

CITY OF PUNTA GORDA  
GENERAL EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2019

CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2021

GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2019



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

December 18, 2019

Board of Trustees  
City of Punta Gorda  
General Employees' Retirement System

Re: City of Punta Gorda General Employees' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Punta Gorda General Employees' Retirement System. Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapter 112, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuations, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuations, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Punta Gorda, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2018. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2019 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.


The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.


To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Punta Gorda, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the General Employees Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By:   
Patrick T. Donlan, ASA, EA, MAAA  
Enrolled Actuary #17-6595

  
Sara E. Carlson, ASA, EA, MAAA  
Enrolled Actuary #17-8546

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Punta Gorda General Employees' Retirement System, performed as of October 1, 2019, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2021. Funding requirements assume a lump sum City deposit on October 1, 2020.

The contribution requirements, compared with those set forth in the October 1, 2018 actuarial valuation report, are as follows:

Valuation Date	10/1/2019	10/1/2018
Applicable to Fiscal Year Ending	<u>9/30/2021</u>	<u>9/30/2020</u>
Minimum Required Contribution	\$1,701,258	\$2,041,170
Member Contributions (Est.)	341,493	360,400
City Required Contribution	\$1,359,765	\$1,680,770

As you can see, the Minimum Required Contribution shows a decrease when compared to the results determined in the October 1, 2018 actuarial valuation. The decrease is mainly attributable to an amortization charge from 2009 being fully paid off, as well as favorable actuarial experience as described in the following paragraph.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial gain included an investment return of 7.53% (Actuarial Asset Basis) which exceeded the 7.00% assumption, and inactive mortality experience. These gains were partially offset by the effect of unfavorable retirement and turnover experience.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There have been no changes in benefits since the prior valuation.

### Actuarial Assumption/Method Changes

There have been no changes of actuarial assumptions or methods since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2019</u>	<u>10/1/2018</u>
<b>A. Participant Data</b>		
Actives	73	80
Service Retirees	112	109
DROP Retirees	25	27
Beneficiaries	8	6
Disability Retirees	0	0
Terminated Vested	<u>13</u>	<u>12</u>
 Total	 231	 234
 Total Annual Payroll	 \$4,260,727	 \$4,495,443
Payroll Under Assumed Ret. Age	4,215,963	4,449,383
 Annual Rate of Payments to:		
Service Retirees	2,150,924	2,063,550
DROP Retirees	659,636	627,423
Beneficiaries	103,544	43,945
Disability Retirees	0	0
Terminated Vested	221,362	187,004
 <b>B. Assets</b>		
Actuarial Value (AVA) <sup>1</sup>	47,760,711	45,112,863
Market Value (MVA) <sup>1</sup>	47,464,189	46,109,487
 <b>C. Liabilities</b>		
Present Value of Benefits		
Actives		
Retirement Benefits	22,370,175	23,074,965
Disability Benefits	1,789,509	1,909,892
Death Benefits	342,047	361,755
Vested Benefits	963,257	1,006,941
Refund of Contributions	0	0
Service Retirees	22,025,962	21,164,733
DROP Retirees <sup>1</sup>	10,209,462	9,757,011
Beneficiaries	691,000	337,436
Disability Retirees	0	0
Terminated Vested	<u>1,419,021</u>	<u>981,332</u>
 Total	 59,810,433	 58,594,065

C. Liabilities - (Continued)	<u>10/1/2019</u>	<u>10/1/2018</u>
Present Value of Future Salaries	27,972,244	30,366,680
Present Value of Future Member Contributions	2,265,752	2,459,701
Normal Cost (Retirement)	549,972	597,125
Normal Cost (Disability)	70,167	77,039
Normal Cost (Death)	10,887	11,728
Normal Cost (Vesting)	72,791	78,604
Normal Cost (Refunds)	<u>0</u>	<u>0</u>
Total Normal Cost	703,817	764,496
Present Value of Future Normal Costs	4,251,788	4,758,029
Accrued Liability (Retirement)	19,032,348	19,324,756
Accrued Liability (Disability)	1,335,891	1,405,722
Accrued Liability (Death)	272,251	283,818
Accrued Liability (Vesting)	572,710	581,228
Accrued Liability (Refunds)	0	0
Accrued Liability (Inactives) <sup>1</sup>	<u>34,345,445</u>	<u>32,240,512</u>
Total Actuarial Accrued Liability (EAN AL)	55,558,645	53,836,036
Unfunded Actuarial Accrued Liability (UAAL)	7,797,934	8,723,173
Funded Ratio (AVA / EAN AL)	86.0%	83.8%



D. Actuarial Present Value of Accrued Benefits	<u>10/1/2019</u>	<u>10/1/2018</u>
Vested Accrued Benefits		
Inactives <sup>1</sup>	34,345,445	32,240,512
Actives	12,355,833	12,560,102
Member Contributions	<u>3,864,579</u>	<u>3,881,268</u>
Total	50,565,857	48,681,882
Non-vested Accrued Benefits	<u>0</u>	<u>0</u>
Total Present Value Accrued Benefits (PVAB)	50,565,857	48,681,882
Funded Ratio (MVA / PVAB)	93.9%	94.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	1,397,206	
Benefits Paid	(2,822,186)	
Interest	3,308,955	
Other	<u>0</u>	
Total	1,883,975	

Valuation Date	10/1/2019	10/1/2018
Applicable to Fiscal Year Ending	<u>9/30/2021</u>	<u>9/30/2020</u>

E. Pension Cost

Normal Cost <sup>2</sup>	\$703,817	\$764,496
Administrative Expenses <sup>2</sup>	66,402	71,028
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 21 years (as of 10/1/2019) <sup>2</sup>	931,039	1,205,646
Minimum Required Contribution	1,701,258	2,041,170
Expected Member Contributions <sup>2</sup>	341,493	360,400
Expected City Contribution	1,359,765	1,680,770

F. Past Contributions

Plan Years Ending:	<u>9/30/2019</u>
City Requirement	1,658,215
Actual Contributions Made:	
Members (excluding buyback)	352,687
City	<u>1,759,599</u>
Total	2,112,286

G. Net Actuarial (Gain)/Loss (158,987)

<sup>1</sup> The asset values and liabilities include accumulated DROP Plan Balances as of 9/30/2019 and 9/30/2018.

