

OKALOOSA ISLAND FIRE DISTRICT  
FIREFIGHTERS' RETIREMENT TRUST FUND

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2021

CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2023

GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2021



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

November 30, 2021

Board of Trustees  
Okaloosa Island Fire District  
Firefighters' Pension Board

Re: Okaloosa Island Fire District Firefighters' Retirement Trust Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the Okaloosa Island Fire District Firefighters' Retirement Trust 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 Okaloosa Island Fire District, 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, 2020. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2021 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 Okaloosa Island Fire District, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Retirement Trust 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,

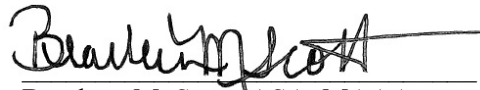
Foster & Foster, Inc.

By:



Drew D. Ballard, EA, MAAA  
Enrolled Actuary #20-8193

By:



Braeleen M. Scott, ASA, MAAA

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Enclosures

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the Okaloosa Island Fire District Firefighters' Retirement Trust Fund, performed as of October 1, 2021, 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, 2023.

The contribution requirements, compared with those set forth in the October 1, 2020 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2021 <u>9/30/2023</u>	10/1/2020 <u>9/30/2022</u>
Minimum Required Contribution	\$1,088,851	\$1,136,962
Member Contributions (Est.)	108,071	114,468
District And State Required Contribution	980,780	1,022,494
State Contribution (Est.) <sup>1</sup>	45,437	45,437
District Required Contribution <sup>2</sup>	\$935,343	\$977,057

<sup>1</sup> Represents the amount received in calendar 2021. As per a Mutual Consent Agreement between the Membership and the District, all State Monies received each year will be available to offset the District's required contribution.

<sup>2</sup> Please note that the District has access to a prepaid contribution of \$625,901.62 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2022.

As you can see, the Minimum Required Contribution shows a decrease when compared to the results determined in the October 1, 2020 actuarial valuation report. The decrease is largely attributable to a reduction in the plan's normal cost associated with a decline in the active plan membership and favorable actuarial experience, as described below. The decrease was offset in part by a change in the assumed investment rate of return from 7.30% to 7.20%.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. The primary source of actuarial gain was an investment return of 11.34% (Actuarial Asset Basis) which exceeded the 7.30% assumption and lower than expected administrative expenses. This gain was offset in part by losses associated with unfavorable retirement experience, inactive mortality experience, and an average salary increase of 13.32% which exceeded the 6.07% assumption.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

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

### Actuarial Assumption/Method Changes

Since the prior valuation, the investment return assumption was lowered from 7.30% to 7.20% per year, net of investment-related expenses.

There have been no method changes since the prior valuation.



## COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2021</u>	Old Assump <u>10/1/2021</u>	<u>10/1/2020</u>
<b>A. Participant Data</b>			
Actives	16	16	19
Service Retirees	14	14	13
Beneficiaries	1	1	1
Disability Retirees	2	2	2
Terminated Vested	<u>1</u>	<u>1</u>	<u>1</u>
Total	34	34	36
Total Annual Payroll	\$1,228,749	\$1,228,749	\$1,300,242
Payroll Under Assumed Ret. Age	1,228,749	1,228,749	1,300,242
Annual Rate of Payments to:			
Service Retirees	949,991	949,991	856,408
Beneficiaries	12,939	12,939	12,939
Disability Retirees	64,368	64,368	64,368
Terminated Vested	21,354	21,354	21,354
<b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	11,301,061	11,301,061	10,011,642
Market Value (MVA) <sup>1</sup>	12,804,765	12,804,765	10,393,282
<b>C. Liabilities</b>			
Present Value of Benefits			
Actives			
Retirement Benefits	6,174,072	6,031,652	6,932,511
Disability Benefits	97,676	96,089	99,595
Death Benefits	36,184	35,570	36,837
Vested Benefits	684,998	668,263	631,508
Refund of Contributions	41,031	40,934	50,690
Service Retirees	13,815,758	13,665,134	12,207,850
Beneficiaries	130,209	129,245	131,861
Disability Retirees	743,163	735,918	741,737
Terminated Vested	84,192	82,166	74,657
Share Plan Balances <sup>1</sup>	<u>0</u>	<u>0</u>	<u>0</u>
Total	21,807,283	21,484,971	20,907,246

C. Liabilities - (Continued)	New Assump <u>10/1/2021</u>	Old Assump <u>10/1/2021</u>	<u>10/1/2020</u>
Present Value of Future Salaries	13,220,175	13,133,379	13,653,136
Present Value of Future Member Contributions	1,057,614	1,050,670	1,092,251
Normal Cost (Retirement)	232,861	226,990	261,635
Normal Cost (Disability)	6,366	6,280	6,726
Normal Cost (Death)	1,597	1,570	1,801
Normal Cost (Vesting)	29,153	28,400	29,808
Normal Cost (Refunds)	<u>6,468</u>	<u>6,460</u>	<u>7,250</u>
Total Normal Cost	276,445	269,700	307,220
Present Value of Future Normal Costs	2,731,203	2,644,882	2,957,803
Accrued Liability (Retirement)	3,870,768	3,802,590	4,417,385
Accrued Liability (Disability)	42,142	41,698	39,436
Accrued Liability (Death)	19,943	19,732	19,399
Accrued Liability (Vesting)	358,981	352,678	307,128
Accrued Liability (Refunds)	10,924	10,928	9,990
Accrued Liability (Inactives)	14,773,322	14,612,463	13,156,105
Share Plan Balances <sup>1</sup>	<u>0</u>	<u>0</u>	<u>0</u>
Total Actuarial Accrued Liability (EAN AL)	19,076,080	18,840,089	17,949,443
Unfunded Actuarial Accrued Liability (UAAL)	7,775,019	7,539,028	7,937,801
Funded Ratio (AVA / EAN AL)	59.2%	60.0%	55.8%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2021</u>	Old Assump <u>10/1/2021</u>	<u>10/1/2020</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	14,773,322	14,612,463	13,156,105
Actives	1,509,373	1,468,720	1,972,166
Member Contributions	<u>724,998</u>	<u>724,998</u>	<u>747,428</u>
Total	17,007,693	16,806,181	15,875,699
Non-vested Accrued Benefits	<u>677,569</u>	<u>659,305</u>	<u>669,121</u>
Total Present Value			
Accrued Benefits (PVAB)	17,685,262	17,465,486	16,544,820
Funded Ratio (MVA / PVAB)	72.4%	73.3%	62.8%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	219,776	0	
Plan Experience	0	756,881	
Benefits Paid	0	(1,007,223)	
Interest	0	1,171,008	
Other	<u>0</u>	<u>0</u>	
Total	219,776	920,666	

