

CITY OF VERO BEACH, FLORIDA

Other Post-Employment Benefits (OPEB)

Actuarial Report for Funding During the Year Ending
September 30, 2019





August 2, 2019

Ms. Cynthia D. Lawson
Director of Finance
City of Vero Beach
1053 20th Pl
Vero Beach, FL 32960

**Re: October 1, 2018 Actuarial Funding Report for Other Post-Employment Benefits (OPEB)
For Funding During the Year Ending September 30, 2019**

Dear Ms. Lawson:

Gabriel Roeder Smith & Company (GRS) has been engaged by the City of Vero Beach (the City) to perform an Actuarial Valuation of its Other Post-Employment Benefits (OPEB) provided to its retiring employees. We are pleased to present the results herein.

The Valuation was performed as of October 1, 2018 with results applicable to the fiscal year ending September 30, 2019 and covers medical (including prescription drug) and life insurance benefits provided to all City retirees. The contribution amount shown on page A-1 may be considered as a minimum contribution amount that complies with the City's funding policy. Users of this report should be aware that contributions made at that rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the System in excess of those presented in this report be considered.

The actuarial calculations were prepared for the purposes of funding the City's OPEB program. Determinations of the liability associated with the benefits in this report for purposes other than this purpose (accounting, for example) may produce significantly different results. This Report may be provided to parties other than the City of Vero Beach only in its entirety and only with the permission of the City. GRS is not responsible for unauthorized use of this report.

The results in this report are determined using the actuarial assumptions and methods disclosed in Section D of this report. This report does not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks is outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the plan's financial condition.

The Actuarial Valuation was performed on the basis of employee, retiree, claims information and financial information through September 30, 2018 as supplied by the City officials. Although we did not audit this information, it was reviewed for reasonableness. All actuarial calculations were performed on the basis of the Summary of Substantive Plan Provisions and the Actuarial Assumptions and Methods, as set forth in the respective sections of this Report.

The calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based upon plan provisions outlined in this Report. If you have reason to believe that the

Ms. Cynthia D. Lawson

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assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the author of this Report prior to relying on information in the Report.

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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the plan as of the valuation date. All assumptions and calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision. The actuarial assumptions used for the Valuation produce results which are reasonable.

Nicolas Lahaye and Piotr Krekora are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. The signing Actuaries are independent of the plan sponsor.

We will be pleased to answer any questions pertaining to this Actuarial Valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY



Nicolas Lahaye, FSA, EA, MAAA, FCA
Consultant & Actuary



Piotr Krekora, ASA, EA, MAAA, FCA
Consultant & Actuary

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SECTION A

EXECUTIVE SUMMARY

Executive Summary

This Actuarial Valuation and Report, prepared as of October 1, 2018, presents the employer contribution required under the City’s Funding Policy for the year ending September 30, 2019.

The following table summarizes the funding requirements along with amounts expected to be reimbursed to the City from the Trust for benefit provided to retirees:

Funding Summary			
Results Applicable to the Year Ending	September 30		
	2020*	2019	2018
Actuarially Determined Contribution (ADC)	\$ 2,165,259	\$ 2,093,039	\$ 2,056,291
Employer Deposits to the Trust**	2,165,259	2,093,039	2,056,291
Expected Reimbursements from the Trust	1,409,223	1,257,980	1,185,885

*Projected results assuming no significant changes in the program. The results for the fiscal year ending September 30, 2020 will be based on the October 1, 2019 actuarial valuation.

**Under the current funding policy, deposit amounts are projected to be the same as the ADC.

This report covers the OPEBs provided to the current and future retirees of the City of Vero Beach. The term City as used in this Report includes these employees, retirees and their dependents. The Substantive Plan Provisions for the City’s OPEBs are described in Section E of this Report.

ADVANCE-FUNDING OPEBS

Management of the City of Vero Beach decided to advance-fund the OPEB obligation. This is accomplished by making periodic deposits into a separate trust for investment and accumulation of reserves, which is then used to pay the retiree subsidies defined by the OPEB Plan documents.

This approach provides for systematically financing the long term OPEB obligation and it has distinct advantages over a pay-as-you-go method. Rather than the City paying the entire cost of the Plan each year, the OPEB Fund’s internal buildup of reserves is expected to generate substantial investment earnings (assuming prudent investments) throughout its lifetime. These earnings will pay a significant portion of the benefits, thereby relieving the City and taxpayers from having to pay them directly. Under this approach, the OPEB obligation is decreased with the OPEB fund similar to how the City decreases its pension obligation with separate pension funds. To the extent that the City advance-funds its OPEB obligation, it will reduce the long term cost of the Plan to the City and its taxpayers.

For the purpose of this valuation, it is assumed that the City will continue its policy of contributing the Actuarially Determined Contribution (ADC) into the OPEB Trust Fund. It has been determined that the City’s Funding Policy is expected to provide sufficient revenue over time to enable the OPEB Trust to provide the benefits. The investment discount rate used for this Actuarial Valuation is at the rate appropriate for a fully funded Trust with the current Investment Policy. The City has selected 6.00% compounded annually as its investment discount rate.

It is important to note, in the event that the Investment Policy is changed or a pattern evolves that deviates from this stated intent, the costs and liabilities presented in this or subsequent Reports would need to be re-calculated using a discount rate other than 6.00%.

DIRECT SUBSIDY

Retired employees of the City will receive a subsidy through a Premium Assistance Program. The amount of subsidy depends on: total service with the City (rounded to whole years), and employee classification (general/police). This subsidy is available only for the retiree portion of the health insurance premium, regardless of the coverage tier selected. More details can be found in Section E.

IMPLICIT RATE SUBSIDY

It may appear, at first glance, that the City's obligation for subsidizing retirees' OPEB coverage is limited to the direct subsidy described above. However, the full illustrative premiums are based on a blending of the experience among younger active employees and older retired employees. Since the older retirees actually have higher costs, this means that the City is actually subsidizing the cost of the retiree coverage beyond the direct premium discounts because it pays all or a significant portion of that premium on behalf of the active employees.

