

**NEW CASTLE COUNTY OTHER POST-EMPLOYMENT BENEFITS FUND  
ANNUAL REPORT CY 2018<sup>1</sup>**

**Purpose**

The purpose of the Other Post-Employment Benefits (“OPEB”) fund is to provide funding for retiree health care and life insurance as set forth in *New Castle County Code* § 26.03.910. The OPEB fund is a trust fund that is separate and distinct from all other funds, including the pension fund established by *New Castle County Code* § 26.04.601.

**OPEB Members in CY 2018**

Vanessa S. Phillips – Chairperson  
Chief Administrative Officer

Deloris Hayes-Arrington – Administrator  
Chief Human Resources Officer

David Gregor – Treasurer  
Chief Financial Officer

John J. Gysling – Trustee  
Civil Engineer II

Mary Evans – Trustee  
Compensation and Pension Systems Coordinator

Karen Smalls – Trustee  
Executive Assistant IV, Office of Finance

**Former OPEB Members from CY 2018**

Helen McKinley – Administrator (through 5/6/18)  
Acting CHRO

J. Brian Maxwell – Treasurer (through 6/25/18)  
Chief Financial Officer

Kenneth W. Porter – Trustee (through 4/6/18)  
Cash Management Accounting and Fiscal Manager

---

<sup>1</sup> This annual report has been prepared pursuant to, and compliance with, *New Castle County Code* § 2.04.001.

## **Meetings in CY 2018**

February 22, 2018

April 26, 2018

July 26, 2018

October 25, 2018

## **Significant Accomplishments**

- GASB 45 requires an actuarial valuation every two years. Attached is the most recent actuarial valuation as of June 30, 2018, which was submitted by Boomershine Consulting Group, LLC, dated October 2018.
- Attached is the report from the Investment Consultant (Vanguard) for OPEB dated December 31, 2018.

## **Challenges to Performance**

None.

## **Recommended Changes**

None.

New Castle County  
Other Post-Employment Benefits  
Actuarial Valuation  
Actuarial Valuation as of June 30, 2018

October, 2018

Submitted by

Boomershine Consulting Group, LLC  
Executive Center 1  
3300 North Ridge Road, Suite 300  
Ellicott City, MD 21043



October 19, 2018

New Castle County, DE  
87 Reads Way  
New Castle, DE 19720

This report presents the June 30, 2018 actuarial valuation results for the New Castle County (the "County") Other Post-Employment Benefit Plans. The purposes of this report are to:

- (1) Determine the plan's June 30, 2018 OPEB obligations;
- (2) Establish the basis for GASB 75 implementation; and
- (3) Provide information that may be helpful in future planning for the Other Post-Employment Benefit ("OPEB") Plans.

A summary of the major results is shown in the Executive Summary, while the Principal Valuation Results section provides more detail. Financial reporting information is now provided in a separate report.

This report's costs and liabilities are based upon the data and plan provisions provided by the County, as summarized in the Demographic Information and Plan Provisions Sections, respectively, and the funding method and actuarial assumptions outlined in the Methods and Assumptions Section of this report. Note that there was a significant change in the post-65 coverage resulting in reduced liability and costs.

To the best of our knowledge, this report is complete and accurate and conforms to generally accepted actuarial principles and methodology. This report presents our best estimate of the costs of the Post-Employment Benefit Plan in accordance with accepted actuarial principals.

This report is intended for the sole use of the addressee. It is intended only to supply sufficient information for the County to comply with the stated purposes of the report, and may not be appropriate for other business purposes. Reliance on information contained in the report by anyone for other than the intended purposes puts the relying entity at risk of being misled because of confusion or failure to understand applicable assumptions, methodologies, or limitations of the reports conclusions. The first two undersigned are members of the American Academy of Actuaries, and are qualified to render the actuarial opinions presented herein.

Respectfully submitted,

---

David S. Boomershine, EA, FCA, MAAA, MSPA  
Senior Actuary and President

---

Gregory M. Stump, FSA, EA, MAAA, FCA  
Vice President and Senior Actuary

---

Marshal Banks  
Senior Consultant

## *Table of Contents*

	Page
Executive Summary .....	1
Principal Valuation Results.....	2
Plan Asset Information .....	3
Actuarially Determined Contribution.....	4
History of Funding Progress.....	4
Payout projection.....	5
Demographic Information.....	6
Plan Provisions.....	7
Methods and Assumptions.....	9
Glossary of Actuarial Terms.....	13

## ***Executive Summary***

New Castle County (the County) provides healthcare, prescription drug, vision and life insurance benefits to retirees and their dependents. Life insurance is fully paid by the County. The County also pays a portion of the cost of healthcare and prescription drug benefits for retirees, disabled retirees, spouses and dependents. All full time active employees who retire or are disabled directly from the County and meet the eligibility criteria may participate.