Valuation Date	New Assump 10/1/2021	Old Assump 10/1/2021	10/1/2020
Applicable to Fiscal Year Ending	<u>9/30/2023</u>	<u>9/30/2023</u>	<u>9/30/2022</u>

E. Pension Cost

Normal Cost <sup>2</sup>	\$303,925	\$296,652	\$338,081
Administrative Expenses <sup>2</sup>	25,351	25,363	46,995
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 20 years (as of 10/1/2021) <sup>2</sup>	759,575	744,293	751,886
Minimum Required Contribution	1,088,851	1,066,308	1,136,962
Expected Member Contributions <sup>2</sup>	108,071	108,123	114,468
Expected District and State Contribution	980,780	958,185	1,022,494

F. Past Contributions

Plan Years Ending:	<u>9/30/2021</u>
District and State Requirement	1,016,094
Actual Contributions Made:	
District	970,657
State	45,437
Total	<u>1,016,094</u>

G. Net Actuarial (Gain)/Loss (174,234)

<sup>1</sup> The asset values and liabilities include accumulated Share Plan Balances as of 9/30/2021 and 9/30/2020.

<sup>2</sup> Contributions developed as of 10/1/2021 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:

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2021	7,775,019
2022	7,594,178
2023	7,385,874
2028	5,847,169
2032	3,840,935
2036	879,765
2041	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2021	13.32%	6.07%
Year Ended 9/30/2020	7.25%	6.12%
Year Ended 9/30/2019	4.91%	6.19%
Year Ended 9/30/2018	5.99%	6.06%
Year Ended 9/30/2017	5.13%	7.00%

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

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2021	21.48%	11.34%	7.30%
Year Ended 9/30/2020	12.46%	8.41%	7.40%
Year Ended 9/30/2019	3.53%	7.01%	7.50%
Year Ended 9/30/2018	7.60%	5.61%	7.50%
Year Ended 9/30/2017	12.54%	6.30%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2021	\$1,228,749
	10/1/2011	1,012,090
(b) Total Increase		21.41%
(c) Number of Years		10.00
(d) Average Annual Rate		1.96%

## 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.



Drew D. Ballard, EA, MAAA  
Enrolled Actuary #20-8193

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, 2020	\$7,937,801
(2)	Sponsor Normal Cost developed as of October 1, 2020	203,201
(3)	Expected administrative expenses for the year ended September 30, 2021	42,705
(4)	Expected interest on (1), (2) and (3)	595,852
(5)	Sponsor contributions to the System during the year ended September 30, 2021	1,016,094
(6)	Expected interest on (5)	50,203
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2021 (1)+(2)+(3)+(4)-(5)-(6)	7,713,262
(8)	Change to UAAL due to Assumption Change	235,991
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(174,234)
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2021	7,775,019

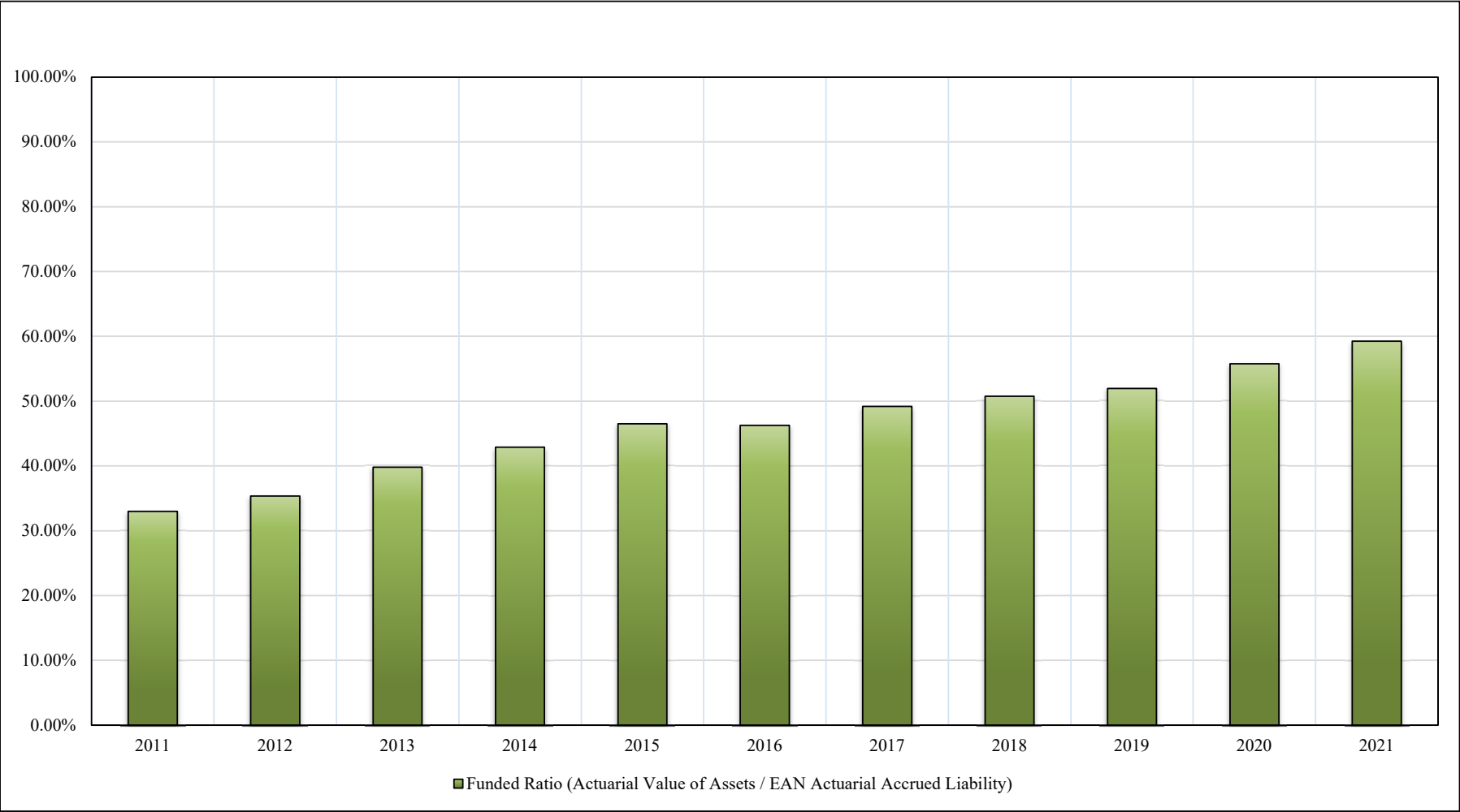
Type of Base	Date Established	Years Remaining	10/1/2021 Amount	Amortization Amount
UAAL Fresh Start	10/1/2017	16	8,133,252	721,321
Assum. Change	10/1/2017	16	298,780	26,498
Benefit Change	10/1/2017	16	(663,271)	(58,824)
Actuarial Loss	10/1/2018	17	197,922	16,883
Benefits Change	10/1/2018	17	(751)	(64)
Actuarial Gain	10/1/2019	18	(21,193)	(1,744)
Asmp/Mthd Change	10/1/2019	18	185,734	15,288
Actuarial Gain	10/1/2020	19	(154,405)	(12,299)
Assump Change	10/1/2020	19	(262,806)	(20,934)
Actuarial Gain	10/1/2021	20	(174,234)	(13,465)
Assump Change	10/1/2021	20	235,991	18,238
			<u>7,775,019</u>	<u>690,898</u>

