



GASB 74/75 INTERIM ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2018

TOWN OF PORTSMOUTH

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December 10, 2018

Lisa Mills

Town of Portsmouth

2200 East Main Road

Portsmouth, RI 02871

This report summarizes the interim GASB actuarial valuation for the Town of Portsmouth 2017/18 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 74 (Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans) and GASB Statement No. 75 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions).

The information presented herein is based on the actuarial assumptions and substantive plan provisions summarized in this report and participant information furnished to us by the Plan Sponsor. We have reviewed the employee census provided by the Plan Sponsor for reasonableness when compared to the prior information provided but have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based. When relevant data may be missing, we may have made assumptions we feel are neutral or conservative to the purpose of the measurement. We are not aware of any significant issues with and have relied on the data provided.

The discount rate, other economic assumptions, and demographic assumptions have been selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.



Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report. Our professional work is in full compliance with the American Academy of Actuaries "Code of Professional Conduct" Precept 7 regarding conflict of interest. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Should you have any questions please do not hesitate to contact us.

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Consulting Actuary

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Valuation Actuary

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Executive Summary

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Summary of Results

Presented below is the summary of GASB 75 results for the fiscal year ending June 30, 2018 compared to the prior fiscal year as shown in the Town's Notes to Financial Statement.

	As of June 30, 2017	As of June 30, 2018
Total OPEB Liability	\$ 21,874,794	\$ 19,774,457
Actuarial Value of Assets	\$ (1,115,701)	\$ (1,310,523)
Net OPEB Liability	\$ 20,759,093	\$ 18,463,934
Funded Ratio	5.1%	6.6%

	FY 2016/17	FY 2017/18
OPEB Expense	\$ 1,610,792	\$ 1,514,741
Annual Employer Contributions	\$ 1,169,270	\$ 1,069,210
Actuarially Determined Contribution	\$ 1,577,011	\$ 1,629,782

	As of June 30, 2017	As of June 30, 2018
Discount Rate	3.71%	4.03%
Expected Return on Assets	5.50%	5.50%

GASB Disclosures

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2017/18	FY 2016/17
Total OPEB Liability		
Total OPEB Liability - beginning of year	\$ 21,874,794	\$ 19,058,259
Service cost	887,744	826,446
Interest	825,756	564,081
Change of benefit terms	(8,005)	0
Changes in assumptions	(607,184)	(335,511)
Differences between expected and actual experience	(2,179,438)	2,651,611
Benefit payments	(1,019,210)	(890,092)
Net change in total OPEB liability	\$ (2,100,337)	\$ 2,816,535
Total OPEB Liability - end of year	\$ 19,774,457	\$ 21,874,794
Plan Fiduciary Net Position		
Plan fiduciary net position - beginning of year	\$ 1,115,701	\$ 691,217
Contributions - employer	1,069,210	1,169,270
Contributions - active employees	53,958	55,310
Net investment income	101,350	90,454
Benefit payments	(1,019,210)	(890,092)
Trust administrative expenses	(10,486)	(458)
Net change in plan fiduciary net position	\$ 194,822	\$ 424,484
Plan fiduciary net position - end of year	\$ 1,310,523	\$ 1,115,701
Net OPEB Liability - end of year	\$ 18,463,934	\$ 20,759,093
Plan fiduciary net position as % of total OPEB liability	6.6%	5.1%
Covered employee payroll	\$ 7,441,122	\$ 7,189,490
Net OPEB liability as % of covered payroll	248.1%	288.7%

* FY 2017/18 covered payroll is based on FY 2016/17 covered payroll increased 3.50% for wage inflation.

GASB Disclosures

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below are based on the Annual Required Contribution (ARC) calculated in prior GASB 45 actuarial valuations as shown in the Town's financial statements.

	FY 2017/18	FY 2016/17	FY 2015/16	FY 2014/15	FY 2013/14
Actuarially Determined Contribution (ADC)	\$ 1,629,782	\$ 1,577,011	\$ 1,351,405	\$ 1,313,035	\$ 1,254,874
Contributions in relation to the ADC	1,069,210	1,169,270	861,032	726,394	768,926
Contribution deficiency/(excess)	\$ 560,572	\$ 570,673	\$ 490,373	\$ 586,641	\$ 485,948
Covered employee payroll	\$ 7,441,122	\$ 7,189,490	\$ 6,476,502	\$ 6,287,866	\$ 5,569,426
Contribution as a % of covered payroll	14.4%	16.3%	13.3%	11.6%	13.8%

	FY 2012/13	FY 2011/12	FY 2010/11	FY 2009/10	FY 2008/09
Actuarially Determined Contribution (ADC)	\$ 1,297,531	\$ 1,248,914	\$ 1,345,177	\$ 1,569,039	\$ 1,569,039
Contributions in relation to the ADC	800,908	953,389	792,174	645,276	462,590
Contribution deficiency/(excess)	\$ 496,623	\$ 295,525	\$ 553,003	\$ 923,763	\$ 1,106,449
Covered employee payroll	\$ 5,407,210	\$ 6,574,560	\$ 6,383,155	\$ 5,510,188	\$ 5,510,188
Contribution as a % of covered payroll	14.8%	14.5%	12.4%	11.7%	8.4%

*Refer to the Actuarially Determined Contributions section for the calculation details.

