



# INTERIM GASB 45 ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2016

## **Town of Westerly Police**

**Nyhart Actuary & Employee Benefits**

8415 Allison Pointe Blvd., Ste. 300, Indianapolis, IN 46250  
(317) 845-3500 - [www.nyhart.com](http://www.nyhart.com)

**December 1, 2016**

**Debra Bridgham  
Town of Westerly Police  
23 Highland Avenue  
Westerly, RI 02891**

This report summarizes the interim GASB actuarial valuation for the Town of Westerly Police 2015/16 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. 45 (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 and other economic assumptions have been selected by the Plan Sponsor. 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.

Randy Gomez, FSA, MAAA  
Consulting Actuary

Evi Laksana, ASA, MAAA  
Valuation Actuary

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## Summary of Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2016 compared to the prior fiscal years as shown in the Town's Notes to Financial Statement.

	<i>As of July 1, 2014</i>		<i>As of July 1, 2015</i>	
<b>Actuarial Accrued Liability</b>	\$	14,259,790	\$	35,211,874
<b>Actuarial Value of Assets</b>	\$	(3,187,714)	\$	(3,064,959)
<b>Unfunded Actuarial Accrued Liability</b>	\$	11,072,076	\$	32,146,915
<b>Funded Ratio</b>		22.4%		8.7%

	<i>FY 2014/15</i>		<i>FY 2015/16</i>	
<b>Annual Required Contribution</b>	\$	936,800	\$	2,784,810
<b>Annual OPEB Cost</b>	\$	928,323	\$	2,732,598
<b>Annual Employer Contribution</b>	\$	429,600	\$	386,000

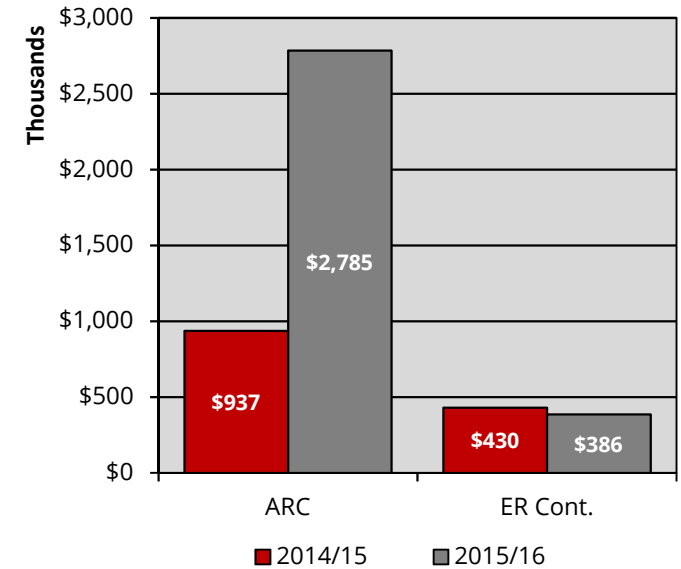
	<i>As of June 30, 2015</i>		<i>As of June 30, 2016</i>	
<b>Net OPEB Obligation</b>	\$	2,765,411	\$	5,112,009

### Development of Annual Required Contribution (ARC)

Required Supplementary Information	FY 2014/15 <sup>1</sup>		FY 2015/16	
<b>Actuarial Accrued Liability</b> as of beginning of year	\$	14,259,790	\$	35,211,874
<b>Actuarial Value of Assets</b> as of beginning of year		(3,187,714)		(3,064,959)
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>	<b>\$</b>	<b>11,072,076</b>	<b>\$</b>	<b>32,146,915</b>
Covered payroll <sup>2</sup>	\$	3,307,201	\$	3,406,417
UAAL as a % of covered payroll		334.8%		943.7%

Annual Required Contribution	FY 2014/15 <sup>1</sup>		FY 2015/16	
Normal cost as of beginning of year <sup>3</sup>	\$	88,600	\$	857,694
Amortization of the UAAL <sup>3</sup>		848,200		1,820,008
Total normal cost and amortization payment	\$	936,800	\$	2,677,702
Interest to end of year		N/A <sup>4</sup>		107,108
<b>Total Annual Required Contribution (ARC)</b>	<b>\$</b>	<b>936,800</b>	<b>\$</b>	<b>2,784,810</b>

### Cash vs Accrual Accounting



**Annual Required Contribution (ARC)** is the annual expense recorded in the income statement under GASB 45 accrual accounting. It replaces the cash basis method of accounting recognition with an accrual method. The GASB 45 ARC is higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

<sup>1</sup> FY 2014/15 results are as shown in the Town’s financial statements for fiscal year ending June 30, 2015.