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2020	\$7,937,801
(2) Expected UAAL as of October 1, 2021	7,713,262
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(427,637)
Salary Increases	65,074
Active Decrements	155,078
Inactive Mortality	86,906
Administrative Expenses	(21,743)
Other	<u>(31,912)</u>
Increase in UAAL due to (Gain)/Loss	(174,234)
Assumption Changes	<u>235,991</u>
(4) Actual UAAL as of October 1, 2021	\$7,775,019



HISTORY OF FUNDING PROGRESS



## ACTUARIAL ASSUMPTIONS AND METHODS

### 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.

#### *Healthy Retiree Lives:*

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

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

#### *Beneficiary Lives:*

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

**Male:** PubG.H-2010 (Below 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, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

### Interest Rate

7.20% (prior year 7.30%) 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>
<3	7.00%
3-6	6.50
7-9	6.00
10-14	6.00
15+	5.50

### Payroll Growth

1.95% 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

\$23,059 annually, based on the average of actual expenses incurred in the prior two fiscal years.

### Amortization Method

New UAAL amortization bases are amortized over 20 years.

### Funding Method

Entry Age Normal Actuarial Cost Method. The following loads are applied for determination of the dollar contribution requirement:

Interest – A half year, based on the 7.20% assumption  
Salary – A full year, based on the current 6.12% average assumption

### Retirement Age

Age 55 and 10 years of Credited Service, or age 52 and 25 years of Credited Service. The assumed rates were approved in conjunction with an actuarial experience study dated August 2017.

### Early Retirement

Commencing with the earliest Early Retirement Age (50), Members are assumed to retire with an immediate subsidized benefit at the rate of 2% per year. The assumed rates were approved in conjunction with an actuarial experience study dated August 2017.

### Disability Rate

Sample rates below (1201). It is assumed that 90% of Disability Retirees are service related. This assumption is consistent with those used by other plans containing Florida municipal Firefighters.

<u>Age</u>	<u>Rate</u>
20	0.03%
30	0.04
40	0.07
50	0.18

### Termination Rate

<u>Service</u>	<u>Rate</u>
0	9.0%
1	8.0
2	7.0
3	6.0
4	5.0
5-9	4.0
10+	2.0

The assumed rates were approved in conjunction with an actuarial experience study dated August 2017.

### Asset Valuation Method

All assets are valued at market value with an adjustment to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-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.

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.
- Payroll Growth: The plan's payroll growth assumption, if one is used, causes a predictable annual increase in the plan's amortization payment in order to produce an amortization payment that remains constant as a percentage of payroll if all assumptions are realized. If payroll does not increase according to the plan's payroll growth assumption, the plan's amortization payment can increase significantly as a percentage of payroll even if all assumptions other than the payroll growth assumption are realized.
- 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 163.6% on October 1, 2011 to 88.9% on October 1, 2021, 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 77.4%. 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 33.0% on October 1, 2011 to 59.2% on October 1, 2021.
- 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 12.4% on October 1, 2011 to 0.7% on October 1, 2021. The current Net Cash Flow Ratio of 0.7% 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>10/1/2011</u>	<u>10/1/2016</u>	<u>10/1/2020</u>	<u>10/1/2021</u>
<u>Support Ratio</u>				
Total Actives	18	18	19	16
Total Inactives <sup>1</sup>	11	12	17	18
Actives / Inactives <sup>1</sup>	163.6%	150.0%	111.8%	88.9%

### Asset Volatility Ratio

Market Value of Assets (MVA)	4,032,959	6,970,367	10,393,282	12,804,765
Total Annual Payroll	1,012,090	1,181,359	1,300,242	1,228,749
MVA / Total Annual Payroll	398.5%	590.0%	799.3%	1,042.1%

### Accrued Liability (AL) Ratio

Inactive Accrued Liability	7,957,210	9,253,399	13,156,105	14,773,322
Total Accrued Liability (EAN)	12,461,747	15,530,454	17,949,443	19,076,080
Inactive AL / Total AL	63.9%	59.6%	73.3%	77.4%

### Funded Ratio

Actuarial Value of Assets (AVA)	4,108,396	7,183,224	10,011,642	11,301,061
Total Accrued Liability (EAN)	12,461,747	15,530,454	17,949,443	19,076,080
AVA / Total Accrued Liability (EAN)	33.0%	46.3%	55.8%	59.2%

### Net Cash Flow Ratio

Net Cash Flow <sup>2</sup>	500,404	249,760	94,139	90,023
Market Value of Assets (MVA)	4,032,959	6,970,367	10,393,282	12,804,765
Ratio	12.4%	3.6%	0.9%	0.7%

<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>	Increase from <u>Previous Year</u>
1998	4,098.53	_____ %
1999	20,782.77	407.1%
2000	8,815.32	-57.6%
2001	11,419.94	29.5%
2002	14,476.74	26.8%
2003	18,698.15	29.2%
2004	16,018.82	-14.3%
2005	19,156.56	19.6%
2006	28,570.91	49.1%
2007	43,058.82	50.7%
2008	54,556.78	26.7%
2009	38,584.60	-29.3%
2010	53,131.49	37.7%
2011	52,025.28	-2.1%
2012	51,623.31	-0.8%
2013	54,472.08	5.5%
2014	56,846.21	4.4%
2015	43,485.34	-23.5%
2016	45,330.27	4.2%
2017	36,659.56	-19.1%
2018	37,865.00	3.3%
2019	36,478.11	-3.7%
2020	38,359.90	5.2%
2021	45,436.88	18.4%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2021

