

CITY OF PALM BEACH GARDENS  
FIREFIGHTERS' PENSION FUND  
ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2022  
CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2024  
GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2022



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

January 19, 2023

Board of Trustees  
City of Palm Beach Gardens  
Firefighters' Pension Board

Re: City of Palm Beach Gardens Firefighters' Pension Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Palm Beach Gardens Firefighters' Pension Fund. 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 Chapters 112 and 175, 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.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. 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 Palm Beach Gardens, 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.

Additionally, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding and accounting rules to generate the results. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

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, 2021. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2022 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 Palm Beach Gardens, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Pension Fund. 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:   
\_\_\_\_\_  
Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #20-7778

By:   
\_\_\_\_\_  
Kevin H. Peng, ASA, EA, MAAA  
Enrolled Actuary #20-7783

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Palm Beach Gardens Firefighters' Pension Fund, performed as of October 1, 2022, 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, 2024.

The contribution requirements, compared with those set forth in the October 1, 2021 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2022 <u>9/30/2024</u>	10/1/2021 <u>9/30/2023</u>
Minimum Required Contribution % of Projected Annual Payroll	65.95%	66.87%
Member Contributions (Est.) % of Projected Annual Payroll	6.00%	6.00%
City And State Required Contribution % of Projected Annual Payroll	59.95%	60.87%
State Contribution (Est.) <sup>1</sup> % of Projected Annual Payroll	\$772,642 8.48%	\$772,642 8.48%
City Required Contribution <sup>2</sup> % of Projected Annual Payroll	51.47%	52.39%

<sup>1</sup> Represents the amount received in calendar 2022. Per a Mutual Consent Agreement between the Membership and the City, the City may use up to \$750,072.76 annually in State Monies to meet the City's required contribution. Excess State Monies are split equally between the City as a funding credit and Membership Share Plan.

<sup>2</sup> The required contribution from the combination of City and State sources for the year ending September 30, 2024, is 59.95% of the actual payroll realized in that year. As a budgeting tool, the City may contribute 51.47% of each Member's Salary and then make a one-time adjustment to account for the actual State Monies received. Please note that a shortfall contribution of \$213,103.38 is due in addition to the above stated requirements for the fiscal year ending September 30, 2023.

As you can see, the Minimum Required Contribution shows a decrease when compared to the results presented in the October 1, 2021 actuarial valuation report. The decrease is attributable to net favorable actuarial experience described in the next paragraph. The decrease was offset in part by a reduction in the investment return assumption from 6.95% to 6.85%.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial gain included interest crediting on DROP and Share Balances and inactive mortality experience. This gain was offset in part by losses associated with an investment return of 3.87% (Actuarial Asset Basis) which fell short of the 6.95% assumption and an average salary increase of 10.97% which exceeded the 4.54% assumption.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

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

### Actuarial Assumption/Method Changes

In conjunction with this valuation of the plan, the net-of-fees investment return assumption has been reduced from 6.95% to 6.85%.

There have been no method changes since the prior valuation.



## CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2021	52.96%
(2) Summary of Contribution Impact by component:	
Change in State Contribution Percentage	-0.57%
Change in Normal Cost Rate	-0.66%
Change in Administrative Expense Percentage	-0.18%
Payroll Change Effect on UAAL Amortization	-1.16%
Investment Return (Actuarial Asset Basis)	4.68%
Salary Increases	2.55%
Active Decrements	-0.12%
Inactive Mortality	-2.06%
UAAL Amortization Impact from Contribution Policy	-1.33%
Assumption Change	2.65%
DROP/ Share Interest Crediting less than the Investment Assumption	-4.91%
Other	<u>-0.38%</u>
Total Change in Contribution	-1.49%
(3) Contribution Determined as of October 1, 2022	51.47%

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2022</u>	Old Assump <u>10/1/2022</u>	<u>10/1/2021</u>
<b>A. Participant Data</b>			
Actives	96	96	99
Service Retirees	55	55	54
DROP Retirees	20	20	14
Beneficiaries	4	4	3
Disability Retirees	4	4	4
Terminated Vested	<u>20</u>	<u>20</u>	<u>15</u>
<b>Total</b>	<b>199</b>	<b>199</b>	<b>189</b>
 Payroll Under Assumed Ret. Age	 9,110,033	 9,110,033	 8,800,527
<b>Annual Rate of Payments to:</b>			
Service Retirees	4,299,457	4,299,457	4,236,112
DROP Retirees	1,497,262	1,497,262	1,009,775
Beneficiaries	143,625	143,625	84,065
Disability Retirees	121,705	121,705	121,705
Terminated Vested	119,025	119,025	116,565
 <b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	135,861,578	135,861,578	130,317,081
Market Value (MVA) <sup>1</sup>	120,331,202	120,331,202	140,323,233
 <b>C. Liabilities</b>			
<b>Present Value of Benefits</b>			
<b>Actives</b>			
Retirement Benefits	55,168,613	54,040,413	55,662,506
Disability Benefits	736,820	724,456	682,818
Death Benefits	146,430	144,182	140,275
Vested Benefits	4,191,678	4,087,858	3,855,009
Refund of Contributions	54,847	54,764	54,382
Service Retirees	72,736,393	71,880,370	71,875,337
DROP Retirees <sup>1</sup>	34,346,285	34,022,115	27,175,798
Beneficiaries	1,807,682	1,788,845	989,671
Disability Retirees	1,398,076	1,385,138	1,400,481
Terminated Vested	1,114,304	1,091,467	1,213,759
Share Plan Balances <sup>1</sup>	<u>9,122,280</u>	<u>9,122,280</u>	<u>10,938,523</u>
 <b>Total</b>	 <b>180,823,408</b>	 <b>178,341,888</b>	 <b>173,988,559</b>

C. Liabilities - (Continued)	New Assump <u>10/1/2022</u>	Old Assump <u>10/1/2022</u>	<u>10/1/2021</u>
Present Value of Future Salaries	75,964,636	75,527,274	69,925,339
Present Value of Future Member Contributions	4,557,878	4,531,636	4,195,520
Normal Cost (Retirement)	2,292,768	2,245,788	2,232,078
Normal Cost (Disability)	54,916	54,043	52,622
Normal Cost (Death)	7,700	7,578	7,233
Normal Cost (Vesting)	235,735	229,742	214,543
Normal Cost (Refunds)	14,003	13,981	14,160
Total Normal Cost	<u>2,605,122</u>	<u>2,551,132</u>	<u>2,520,636</u>
Present Value of Future Normal Costs	23,319,359	22,731,902	21,257,542
Accrued Liability (Retirement)	34,187,667	33,584,744	36,468,793
Accrued Liability (Disability)	387,534	382,059	364,583
Accrued Liability (Death)	84,726	83,690	84,057
Accrued Liability (Vesting)	2,289,324	2,239,534	2,191,457
Accrued Liability (Refunds)	29,778	29,744	28,558
Accrued Liability (Inactives) <sup>1</sup>	111,402,740	110,167,935	102,655,046
Share Plan Balances <sup>1</sup>	9,122,280	9,122,280	10,938,523
Total Actuarial Accrued Liability (EAN AL)	<u>157,504,049</u>	<u>155,609,986</u>	<u>152,731,017</u>
Unfunded Actuarial Accrued Liability (UAAL)	21,642,471	19,748,408	22,413,936
Funded Ratio (AVA / EAN AL)	86.3%	87.3%	85.3%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2022</u>	Old Assump <u>10/1/2022</u>	<u>10/1/2021</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	120,525,020	119,290,215	113,593,569
Actives	15,683,647	15,353,114	19,265,401
Member Contributions	<u>4,089,269</u>	<u>4,089,269</u>	<u>4,463,102</u>
Total	140,297,936	138,732,598	137,322,072
Non-vested Accrued Benefits	<u>2,392,753</u>	<u>2,357,432</u>	<u>1,975,060</u>
Total Present Value			
Accrued Benefits (PVAB)	142,690,689	141,090,030	139,297,132
Funded Ratio (MVA / PVAB)	84.3%	85.3%	100.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	1,600,659	0	
Plan Experience	0	(1,592,424)	
Benefits Paid	0	(6,084,396)	
Interest	0	9,469,718	
Other	<u>0</u>	<u>0</u>	
Total	1,600,659	1,792,898	