This is the "implicit rate subsidy". Even though it appears that there is no additional City subsidy of retiree coverage, there really is, and it can be a significant amount. A group of 62-year-old retirees can easily cost over 50% more than the City is collecting from them for coverage. The City, therefore, has assumed an obligation to pay for that implicit subsidy for the covered lifetimes of the current retirees and their dependents, as well for the covered lifetimes of the current employees after they retire in the future.

Measuring the current year's implicit and direct subsidies, projecting them for decades into the future and making an allocation of that cost to different years is the subject of this report.

ACTUARIAL ASSUMPTIONS

In any long-term Actuarial Valuation (such as for Pensions and OPEBs), certain demographic, economic and behavioral assumptions are made concerning the population, the investment discount rates and the benefits provided. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Future determinations of the employer's annual required contributions are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. These Actuarial Assumptions form the basis for the actuarial model which is used to project the future population, the future benefits provided, and the future contributions collected. Then the investment discount rate assumption is used to discount those projected net OPEB benefits to a present value. This and other related present values are used to calculate the Annual OPEB Cost that will be expensed in the City's financial statements and the Unfunded Actuarial Accrued Liability disclosed in the statements as well.

Calculations for financial reporting purposes are based on the benefits provided under terms of the substantive plan (the plan as understood by the employer and the plan members) in effect at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that

point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future. Actuarial calculations reflect a long-term perspective. Consistent with that perspective, 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.

It would be instructive to review the Section D of this Report for details of all the relevant Actuarial Assumptions used in this Valuation.

ACTUARIAL COST METHODS

The results presented herein have been obtained with Entry Age Normal actuarial cost method with an amortization of the unfunded actuarial accrued liability as a level percent of expected payroll. This method spreads the costs evenly throughout the collective careers of those in the covered workforce.

SUMMARY

Following is a chart that summarizes the results of this Actuarial Valuation for the City’s OPEB. Results applicable to fiscal years ending September 30, 2018 and September 30, 2017 are also shown for your reference, as developed in the October 1, 2016 valuation. More details can be found on following pages.

Valuation Summary			
Valuation As of	October 1, 2018	October 1, 2016	October 1, 2016
Actuarial Accrued Liability	\$ 31,919,174	\$ 30,096,686	\$ 30,096,686
Actuarial Value of Assets	1,949,352	-	-
Unfunded Actuarial Accrued Liability	29,969,822	30,096,686	30,096,686
Applicable to FYE	September 30, 2019	September 30, 2018	September 30, 2017
Actuarially Determined Contribution	2,093,039	2,056,291	1,971,583
Per Covered Active Employee	6,931	5,776	5,538
As % of Expected Payroll	13.6%	10.9%	10.9%

FACTORS IMPACTING COSTS AND LIABILITIES

Although a detailed Gain-Loss analysis is beyond the scope of this report, below we present the major factors driving the changes in results from the previous valuation:

- *Population Changes:* The number of covered active employees decreased from 356 as of the prior valuation date to 302 as of October 1, 2018. At the same time, the number of retirees covered under the health plans as of the valuation date increased from 220 in the previous valuation to 248 as of October 1, 2018. These combined population changes had a modest increasing impact on the costs and liabilities.
- *Initial Cost of Coverage:* The total cost of coverage increased from \$968 per employee per month (as of September 30, 2016) to \$1,086 per employee per month as of September 30, 2018. This is lower than

the \$1,111 per employee per month projected for 2018 at the time the prior valuation was performed. This had a modest decreasing effect on the cost and liabilities.

- *Medical Trend Assumption:* We revised the assumed trend of medical/Rx cost and premium increases. It was assumed previously that costs and premiums would increase at a rate of 6.75%, 5.85%, and 5.69% for plan years beginning in 2019, 2020, and 2021, respectively. We are revising the trend rates to be 6.75% for 2019, 6.50% for 2020, and 6.25% for 2021. Long term trend rates follow the same Getzen model as used before (updated September 2016) declining over a 20-year period to the ultimate level of 4.24%. This change had a modest increasing effect on the costs and liabilities.
- *Investment Income:* Investment earnings on the trust assets exceeded expectations: 6% rate of return was assumed but a 6.27% rate of return was realized. These asset gains had a modest decreasing effect on the contribution determined in this valuation.

SECTION B

SUMMARY OF ACTUARIAL VALUATION RESULTS

CITY OF VERO BEACH ACTUARIAL VALUATION RESULTS AS OF OCTOBER 1, 2018

	Total Medical/Rx Costs	Retirees' Medical/Rx Premiums	Direct Premium Subsidy	Life Insurance Benefits	Net Employer Costs
<u>Number of Participants Covered</u>					
Active Participants	302	302	302	302	302
Retired Participants and Surviving Spouses	248	248	248	248	248
Total Participants	550	550	550	550	550
Expected Payroll of Active Participants	\$ 15,374,323	\$ 15,374,323	\$ 15,374,323	15,374,323	\$ 15,374,323
<u>Actuarial Present Value of Benefits</u>					
Active Participants	9,339,849	(6,560,738)	17,990,380	91,371	20,860,862
Retired Participants	4,153,610	(2,685,074)	14,088,645	236,624	15,793,805
Total Participants	13,493,459	(9,245,812)	32,079,025	327,995	36,654,667
<u>Actuarial Accrued Liability</u> (Entry Age Normal Cost Actuarial Method)					
Active Participants	7,056,110	(4,950,901)	13,948,863	71,297	16,125,369
Retired Participants	4,153,610	(2,685,074)	14,088,645	236,624	15,793,805
Total Participants	11,209,720	(7,635,975)	28,037,508	307,921	31,919,174
Actuarial Value of Assets					1,949,352
Unfunded Actuarial Accrued Liability (UAAL)					29,969,822
<u>Actuarially Determined Contribution (ADC)</u> of the Employer for FYE 9/30/19 under the Entry Age Normal Cost Actuarial Method					
Normal Cost					556,378
25-Year Amortization of UAAL					1,536,661
Interest					-
<u>Total ADC for FYE 9/30/19</u>					\$ 2,093,039
Per Active Participant					\$ 6,931
As % of Expected Payroll					13.6%