<sup>2</sup> Contributions developed as of 10/1/2019 displayed above have been adjusted to account for assumed salary increase components.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2019	7,797,934
2020	7,347,578
2021	6,910,548
2026	5,092,584
2031	1,899,395
2035	509,879
2040	0

I. (i) 5 Year Comparison of Actual and Assumed Salary Increases

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2019	4.39%	4.00%
Year Ended 9/30/2018	3.99%	4.00%
Year Ended 9/30/2017	4.53%	4.01%
Year Ended 9/30/2016	5.39%	5.00%
Year Ended 9/30/2015	2.38%	5.00%

(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value


	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2019	4.47%	7.53%	7.00%
Year Ended 9/30/2018	8.24%	6.51%	7.25%
Year Ended 9/30/2017	10.41%	6.77%	7.50%
Year Ended 9/30/2016	7.07%	7.55%	7.50%
Year Ended 9/30/2015	0.56%	10.51%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2019	\$4,215,963
	10/1/2009	8,793,008
(b) Total Increase		-52.05%
(c) Number of Years		10.00
(d) Average Annual Rate		-7.09%

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.



Patrick T. Donlan, EA, ASA, MAAA  
Enrolled Actuary #17-6595

Please let us know when the report is approved by the Board and unless otherwise directed we will provide a copy of the report to the following office to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman  
Bureau of Local  
Retirement Systems  
Post Office Box 9000  
Tallahassee, FL 32315-9000

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2018	\$8,723,173
(2) Sponsor Normal Cost developed as of October 1, 2018	404,096
(3) Expected administrative expenses for the year ended September 30, 2019	71,028
(4) Expected interest on (1), (2) and (3)	641,395
(5) Sponsor contributions to the System during the year ended September 30, 2019	1,759,599
(6) Expected interest on (5)	123,172
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2019 (1)+(2)+(3)+(4)-(5)-(6)	7,956,921
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	(158,987)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2019	7,797,934

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2019 Amount</u>	<u>Amortization Amount</u>
	10/1/1994	5	(57,316)	(13,064)
	10/1/1995	6	(42,277)	(8,287)
	10/1/1999	10	878,423	116,559
	10/1/2001	12	1,156,504	135,505
	10/1/2002	13	1,586,388	176,517
	10/1/2003	14	156,196	16,597
	10/1/2003	14	57,556	6,116
	10/1/2004	15	568,128	57,925
	10/1/2005	16	256,686	25,215
	10/1/2006	17	(935,195)	(88,828)
Actuarial Gain	10/1/2007	18	(199,709)	(18,399)
Benefit Change	10/1/2007	18	(144,201)	(13,285)
Method Change	10/1/2008	9	(17,446)	(2,497)
Assum Changes	10/1/2008	19	21,351	1,913
Assum Changes	10/1/2009	10	124,855	16,567
Actuarial Loss	10/1/2010	1	41,919	41,919
Benefit Change	10/1/2010	21	(27,518)	(2,349)
Actuarial Loss	10/1/2011	2	405,629	209,673

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2019 <u>Amount</u>	Amortization <u>Amount</u>
Actuarial Loss	10/1/2012	3	105,646	37,623
Assum Changes	10/1/2012	13	464,685	51,705
Actuarial Gain	10/1/2013	4	(82,560)	(22,779)
Assum Changes	10/1/2013	14	(142,157)	(15,105)
Actuarial Gain	10/1/2014	5	(478,815)	(109,139)
Actuarial Gain	10/1/2015	6	(938,997)	(184,050)
Assum Changes	10/1/2015	16	464,696	45,649
Actuarial Loss	10/1/2016	7	167,255	28,980
Assum Changes	10/1/2016	17	1,329,468	126,277
Actuarial Loss	10/1/2017	8	162,897	25,459
Assum Changes	10/1/2017	18	1,221,409	112,525
Actuarial Loss	10/1/2018	9	581,221	83,199
Assum Changes	10/1/2018	19	1,272,200	113,994
Actuarial Gain	10/1/2019	10	<u>(158,987)</u>	<u>(21,096)</u>
			7,797,934	931,039

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2018	\$8,723,173
(2) Expected UAAL as of October 1, 2019	7,956,921
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(237,067)
Salary Increases	11,620
Active Decrements	136,689
Inactive Mortality	(60,013)
Other	<u>(10,216)</u>
Increase in UAAL due to (Gain)/Loss	(158,987)
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2019	\$7,797,934

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

*Healthy Active Lives:*

**Female:** RP2000 Generational, 100% White Collar, Scale BB

**Male:** RP2000 Generational, 50% White Collar / 50% Blue Collar, Scale BB

*Healthy Inactive Lives:*

**Female:** RP2000 Generational, 100% Annuitant White Collar, Scale BB

**Male:** RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB

*Disabled Lives:*

**Female:** 100% RP2000 Disabled Female set forward two years

**Male:** 100% RP2000 Disabled Male setback four years

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2018 FRS actuarial valuation report for non-special risk lives. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate

7.00% net-of-fees through 2023, and 6.75% thereafter. This is supported by the target asset allocation of the trust and the expected long-term return by asset class and contemplates a change in the asset allocation after 2023.

Salary Increases

Salary Scale	
Service	Rate
0 - 1	6.00%
2	5.50%
3 - 4	4.50%
5+	4.00%

Final salary in year of retirement is increased to account for additional non-regular compensation (determined individually). This assumption was adopted based on results of the June 9, 2014 experience study.



Payroll Growth

0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Administrative Expenses

\$66,402 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Retirement Age

% Retiring During the Year	
Age	Rate
55 - 56	10.0%
57 - 59	2.5%
60	50.0%
61 - 64	25.0%
65+	100.0%

These rates were adopted based on the June 9, 2014 experience study.

Termination Rates

% Terminating During the Year	
Service	Rate
0	18.0%
1	10.0%
2	9.0%
3	8.0%
4	7.0%
5 - 9	3.0%
10 - 14	3.0%
15 - 19	2.0%
20+	1.0%

These rates were adopted based on the June 9, 2014 experience study.

Disability Rates

See Table below for sample rates (assumes none are Line-Of-Duty).

% Becoming Disabled During the Year	
Age	Rate
20	0.14%
30	0.18%
40	0.30%
50	1.00%
60	0.00%

Funding Method

Entry Age Normal Actuarial Cost Method.