The following table summarizes the valuation results. These results have been calculated based on assumptions as to current claim cost, projected increases in health care costs, morbidity, turnover, and interest discount.

Information on plan provisions and participation was provided by the County.

This summary identifies the value of benefits at June 30, 2018 and costs for the 2018/2019 fiscal year, reflecting the partial funding approach, utilizing a discount rate of 6%, and amortizing the Unfunded Actuarial Accrued Liability as a level dollar amount.

	<b>As of June 30, 2018</b>	<b>As of June 30, 2016</b>
Present Value of all Projected Benefits (PVPB)	\$161,729,475	\$269,695,331
Actuarial Accrued Liability (AAL)	\$130,835,248	\$229,499,442
Plan Asset Value	\$44,519,502	\$34,994,659
Funding Ratio	34.03%	15.25%
Unfunded Actuarial Accrued Liability	\$86,315,746	\$194,504,783
Actuarially Determined Contribution (ADC)	\$9,414,559	\$18,338,946
Expected Employer Benefit Payments	\$6,989,371	\$8,222,761

There has been a decrease in actuarial liabilities and costs since the prior valuation. This is due to the following factors:

- Change in the post-65 plan that decreased the post-65 premium considerably
- Change in demographics (i.e. members changing level of plan election and changing the plan option that was chosen)
- Steep increase in retiree cost sharing for some plans

The remainder of this report provides greater detail for the above results.

## ***Principal Valuation Results***

This section presents detailed valuation results for the County's retiree OPEB programs.

- The Present Value of all Projected Benefits (PVPB) is the total present value of all expected future benefits, based on certain actuarial assumptions. The PVPB is a measure of total liability or obligation. Essentially, the PVPB is the value (on the valuation date) of the benefits promised to current and future retirees. The Plan's PVPB (at June 30, 2018) is \$161,729,475. About 66% (\$106,115,352) of this liability is for current active employees (future retirees).
- The Actuarial Accrued Liability (AAL) is the liability or obligation for benefits earned through the valuation date, based on certain actuarial methods and assumptions. The Plan's AAL (at June 30, 2018) is \$130,835,248. About 57% of this obligation is for active employees. The AAL represents approximately 81% of the PVPB.
- The Normal Cost is the value of benefits expected to be earned during the year, again based on certain actuarial methods and assumptions. The 2018/2019 Normal Cost is \$3,340,490.

This report develops the AAL and Normal Cost using the Entry Age actuarial cost method.

The following table shows comparative results by active and retired employee groups.

	<b>As of June 30, 2018</b>	<b>As of June 30, 2016</b>
<b>Present Value of Projected Benefits</b>		
Actives	\$106,115,352	\$163,960,837
<u>Retirees</u>	<u>55,614,123</u>	<u>105,734,494</u>
Total	\$161,729,475	\$269,695,331
<b>Actuarial Accrued Liability (AAL)</b>		
Actives	\$75,221,125	\$123,764,948
<u>Retirees</u>	<u>55,614,123</u>	<u>105,734,494</u>
Total	\$130,835,248	\$229,499,442
<b>Plan Assets</b>	\$44,519,502	\$34,994,659
<b>Unfunded AAL</b>	86,315,746	194,504,783
<b>Normal Cost</b>	\$3,340,490	\$5,008,228

Note: Under the GASB standard, only funds set aside exclusively to pay plan benefits are considered plan assets.

***Plan Asset Information***

Other Postemployment Benefits Trust Funds

For the Year Ended June 30, 2018

	Trust Fund
<b>Additions:</b>	
<b>Contributions:</b>	
Plan members	\$ -
New Castle County	8,815,024
Other contributions	-
<b>Total contributions</b>	<b>8,815,024</b>
<b>Investment income:</b>	
Net increase in fair value of investments	2,204,656
Interest, dividends, and other income, including realized gains/losses	1,011,900
<b>Total investment income</b>	<b>3,216,556</b>
<b>Less investment expense</b>	<b>45,654</b>
<b>Net investment income</b>	<b>3,170,902</b>
<b>Total additions</b>	<b>11,985,926</b>
<b>Deductions:</b>	
Benefit payments	7,185,024
Refunds of contributions	-
Administrative expenses	4,010
Other expenses, net	-
<b>Total deductions</b>	<b>7,189,034</b>
<b>Net increase in net position</b>	<b>4,166,892</b>
<b>Net position held in trust for other postemployment benefits:</b>	
Beginning of year	40,352,610
End of year	<b>\$ 44,519,502</b>