Effect of the Excise Tax on High Cost Health Plans

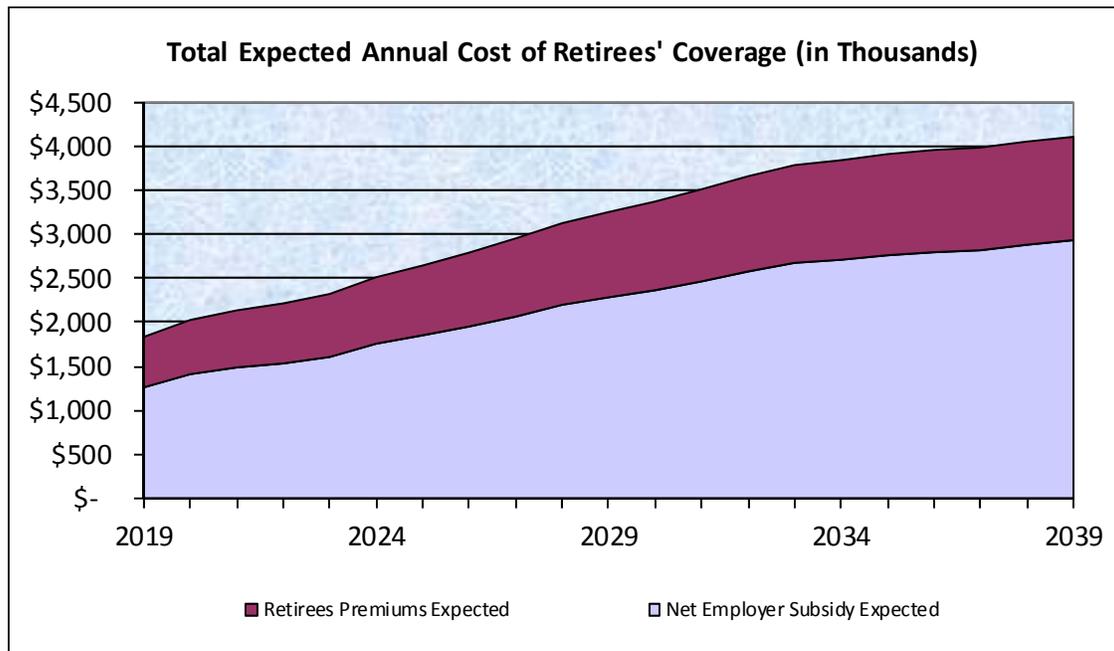
Results presented on the previous page reflect the estimated impact of the excise tax on high cost (Cadillac) health plans. As provided by the Patient Protection and Affordable Care Act of 2010, provisions of the law pertaining to the tax will first take effect in 2022. The excise tax will be 40% of costs above a threshold. Under our valuation assumptions, we anticipate that the Plan will be subject to the tax in 2022. Additional details can be found on page D-6. The following table illustrates the expected impact of the tax:

ACTUARIAL VALUATION RESULTS AS OF OCTOBER 1, 2018		
	Results Reflecting Expected Impact of Excise Tax	Original Results (Without Provisions for Excise Tax)
<u>Number of Participants Covered</u>		
Active Participants	302	302
Retired Participants and Surviving Spouses	248	248
Total Participants	550	550
Expected Payroll of Active Participants	\$ 15,374,323	\$ 15,374,323
<u>Actuarial Present Value of Benefits</u>		
Active Participants	20,860,862	19,119,509
Retired Participants	15,793,805	15,238,600
Total Participants	36,654,667	34,358,109
<u>Actuarial Accrued Liability</u> (Entry Age Normal Cost Actuarial Method)		
Active Participants	16,125,369	14,917,129
Retired Participants	15,793,805	15,238,600
Total Participants	31,919,174	30,155,729
Actuarial Value of Assets	1,949,352	1,949,352
Unfunded Actuarial Accrued Liability (UAAL)	29,969,822	28,206,377
Actuarially Determined Contribution of the Employer (ADC) for FYE 9/30/19 (Entry Age Normal Cost Actuarial Method)		
Normal Cost	556,378	502,127
25-Year Amortization of UAAL	1,536,661	1,446,243
<u>Actuarially Determined Contribution for FYE 9/30/19</u>	<u>\$ 2,093,039</u>	<u>\$ 1,948,370</u>

Twenty-Year Projection of Benefit Cash Flow

Premiums collected from employees and retirees account only for a portion of the cost of the health care provided, with the balance subsidized by the Employer. The table and graph below illustrate, based on a closed group projection, how the cost of the benefits is distributed between the Employer and the retirees.

Fiscal Year Ending September 30	Total Benefits Expected	Retirees Premiums Expected	Net Employer Subsidy Expected
2019	\$ 1,831,834	\$ 573,854	\$ 1,257,980
2024	2,511,508	756,021	1,755,487
2029	3,252,588	969,994	2,282,594
2034	3,840,475	1,131,157	2,709,318
2039	4,106,935	1,174,214	2,932,721



Age/Service Distribution for Plan Participants

Age	Years of Service to Valuation Date - General Employees							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30&Up	
0 - 14	-	-	-	-	-	-	-	-
15 - 19	-	-	-	-	-	-	-	-
20 - 24	5	-	-	-	-	-	-	5
25 - 29	14	-	-	-	-	-	-	14
30 - 34	14	-	3	-	-	-	-	17
35 - 39	5	2	9	-	-	-	-	16
40 - 44	4	-	3	3	3	-	-	13
45 - 49	7	1	7	6	2	5	-	28
50 - 54	6	4	7	11	14	10	7	59
55 - 59	4	4	9	5	4	7	11	44
60 - 64	5	4	5	8	5	10	9	46
65 - 69	1	-	1	1	2	2	1	8
70 - 74	-	1	-	-	-	-	-	1
75 - 99	-	-	-	-	-	-	-	-
Total	65	16	44	34	30	34	28	251

Age	Years of Service to Valuation Date - Police Officers							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30&Up	
0 - 14	-	-	-	-	-	-	-	-
15 - 19	-	-	-	-	-	-	-	-
20 - 24	5	-	-	-	-	-	-	5
25 - 29	5	1	-	-	-	-	-	6
30 - 34	5	1	1	-	-	-	-	7
35 - 39	-	1	3	-	-	-	-	4
40 - 44	1	-	3	3	1	-	-	8
45 - 49	1	-	2	2	3	1	-	9
50 - 54	-	-	-	1	1	6	-	8
55 - 59	-	-	-	1	1	-	1	3
60 - 64	-	-	-	-	-	-	1	1
65 - 69	-	-	-	-	-	-	-	-
70 - 74	-	-	-	-	-	-	-	-
75 - 99	-	-	-	-	-	-	-	-
Total	17	3	9	7	6	7	2	51