** Includes employer contribution for pay-go costs and pre-funding contributions deposited into the OPEB Trust.

GASB Disclosures

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

OPEB Expense

OPEB Expense		FY 2017/18		FY 2016/17
Discount Rate				
Beginning of year		3.71%		3.03%
End of year		4.03%		3.71%
Service cost	\$	887,744	\$	826,446
Interest		825,756		564,081
Change of benefit terms		(8,005)		0
Projected earnings on OPEB plan investments		(63,900)		(47,080)
Reduction for contributions from active employees		(53,958)		(55,310)
OPEB plan administrative expenses		10,486		458
Current period recognition of deferred outflows / (inflows) of resources				
Differences between expected and actual experience	\$	67,454	\$	378,802
Changes in assumptions		(134,671)		(47,930)
Net difference between projected and actual earnings on OPEB plan investments		(16,165)		(8,675)
Total current period recognition	\$	(83,382)	\$	322,197
Total OPEB expense	\$	1,514,741	\$	1,610,792

GASB Disclosures

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

1. Differences between expected and actual experience of the OPEB plan
2. Changes of assumptions
3. Differences between projected and actual earnings in OPEB plan investments (for funded plans only)

The initial amortization period for the first two items noted above is based on expected future service lives while the difference between the projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the items above.

Differences between expected and actual experience for FYE	Initial Balance	Initial Amortization Period	Annual Recognition	Unamortized Balance as of June 30, 2018
June 30, 2017	\$ 2,651,611	7	\$ 378,802	\$ 1,894,007
June 30, 2018	\$ (2,179,438)	7	\$ (311,348)	\$ (1,868,090)

Changes in assumptions for FYE	Initial Balance	Initial Amortization Period	Annual Recognition	Unamortized Balance as of June 30, 2018
June 30, 2017	\$ (335,511)	7	\$ (47,930)	\$ (239,651)
June 30, 2018	\$ (607,184)	7	\$ (86,741)	\$ (520,443)

Net Difference between projected and actual earnings in OPEB plan investments for FYE	Initial Balance	Initial Amortization Period	Annual Recognition	Unamortized Balance as of June 30, 2018
June 30, 2017	\$ (43,374)	5	\$ (8,675)	\$ (26,024)
June 30, 2018	\$ (37,450)	5	\$ (7,490)	\$ (29,960)

GASB Disclosures

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Deferred Outflows / (Inflows) of Resources (Continued)

As of fiscal year ending June 30, 2018	Deferred Outflows	Deferred Inflows
Differences between expected and actual experience	\$ 1,894,007	\$ (1,868,090)
Changes in assumptions	0	(760,094)
Net difference between projected and actual earnings in OPEB plan investments	0	(55,984)
Total	\$ 1,894,007	\$ (2,684,168)

Annual Amortization of Deferred Outflows / (Inflows)

The balances of June 30, 2018 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

FYE	Balance
2019	\$ (83,382)
2020	\$ (83,382)
2021	\$ (83,381)
2022	\$ (74,707)
2023	\$ (67,221)
Thereafter	\$ (398,088)

GASB Disclosures

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2018, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 4.03%.
- The 1% decrease in discount rate would be 3.03%.
- The 1% increase in discount rate would be 5.03%.

As of June 30, 2018	Net OPEB Liability
1% Decrease	\$ 20,449,709
Current Discount Rate	\$ 18,463,934
1% Increase	\$ 16,723,603

The following presents the net OPEB liability as of June 30, 2018, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.50%, decreasing to an ultimate rate of 5.00%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.50%, decreasing to an ultimate rate of 4.00%.
- The 1% increase in health care trend rates would assume an initial rate of 9.50%, decreasing to an ultimate rate of 6.00%.

As of June 30, 2018	Net OPEB Liability
1% Decrease	\$ 16,377,073
Current Trend Rates	\$ 18,463,934
1% Increase	\$ 20,911,417

GASB Disclosures

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Asset Information

Asset Breakdown	FY 2016/17	FY 2017/18
Assets		
Cash and cash equivalents	\$ 0	\$ 0
Securities lending cash collateral	0	0
Total cash	\$ 0	\$ 0
Receivables		
Contributions	\$ 0	\$ 0
Accrued interest	0	0
Total receivables	\$ 0	\$ 0
Investments		
Fixed income	\$ 423,966	\$ 488,039
Equities	691,735	822,484
Mutual Funds	0	0
Total investments	\$ 1,115,701	\$ 1,310,523
Total Assets	\$ 1,115,701	\$ 1,310,523
Liabilities		
Payables		
Investment management fees	\$ 0	\$ 0
Securities lending expense	0	0
Total liabilities	\$ 0	\$ 0
Net Position Restricted to OPEB	\$ 1,115,701	\$ 1,310,523

* Asset Allocation for 2017/18 is estimated. This allocation should be updated to use actual information prior to finalizing.