	New Assump	Old Assump	
Valuation Date	10/1/2022	10/1/2022	10/1/2021
Applicable to Fiscal Year Ending	<u>9/30/2024</u>	<u>9/30/2024</u>	<u>9/30/2023</u>

E. Pension Cost

Normal Cost (with interest) % of Total Annual Payroll <sup>2</sup>	29.58	28.98	29.64
Administrative Expenses (with interest) % of Total Annual Payroll <sup>2</sup>	1.48	1.48	1.66
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 26 years (as of 10/1/2022, with interest) % of Total Annual Payroll <sup>2</sup>	34.89	32.84	35.57
Minimum Required Contribution % of Total Annual Payroll <sup>2</sup>	65.95	63.30	66.87
Expected Member Contributions % of Total Annual Payroll <sup>2</sup>	6.00	6.00	6.00
Expected City and State Contribution % of Total Annual Payroll <sup>2</sup>	59.95	57.30	60.87

F. Past Contributions

Plan Years Ending:	<u>9/30/2022</u>
City and State Requirement	6,103,890
Actual Contributions Made:	
City	5,331,248
State	<u>772,642</u>
Total	6,103,890

G. Net Actuarial (Gain)/Loss (214,575)

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2022 and 9/30/2021.

<sup>2</sup> Contributions developed as of 10/1/2022 are expressed as a percentage of total annual payroll at 10/1/2022 of \$9,110,033.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2022	21,642,471
2023	19,840,925
2024	19,235,229
2030	10,986,559
2036	778,596
2042	5,033
2048	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2022	10.97%	4.54%
Year Ended 9/30/2021	7.92%	4.41%
Year Ended 9/30/2020	8.98%	5.15%
Year Ended 9/30/2019	6.24%	5.18%
Year Ended 9/30/2018	4.78%	5.17%

(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 9/30/2022	-14.40%	3.87%	6.95%
Year Ended 9/30/2021	19.86%	9.64%	7.05%
Year Ended 9/30/2020	5.32%	7.88%	7.15%
Year Ended 9/30/2019	5.39%	8.90%	7.25%
Year Ended 9/30/2018	8.75%	8.27%	7.25%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2022	\$9,110,033
	10/1/2012	8,909,034
(b) Total Increase		2.26%
(c) Number of Years		10.00
(d) Average Annual Rate		0.22%

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.



Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #20-7778

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

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

Mr. Steve Bardin  
Municipal Police and Fire  
Pension Trust Funds  
Division of Retirement  
Post Office Box 3010  
Tallahassee, FL 32315-3010

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2021	\$22,413,936
(2) Sponsor Normal Cost developed as of October 1, 2021	1,992,604
(3) Expected administrative expenses for the year ended September 30, 2022	140,898
(4) Expected interest on (1), (2) and (3)	1,701,151
(5) Sponsor contributions to the System during the year ended September 30, 2022	6,103,890
(6) Expected interest on (5)	181,716
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2022 (1)+(2)+(3)+(4)-(5)-(6)	19,962,983
(8) Change to UAAL due to Assumption Change	1,894,063
(9) Change to UAAL due to Actuarial (Gain)/Loss	(214,575)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2022	21,642,471

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2022 Amount</u>	<u>Amortization Amount</u>
Prior Experience	10/1/1993	1	1,688,467	1,688,467
Benefit Change	10/1/2002	10	1,545,329	204,489
Experience Loss	10/1/2006	11	512,141	63,442
Assum/Method Chg	10/1/2006	11	(1,607,350)	(199,113)
Experience Gain	10/1/2007	11	(215,682)	(26,718)
Experience Loss	10/1/2008	11	1,020,401	126,404
Experience Loss	10/1/2009	11	640,170	79,302
Experience Loss	10/1/2010	11	334,931	41,490
Experience Loss	10/1/2011	11	2,884,116	357,275
Benefit Change	10/1/2011	11	(1,681,733)	(208,328)
Experience Loss	10/1/2012	11	204,198	25,295
Experience Gain	10/1/2013	1	(453,786)	(453,786)
Assumption Change	10/1/2013	11	1,155,770	143,173
Experience Gain	10/1/2014	2	(624,815)	(322,753)
Assumption Change	10/1/2014	12	1,285,892	150,308
Experience Gain	10/1/2015	3	(1,064,757)	(378,677)
Assumption Change	10/1/2015	13	1,510,992	167,765
Experience Loss	10/1/2016	4	1,266,357	348,712
Assumption Changes	10/1/2016	14	4,832,167	512,470
Experience Gain	10/1/2017	5	(347,807)	(79,070)
Assumption Changes	10/1/2017	15	2,399,637	244,246



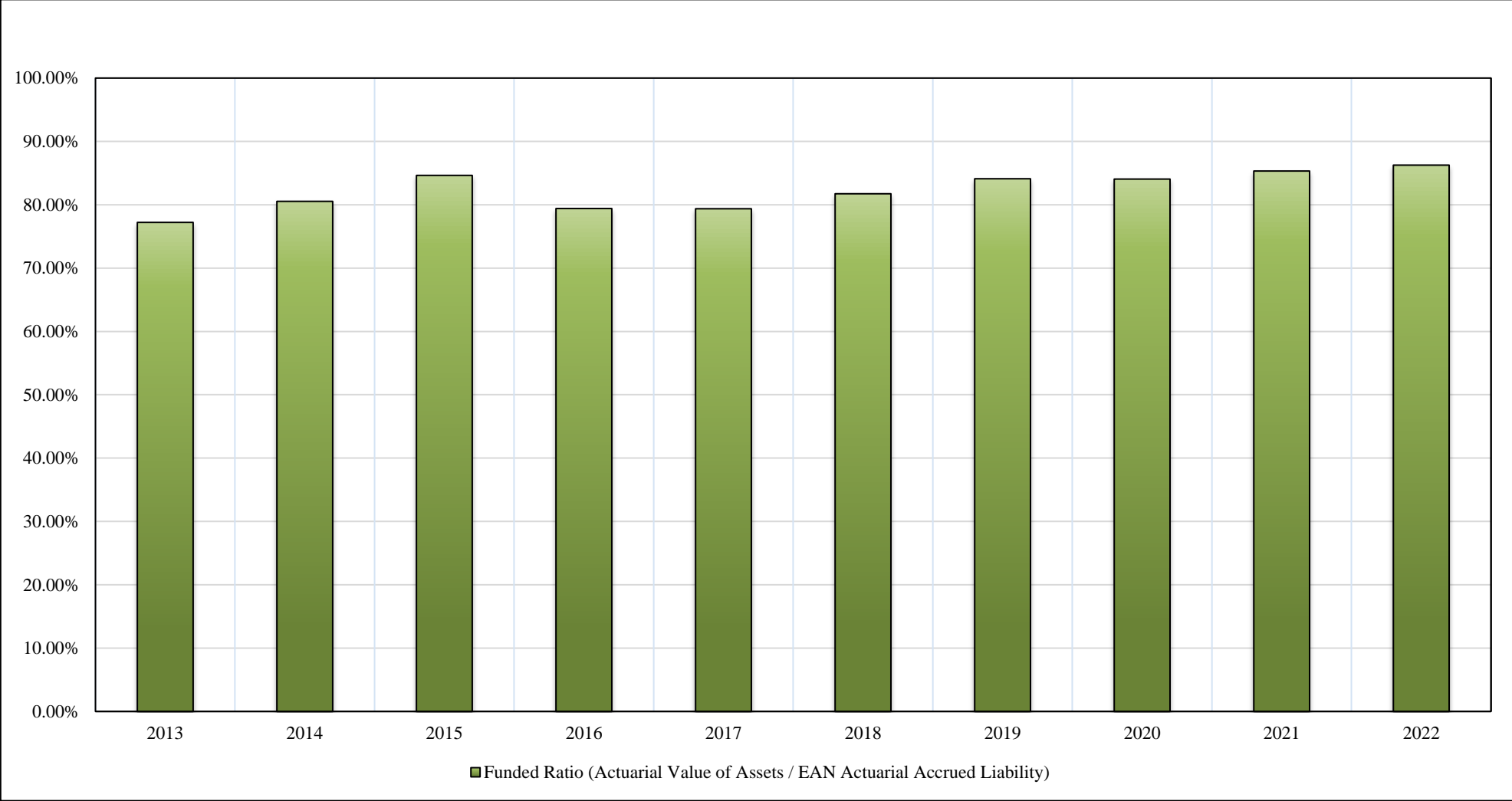
Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2022 <u>Amount</u>	Amortization <u>Amount</u>
Experience Gain	10/1/2018	6	(132,137)	(25,825)
Benefit Change	10/1/2018	26	12,549	979
Actuarial Gain	10/1/2019	7	(983,206)	(169,849)
Assumption Change	10/1/2019	17	1,330,951	126,261
Actuarial Loss	10/1/2020	13	725,951	80,602
Asmp/Mthd Change	10/1/2020	13	2,219,790	246,463
Actuarial Gain	10/1/2021	14	(143,866)	(15,258)
Assumption Change	10/1/2021	14	1,648,313	174,810
Actuarial Gain	10/1/2022	15	(214,575)	(21,840)
Assump Change	10/1/2022	15	1,894,063	192,786
			<u>21,642,471</u>	<u>3,073,522</u>