Current Retirees			
Age Group	Male	Female	Total
0 - 39	-	-	-
40 - 44	-	-	-
45 - 49	-	-	-
50 - 54	1	-	1
55 - 59	28	4	32
60 - 64	36	15	51
65 - 69	40	10	50
70 - 74	33	12	45
75 - 79	22	10	32
80 - 84	13	6	19
85 - 89	9	3	12
90 - +	4	2	6
Total	186	62	248

SECTION C

DEVELOPMENT OF INITIAL PER CAPITA COSTS

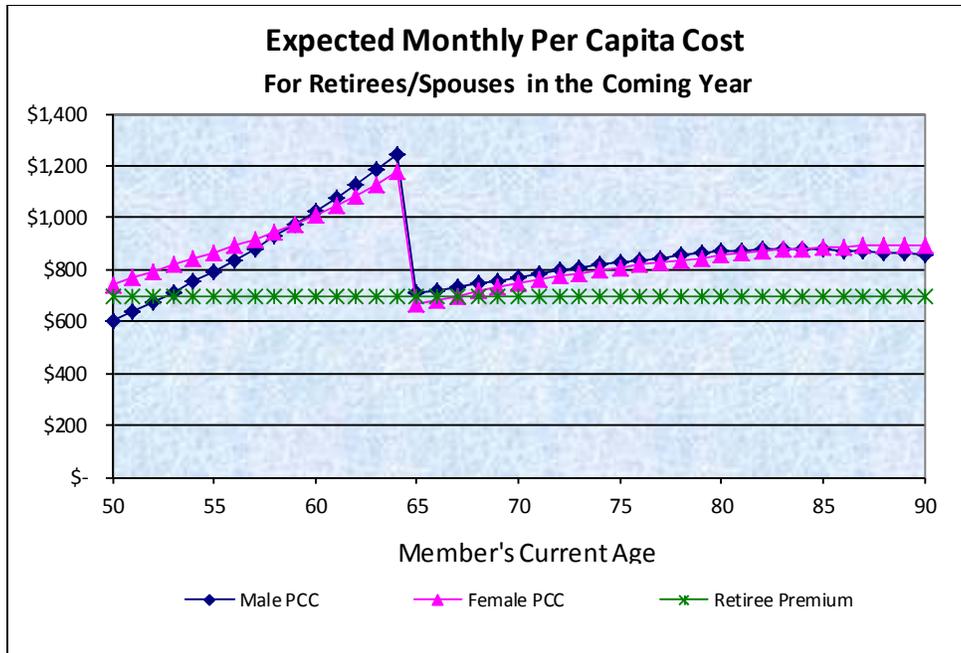
Development of Initial Per Capita Costs

By offering medical coverage to employees, retirees and their dependents, the Employer assumes the responsibility for the expected cost of claims incurred by the members of the plan. These costs are partially offset by contributions from employees and retirees. While the total premium amount charged for covering employees and retirees and their dependents is the same without regard to the age or gender of the member, the true costs of medical and prescription coverage in any given year, depends on these factors. As the ages of employees, retirees and dependents in the covered population increase, so do their costs of benefits.

Following tables summarize the expected initial monthly Per Capita Costs (PCC) applicable to current retirees in the coming year:

Monthly Per Capita Cost By Age/Sex					
Medicare Not Eligible Retirees			Medicare Eligible Retirees		
Sample Ages	Male	Female	Sample Ages	Male	Female
45	\$ 462.87	\$ 638.82	65	\$ 707.64	\$ 667.45
50	602.71	742.48	70	770.88	745.94
55	793.09	865.94	75	827.94	807.89
59	975.00	975.00	80	869.17	853.97
60	1,024.33	1,008.61	85	875.49	885.81
64	1,245.61	1,175.52	90	859.27	894.68

The graph below illustrates the expected monthly Per Capita Costs (PCC) applicable to current retirees in the coming year. The full premium charged is also shown. For clarity, premium contributions applicable to a spouse are not presented in the graph. The spread between the Per Capita Cost and the premium actually collected from the retiree is the expected monthly cost borne by the Employer when providing medical coverage to a particular retiree.



The amounts of Per Capita Costs illustrated above have been developed by employing the morbidity tables discussed below. The table shows select values of age grading factors reflecting rates at which medical costs increase with age of the member. The age grading factors have been developed based on the results of the study published (June 2013) in Health Care Costs – From Birth to Death sponsored by the Society of Actuaries and authored by Mr. Dale H. Yamamoto. These percentages are separate from the annual Trend, which operates to increase costs independent of and in addition to the Aging Factors. For example, in any single year a group of 61-year old males are expected to cost 5.02% more than a group of 60-year old males.

Medical/Rx Cost Increase By Age					
Sample Ages	Male	Female	Sample Ages	Male	Female
30	4.80%	3.74%	65	1.68%	2.46%
35	4.45%	-0.32%	70	1.72%	1.89%
40	4.42%	0.44%	75	1.07%	1.20%
45	4.89%	2.34%	80	0.62%	0.97%
50	5.81%	3.46%	85	-0.37%	0.36%
55	5.44%	2.84%	90	-0.28%	-0.14%
60	5.02%	3.66%	95	-0.38%	-2.21%

The total cost expected (based on premiums for the fully-insured health plan) for the entire covered population was allocated by age/sex, based upon the age/sex distribution of all plan members and the morbidity tables above. This procedure resulted in a table of age/sex-specific initial Per Capita Costs for the coming year. These calculations were based upon the benefits provided under the plan options available to employees and retirees as of the Valuation Date.

