CITY OF PALM BAY
POLICE AND FIREFIGHTERS' PENSION FUND (POLICE OFFICERS)

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

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

March 29, 2023

Board of Trustees
City of Palm Bay Police & Firefighters' Pension Fund
Conlan Professional Center
1501 Robert J. Conlan Blvd. NE Suite 260
Palm Bay, FL 32905-3567

Re: City of Palm Bay Police and Firefighters' Pension Fund (Police Officers)

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Palm Bay Police and Firefighters' Pension Fund (Police Officers). 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 185, 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 Bay, 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 Bay, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police and Firefighters' Pension Fund (Police Officers). 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: ______________________________
Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #20-6901

By: ______________________________
Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #20-6595

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Enclosures

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Palm Bay Police and Firefighters' Pension Fund (Police Officers), 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<br>Applicable to Fiscal Year Ending | 10/1/2022<br>9/30/2024 | 10/1/2021<br>9/30/2023 |
|---|---|---|
| Minimum Required Contribution | $4,666,504 | $3,317,887 |
| Member Contributions (Est.) | 903,193 | 770,903 |
| City And State Required Contribution | 3,763,311 | 2,546,984 |
| State Contribution (Est.) [1] | 770,377 | 770,377 |
| City Required Contribution [2] | $2,992,934 | $1,776,607 |

[1] Based on mutual consent, the City can use $520,734.08 plus 50% of the State Monies received in excess of that amount to offset their required contribution. The amount shown above is based upon the State Monies received during calendar 2022.

[2] Please note that the City has access to a prepaid contribution of $62,440.63 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2023.

As you can see, the Minimum Required Contribution shows an increase when compared to the results determined in the October 1, 2021 actuarial valuation report. The increase is attributable to lowering the investment return assumption and unfavorable actuarial experience as described below.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an investment return of 4.02% (Actuarial Asset Basis) which fell short of the 7.65% assumption and an average salary increase of 13.03% which exceeded the 4.71% assumption. These losses were offset in part by a gain associated with inactive mortality experience.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

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

### Actuarial Assumption/Method Changes

The investment return, net of investment related expenses, was lower from 7.65% to 7.50%,

There have been no method changes since the prior valuation.

## COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

| | New Assump 10/1/2022 | Old Assump 10/1/2022 | 10/1/2021 |
|---|---|---|---|
| **A. Participant Data** | | | |
| Actives | 149 | 149 | 139 |
| Service Retirees | 87 | 87 | 84 |
| DROP Retirees | 8 | 8 | 6 |
| Beneficiaries | 7 | 7 | 6 |
| Disability Retirees | 13 | 13 | 13 |
| Terminated Vested | 28 | 28 | 26 |
| Total | 292 | 292 | 274 |
| Payroll Under Assumed Ret. Age | 9,479,877 | 9,479,877 | 8,092,473 |
| Annual Rate of Payments to: | | | |
| Service Retirees | 5,824,871 | 5,824,871 | 5,592,373 |
| DROP Retirees | 537,870 | 537,870 | 372,617 |
| Beneficiaries | 327,455 | 327,455 | 230,699 |
| Disability Retirees | 353,982 | 353,982 | 346,086 |
| Terminated Vested | 168,271 | 168,271 | 164,103 |
| **B. Assets** | | | |
| Actuarial Value (AVA) [1] | 134,109,118 | 134,109,118 | 132,014,566 |
| Market Value (MVA) [1] | 113,240,734 | 113,240,734 | 145,064,211 |
| **C. Liabilities** | | | |
| Present Value of Benefits | | | |
| Actives | | | |
| Retirement Benefits | 52,066,504 | 50,533,216 | 47,587,700 |
| Disability Benefits | 3,307,233 | 3,222,439 | 2,843,533 |
| Death Benefits | 252,900 | 244,279 | 219,279 |
| Vested Benefits | 3,336,207 | 3,192,984 | 2,865,919 |
| Refund of Contributions | 146,563 | 146,202 | 86,545 |
| Service Retirees | 85,721,137 | 84,337,890 | 81,228,644 |
| DROP Retirees [1] | 11,872,346 | 11,704,567 | 9,470,291 |
| Beneficiaries | 3,043,345 | 3,006,994 | 2,743,492 |
| Disability Retirees | 5,206,249 | 5,118,582 | 5,046,922 |
| Terminated Vested | 1,687,780 | 1,650,459 | 1,553,020 |
| Share Plan Balances [1] | 971,647 | 971,647 | 968,021 |
| Total | 167,611,911 | 164,129,259 | 154,613,366 |

| C. Liabilities - (Continued) | New Assump 10/1/2022 | Old Assump 10/1/2022 | 10/1/2021 |
|---|---|---|---|
| Present Value of Future Salaries | 69,500,900 | 68,965,458 | 58,520,095 |
| Present Value of Future Member Contributions | 6,088,279 | 6,041,374 | 5,126,360 |
| Normal Cost (Retirement) | 1,548,879 | 1,487,017 | 1,285,352 |
| Normal Cost (Disability) | 245,536 | 239,492 | 208,753 |
| Normal Cost (Death) | 10,972 | 10,526 | 9,070 |
| Normal Cost (Vesting) | 233,108 | 222,636 | 191,626 |
| Normal Cost (Refunds) | 39,828 | 39,783 | 25,688 |
| Total Normal Cost | 2,078,323 | 1,999,454 | 1,720,489 |
| Present Value of Future Normal Costs | 14,684,601 | 14,005,914 | 11,919,176 |
| Accrued Liability (Retirement) | 40,706,682 | 39,719,454 | 38,335,891 |
| Accrued Liability (Disability) | 1,584,103 | 1,554,917 | 1,401,697 |
| Accrued Liability (Death) | 182,449 | 177,316 | 162,205 |
| Accrued Liability (Vesting) | 1,926,341 | 1,856,282 | 1,765,278 |
| Accrued Liability (Refunds) | 25,231 | 25,237 | 18,729 |
| Accrued Liability (Inactives) [1] | 107,530,857 | 105,818,492 | 100,042,369 |
| Share Plan Balances [1] | 971,647 | 971,647 | 968,021 |
| Total Actuarial Accrued Liability (EAN AL) | 152,927,310 | 150,123,345 | 142,694,190 |
| Unfunded Actuarial Accrued Liability (UAAL) | 18,818,192 | 16,014,227 | 10,679,624 |
| Funded Ratio (AVA / EAN AL) | 87.7% | 89.3% | 92.5% |

| D. Actuarial Present Value of Accrued Benefits | New Assump 10/1/2022 | Old Assump 10/1/2022 | 10/1/2021 |
|---|---|---|---|
| Vested Accrued Benefits | | | |
| Inactives + Share Plan Balances [1] | 108,502,504 | 106,790,139 | 101,010,390 |
| Actives | 17,954,738 | 17,363,561 | 17,925,888 |
| Member Contributions | 5,963,297 | 5,963,297 | 5,812,369 |
| Total | 132,420,539 | 130,116,997 | 124,748,647 |
| Non-vested Accrued Benefits | 2,670,042 | 2,607,175 | 2,660,480 |
| Total Present Value Accrued Benefits (PVAB) | 135,090,581 | 132,724,172 | 127,409,127 |
| Funded Ratio (MVA / PVAB) | 83.8% | 85.3% | 113.9% |
| Increase (Decrease) in Present Value of Accrued Benefits Attributable to: | | | |
| Plan Amendments | 0 | 0 | |
| Assumption Changes | 2,366,409 | 0 | |
| Plan Experience | 0 | 2,744,753 | |
| Benefits Paid | 0 | (6,912,118) | |
| Interest | 0 | 9,482,410 | |
| Other | 0 | 0 | |
| Total | 2,366,409 | 5,315,045 | |

| | New Assump | Old Assump | |
|---|---|---|---|
| Valuation Date | 10/1/2022 | 10/1/2022 | 10/1/2021 |
| Applicable to Fiscal Year Ending | 9/30/2024 | 9/30/2024 | 9/30/2023 |
| E. Pension Cost | | | |
| Normal Cost [2] | $2,260,407 | $2,176,201 | $1,870,968 |
| Administrative Expenses [2] | 317,292 | 317,521 | 319,170 |
| Payment Required to Amortize Unfunded Actuarial Accrued Liability over 27 years (as of 10/1/2022) [2] | 2,088,805 | 1,783,652 | 1,127,749 |
| Minimum Required Contribution | 4,666,504 | 4,277,374 | 3,317,887 |
| Expected Member Contributions [2] | 903,193 | 903,846 | 770,903 |
| Expected City and State Contribution | 3,763,311 | 3,373,528 | 2,546,984 |
| F. Past Contributions | | | |
| Plan Years Ending: | 9/30/2022 | | |
| City and State Requirement | 2,947,994 | | |
| Actual Contributions Made: | | | |
| City | 2,177,617 | | |
| State | 770,377 | | |
| Total | 2,947,994 | | |
| G. Net Actuarial (Gain)/Loss | 6,156,866 | | |

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

[2] Contributions developed as of 10/1/2022 displayed above have been adjusted to account for assumed salary increase and interest components.