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2021	\$22,413,936
(2) Expected UAAL as of October 1, 2022	19,962,983
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	4,024,595
Salary Increases	2,196,967
Active Decrements	(102,560)
Inactive Mortality	(1,773,397)
Interest Crediting on Share Plan and DROP Balances <sup>1</sup>	(4,228,192)
Other	<u>(331,988)</u>
Increase in UAAL due to (Gain)/Loss	(214,575)
Assumption Changes	1,894,063
(4) Actual UAAL as of October 1, 2022	\$21,642,471

<sup>1</sup> Crediting of investment earning to DROP and Share Balances that fall below the 6.95% actuarial assumption for investment return.

# HISTORY OF FUNDING PROGRESS



## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

**Female:** PubS.H-2010 for Employees, set forward one year.

**Male:** PubS.H-2010 for Employees, set forward one year.

#### *Healthy Retiree Lives:*

**Female:** PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

**Male:** PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

#### *Beneficiary Lives:*

**Female:** PubG.H-2010 (Above Median) for Healthy Retirees.

**Male:** PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.

#### *Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions 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, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

### Interest Rate

6.85% (prior year 6.95%) per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increases

<u>Service</u>	<u>Increase</u>
<5	5.50%
5+	4.00

This is based on the results of an actuarial experience study dated October 20, 2020.

Final Pay Load

For Members hired prior to October 1, 2011, active Liabilities are increased by 3.00% to account for assumed payments of unused sick and annual leave time. Members hired on and after October 1, 2011 are valued with no final pay load.

Retirement Rates

<u>% Retiring During the Year</u>	
<u>Age</u>	<u>Current Rate</u>
50	10.00%
51	10.00%
52	55.00%
53	10.00%
54	10.00%
55	50.00%
56	50.00%
57	75.00%
58	100.00%

For those Members who attain 25 years of Credited Service, regardless of Age, the probability of retirement is 100%. This is based on the results of an actuarial experience study dated October 20, 2020.

Disability Rates

Sample rates are as follows:

<u>Age</u>	<u>% Become Disabled within Next Year</u>
20	0.0545%
25	0.0545
30	0.0580
35	0.0895
40	0.1210
45	0.2750
50	0.4290

It is assumed that 90% of disablements service related. The assumption was reviewed and left unchanged as part of the October 20, 2020 actuarial experience study.

Termination Rates

% Terminating During the Year

Age	Years of Service	Current Rate
All Ages	0	8.00%
	1	7.00%
	2	6.00%
	3	5.00%
	4	5.00%
	5 & Over	2.00%

The assumed rates were approved in conjunction with an actuarial experience study dated October 20, 2020.

Payroll Growth

None for amortization of the Unfunded Actuarial Accrued Liability.

Administrative Expenses

\$130,185 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

New UAAL amortization bases are amortized over 15 Years.

Bases established prior to the valuation date are adjusted proportionally to match the Expected Unfunded Actuarial Accrued Liability as of the valuation date, in order to align prior year bases with the portion of the current year UAAL associated with prior year sources.

Funding Method

Projected Unit Credit Cost Method. The following loads are applied for determining the minimum required contribution:

Interest - a half year, based on current 6.85% assumption.

Salary - None.

Actuarial Value of Assets

The Actuarial Value of Assets utilizes a four-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased-in over a four-year period.

## GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

Market Value of Assets is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

Normal (Current Year's) Cost is determined for each participant as the present value of the increase in the accrued benefit for the plan year, utilizing projected salary.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

Projected Unit Credit Actuarial Cost Method (Level Percent of Compensation) is the method used to determine required contributions under the Plan. The use of this method involves the systematic funding of the Normal Cost (described above) and the Unfunded Accrued (Past Service) Liability. The actuarial accrued liability is the present value of accrued benefits, utilizing projected salary for active Plan Participants.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the actuarial value of assets. Under the Projected Unit Credit Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

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

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.

## 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 514.3% on October 1, 2012 to 110.3% on October 1, 2022, 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 70.7%. 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 increased from 71.9% on October 1, 2012 to 86.3% on October 1, 2022.
- 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 8.6% on October 1, 2012 to 0.4% on October 1, 2022. The current Net Cash Flow Ratio of 0.4% indicates that contributions are generally 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>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2017</u>	<u>10/1/2012</u>
<u>Support Ratio</u>				
Total Actives	96	99	95	108
Total Inactives <sup>1</sup>	87	79	54	21
Actives / Inactives <sup>1</sup>	110.3%	125.3%	175.9%	514.3%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	120,331,202	140,323,233	93,631,077	50,720,309
Total Annual Payroll	9,110,033	8,942,357	7,869,010	9,720,044
MVA / Total Annual Payroll	1,320.9%	1,569.2%	1,189.9%	521.8%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	111,402,740	102,655,046	64,311,108	16,371,660
Total Accrued Liability (EAN)	157,504,049	152,731,017	113,964,799	68,119,057
Inactive AL / Total AL	70.7%	67.2%	56.4%	24.0%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	135,861,578	130,317,081	90,453,020	48,969,796
Total Accrued Liability (EAN)	157,504,049	152,731,017	113,964,799	68,119,057
AVA / Total Accrued Liability (EAN)	86.3%	85.3%	79.4%	71.9%
<u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>2</sup>	497,937	40,530	1,474,897	4,379,693
Market Value of Assets (MVA)	120,331,202	140,323,233	93,631,077	50,720,309
Ratio	0.4%	0.0%	1.6%	8.6%

<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.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

Received During <u>Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	217,419.61	_____%
1999	232,559.93	7.0%
2000	264,843.64	13.9%
2001	263,961.26	-0.3%
2002	314,273.52	19.1%
2003	381,459.32	21.4%
2004	483,590.48	26.8%
2005	576,004.73	19.1%
2006	652,630.47	13.3%
2007	902,590.01	38.3%
2008	845,949.60	-6.3%
2009	654,147.88	-22.7%
2010	658,616.71	0.7%
2011	704,573.07	7.0%
2012	746,253.46	5.9%
2013	750,072.76	0.5%
2014	843,532.97	12.5%
2015	726,993.10	-13.8%
2016	568,403.22	-21.8%
2017	483,484.98	-14.9%
2018	723,847.11	49.7%
2019	699,764.46	-3.3%
2020	723,646.97	3.4%
2021	696,406.47	-3.8%
2022	795,210.80	14.2%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2022

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	1,415,360.82	1,415,360.82
Cash	63,561.66	63,561.66
Total Cash and Equivalents	1,478,922.48	1,478,922.48
Receivables:		
City Contributions in Transit	232,048.48	232,048.48
Additional City Contributions	213,103.38	213,103.38
State Contributions	13,012.68	13,012.68
From Broker for Investments Sold	1,072,228.71	1,072,228.71
Investment Income	168,770.02	168,770.02
Total Receivable	1,699,163.27	1,699,163.27
Investments:		
U. S. Bonds and Bills	9,084,143.90	7,940,728.40
Federal Agency Guaranteed Securities	6,753,265.65	5,897,344.74
Corporate Bonds	10,570,797.36	8,957,835.92
Stocks	5,323,113.97	5,977,936.56
Mutual Funds:		
Fixed Income	8,418,091.36	7,165,473.04
Equity	59,577,279.75	58,136,633.79
Pooled/Common/Commingled Funds:		
Equity	6,396,215.11	8,758,188.05
Real Estate	11,364,000.55	15,686,637.84
Total Investments	117,486,907.65	118,520,778.34
Total Assets	120,664,993.40	121,698,864.09
<u>LIABILITIES</u>		
Payables:		
Benefit Payments	7,400.37	7,400.37
Investment Expenses	120,051.74	120,051.74
Administrative Expenses	20,348.72	20,348.72
To Broker for Investments Purchased	1,219,861.46	1,219,861.46
Total Liabilities	1,367,662.29	1,367,662.29
NET POSITION RESTRICTED FOR PENSIONS	119,297,331.11	120,331,201.80