In the development of the PCC amounts, retirees and dependents age 65 and older are assumed to be Medicare-eligible. The “% of Total Claims Paid by Medicare” is an assumption regarding whether the core plan or Medicare pays as primary for Medicare-eligible retirees and dependents. In our work, we assume that the employer’s cost for a claim incurred by a Medicare covered retiree is lower than the cost of the same claim incurred by a retiree who is not eligible for Medicare benefits. We are referring to that offset as “% of Total Claims Paid by Medicare” although some of it may be paid by a retiree. According to the Summary of Substantive Plan Provisions, the plan does require grandfathered Medicare-eligible members allowed to continue coverage in the core plan to enroll in Medicare Part B. The plan pays as secondary to Medicare for retirees and dependents who are Medicare eligible and enrolled. We are assuming that all Medicare eligible members are enrolled in Part A but only 50% of them enrolled in Part B.

Furthermore, we are recognizing the fact, that healthy retirees are less likely to select the medical coverage when required to pay a full blended premium. The impact of this phenomenon is usually less when retirees are offered direct subsidies and continuation of medical coverage is more common among retirees. This adjustment is made through application of the “Anti-selection Load” presented below. These adjustments are summarized below:

Factors used in PCC Development	
Anti-selection Load	0%
% of Total Claims Paid by Medicare	45%

**A 10% load is applied to retirees receiving a direct subsidy less than 25% from the City.*

The Monthly Per Capita Costs (PCC) by age and sex represent the costs of coverage after taking out deductibles, coinsurance, co-pays, and Medicare payments, but before applying any monthly retiree contributions (premiums) charged for coverage. The Medicare Part D subsidy, if any, has not been given any consideration, since it may not be used to offset the OPEB obligation.

Per Capita Costs applicable to retirees who retire under disability provisions are assumed to be the same as for all other similarly situated retirees. Although disabled retirees are generally more expensive to cover, such retirees may qualify for benefits under the Medicare program, which offsets the increased costs. We did not assess the relative magnitude of these factors but given the fact that they offset each other combined with a relatively low incidence of disability retirements, we believe the overall materiality of this aspect does not warrant more detailed analysis. Consequently, all retirees are subjected to the same model regardless of disability status.

Amounts for each age/sex combination for this Valuation were developed based on census data for all participants of the Health Care Plans and on the total premiums paid to the insurance provider. The number of subscribers included in the Actuarial Valuation may be slightly different from the number used to develop the Per Capita Costs. The present distribution of subscribers for the purpose of Per Capita Cost Development is summarized below.

Coverage	Number of Subscribers		
	Active / COBRA	Retired Core Plan	Retired MA-PD Subsidy
Single	205	62	132
Family/Spouse	144	8	0

SECTION D

ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions and Methods

Actuarial Valuation Date:	October 1, 2018 for development of per capita cost purposes and for valuation purposes. Employee and retiree population was collected as of October 1, 2018 and as of January 1, 2019.
Actuarial Cost Method:	Entry Age Normal Cost Method with an increasing Normal Cost pattern consistent with the salary increase assumptions.
Asset Valuation Method:	Market Value of Assets on the Valuation Date.
Investment Discount Rate:	The City's Funding Policy is expected to provide sufficient revenue over time to enable the OPEB Trust to be the sole provider of the benefits. The Investment Discount Rate used for this Actuarial Valuation is at the rate appropriate for a fully funded Trust with the current investment policy. The City has selected 6.00% per annum, compounded annually.
Amortization Period and Method:	The Unfunded Actuarial Accrued Liability, as calculated pursuant to the Individual Entry Age Actuarial Cost Method, is amortized as a level percent of payroll over a 25 year period. The assumed rate of payroll growth is 4.00%.
Mortality Tables:	<p>Mortality Rates are used to measure the probabilities of participants dying before and after retirement.</p> <p><u>Healthy Mortality (Pre-Retirement) rates used:</u> <i>Female:</i> RP2000 Generational, 100% Combined White Collar, Scale BB <i>Male:</i> RP2000 Generational, 50% Combined White Collar / 50% Combined Blue Collar, Scale BB <i>Male (Special Risk):</i> RP2000 Generational, 10% Combined White Collar / 90% Combined Blue Collar, Scale BB</p> <p><u>Healthy Mortality (Post-Retirement) rates used:</u> <i>Female:</i> RP2000 Generational, 100% Annuitant White Collar, Scale BB <i>Male:</i> RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB <i>Male (Special Risk):</i> RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB</p> <p><u>Disabled Mortality rates used:</u> <i>Female Disabled (other than Special Risk):</i> RP2000, 100% Disabled Female set forward two years, no projection scale <i>Female Disabled (Special Risk):</i> 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale</p> <p><i>Male Disabled (other than Special Risk):</i> RP2000, 100% Disabled Male setback four years, no projection scale</p>

Male Disabled (Special Risk): 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

Rates of Termination from Active Employment:

These rates do not apply to participants eligible to retire and do not include separation on account of death and disability. Termination rates are used to measure the probabilities of participants terminating employment for other reasons.

% Terminating Within Next Year			
Age	General	Service	Police
20	15.57%	0	12.00%
25	11.44%	5	12.00%
30	10.27%	10	4.00%
35	8.06%	15	3.00%
40	5.59%	20	2.00%
45	3.38%	25	1.00%
50	1.43%	30	1.00%

Rates of Disability:

Disability rates are used to measure the probabilities of active participants becoming disabled. The table below presents disability rates for select ages which are the same as used by the Pension Plan Actuary. It is further assumed that 75% of disability occurrences are duty related.

% Becoming Disabled Within Next Year		
Age	General	Police
20	0.03%	0.14%
30	0.05%	0.18%
40	0.10%	0.30%
50	0.27%	1.00%

Rates of Retirement:

Rates of retirement are used to measure the probabilities of an eligible active employee retiring during the next year. Rates below are applicable to all eligible for Normal Retirement. Employees entering the DROP are treated as active employees until actual retirement for OPEB actuarial purposes.

% Retiring Within Next Year - General Employees	
Year of Eligibility	% Retiring
First	25%
Second through Fifth	35%
Sixth and thereafter	100%

In addition, General Employees with 25 years of Credited Service are assumed to choose Early Retirement at a rate of 22% in the first year of eligibility and at a 40% rate at age 62.

% Retiring Within Next Year - Police Officers	
Year of Eligibility	% Retiring
First	80%
Second through Fifth	40%
Sixth and thereafter	100%

The rate of Early Retirement for Police Officers is 5% for each year of eligibility.