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

| Year | Projected Unfunded Actuarial Accrued Liability |
|---|---|
| 2022 | 18,818,192 |
| 2023 | 18,164,973 |
| 2024 | 17,462,761 |
| 2030 | 11,994,418 |
| 2037 | 2,219,901 |
| 2043 | 321,114 |
| 2049 | 0 |

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

| | | Actual | Assumed |
|---|---|---|---|
| Year Ended | 9/30/2022 | 13.03% | 4.71% |
| Year Ended | 9/30/2021 | 8.93% | 4.66% |
| Year Ended | 9/30/2020 | 3.57% | 5.45% |
| Year Ended | 9/30/2019 | 6.02% | 5.66% |
| Year Ended | 9/30/2018 | 6.81% | 5.66% |

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

| | | Market Value | Actuarial Value | Assumed |
|---|---|---|---|---|
| Year Ended | 9/30/2022 | -19.98% | 4.02% | 7.65% |
| Year Ended | 9/30/2021 | 20.09% | 11.65% | 7.65% |
| Year Ended | 9/30/2020 | 12.29% | 9.13% | 7.75% |
| Year Ended | 9/30/2019 | 4.47% | 8.78% | 7.75% |
| Year Ended | 9/30/2018 | 9.41% | 7.63% | 7.75% |

(iii) Average Annual Payroll Growth

| | | |
|---|---|---|
| (a) Payroll as of: | 10/1/2022 | $9,479,877 |
| | 10/1/2012 | 7,512,816 |
| (b) Total Increase | | 26.18% |
| (c) Number of Years | | 10.00 |
| (d) Average Annual Rate | | 2.35% |

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

Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #20-6595

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 | $10,679,624 |
| (2) | Sponsor Normal Cost developed as of October 1, 2021 | 1,011,588 |
| (3) | Expected administrative expenses for the year ended September 30, 2022 | 293,500 |
| (4) | Expected interest on (1), (2) and (3) | 905,604 |
| (5) | Sponsor contributions to the System during the year ended September 30, 2022 | 2,947,994 |
| (6) | Expected interest on (5) | 84,961 |
| (7) | Expected Unfunded Actuarial Accrued Liability as of September 30, 2022 (1)+(2)+(3)+(4)-(5)-(6) | 9,857,361 |
| (8) | Change to UAAL due to Assumption Change | 2,803,965 |
| (9) | Change to UAAL due to Actuarial (Gain)/Loss | 6,156,866 |
| (10) | Unfunded Actuarial Accrued Liability as of October 1, 2022 | 18,818,192 |

| Type of Base | Date Established | Years Remaining | 10/1/2022 Amount | Amortization Amount |
|---|---|---|---|---|
| Improvement | 10/1/2003 | 11 | 25,716 | 3,270 |
| Improvement | 10/1/2005 | 13 | 332,174 | 38,027 |
| Improvement | 10/1/2006 | 14 | 41,143 | 4,508 |
| Gain | 10/1/2007 | 15 | (731,614) | (77,100) |
| Loss | 10/1/2008 | 16 | 3,859,808 | 392,771 |
| Loss | 10/1/2009 | 17 | 5,208,230 | 513,556 |
| Loss | 10/1/2010 | 18 | 1,482,719 | 142,105 |
| Method | 10/1/2010 | 18 | (3,476,588) | (333,199) |
| Benefit | 10/1/2010 | 18 | 3,345 | 321 |
| Loss | 10/1/2011 | 19 | 1,379,706 | 128,872 |
| Assump | 10/1/2011 | 19 | 4,710,052 | 439,945 |
| Gain | 10/1/2012 | 20 | (598,697) | (54,630) |
| Gain | 10/1/2013 | 21 | (661,361) | (59,079) |
| Gain | 10/1/2014 | 22 | (3,412,504) | (298,989) |
| Gain | 10/1/2015 | 23 | (2,562,928) | (220,615) |
| Assump | 10/1/2015 | 23 | 3,555,913 | 306,091 |
| Loss | 10/1/2016 | 24 | 63,336 | 5,364 |
| Loss | 10/1/2017 | 25 | 1,120,340 | 93,494 |
| Loss | 10/1/2018 | 26 | 2,159,717 | 177,799 |
| Gain | 10/1/2019 | 27 | (1,632,725) | (132,747) |
| Benefits Change | 10/1/2020 | 13 | 682,884 | 78,175 |

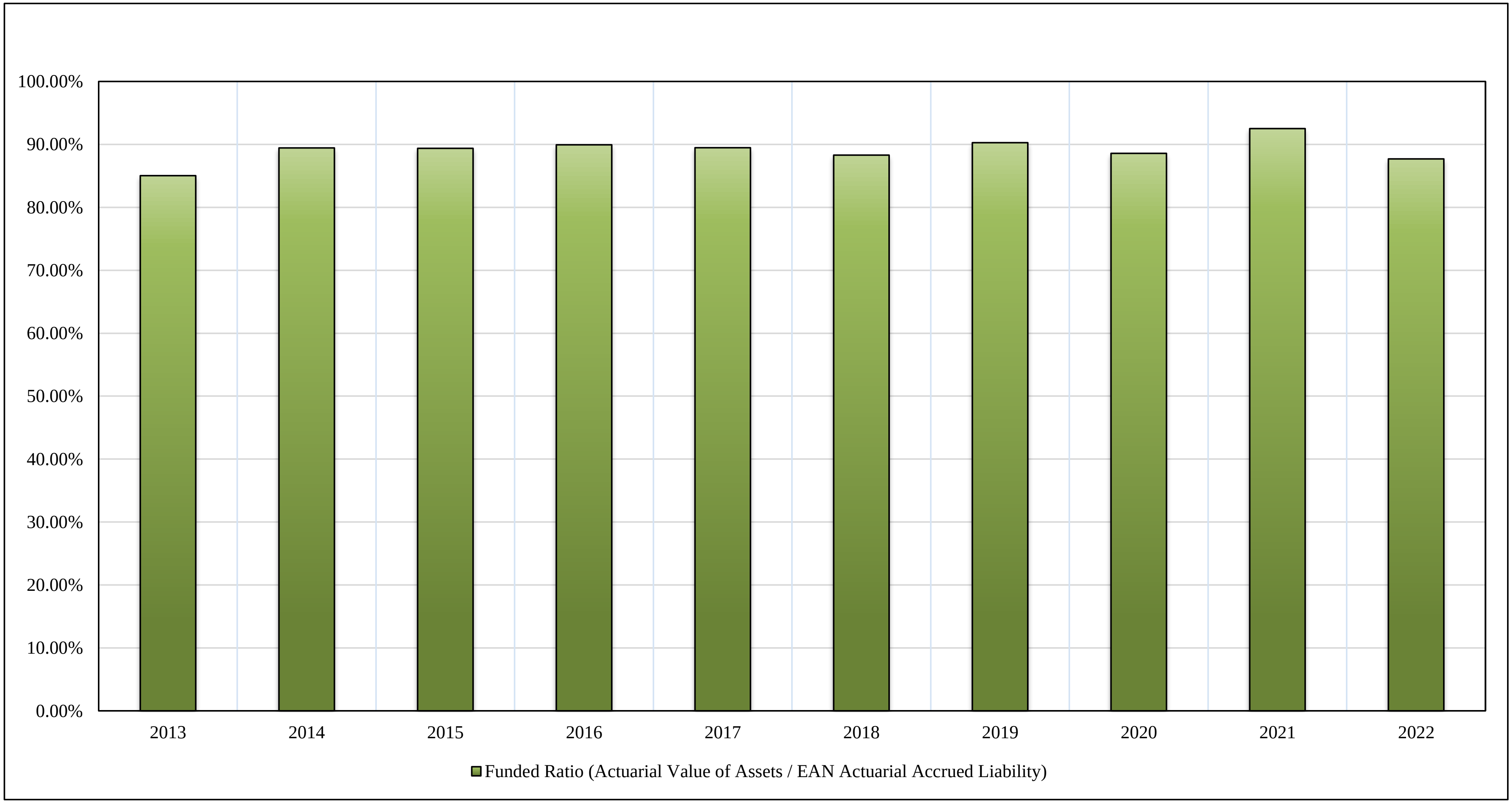
| Type of Base | Date Established | Years Remaining | 10/1/2022 Amount | Amortization Amount |
|---|---|---|---|---|
| Actuarial Gain | 10/1/2020 | 13 | (611,605) | (70,016) |
| Asmp/Mthd Change | 10/1/2020 | 13 | 3,390,030 | 388,085 |
| Actuarial Gain | 10/1/2021 | 14 | (4,469,730) | (489,788) |
| Actuarial Loss | 10/1/2022 | 15 | 6,156,866 | 648,832 |
| Assump Change | 10/1/2022 | 15 | 2,803,965 | 295,492 |
| | | | 18,818,192 | 1,920,544 |

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

| | | |
|---|---|---|
| (1) | Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2021 | $10,679,624 |
| (2) | Expected UAAL as of October 1, 2022 | 9,857,361 |
| (3) | Summary of Actuarial (Gain)/Loss, by component: | |
| | Investment Return (Actuarial Asset Basis) | 4,741,986 |
| | Salary Increases | 2,443,817 |
| | Active Decrements | 221,409 |
| | Inactive Mortality | (681,269) |
| | Interest Crediting on DROP Balances [1] | (994,683) |
| | Other | 425,606 |
| | Increase in UAAL due to (Gain)/Loss | 6,156,866 |
| | Assumption Changes | 2,803,965 |
| (4) | Actual UAAL as of October 1, 2022 | $18,818,192 |

[1] The DROP balances are included in both the assets of the Plan and the liabilities. The 10/1/2021 valuation expected that these liabilities would grow at 7.65%. The fact that credited earnings were on average lower than 7.65% this year caused an actuarial gain on the liability side of the equation. If the DROP balances were not included in the assets or liabilities, then the asset loss would have been smaller this year.