<sup>2</sup> FY 2015/16 covered payroll is based on FY 2014/15 covered payroll increased by the payroll growth assumption (3.0%).

<sup>3</sup> As shown in the Town’s July 1, 2013 actuarial valuation.

<sup>4</sup> Already included in the normal cost and amortization of the UAAL shown above.

## Development of Annual OPEB Cost and Net OPEB Obligation

Net OPEB Obligation			FY 2014/15 <sup>5</sup>	FY 2015/16	
ARC as of end of year	\$	936,800	\$	2,784,810	
Interest on Net OPEB Obligation (NOO) to end of year		170,002		110,616	
NOO amortization adjustment to the ARC		(178,479)		(162,828)	
Annual OPEB cost	\$	928,323	\$	2,732,598	
Annual employer contribution for pay-go cost <sup>6</sup>		0		0	
Annual employer contribution for pre-funding		(429,600)		(386,000)	
Change in NOO	\$	498,723	\$	2,346,598	
NOO as of beginning of year		2,266,688		2,765,411	
<b>NOO as of end of year</b>	<b>\$</b>	<b>2,765,411</b>	<b>\$</b>	<b>5,112,009</b>	

**Pay-as-you-go Cost** is the expected total employer cash cost for the coming period based on all explicit and implicit subsidies. It is also the amount recognized as expense on the Income Statement under pay-as-you-go accounting.

**Net OPEB Obligation** is the cumulative difference between the annual OPEB cost and employer contributions. This obligation will be created if cash contributions are less than the current year expense under GASB 45 accrual rules.

The net obligation is recorded as a liability on the employer's balance sheet which will reduce the net fund balance.

The value of implicit subsidies is considered as part of cash contributions for the current period. Other cash expenditures that meet certain conditions are also considered as contributions for GASB 45 purposes.

<sup>5</sup> FY 2014/15 results are as shown in the Town's financial statements for fiscal year ending June 30, 2015.

<sup>6</sup> Pay-go costs are being paid from the OPEB sub-account that is part of the Pension Trust.

## Summary of GASB 45 Financial Results

Presented below is the summary of GASB 45 results for the fiscal year ending June 30, 2016 and prior fiscal years as shown in the Town's Notes to Financial Statements.

### Schedule of Funding Progress

<i>As of</i>	<i>Actuarial Accrued Liability (AAL)</i>	<i>Actuarial Value of Assets (AVA)</i>	<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	<i>Funded Ratio</i>	<i>Covered Payroll</i>	<i>UAAL as % of Covered Payroll</i>
	<i>A</i>	<i>B</i>	<i>C = A + B</i>	<i>D = B / A</i>	<i>E</i>	<i>F = C / E</i>
July 1, 2015	\$ 35,211,874	\$ (3,064,959)	\$ 32,146,915	8.7%	\$ 3,406,417	943.7%
July 1, 2014	\$ 14,259,790	\$ (3,187,714)	\$ 11,072,076	22.4%	\$ 3,307,201	334.8%
July 1, 2013	\$ 14,079,993	\$ (3,310,972)	\$ 10,769,021	23.5%	\$ 3,299,516	326.4%

### Schedule of Employer Contributions

<i>FYE</i>	<i>Employer Contributions</i>	<i>Annual Required Contribution (ARC)</i>	<i>% of ARC Contributed</i>
	<i>A</i>	<i>B</i>	<i>C = A / B</i>
June 30, 2016	\$ 386,000	\$ 2,784,810	13.9%
June 30, 2015	\$ 429,600	\$ 936,800	45.9%
June 30, 2014	\$ 429,600	\$ 966,300	44.5%

### Historical Annual OPEB Cost

<i>As of</i>	<i>Annual OPEB Cost</i>	<i>% of Annual OPEB Cost Contributed</i>	<i>Net OPEB Obligation</i>
June 30, 2016	\$ 2,732,598	14.1%	\$ 5,112,009
June 30, 2015	\$ 928,323	46.3%	\$ 2,765,411
June 30, 2014	\$ 959,805	44.8%	\$ 2,266,688

**Asset Information**

<b>Reconciliation of Assets (Fair Market Value Basis)</b>		<b>2014/15<sup>7</sup></b>
Income		
Contributions received		
Employer	\$	429,600
Participants		0
Investment earnings		
Income		134,255
Total income	\$	563,855
Disbursements		
Benefit payments to participants / beneficiaries	\$	(799,683)
Administrative expenses		(17,603)
Total disbursements	\$	(817,286)
Net income	\$	(253,431)
Net asset at beginning of year		3,311,968
Net asset at end of year	\$	3,058,537
Asset return for the year		3.7%

<sup>7</sup> Includes both the OPEB Trust and the OPEB sub-account that is part of the Pension Trust.