DROP Retirement:

It is assumed that 50% of employees first becoming eligible for Normal Retirement will enter the DROP and the remaining 50% will choose Normal Retirement. Retirement rates among employees who DROP are a percentage of the rates above. These percentages are as follows:

Factors for Calculating Retirement Rates for DROP Participants	
Year in DROP	% of regular rate
1	50%
2	70%
3	87%
4	100%
5	NA
year in the program	

Price Inflation:

Long term price inflation is assumed to be 2.5% per year.

Salary Increases:

These Rates are used to measure changes in salary. Salary increase rates are shown in the following tables and are the same as used by the Pension Plan Actuaries:

Salary Increases in the Coming Year	
Sample Ages	General
20	6.50%
25	6.25%
30	6.00%
35	5.75%
40	5.50%
45	5.25%
50	5.00%
55	4.75%
60	3.75%

Salary Increases in the Coming Year	
Service	Police
0	6.50%
5	6.25%
10	6.00%
15	5.75%
20	5.50%
25	5.25%
30	5.00%

Health Coverage Assumptions

Coverage Acceptance Rates: Not everyone who retires will accept coverage and pay the required premium upon retirement. Following are the assumptions as to future Medical Coverage Acceptance Rates. Lapse rates presented below reflect the discontinuation of coverage under the City's plan. Acceptance and lapsing rates presented below result from an analysis of the choice pattern exhibited by employees retiring in the recent years.

Acceptance and Lapsing Rates			
Acceptance of Retiree Coverage	Ret Only	Ret + 1	Total
At Retirement (before age 65, subsidy >70%)	80%	10%	90%
At Retirement (before age 65, 25% < subsidy < 70%)	35%	5%	40%
At Retirement (before age 65, subsidy <25%)	15%	5%	20%
At Retirement (at or after 65, subsidy >70%)	72%	9%	81%
At Retirement (at or after 65, 25% < subsidy < 70%)	32%	5%	36%
At Retirement (at or after 65, subsidy <25%)	8%	3%	10%
Lapsing of Coverage	Ret Only	Ret + 1	Total
Retiree/Spouse at age of 65 (subsidy > 25%)	10%	10%	10%
Retiree/Spouse at age of 65 (subsidy < 25%)	50%	50%	50%
Survivors at Death of Retiree	N/A	50%	50%

Expenses: Expenses are included in the Per Capita Costs.

Per Capita Costs: As described in a previous section of this Report, expected monthly Per Capita (or per person) Costs were developed for the year following the Actuarial Valuation Date.

Expected Retiree Contributions: Members are required to make monthly contributions in order to maintain their coverage. For the purpose of this Valuation a weighted average has been used with weights derived from the current distribution of members among plans offered. Such average expected retiree premium contributions for the first year are shown in the table below.

Average Monthly Premium (as of Valuation Date)		
Coverage	Pre-65	Post-65
Retiree	\$ 699.00	\$ 699.00
Spouse	\$ 852.00	\$ 852.00

Health Care Cost Trend Rates: Monthly Per Capita Costs (PCC) and Retiree Contributions for Medical and Rx benefits are assumed to increase each year according to the rates set forth in the following table. For example, the Per Capita Costs for the year beginning 10/1/2019 are expected to increase 6.75% over the Per Capita Costs in for the year beginning 10/1/2018.

The trend rate for the cost of benefits and premiums for years after 2021 are based on the forecasting model built and published (December 2007, and updated September 2016) in *Modeling Long-Term Health Care Cost Trends* sponsored by the Society of Actuaries and authored by Prof. Thomas E. Getzen. The long term rates reflect a 2.5% assumed ultimate inflation rate, 25% resistance level for health care spending as a percent of GDP and a 20-year convergence period.

The rates presented below illustrate assumed medical trend without adjustment for the Excise Tax on High-Cost Employer Health Plans:

Annual Increase Rates					
Year	Medical/Rx	Contribution	Year	Medical/Rx	Contribution
2019	6.75%	6.75%	2034	4.60%	4.60%
2020	6.50%	6.50%	2035	4.56%	4.56%
2021	6.25%	6.25%	2036	4.52%	4.52%
2022	6.05%	6.05%	2037	4.49%	4.49%
2023	5.89%	5.89%	2038	4.41%	4.41%
2024	5.73%	5.73%	2039	4.33%	4.33%
2025	5.56%	5.56%	2040	4.24%	4.24%
2026	5.40%	5.40%	2041	4.24%	4.24%
2027	5.24%	5.24%	2042	4.24%	4.24%
2028	5.08%	5.08%	2043	4.24%	4.24%
2029	5.08%	5.08%	2044	4.24%	4.24%
2030	5.08%	5.08%	2045	4.24%	4.24%
2031	4.87%	4.87%	2046	4.24%	4.24%
2032	4.74%	4.74%	2047	4.24%	4.24%
2033	4.66%	4.66%	Thereafter	4.24%	4.24%

Consideration of Health Care Reform

Summary of Selected Provisions and their effects

Excise Tax on High-Cost Employer Health Plans (aka Cadillac Tax) Effective 1/1/2022 The “Cadillac” tax is a 40% excise tax paid by the coverage provider (employer and/or insurer) on the value of health plan costs in excess of certain thresholds. The thresholds for active employees and Medicare eligible retirees are \$10,200 for single coverage or \$27,500 for family coverage in 2018 increased with inflation to 2022. Respective thresholds for retirees not eligible for Medicare are \$11,850 and \$30,950 for the year 2018 increased with inflation to 2022. Many plans are below the thresholds today, but are likely to exceed them in the next decade. The thresholds will be indexed at CPI-U, which is lower than the medical inflation rates affecting the cost of the plans. There is considerable uncertainty about how the tax would be applied, and considerable latitude in grouping of participants for tax purposes. Combining early retiree and Medicare eligible retiree costs is allowed and can keep plans under the thresholds for a longer period of time.

Since this is a fully-insured plan, should the excise tax ever become applicable, the vendor will be the coverage provider paying the tax which will be passed on to the Employer in the form of increased premiums applicable to employees and retirees. The City will need to decide whether to reduce benefits to avoid the tax, or how the additional cost will be allocated between the employer and the members. GASB does not permit recognition of future plan changes in a valuation, so the net claims growth assumption (reflected in the long-term trends) will be based on the current plan design.