# HISTORY OF FUNDING PROGRESS



## ACTUARIAL ASSUMPTIONS AND METHODS

| | |
|---|---|
| Mortality Rate | *Healthy Active Lives:*<br><br>**Female:** PubS.H-2010 (Below Median) for Employees, set forward one year.<br>**Male:** PubS.H-2010 (Below Median) for Employees, set forward one year.<br><br>*Healthy Retiree Lives:*<br><br>**Female:** PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.<br>**Male:** PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.<br><br>*Beneficiary Lives:*<br><br>**Female:** PubG.H-2010 (Above Median) for Healthy Retirees.<br>**Male:** PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.<br><br>*Disabled Lives:*<br><br>80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.<br><br>All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.<br><br>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 | 7.50% (prior year 7.65%) 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 Increase – Individual | See table later in this section. This assumption was adopted based on the July 7, 2020 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 | $291,733 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.<br><br>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. |
| Termination | See table later in this section. This assumption was adopted based on July 7, 2020 experience study. |
| Disability: | See sample rates in the table later in this section. These rates are consistent with rates used in other Police plans. 75% of disabilities are assumed to be service connected. |
| Service Retirement | See table later in this section. This assumption was adopted based on the July 7, 2020 experience study. |
| Form of Payment: | 10-Year Certain and Continuous annuity. |
| Percentage Married At Retirement | 100% of active members are assumed married at retirement. |
| Spouse Ages: | For active members reaching retirement, wives are assumed to be three years younger than husbands. Where spousal information was included for retirees, that information was used. If the age of the spouse was not provided, we have assumed that all spouses are still alive, and that female spouses are three years younger than their husbands. |
| Funding Method | Entry Age Normal Actuarial Cost Method. The following loads are applied for determining the minimum required contribution:<br><br>Interest - a half year, based on current 7.50% assumption.<br><br>Salary - A full year, based on current 4.83% assumption. |

Actuarial Value of Assets: The market value of assets is adjusted to recognize, over a four-year period, investment earnings greater than (or less than) the assumed investment return. The Actuarial Value of Assets shall not be more than 120% nor less than 80% of the market value of assets. Details are shown in the Asset Information Section of the report.

Assumption Tables

% Terminating During the Year

| Service | Rate |
|---|---|
| 0 | 20.0% |
| 1-4 | 10.0% |
| 5-9 | 7.0% |
| 10-14 | 5.0% |
| 15+ | 3.5% |

% Becoming Disabled During the Year

| Age | Rate |
|---|---|
| 20 | 0.14% |
| 25 | 0.15% |
| 30 | 0.18% |
| 35 | 0.23% |
| 40 | 0.30% |
| 45 | 0.51% |
| 50 | 1.00% |
| 55 | 1.55% |
| 60 | 2.09% |
| 65 | 2.09% |

Salary Scale

| Age | Rate |
|---|---|
| <25 | 7.00% |
| 25 -29 | 5.50% |
| 30 - 34 | 5.25% |
| 35 - 44 | 4.50% |
| 45+ | 4.00% |

% Retiring During the Year

| Service | Age | Rate |
|---|---|---|
| <10 | 55-59 | 20.0% |
| | 60+ | 100.0% |
| 10-19 | 50-54 | 5.0% |
| | 55 | 75.0% |
| | 56-57 | 50.0% |
| | 58+ | 100.0% |
| 20-24 | 45-54 | 5.0% |
| | 55 | 75.0% |
| | 56-57 | 50.0% |
| | 58+ | 100.0% |
| 25 | 45-55 | 75.0% |
| | 56-57 | 50.0% |
| | 58+ | 100.0% |
| 26-27 | 45-57 | 50.0% |
| | 58+ | 100.0% |
| 28+ | Any | 100.0% |

## 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.

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.

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 the current year's cost for benefits yet to be funded. Under the Entry Age Normal cost method, it is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

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

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.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the Actuarial Value of Assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation 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 174.1% on October 1, 2012 to 118.3% 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 70.3%. 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 84.0% on October 1, 2012 to 87.7% 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 -1.3% on October 1, 2012 to -2.8% on October 1, 2022. The current Net Cash Flow Ratio of -2.8% 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

| | 10/1/2022 | 10/1/2021 | 10/1/2017 | 10/1/2012 |
|---|---|---|---|---|
| Support Ratio | | | | |
| Total Actives | 149 | 139 | 144 | 141 |
| Total Inactives [1] | 126 | 120 | 110 | 81 |
| Actives / Inactives [1] | 118.3% | 115.8% | 130.9% | 174.1% |
| Asset Volatility Ratio | | | | |
| Market Value of Assets (MVA) | 113,240,734 | 145,064,211 | 104,611,026 | 77,968,830 |
| Total Annual Payroll | 9,546,323 | 8,326,042 | 7,481,101 | 7,512,816 |
| MVA / Total Annual Payroll | 1,186.2% | 1,742.3% | 1,398.3% | 1,037.8% |
| Accrued Liability (AL) Ratio | | | | |
| Inactive Accrued Liability | 107,530,857 | 100,042,369 | 85,969,672 | 55,034,976 |
| Total Accrued Liability (EAN) | 152,927,310 | 142,694,190 | 115,273,648 | 90,392,097 |
| Inactive AL / Total AL | 70.3% | 70.1% | 74.6% | 60.9% |
| Funded Ratio | | | | |
| Actuarial Value of Assets (AVA) | 134,109,118 | 132,014,566 | 103,139,919 | 75,943,613 |
| Total Accrued Liability (EAN) | 152,927,310 | 142,694,190 | 115,273,648 | 90,392,097 |
| AVA / Total Accrued Liability (EAN) | 87.7% | 92.5% | 89.5% | 84.0% |
| Net Cash Flow Ratio | | | | |
| Net Cash Flow [2] | (3,146,132) | (3,419,439) | (3,058,062) | (1,017,638) |
| Market Value of Assets (MVA) | 113,240,734 | 145,064,211 | 104,611,026 | 77,968,830 |
| Ratio | -2.8% | -2.4% | -2.9% | -1.3% |

[1] Excludes terminated participants awaiting a refund of member contributions.

[2] Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

| Received During Fiscal Year | Amount | Increase from Previous Year |
|---|---|---|
| 1998 | 201,770.08 | _____% |
| 1999 | 216,721.64 | 7.4% |
| 2000 | 197,309.75 | -9.0% |
| 2001 | 218,500.53 | 10.7% |
| 2002 | 267,958.39 | 22.6% |
| 2003 | 302,467.77 | 12.9% |
| 2004 | 403,411.62 | 33.4% |
| 2005 | 449,805.87 | 11.5% |
| 2006 | 479,034.44 | 6.5% |
| 2007 | 521,156.85 | 8.8% |
| 2008 | 521,017.73 | 0.0% |
| 2009 | 552,316.07 | 6.0% |
| 2010 | 544,192.27 | -1.5% |
| 2011 | 534,261.71 | -1.8% |
| 2012 | 552,801.49 | 3.5% |
| 2013 | 572,953.76 | 3.6% |
| 2014 | 604,885.90 | 5.6% |
| 2015 | 618,682.53 | 2.3% |
| 2016 | 684,839.94 | 10.7% |
| 2017 | 716,530.07 | 4.6% |
| 2018 | 793,725.50 | 10.8% |
| 2019 | 842,305.03 | 6.1% |
| 2020 | 895,137.18 | 6.3% |
| 2021 | 921,041.97 | 2.9% |
| 2022 | 1,020,019.19 | 10.7% |

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2022

| ASSETS | MARKET VALUE |
|---|---|
| Cash and Cash Equivalents: | |
| Short Term Investments | 3,688,613.18 |
| Deposits | 1,046.41 |
| Prepaid Expenses | 19,513.87 |
| Cash | 26,766.17 |
| Total Cash and Equivalents | 3,735,939.63 |
| Receivables: | |
| Accounts Receivable | 30,197.12 |
| From General Trust Fund | 280.02 |
| From Broker for Investments Sold | 117,506.65 |
| Investment Income | 207,238.98 |
| Total Receivable | 355,222.77 |
| Investments: | |
| Federal Agency Guaranteed Securities | 12,732,245.76 |
| Corporate Bonds | 23,135,769.91 |
| Stocks | 34,836,327.79 |
| Mutual Funds: | |
| Equity | 24,243,901.74 |
| Pooled/Common/Commingled Funds: | |
| Real Estate | 14,758,595.62 |
| Total Investments | 109,706,840.82 |
| Total Assets | 113,798,003.22 |
| LIABILITIES | |
| Payables: | |
| Accounts Payable | 151,753.82 |
| To Broker for Investments Purchased | 343,075.10 |
| Prepaid City Contribution | 62,440.63 |
| Total Liabilities | 557,269.55 |
| NET POSITION RESTRICTED FOR PENSIONS | 113,240,733.67 |

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

| | | | |
|---|---|---|---|
| <u>ADDITIONS</u> | | | |
| Contributions: | | | |
| Member | | 832,047.78 | |
| Buy-Back | | 25,096.34 | |
| City | | 2,177,617.37 | |
| State | | 1,020,019.19 | |
| Total Contributions | | | 4,054,780.68 |
| Investment Income: | | | |
| Miscellaneous Income | 11,849.41 | | |
| Unrealized Gain (Loss) | (31,095,351.18) | | |
| Net Increase in Fair Value of Investments | | (31,083,501.77) | |
| Interest & Dividends | | 3,061,606.10 | |
| Less Investment Expense[1] | | (655,450.37) | |
| Net Investment Income | | | (28,677,346.04) |
| Total Additions | | | (24,622,565.36) |
| <u>DEDUCTIONS</u> | | | |
| Distributions to Members: | | | |
| Benefit Payments | | 6,323,276.68 | |
| Lump Sum DROP Distributions | | 305,311.26 | |
| Lump Sum Share Distributions | | 67,518.11 | |
| Refunds of Member Contributions | | 216,011.56 | |
| Total Distributions | | | 6,912,117.61 |
| Administrative Expense | | | 288,794.75 |
| Total Deductions | | | 7,200,912.36 |
| Net Increase in Net Position | | | (31,823,477.72) |
| NET POSITION RESTRICTED FOR PENSIONS | | | |
| Beginning of the Year | | | 145,064,211.39 |
| End of the Year | | | 113,240,733.67 |

[1]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.