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2022  
Market Value Basis

ADDITIONS

Contributions:

Member	581,046.15
City	5,331,248.03
Member Repayments	2,583.98
State	795,210.80

Total Contributions 6,710,088.96

Investment Income:

Net Realized Gain (Loss)	6,302,363.34
Unrealized Gain (Loss)	(30,324,743.85)
Net Increase in Fair Value of Investments	(24,022,380.51)
Interest & Dividends	4,009,883.01
Less Investment Expense <sup>1</sup>	(480,054.21)

Net Investment Income (20,492,551.71)

Total Additions (13,782,462.75)

DEDUCTIONS

Distributions to Members:

Benefit Payments	4,422,374.78
Lump Sum DROP Distributions	1,327,993.26
Lump Sum Share Distributions	325,685.22
Refunds of Member Contributions	8,343.03

Total Distributions 6,084,396.29

Administrative Expense 125,172.05

Total Deductions 6,209,568.34

Net Increase in Net Position (19,992,031.09)

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 140,323,232.89

End of the Year 120,331,201.80

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

ACTUARIAL ASSET VALUATION  
September 30, 2022

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a four year period. In the first year, 25% of the gain or loss is recognized. In the second year 50%, in the third year 75%, and in the fourth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>			
		Amounts Not Yet Recognized by Valuation Year			
		2022	2023	2024	2025
09/30/2019	(1,949,436)	0	0	0	0
09/30/2020	(1,996,342)	(499,084)	0	0	0
09/30/2021	15,322,241	7,661,121	3,830,561	0	0
09/30/2022	(30,256,551)	(22,692,413)	(15,128,275)	(7,564,137)	0
Total		(15,530,376)	(11,297,714)	(7,564,137)	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, including Prepaid Contributions, 09/30/2021	140,367,727
Contributions Less Benefit Payments & Admin Expenses	242,923
Expected Investment Earnings <sup>1</sup>	9,763,999
Actual Net Investment Earnings	<u>(20,492,552)</u>
09/30/2022 Actuarial Investment Gain/(Loss)	(30,256,551)

<sup>1</sup> Expected Investment Earnings = 0.0695 \* (140,367,727 + 0.5 \* 242,923)

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2022	120,331,202
(2) Gain/(Loss) Not Yet Recognized	<u>(15,530,376)</u>
(3) Actuarial Value of Assets, 09/30/2022, (1) - (2)	135,861,578
(A) 09/30/2021 Actuarial Assets, including Prepaid Contributions:	130,361,575
(I) Net Investment Income:	
1. Interest and Dividends	4,009,883
2. Realized Gain (Loss)	6,302,363
3. Unrealized Gain (Loss)	(30,324,744)
4. Change in Actuarial Value	25,536,528
5. Investment Expenses	<u>(480,054)</u>
Total	5,043,976
(B) 09/30/2022 Actuarial Assets, excluding Shortfall Contribution:	135,648,474
Actuarial Assets Rate of Return = 2I/(A+B-I):	3.87%
Market Value of Assets Rate of Return:	-14.40%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(4,024,595)
10/01/2022 Limited Actuarial Assets:	135,861,578

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2022  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	581,046.15	
City	5,331,248.03	
Member Repayments	2,583.98	
State	795,210.80	
 Total Contributions		 6,710,088.96
Earnings from Investments:		
Interest & Dividends	4,009,883.01	
Net Realized Gain (Loss)	6,302,363.34	
Unrealized Gain (Loss)	(30,324,743.85)	
Change in Actuarial Value	25,536,528.00	
 Total Earnings and Investment Gains		 5,524,030.50

EXPENDITURES

Distributions to Members:		
Benefit Payments	4,422,374.78	
Lump Sum DROP Distributions	1,327,993.26	
Lump Sum Share Distributions	325,685.22	
Refunds of Member Contributions	8,343.03	
 Total Distributions		 6,084,396.29
Expenses:		
Investment related <sup>1</sup>	480,054.21	
Administrative	125,172.05	
 Total Expenses		 605,226.26
 Change in Net Assets for the Year		 5,544,496.91
 Net Assets Beginning of the Year		 130,317,080.89
 Net Assets End of the Year <sup>2</sup>		 135,861,577.80

<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, 2021 to September 30, 2022

Beginning of the Year Balance	9,859,046.45
Plus Additions	1,289,574.87
Investment Return Earned	(1,373,662.22)
Less Distributions	(1,327,993.26)
End of the Year Balance	8,446,965.84