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	478,703.13	478,703.13
Total Cash and Equivalents	478,703.13	478,703.13
Receivables:		
Member Contributions in Transit	7,327.79	7,327.79
State Contributions	45,436.88	45,436.88
Total Receivable	52,764.67	52,764.67
Investments:		
Mutual Funds:		
Fixed Income	3,325,650.75	3,349,353.03
Equity	7,472,384.10	8,524,344.83
Pooled/Common/Commingled Funds:		
Real Estate	953,199.07	1,044,432.61
Total Investments	11,751,233.92	12,918,130.47
Total Assets	12,282,701.72	13,449,598.27
<u>LIABILITIES</u>		
Payables:		
Refunds of Member Contributions	13,316.34	13,316.34
Investment Expenses	4,750.00	4,750.00
Administrative Expenses	759.20	759.20
Prepaid Member Contribution	106.15	106.15
Prepaid District Contribution	625,901.62	625,901.62
Total Liabilities	644,833.31	644,833.31
NET POSITION RESTRICTED FOR PENSIONS	11,637,868.41	12,804,764.96

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2021  
Market Value Basis

ADDITIONS

Contributions:

Member	102,879.71
District	970,657.12
State	45,436.88

Total Contributions	1,118,973.71
---------------------	--------------

Investment Income:

Net Realized Gain (Loss)	2,494,486.93	
Unrealized Gain (Loss)	(373,561.30)	
Net Increase in Fair Value of Investments	2,120,925.63	
Interest & Dividends	236,625.67	
Less Investment Expense <sup>1</sup>	(36,091.20)	

Net Investment Income	2,321,460.10
-----------------------	--------------

Total Additions	3,440,433.81
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DEDUCTIONS

Distributions to Members:

Benefit Payments	993,906.90
Refunds of Member Contributions	13,316.34

Total Distributions	1,007,223.24
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Administrative Expense	21,727.92
------------------------	-----------

Total Deductions	1,028,951.16
------------------	--------------

Net Increase in Net Position	2,411,482.65
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NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	10,393,282.31
-----------------------	---------------

End of the Year	12,804,764.96
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<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION  
September 30, 2021

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth 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				
		2021	2022	2023	2024	2025
09/30/2020	477,050	286,230	190,820	95,410	0	0
09/30/2021	1,521,842	1,217,474	913,106	608,738	304,370	0
Total		1,503,704	1,103,926	704,148	304,370	0

<u>Development of Investment Gain/Loss</u>	
Market Value of Assets, including Prepaid Contributions, 09/30/2020	10,798,041
Contributions Less Benefit Payments & Admin Expenses	311,272
Expected Investment Earnings*	799,618
Actual Net Investment Earnings	2,321,460
2021 Actuarial Investment Gain/(Loss)	<u>1,521,842</u>