***Actuarially Determined Contribution (ADC)***

The method for determining the County’s retiree Post-Retirement Benefits actuarial cost includes both the value of benefits earned during the year (Normal Cost) and an amortization of the Unfunded Actuarial Accrued Liability (AAL). Accordingly, the following table shows the County’s ADC based on a closed-period 30 year amortization (28 years remaining as of 2018) of the unfunded AAL, as a level dollar amount.

	<b>FY 2018</b>	<b>FY 2016</b>
Normal Cost	\$3,340,490	\$5,008,228
Unfunded AAL Amortization	6,074,069	13,330,718
Actuarially Determined Contribution (ADC)	\$9,414,559	\$18,338,946

**History of Funding Progress**

<b>Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Liability (AAL) – Projected Unit Credit (b)</b>	<b>Unfunded AAL (UAAL) (b-a)</b>	<b>Funded Ratio (a / b)</b>
07/01/2008	\$4,198,935	\$243,498,036	\$239,299,101	1.72%
07/01/2010	\$10,713,166	\$277,570,952	\$266,857,786	3.86%
07/01/2012	\$22,174,100	\$316,484,073	\$294,309,973	7.01%
07/01/2014	\$31,718,214	\$285,057,067	\$253,338,853	11.13%
06/30/2016*	\$34,994,659	\$229,499,442	\$194,504,783	15.25%
06/30/2018*	\$44,519,502	\$130,835,248	\$86,315,746	34.03%

\* Entry Age Normal starting in 2016

---

## Payout Projection

Annual Payments expected based on assumptions and contributions detailed in the Methods and Assumptions section. This is a closed group projection, and includes total expected claims costs, less retiree contributions for each year.

<b>Year Ending</b>	<b>Payout</b>
06/30/2019	\$6,989,371
06/30/2020	7,337,463
06/30/2021	7,647,864
06/30/2022	7,717,780
06/30/2023	8,070,365
06/30/2024	8,391,702
06/30/2025	8,882,202
06/30/2026	9,585,608
06/30/2027	9,856,789
06/30/2028	10,157,044

***Demographic Information***

The following Table summarizes active and retiree demographic information as of June 30, 2018.

	<b>Number of Participants Valued</b>	
	<b>Medical/Drug</b>	<b>Life</b>
Actives	1,332	1,395
Retiree Spouses/beneficiaries	735 262	735
Total Participants	2,329	2,130
2016 Totals	2,287	2,050

	<b>2018</b>	<b>2016</b>
Average Age (Medical/Drug)		
• Active	46.37	46.82
• Retired	67.88	67.37
Average Service (for actives)	14.34	14.75

Note: Assumed that 80% of active employees elect retiree medical coverage upon retirement.

***Plan Provisions***

- Medical/Drug Plan                      Highmark Comprehensive 80, Highmark PPO, Highmark Cooperative 80, Highmark EPO, Aetna Select, Aetna Medicare Advantage.
- Life Plan                                      Amount of coverage varies from \$1,500 to \$10,000.
- Eligibility                                      New Castle County employees are eligible to continue group insurance coverage after retirement provided that:
- a. Retiring employees have coverage in effect when they stop working. Can elect at time of retirement or life event change or any open enrollment.
  - b. Retirement commences on the first of the month, following the last day they are employed.
  - c. An employee must have been a permanent active employee.
  - d. To retire must meet all requirements to receive pension not just vesting. An employee must have completed five years of service or 10 years based on vesting requirements of pension plan.
- Medicare Parts A & B                      Retirees/spouses who are eligible for Medicare Parts A & B must enroll for Medicare Coverage in order to retain coverage under the County's plans.

**Retiree Contributions  
(Fiscal Year)**

Retirees without Medicare coverage.

	<b>Retiree</b>	<b>Spouse</b>
Highmark Cooperative 80	\$0.00	\$548.38
Highmark Comprehensive 80	\$0.00	\$548.38
Highmark PPO	\$252.54	\$999.70
Highmark EPO	\$233.84	\$966.53
Aetna Select	\$64.39	\$663.78

Retirees with Medicare coverage.