**Asset Information** – Continued**Development of Actuarial Value of Assets (AVA)**

	<b>FY 2014/15</b>		<b>FY 2015/16</b>	
Fair Market Value (FMV) at beginning of year	\$	30,812,954	\$	32,120,832
Contributions		2,530,672		2,482,732
Benefit payments		(2,595,398)		(2,691,005)
Expected asset return at 7.50%		2,351,777		2,401,393
Expected FMV at end of year	\$	33,100,005	\$	34,313,952
FMV Gain/Loss		(979,173)		(2,211,565)
Actual FMV at end of year	\$	32,120,832	\$	32,102,387
Gain/Loss not recognized as of end of year		67,440		1,760,790
Actuarial Value of Assets (AVA) as of end of year <sup>8</sup>	\$	32,188,272	\$	33,863,177
(A) AVA as % of FMV		100.2%		105.5%
(B) FMV as of end of year	\$	3,058,537	\$	2,842,937
(C) AVA as of the end of year (A x B)	\$	3,064,959 <sup>9</sup>	\$	2,998,870

<sup>8</sup> Includes the total in both the Pension Trust and OPEB Trust.

<sup>9</sup> Includes both the OPEB Trust and the OPEB sub-account that is part of the Pension Trust.

## Asset Information – Continued

## Recognition of Gain / (Loss) in Actuarial Value of Assets

<i>FY 2014/15</i>	<i>Gain/Loss</i>	<i>Recognized as of July 1, 2014</i>	<i>Recognized in current year</i>	<i>Total recognized as of July 1, 2015</i>	<i>Not recognized as of July 1, 2015</i>
<i>Years</i>	<i>A</i>	<i>B</i>	<i>C = 20% x A</i>	<i>D = B + C</i>	<i>E = A - D</i>
2010/11	\$ 1,600,841	\$ 1,280,672	\$ 320,169	\$ 1,600,841	\$ 0
2011/12	(1,109,460)	(665,676)	(221,892)	(887,568)	(221,892)
2012/13	438,415	175,366	87,683	263,049	175,366
2013/14	1,270,708	254,142	254,142	508,284	762,424
2014/15	(979,173)		(195,835)	(195,835)	(783,338)
<b>Total</b>			<b>\$ 244,267</b>		<b>\$ (67,440)</b>

<i>FY 2015/16</i>	<i>Gain/Loss</i>	<i>Recognized as of July 1, 2015</i>	<i>Recognized in current year</i>	<i>Total recognized as of July 1, 2016</i>	<i>Not recognized as of July 1, 2016</i>
<i>Years</i>	<i>A</i>	<i>B</i>	<i>C = 20% x A</i>	<i>D = B + C</i>	<i>E = A - D</i>
2011/12	\$ (1,109,460)	\$ (887,568)	\$ (221,892)	\$ (1,109,460)	\$ 0
2012/13	438,415	263,049	87,683	350,732	87,683
2013/14	1,270,708	508,284	254,142	762,426	508,282
2014/15	(979,173)	(195,835)	(195,835)	(391,670)	(587,503)
2015/16	(2,211,565)		(442,313)	(442,313)	(1,769,252)
<b>Total</b>			<b>\$ (518,215)</b>		<b>\$ (1,760,790)</b>

**Actuarially Determined Contributions (ADC) for FY 2016/17**

The calculation shown below is consistent with the GASB 74 standard where the Actuarially Determined Contribution is calculated using a discount rate that is based on the expected long-term rate of return of the OPEB Trust. However, the discount rate used for FY 2016/17 accounting disclosure under GASB 75 standard will most likely be lower than 7.5%. The accounting discount rate will be a blended rate determined using discounted cash flow projections that take into account future contributions / withdrawals from the OPEB Trust and ability of the Trust to pay for future benefit payments.