GASB Disclosures

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Asset Information (Continued)

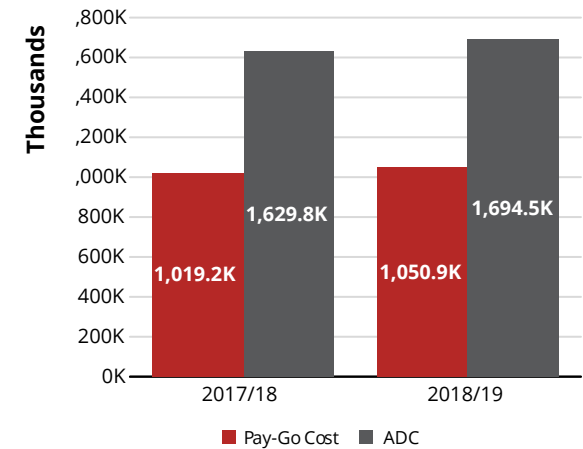
Asset Reconciliation	FY 2016/17	FY 2017/18
Additions		
Contributions Received		
Employer	\$ 1,169,270	\$ 1,069,210
Employee	55,310	53,958
Total contributions	\$ 1,224,580	\$ 1,123,168
Investment Income		
Net increase in fair value of investments	\$ 57,053	\$ 70,787
Interest and Dividends	33,401	30,563
Investment expense, other than from securities lending	0	0
Securities lending income	0	0
Securities lending expense	0	0
Net investment income	\$ 90,454	\$ 101,350
Total additions	\$ 1,315,034	\$ 1,224,518
Deductions		
Benefit payments	\$ 890,092	\$ 1,019,210
Administrative expenses	458	10,486
Other	0	0
Total deductions	\$ 890,550	\$ 1,029,696
Net increase in net position	\$ 424,484	\$ 194,822
Net position restricted to OPEB		
Beginning of year	\$ 691,217	\$ 1,115,701
End of year	\$ 1,115,701	\$ 1,310,523

Actuarially Determined Contributions

Town of Portsmouth Interim GASB 74/75 Valuation For Fiscal Year Ending June 30, 2018

	FY 2017/18	FY 2018/19
Discount rate (Funding)	5.50%	5.50%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Level Dollar	Level Dollar
Amortization period (years)	29	28
Actuarial Accrued Liability (AAL) - beginning of year	\$ 16,864,662	\$ 17,290,972
Actuarial Value of Assets (AVA) - beginning of year	(1,115,701)	(1,310,523)
Unfunded AAL - beginning of year	\$ 15,748,961	\$ 15,980,449
Normal Cost	\$ 503,317	\$ 533,557
Amortization of Unfunded AAL	1,041,500	1,072,650
Total normal cost plus amortization	\$ 1,544,817	\$ 1,606,207
Interest to end of year	84,965	88,341
Actuarially Determined Contribution - Preliminary	\$ 1,629,782	\$ 1,694,548
Expected Benefit Payments	1,019,210	1,050,918
Actuarially Determined Contribution - Final	\$ 1,629,782	\$ 1,694,548

Cash Vs Accrual Accounting



Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

* Normal cost is reduced for actual active employee contributions of \$53,368 for FY 2017/18 and expected active employee contributions of 54,368 for FY 2018/19 based on 3.5% wage inflation.

Discussion of Discount Rates

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

For the current valuation:

1. The long-term expected rate of return on OPEB plan investment is assumed to be 5.50%. This was determined using a building block method in which expected future rates of return (expected returns, net of OPEB plan investment expense) are developed for each major asset class. These expected future rates of return are then combined to produce a long-term expected rate of return by weighting them based on the target asset allocation percentage. The best estimates of arithmetic rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2017 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected ROR ¹
US Large Cap Equity	33.65%	6.40%
US Mid Cap Equity	7.55%	7.90%
US Small Cap Equity	2.10%	7.50%
International Equity	11.05%	7.20%
EM Equity	1.65%	9.70%
US Aggregate Bonds	16.05%	2.60%
U.S. Short Duration Government/Credit	9.70%	2.80%
US High Yield Bonds	4.85%	4.90%
TIPS	3.40%	2.80%
Diversifying Strategies	10.00%	4.88%
Total	100.00%	5.37%