	<b>Retiree/SPS</b>	<b>Beneficiary</b>
Aetna Medicare Advantage	\$0	\$110.23

**Changes since Prior Valuation**

- Premium amounts have been adjusted by the carrier
- The retiree cost sharing for some plans has been increased
- A new plan was chosen for the Medicare Eligible Retirees at a considerably lower cost. The cost for the post-65 Medicare Eligible Retirees for the 2016 valuation was \$417.30/month and the cost for the 2018 valuation is \$110.23.

***Plan Provisions***

<b>Life Insurance</b>	
	<b>Amount</b>
Employees who are members of AFSCME Local 459 who retired on or after July 1, 1973, but before April 1, 1997.	\$2,500
Employees who are members of AFSCME Local 1607 who retired on or after July 1, 1973, but before April 1, 1981.	\$1,500
Employees who are members of AFSCME Local 1604 who retired on or after July 1, 1981, but before April 1, 1997.	\$2,500
Retired Police Officers and Retired FOP Sworn Deputy Sheriffs retired before April 1, 1997.	None
All other employees who retired on or after July 1, 1973, but before July 1, 1987.	\$1,500
Employees who retired on or after July 1, 1987 but before April 1, 1997.	\$2,500
All employees who retired on or after April 1, 1997.	\$5,000
Employees who retired on or after October 1, 2005 except FOP, Sworn Deputy sheriffs and AFSCME 3911.	\$10,000

***Methods and Assumptions***

**Changes to Assumptions Since Prior Valuation**

The Actuarial Method has been changed to Entry Age Normal Cost, in preparation for GASB 74/75 implementation. Assumed per capita costs were also updated based on actual claims experience.

A new plan was chosen for the Medicare Eligible Retirees at a considerably lower cost. The cost for the post-65 Medicare Eligible Retirees for the 2016 valuation was \$417.30/month and the cost for the 2018 valuation is \$110.23. The retiree cost sharing has been increased for some plans. Spousal coverage has been revised from 30% to 35%.

**Morbidity**

Expected claims are assumed to increase as participants age as follows:

Age	Aging Rate
1-49	5.0%
50-54	3.3%
55-59	3.6%
60-64	4.2%
65-69	3.0%
70-74	2.5%
75-79	2.0%
80-84	1.0%
85-89	0.5%
90+	0%

These rates are reflected in the claims costs shown below.

**Initial Sample Baseline Costs**

Age	Blended Medical \$	Blended Medical (Spouses) \$
40	\$7,406	\$5,724
45	9,451	7,304
50	12,061	9,322
55	14,189	10,966
60	16,934	13,088
65	943	943
70	1,093	1,093
75	1,237	1,237
80	1,365	1,365
85	1,435	1,435
90 or older	1,471	1,471

***Methods and Assumptions***

Medical and Prescription  
Drug Trend

Age	Annual Rate of Increase
2018	6.50%
2019	6.00%
2020	5.50%
2021	5.25%
2022	5.00%
2023	4.75%
2024 & Later	4.50%

**Amortization Period** 30 years closed period in 2016, (28 years remaining as of 2018)

**Amortization Method\*** Level Dollar, closed

**Actuarial Cost Method** Entry Age

Discount rate 6.0%

Inflation Rate 3.0%

Salary Increases 3.0%

Mortality (pre/post-retirement) Males: RP2000 Combined projected to 2011 with scale BB set forward 1 year.  
Females: RP2000 Combined projected to 2011 with scale BB  
Post-disablement Police: 100% of the rates based on the 1974-1978 Social Security experience study  
Non-Police: 120% of the rates based on the 1974-1978 Social Security experience study

Based on the 2013 experience study, this assumption set includes an implicit margin for future improvements in life expectancy.

\*Updated since last valuation

## *Methods and Assumptions*

### **Rates of Retirement**

<b>Plan</b>	<b>First Eligible Rate</b>	<b>Rate to Age 62</b>	<b>Age 62 Rate</b>	<b>Penultimate Rate</b>	<b>Ultimate Age (100% Rate)</b>
County	25%	10%	40%	25%	Age 65 (with 5 years of service)
ERS General Personnel	25%	10%	30%	15%	Age 70
Crossing Guards	25%	5%	40%	10%	Age 75
County 2011	25%	10%	30%	15%	Age 70
Alternate	50%	5%	50%	10%	Age 65 (with 15 years of service)

<b>Plan</b>	<b>20 Years of Service</b>	<b>21-24 Years</b>	<b>25-29 Years</b>	<b>30+ Years (or age 55, if earlier)</b>
ERS Police	30%	20%	30%	100%

### **Rates of Disability**

The assumed disability rates are 0.1% for ages earlier than 40, and 0.4% for ages 40 and greater.