Asset Valuation Method

Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

Amortization Method

New UAAL amortization bases are established according to the following amortization periods:

Experience: 10 Years.

Assumption/Method Changes: 20 Years.

Benefit Changes: 30 Years.

## GLOSSARY

Total Annual Payroll is the annual rate of pay for the fiscal year following the valuation date of all covered Members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

## DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

## Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 59.0% on October 1, 2016 to 46.2% on October 1, 2019, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 61.8%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has stayed approximately the same from October 1, 2016 to October 1, 2019.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from 0.7% on October 1, 2016 to -1.5% on October 1, 2019. The current Net Cash Flow Ratio of -1.5% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Support Ratio</u>				
Total Actives	92	87	80	73
Total Inactives <sup>1</sup>	156	149	154	158
Actives / Inactives <sup>1</sup>	59.0%	58.4%	51.9%	46.2%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	39,999,643	43,771,446	46,109,487	47,464,189
Total Annual Payroll	4,719,473	4,682,138	4,495,443	4,260,727
MVA / Total Annual Payroll	847.5%	934.9%	1,025.7%	1,114.0%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	30,469,510	31,005,161	32,240,512	34,345,445
Total Accrued Liability (EAN)	48,152,426	51,166,658	53,836,036	55,558,645
Inactive AL / Total AL	63.3%	60.6%	59.9%	61.8%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	41,229,592	43,617,321	45,112,863	47,760,711
Total Accrued Liability (EAN)	48,152,426	51,166,658	53,836,036	55,558,645
AVA / Total Accrued Liability (EAN)	85.6%	85.2%	83.8%	86.0%
<u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>2</sup>	271,134	(463,665)	(1,299,735)	(720,288)
Market Value of Assets (MVA)	39,999,643	43,771,446	46,109,487	47,464,189
Ratio	0.7%	-1.1%	-2.8%	-1.5%

<sup>1</sup> Excludes terminated participants awaiting a refund of member contributions.

<sup>2</sup> Determined as total contributions minus benefit payments and administrative expenses.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2019

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	253,830.89	253,830.89
Total Cash and Equivalents	253,830.89	253,830.89
Receivables:		
Investment Income	126,638.95	126,638.95
Total Receivable	126,638.95	126,638.95
Investments:		
U. S. Bonds and Bills	4,841,985.19	5,258,146.00
Federal Agency Guaranteed Securities	334,148.53	323,201.09
Corporate Bonds	8,408,696.60	8,492,414.35
Stocks	808,389.49	2,462,307.01
Mutual Funds:		
Fixed Income	4,333,683.20	4,301,500.93
Equity	18,610,866.20	21,447,128.12
Pooled/Common/Commingled Funds:		
Real Estate	3,691,426.80	4,830,863.74
Total Investments	41,029,196.01	47,115,561.24
Total Assets	41,409,665.85	47,496,031.08
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	27,955.20	27,955.20
Administrative Expenses	3,886.70	3,886.70
Total Liabilities	31,841.90	31,841.90
NET POSITION RESTRICTED FOR PENSIONS	41,377,823.95	47,464,189.18

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2019  
Market Value Basis

ADDITIONS

Contributions:		
Member		352,687.23
Buy-Back		51,388.00
City		1,759,599.00
Total Contributions		2,163,674.23
Investment Income:		
Net Realized Gain (Loss)	504,924.19	
Unrealized Gain (Loss)	223,595.98	
Net Increase in Fair Value of Investments		728,520.17
Interest & Dividends		1,461,894.03
Less Investment Expense <sup>1</sup>		(115,423.99)
Net Investment Income		2,074,990.21
Total Additions		4,238,664.44

DEDUCTIONS

Distributions to Members:		
Benefit Payments		2,182,438.30
Lump Sum DROP Distributions		639,747.74
Refunds of Member Contributions		0.00
Total Distributions		2,822,186.04
Administrative Expense		61,775.97
Total Deductions		2,883,962.01
Net Increase in Net Position		1,354,702.43
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		46,109,486.75
End of the Year		47,464,189.18

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.



ACTUARIAL ASSET VALUATION  
SEPTEMBER 30, 2019

Actuarial Assets for funding purposes are developed by increasing the Actuarial Assets used in the most recent actuarial valuation of the Fund by the average annual market value rate of return (net of investment related expenses) for the past four years. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Details of the derivation are set forth as follows:

Plan Year End	Rate of Return <sup>1</sup>	
09/30/2016	7.07%	
09/30/2017	10.41%	
09/30/2018	8.24%	
09/30/2019	4.47%	
Annualized Rate of Return for prior four (4) years:		7.53%
(A) 10/01/2018 Actuarial Assets:		\$45,112,863.48
(I) Net Investment Income:		
1. Interest and Dividends	1,461,894.03	
2. Realized Gains (Losses)	504,924.19	
3. Unrealized Gains (Losses)	223,595.98	
4. Change in Actuarial Value	1,293,144.62	
5. Investment Related Expenses	(115,423.99)	
Total		3,368,134.83
(B) 10/01/2019 Actuarial Assets:		\$47,760,710.53
Actuarial Asset Rate of Return = 2I/(A+B-I):		7.53%
10/01/2019 Limited Actuarial Assets:		\$47,760,710.53
10/01/2019 Market Value of Assets:		\$47,464,189.18
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		\$237,066.59

<sup>1</sup>Market Value Basis, net of investment related expenses.