		<i>FY 2016/17</i>
Discount rate		7.5%
Payroll growth factor used for amortization		N/A
Actuarial cost method	Entry Age Normal Level % of Salary	
Amortization type		Level Dollar
Amortization period		28 years
Actuarial accrued liability (AAL) – beginning of year	\$	20,944,011
Actuarial value of assets – beginning of year		(2,998,870)
Unfunded AAL – beginning of year	\$	17,945,141
Normal Cost	\$	336,968
Amortization of UAAL		1,442,375
Total normal cost plus amortization	\$	1,779,343
Interest to the end of year		133,451
<b>Actuarially Determined Contribution</b>	<b>\$</b>	<b>1,912,794</b>

**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.

### Actuary’s Notes

The following changes have been made to the plan provisions and assumptions since the prior actuarial valuation as of June 30, 2015.

1. For officers hired on/after July 1, 1993, the prior actuarial valuation only valued an explicit subsidy liability based on the Town’s \$500 monthly subsidy, regardless of whether retirees elect coverage with the Town or not. According to the actual administration of this benefit, officers hired on/after July 1, 1993 have the following options:
  - a. If they elect coverage with the Town at retirement, retirees contribute 15% of the premium for medical and dental benefits. For these retirees, the Town’s liability includes the 85% of premium explicit subsidy and an implicit liability (for medical benefit only) that has been included in this report.
  - b. If they decline coverage with the Town at retirement, the Town will provide a \$500 monthly stipend to the retirees. The Town’s liability for these retirees are limited to the \$500 monthly explicit subsidy.

In this report, we have assumed that 50% of employees will elect coverage with the Town at retirement with the remaining 50% receiving health care coverage from other entities (and thus receiving the stipend benefit only). This change creates a significant increase in liabilities.

2. Discount rate used for accounting disclosure purposes has been reduced from 7.5% to 4.0% because the Town does not contribute the full Annual Required Contribution annually. This caused an increase in liabilities.
3. The medical/rx and dental trend rates assumption have been updated according to the below table. This caused an increase in liabilities.

FYE	Prior Valuation		Current Valuation	
	Medical / Rx	Dental	Medical / Rx	Dental
2017	5.00%	4.00%	9.00%	5.00%
2018	5.00%	4.00%	8.50%	4.75%
2019	5.00%	4.00%	8.00%	4.50%
2020	5.00%	4.00%	7.50%	4.25%
2021	5.00%	4.00%	7.00%	4.00%
2022	5.00%	4.00%	6.50%	3.75%
2023	5.00%	4.00%	6.00%	3.50%
2024	5.00%	4.00%	5.50%	3.50%
2025+	5.00%	4.00%	5.00%	3.50%

## Substantive Plan Provisions

### Eligibility

Police officers are eligible for lifetime retiree health benefits once they have 20 years of service.

### Retiree Contributions

Officers hired prior to July 1, 1993 contribute 10% of premium (for medical and dental benefits) prior to Medicare eligibility and receive free coverage (medical and dental) once they are eligible for Medicare.

Officers hired on/after July 1, 1993 contribute 15% of premium (for medical and dental benefits) if they elect coverage with the Town at retirement (pre and post-Medicare). If they decline coverage with the Town at retirement, they will receive \$500 per month stipend.

### Medicare Part B Reimbursement

The Town reimburses Medicare Part B premium for retirees only when they turn 65 and only if they elect coverage with the Town. The monthly Medicare Part B reimbursement is \$104.90.

### Medical Benefits

The same benefits are available to active employees as retirees. Monthly premium rates effective on July 1, 2015 are as shown below.

<b>Plan</b>	<b>Single</b>	<b>Family</b>
BC #6778 (pre-65)	\$ 799.56	\$ 1,935.58
BC #101810 (pre-65)	\$ 801.06	\$ 1,997.50
BC Plan 65 #6778 (post-65)*	\$ 591.26	\$ 1,182.52

\* 2-person rate shown is for retiree and spouse that are both Medicare eligible.

### Dental premium rates

Monthly premium rates effective on July 1, 2015 are as shown below.

<b>Plan</b>	<b>Single</b>	<b>Family</b>
Delta Dental (8100-0005)	\$ 32.59	\$ 110.35
Delta Dental (8100-0009)	\$ 32.59	\$ 112.12

## Summary of Key Actuarial Assumptions

Assumptions used in this year's valuation are briefly described below and majority of them are consistent with those used in the fiscal year ending June 30, 2015 GASB valuation as prepared by the Town's prior actuary. There are a few assumptions that have been updated since the last valuation. Refer to the Actuary's Notes section for complete information on these changes.