\*Expected Investment Earnings =  $0.073 * (10,798,041 + 0.5 * 311,272)$

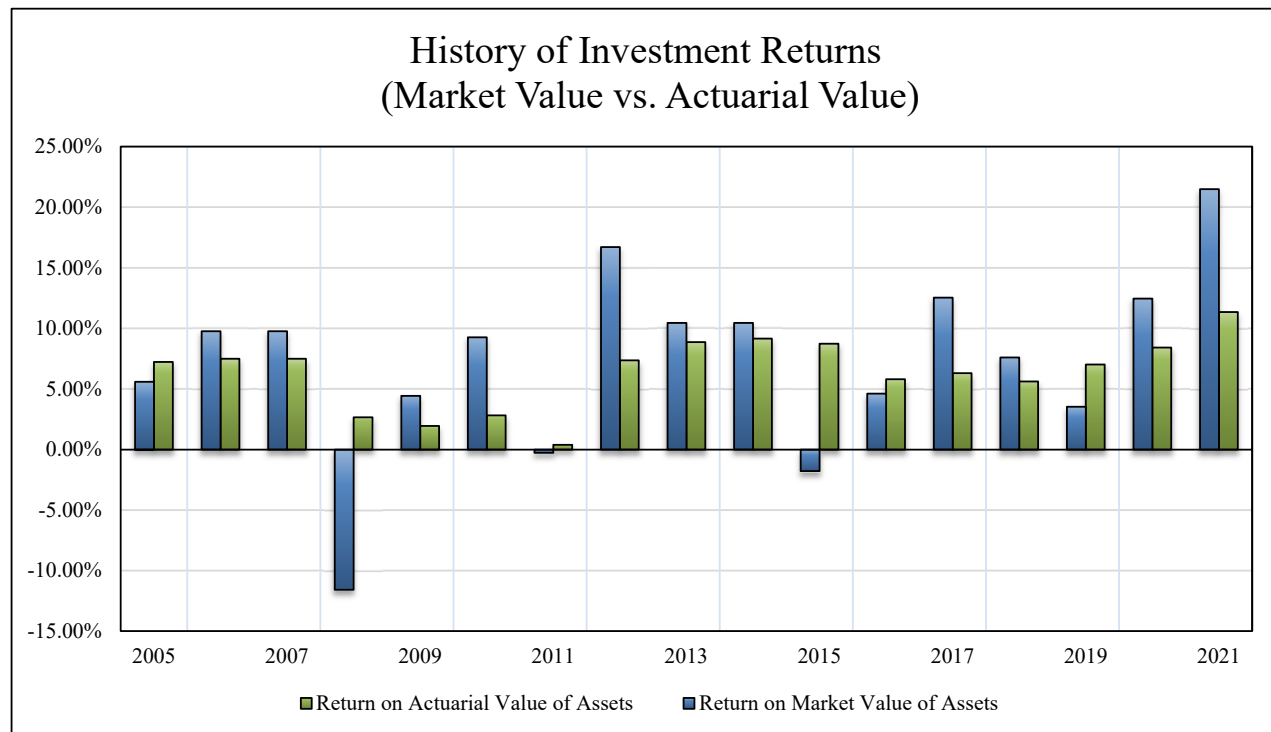
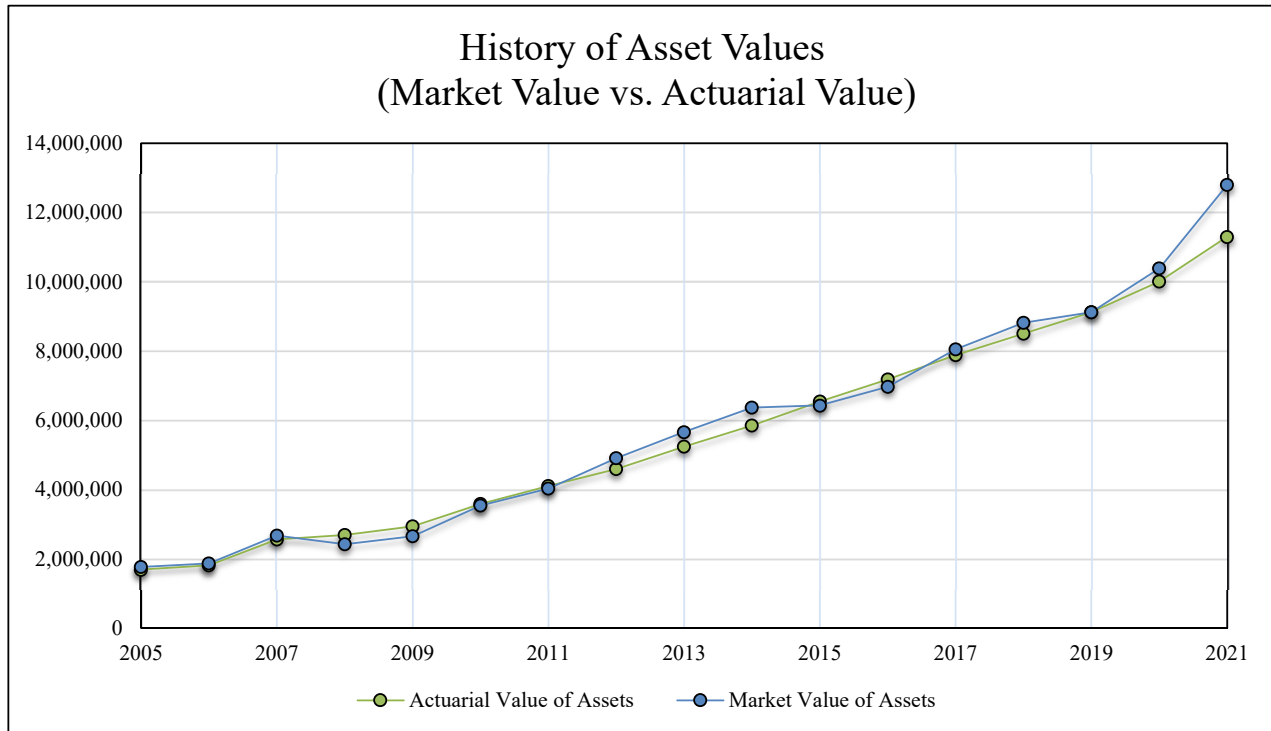
<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2021	12,804,765
(2) Gains/(Losses) Not Yet Recognized	<u>1,503,704</u>
(3) Actuarial Value of Assets, 09/30/2021, (1) - (2)	11,301,061
(A) 09/30/2020 Actuarial Assets, including Prepaid Contributions:	10,416,401
(I) Net Investment Income:	
1. Interest and Dividends	236,626
2. Realized Gain (Loss)	2,494,487
3. Unrealized Gain (Loss)	(373,561)
4. Change in Actuarial Value	(1,122,064)
5. Investment Expenses	<u>(36,091)</u>
Total	1,199,396
(B) 09/30/2021 Actuarial Assets:, including Prepaid Contributions:	11,927,069
Actuarial Assets Rate of Return = $2I/(A+B-I)$ :	11.34%
Market Value of Assets Rate of Return:	21.48%
10/01/2021 Limited Actuarial Assets (not including Prepaid):	11,301,061
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	427,637

## REVENUES

RECONCILIATION OF DISTRICT'S SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2021

(1) Required District and State Contributions	\$1,016,094.00
(2) Less Allowable State Contribution	<u>(45,436.88)</u>
(3) Required District Contribution for Fiscal 2021	970,657.12
(4) Less 2020 Prepaid Contribution	(404,758.74)
(5) Less Actual District Contributions	<u>(1,191,800.00)</u>
(6) Equals District's Shortfall/(Prepaid) Contribution as of September 30, 2021	(\$625,901.62)

## HISTORY OF ASSET VALUES AND INVESTMENT RETURNS





## STATISTICAL DATA

	<u>10/1/2018</u>	<u>10/1/2019</u>	<u>10/1/2020</u>	<u>10/1/2021</u>
<u>Actives</u>				
Number	20	20	19	16
Average Current Age	36.4	36.2	36.6	37.3
Average Age at Employment	27.7	27.9	27.6	27.1
Average Past Service	8.7	8.3	9.0	10.2
Average Annual Salary	\$63,150	\$63,938	\$68,434	\$76,797
<u>Service Retirees</u>				
Number	13	13	13	14
Average Current Age	61.6	62.6	63.6	63.8
Average Annual Benefit	\$63,916	\$64,882	\$65,878	\$67,857
<u>Beneficiaries</u>				
Number	0	0	1	1
Average Current Age	N/A	N/A	68.0	69.0
Average Annual Benefit	N/A	N/A	\$12,939	\$12,939
<u>Disability Retirees</u>				
Number	1	3	2	2
Average Current Age	69.0	52.2	44.3	45.3
Average Annual Benefit	\$12,939	\$25,769	\$32,184	\$32,184
<u>Terminated Vested</u>				
Number	1	0	1	1
Average Current Age <sup>1</sup>	N/A	N/A	35.2	36.2
Average Annual Benefit <sup>1</sup>	N/A	N/A	\$21,354	\$21,354

<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								1
25 - 29				2								2
30 - 34			1		1	1						3
35 - 39							3	2				5
40 - 44						1	1	1				3
45 - 49												0
50 - 54								1				1
55 - 59												0
60 - 64						1						1
65+												0
Total	0	0	1	3	1	3	4	4	0	0	0	16

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2020	19
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution	(2)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(1)
f. Continuing participants	16
g. New entrants	<u>0</u>
h. Total active life participants in valuation	16