Gains/(Losses) Not Yet Recognized

| Plan Year Ending | Gain/(Loss) | Amounts Not Yet Recognized by Valuation Year 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| 09/30/2019 | (3,590,581) | 0 | 0 | 0 | 0 |
| 09/30/2020 | 5,074,112 | 1,268,528 | 0 | 0 | 0 |
| 09/30/2021 | 15,213,647 | 7,606,823 | 3,803,411 | 0 | 0 |
| 09/30/2022 | (39,658,313) | (29,743,735) | (19,829,157) | (9,914,579) | 0 |
| Total | | (20,868,384) | (16,025,746) | (9,914,579) | 0 |

Development of Investment Gain/Loss

| | |
|---|---|
| Market Value of Assets, including Prepaid Contributions, 09/30/2021 | 145,103,579 |
| Contributions Less Benefit Payments & Admin Expenses | (3,123,059) |
| Expected Investment Earnings* | 10,980,967 |
| Actual Net Investment Earnings | (28,677,346) |
| 2022 Actuarial Investment Gain/(Loss) | (39,658,313) |

*Expected Investment Earnings = 0.0765 * [145,103,579 + 0.5 * (3,123,059)]

Development of Actuarial Value of Assets

| | |
|---|---|
| (1) Market Value of Assets, 09/30/2022 | 113,240,734 |
| (2) Gains/(Losses) Not Yet Recognized | (20,868,384) |
| (3) Actuarial Value of Assets, 09/30/2022, (1) - (2) | 134,109,118 |
| | |
| (A) 09/30/2021 Actuarial Assets, including Prepaid Contributions: | 132,053,934 |
| | |
| (I) Net Investment Income: | |
| 1. Interest and Dividends and Misc Income | 3,073,456 |
| 2. Realized & Unrealized Gain (Loss) | (31,095,351) |
| 3. Change in Actuarial Value | 33,918,029 |
| 4. Investment Expenses | (655,450) |
| Total | 5,240,683 |
| | |
| (B) 09/30/2022 Actuarial Assets, including Prepaid Contributions: | 134,171,558 |
| | |
| Actuarial Assets Rate of Return = 2I/(A+B-I): | 4.02% |
| Market Value of Assets Rate of Return: | -19.98% |
| | |
| Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) | (4,741,986) |
| | |
| 10/01/2022 Limited Actuarial Assets (not including Prepaid): | 134,109,118 |

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

| | | |
|---|---|---|
| **REVENUES** | | |
| Contributions: | | |
| Member | 832,047.78 | |
| Buy-Back | 25,096.34 | |
| City | 2,177,617.37 | |
| State | 1,020,019.19 | |
| Total Contributions | | 4,054,780.68 |
| Earnings from Investments: | | |
| Interest & Dividends | 3,061,606.10 | |
| Miscellaneous Income | 11,849.41 | |
| Unrealized Gain (Loss) | (31,095,351.18) | |
| Change in Actuarial Value | 33,918,029.00 | |
| Total Earnings and Investment Gains | | 5,896,133.33 |
| **EXPENDITURES** | | |
| Distributions to Members: | | |
| Benefit Payments | 6,323,276.68 | |
| Lump Sum DROP Distributions | 305,311.26 | |
| Lump Sum Share Distributions | 67,518.11 | |
| Refunds of Member Contributions | 216,011.56 | |
| Total Distributions | | 6,912,117.61 |
| Expenses: | | |
| Investment related[1] | 655,450.37 | |
| Administrative | 288,794.75 | |
| Total Expenses | | 944,245.12 |
| Change in Net Assets for the Year | | 2,094,551.28 |
| Net Assets Beginning of the Year | | 132,014,566.39 |
| Net Assets End of the Year[2] | | 134,109,117.67 |

[1]Investment related expenses include investment advisory, custodial and performance monitoring fees.
[2]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 | 3,636,140.51 |
| Plus Additions | 447,279.79 |
| Investment Return Earned | (711,087.76) |
| Less Distributions | (305,311.26) |
| End of the Year Balance | 3,067,021.28 |

SUPPLEMENTAL CHAPTER 185 SHARE PLAN ACTIVITY

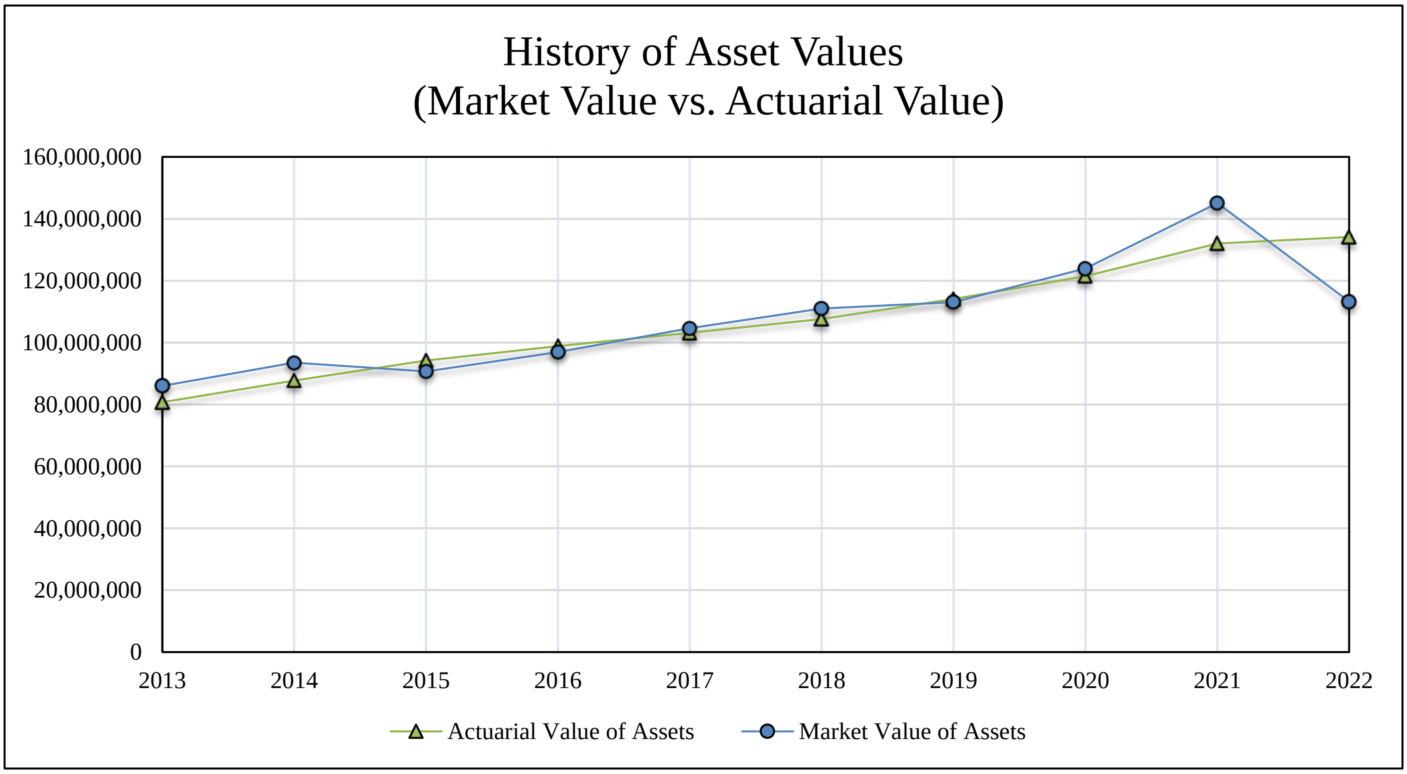
October 1, 2021 through September 30, 2022