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2019  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	352,687.23	
Buy-Back	51,388.00	
City	1,759,599.00	
<b>Total Contributions</b>		<b>2,163,674.23</b>
Earnings from Investments:		
Interest & Dividends	1,461,894.03	
Net Realized Gain (Loss)	504,924.19	
Unrealized Gain (Loss)	223,595.98	
Change in Actuarial Value	1,293,144.62	
<b>Total Earnings and Investment Gains</b>		<b>3,483,558.82</b>

EXPENDITURES

Distributions to Members:		
Benefit Payments	2,182,438.30	
Lump Sum DROP Distributions	639,747.74	
Refunds of Member Contributions	0.00	
<b>Total Distributions</b>		<b>2,822,186.04</b>
Expenses:		
Investment related <sup>1</sup>	115,423.99	
Administrative	61,775.97	
<b>Total Expenses</b>		<b>177,199.96</b>
<b>Change in Net Assets for the Year</b>		<b>2,647,847.05</b>
<b>Net Assets Beginning of the Year</b>		<b>45,112,863.48</b>
<b>Net Assets End of the Year<sup>2</sup></b>		<b>47,760,710.53</b>

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

<sup>2</sup>Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2018 to September 30, 2019

Beginning of the Year Balance	2,230,550.70
Plus Additions	633,538.72
Investment Return Earned	128,606.08
Less Distributions	(639,747.74)
End of the Year Balance	2,352,947.76

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2019

(1) Required City Contributions	\$1,658,215.00
(2) Less 2018 Prepaid Contribution	0.00
(3) Less Actual City Contributions	<u>(1,759,599.00)</u>
(4) City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2019	(\$101,384.00)

STATISTICAL DATA

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Actives</u>				
Number	92	87	80	73
Average Current Age	50.7	51.9	52.3	52.6
Average Age at Employment	36.5	36.4	35.6	35.2
Average Past Service	14.2	15.5	16.7	17.4
Average Annual Salary	\$51,299	\$53,818	\$56,193	\$58,366
<u>Service Retirees</u>				
Number		93	109	112
Average Current Age		72.0	71.7	71.8
Average Annual Benefit		\$18,818	\$18,932	\$19,205
<u>DROP Retirees</u>				
Number		34	27	25
Average Current Age		63.5	63.7	63.9
Average Annual Benefit		\$23,249	\$23,238	\$26,385
<u>Beneficiaries</u>				
Number		8	6	8
Average Current Age		74.9	74.4	73.8
Average Annual Benefit		\$6,323	\$7,324	\$12,943
<u>Disability Retirees</u>				
Number		0	0	0
Average Current Age		N/A	N/A	N/A
Average Annual Benefit		N/A	N/A	N/A
<u>Terminated Vested</u>				
Number		15	12	13
Average Current Age <sup>1</sup>		46.0	44.4	46.4
Average Annual Benefit <sup>2</sup>		\$14,061	\$15,584	\$17,028

<sup>1</sup> Effective 10/1/2018, the Average Current Age excludes participants awaiting a refund of contributions.

<sup>2</sup> The Average Annual Benefit excludes participants awaiting a refund of contributions.

## AGE AND SERVICE DISTRIBUTION

### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0	0	0
30 - 34	0	0	0	0	0	0	1	0	0	0	0	1
35 - 39	0	0	0	0	0	1	4	0	0	0	0	5
40 - 44	0	0	0	0	0	1	2	1	0	0	0	4
45 - 49	0	0	0	0	0	1	1	5	0	1	0	8
50 - 54	0	0	0	0	0	1	2	9	6	5	0	23
55 - 59	0	0	0	0	0	2	6	6	3	4	0	21
60 - 64	0	0	0	0	0	1	4	3	2	0	0	10
65+	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	7	20	25	11	10	0	73

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2018	80
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution received	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(2)
f. DROP	<u>(4)</u>
g. Continuing participants	73
h. New entrants	<u>0</u>
i. Total active life participants in valuation	73

### 2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	109	27	6	0	12	0	154
Retired	8	(6)	0	0	0	0	2
DROP	0	4	0	0	0	0	4
Vested (Deferred Annuity)	0	0	0	0	1	0	1
Vested (Due Refund)	0	0	0	0	0	0	0
Hired/Terminated in Same Year	0	0	0	0	0	0	0
Death, With Survivor	(2)	0	2	0	0	0	0
Death, No Survivor	(3)	0	0	0	0	0	(3)
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	112	25	8	0	13	0	158

SUMMARY OF CURRENT PLAN  
(THROUGH ORDINANCE 1922-19)

MEMBERSHIP	The plan is closed as of July 27, 2011.
CREDITED SERVICE	If employee enters the plan when first eligible, then total number of years and fractional parts of years of service as a full-time General Employee; otherwise, years and fractional parts of years of contributing service.
AVERAGE FINAL COMPENSATION	Average monthly salary paid during the five (5) highest years of Credited Service. Salary is defined as total cash remuneration paid to the Employee, reportable on form W-2, plus all tax deferred, tax sheltered and tax exempt items of income. For Credited Service on and after July 1, 2011, Salary includes up to 300 hours of overtime per year and balances of escrowed sick leave and includes unused vacation accrued prior to July 1, 2011 and not used prior to termination.
NORMAL RETIREMENT	
Eligibility	Age 60 and 5 years of Credited Service.
Benefit Amount	3.00% of Average Final Compensation times Credited Service.
Form of Benefit	10 year certain and life thereafter.
EARLY RETIREMENT	
Eligibility	Age 55 and 5 years of Credited Service.
Benefit Amount	Accrued benefit, deferred to age 60 or payable immediately and reduced 1/15th per year prior to Age 60.
DISABILITY	
Eligibility	Totally and permanently disabled, as determined by the Board. Members are covered after ten (10) years of Credited Service.
Benefit Amount	3.00% of Average Final Compensation times Credited Service, but not less than 60% of Average Final Compensation for service related disabilities. Benefits are payable for life.



## PRE-RETIREMENT DEATH

Less than 10 years of  
Credited Service

Prior to eligibility for Early or Normal Retirement, refund of Member Contributions. After becoming eligible for Retirement, Accrued benefit, payable for 10 years.

At least 10 years of  
Credited Service

Beneficiary receives the accrued benefit payable for 10 years when the Member would have been eligible for Normal or Early (reduced) Retirement.

## VESTING (TERMINATION)

Less than 5 years of  
Credited Service

Refund of Member Contributions.

5 years or more

Accrued benefit payable at age 60, or reduced benefit payable at age 55,  
or  
Refund of Member Contributions.

## CONTRIBUTIONS

Employee

8.10% of total pay. When a Member's accrued benefit is 100% of AFC, the Member may elect to continue making Member contributions and accrue a higher AFC or to discontinue Member contributions and freeze his benefit.

City

Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided in Part VII of Chapter 112, Florida Statutes. The City Contribution cannot be less than 12% of payroll.

## BOARD OF TRUSTEES

- a) Two City Council appointees,
- b) Two Members of the System elected by a majority of the other covered General Employees, and
- c) A fifth Member elected by the other 4 and appointed by Council.