Based on the assumptions used for this valuation, premiums applicable to some of the retirees are projected to become subject to excise tax in 2022. Although the amount of tax initially assessed on the health insurance premiums is not expected to be significant, it will increase over time. We are modeling the impact of the tax by adding 0.51% to trend rates for 2022 and all subsequent years.

Comparative Effectiveness Research Fee: PPACA established the Patient-Centered Outcomes Research Institute (the Institute) to conduct research to determine which of two or more treatments works best when applied to actual patients in the “real world.” The work of the Institute is partially funded by a fee on health insurers and self-funded group health plans. This fee is reflected in the cost projected for the initial year.

Health Insurance Industry Fee: This fee on health insurers (including HMOs) starts at \$8 billion in 2014 and increases year over year before reaching \$14.3 billion in 2018 (collection has been suspended for the fee year 2017). After 2018, it will continue to increase with premium growth. The fee, which applies only to insured business, will be based on each insurer’s share of the taxable health insurance premium base (among all health insurers of U.S. health risks). This is assumed to be reflected in the renewal for 2019.

Implementation of the new requirements: The City health plans appear to be already in compliance with the following provisions of the Affordable Care Act. Thus, no additional consideration has been given in the valuation of these liabilities as of this valuation.

We have not identified any specific provision of health care reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will review and monitor the impact.

Miscellaneous and Technical Assumptions

Pay Increase Timing:	End of (fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year starting on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur at the middle of the year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are treated as absolute rates of decrement.
Adjustments:	None.
Decrement Operation:	All decrements operate simultaneously. Disability and termination rates cease upon eligibility for normal or early retirement.

Definitions of Technical Terms

Actuarial Accrued Liability:	Actuarial Accrued Liability is the actuarial present value of projected future benefits that are attributable to an employees' service to date. Sometimes it is expressed as the difference between the actuarial present value of all future benefit payments and the actuarial present value of future normal costs.
Actuarial Assumptions:	These are factors for estimating expected future experience with respect to occurrences of mortality, disability, turnover, retirement, rates of investment income and salary increases, coverage acceptance, trend, aging, etc.
Actuarial Cost Method:	This is a mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefit payments" between future normal costs and actuarial accrued liabilities. It is often referred to as the "Actuarial Funding Method" or "Actuarial Valuation Cost Method".
Actuarial Present Value:	Actuarial Present Value of a series of payments (or a single payment) is the amount of funds currently required to provide those payments in the future. This amount is determined by discounting future payments at predetermined rates of interest, taking into account the probability of payment. It is also referred to as "Present Value."
Amortization:	Amortization is a process of paying off, or recognizing, an interest-discounted amount with periodic payments of interest and principal, (similar to paying off an installment loan) -- as opposed to paying it off with a single sum.
Actuarially Determined Contribution (ADC):	The ADC is the portion of the present value of projected benefits that is attributable to the current period. Usually it is determined as the normal cost (as defined below) plus the portion of the unfunded actuarial accrued liability amortized in the current period. The ADC is an amount that is actuarially determined to ensure that, if paid on an ongoing basis, it would provide sufficient resources for future benefit payments.
Normal Cost:	Normal Cost is the actuarial cost of a portion of projected future benefits allocated to the current year by the actuarial cost method. It is sometimes referred to as "Current Service Cost."
Unfunded Actuarial Accrued Liability (UAAL):	UAAL is the difference between actuarial accrued liability and the actuarial value of plan assets.

SECTION E

SUMMARY OF SUBSTANTIVE PLAN PROVISIONS

SUMMARY OF SUBSTANTIVE PLAN PROVISIONS as of October 1, 2018

ELIGIBILITY FOR RETIREE BENEFITS

All full time employees of the City of Vero Beach who satisfy the Disability, Early or Normal Retirement provisions of the applicable Retirement Plans may be eligible for certain post-employment benefits. Effective June 30, 2015, the General Employees Retirement Plan was frozen and all participants in that plan were vested. The following presents the eligibility requirements for retirement under the City's *General Employees Retirement Plan and Police Retirement Plan*:

VESTING RETIREMENT

General Employees: All participants in the plan were vested on the plan freeze date of June 30, 2015.

Police Officer: Full vesting starts after 10 years of credited service. However, with respect to all groups, there are no OPEB benefits available after termination of employment, unless at the time of termination, employee satisfies eligibility requirements for any other retirement benefits listed below.

DISABILITY RETIREMENT

General Employees: Members are eligible for non-duty disability pension after 5 years of continuous service.

Police Officers: Members are eligible for a non-duty disability pension after 10 years of creditable service. For duty disability, there is no service credit requirement.

SURVIVORSHIP

Line of Duty: Member died during the actual performance of duty. There is no service credit requirement.

Non-Duty:

General Employees: Employment is terminated as a result of death.

Police Officer: Employment is terminated as a result of death after one year of creditable service.

EARLY RETIREMENT

General Employees: Attainment of age 55 with 5 years of continuous Service.

Police Officers: Attainment of age 50 with 10 years of Credited Service.

NORMAL RETIREMENT

General Employees: Attainment of age 65 with 5 years of continuous Service.

Police Officers: Earlier of (i) age 55 with 10 years of Credited Service, (ii) 25 years of Credited Service regardless of age.

DROP PARTICIPANTS

DROP Participants are considered active employees while still in the DROP period. Upon actual retirement at the end of or during the DROP period the employee becomes eligible for certain post-employment benefit coverage. DROP is only available to the City's Police Officers.

OTHER POST-EMPLOYMENT BENEFITS

Certain Other Post-Employment Benefits (OPEB) are available to all employees retiring from the City under the provisions of Disability, Early or Normal Retirement, as described above. The OPEB benefits include lifetime access to coverage for the retiree and dependents under the Medical and Prescription Plans as well as participation in the Dental, Vision and Life Insurance group plans sponsored by the City for employees.