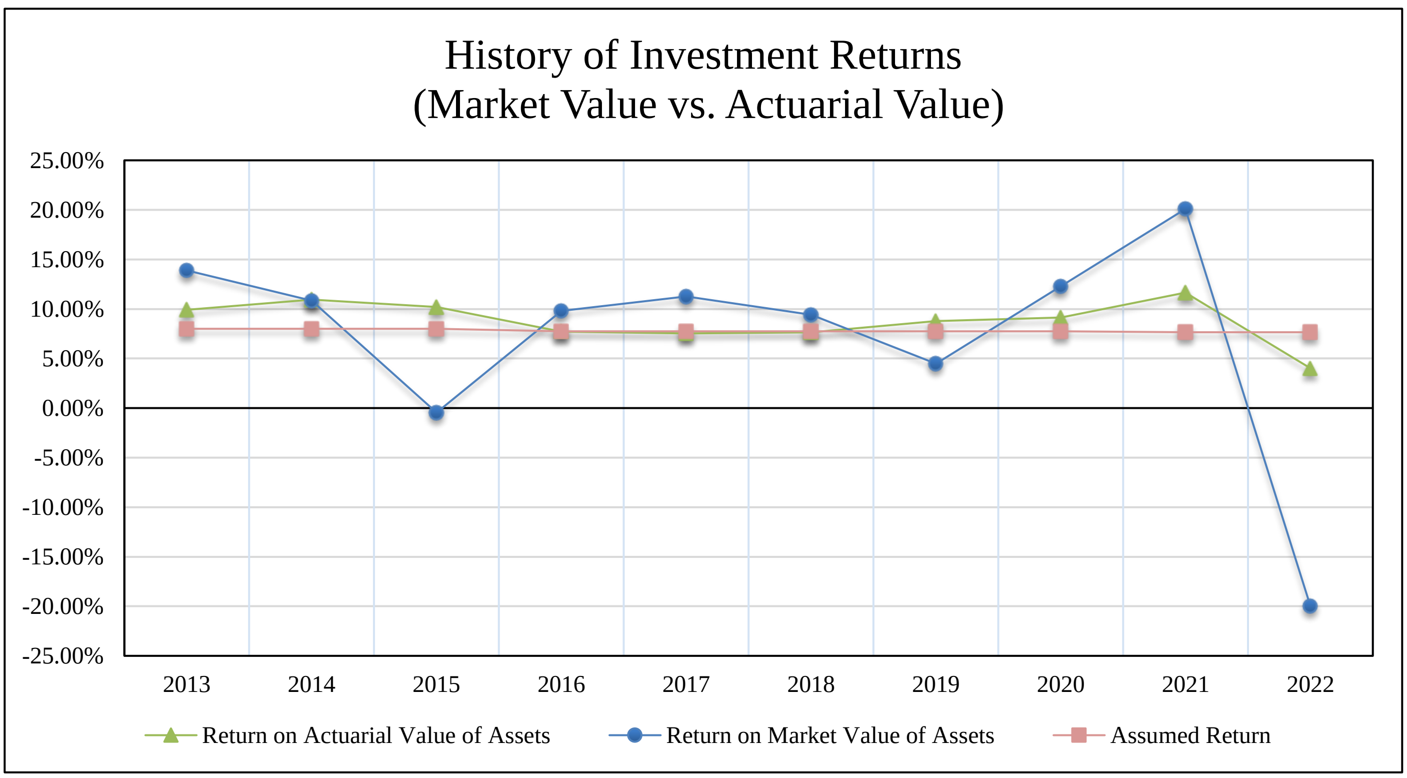
| | |
|---|---|
| 9/30/2021 Balance | 968,021.07 |
| Prior Year Adjustment | 0.00 |
| Plus Additions | 249,642.56 |
| Investment Return Earned | (176,498.60) |
| Administrative Fees | (2,000.00) |
| Less Distributions | (67,518.11) |
| 9/30/2022 Balance | 971,646.92 |

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

| | | |
|---|---|---|
| (1) | Required City and State Contributions | $2,947,994.00 |
| (2) | Less Allowable State Contribution | (770,376.63) |
| (3) | Required City Contribution for Fiscal 2022 | 2,177,617.37 |
| (4) | Less 2021 Prepaid Contribution | (39,367.98) |
| (5) | Less Actual City Contributions | (2,200,690.02) |
| (6) | Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2022 | ($62,440.63) |

# HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



## STATISTICAL DATA

| | 10/1/2022 | 10/1/2021 | 10/1/2020 | 10/1/2019 |
|---|---|---|---|---|
| **Actives** | | | | |
| Number | 149 | 139 | 139 | 147 |
| Average Current Age | 37.7 | 38.6 | 38.3 | 37.5 |
| Average Age at Employment | 28.0 | 28.0 | 27.9 | 28.0 |
| Average Past Service | 9.7 | 10.6 | 10.4 | 9.5 |
| Average Annual Salary | $64,069 | $59,900 | $56,713 | $55,632 |
| **Service Retirees** | | | | |
| Number | 87 | 84 | 80 | 79 |
| Average Current Age | 62.2 | 61.5 | 61.8 | 61.3 |
| Average Annual Benefit | $66,953 | $66,576 | $64,332 | $63,327 |
| **DROP Retirees** | | | | |
| Number | 8 | 6 | 11 | 10 |
| Average Current Age | 53.5 | 55.6 | 55.1 | 54.5 |
| Average Annual Benefit | $67,234 | $62,103 | $63,310 | $62,248 |
| **Beneficiaries** | | | | |
| Number | 7 | 6 | 5 | 4 |
| Average Current Age | 69.1 | 70.8 | 68.3 | 67.7 |
| Average Annual Benefit | $46,779 | $38,450 | $33,780 | $23,461 |
| **Disability Retirees** | | | | |
| Number | 13 | 13 | 15 | 14 |
| Average Current Age | 59.3 | 58.3 | 58.9 | 58.4 |
| Average Annual Benefit | $27,229 | $26,622 | $28,406 | $26,829 |
| **Terminated Vested** | | | | |
| Number | 28 | 26 | 23 | 20 |
| Average Current Age [1] | 43.7 | 42.7 | 44.3 | 47.6 |
| Average Annual Benefit [1] | $15,297 | $14,918 | $21,591 | $26,175 |

[1] 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 | 3 | 3 | | 1 | | | | | | | | 7 |
| 25 - 29 | 9 | 6 | 3 | 3 | 2 | 6 | | | | | | 29 |
| 30 - 34 | 4 | 2 | 1 | 5 | | 19 | 2 | | | | | 33 |
| 35 - 39 | 2 | 2 | | | 3 | 7 | 6 | | | | | 20 |
| 40 - 44 | 2 | 1 | | | | 1 | 5 | 2 | 2 | | | 13 |
| 45 - 49 | | 1 | | 1 | | 2 | 5 | 8 | 4 | | | 21 |
| 50 - 54 | | | 1 | | | | 4 | 13 | 6 | | | 24 |
| 55 - 59 | | | | | | | | 1 | | | | 1 |
| 60 - 64 | | | | | | | | | | | | 0 |
| 65+ | | | | | | | | 1 | | | | 1 |
| Total | 20 | 15 | 5 | 10 | 5 | 35 | 22 | 25 | 12 | 0 | 0 | 149 |

## VALUATION PARTICIPANT RECONCILIATION

1. Active lives

| | |
|---|---|
| a. Number in prior valuation 10/1/2021 | 139 |
| 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 | (3) |
| c. Deaths | |
| i. Beneficiary receiving benefits | 0 |
| ii. No future benefits payable | 0 |
| d. Disabled | 0 |
| e. Retired | (3) |
| f. DROP | (3) |
| g. Continuing participants | 127 |
| h. New entrants / Rehires | 22 |
| i. Total active life participants in valuation | 149 |

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

| | Service Retirees, Vested Receiving Benefits | DROP Benefits | Receiving Death Benefits | Receiving Disability Benefits | Vested (Deferred Annuity) | Vested (Due Refund) | Total |
|---|---|---|---|---|---|---|---|
| a. Number prior valuation | 84 | 6 | 6 | 13 | 11 | 15 | 135 |
| Retired | 4 | (1) | 0 | 0 | 0 | 0 | 3 |
| DROP | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| 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 | 5 | 5 |
| Death, With Survivor | (1) | 0 | 1 | 0 | 0 | 0 | 0 |
| Death, No Survivor | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Disabled | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Refund of Contributions | 0 | 0 | 0 | 0 | 0 | (5) | (5) |
| Rehires | 0 | 0 | 0 | 0 | (1) | 0 | (1) |
| Expired Annuities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Data Corrections | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| b. Number current valuation | 87 | 8 | 7 | 13 | 11 | 17 | 143 |

## SUMMARY OF CURRENT PLAN

The following summary is intended to state the plan of benefits valued in this report. It is not intended as a restatement or summary of benefits for any other purposes.

| | |
|---|---|
| **Membership** | Effective May 2, 1974, any full-time police officer having permanent status becomes a Plan Member immediately upon hire. |
| **Collective Bargaining Agreements** | Certain employees covered by the Plan are members of the Fraternal Order of Police (FOP), Pollak-Grogan-Johnson Memorial Lodge 111. |
| **Average Final Compensation (AFC)** | 1/12 of the average annual compensation of the best five years of the last ten years of credited service prior to retirement, DROP, termination or death. |
| **Compensation** | Base pay, excluding overtime, bonuses, and any other non-regular compensation received by a Member. |
| **Prior to 10/1/2007** | Compensation shall include Administrative Pay, Clothing Allowance, Expenses Pay, Longevity, Subsistence Pay, and Vacation Buy-Back in addition to Base Pay. |
| **After 10/1/2007** | Compensation shall mean total cash remuneration paid by the City for services rendered by the member including up to 129 hours of overtime per fiscal year, excluding any payments for extra duty, special duty or special detail work performed on behalf of a second party employer. |
| **Credited Service** | Years and complete months of uninterrupted service.<br>Service is not considered to be interrupted by authorized leave of absence, vacation, or service (voluntary or involuntary) in the Armed Forces of the United States, with certain stipulations.<br><br>Service is not considered to be interrupted for purposes of vesting or eligibility where leave is granted pursuant to the Family and Medical Leave Act. The Member may receive Credited Service for purposes of benefit accrual if the Member contributes the employee contributions (with interest) that would have been contributed during the period of absence within 90 days after the member's return from leave.<br><br>Members may voluntarily leave accumulated contributions in the fund for a period of five years after leaving the employ of the police or fire department pending the possibility of being re-employed without losing credit for that time.<br><br>Re-employed Members do not receive credit for time where accumulated contributions were withdrawn.<br><br>Members may purchase up to 4 years of service for prior military or sworn law enforcement experience (for which no benefit is payable). |

The member will pay the contribution rate at hire multiplied by the salary at hire multiplied by the years of service to be purchased. The remainder full actuarial cost must be paid by the City.