## DEFERRED RETIREMENT OPTION PLAN

Eligibility	Satisfaction of Normal or Early Retirement requirements.
Participation	Not to exceed 84 months.
Rate of Return	At Member's election:  a) Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter, or  b) 6.50% per annum compounded monthly.  Members may elect to change form of return one time.
Form of Distribution	Cash lump sum (options available) at termination of employment.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2019

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	253,831
Total Cash and Equivalents	253,831
Receivables:	
Investment Income	126,639
Total Receivable	126,639
Investments:	
U. S. Bonds and Bills	5,258,146
Federal Agency Guaranteed Securities	323,201
Corporate Bonds	8,492,414
Stocks	2,462,307
Mutual Funds:	
Fixed Income	4,301,501
Equity	21,447,128
Pooled/Common/Commingled Funds:	
Real Estate	4,830,864
Total Investments	47,115,561
Total Assets	47,496,031
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	27,955
Administrative Expenses	3,887
Total Liabilities	31,842
NET POSITION RESTRICTED FOR PENSIONS	47,464,189

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2019  
Market Value Basis

ADDITIONS

## Contributions:

Member	352,687	
Buy-Back	51,388	
City	1,759,599	
 Total Contributions		 2,163,674
 Investment Income:		
Net Increase in Fair Value of Investments	728,520	
Interest & Dividends	1,461,894	
Less Investment Expense <sup>1</sup>	(115,424)	
 Net Investment Income		 2,074,990
 Total Additions		 4,238,664

DEDUCTIONS

## Distributions to Members:

Benefit Payments	2,182,438	
Lump Sum DROP Distributions	639,748	
Refunds of Member Contributions	0	
 Total Distributions		 2,822,186
 Administrative Expense		 61,776
 Total Deductions		 2,883,962
 Net Increase in Net Position		 1,354,702
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		46,109,487
 End of the Year		 47,464,189

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

**NOTES TO THE FINANCIAL STATEMENTS**  
(For the Year Ended September 30, 2019)

*Plan Administration*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a) Two City Council appointees,
- b) Two Members of the System elected by a majority of the other covered General Employees, and
- c) A fifth Member elected by the other four and appointed by Council.

The Plan is closed as of July 27, 2011.

*Plan Membership as of October 1, 2018:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	142
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	12
Active Plan Members	80
	234
	234

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Punta Gorda General Employees' Retirement System prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Employee: 8.10% of total pay. When a Member's accrued benefit is 100% of AFC, the Member may elect to continue making Member contributions and accrue a higher AFC or to discontinue Member contributions and freeze his benefit.

City: Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided in Part VII of Chapter 112, Florida Statutes. The City Contribution cannot be less than 12% of payroll.

**Investments**

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2019:

Asset Class	Target Allocation
Domestic Equity	35.00%
International Equity	15.00%
Broad Market Fixed Income	40.00%
Real Estate	10.00%
Total	100.00%

*Concentrations:*

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

*Rate of Return:*

For the year ended September 30, 2019, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 4.47 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Eligibility: Satisfaction of Normal or Early Retirement requirements.

Participation: Not to exceed 84 months.

Rate of Return: At Member's election:

(1) Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter, or

(2) 6.50% per annum compounded monthly.

Members may elect to change form of return one time.

The DROP balance as September 30, 2019 is \$2,352,948.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2019 were as follows:

Total Pension Liability	\$ 55,015,097
Plan Fiduciary Net Position	<u>\$ (47,464,189)</u>
Sponsor's Net Pension Liability	<u>\$ 7,550,908</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	86.27%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.00%
Investment Rate of Return	7.00%

*Mortality Rate Healthy Active Lives:*

Female: RP2000 Generational, 100% White Collar, Scale BB.  
 Male: RP2000 Generational, 50% White Collar / 50% Blue Collar, Scale BB.

*Mortality Rate Healthy Inactive Lives:* □

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.  
 Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

*Mortality Rate Disabled Lives:*

Female: 100% RP2000 Disabled Female set forward two years.  
 Male: 100% RP2000 Disabled Male setback four years.

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2016 FRS actuarial valuation report for non-special risk lives. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated June 9, 2014.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2019 the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	7.50%
International Equity	8.50%
Broad Market Fixed Income	2.50%
Real Estate	4.50%

## GASB 67

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.00 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease	Current Discount Rate	1% Increase
	6.00%	7.00%	8.00%
Sponsor's Net Pension Liability	\$ 13,318,265	\$ 7,550,908	\$ 2,658,384

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	819,179	810,496	779,310
Interest	3,667,114	3,612,714	3,518,739
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	320,344	(129,908)	257,764
Changes of assumptions	-	1,269,378	1,280,668
Contributions - Buy Back	51,388	120,000	30,496
Benefit Payments, including Refunds of Employee Contributions	(2,822,186)	(3,446,926)	(2,521,363)
Net Change in Total Pension Liability	2,035,839	2,235,754	3,345,614
Total Pension Liability - Beginning	52,979,258	50,743,504	47,397,890
Total Pension Liability - Ending (a)	<u>\$ 55,015,097</u>	<u>\$ 52,979,258</u>	<u>\$ 50,743,504</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,759,599	1,733,431	1,712,254
Contributions - Employee	352,687	364,789	375,985
Contributions - Buy Back	51,388	120,000	30,496
Net Investment Income	2,074,990	3,637,775	4,235,468
Benefit Payments, including Refunds of Employee Contributions	(2,822,186)	(3,446,926)	(2,521,363)
Administrative Expense	(61,776)	(71,028)	(61,037)
Net Change in Plan Fiduciary Net Position	1,354,702	2,338,041	3,771,803
Plan Fiduciary Net Position - Beginning	46,109,487	43,771,446	39,999,643
Plan Fiduciary Net Position - Ending (b)	<u>\$ 47,464,189</u>	<u>\$ 46,109,487</u>	<u>\$ 43,771,446</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 7,550,908</u>	<u>\$ 6,869,771</u>	<u>\$ 6,972,058</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.27%	87.03%	86.26%
Covered Payroll <sup>1</sup>	\$ 4,350,981	\$ 4,503,565	\$ 4,641,783
Net Pension Liability as a percentage of Covered Payroll	173.54%	152.54%	150.20%

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

*Changes of assumptions:*

For measurement date 09/30/2018, amounts reported as changes of assumptions resulted from lowering the investment rate of return from 7.25% to 7.00%.