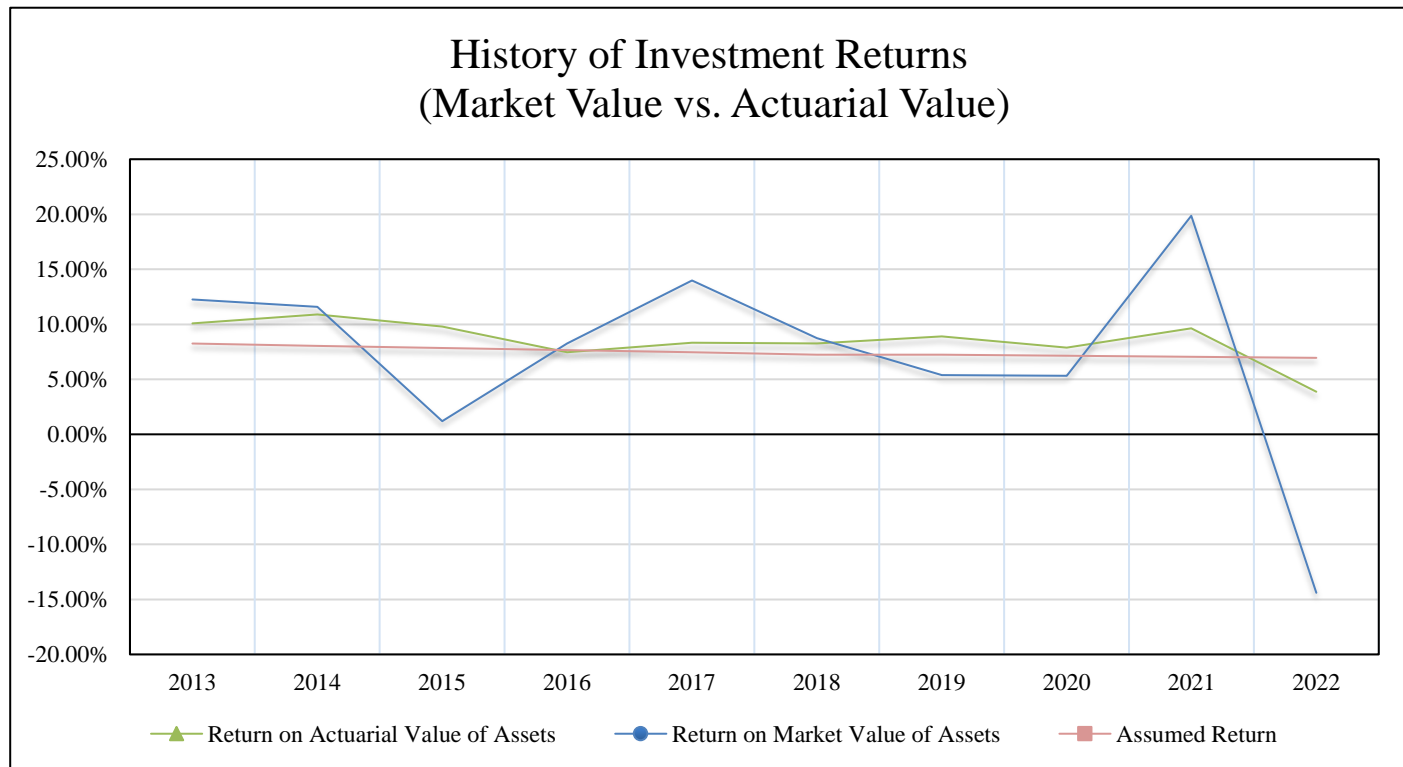
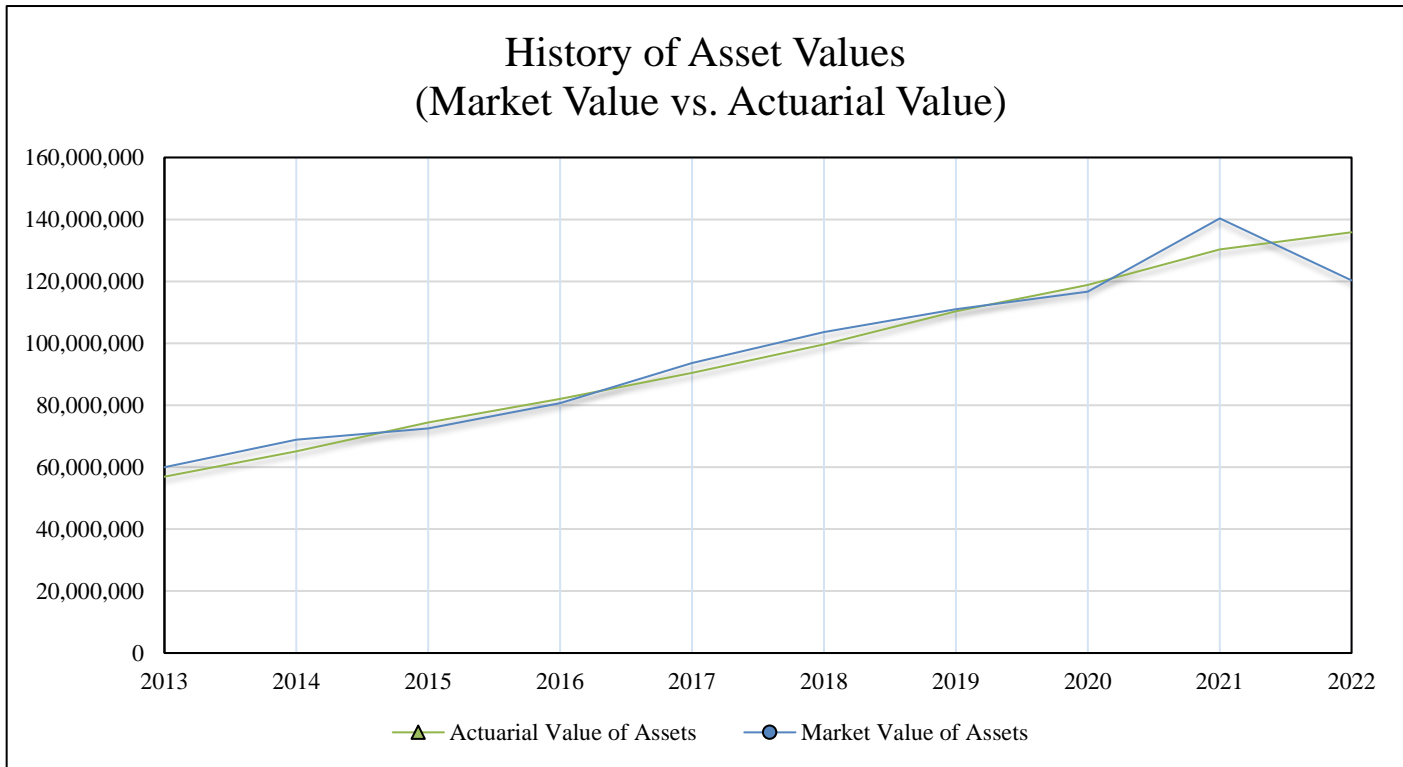
SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY  
October 1, 2021 through September 30, 2022

9/30/2021 Balance	10,938,523.18
Prior Year Adjustment	(31,190.06)
Plus Additions	22,569.02
Investment Return Earned	(1,436,571.52)
Administrative Fees	(45,365.02)
Less Distributions	(325,685.22)
9/30/2022 Balance	9,122,280.38

RECONCILIATION OF CITY SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2022

(1)	City and State Required Contribution Rate	63.03%
(2)	Pensionable Payroll Derived from Member Contributions	\$9,684,102.50
(3)	City and State Required Contribution (1) x (2)	6,103,889.81
(4)	Less Allowable State Contribution	<u>(772,641.78)</u>
(5)	Equals Required City Contribution for Fiscal 2022	5,331,248.03
(6)	Less 2021 Prepaid Contribution	(44,494.17)
(7)	Less Actual City Contributions	<u>(5,073,650.48)</u>
(8)	Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2022	\$213,103.38

# HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2020</u>	<u>10/1/2019</u>
<u>Actives</u>				
Number	96	99	92	97
Average Current Age	37.6	38.6	40.2	40.1
Average Age at Employment	27.8	28.0	28.0	28.1
Average Past Service	9.8	10.6	12.2	12.0
Average Annual Salary	\$94,896	\$90,327	\$90,693	\$85,855
<u>Service Retirees</u>				
Number	55	54	48	34
Average Current Age	59.2	58.5	58.5	57.9
Average Annual Benefit	\$78,172	\$78,447	\$77,430	\$81,211
<u>DROP Retirees</u>				
Number	20	14	12	20
Average Current Age	54.9	55.1	54.0	55.4
Average Annual Benefit	\$74,863	\$72,127	\$72,247	\$69,435
<u>Beneficiaries</u>				
Number	4	3	3	3
Average Current Age	60.9	65.4	64.4	63.4
Average Annual Benefit	\$35,906	\$28,022	\$27,703	\$27,092
<u>Disability Retirees</u>				
Number	4	4	4	3
Average Current Age	56.5	55.5	54.5	57.8
Average Annual Benefit	\$30,426	\$30,426	\$30,426	\$22,337
<u>Terminated Vested</u>				
Number	20	15	13	10
Average Current Age <sup>1</sup>	42.3	43.3	42.3	45.7
Average Annual Benefit <sup>1</sup>	\$29,756	\$29,141	\$29,141	\$23,797

<sup>1</sup> The Average Current Age and Average Annual Benefit exclude 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
20 - 24	1	4										5
25 - 29	5	5	1	2	1	2						16
30 - 34	2	1	3	2	3	8						19
35 - 39		1			3	5	1	4				14
40 - 44		2		1		2	1	8	5			19
45 - 49				1		2		6	4			13
50 - 54								5	4			9
55 - 59		1										1
60 - 64												0
65+												0
<b>Total</b>	<b>8</b>	<b>14</b>	<b>4</b>	<b>6</b>	<b>7</b>	<b>19</b>	<b>2</b>	<b>23</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>96</b>

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2021	99
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	(2)
iii. Refund of member contributions or full lump sum distribution received	0
c. Deaths	
i. Beneficiary receiving benefits	(1)
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>(7)</u>
g. Continuing participants	88
h. New entrants / Rehires	<u>8</u>
i. Total active life participants in valuation	96

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

	Service Retirees, Vested Receiving	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	54	14	3	4	4	11	90
Retired	2	(1)	0	0	(1)	0	0
DROP	0	7	0	0	0	0	7
Vested (Deferred Annuity)	0	0	0	0	1	0	1
Vested (Due Refund)	0	0	0	0	0	2	2
Hired/Terminated in Same Year	0	0	0	0	0	4	4
Death, With Survivor	0	0	1	0	0	0	1
Death, No Survivor	(1)	0	0	0	0	0	(1)
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	(1)	(1)
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	55	20	4	4	4	16	103

SUMMARY OF CURRENT PLAN  
(Through Ordinance 1, 2021)

<u>Eligibility</u>	Full-time certified Firefighters.
<u>Credited Service</u>	Total years and fractional parts of years of employment with the City as a Firefighter while making Member contributions.
<u>Salary</u>	Total compensation, excluding overtime and payments for unused accrued sick and annual leave for salary earned after September 13, 2012.
<u>Average Final Compensation</u>	Average Salary for the 5 best years of the 10 years immediately preceding retirement or termination.
<u>Member Contributions</u>	6.00% of Salary.
<u>City and State Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S.
<u>Normal Retirement</u>	
Date	Earlier of:  1) Age 52 with 10 years of Credited Service, or  2) Attainment of 25 years of Credited Service, regardless of Age.
Benefit	3.00% of Average Final Compensation times Credited Service, not to exceed 75% of Average Final Compensation.
Form of Benefit	Ten Year Certain and Life Annuity (options available).
<u>Early Retirement</u>	
Eligibility	Age 50 with 10 years of Credited Service.
Benefit	Accrued benefit, reduced 3.00% per year that the benefit commencement date precedes age 52.