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

	Service Retirees, Vested Receiving <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity) <u>  </u>	Vested (Due Refund) <u>  </u>	<u>Total</u>
a. Number prior valuation	13	1	2	1	0	17
Retired	1	0	0	0	0	1
Vested (Deferred Annuity)	0	0	0	0	0	0
Vested (Due Refund)	0	0	0	0	0	0
Hired/Terminated in Same Year	0	0	0	0	0	0
Death, With Survivor	0	0	0	0	0	0
Death, No Survivor	0	0	0	0	0	0
Disabled	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0
Rehires	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0
b. Number current valuation	14	1	2	1	0	18

SUMMARY OF CURRENT PLAN  
(Through Resolution No. 01-18)

<u>Eligibility</u>	Full-time employees who are classified as full-time certified firefighters shall participate in the System as a condition of employment.
<u>Credited Service</u>	Total years and fractional parts of years of employment with the District as a Firefighter.
<u>Salary</u>	W-2 compensation (excluding lump sum payments of unused sick and vacation pay) plus tax exempt, tax sheltered, and tax deferred items of income.
<u>Average Final Compensation</u>	Average Salary for the best 3 years during the 5 years immediately preceding retirement or termination.
<u>Member Contributions</u>	8.0% of Salary.
<u>District and State Contributions</u>	Remaining amount required in order to pay current costs and amortize any unfunded past service cost as provided in Part VII of Chapter 112, F.S.
<u>Normal Retirement</u>	
Date	Earlier of: 1) Age 55 and 10 years of Credited Service, or 2) Age 52 and 25 years of Credited Service.
Benefit	3.5% of Average Final Compensation <u>times</u> Credited Service, maximum \$100,000 annually.
Form of Benefit	Ten Year Certain and Life Annuity (options available).
<u>Early Retirement</u>	
Eligibility	Age 50 and 10 Years of Credited Service.
Benefit	Accrued benefit, reduced 3% for each year prior to Normal Retirement.
<u>Supplemental Monthly Benefit</u>	Normal and Early service retirees receive \$250 (reduced for Early) for life.
<u>Cost-of-Living Increase</u>	Normal or Early Retirees who retire after 3/18/2009 and their Beneficiaries or Joint Annuitants receive annual 3% benefit increases beginning the first 10/1 following 5 years of retirement.

## Vesting

Schedule	100% after 10 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Normal Retirement Date.

## 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.
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Benefit	Benefit accrued to date of disability but not less than 42% of Average Final Compensation (if Service Incurred).
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Duration	Payable for life and ten years certain or until recovery (as determined by the Board). Options available.
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## Death Benefits

### Pre-Retirement

Vested	Monthly accrued benefit payable to designated beneficiary for 10 years.
Non-Vested	Refund of accumulated contributions without interest.

Post-Retirement	Benefits payable to beneficiary in accordance with option selected at retirement.
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## Board of Trustees

Two District appointees, two Members of the Department elected by the membership, and a fifth Member elected by other 4 and appointed by the District.

## Chapter 175 Share Account

Pursuant to Chapter 2015-39, Laws of Florida, a supplemental benefit component for special benefits exists but is currently not funded as no premium tax allocations have been made to the share accounts.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2021

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	478,703
Total Cash and Equivalents	478,703
Receivables:	
Member Contributions in Transit	7,328
State Contributions	45,437
Total Receivable	52,765
Investments:	
Mutual Funds:	
Fixed Income	3,349,353
Equity	8,524,345
Pooled/Common/Commingled Funds:	
Real Estate	1,044,432
Total Investments	12,918,130
Total Assets	13,449,598
<u>LIABILITIES</u>	
Payables:	
Refunds of Member Contributions	13,316
Investment Expenses	4,750
Administrative Expenses	759
Total Liabilities	18,825
NET POSITION RESTRICTED FOR PENSIONS	13,430,773

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2021  
Market Value Basis

ADDITIONS

## Contributions:

Member	102,986
District	1,191,800
State	45,437

Total Contributions	1,340,223
---------------------	-----------

## Investment Income:

Net Increase in Fair Value of Investments	2,120,925
Interest & Dividends	236,626
Less Investment Expense <sup>1</sup>	(36,091)

Net Investment Income	2,321,460
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Total Additions	3,661,683
-----------------	-----------

DEDUCTIONS

## Distributions to Members:

Benefit Payments	993,907
Refunds of Member Contributions	13,316

Total Distributions	1,007,223
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Administrative Expense	21,728
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Total Deductions	1,028,951
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Net Increase in Net Position	2,632,732
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## NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	10,798,041
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End of the Year	13,430,773
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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, 2021)

### *Plan Administration*

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

- a. Two District appointees,
- b. Two Members of the Department elected by the membership,
- c. Fifth Member elected by other four and appointed by District.

### *Plan Membership as of October 1, 2020:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	16
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1
Active Plan Members	19
	36

### *Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2020 Actuarial Valuation Report for the Okaloosa Island Fire District Firefighters' Retirement Trust Fund prepared by Foster & Foster Actuaries and Consultants.

### *Contributions*

Member Contributions: 8.0% of Salary.

District 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, 2021:

Asset Class	Target Allocation
Domestic Equity	50.0%
International Equity	15.0%
Broad Market Fixed Income	20.0%
Fixed Income (Non-Core)	2.5%
Global Fixed Income	2.5%
Real Estate	10.0%
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, 2021, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 21.48 percent.

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



## NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2021 were as follows:

Total Pension Liability	\$ 18,693,278
Plan Fiduciary Net Position	\$ (13,430,773)
Sponsor's Net Pension Liability	<u>\$ 5,262,505</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	71.85%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2020 updated to September 30, 2021 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.20%
Investment Rate of Return	7.20%

*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 for Healthy Retirees, set forward one year.

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

*Mortality Rate Beneficiary Lives:*

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

Male: PubG.H-2010 (Below 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.

The above 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, 2019 FRS valuation report for special risk employees, with appropriate risk and collar adjustments made based on plan demographics. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated August 23, 2017.

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 2021 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.