HEALTH-RELATED BENEFITS

Eligible retirees may choose among the same Medical Plan options available for active employees of the City. Dependents of retirees may be covered at the retiree's option the same as dependents of active employees. Prescription Drug coverage is automatically extended to retirees and their dependents who continue coverage under any one of the Medical Plan options. Covered retirees and their dependents are subject to all the same Medical and Prescription benefits and rules for coverage as are active employees.

Effective January 1, 2015, it became mandatory for retirees and their dependents age turning 65 after that date to enroll in Medicare Part B and change coverage to a UnitedHealth Care Medicare Advantage in order to remain covered under the program. Prior to January 1, 2015, enrolling in Medicare Part B for those retirees and their dependents was optional. Retirees who attained age 65 prior to January 1, 2015 were allowed to continue coverage under the core City plan. Migration to a Medicare Advantage plan was completed in 2017 for such members.

Results presented in this report are based on the healthcare plan design in effect as of October 1, 2018.

RETIREE CONTRIBUTIONS FOR MEDICAL/PRESCRIPTION

In order to begin and maintain retiree Medical/Prescription coverage, premium contributions are required from the retiree. For dependent coverage, the retiree is required to pay a premium as well. If any required amounts are not paid timely, the coverage for the retiree and/or the dependent(s) will cease. The amount of the contributions required for retiree and dependent coverage may change from time to time.

The chart below summarizes the current total monthly contribution amounts that would be required from retirees and their spouses to maintain medical/prescription coverage. Coverage for children of retirees is available (until their limiting age) as defined in the plan. However, for measuring the long term costs, the relatively few children covered by retirees coupled with the short duration of their coverage remaining results in costs that are not material in the long term. Consequently, only spouses are included in the chart below.

Gross Monthly Premiums for Retiree Coverage					
As of October 1, 2018	United High	United Medium	United Base	Med Supp D*	Medicare Advantage*
Single	N/A	\$716.24	\$684.66	\$170.70	\$437.54
Retiree + Spouse	N/A	\$1,584.99	\$1,515.11	\$ 341.40	\$875.08

* Spouses have access to Medicare Supplement or Medicare Advantage plans as individual subscribers (not as dependents) and have to pay full single premium amount as individual members.

RETIREE HEALTH SUBSIDY

Retired employees of the City will receive a subsidy through a Premium Assistance Program. The amount of subsidy depends on: total service with the City (rounded to whole years), and employee classification (general/police). This subsidy is available **only** for the retiree portion of the health insurance premium, regardless of the coverage tier selected. The chart on the following page summarizes the retiree health subsidy, expressed as a percent reduction off the retiree portion of the stated monthly premium for the tier selected (e.g., 2.75% of the single base plan premium for single coverage).

Premium Assistance Program		
Employee Group/Pension Plan	Under Age 65	Retiree Medicare Eligible
General Employees	2.75% of the Base Plan* per Year of Service*.	2.75% of the Base Plan* per Year of Service**.
Police Officers	4.00% of the Base Plan per Year of Service**.	4.00% of the Base Plan* per Year of Service**.

* Subsidy for Medicare eligible retirees enrolling in the Medicare Advantage is calculated as an applicable percentage of the premium published for that option.

**Years of Service for Retiree Health Subsidy does not include buybacks or other adjustments applied to credited pension service.

SURVIVORSHIP BENEFITS

The surviving spouse of a retiree is eligible to continue coverage under the group plan but must pay 100% of the total premium applicable to an individual retiree (not a spouse). No benefit (other than COBRA) is offered to a surviving beneficiary of the active employee. An exception is made to law enforcement officers who had sustained catastrophic injuries or death in the line of duty. Premiums for health coverage of their spouses and any dependent children will be paid by the City as prescribed by the Florida Statute Sections 112.19(g) and 112.19(h)1 (first introduced as the Alu-O'Hara Public Safety Act).

DENTAL AND VISION PLANS

Dental and Vision benefits for retirees and their dependents are fully paid by the retiree, as they are for employees and their dependents. Consequently, these benefits are not considered as other post-employment benefits for the purposes of GASB Statement No. 75.

LIFE INSURANCE

After retirement, retirees may also continue their participation in the Employer-sponsored life insurance policy. The face amount upon retirement is \$20,000. The benefit is reduced by 50% of that value to \$10,000 when the retiree attains the age of 70. Retirees are required to pay the premium based at the rate of \$1.31 per \$1,000 of the face value regardless of age.

COBRA BENEFITS

Former employees, retirees and dependents may be eligible for extended benefits under COBRA, regardless of the terms of the employer's other post-employment benefits. COBRA benefits are not considered as other post-employment benefits for the purposes of GASB Statement No. 74 and 75.

FUNDING VEHICLE

An OPEB trust was established in June 2017 as a single-employer, defined benefit plan. The City intends to fund the ADC (actuarially determined contribution) each fiscal year.

TERMINATION AND AMENDMENT

The post-employment benefits are extended to retirees and continued at the discretion of the Employer, which reserves the right (subject to State Statute and any collective bargaining agreements) to change or terminate benefits and to change premium contributions required from retirees in the future as circumstances change.

SIGNIFICANT CHANGES SINCE OCTOBER 1, 2018

There have been no significant changes (other than premium rate increases) in any health benefits or life insurance benefits since October 1, 2018.

SECTION F

SUMMARY OF TRUST ASSETS

Summary of Trust Assets

The City of Vero Beach established a qualifying trust (the OPEB Trust). As assets accumulate in the Trust, it will help pay for the benefits provided to the current and future retirees. The following table summarizes Trust fund assets allocation and activity:

Statement of Assets at September 30, 2018		
Asset Category	Market Value	% of Assets
<u>Cash and Cash Equivalents</u>	\$ -	0.00 %
<u>Short-Term Portion</u>		
Fidelity Treasury Money Market	\$ -	0.00
<u>Long-Term Portion</u>		
Mutual Funds	1,949,352	100.00
Total Market Value	\$ 1,949,352	100.00 %
Accounts Payable	\$ -	
<u>Benefits Payable</u>	\$ -	
Net Assets	\$ 1,949,352	

Fund Activities for the Year Ending September 30, 2018	
Net Assets as of October 1, 2017	\$ 989,672
Funding Contributions	2,056,291
Asset Earnings	89,274
Disbursements (Reimbursements)	(1,185,885)
Net Assets as of September 30, 2018	\$ 1,949,352