For measurement date 09/30/2017, as required by Chapter 2015-157, Laws of Florida, the assumed rates of mortality have been changed from those in the July 1, 2015 FRS valuation report to those used in the July 1, 2016 FRS valuation report. Additionally, the interest rate assumption was changed from 7.50% net of fees through 2023 and 7.25% thereafter to 7.25% net of fees through 2023 and 7.00% thereafter.



SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	824,917	936,664	1,073,877
Interest	3,370,301	3,249,754	3,082,449
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(602,266)	(688,753)	-
Changes of assumptions	2,014,707	-	-
Contributions - Buy Back	-	15,736	-
Benefit Payments, including Refunds of Employee Contributions	(1,745,206)	(1,947,218)	(1,773,467)
Net Change in Total Pension Liability	3,862,453	1,566,183	2,382,859
Total Pension Liability - Beginning	43,535,437	41,969,254	39,586,395
Total Pension Liability - Ending (a)	<u>\$ 47,397,890</u>	<u>\$ 43,535,437</u>	<u>\$ 41,969,254</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,675,103	1,891,929	1,956,900
Contributions - Employee	412,586	429,302	478,707
Contributions - Buy Back	-	15,736	-
Net Investment Income	2,683,966	209,246	3,082,886
Benefit Payments, including Refunds of Employee Contributions	(1,745,206)	(1,947,218)	(1,773,467)
Administrative Expense	(71,349)	(42,525)	(32,788)
Net Change in Plan Fiduciary Net Position	2,955,100	556,470	3,712,238
Plan Fiduciary Net Position - Beginning	37,044,543	36,488,073	32,775,835
Plan Fiduciary Net Position - Ending (b)	<u>\$ 39,999,643</u>	<u>\$ 37,044,543</u>	<u>\$ 36,488,073</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 7,398,247</u>	<u>\$ 6,490,894</u>	<u>\$ 5,481,182</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	84.39%	85.09%	86.94%
Covered Payroll <sup>1</sup>	\$ 5,093,648	\$ 6,865,470	\$ 5,909,963
Net Pension Liability as a percentage of Covered Payroll	145.24%	94.54%	92.74%

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

*Changes of assumptions:*

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System.

The inflation assumption rate was lowered from 3.00% to 2.50%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

The interest rate assumption was changed from 7.75% net of fees through 2023 and 7.25% thereafter to 7.50% net of fees through 2023 and 7.25% thereafter.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll <sup>1</sup>	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 1,658,215	\$ 1,759,599	\$ (101,384)	\$ 4,350,981	40.44%
09/30/2018	\$ 1,569,292	\$ 1,733,431	\$ (164,139)	\$ 4,503,565	38.49%
09/30/2017	\$ 1,452,020	\$ 1,712,254	\$ (260,234)	\$ 4,641,783	36.89%
09/30/2016	\$ 1,674,763	\$ 1,675,103	\$ (340)	\$ 5,093,648	32.89%
09/30/2015	\$ 1,886,773	\$ 1,891,929	\$ (5,156)	\$ 6,865,470	27.56%
09/30/2014	\$ 1,678,429	\$ 1,956,900	\$ (278,471)	\$ 5,909,963	33.11%

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date: 10/01/2017  
Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Mortality Rates: *Healthy Inactive Lives:*  
Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.  
Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.  
*Healthy Active Lives:*  
Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.  
Male: RP2000 Generational, 50% Combined Healthy White Collar / 50% Combined Healthy Blue Collar, Scale BB.  
*Disabled Lives:*  
Female: 100% RP2000 Disabled Female set forward two years.  
Male: 100% RP2000 Disabled Male setback four years.  
The above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2016 FRS valuation report. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate: 7.25% net of fees through 2023 and 7.00% thereafter. We believe this assumption is reasonable based on the asset allocation and long term expected returns.

Salary Increases: See the service based table on the following page. Final salary in year of retirement is increased to account for additional non-regular compensation (determined individually). This assumption was adopted based on results of the June 9, 2014 experience study.

Payroll Increase: None.

Funding Method: Entry Age Normal Actuarial Cost Method.

Asset Valuation Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

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Termination Rates: See service based table below. These rates were adopted based on the June 9, 2014 experience study.

Disability Rates: See Table below (assumes none are Line-Of-Duty).

Retirement Age: See Table below. These rates were adopted based on the June 9, 2014 experience study.

Early Retirement: See Table below. These rates were adopted based on the June 9, 2014 experience study.

Decrement Rate Tables:

Age	% Becoming Disabled During the Year	% Retiring During the Year
20	0.14%	
30	0.18%	
40	0.30%	
50	1.00%	
55-56	1.55%	10.0%
57-59	1.95%	2.5%
60	0.00%	50.0%
60-64	0.00%	25.0%
65+	0.00%	100.0%

Service	Expected Salary Increase	Expected Termination Rate
0	6.0%	18.0%
1	5.5%	10.0%
2	4.5%	9.0%
3	4.5%	8.0%
4	4.0%	7.0%
5-9	4.0%	3.0%
10-14	4.0%	2.0%
15-19	4.0%	2.0%
20+	4.0%	1.0%

**SCHEDULE OF INVESTMENT RETURNS**  
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2019	4.47%
09/30/2018	8.24%
09/30/2017	10.41%
09/30/2016	7.07%
09/30/2015	0.56%
09/30/2014	9.33%

**NOTES TO THE FINANCIAL STATEMENTS**  
(For the Year Ended September 30, 2019)

General Information about the Pension Plan

*Plan Description*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a) Two City Council appointees,
- b) Two Members of the System elected by a majority of the other covered General Employees, and
- c) A fifth Member elected by the other four and appointed by Council.

The Plan is closed as of July 27, 2011.

*Plan Membership as of October 1, 2018:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	142
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	12
Active Plan Members	80
	234

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Punta Gorda General Employees' Retirement System prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Employee: 8.10% of total pay. When a Member's accrued benefit is 100% of AFC, the Member may elect to continue making Member contributions and accrue a higher AFC or to discontinue Member contributions and freeze his benefit.

City: Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided in Part VII of Chapter 112, Florida Statutes. The City Contribution cannot be less than 12% of payroll.

Net Pension Liability

The measurement date is September 30, 2019.