## NORMAL RETIREMENT

**Normal Retirement Date** The earlier of (1) age 55 or (2) upon completion of 25 years of Credited Service (with no age requirement).

Members are 100% vested upon Normal Retirement Benefit eligibility.

**Retirement Benefit** For police officers with less than 20 years service:
2.00% x AFC x Credited Service prior to 1/1/1992, plus
2.50% x AFC x Credited Service on and after 1/1/1992.

For police officers with 20 or more years of service:
3.00% x AFC x Credited Service (limited to 20), plus
5.00% x AFC x Credited Service over 20 years.

In addition, Police Officers who retire on or after October 1, 2021 receive a Supplemental Benefit equal to $35 per month times complete years of Credited Service, payable for the life of the retiree, but ceasing at member age eligible to receive Medicare coverage under Federal Guidelines (Does not include Disability retirees).

**Maximum Benefit** 100% of Average Final Compensation, exclusive of the Supplemental Benefit. 85% of Average Final Compensation applies for Members hired on or after October 1, 2016.

**Normal Form of Benefit** 10-year Certain and Continuous annuity.

**COLA** Police officers that retire on or after September 30, 2000 are eligible to receive a 3.00% annual increase each September 30th after having been retired for three years.

## EARLY RETIREMENT

**Eligibility** Members may retire and receive the Early Retirement Benefit on the first day of any month prior to their Normal Retirement Date after attaining the earlier of (1) age 45 and completion of 20 years of Credited Service, or (2) age 50 and completion of 10 years of Credited Service.

**Benefit** The monthly Early Retirement Benefit payable is reduced by 3.00% each year the Early Retirement Benefit commences prior to the Normal Retirement Date.

The Supplemental Benefit payable to Police Officers is not reduced for early commencement.

**Normal Form of Benefit** 10-year Certain and Continuous annuity.

| | |
|---|---|
| **COLA** | Police Officers that retire on or after September 30, 2000 are eligible to receive a 3.00% annual increase each September 30th after having been retired for three years. |

## DEFERRED RETIREMENT OPTION PLAN (DROP)

| | |
|---|---|
| **Eligibility** | The earlier of (1) age 55 or (2) upon completion of 25 years of Credited Service (with no age requirement). |
| **Benefit** | Once the DROP is entered into, monthly benefits are frozen and no further Participant Contributions are made. The benefit payable under the DROP is calculated as described upon the Normal Retirement Benefit. Upon DROP participation, monthly benefits that would have been payable had the Member terminated employment and elected to receive monthly pension payments are paid into the DROP account. |
| **Maximum DROP Period** | Members are limited to 60 months of DROP participation. |
| **Interest Rate Credited To DROP Account** | DROP account interest crediting is posted quarterly based on the actual pension fund returns, net of money manager fees and other expenses. |
| **Normal Form of DROP Account** | At the end of a Member's participation in the DROP, the distribution of the accumulated DROP account is payable in the following forms of distribution: (1) Annual installments payable each December (no less than 10% or $10,000, whichever is greater), (2) Rollover to another qualified retirement plan, or (3) Lump sum balance paid directly to the Member. |
| **Normal Form of Monthly Benefit** | 10-year Certain and Continuous annuity. |
| **COLA** | Cost of Living Adjustments, if any, are applicable to the benefit of the Member while in the DROP.<br><br>Police officers that retire on or after September 30, 2000 are eligible to receive a 3.00% annual increase each September 30th after having been retired for three years. |

## DISABILITY RETIREMENT

| | |
|---|---|
| **Eligibility** | In Line of Duty: Immediate<br>Not In Line of Duty: 10 years<br><br>DROP Participants are not eligible for this benefit. |
| **Disabled Definition** | Unable, by reason of medically determinable physical or mental impairment, to render useful and efficient service as a police officer. |

| | |
|---|---|
| **Benefit** | In Line of Duty Disability: 75% of Average Final Compensation, but not less than the accrued Normal Retirement Benefit.<br><br>Not In Line of Duty Disability: 25% of Average Final Compensation, but not less than the accrued Normal Retirement Benefit. |
| **Normal Form of Benefit** | 10-year Certain and Continuous annuity, ceasing upon recovery prior to Normal Retirement Eligibility. |
| **COLA** | Police officers that retire on or after September 30, 2000 are eligible to receive a 3.00% annual increase each September 30th after having been retired for three years. |

## DEATH WHILE IN SERVICE WITH AT LEAST 10 YEARS CREDITED SERVICE

| | |
|---|---|
| **Benefit** | For Members who die after becoming eligible for Early Retirement Benefits or Normal Retirement Benefits, but prior to benefit commencement, the benefit otherwise payable to the Participant is then payable to the designated beneficiary.<br><br>The designated beneficiary of a Member who dies prior to becoming eligible for Early Retirement Benefits or Normal Retirement Benefits receives a monthly benefit when the Member would have met Early or Normal Retirement Benefit eligibility conditions. |
| **Normal Form of Benefit** | 10-year Certain and Continuous annuity to the designated beneficiary. |
| **COLA** | Police officers that retire on or after September 30, 2000 are eligible to receive a 3.00% annual increase each September 30th after having been retired for three years. |

## DEATH WHILE IN SERVICE WITH LESS THAN 10 YEARS CREDITED SERVICE

| | |
|---|---|
| **Benefit** | Participants who die while in active service with less than 10 years of Credited Service are due a return of accumulated contributions without interest. |
| **Normal Form of Benefit** | Lump Sum. |

## WITHDRAWAL – LESS THAN 5 YEARS OF CREDITED SERVICE

| | |
|---|---|
| **Eligibility** | First day of work, up to 5 years of Credited Service. |
| **Benefit** | Accumulated contributions with 0% interest. |
| **Form of Benefit** | Lump Sum. |

## WITHDRAWAL – AFTER EARNING AT LEAST 5 YEARS OF CREDITED SERVICE

**Eligibility** At least 5 years of Credited Service.

**Benefit** Participants who terminate employment prior to their Normal Retirement Date are entitled to their Normal Retirement Benefit calculated based on Credited Service and Average Final Compensation at their date of termination, multiplied by the Vesting Percentage, with deferred commencement at their Normal Retirement Date. This benefit is payable on a reduced basis as described under Early Retirement.

**Vesting Percentage**

| Completed Years of Credited Service | Vesting Percentage |
|---|---|
| <5 | 0% |
| 5 | 50% |
| 6 | 60% |
| 7 | 70% |
| 8 | 80% |
| 9 | 90% |
| 10 + | 100% |

**Form of Benefit** 10-year Certain and Continuous annuity.

**COLA** Police officers that retire on or after September 30, 2000 are eligible to receive a 3.00% annual increase each September 30th after having been retired for three years.

## MEMBER CONTRIBUTIONS

**Contributions** 8.76% of Compensation effective September 30, 2000.

**Interest Crediting Rate** 3.00% per year.

## SHARE PLAN

**Initial Allocation as of October 1, 2015** $6,474.59

**Future Allocations** ½ of Annual State Monies received above $520,734.08.

**Earnings** Annually equal to the net of fees return for the overall Trust Fund.

**Expenses** Members share in actual expenses specific to the Share Plan administration.

# STATEMENT OF FIDUCIARY NET POSITION
## SEPTEMBER 30, 2022

| ASSETS | MARKET VALUE |
|---|---|
| Cash and Cash Equivalents: | |
| Short Term Investments | 3,688,613 |
| Deposits | 1,046 |
| Prepaid Expenses | 19,514 |
| Cash | 26,766 |
| Total Cash and Equivalents | 3,735,939 |
| Receivables: | |
| Accounts Receivable | 30,197 |
| From General Trust Fund | 280 |
| From Broker for Investments Sold | 117,507 |
| Investment Income | 207,239 |
| Total Receivable | 355,223 |
| Investments: | |
| Federal Agency Guaranteed Securities | 12,732,246 |
| Corporate Bonds | 23,135,770 |
| Stocks | 34,836,328 |
| Mutual Funds: | |
| Equity | 24,243,902 |
| Pooled/Common/Commingled Funds: | |
| Real Estate | 14,758,595 |
| Total Investments | 109,706,841 |
| Total Assets | 113,798,003 |
| LIABILITIES | |
| Payables: | |
| Accounts Payable | 151,754 |
| To Broker for Investments Purchased | 343,075 |
| Total Liabilities | 494,829 |
| NET POSITION RESTRICTED FOR PENSIONS | 113,303,174 |

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

| | | |
|---|---|---|
| ADDITIONS | | |
| Contributions: | | |
| Member | 832,048 | |
| Buy-Back | 25,096 | |
| City | 2,200,691 | |
| State | 1,020,019 | |
| Total Contributions | | 4,077,854 |
| Investment Income: | | |
| Net Increase in Fair Value of Investments | (31,083,503) | |
| Interest & Dividends | 3,061,606 | |
| Less Investment Expense[1] | (655,450) | |
| Net Investment Income | | (28,677,347) |
| Total Additions | | (24,599,493) |
| DEDUCTIONS | | |
| Distributions to Members: | | |
| Benefit Payments | 6,323,276 | |
| Lump Sum DROP Distributions | 305,311 | |
| Lump Sum Share Distributions | 67,518 | |
| Refunds of Member Contributions | 216,012 | |
| Total Distributions | | 6,912,117 |
| Administrative Expense | | 288,795 |
| Total Deductions | | 7,200,912 |
| Net Increase in Net Position | | (31,800,405) |
| NET POSITION RESTRICTED FOR PENSIONS | | |
| Beginning of the Year | | 145,103,579 |
| End of the Year | | 113,303,174 |

[1]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 Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:
a. Chairman Board Appointee,
b. Vice Chairman Police Elected Representative,
c. Secretary, Fire Elected Representative,
d. Two City Council Appointees.