## GASB 67

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, 2021 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	7.50%
International Equity	8.50%
Broad Market Fixed Income	2.50%
Fixed Income (Non-Core)	2.50%
Global Fixed Income	3.50%
Real Estate	4.5%

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

### *Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.20 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 6.20%	Current Discount Rate 7.20%	1% Increase 8.20%
Sponsor's Net Pension Liability	\$ 7,842,447	\$ 5,262,505	\$ 3,151,226

# SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

## Last 2 Fiscal Years

	09/30/2021	09/30/2020
Total Pension Liability		
Service Cost	310,131	317,405
Interest	1,292,182	1,289,042
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	(28,032)	(84,455)
Changes of assumptions	231,612	(265,217)
Benefit Payments, including Refunds of Employee Contributions	(1,007,223)	(928,490)
Net Change in Total Pension Liability	798,670	328,285
Total Pension Liability - Beginning	17,894,608	17,566,323
Total Pension Liability - Ending (a)	<u>\$ 18,693,278</u>	<u>\$ 17,894,608</u>
Plan Fiduciary Net Position		
Contributions - Employer	1,191,800	1,200,073
Contributions - State	45,437	74,838
Contributions - Employee	102,986	99,965
Net Investment Income	2,321,460	1,173,642
Benefit Payments, including Refunds of Employee Contributions	(1,007,223)	(928,490)
Administrative Expense	(21,728)	(24,389)
Net Change in Plan Fiduciary Net Position	2,632,732	1,595,639
Plan Fiduciary Net Position - Beginning	10,798,041	9,202,402
Plan Fiduciary Net Position - Ending (b)	<u>\$ 13,430,773</u>	<u>\$ 10,798,041</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 5,262,505</u>	<u>\$ 7,096,567</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	71.85%	60.34%
Covered Payroll	\$ 1,285,996	\$ 1,249,565
Net Pension Liability as a percentage of Covered Payroll	409.22%	567.92%

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

#### *Changes of assumptions:*

For measurement date 09/30/2021, the investment return assumption was lowered from 7.30% to 7.20% per year, net of investment related expenses.

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in the July 1, 2019 actuarial valuation for special risk lives, with appropriate risk and collar adjustments made based on plan demographics.

Additionally, the investment return assumption was lowered from 7.40% to 7.30% 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
09/30/2021	\$ 1,016,094	\$ 1,237,237	\$ (221,143)	\$ 1,285,996	96.21%
09/30/2020	\$ 947,052	\$ 1,274,911	\$ (327,859)	\$ 1,249,565	102.03%

#### Notes to Schedule

Valuation Date: 10/01/2019

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, 2019 Actuarial Valuation for the Okaloosa Island Fire District Firefighters' Retirement Trust 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
09/30/2021	21.48%
09/30/2020	12.46%

## NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2021)

### *Plan Description*

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

- a. Two District appointees,
- b. Two Members of the Department elected by the membership,
- c. Fifth Member elected by other four and appointed by District.

Full-time employees who are classified as full-time certified firefighters shall participate in the System as a condition of employment.

### *Plan Membership as of October 1, 2020:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	16
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1
Active Plan Members	19
	36
	36

### *Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2020 Actuarial Valuation Report for the Okaloosa Island Fire District Firefighters' Retirement Trust Fund prepared by Foster & Foster Actuaries and Consultants.

### *Contributions*

Member Contributions: 8.0% of Salary.

District 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, 2021.

The measurement period for the pension expense was October 1, 2020 to September 30, 2021.

The reporting period is October 1, 2020 through September 30, 2021.

The Sponsor's Net Pension Liability was measured as of September 30, 2021.

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, 2020 updated to September 30, 2021 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.20%
Investment Rate of Return	7.20%

*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 for Healthy Retirees, set forward one year.

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

*Mortality Rate Beneficiary Lives:*

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

Male: PubG.H-2010 (Below 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.

The above 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, 2019 FRS valuation report for special risk employees, with appropriate risk and collar adjustments made based on plan demographics. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated August 23, 2017.

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 2021 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, 2021 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	50.0%	7.50%
International Equity	15.0%	8.50%
Broad Market Fixed Income	20.0%	2.50%
Fixed Income (Non-Core)	2.5%	2.50%
Global Fixed Income	2.5%	3.50%
Real Estate	10.0%	4.50%
Total	100.0%	

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

*Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.20 percent.

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

## CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Balances as of September 30, 2020	\$ 17,894,608	\$ 10,798,041	\$ 7,096,567
Changes for a Year:			
Service Cost	310,131	-	310,131
Interest	1,292,182	-	1,292,182
Differences between Expected and Actual Experience	(28,032)	-	(28,032)
Changes of assumptions	231,612	-	231,612
Changes of benefit terms	-	-	-
Contributions - Employer	-	1,191,800	(1,191,800)
Contributions - State	-	45,437	(45,437)
Contributions - Employee	-	102,986	(102,986)
Net Investment Income	-	2,321,460	(2,321,460)
Benefit Payments, including Refunds of Employee Contributions	(1,007,223)	(1,007,223)	-
Administrative Expense	-	(21,728)	21,728
Net Changes	798,670	2,632,732	(1,834,062)
Balances as of September 30, 2021	\$ 18,693,278	\$ 13,430,773	\$ 5,262,505

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.20%	7.20%	8.20%
Sponsor's Net Pension Liability	\$ 7,842,447	\$ 5,262,505	\$ 3,151,226

*Pension Plan Fiduciary Net Position.*

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



**PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS**  
FISCAL YEAR SEPTEMBER 30, 2021

For the year ended September 30, 2021, the Sponsor will recognize a Pension Expense of \$466,643.

On September 30, 2021, 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	69,246	84,355
Changes of assumptions	425,042	189,440
Net difference between Projected and Actual Earnings on Pension Plan investments	-	1,360,573
Total	<u>\$ 494,288</u>	<u>\$ 1,634,368</u>

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:	
2022	\$ (258,516)
2023	\$ (260,721)
2024	\$ (378,352)
2025	\$ (282,942)
2026	\$ 11,369
Thereafter	\$ 29,082

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

### Last 2 Fiscal Years

Measurement Date <sup>1</sup>	09/30/2021	09/30/2020
Total Pension Liability		
Service Cost	310,131	317,405
Interest	1,292,182	1,289,042
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	(28,032)	(84,455)
Changes of assumptions	231,612	(265,217)
Benefit Payments, including Refunds of Employee Contributions	(1,007,223)	(928,490)
Net Change in Total Pension Liability	798,670	328,285
Total Pension Liability - Beginning	17,894,608	17,566,323
Total Pension Liability - Ending (a)	<u>\$ 18,693,278</u>	<u>\$ 17,894,608</u>
Plan Fiduciary Net Position		
Contributions - Employer	1,191,800	1,200,073
Contributions - State	45,437	74,838
Contributions - Employee	102,986	99,965
Net Investment Income	2,321,460	1,173,642
Benefit Payments, including Refunds of Employee Contributions	(1,007,223)	(928,490)
Administrative Expense	(21,728)	(24,389)
Net Change in Plan Fiduciary Net Position	2,632,732	1,595,639
Plan Fiduciary Net Position - Beginning	10,798,041	9,202,402
Plan Fiduciary Net Position - Ending (b)	<u>\$ 13,430,773</u>	<u>\$ 10,798,041</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 5,262,505</u>	<u>\$ 7,096,567</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	71.85%	60.34%
Covered Payroll	\$ 1,285,996	\$ 1,249,565
Net Pension Liability as a percentage of Covered Payroll	409.22%	567.92%

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

<sup>1</sup> Effective for the City's fiscal year ending 09/30/2021, the GASB 68 measurement date of the Pension Expense has been approved and changed from 09/30/2020 to 09/30/2021.