The measurement period for the pension expense was October 1, 2018 to September 30, 2019.

The reporting period is October 1, 2018 through September 30, 2019.

The Sponsor's Net Pension Liability was measured as of September 30, 2019.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.00%
Investment Rate of Return	7.00%

*Mortality Rate Healthy Active Lives:*

Female: RP2000 Generational, 100% White Collar, Scale BB.

Male: RP2000 Generational, 50% White Collar / 50% Blue Collar, Scale BB.

*Mortality Rate Healthy Inactive Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

*Mortality Rate Disabled Lives:*

Female: 100% RP2000 Disabled Female set forward two years.

Male: 100% RP2000 Disabled Male setback four years.

The assumed rates of mortality are mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2016 FRS actuarial valuation report for non-special risk lives. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated June 9, 2014.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, Net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2019 the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	35.00%	7.50%
International Equity	15.00%	8.50%
Broad Market Fixed Income	40.00%	2.50%
Real Estate	10.00%	4.50%
<b>Total</b>	<b>100.00%</b>	

**Discount Rate:**

The Discount Rate used to measure the Total Pension Liability was 7.00 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Balances as of September 30, 2018	\$ 52,979,258	\$ 46,109,487	\$ 6,869,771
Changes for a Year:			
Service Cost	819,179	-	819,179
Interest	3,667,114	-	3,667,114
Differences between Expected and Actual Experience	320,344	-	320,344
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Contributions - Employer	-	1,759,599	(1,759,599)
Contributions - Employee	-	352,687	(352,687)
Contributions - Buy Back	51,388	51,388	-
Net Investment Income	-	2,074,990	(2,074,990)
Benefit Payments, including Refunds of Employee Contributions	(2,822,186)	(2,822,186)	-
Administrative Expense	-	(61,776)	61,776
Net Changes	2,035,839	1,354,702	681,137
Balances as of September 30, 2019	\$ 55,015,097	\$ 47,464,189	\$ 7,550,908

*Sensitivity of the Net Pension Liability to changes in the Discount Rate.*

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.00%	7.00%	8.00%
Sponsor's Net Pension Liability	\$ 13,318,265	\$ 7,550,908	\$ 2,658,384

*Pension Plan Fiduciary Net Position.*

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2019**

For the year ended September 30, 2019, the Sponsor will recognize a Pension Expense of \$2,655,781.

On September 30, 2019, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	278,003	43,303
Changes of assumptions	743,293	-
Net difference between Projected and Actual Earnings on Pension Plan investments	133,443	-
<b>Total</b>	<b>\$ 1,154,739</b>	<b>\$ 43,303</b>

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:			
2020	\$	783,336	
2021	\$	(20,594)	
2022	\$	123,201	
2023	\$	225,493	
2024	\$	-	
Thereafter	\$	-	



## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	819,179	810,496	779,310
Interest	3,667,114	3,612,714	3,518,739
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	320,344	(129,908)	257,764
Changes of assumptions	-	1,269,378	1,280,668
Contributions - Buy Back	51,388	120,000	30,496
Benefit Payments, including Refunds of Employee Contributions	(2,822,186)	(3,446,926)	(2,521,363)
Net Change in Total Pension Liability	2,035,839	2,235,754	3,345,614
Total Pension Liability - Beginning	52,979,258	50,743,504	47,397,890
Total Pension Liability - Ending (a)	\$ 55,015,097	\$ 52,979,258	\$ 50,743,504
Plan Fiduciary Net Position			
Contributions - Employer	1,759,599	1,733,431	1,712,254
Contributions - Employee	352,687	364,789	375,985
Contributions - Buy Back	51,388	120,000	30,496
Net Investment Income	2,074,990	3,637,775	4,235,468
Benefit Payments, including Refunds of Employee Contributions	(2,822,186)	(3,446,926)	(2,521,363)
Administrative Expense	(61,776)	(71,028)	(61,037)
Net Change in Plan Fiduciary Net Position	1,354,702	2,338,041	3,771,803
Plan Fiduciary Net Position - Beginning	46,109,487	43,771,446	39,999,643
Plan Fiduciary Net Position - Ending (b)	\$ 47,464,189	\$ 46,109,487	\$ 43,771,446
Net Pension Liability - Ending (a) - (b)	\$ 7,550,908	\$ 6,869,771	\$ 6,972,058
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.27%	87.03%	86.26%
Covered Payroll <sup>1</sup>	\$ 4,350,981	\$ 4,503,565	\$ 4,641,783
Net Pension Liability as a percentage of Covered Payroll	173.54%	152.54%	150.20%

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

Effective for the City's fiscal year ending 09/30/2017, the GASB 68 measurement date of the Pension Expense has been approved and changed from 09/30/2016 to 09/30/2017.

*Changes of assumptions:*

For measurement date 09/30/2018, amounts reported as changes of assumptions resulted from lowering the investment rate of return from 7.25% to 7.00%.

For measurement date 09/30/2017, as required by Chapter 2015-157, Laws of Florida, the assumed rates of mortality have been changed from those in the July 1, 2015 FRS valuation report to those used in the July 1, 2016 FRS valuation report. Additionally, the interest rate assumption was changed from 7.50% net of fees through 2023 and 7.25% thereafter to 7.25% net of fees through 2023 and 7.00% thereafter.

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	824,917	936,664	1,073,877
Interest	3,370,301	3,249,754	3,082,449
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(602,266)	(688,753)	-
Changes of assumptions	2,014,707	-	-
Contributions - Buy Back	-	15,736	-
Benefit Payments, including Refunds of Employee Contributions	(1,745,206)	(1,947,218)	(1,773,467)
Net Change in Total Pension Liability	3,862,453	1,566,183	2,382,859
Total Pension Liability - Beginning	43,535,437	41,969,254	39,586,395
Total Pension Liability - Ending (a)	\$ 47,397,890	\$ 43,535,437	\$ 41,969,254
Plan Fiduciary Net Position			
Contributions - Employer	1,675,103	1,891,929	1,956,900
Contributions - Employee	412,586	429,302	478,707
Contributions - Buy Back	-	15,736	-
Net Investment Income	2,683,966	209,246	3,082,886
Benefit Payments, including Refunds of Employee Contributions	(1,745,206)	(1,947,218)	(1,773,467)
Administrative Expense	(71,349)	(42,525)	(32,788)
Net Change in Plan Fiduciary Net Position	2,955,100	556,470	3,712,238
Plan Fiduciary Net Position - Beginning	37,044,543	36,488,073	32,775,835
Plan Fiduciary Net Position - Ending (b)	\$ 39,999,643	\$ 37,044,543	\$ 36,488,073
Net Pension Liability - Ending (a) - (b)	\$ 7,398,247	\$ 6,490,894	\$ 5,481,182
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	84.39%	85.09%	86.94%
Covered Payroll <sup>1</sup>	\$ 5,093,648	\$ 6,865,470	\$ 5,909,963
Net Pension Liability as a percentage of Covered Payroll	145.24%	94.54%	92.74%

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

*Changes of assumptions:*

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System.