Vesting

Schedule	25% after 5 years of Credited Service, then 15% for each additional year until 100% after 10 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) accrued benefit payable at age 50 (reduced) or age 52.

Disability

Eligibility	
Service Incurred	Covered from Date of Employment.
Non-Service Incurred	10 years of Credited Service.
Exclusions	Disability resulting from use of drugs, illegal participation in riots, service in military, etc.
Benefit	
Service Incurred	60% of Average Final Compensation, but not less than 2.00% of Average Final Compensation times Credited Service.
Non-Service Incurred	2.50% of Average Final Compensation times Credited Service.
Duration	Payable for life (with 120 payments guaranteed) or until recovery (as determined by the Board). Optional forms of payment are available.

Death Benefits

10 or more years of Credited Service	Monthly accrued benefit payable to designated beneficiary for 10 years at otherwise Early (reduced) or Normal (unreduced) Retirement Date.
Less than 10 years of Credited Service	Refund of Member contributions.
Post-Retirement	Benefits payable to beneficiary in accordance with option selected at retirement.



Cost of Living Adjustment

Eligibility	Normal and Early Retirees and Beneficiaries (including Vested Terminated Retirees). COLA is not payable to Disability Retirees.
Amount	1.00% increase for members who are Age 53, 2.00% increase for members who are Age 54, and 3.00% increase for members who are Age 55 and greater. For those members who were not eligible for Normal Retirement as of September 12, 2012, the COLA beginning at age 55 is based on 3.00% for service prior to September 12, 2012, and 1.50% for service thereafter.

Deferred Retirement Option Plan

Eligibility	Satisfaction of Normal Retirement requirements.
Participation	Maximum participation period of 60 months.
Rate of Return	At the Member's option, a fixed rate, actual rate of investment return for the Plan, or returns generated by self-directed accounts.
Distribution	Cash lump sum (options available) at termination of employment.

Chapter 175 Share Accounts

Allocation	Premium tax monies received in excess of \$750,072.76 are allocated annually to each individual Share Account based on Credited Service, determined as of September 30.
Investment Earnings	Net rate of investment return realized by the Plan for the preceding Plan Year.
Vesting Schedule	Active Members who terminate employment with less than 5 years of Credited Service forfeit their Share.
Distribution	Active Members with 5 or more years of Credited Service will be paid a lump sum upon separation from service.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2022

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	1,415,361
Cash	63,562
 Total Cash and Equivalents	 1,478,923
 Receivables:	
City Contributions in Transit	232,048
Additional City Contributions	213,103
State Contributions	13,013
From Broker for Investments Sold	1,072,229
Investment Income	168,770
 Total Receivable	 1,699,163
 Investments:	
U. S. Bonds and Bills	7,940,728
Federal Agency Guaranteed Securities	5,897,345
Corporate Bonds	8,957,836
Stocks	5,977,936
Mutual Funds:	
Fixed Income	7,165,473
Equity	58,136,634
Pooled/Common/Commingled Funds:	
Equity	8,758,188
Real Estate	15,686,638
 Total Investments	 118,520,778
 Self-Directed DROP Accounts	 472,269
 Total Assets	 122,171,133
 <u>LIABILITIES</u>	
Payables:	
Benefit Payments	7,400
Investment Expenses	120,052
Administrative Expenses	20,349
To Broker for Investments Purchased	1,219,861
 Total Liabilities	 1,367,662
 NET POSITION RESTRICTED FOR PENSIONS <sup>1</sup>	 120,803,471

<sup>1</sup>The Assets values and Liabilities included accumulated DROP Balances

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2022  
Market Value Basis

ADDITIONS

## Contributions:

Member	581,046
City	5,286,754
Member Repayments	2,584
State	795,211

Total Contributions	6,665,595
---------------------	-----------

## Investment Income:

Net Increase in Fair Value of Investments	(24,087,471)
Interest & Dividends	4,009,883
Less Investment Expense <sup>1</sup>	(480,054)

Net Investment Income	(20,557,642)
-----------------------	--------------

Total Additions	(13,892,047)
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DEDUCTIONS

## Distributions to Members:

Benefit Payments	4,422,375
Lump Sum DROP Distributions	1,327,993
Lump Sum Share Distributions	325,685
Refunds of Member Contributions	8,343

Total Distributions	6,084,396
---------------------	-----------

Administrative Expense	125,172
------------------------	---------

Total Deductions	6,209,568
------------------	-----------

Net Increase in Net Position	(20,101,615)
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## NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	140,905,086
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End of the Year	120,803,471
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<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, 2022)

*Plan Administration*

The City of Palm Beach Gardens Firefighters' Pension Fund is a single employer defined benefit pension plan administered by a Board of Trustees which acts as the administrator of the Fund. The Board consists of 5 trustees, 2 of whom are appointed by the City, 2 of whom are full-time Firefighters who are elected by a majority of the Members of the Fund and a fifth Trustee who is chosen by a majority of the first 4 Trustees. Each Trustee serves a four year term.

*Plan Membership as of October 1, 2021:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	75
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	15
Active Plan Members	99
	189
	189

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2021 Actuarial Valuation Report for the City of Palm Beach Gardens Firefighters' Pension Fund prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions; 6.0% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Chapter 112, Florida Statutes.

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2022:

Asset Class	Target Allocation
Domestic Equity	50.00%
Foreign Equity Securities	10.00%
Fixed Income (Core)	10.00%
Fixed Income (Non-Core)	10.00%
Real Estate	10.00%
Alternative	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, 2022, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was -14.39 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 Retirement requirements.

Participation: Maximum participation period of 60 months.

Rate of Return: At the Member's option, a fixed rate, actual rate of investment return for the Plan, or returns generated by self-directed accounts.

The DROP balance as September 30, 2022 is \$8,919,235.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2022 were as follows:

Total Pension Liability	\$ 165,062,345
Plan Fiduciary Net Position	<u>\$ (120,803,471)</u>
Sponsor's Net Pension Liability	<u>\$ 44,258,874</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	73.19%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2021 updated to September 30, 2022 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	6.85%
Investment Rate of Return	6.85%

*Mortality Rate Healthy Active Lives:*

Female: PubS.H-2010 for Employees, set forward one year.

Male: PubS.H-2010 for Employees, set forward one year.

*Mortality Rate Retiree Lives:*

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

*Mortality Rate Beneficiary Lives:*

Female: PubG.H-2010 (Above Median) for Healthy Retirees.

Male: PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.

*Mortality Rate Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions 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, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

The most recent actuarial experience study used to review the other significant assumptions was dated October 20, 2020.

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 2022 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.