*Plan Membership as of October 1, 2021:*

| | |
|---|---|
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 109 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 26 |
| Active Plan Members | 139 |
| | 274 |

*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 Bay Police and Firefighters' Pension Fund (Police Officers) prepared by Foster & Foster Actuaries and Consultants.

*Contributions*
Member Contributions: 8.76% of Compensation effective September 30, 2000.
Interest Crediting Rate: 3.00% per year.
City: 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 | 35.0% |
| International Equity | 15.0% |
| Bonds | 25.0% |
| Convertibles | 10.0% |
| Private Real Estate | 10.0% |
| Infrastructure | 5.0% |
| Total | 100.0% |

*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 -19.98 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: The earlier of (1) age 55 or (2) upon completion of 25 years of Credited Service (with no age requirement).

Benefit: Once the DROP is entered into, monthly benefits are frozen and no further Participant Contributions are made. The benefit payable under the DROP is calculated as described upon the Normal Retirement Benefit. Upon DROP participation, monthly benefits that would have been payable had the Member terminated employment and elected to receive monthly pension payments are paid into the DROP account.

Maximum DROP Period: Members are limited to 60 months of DROP participation.

Interest Rate Credited to DROP Account: DROP account interest crediting is posted quarterly based on the actual pension fund returns, net of money manager fees and other expenses.

Normal Form of DROP Account: At the end of a Member's participation in the DROP, the distribution of the accumulated DROP account is payable in the following forms of distribution: (1) Annual installments payable each December (no less than 10% or $10,000, whichever is greater), (2) Rollover to another qualified retirement plan, or (3) Lump sum balance paid directly to the Member.

COLA: Cost of Living Adjustments, if any, are applicable to the benefit of the Member while in the DROP.

Police officers that retire on or after September 30, 2000 are eligible to receive a 3% annual increase each September 30th after having been retired for three years.

The DROP balance as September 30, 2022 is $3,067,021.

# 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 | $ | 150,473,252 |
| Plan Fiduciary Net Position | $ | (113,303,174) |
| Sponsor's Net Pension Liability | $ | 37,170,078 |
| Plan Fiduciary Net Position as a percentage of Total Pension Liability | | 75.30% |

*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 | 2.70% |
| Salary Increases | Varies by age |
| Discount Rate | 7.50% |
| Investment Rate of Return | 7.50% |

*Mortality Rate Healthy Active Lives:*
Female: PubS.H-2010 (Below Median) for Employees, set forward one year.
Male: PubS.H-2010 (Below Median) for Employees, set forward one year.
*Mortality Rate 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.
*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, July 7, 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 geometric 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[1] |
|---|---|
| Domestic Equity | 7.1% |
| International Equity | 3.1% |
| Bonds | 2.0% |
| Convertibles | 6.4% |
| Private Real Estate | 6.4% |
| Infrastructure | 5.6% |

[1] Source: Burgess Chambers

*Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.50 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 6.50% | Current Discount Rate 7.50% | 1% Increase 8.50% |
|---|---|---|---|
| Sponsor's Net Pension Liability | $ 57,328,660 | $ 37,170,078 | $ 20,763,172 |

## 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 | 1,804,281 | 1,748,826 |
| Interest | 10,710,139 | 10,225,054 |
| Share Plan Allocation | 249,643 | 200,154 |
| Changes of benefit terms | - | 756,379 |
| Differences between Expected and Actual Experience | 264,507 | 878,416 |
| Changes of assumptions | 2,678,105 | - |
| Contributions - Buy Back | 25,096 | 14,123 |
| Benefit Payments, including Refunds of Employee Contributions | (6,912,117) | (6,649,984) |
| Net Change in Total Pension Liability | 8,819,654 | 7,172,968 |
| Total Pension Liability - Beginning | 141,653,598 | 134,480,630 |
| Total Pension Liability - Ending (a) | $ 150,473,252 | $ 141,653,598 |
| | | |
| Plan Fiduciary Net Position | | |
| Contributions - Employer | 2,200,691 | 1,865,027 |
| Contributions - State | 1,020,019 | 921,042 |
| Contributions - Employee | 832,048 | 713,687 |
| Contributions - Buy Back | 25,096 | 14,123 |
| Net Investment Income | (28,677,347) | 24,565,999 |
| Benefit Payments, including Refunds of Employee Contributions | (6,912,117) | (6,649,984) |
| Administrative Expense | (288,795) | (294,671) |
| Net Change in Plan Fiduciary Net Position | (31,800,405) | 21,135,223 |
| Plan Fiduciary Net Position - Beginning | 145,103,579 | 123,968,356 |
| Plan Fiduciary Net Position - Ending (b) | $ 113,303,174 | $ 145,103,579 |
| | | |
| Net Pension Liability - Ending (a) - (b) | $ 37,170,078 | $ (3,449,981) |
| | | |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 75.30% | 102.44% |
| | | |
| Covered Payroll | $ 9,498,262 | $ 8,133,762 |
| Net Pension Liability as a percentage of Covered Payroll | 391.34% | -42.42% |

**Notes to Schedule:**

*Changes in benefit terms:*

For measurement date 09/30/2021, the following change was implemented: an increase in current $25 per month per year of service supplemental benefit to $35 per month per year of service and it is payable until the member is age eligible to receive Medicare coverage under Federal Guidelines, effective for Members who terminate employment or enter DROP on or after October 1, 2021. For the eligible Members, the $35 per month per year of service will apply to all years of service and not just service after October 1, 2021.

*Changes of assumptions:*

For measurement date 09/30/2022, the investment rate of return was lowered from 7.65% to 7.50% per year, 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 | $ 2,947,994 | $ 2,971,067 | $ (23,073) | $ 9,498,262 | 31.28% |
| 09/30/2021 | $ 2,597,252 | $ 2,585,915 | $ 11,337 | $ 8,133,762 | 31.79% |

Notes to Schedule

Valuation Date: 10/01/2020 (AIS 11/30/2021)

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 Bay Police and Firefighters' Pension Fund (Police Officers) 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 | -19.98% |
| 09/30/2021 | 20.09% |

# NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2022)

*Plan Description*
The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:
a. Chairman Board Appointee,
b. Vice Chairman Police Elected Representative,
c. Secretary, Fire Elected Representative,
d. Two City Council Appointees.
Effective May 2, 1974, any full-time police officer having permanent status becomes a Plan Member immediately upon hire.

*Plan Membership as of October 1, 2021:*

| | |
|---|---|
| Inactive Plan Members or Beneficiaries Currently Receiving Benefits | 109 |
| Inactive Plan Members Entitled to But Not Yet Receiving Benefits | 26 |
| Active Plan Members | 139 |
| | 274 |

*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 Bay Police and Firefighters' Pension Fund (Police Officers) prepared by Foster & Foster Actuaries and Consultants.

*Contributions*
Member Contributions: 8.76% of Compensation effective September 30, 2000.
Interest Crediting Rate: 3.00% per year.
City: 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, 2021 through September 30, 2022.