### **Rates of Termination**

**Non-Police:** The assumed probabilities of withdrawal (quit or discharge) are illustrated by the rates at quinquennial ages on the table on the next page and the following:

General and County 2011 Plan (5 or more years of employment):  
Table rate \* 1.2 for males, Table rate \* 0.85 for females

County (15 or more years of employment): table rate \* 0.5  
Crossing Guards: Table rate \* 2.0

**Police Officers:** The assumed withdrawal probabilities (quit or discharge) are illustrated by the following:

<u>Attained Age</u>	<u>Withdrawal Probability</u>
20	.020733
25	.018775
30	.014063
35	.008433
40	.002986
45 and later	.000000



## ***Methods and Assumptions***

### Rates of termination (cont.)

Age at Hire	0 Years		1 Year		2 Years		3 Years		4 Years		5+ Years	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	.3995	.2518	.2603	.1984	.1397	.0798	.1003	.0891	.0820	.0805	.0638	.0719
25	.3552	.2175	.2213	.1752	.1198	.0692	.0912	.0819	.0747	.0747	.0583	.0676
30	.3160	.1946	.1874	.1541	.1021	.0603	.0778	.0706	.0630	.0636	.0483	.0566
35	.2797	.1740	.1608	.1363	.0859	.0540	.0658	.0618	.0532	.0546	.0406	.0474
40	.2462	.1561	.1380	.1220	.0731	.0493	.0558	.0548	.0454	.0472	.0351	.0397
45	.2201	.1419	.1178	.1076	.0629	.0453	.0477	.0492	.0393	.0408	.0310	.0325
50	.2012	.1305	.0989	.0971	.0516	.0422	.0409	.0447	.0339	.0361	.0269	.0276
55	.1889	.1222	.0833	.0899	.0435	.0399	.0346	.0409	.0296	.0318	.0246	.0227
60	.1794	.1158	.0696	.0844	.0376	.0376	.0301	.0376	.0264	.0280	.0228	.0184

**Age Difference/ Family Assumptions**

Males are assumed to be 3 years older than females; 40% of dependents assumed to elect health coverage.  
For current retirees, actual family status and ages were used.

**Coverage**

Assume 60% of actives are married, and 35% of retirees are married and elect coverage for spouse.  
We have assumed that 80% of current active employees would elect coverage by retirement age under the medical/drug and life plans. For current retirees, only those who have current coverage elections have been valued, with the assumption that retirees without coverage cannot elect coverage in the future.

---

## ***GLOSSARY OF ACTUARIAL TERMS***

### Actuarial Accrued Liability

A plan's actuarial accrued liability is the level of assets estimated by the system actuary to be needed as of the valuation date to

- Finance all previously earned benefits for actively employed members of the plan (and their beneficiaries, if applicable) for when they eventually retire, die or terminate with deferred vested benefits, and
- Finance all currently payable benefits of current pensioners and their beneficiaries (if applicable).

The Actuarial Accrued Liability is not a debt; instead, it is an asset target set by the actuarial cost method to produce an orderly accumulation of assets to pay for the plan's obligations.

### Annual OPEB Cost (AOC)

The annual accrual amount required by GASB 45, which includes the Annual Required Contribution as well as adjustments if a Net OPEB Obligation/(Asset) exists.

### Annual Required Contribution (ARC)

The annual cost of the plan, on an accounting basis. The ARC is the sum of the Normal Cost and the amortization of unfunded actuarial accrued liability.

### Implicit Subsidy

A retiree only population would require a much higher premium to account for higher expected claims at older ages. By offering retirees coverage at the same (lower) premium rate as active employees, employers are providing an additional benefit. This is known as an implicit rate subsidy under GASB 45.

### Normal Cost

The Normal Cost is calculated as the annual amount necessary to fund each member's benefits from that member's Plan entry date to the end of his or her projected working life.

### Net OPEB Obligation/(Asset)

The accumulated shortfall/(surplus) in actual contributions towards the ARC versus the Annual OPEB Cost.

### Other Postemployment Benefits (OPEB)

Postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other healthcare benefits.

### Unfunded Actuarial Accrued Liability

When the actuarial value of assets is below the Actuarial Accrued Liability, there is an Unfunded Actuarial Accrued Liability which must be paid off or amortized on a schedule.

When the actuarial value of assets is in excess of the Actuarial Accrued Liability, this can lead to a reduction in future contributions on an amortization schedule.