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Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2022 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	7.50%
Foreign Equity Securities	8.50%
Fixed Income (Core)	2.50%
Fixed Income (Non-Core)	2.50%
Real Estate	4.50%
Alternative	6.17%

<sup>1</sup> Source: AndCo Consulting

### *Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 6.85 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 5.85%	Current Discount Rate 6.85%	1% Increase 7.85%
Sponsor's Net Pension Liability	\$ 64,921,135	\$ 44,258,874	\$ 27,551,507

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 2 Fiscal Years

	09/30/2022	09/30/2021
Total Pension Liability		
Service Cost	2,356,584	2,172,566
Interest	10,586,382	10,030,601
Share Plan Allocation	22,569	-
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	3,323,775	1,835,449
Changes of assumptions	1,849,773	1,747,657
Benefit Payments, including Refunds of Employee Contributions	(6,084,396)	(5,768,156)
Net Change in Total Pension Liability	12,054,687	10,018,117
Total Pension Liability - Beginning	153,007,658	142,989,541
Total Pension Liability - Ending (a)	<u>\$ 165,062,345</u>	<u>\$ 153,007,658</u>
Plan Fiduciary Net Position		
Contributions - Employer	5,286,754	4,352,840
Contributions - State	795,211	696,406
Contributions - Employee	583,630	553,635
Net Investment Income	(20,557,642)	23,666,785
Benefit Payments, including Refunds of Employee Contributions	(6,084,396)	(5,768,156)
Administrative Expense	(125,172)	(135,198)
Net Change in Plan Fiduciary Net Position	(20,101,615)	23,366,312
Plan Fiduciary Net Position - Beginning	140,905,086	117,538,774
Plan Fiduciary Net Position - Ending (b)	<u>\$ 120,803,471</u>	<u>\$ 140,905,086</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 44,258,874</u>	<u>\$ 12,102,572</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	73.19%	92.09%
Covered Payroll	\$ 9,684,103	\$ 8,994,500
Net Pension Liability as a percentage of Covered Payroll	457.03%	134.56%

**Notes to Schedule of Changes in Net Pension Liability and Related Ratios:**

*Changes of assumptions:*

For measurement date 09/30/2022, amounts reported as changes of assumptions resulted from lowering the investment rate of return from 6.95% to 6.85% per year compounded annually net of investment related expenses.

For measurement date 09/30/2021, amounts reported as changes of assumptions resulted from lowering the investment rate of return from 7.05% to 6.95% per year compounded annually net of investment related expenses.

## SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2022	\$ 6,103,890	\$ 6,059,396	\$ 44,494	\$ 9,684,103	62.57%
09/30/2021	\$ 5,374,214	\$ 5,049,246	\$ 324,968	\$ 8,994,500	56.14%

Notes to Schedule

Valuation Date: 10/01/2020

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 can be found in the October 1, 2020 Actuarial Valuation for the City of Palm Beach Gardens Firefighters' Pension Fund prepared by Foster & Foster Actuaries and Consultants.



SCHEDULE OF INVESTMENT RETURNS  
Last 2 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2022	-14.39%
09/30/2021	19.87%

NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2023)

*Plan Description*

The City of Palm Beach Gardens Firefighters' Pension Fund is a single employer defined benefit pension plan administered by a Board of Trustees which acts as the administrator of the Fund. The Board consists of 5 trustees, 2 of whom are appointed by the City, 2 of whom are full-time Firefighters who are elected by a majority of the Members of the Fund and a fifth Trustee who is chosen by a majority of the first 4 Trustees. Each Trustee serves a four year term.

Each person employed by the City Fire Department as a full-time Firefighter becomes a Member of the Fund as a condition of his employment. All Firefighters are therefore eligible for Fund benefits as provided for in the Fund document and by applicable law.

*Plan Membership as of October 1, 2021:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	75
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	15
Active Plan Members	99
	189
	189

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2021 Actuarial Valuation Report for the City of Palm Beach Gardens Firefighters' Pension Fund prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions; 6.0% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Chapter 112, Florida Statutes.

*Net Pension Liability*

The measurement date is September 30, 2022.

The measurement period for the pension expense was October 1, 2021 to September 30, 2022.

The reporting period is October 1, 2022 through September 30, 2023.

The Sponsor's Net Pension Liability was measured as of September 30, 2022.

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, 2021 updated to September 30, 2022 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	6.85%
Investment Rate of Return	6.85%

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### *Mortality Rate Healthy Active Lives:*

Female: PubS.H-2010 for Employees, set forward one year.

Male: PubS.H-2010 for Employees, set forward one year.

### *Mortality Rate Retiree Lives:*

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

### *Mortality Rate Beneficiary Lives:*

Female: PubG.H-2010 (Above Median) for Healthy Retirees.

Male: PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.

### *Mortality Rate Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions 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, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

The most recent actuarial experience study used to review the other significant assumptions was dated October 20, 2020.

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 2022 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 arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2022 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	50.00%	7.50%
Foreign Equity Securities	10.00%	8.50%
Fixed Income (Core)	10.00%	2.50%
Fixed Income (Non-Core)	10.00%	2.50%
Real Estate	10.00%	4.50%
Alternative	10.00%	6.17%
Total	100.00%	

<sup>1</sup> Source: AndCo Consulting

### *Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 6.85 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)
Reporting Period Ending September 30, 2022	\$ 153,007,658	\$ 140,905,086	\$ 12,102,572
Changes for a Year:			
Service Cost	2,356,584	-	2,356,584
Interest	10,586,382	-	10,586,382
Share Plan Allocation	22,569	-	22,569
Differences between Expected and Actual Experience	3,323,775	-	3,323,775
Changes of assumptions	1,849,773	-	1,849,773
Changes of benefit terms	-	-	-
Contributions - Employer	-	5,286,754	(5,286,754)
Contributions - State	-	795,211	(795,211)
Contributions - Employee	-	583,630	(583,630)
Net Investment Income	-	(20,557,642)	20,557,642
Benefit Payments, including Refunds of Employee Contributions	(6,084,396)	(6,084,396)	-
Administrative Expense	-	(125,172)	125,172
Net Changes	12,054,687	(20,101,615)	32,156,302
Reporting Period Ending September 30, 2023	\$ 165,062,345	\$ 120,803,471	\$ 44,258,874

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

	Current		
	1% Decrease	Discount Rate	1% Increase
	5.85%	6.85%	7.85%
Sponsor's Net Pension Liability	\$ 64,921,135	\$ 44,258,874	\$ 27,551,507

*Pension Plan Fiduciary Net Position.*

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

FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2022

For the year ended September 30, 2022, the Sponsor has recognized a Pension Expense of \$3,389,109.

On September 30, 2022, 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	2,355,384	265,232
Changes of assumptions	3,545,450	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	10,647,210
Employer and State contributions subsequent to the measurement date	6,081,965	-
<b>Total</b>	<b>\$ 11,982,799</b>	<b>\$ 10,912,442</b>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date has been recognized as a reduction of the Net Pension Liability in the year ended September 30, 2022.

Other 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:	
2023	\$ (1,063,087)
2024	\$ (483,650)
2025	\$ (1,536,493)
2026	\$ (1,928,378)
2027	\$ -
Thereafter	\$ -

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2023**

For the year ended September 30, 2023, the Sponsor will recognize a Pension Expense of \$8,570,773.

On September 30, 2023, 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	4,363,007	-
Changes of assumptions	4,048,506	-
Net difference between Projected and Actual Earnings on Pension Plan investments	16,244,373	-
Employer and State contributions subsequent to the measurement date	TBD	-
<b>Total</b>	TBD	\$ -

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2023.

Other 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:		
2024	\$	6,451,887
2025	\$	5,399,044
2026	\$	5,007,159
2027	\$	6,935,537
2028	\$	862,259
Thereafter	\$	-

*Payable to the Pension Plan*

On September 30, 2022, the Sponsor reported a payable of \$213,103 for the outstanding amount of contributions of the Pension Plan required for the year ended September 30, 2022.

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 2 Fiscal Years

Reporting Period Ending	09/30/2023	09/30/2022
Measurement Date	09/30/2022	09/30/2021
Total Pension Liability		
Service Cost	2,356,584	2,172,566
Interest	10,586,382	10,030,601
Share Plan Allocation	22,569	-
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	3,323,775	1,835,449
Changes of assumptions	1,849,773	1,747,657
Benefit Payments, including Refunds of Employee Contributions	(6,084,396)	(5,768,156)
Net Change in Total Pension Liability	12,054,687	10,018,117
Total Pension Liability - Beginning	153,007,658	142,989,541
Total Pension Liability - Ending (a)	<u>\$ 165,062,345</u>	<u>\$ 153,007,658</u>
Plan Fiduciary Net Position		
Contributions - Employer	5,286,754	4,352,840
Contributions - State	795,211	696,406
Contributions - Employee	583,630	553,635
Net Investment Income	(20,557,642)	23,666,785
Benefit Payments, including Refunds of Employee Contributions	(6,084,396)	(5,768,156)
Administrative Expense	(125,172)	(135,198)
Net Change in Plan Fiduciary Net Position	(20,101,615)	23,366,312
Plan Fiduciary Net Position - Beginning	140,905,086	117,538,774
Plan Fiduciary Net Position - Ending (b)	<u>\$ 120,803,471</u>	<u>\$ 140,905,086</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 44,258,874</u>	<u>\$ 12,102,572</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	73.19%	92.09%
Covered Payroll	\$ 9,684,103	\$ 8,994,500
Net Pension Liability as a percentage of Covered Payroll	457.03%	134.56%

**Notes to Schedule of Changes in Net Pension Liability and Related Ratios:**

*Changes of assumptions:*

For measurement date 09/30/2022, amounts reported as changes of assumptions resulted from lowering the investment rate of return from 6.95% to 6.85% per year compounded annually net of investment related expenses.