#### *Changes of assumptions:*

For measurement date 09/30/2021, the investment return assumption was lowered from 7.30% to 7.20% per year, net of investment related expenses.

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in the July 1, 2019 actuarial valuation for special risk lives, with appropriate risk and collar adjustments made based on plan demographics.

Additionally, the investment return assumption was lowered from 7.40% to 7.30% 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
09/30/2021	\$ 1,016,094	\$ 1,237,237	\$ (221,143)	\$ 1,285,996	96.21%
09/30/2020	\$ 947,052	\$ 1,274,911	\$ (327,859)	\$ 1,249,565	102.03%

### Notes to Schedule

Valuation Date: 10/01/2019

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, 2019 Actuarial Valuation for the Okaloosa Island Fire District Firefighters' Retirement Trust 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.**

**COMPONENTS OF PENSION EXPENSE**  
FISCAL YEAR SEPTEMBER 30, 2021

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 7,096,567	\$ 787,384	\$ 710,772	\$ -
Total Pension Liability Factors:				
Service Cost	310,131	-	-	310,131
Interest	1,292,182	-	-	1,292,182
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(28,032)	28,032	-	-
Current year amortization of experience difference	-	(64,668)	(18,806)	(45,862)
Change in assumptions about future economic or demographic factors or other inputs	231,612	-	231,612	-
Current year amortization of change in assumptions	-	(37,888)	(213,494)	175,606
Benefit Payments, including Refunds of Employee Contributions	(1,007,223)	-	-	-
Net change	<u>798,670</u>	<u>(74,524)</u>	<u>(688)</u>	<u>1,732,057</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,191,800	-	-	-
Contributions - State	45,437	-	-	-
Contributions - Employee	102,986	-	-	(102,986)
Projected Net Investment Income	799,618	-	-	(799,618)
Difference between projected and actual earnings on Pension Plan investments	1,521,842	1,521,842	-	-
Current year amortization	-	(457,205)	(72,667)	(384,538)
Benefit Payments, including Refunds of Employee Contributions	(1,007,223)	-	-	-
Administrative Expenses	(21,728)	-	-	21,728
Net change	<u>2,632,732</u>	<u>1,064,637</u>	<u>(72,667)</u>	<u>(1,265,414)</u>
Ending Balance	<u>\$ 5,262,505</u>	<u>\$ 1,777,497</u>	<u>\$ 637,417</u>	<u>\$ 466,643</u>

AMORTIZATION SCHEDULE - INVESTMENTS

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

Plan Year	Differences Between	Recognition										
Ending	Projected and Actual Earnings	Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029	
2021	\$ (1,521,842)	5	\$ (304,370)	\$ (304,368)	\$ (304,368)	\$ (304,368)	\$ (304,368)	\$ -	\$ -	\$ -	\$ -	-
2020	\$ (477,050)	5	\$ (95,410)	\$ (95,410)	\$ (95,410)	\$ (95,410)	\$ -	\$ -	\$ -	\$ -	\$ -	-
2019	\$ 352,312	5	\$ 70,462	\$ 70,462	\$ 70,462	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
2018	\$ 11,023	5	\$ 2,205	\$ 2,205	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
2017	\$ (287,126)	5	\$ (57,425)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
Net Increase (Decrease) in Pension Expense			\$ (384,538)	\$ (327,111)	\$ (329,316)	\$ (399,778)	\$ (304,368)	\$ -	\$ -	\$ -	\$ -	-

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

			Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions											
Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029			
2021	\$ 231,612	7	\$ 33,090	\$ 33,087	\$ 33,087	\$ 33,087	\$ 33,087	\$ 33,087	\$ 33,087	\$ -	\$ -	\$ -	\$ -	
2020	\$ (265,217)	7	\$ (37,888)	\$ (37,888)	\$ (37,888)	\$ (37,888)	\$ (37,888)	\$ (37,888)	\$ -	\$ -	\$ -	\$ -	\$ -	
2019	\$ 227,197	8	\$ 28,400	\$ 28,400	\$ 28,400	\$ 28,400	\$ 28,400	\$ 28,400	\$ -	\$ -	\$ -	\$ -	\$ -	
2017	\$ 295,819	7	\$ 42,260	\$ 42,260	\$ 42,260	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2016	\$ 658,466	6	\$ 109,744	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Net Increase (Decrease) in Pension Expense			\$ 175,606	\$ 65,859	\$ 65,859	\$ 23,599	\$ 23,599	\$ 23,599	\$ 33,087	\$ -	\$ -	\$ -	\$ -	

AMORTIZATION SCHEDULE - EXPERIENCE

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

Plan Year	Differences Between	Recognition										
Ending	Expected and Actual	Period (Years)	2021	2022	2023	2024	2025	2026	2027	2028	2029	
	Experience											
2021	\$ (28,032)	7	\$ (4,002)	\$ (4,005)	\$ (4,005)	\$ (4,005)	\$ (4,005)	\$ (4,005)	\$ (4,005)	\$ (4,005)	-	\$ -
2020	\$ (84,455)	7	\$ (12,065)	\$ (12,065)	\$ (12,065)	\$ (12,065)	\$ (12,065)	\$ (12,065)	\$ (12,065)	-	\$ -	\$ -
2019	\$ 30,720	8	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,840	-	\$ -	\$ -
2018	\$ 80,459	8	\$ 10,057	\$ 10,057	\$ 10,057	\$ 10,057	\$ 10,057	-	\$ -	\$ -	\$ -	\$ -
2017	\$ 34,366	7	\$ 4,909	\$ 4,909	\$ 4,909	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (291,603)	6	\$ (48,601)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (45,862)	\$ 2,736	\$ 2,736	\$ (2,173)	\$ (2,173)	\$ (12,230)	\$ (4,005)	\$ -	\$ -	\$ -