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 | 2.70% |
| Salary Increases | Varies by age |
| Discount Rate | 7.50% |
| Investment Rate of Return | 7.50% |

*Mortality Rate Healthy Active Lives:*
Female: PubS.H-2010 (Below Median) for Employees, set forward one year.
Male: PubS.H-2010 (Below Median) for Employees, set forward one year.
*Mortality Rate 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.
*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, July 7, 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 geometric 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[1] |
|---|---|---|
| Domestic Equity | 35.0% | 7.1% |
| International Equity | 15.0% | 3.1% |
| Bonds | 25.0% | 2.0% |
| Convertibles | 10.0% | 6.4% |
| Private Real Estate | 10.0% | 6.4% |
| Infrastructure | 5.0% | 5.6% |
| Total | 100.0% | |

[1] Source: Burgess Chambers

*Discount Rate:*
The Discount Rate used to measure the Total Pension Liability was 7.50 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 (a) | Plan Fiduciary Net Position (b) | Net Pension Liability (a)-(b) |
| Balances at September 30, 2021 | $141,653,598 | $145,103,579 | $ (3,449,981) |
| Changes for a Year: | | | |
| Service Cost | 1,804,281 | - | 1,804,281 |
| Interest | 10,710,139 | - | 10,710,139 |
| Share Plan Allocation | 249,643 | - | 249,643 |
| Differences between Expected and Actual Experience | 264,507 | - | 264,507 |
| Changes of assumptions | 2,678,105 | - | 2,678,105 |
| Changes of benefit terms | - | - | - |
| Contributions - Employer | - | 2,200,691 | (2,200,691) |
| Contributions - State | - | 1,020,019 | (1,020,019) |
| Contributions - Employee | - | 832,048 | (832,048) |
| Contributions - Buy Back | 25,096 | 25,096 | - |
| Net Investment Income | - | (28,677,347) | 28,677,347 |
| Benefit Payments, including Refunds of Employee Contributions | (6,912,117) | (6,912,117) | - |
| Administrative Expense | - | (288,795) | 288,795 |
| Net Changes | 8,819,654 | (31,800,405) | 40,620,059 |
| Balances at September 30, 2022 | $150,473,252 | $113,303,174 | $ 37,170,078 |

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

| | 1% Decrease 6.50% | Current Discount Rate 7.50% | 1% Increase 8.50% |
|---|---|---|---|
| Sponsor's Net Pension Liability | $ 57,328,660 | $ 37,170,078 | $ 20,763,172 |

*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

For the year ended September 30, 2022, the Sponsor will recognize a Pension Expense of $7,866,056.
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 | 725,430 | 413,202 |
| Changes of assumptions | 3,595,006 | - |
| Net difference between Projected and Actual Earnings on Pension Plan investments | 21,286,937 | - |
| Total | $ 25,607,373 | $ 413,202 |

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 | $ 6,090,177 |
| 2024 | $ 5,372,061 |
| 2025 | $ 5,800,270 |
| 2026 | $ 7,931,663 |
| 2027 | $ - |
| Thereafter | $ - |

## 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 | 1,804,281 | 1,748,826 |
| Interest | 10,710,139 | 10,225,054 |
| Share Plan Allocation | 249,643 | 200,154 |
| Changes of benefit terms | - | 756,379 |
| Differences between Expected and Actual Experience | 264,507 | 878,416 |
| Changes of assumptions | 2,678,105 | - |
| Contributions - Buy Back | 25,096 | 14,123 |
| Benefit Payments, including Refunds of Employee Contributions | (6,912,117) | (6,649,984) |
| Net Change in Total Pension Liability | 8,819,654 | 7,172,968 |
| Total Pension Liability - Beginning | 141,653,598 | 134,480,630 |
| Total Pension Liability - Ending (a) | $ 150,473,252 | $ 141,653,598 |
| | | |
| Plan Fiduciary Net Position | | |
| Contributions - Employer | 2,200,691 | 1,865,027 |
| Contributions - State | 1,020,019 | 921,042 |
| Contributions - Employee | 832,048 | 713,687 |
| Contributions - Buy Back | 25,096 | 14,123 |
| Net Investment Income | (28,677,347) | 24,565,999 |
| Benefit Payments, including Refunds of Employee Contributions | (6,912,117) | (6,649,984) |
| Administrative Expense | (288,795) | (294,671) |
| Net Change in Plan Fiduciary Net Position | (31,800,405) | 21,135,223 |
| Plan Fiduciary Net Position - Beginning | 145,103,579 | 123,968,356 |
| Plan Fiduciary Net Position - Ending (b) | $ 113,303,174 | $ 145,103,579 |
| | | |
| Net Pension Liability - Ending (a) - (b) | $ 37,170,078 | $ (3,449,981) |
| | | |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 75.30% | 102.44% |
| | | |
| Covered Payroll | $ 9,498,262 | $ 8,133,762 |
| Net Pension Liability as a percentage of Covered Payroll | 391.34% | -42.42% |

**Notes to Schedule:**

*Changes in benefit terms:*

For measurement date 09/30/2021, the following change was implemented: an increase in current $25 per month per year of service supplemental benefit to $35 per month per year of service and it is payable until the member is age eligible to receive Medicare coverage under Federal Guidelines, effective for Members who terminate employment or enter DROP on or after October 1, 2021. For the eligible Members, the $35 per month per year of service will apply to all years of service and not just service after October 1, 2021.

*Changes of assumptions:*

For measurement date 09/30/2022, the investment rate of return was lowered from 7.65% to 7.50% per year, 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 | $ 2,947,994 | $ 2,971,067 | $ (23,073) | $ 9,498,262 | 31.28% |
| 09/30/2021 | $ 2,597,252 | $ 2,585,915 | $ 11,337 | $ 8,133,762 | 31.79% |

Notes to Schedule

Valuation Date: 10/01/2020 (AIS 11/30/2021)

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 Bay Police and Firefighters' Pension Fund (Police Officers) 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.**

# COMPONENTS OF PENSION EXPENSE
## FISCAL YEAR SEPTEMBER 30, 2022

| | Net Pension Liability | Deferred Inflows | Deferred Outflows | Pension Expense |
|---|---|---|---|---|
| Beginning balance | $ (3,449,981) | $ 16,176,590 | $ 5,396,048 | $ - |
| Total Pension Liability Factors: | | | | |
| Service Cost | 1,804,281 | - | - | 1,804,281 |
| Interest | 10,710,139 | - | - | 10,710,139 |
| Share Plan Allocation | 249,643 | - | - | 249,643 |
| Changes in benefit terms | - | - | - | - |
| Contributions - Buy Back | 25,096 | - | - | 25,096 |
| Differences between Expected and Actual Experience with regard to economic or demographic assumptions | 264,507 | - | 264,507 | - |
| Current year amortization of experience difference | - | (206,601) | (1,119,251) | 912,650 |
| Change in assumptions about future economic or demographic factors or other inputs | 2,678,105 | - | 2,678,105 | - |
| Current year amortization of change in assumptions | - | - | (1,462,741) | 1,462,741 |
| Benefit Payments, including Refunds of Employee Contributions | (6,912,117) | - | - | - |
| Net change | 8,819,654 | (206,601) | 360,620 | 15,164,550 |
| Plan Fiduciary Net Position: | | | | |
| Contributions - Employer | 2,200,691 | - | - | - |
| Contributions - State | 1,020,019 | - | - | - |
| Contributions - Employee | 832,048 | - | - | (832,048) |
| Contributions - Buy Back | 25,096 | - | - | (25,096) |
| Projected Net Investment Income | 10,980,967 | - | - | (10,980,967) |
| Difference between projected and actual earnings on Pension Plan investments | (39,658,314) | - | 39,658,314 | - |
| Current year amortization | - | (4,398,956) | (8,649,778) | 4,250,822 |
| Benefit Payments, including Refunds of Employee Contributions | (6,912,117) | - | - | - |
| Administrative Expenses | (288,795) | - | - | 288,795 |
| Net change | (31,800,405) | (4,398,956) | 31,008,536 | (7,298,494) |
| Ending Balance | $ 37,170,078 | $ 11,571,033 | $ 36,765,204 | $ 7,866,056 |

# AMORTIZATION SCHEDULE - INVESTMENTS

| Plan Year Ending | Differences Between Projected and Actual Earnings | Recognition Period (Years) | Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| 2022 | $ 39,658,314 | 5 | $ 7,931,662 | $ 7,931,663 | $ 7,931,663 | $ 7,931,663 | $ 7,931,663 | $ - | $ - | $ - | $ - | $ - |
| 2021 | $ (15,213,647) | 5 | $ (3,042,729) | $(3,042,729) | $(3,042,729) | $(3,042,729) | $ - | $ - | $ - | $ - | $ - | $ - |
| 2020 | $ (5,074,111) | 5 | $ (1,014,822) | $(1,014,822) | $(1,014,822) | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 2019 | $ 3,590,581 | 5 | $ 718,116 | $ 718,116 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 2018 | $ (1,707,027) | 5 | $ (341,405) | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Net Increase (Decrease) in Pension Expense | | | $ 4,250,822 | $ 4,592,228 | $ 3,874,112 | $ 4,888,934 | $ 7,931,663 | $ - | $ - | $ - | $ - | $ - |

## AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

| Plan Year Ending | Changes of Assumptions | Recognition Period (Years) | Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
| 2022 | $ 2,678,105 | 4 | $ 669,527 | $ 669,526 | $ 669,526 | $ 669,526 | $ - | $ - | $ - | $ - | $ - | $ - |
| 2020 | $ 3,966,069 | 5 | $ 793,214 | $ 793,214 | $ 793,214 | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Net Increase (Decrease) in Pension Expense | | | $ 1,462,741 | $ 1,462,740 | $ 1,462,740 | $ 669,526 | $ - | $ - | $ - | $ - | $ - | $ - |

## 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 | 2031 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2022 | $ 264,507 | 4 | $ 66,126 | $ 66,127 | $ 66,127 | $ 66,127 | $ - | $ - | $ - | $ - | $ - | $ - |
| 2021 | $ 878,416 | 5 | $ 175,683 | $ 175,683 | $ 175,683 | $ 175,683 | $ - | $ - | $ - | $ - | $ - | $ - |
| 2020 | $ (1,033,005) | 5 | $ (206,601) | $ (206,601) | $ (206,601) | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 2019 | $ 2,401,146 | 4 | $ 600,287 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 2018 | $ 1,385,775 | 5 | $ 277,155 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| Net Increase (Decrease) in Pension Expense | | | $ 912,650 | $ 35,209 | $ 35,209 | $ 241,810 | $ - | $ - | $ - | $ - | $ - | $ - |