153	0
• Administrative expenses	0	0	0
Net changes	\$747,249	\$803,319	-\$59,070
Balances at June 30, 2017	\$20,650,325	\$2,419,151	\$18,231,174

Notes to Schedule:

Changes in Assumptions: None.

Changes in Plan Provisions: None.

Exhibit 5 – Sensitivity

Sensitivity of the net OPEB liability to changes in the discount rate

The following presents the net OPEB liability well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate.

	1% Decrease	Current Discount Rate	1% Increase
Net OPEB liability as of June 30, 2017	\$20,446,701	\$18,231,174	\$16,353,815

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates

The following presents the net OPEB liability as well as what the net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage point higher than the current rates.

	1% Decrease	Current Trend Rates	1% Increase
Net OPEB liability as of June 30, 2017	\$16,168,854	\$18,231,174	\$20,704,264

Exhibit 6 – Schedule of Contributions – Last Ten Years

	Year End June 30,									
	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarially determined contribution	\$1,569,914									
Contributions in relation to the actuarially determined contribution	<u>1,781,734</u>									
Contribution deficiency (excess)	-\$211,820									
Covered-employee payroll	\$9,880,079									
Contributions as a percentage of covered-employee payroll	18.03%				(Historical information prior to implementation of GASB 74/75 is not required)					

Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution”:

Valuation date:	Actuarially determined contribution for fiscal year ending June 30, 2017 was determined with the June 30, 2016 actuarial valuation.
Actuarial cost method:	Entry Age Normal- Level Percentage of Payroll
Amortization method:	Level percentage of payroll
Remaining amortization period:	30 years from July 1, 2016
Asset valuation method:	Market value
Investment rate of return:	7.25%
Health care trend rates:*	<ul style="list-style-type: none"> • CCMHG <ul style="list-style-type: none"> – Under 65: 10.5% for 1 year, then 7.0% decreasing by 0.5% each year to an ultimate level of 4.5% per year – Over 65: 1.9% for 1 year, then 7.0% decreasing by 0.5% each year to an ultimate level of 4.5% per year • GIC <ul style="list-style-type: none"> – Under 65: 6.8% for 1 year, then 8.5% decreasing by 0.5% each year to an ultimate level of 5.0% per year – Over 65: 1.6% for 1 year, then 8.5% decreasing by 0.5% each year to an ultimate level of 5.0% per year • Dental: N/A • Part B: 4.5% • Contributions: Retiree contributions are expected to increase with respective trend shown above. <p>*Trends reflect known increases</p>

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Exhibit 7 – OPEB Expense and Deferred Outflows/Inflows of Resources Related to OPEB

A. OPEB expense for the year ended June 30, 2018	
• Service cost	\$514,047
• Interest	1,437,355
• Contributions – employee	0
• Projected earnings on OPEB Trust investments	-137,868
• Administrative expenses	0
• Recognized portion of current-period difference between expected and actual experience	0
• Recognized portion of current-period difference between projected and actual earnings on OPEB plan investments	-18,174
• Recognized portion of current year period assumption change	0
• Recognized portion of current year period plan change	0
• Recognition of deferred outflows of resources	0
• Recognition of deferred inflows of resources	0
• OPEB expense for fiscal year ended June 30, 2018	\$1,795,360

B. Deferred outflows/inflows of resources related to OPEBs	Deferred Outflows of Resources	Deferred Inflows of Resources
• Differences between expected and actual experience	\$0	\$0
• Changes of assumptions	0	0
• Changes of benefit terms	0	0
• Net difference between projected and actual earnings on OPEB Trust investments	0	<u>72,696</u>
• Total	\$0	\$72,696

C. Projected recognition of deferred outflows/(inflows)	Year Ended June 30,	Recognition
	2019	-\$18,174
	2020	-18,174
	2021	-18,174
	2022	-18,174
	2023	0
	2024	0
	Thereafter	0