2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	July 1, 2017	June 30, 2018
Bond Buyer Go 20-Bond Municipal Bond Index	3.53%	3.87%
S&P Municipal Bond 20-Year High Grade Rate Index	3.13%	2.98%
Fidelity 20-Year Go Municipal Bond Index	3.58%	3.62%
Bond Index Range	3.13% - 3.58%	2.98% - 3.87%

3. The final equivalent single discount rate used in this year's valuation is 3.71% as of July 1, 2017 and 4.03% as of June 30, 2018. This is based on the expectation that the Town will contribute the pay-go costs plus an additional \$34,000 for pre-funding to the OPEB Trust going forward. Under this funding scenario, the Trust is expected to have insufficient balance to pay for future benefit payments starting in FYE 2028.

¹ Including inflation.

Summary of Key Actuarial Assumptions

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

For a complete summary of actuarial methods and assumptions, refer to the GASB 75 actuarial valuation report for the fiscal year ending June 30, 2017.

Measurement Date	For fiscal year ending June 30, 2018, June 30, 2018 measurement date was used.			
Actuarial Valuation Date	July 1, 2017 with results actuarially projected on a “no gain / no loss” basis to get to the June 30, 2018 measurement date. Liabilities as of July 1, 2017 are based on an actuarial valuation date of July 1, 2017.			
Discount Rate	3.71% as of July 1, 2017 and 4.03% as of June 30, 2018 for accounting disclosure purposes. 5.50% for funding disclosure purposes (for calculating the Actuarially Determined Contribution). Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.			
Payroll Growth	3.50%, which is based on the Town of Portsmouth pension actuarial valuation as of July 1, 2016.			
Inflation Rate	3.50% per year			
Employer Funding Policy	Partially pre-funded by active employees’ contributions and discretionary employer contributions. For FY 2017/18, the Town budgeted to pre-fund \$50,000 in addition to active employee contributions.			
Cost Method	Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where: <ul style="list-style-type: none">• service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and• annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.			
Health Care Trend Rates	FYE	Medical / Rx	Dental	Vision
	2019	8.50%	4.75%	3.00%
	2020	8.00%	4.50%	3.00%
	2021	7.50%	4.25%	3.00%
	2022	7.00%	4.00%	3.00%
	2023	6.50%	4.00%	3.00%
	2024	6.00%	4.00%	3.00%
	2025	5.50%	4.00%	3.00%
	2026+	5.00%	4.00%	3.00%
Retiree Contributions	Retiree contributions are assumed to increase according to health care trend rates.			

Actuary's Notes

Town of Portsmouth Interim GASB 74/75 Valuation for Fiscal Year Ending June 30, 2018

Interim year valuation results have been projected from the prior year's valuation, with adjustments for the following:

1. Actual premium rate changes from 2017/18 to 2018/19.
2. The discount rate assumption has been updated since the prior measurement date of June 30, 2017. The discount rate has been updated to 4.03% as of June 30, 2018.

The combined impact of these changes was a decrease in liabilities.

In addition to the above changes, valuations results have been adjusted for an increase in the retiree contribution from 15% to 20% for non-union employees retiring on or after July 1, 2018. The impact of this change was a slight decrease in liabilities and has been reflected as a benefit terms change for OPEB expense developing for the current reporting period.

Premium Rates

The monthly premium rates by plan effective on July 1, 2018 are as shown below:

Health Plans	Group	Single	Family
Healthmate 0007 Ded Healthmate 0002 Ded Healthmate 0009 Ded	PMEA & NUG (active & retired post-7/13) DPW (active & retired post-7/14) Retired Police (post-4/14)	\$ 672.50	\$ 1,736.88
Healthmate 0001	Retired Fire (post-4/08, pre-7/10)	\$ 710.34	\$ 1,834.69
Healthmate 0009 Healthmate 0002 Healthmate 0004	Retired Police (pre-4/14) Retired Public Works (pre-7/14) Retired Fire (pre-4/08)	\$ 736.84	\$ 1,903.08
Healthmate 0006 HDHP	Retired Fire (post-7/10) & Civilian Fire Dispatchers	\$ 497.25	\$ 1,284.32
Healthmate 0005 HDHP	Fire (active)	\$ 577.88	\$ 1,364.95
Classic 0007	Retired NUG (pre-7/13)	\$ 851.99	\$ 2,189.80
Classic 0009	Retired Police (pre-4/14)	\$ 979.14	\$ 2,585.12
Healthmate 0007	Retired PMEA (pre-7/13)	\$ 710.57	\$ 1,835.20
Healthmate 0008 Ded	Police (active)	\$ 723.84	\$ 1,788.22
Dental Plans	Group	Single	Family
	Police, Fire, and Public Works	\$ 36.05	\$ 96.45
	PMEA and NUG	\$ 36.05	\$ 98.09