**Discount Rate** 4.0% for FYE June 30, 2016 GASB 45 disclosure

**Inflation Rate** 3.0% per year

**Payroll Growth** 3.0% per year (for payroll projection only)

**Salary Scale** Sample annual increases are as shown below.

<u>Years of Service</u>	<u>Rates</u>
0	11.50%
5	4.00%
10	2.25%
15	1.25%

**Asset Method** Actuarial Value of Assets with 5-year smoothing of asset gain/loss

**Cost Method** Entry Age Normal Level % of Salary

**Amortization** Level dollar over a 30-year closed period beginning on July 1, 2014 (the remaining amortization period as of July 1, 2015 is 29 years)

**Summary of Key Actuarial Assumptions** – Continued

**Per Capita Costs**

Annual per capita costs are based on the premium rates effective on July 1, 2015 actuarially increased using morbidity factors and current enrollment. Annual per capita costs at select ages are as shown below. These costs are assumed to increase with health care trend rates.

Age	Costs
51	\$ 9,595
55	\$ 10,957
60	\$ 13,152
64	\$ 15,505
65	\$ 7,095

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

Annual dental per capita costs are assumed to be \$673, increasing with dental trend rates.

**Health Care Trend Rates**

Annual trend rates by benefit are as shown below:

FYE	Medical / Rx	Dental
2017	9.00%	5.00%
2018	8.50%	4.75%
2019	8.00%	4.50%
2020	7.50%	4.25%
2021	7.00%	4.00%
2022	6.50%	3.75%
2023	6.00%	3.50%
2024	5.50%	3.50%
2025+	5.00%	3.50%

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

**Summary of Key Actuarial Assumptions** – Continued

**Explicit Subsidy**

The difference between (a) the premium rate and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a police officer hired on/after July 1, 1993 enrolled in BC 6778 plan.

	<b>Premium Rate</b>	<b>Retiree Contribution</b>	<b>Explicit Subsidy</b>
	<b>A</b>	<b>B = 15% x A</b>	<b>C = A - B</b>
Retiree	\$ 799.56	\$ 119.93	\$ 679.63
Spouse	\$ 1,136.02	\$ 170.40	\$ 965.62

**Implicit Subsidy**

The difference between (a) the per capita cost and (b) the premium rate. Below is an example of the monthly implicit subsidies for a retiree age 60 with spouse of the same age enrolled in the BC 6778 plan.

	<b>Per Capita Cost</b>	<b>Premium Rate</b>	<b>Implicit Subsidy</b>
	<b>A</b>	<b>B</b>	<b>C = A - B</b>
Retiree	\$ 1,096.00	\$ 799.56	\$ 296.44
Spouse	\$ 1,096.00	\$ 1,136.02	\$ 0.00 <sup>10</sup>

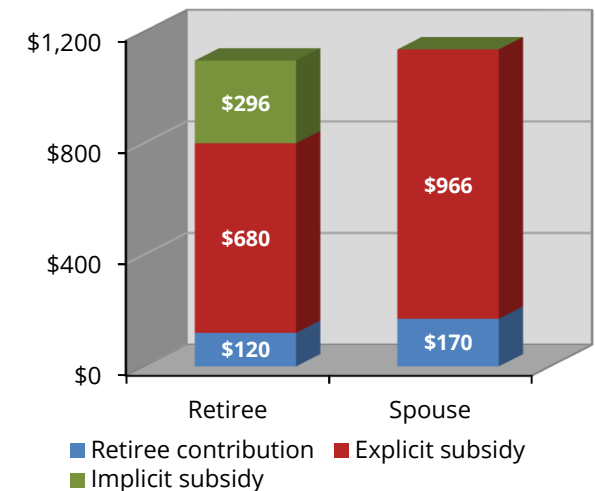
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated

**GASB Subsidy Breakdown**

Below is a breakdown of the GASB 45 monthly total cost for a retiree age 60 hired on/after July 1, 1993 and his spouse of the same age enrolled in the BC 6778 plan.

	<b>Retiree</b>	<b>Spouse</b>
Retiree contribution	\$ 119.93	\$ 170.40
Explicit subsidy	\$ 679.63	\$ 965.62
Implicit subsidy	\$ 296.44	\$ 0.00
<b>Total monthly cost</b>	<b>\$ 1,096.00</b>	<b>\$ 1,136.02</b>

**GASB Subsidy Breakdown**



<sup>10</sup> Limited to be no less than \$0.