For measurement date 09/30/2021, amounts reported as changes of assumptions resulted from lowering the investment rate of return from 7.05% to 6.95% per year compounded annually net of investment related expenses.

SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2022	\$ 6,103,890	\$ 6,059,396	\$ 44,494	\$ 9,684,103	62.57%
09/30/2021	\$ 5,374,214	\$ 5,049,246	\$ 324,968	\$ 8,994,500	56.14%

Notes to Schedule

Valuation Date: 10/01/2020

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 can be found in the October 1, 2020 Actuarial Valuation for the City of Palm Beach Gardens Firefighters' Pension Fund prepared by Foster & Foster Actuaries and Consultants.



EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

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

**FINAL COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2022**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 25,450,767	\$ 2,533,550	\$ 14,259,246	\$ -
Employer and State contributions made after 09/30/2021	-	-	6,081,965	-
<b>Total Pension Liability Factors:</b>				
Service Cost	2,172,566	-	-	2,172,566
Interest	10,030,601	-	-	10,030,601
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	1,835,449	-	1,835,449	-
Current year amortization of experience difference	-	(545,972)	(1,491,985)	946,013
Change in assumptions about future economic or demographic factors or other inputs	1,747,657	-	1,747,657	-
Current year amortization of change in assumptions	-	-	(2,626,663)	2,626,663
Benefit Payments, including Refunds of Employee Contributions	(5,768,156)	-	-	-
Net change	<u>10,018,117</u>	<u>(545,972)</u>	<u>5,546,423</u>	<u>15,775,843</u>
<b>Plan Fiduciary Net Position:</b>				
Contributions - Employer	4,352,840	-	(4,352,840)	-
Contributions - State	696,406	-	(696,406)	-
Contributions - Employee	553,635	-	-	(553,635)
Projected Net Investment Income	8,275,892	-	-	(8,275,892)
Difference between projected and actual earnings on Pension Plan investments	15,390,893	15,390,893	-	-
Current year amortization	-	(4,486,318)	(793,913)	(3,692,405)
Benefit Payments, including Refunds of Employee Contributions	(5,768,156)	-	-	-
Administrative Expenses	(135,198)	-	-	135,198
Net change	<u>23,366,312</u>	<u>10,904,575</u>	<u>(5,843,159)</u>	<u>(12,386,734)</u>
Ending Balance	<u>\$ 12,102,572</u>	<u>\$ 12,892,153</u>	<u>\$ 13,962,510</u>	<u>\$ 3,389,109</u>

**PRELIMINARY COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2023**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 12,102,572	\$ 12,892,153	\$ 13,962,510	\$ -
Employer and State contributions made after 09/30/2022	-	-	TBD*	-
<b>Total Pension Liability Factors:</b>				
Service Cost	2,356,584	-	-	2,356,584
Interest	10,586,382	-	-	10,586,382
Share Plan Allocation	22,569	-	-	22,569
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	3,323,775	-	3,323,775	-
Current year amortization of experience difference	-	(265,232)	(1,316,152)	1,050,920
Change in assumptions about future economic or demographic factors or other inputs	1,849,773	-	1,849,773	-
Current year amortization of change in assumptions	-	-	(1,346,717)	1,346,717
Benefit Payments, including Refunds of Employee Contributions	(6,084,396)	-	-	-
Net change	<u>12,054,687</u>	<u>(265,232)</u>	<u>2,510,679</u>	<u>15,363,172</u>
<b>Plan Fiduciary Net Position:</b>				
Contributions - Employer	5,286,754	-	(5,286,754)	-
Contributions - State	795,211	-	(795,211)	-
Contributions - Employee	583,630	-	-	(583,630)
Projected Net Investment Income	9,808,750	-	-	(9,808,750)
Difference between projected and actual earnings on Pension Plan investments	(30,366,392)	-	30,366,392	-
Current year amortization	-	(3,392,384)	(6,867,193)	3,474,809
Benefit Payments, including Refunds of Employee Contributions	(6,084,396)	-	-	-
Administrative Expenses	(125,172)	-	-	125,172
Net change	<u>(20,101,615)</u>	<u>(3,392,384)</u>	<u>17,417,234</u>	<u>(6,792,399)</u>
Ending Balance	<u>\$ 44,258,874</u>	<u>\$ 9,234,537</u>	<u>TBD</u>	<u>\$ 8,570,773</u>

\* Employer and State contributions subsequent to the measurement date made after September 30, 2022 but made on or before September 30, 2023 need to be added.

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)	2022	2023	2024	2025	2026	2027	2028	2029	2030
2022	\$ 30,366,392	5	\$ -	\$ 6,073,280	\$ 6,073,278	\$ 6,073,278	\$ 6,073,278	\$ 6,073,278	\$ -	\$ -	\$ -
2021	\$ (15,390,893)	5	\$ (3,078,177)	\$ (3,078,179)	\$ (3,078,179)	\$ (3,078,179)	\$ (3,078,179)	\$ -	\$ -	\$ -	\$ -
2020	\$ 1,959,427	5	\$ 391,885	\$ 391,885	\$ 391,885	\$ 391,885	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 2,010,140	5	\$ 402,028	\$ 402,028	\$ 402,028	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (1,571,027)	5	\$ (314,205)	\$ (314,205)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (5,469,678)	5	\$ (1,093,936)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (3,692,405)	\$ 3,474,809	\$ 3,789,012	\$ 3,386,984	\$ 2,995,099	\$ 6,073,278	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - ASSUMPTION CHANGES

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)	2022	2023	2024	2025	2026	2027	2028	2029	2030
2022	\$ 1,849,773	6	\$ -	\$ 308,293	\$ 308,296	\$ 308,296	\$ 308,296	\$ 308,296	\$ 308,296	\$ -	\$ -
2021	\$ 1,747,657	5	\$ 349,533	\$ 349,531	\$ 349,531	\$ 349,531	\$ 349,531	\$ -	\$ -	\$ -	\$ -
2020	\$ 2,308,619	6	\$ 384,770	\$ 384,770	\$ 384,770	\$ 384,770	\$ 384,770	\$ -	\$ -	\$ -	\$ -
2019	\$ 1,520,614	5	\$ 304,123	\$ 304,123	\$ 304,123	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 3,032,216	5	\$ 606,443	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 5,890,763	6	\$ 981,794	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 2,626,663	\$ 1,346,717	\$ 1,346,720	\$ 1,042,597	\$ 1,042,597	\$ 308,296	\$ 308,296	\$ -	\$ -

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)	2022	2023	2024	2025	2026	2027	2028	2029	2030
2022	\$ 3,323,775	6	\$ -	\$ 553,960	\$ 553,963	\$ 553,963	\$ 553,963	\$ 553,963	\$ 553,963	\$ -	\$ -
2021	\$ 1,835,449	5	\$ 367,089	\$ 367,090	\$ 367,090	\$ 367,090	\$ 367,090	\$ -	\$ -	\$ -	\$ -
2020	\$ 290,458	6	\$ 48,410	\$ 48,410	\$ 48,410	\$ 48,410	\$ 48,410	\$ -	\$ -	\$ -	\$ -
2019	\$ 1,733,462	5	\$ 346,692	\$ 346,692	\$ 346,692	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (1,326,161)	5	\$ (265,232)	\$ (265,232)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 3,648,972	5	\$ 729,794	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (1,684,439)	6	\$ (280,740)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 946,013	\$ 1,050,920	\$ 1,316,155	\$ 969,463	\$ 969,463	\$ 553,963	\$ 553,963	\$ -	\$ -