The inflation assumption rate was lowered from 3.00% to 2.50%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

The interest rate assumption was changed from 7.75% net of fees through 2023 and 7.25% thereafter to 7.50% net of fees through 2023 and 7.25% thereafter.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll <sup>1</sup>	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 1,658,215	\$ 1,759,599	\$ (101,384)	\$ 4,350,981	40.44%
09/30/2018	\$ 1,569,292	\$ 1,733,431	\$ (164,139)	\$ 4,503,565	38.49%
09/30/2017	\$ 1,452,020	\$ 1,712,254	\$ (260,234)	\$ 4,641,783	36.89%
09/30/2016	\$ 1,674,763	\$ 1,675,103	\$ (340)	\$ 5,093,648	32.89%
09/30/2015	\$ 1,886,773	\$ 1,891,929	\$ (5,156)	\$ 6,865,470	27.56%
09/30/2014	\$ 1,678,429	\$ 1,956,900	\$ (278,471)	\$ 5,909,963	33.11%

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date: 10/01/2017

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Mortality Rates:

*Healthy Inactive Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

*Healthy Active Lives:*

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

Male: RP2000 Generational, 50% Combined Healthy White Collar / 50% Combined Healthy Blue Collar, Scale BB.

*Disabled Lives:*

Female: 100% RP2000 Disabled Female set forward two years.

Male: 100% RP2000 Disabled Male setback four years.

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida.

This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2016 FRS valuation report. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate: 7.25% net of fees through 2023 and 7.00% thereafter. We believe this assumption is reasonable based on the asset allocation and long term expected returns.

Salary Increases: See the service based table on the following page. Final salary in year of retirement is increased to account for additional non-regular compensation (determined individually). This assumption was adopted based on results of the June 9, 2014 experience study.

Payroll Increase: None.

Funding Method: Entry Age Normal Actuarial Cost Method.

Asset Valuation Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

## GASB 68

Termination Rates: See service based table below. These rates were adopted based on the June 9, 2014 experience study.

Disability Rates: See Table below (assumes none are Line-Of-Duty).

Retirement Age: See Table below. These rates were adopted based on the June 9, 2014 experience study.

Early Retirement: See Table below. These rates were adopted based on the June 9, 2014 experience study.

Decrement Rate Tables:

Age	% Becoming Disabled During the Year	% Retiring During the Year
20	0.14%	
30	0.18%	
40	0.30%	
50	1.00%	
55-56	1.55%	10.0%
57-59	1.95%	2.5%
60	0.00%	50.0%
60-64	0.00%	25.0%
65+	0.00%	100.0%

Service	Expected Salary Increase	Expected Termination Rate
0	6.0%	18.0%
1	5.5%	10.0%
2	4.5%	9.0%
3	4.5%	8.0%
4	4.0%	7.0%
5-9	4.0%	3.0%
10-14	4.0%	2.0%
15-19	4.0%	2.0%
20+	4.0%	1.0%

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

**The following information is not required to be disclosed but is provided for informational purposes.**

**COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2019**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 6,869,771	\$ 1,398,069	\$ 2,724,550	\$ -
Total Pension Liability Factors:				
Service Cost	819,179	-	-	819,179
Interest	3,667,114	-	-	3,667,114
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	51,388	-	-	51,388
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	320,344	-	320,344	-
Current year amortization of experience difference	-	(193,870)	(171,223)	(22,647)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(1,246,970)	1,246,970
Benefit Payments, including Refunds of Employee Contributions	(2,822,186)	-	-	-
Net change	<u>2,035,839</u>	<u>(193,870)</u>	<u>(1,097,849)</u>	<u>5,762,004</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,759,599	-	-	-
Contributions - Employee	352,687	-	-	(352,687)
Contributions - Buy Back	51,388	-	-	(51,388)
Projected Net Investment Income	3,202,454	-	-	(3,202,454)
Difference between projected and actual earnings on Pension Plan investments	(1,127,464)	-	1,127,464	-
Current year amortization	-	(352,868)	(791,398)	438,530
Benefit Payments, including Refunds of Employee Contributions	(2,822,186)	-	-	-
Administrative Expenses	(61,776)	-	-	61,776
Net change	<u>1,354,702</u>	<u>(352,868)</u>	<u>336,066</u>	<u>(3,106,223)</u>
Ending Balance	<u>\$ 7,550,908</u>	<u>\$ 851,331</u>	<u>\$ 1,962,767</u>	<u>\$ 2,655,781</u>

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 1,127,464	5	\$ 225,492	\$ 225,493	\$ 225,493	\$ 225,493	\$ 225,493	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (511,461)	5	\$ (102,292)	\$ (102,292)	\$ (102,292)	\$ (102,292)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (1,252,882)	5	\$ (250,576)	\$ (250,576)	\$ (250,576)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 197,493	5	\$ 39,499	\$ 39,499	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 2,632,035	5	\$ 526,407	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 438,530	\$ (87,876)	\$ (127,375)	\$ 123,201	\$ 225,493	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGE OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2018	\$ 1,269,378	3	\$ 423,126	\$ 423,126	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 1,280,668	4	\$ 320,167	\$ 320,167	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 2,014,707	4	\$ 503,677	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 1,246,970	\$ 743,293	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 320,344	3	\$ 106,782	\$ 106,781	\$ 106,781	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (129,908)	3	\$ (43,303)	\$ (43,303)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 257,764	4	\$ 64,441	\$ 64,441	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (602,266)	4	\$ (150,567)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (22,647)	\$ 127,919	\$ 106,781	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -