



April 5, 2023

Pension Board  
c/o Mr. Jack Wetzler, Plan Administrator  
Retirement System for General Employees  
of the Utility Board of the City of Key West  
1001 James Street  
Key West, Florida 33041-6100

**Re: January 1, 2023 Actuarial Valuation**

Dear Jack:

As requested, we are pleased to enclose the January 1, 2023 Actuarial Valuation Report for the Retirement System for General Employees of the Utility Board of the City of Key West.

We appreciate the opportunity to work with the Board on this important project. We look forward to presenting the key financial results of our Actuarial Valuation Report at the May 30<sup>th</sup> Pension Board Meeting.

Upon Board approval of the Actuarial Valuation Report, we will upload an electronic copy of the Actuarial Valuation Report along with the required disclosure information to the State portal as required by the State.

If you should have any questions concerning the above, please do not hesitate to contact us.

Sincerest regards,  
Gabriel, Roeder, Smith & Company

A handwritten signature in black ink that reads "Michelle Jones". The signature is written in a cursive, flowing style.

Shelly L. Jones, A.S.A.  
Consultant and Actuary

Enclosures

cc: Mr. Jesse Perloff

# RETIREMENT SYSTEM FOR GENERAL EMPLOYEES OF THE UTILITY BOARD OF THE CITY OF KEY WEST

Actuarial Valuation as of January 1, 2023

This Valuation Determines the Annual Contribution for the System Year January 1, 2023 through December 31, 2023 to be Paid in the Calendar Year Ending December 31, 2023

April 5, 2023





**Retirement System for General Employees of the  
Utility Board of the City of Key West**

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April 5, 2023

Board of Trustees  
c/o Mr. Jack Wetzler, Plan Administrator  
Retirement System for General Employees  
of the Utility Board of the City of Key West  
1001 James Street  
Key West, Florida 33041-6100

**Re: Retirement System for General Employees of the Utility Board of the City of Key West**

Dear Trustees:

We are pleased to present our January 1, 2023 Actuarial Valuation Report for the Retirement System for General Employees of the Utility Board of the City of Key West (*System*). The purpose of this Report is to indicate appropriate contribution levels, comment on the actuarial stability of the System and to satisfy State requirements. Gabriel, Roeder, Smith & Company (*GRS*), as System actuary, is authorized by the Board of Trustees to prepare an annual actuarial valuation under Section 8.04(f) of the System.

This Report consists of this cover letter, executive summary and risk assessment followed by detailed Tables I through XV, the State Required Exhibit on Table XVI and Technical Definitions on Table XVII. The Tables contain basic System cost figures plus significant details on the benefits, liabilities and experience of the System. We suggest you thoroughly review the Report at your convenience and contact us with any questions that may arise.

The findings in this report are based on data or other information through December 31, 2022. The valuation was based upon information furnished by the Utility Board concerning Retirement System benefits, plan provisions and active members, retirees, beneficiaries and vested terminees. We received financial information as of December 31, 2022 from the Utility Board.

We do not audit the Member census data and asset information provided to us; however, we perform certain reasonableness checks. The System is responsible for the accuracy of the census data and asset information.

In our opinion the benefits currently provided for under the System will be sufficiently funded through the payment of the amount as indicated in this and future Actuarial Valuation Reports. This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed. We will continue to update

you on the future payment requirements for the System through our actuarial Reports. These Reports will also continue to monitor the future experience of the System.

The actuarial assumptions used in this Actuarial Valuation are as adopted by the Board of Trustees. The demographic actuarial assumptions are based on the results of an actuarial experience study for the five-year period ended December 31, 2017. The mortality assumptions are prescribed by statute. Each assumption represents an estimate of future System experience.

If all actuarial assumptions are met and if all future minimum required contributions are paid, System assets will be sufficient to pay all System benefits, future contributions are expected to remain relatively stable as a percentage of payroll and the funded status of the System is expected to improve. System minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act with normal cost determined as a level percent of covered payroll and a level percent amortization payment using an initial amortization period of 30 years.

The Unfunded Actuarial Accrued Liability (UAAL) may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions. The UAAL would be different if it reflected the market value of assets rather than the actuarial value of assets.

The GASB Net Pension Liability and System Fiduciary Net Position as a Percentage of Total Pension Liability may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions. The GASB Net Pension Liability and System Fiduciary Net Position as a Percentage of Total Pension Liability are based upon the market value of assets.

This Report should not be relied on for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this Report in a manner other than the intended purpose may produce significantly different results.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This Report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this Report is accurate and fairly presents the actuarial position of the System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and



Board of Trustees  
April 5, 2023  
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practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

This Report was prepared at the request of the Board of Trustees and is intended for use by the Board of Trustees and those designated or approved by the Board of Trustees. This Report may be provided to parties other than the Board of Trustees only in its entirety and only with the permission of the Board of Trustees. GRS is not responsible for unauthorized use of this Report.

The signing actuaries are independent of the System and Utility Board.

The undersigned are Members of the American Academy of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained in this Report. We are available to respond to any questions with regards to matters covered in this Report.


Sincerely,

Gabriel, Roeder, Smith & Company



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Shelly L. Jones, A.S.A., E.A.  
Consultant and Actuary



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Jennifer M. Borregard, E.A.  
Consultant and Actuary







The present value of vested accrued benefits exceeds the market value of System assets. The Vested Benefit Security Ratio is 86.6% (87.1% prior to update in actuarial assumptions). This is a decrease from 108.6% as of the January 1, 2022 Actuarial Valuation. The Vested Benefit Security Ratio is based upon the market value of assets.

Table VII provides figures on recent System payroll growth experience. Recent System covered payroll growth experience indicates actual payroll growth averaged approximately 1.6% annually for the ten (10) fiscal years ended December 31, 2022. The payroll growth assumption is 3.0%, not in excess of the ten (10) year average annual payroll growth assumption. The cap on payroll growth assumption is provided under Florida Statute. The decrease in payroll growth assumption from 1.7% to 1.6% slightly increased current year amortization payments.

### **Actuarial Gains / (Losses)**

The System experienced an actuarial loss of **\$1,059,289** for 2022. Our Actuarial Valuation Report tracks the actual experience in three areas that are very significant in determining whether a gain or loss occurs. Table XIV presents compensation experience, tracks employee turnover and provides information on investment return.

Table XIV provides statistics on increases in pay enjoyed by active System Members. During 2022, pay increases to active Members averaged 5.7%. Pay increases were above the average pay increase assumption of 5.1%. This suggests pay increases were generally a source of actuarial loss this year. Three, five and ten-year average annual pay increases are 5.0%, 5.1% and 4.8%, respectively.

In addition, Table XIV provides statistics for active System Members terminating service in comparison to the number of active System Members who were assumed to terminate under the withdrawal assumptions. Member turnover during 2022 was 170% of the assumed turnover. This suggests employee turnover was an offsetting source of actuarial gain this year. Three, five and ten-year average termination experience is 90%, 60% and 70% of expected turnover, respectively.

Table XIV also provides comparative statistics on the investment experience for the System. During 2022, the System experienced a smoothed investment return of approximately 6.67%. Smoothed investment return was below the 7.30% (prior assumption) anticipated rate of return. Smoothed investment return was an additional source of actuarial loss this year. The average smoothed actuarial value rate of return over the last three, five and ten-years is 10.39%, 8.8% and 9.1%, respectively. The corresponding one, three, five and ten-year average market value rates of return are -14.78%, 3.83%, 5.9% and 7.6%, respectively.

### **Conclusion and Recommendations**

The Market Value of Assets is less than the Actuarial Value of Assets by \$12,166,642 as of the valuation date. This difference will be gradually recognized in the absence of future offsetting gains. In turn, the actuarially determined contribution rate will increase.



We are currently engaged to perform an Experience Study covering the five-year period January 1, 2018 – December 31, 2022 which includes a review of the investment return assumption in 2023. Upon approval by the Board of Trustees of any changes in actuarial assumptions, the updated assumptions will be first used in the January 1, 2024 Actuarial Valuation.

The remainder of this Report includes detailed actuarial valuation results, information relating to the pension fund, financial accounting information, miscellaneous employee data and a summary of plan provisions and actuarial assumptions and methods.

## **RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION**

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the System's funded status); and changes in System provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the System's future financial condition include:

1. Investment risk – actual investment returns may differ from the expected returns;
2. Asset/Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the System's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and the actuarially determined contributions differing from expected;
5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and the actuarially determined contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate,

the actuarially determined contribution can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in the actuarially determined contribution can be anticipated.

The actuarially determined contribution rate shown on page four may be considered as a minimum contribution rate that complies with the Board’s funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the system. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

### System Maturity Measures

Risks facing a pension system evolve over time. A young system with virtually no investments and paying few benefits may experience little investment risk. An older system with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted system maturity measures include the following:

	<u>2022</u>	<u>2023</u>
Ratio of the market value of assets to total payroll	11.50	9.61
Ratio of actuarial accrued liability to payroll	11.36	11.96
Ratio of actives to retirees and beneficiaries	0.67	0.63
Ratio of net cash flow to market value of assets	-2.3%	-3.4%
Duration of the actuarial accrued liability	12.42	12.43

### Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of the actuarially determined contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in the actuarially determined contributions as a percentage of payroll.

### Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of the actuarially determined contributions for a fully funded system. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also the actuarially determined contributions) as a percentage of payroll.

### **Ratio of Actives to Retirees and Beneficiaries**

A young system with many active members and few retirees will have a high ratio of active to retirees. A mature open system may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed system may have significantly more retirees than actives resulting in a ratio below 1.0.

### **Ratio of Net Cash Flow to Market Value of Assets**

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature system or a need for additional contributions.

### **Duration of Actuarial Accrued Liability**

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

### **Additional Risk Assessment**

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

## Summary of Retirement Plan Costs

	Current Assumptions				Prior Assumptions					
	Hired after May 31, 2010		Hired before June 1, 2010		Total January 1, 2023		Total January 1, 2023		Total January 1, 2022	
	Cost Data	% of Payroll	Cost Data	% of Payroll	Cost Data	% of Payroll	Cost Data	% of Payroll	Cost Data	% of Payroll
A. Participant Data Summary (Table III)										
1. Active Employees	67	N/A	57	N/A	124	N/A	124	N/A	130	N/A
2. Terminated Vested	2	N/A	17	N/A	19	N/A	19	N/A	19	N/A
3. Receiving Benefits including DROPs	0	N/A	196	N/A	196	N/A	196	N/A	194	N/A
4. Total Participants	69	N/A	270	N/A	339	N/A	339	N/A	343	N/A
5. Annual Payroll of Active Employees	\$ 5,875,717	100.0%	\$ 5,331,771	100.0%	\$ 11,207,488	100.0%	\$ 11,207,488	100.0%	\$ 11,413,810	100.0%
B. Total Normal Costs										
1. Age Retirement Benefits	\$ 496,888	8.5%	\$ 794,495	14.9%	\$ 1,291,383	11.5%	\$ 1,272,648	11.4%	\$ 1,314,460	11.5%
2. Deferred Vesting Benefits	65,754	1.1%	88,414	1.7%	154,168	1.4%	152,075	1.4%	165,409	1.4%
3. Death Benefits	42,055	0.7%	44,091	0.8%	86,146	0.8%	85,560	0.8%	88,059	0.8%
4. Disability Benefits	21,708	0.4%	40,543	0.8%	62,251	0.6%	61,846	0.6%	64,445	0.6%
5. Subtotal	\$ 626,405	10.7%	\$ 967,543	18.1%	\$ 1,593,948	14.2%	\$ 1,572,129	14.0%	\$ 1,632,373	14.3%
6. Administrative Expenses	N/A		N/A		84,937	0.8%	84,937	0.8%	62,399	0.5%
7. Total Annual Normal Costs	N/A		N/A		\$ 1,678,885	15.0%	\$ 1,657,066	14.8%	\$ 1,694,772	14.8%

Summary of Retirement Plan Costs

	Current Assumptions		Prior Assumptions		January 1, 2022	
	January 1, 2023		January 1, 2023		January 1, 2022	
	<u>Cost</u>	<u>% of</u>	<u>Cost</u>	<u>% of</u>	<u>Cost</u>	<u>% of</u>
	<u>Data</u>	<u>Payroll</u>	<u>Data</u>	<u>Payroll</u>	<u>Data</u>	<u>Payroll</u>
C. Total Actuarial Accrued Liability						
1. Age Retirement Benefits Active Employees	\$ 27,359,513	244.1%	\$ 27,106,032	241.9%	\$ 30,032,267	263.1%
2. Deferred Vested Benefits Active Employees	137,891	1.2%	137,261	1.2%	132,877	1.2%
3. Death Benefits Active Employees	399,101	3.6%	398,150	3.6%	380,141	3.3%
4. Disability Benefits Active Employees	957,624	8.5%	952,380	8.5%	927,254	8.1%
5. Retired or Terminated Vested Participants Receiving Benefits including DROPs	95,724,109	854.1%	95,255,134	849.9%	89,021,407	779.9%
6. Terminated Vested Participants Entitled to Future Benefits	1,466,835	13.1%	1,454,086	13.0%	1,513,300	13.3%
7. Deceased Participants Whose Beneficiaries are Receiving Benefits	6,376,858	56.9%	6,347,563	56.6%	5,807,446	50.9%
8. Disabled Participants Receiving Benefits	1,565,750	14.0%	1,559,829	13.9%	1,790,024	15.7%
9. Total Actuarial Accrued Liability	<u>\$ 133,987,681</u>	1195.5%	<u>\$ 133,210,435</u>	1188.6%	<u>\$ 129,604,716</u>	1135.5%
D. Market Value of Assets (Table IV)	\$ 107,655,736	960.6%	\$ 107,655,736	960.6%	\$ 131,229,229	1149.7%
E. Smoothed Actuarial Value of Assets (Table V)	\$ 119,822,378	1069.1%	\$ 119,822,378	1069.1%	\$ 116,700,566	1022.5%
F. Unfunded Actuarial Accrued Liability (C-E)	\$ 14,165,303	126.4%	\$ 13,388,057	119.5%	\$ 12,904,150	113.1%
G. Minimum Required Contribution						
1. Total Normal Cost	\$ 1,678,885	15.0%	\$ 1,657,066	14.8%	\$ 1,694,772	14.8%
2. Amortization of Unfunded Liability	1,652,527	14.7%	1,604,590	14.3%	1,493,329	13.1%
3. Interest Adjustment	120,764	1.1%	119,050	1.1%	116,366	1.0%
4. Total Payment	<u>\$ 3,452,176</u>	30.8%	<u>\$ 3,380,706</u>	30.2%	<u>\$ 3,304,467</u>	29.0%
H. Actuarial Gain / (Loss) (Table VI)	\$ (1,059,289)	(9.5%)	\$ (1,059,289)	(9.5%)	\$ 7,002,505	61.4%

Summary of Retirement Plan Costs

	Current Assumptions January 1, 2023		Prior Assumptions January 1, 2023		January 1, 2022	
	Cost Data	% of Payroll	Cost Data	% of Payroll	Cost Data	% of Payroll
I. Actuarial Present Value of Vested Accrued Benefits						
1. Retired, Terminated Vested, Beneficiaries, Disabled Receiving Benefits including DROPs	\$ 103,666,717	925.0%	\$ 103,162,526	920.5%	\$ 96,618,877	846.5%
2. Terminated Vested Participants Entitled to Future Benefits	1,466,835	13.1%	1,454,086	13.0%	1,513,300	13.3%
3. Active Participants Entitled to Future Benefits	19,232,209	171.6%	19,028,567	169.8%	22,722,821	199.1%
4. Total Actuarial Present Value of Vested Accrued Benefits	\$ 124,365,761	1109.7%	\$ 123,645,179	1103.2%	\$ 120,854,998	1058.8%
J. Unfunded Actuarial Present Value of Vested Accrued Benefits (I.4 - D., not less than zero)	\$ 16,710,025	149.1%	\$ 15,989,443	142.7%	\$ 0	0.0%
K. Vested Benefit Security Ratio (VBSR) (D. ÷ I.4.)	86.6%	N/A	87.1%	N/A	108.6%	N/A
L. Expected Contribution to meet Fiduciary Net Position as a Percentage of Total Pension Liability of:						
- 85%	\$ 5,330,558	47.6%	\$ 4,669,899	41.7%	N/A	N/A
- 90%	\$ 11,976,811	106.9%	\$ 11,277,289	100.6%	N/A	N/A
- 95%	\$ 18,623,063	166.2%	\$ 17,884,680	159.6%	N/A	N/A
- 100%	\$ 25,269,316	225.5%	\$ 24,492,070	218.5%	N/A	N/A



## Comparison of Cost Data of January 1, 2022 and January 1, 2023 Valuations

	Current Assumptions January 1, 2023		Prior Assumptions January 1, 2023		January 1, 2022	
	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation
A. Participants						
1. Active Employees	124	N/A	124	N/A	130	N/A
2. Terminated Vested	19	N/A	19	N/A	19	N/A
3. Receiving Benefits including DROPs	196	N/A	196	N/A	194	N/A
4. Annual Payroll of Active Employees	\$ 11,207,488	100.0%	\$ 11,207,488	100.0%	\$ 11,413,810	100.0%
B. Total Normal Costs	\$ 1,678,885	15.0%	\$ 1,657,066	14.8%	\$ 1,694,772	14.8%
C. Total Actuarial Accrued Liability	\$ 133,987,681	1195.5%	\$ 133,210,435	1188.6%	\$ 129,604,716	1135.5%
D. Smoothed Actuarial Value of Assets	\$ 119,822,378	1069.1%	\$ 119,822,378	1069.1%	\$ 116,700,566	1022.5%
E. Unfunded Actuarial Accrued Liability	\$ 14,165,303	126.4%	\$ 13,388,057	119.5%	\$ 12,904,150	113.1%
F. Net Minimum Funding Payment	\$ 3,452,176	30.8%	\$ 3,380,706	30.2%	\$ 3,304,467	29.0%
G. Actuarial Gain / (Loss)	\$ (1,059,289)	(9.5%)	\$ (1,059,289)	(9.5%)	\$ 7,002,505	61.4%
H. Unfunded Actuarial Present Value of Vested Accrued Benefits	\$ 16,710,025	149.1%	\$ 15,989,443	142.7%	\$ 0	0.0%
I. Vested Benefit Security Ratio (VBSR)	86.6%	N/A	87.1%	N/A	108.6%	N/A
J. Expected Contribution to meet Fiduciary Net Position as a Percentage of Total Pension Liability of:						
- 85%	\$ 5,330,558	47.6%	\$ 4,669,899	41.7%	N/A	N/A
- 90%	\$ 11,976,811	106.9%	\$ 11,277,289	100.6%	N/A	N/A
- 95%	\$ 18,623,063	166.2%	\$ 17,884,680	159.6%	N/A	N/A
- 100%	\$ 25,269,316	225.5%	\$ 24,492,070	218.5%	N/A	N/A

**Characteristics of Participants in  
Actuarial Valuation as of January 1, 2023**

**A. Active Plan Participants Summary**

1. Active participants as of beginning of prior year	130
2. New entrants during prior year	7
3. Exits during prior year	(13)
4. Active participants as of beginning of year	124
5. Active participants fully vested	59
6. Active participants partially vested	27
7. Active participants non-vested	38
8. Annual payroll of active participants	\$ 11,207,488
9. Average pay	\$ 90,383
10. Average hire age	33.39 years
11. Average attained age	44.16 years
12. Percent female	34.7%

**B. Characteristics of Inactive Participants**

1. Inactives as of beginning of prior year	213
2. Newly inactive during prior year	9
3. Exits during prior year	(7)
4. Inactives as of beginning of year	215
5. Age retirees	163
6. Projected annual benefits for age retirees	\$ 7,029,405
7. DROPs	5
8. Projected annual benefits for DROPs	\$ 442,836
9. Beneficiaries of deceased participants	21
10. Projected annual benefits for beneficiaries	\$ 594,840
11. Disabled participants receiving benefits	7
12. Projected annual benefits for disabled participants	\$ 177,314
13. Terminated vested due deferred benefits	19
14. Projected annual benefits for terminated vested participants	\$ 155,686

## Statement of Assets as of January 1, 2023 \*

<u>Assets</u>	<u>Market Value</u>
<u>Investments at Market Value</u>	
Cash and Cash Equivalents	\$ 2,874,841
Bonds	22,541,135
Mutual Funds	
- Asset Allocation Fund	5,070,227
- Vanguard Domestic Stock Mutual Fund	23,102,471
- Vanguard International Stock Mutual Fund	5,846,484
- Global Bond Mutual Fund	5,655,483
- International Growth Mutual Fund	7,944,133
International Equities	0
Common Stocks	23,448,872
Real Estate	10,522,740
Total Investments	<u>\$ 107,006,386</u>
<u>Receivables</u>	
Accrued Interest	\$ 137,734
Pending Trades	238,046
Utility Board Contributions	4,727
Miscellaneous	0
Total Receivables	<u>\$ 380,507</u>
<u>Other - Prepaid Benefits and Expenses</u>	\$ 631,481
<u>Liabilities</u>	
Accrued Expenses & Benefits and Accounts Payable	\$ 82,298
Pending Trades	280,340
Total Liabilities	<u>\$ 362,638</u>
<u>Net Assets Available for Benefits</u>	\$ 107,655,736

\* As reported on financial statements prepared by the Utility Board.

Table V

## Reconciliation of Plan Assets \*

A. <u>Market Value of Assets as of January 1, 2022</u>	\$ 131,229,229
B. <u>Receipts During Year</u>	
1. Utility Board contributions	\$ 3,218,570
2. Interest, dividends and other	
(a) Dividends, interest and other	\$ 3,244,979
(b) Investment fees	357,199
(c) Net dividends, interest and other [(a)-(b)]	<u>\$ 2,887,780</u>
3. Realized gains / (losses)	\$ 10,213,097
4. Unrealized gains / (losses)	<u>\$ (32,157,270)</u>
5. Net receipts during year	\$ (15,837,823)
C. <u>Disbursements During Year</u>	
1. Pension benefit payments	\$ 7,609,025
2. DROP distribution	0
3. Contribution refunds	0
3. Administrative expenses paid	<u>126,645</u>
4. Total disbursements during year	\$ 7,735,670
D. <u>Market Value of Assets as of December 31, 2022</u>	\$ 107,655,736
E. <u>Reconciliation of DROP Account Balances</u>	
1. DROP account balances as of January 1, 2022	\$ 0
2. Benefit payments into DROP accounts	173,989
3. Investment credits	761
4. Distributions from DROP accounts	<u>0</u>
5. DROP account balances as of December 31, 2022	\$ 174,750

\* As reported on financial statements prepared by the Utility Board.



**Actuarial Gain / (Loss) for  
System Year Ended December 31, 2022**

**A. Derivation of Actuarial Gain / (Loss)**

1. Normal cost previous actuarial valuation	\$ 1,694,772
2. Unfunded actuarial accrued liability previous actuarial valuation	12,904,150
3. Utility Board contributions	3,218,570
4. Interest on:	
(a) Normal cost	\$ 123,718
(b) Unfunded actuarial accrued liability	942,003
(c) Utility Board contributions	117,305
(d) Net total: (a) + (b) - (c)	\$ 948,416
5. Increase / (decrease) in unfunded actuarial accrued liability due to assumption change	\$ 777,246
6. Expected unfunded actuarial accrued liability current year: (1. + 2. - 3. + 4. + 5.)	\$ 13,106,014
7. Actual unfunded actuarial accrued liability current year	14,165,303
8. Actuarial gain / (loss): (6. - 7.)	\$ (1,059,289)

**B. Approximate Portion of Gain / (Loss)  
due to Investments**

1. Smoothed actuarial value of assets previous year	\$ 116,700,566
2. Contributions during year	3,218,570
3. Benefits and administrative expenses during year	7,735,670
4. Expected appreciation for period	8,354,094
5. Expected smoothed actuarial value of assets current year: (1. + 2. - 3. + 4.)	\$ 120,537,560
6. Actual smoothed actuarial value of assets current year	\$ 119,822,378
7. Approximate gain / (loss) due to investments: (6. - 5.)	\$ (715,182)

**C. Approximate Portion of Gain / (Loss)  
due to Liabilities: A.8. - B.7.**

\$ (344,107)

### Amortization of Unfunded Actuarial Accrued Liability

#### A. Amortization of Unfunded Accrued Liability

<u>Date</u>	<u>Unfunded Liability</u>	<u>Amortization Payment</u>
January 1, 2023	\$ 14,165,303	\$ 1,652,527
January 1, 2024	\$ 13,419,956	\$ 1,678,967
January 1, 2025	\$ 12,592,209	\$ 1,705,829
January 1, 2026	\$ 11,675,645	\$ 1,733,123
January 1, 2027	\$ 10,663,352	\$ 1,760,851
...		
...		
January 1, 2053	\$ 0	\$ 0

#### B. Covered Payroll History

<u>Date</u>	<u>Covered Payroll</u>	<u>Annual Increase</u>
January 1, 2023	\$ 11,207,488	(1.8%)
January 1, 2022	\$ 11,413,810	8.1%
January 1, 2021	\$ 10,557,428	0.2%
January 1, 2020	\$ 10,541,172	4.6%
January 1, 2019	\$ 10,080,796	9.5%
January 1, 2018	\$ 9,210,384	(4.7%)
January 1, 2017	\$ 9,667,989	4.5%
January 1, 2016	\$ 9,247,710	2.2%
January 1, 2015	\$ 9,046,826	(1.9%)
January 1, 2014	\$ 9,226,528	(3.5%)
January 1, 2013	\$ 9,558,105	N/A
Ten-Year Average Annual Increase		1.6%

## Accounting Disclosure Exhibit

	Current Assumptions 01/01/2023	Prior Assumptions 01/01/2023	01/01/2022
<b>I. <u>Number of System Members</u></b>			
1. Retirees, DROPs and beneficiaries receiving benefits	196	196	194
2. Terminated System members entitled to but not yet receiving benefits	19	19	19
3. Active System members	124	124	130
4. Total	339	339	343
<b>II. <u>Financial Accounting Standards Board Allocation</u></b>			
<u>As of January 1, 2023</u>			
<b>A. <u>Statement of Accumulated System Benefits</u></b>			
1. Actuarial present value of accumulated vested System benefits			
a. Participants currently receiving benefits including DROPs	\$ 103,666,717	\$ 103,162,526	\$ 96,618,877
b. Other participants	20,699,044	20,482,653	24,236,121
c. Total	\$ 124,365,761	\$ 123,645,179	\$ 120,854,998
2. Actuarial present value of accumulated non-vested System benefits	\$ 1,286,974	\$ 1,267,666	\$ 1,157,939
3. Total actuarial present value of accumulated System benefits	\$ 125,652,735	\$ 124,912,845	\$ 122,012,937
<b>B. <u>Statement of Change in Accumulated System Benefits</u></b>			
1. Actuarial present value of accumulated System benefits as of January 1, 2022			\$ 122,012,937
2. Increase / (decrease) during year attributable to:			
a. System amendment			\$ 0
b. Change in actuarial assumptions			739,890
c. Benefits paid			(7,609,025)
d. Other, including benefits accumulated, increase for interest due to decrease in the discount period			10,508,933
e. Net increase			\$ 3,639,798
3. Actuarial present value of accumulated System benefits as of January 1, 2023			\$ 125,652,735
<b>C. <u>Significant Matters Affecting Calculations</u></b>			
1. Assumed rate of return used in determining actuarial present values			7.25%
2. Change in System provisions			None affecting calculations
3. Change in actuarial assumptions			See Table X. Item M.



Accounting Disclosure Exhibit

III. Net Pension Liability and Related Ratios (GASB No. 67 & No. 68)

Measurement date	Projected 12/31/2023 *	12/31/2022	12/31/2021	12/31/2020	12/31/2019	12/31/2018	12/31/2017	12/31/2016	12/31/2015	12/31/2014
<b>A. Total Pension Liability</b>										
Service Cost	\$ 1,593,948	\$ 1,632,373	\$ 1,541,442	\$ 1,547,225	\$ 1,533,031	\$ 1,513,840	\$ 1,653,371	\$ 1,689,246	\$ 1,615,566	\$ 1,688,924
Interest	9,545,560	9,302,578	9,139,976	8,932,525	8,833,919	8,625,293	8,313,210	8,043,700	7,503,157	7,233,694
Benefit Changes	0	0	0	0	0	0	132,646	0	0	0
Difference Between Actual and Expected Experience	285,383	(963,329)	(444,296)	781,979	26,942	333,184	(756,398)	465,515	(399,487)	(552,616)
Assumption Changes	777,246	725,561	711,728	(2,331,163)	(218,579)	0	113,197	2,800,797	0	3,883,996
Benefit Payments, including Refunds of Member Contributions	(7,837,454)	(7,609,025)	(7,312,997)	(6,882,561)	(6,513,941)	(6,275,076)	(5,723,180)	(5,462,925)	(5,040,021)	(4,673,833)
Net Change in Total Pension Liability	\$ 4,364,683	\$ 3,088,158	\$ 3,635,853	\$ 2,048,005	\$ 3,661,372	\$ 4,197,241	\$ 3,732,846	\$ 7,536,333	\$ 3,679,215	\$ 7,580,165
<b>Total Pension Liability (TPL) - (beginning of year)</b>	<b>132,925,052</b>	<b>129,836,894</b>	<b>126,201,041</b>	<b>124,153,036</b>	<b>120,491,664</b>	<b>116,294,423</b>	<b>112,561,577</b>	<b>105,025,244</b>	<b>101,346,029</b>	<b>93,765,864</b>
<b>Total Pension Liability (TPL) - (end of year)</b>	<b>\$ 137,289,735</b>	<b>\$ 132,925,052</b>	<b>\$ 129,836,894</b>	<b>\$ 126,201,041</b>	<b>\$ 124,153,036</b>	<b>\$ 120,491,664</b>	<b>\$ 116,294,423</b>	<b>\$ 112,561,577</b>	<b>\$ 105,025,244</b>	<b>\$ 101,346,029</b>
<b>B. System Fiduciary Net Position</b>										
Contributions - System Sponsor	\$ 3,452,176	\$ 3,218,570	\$ 4,681,720	\$ 4,596,321	\$ 4,468,689	\$ 4,175,289	\$ 3,860,513	\$ 3,986,227	\$ 3,653,199	\$ 3,511,645
Contributions - Member	0	0	0	0	0	0	0	0	0	0
Net Investment Income	7,642,996	(19,056,393)	17,333,854	14,615,438	18,937,609	(1,961,067)	12,634,539	5,090,087	(550,552)	3,909,304
Benefit Payments, including Refunds of Member Contributions	(7,837,454)	(7,609,025)	(7,312,997)	(6,882,561)	(6,513,941)	(6,275,076)	(5,723,180)	(5,462,925)	(5,040,021)	(4,673,833)
Administrative Expenses	(84,937)	(126,645)	(69,981)	(58,185)	(59,031)	(76,329)	(58,967)	(57,971)	(67,452)	(75,519)
Other	0	0	0	0	0	0	0	0	0	0
Net Change in System Fiduciary Net Position	\$ 3,172,781	\$ (23,573,493)	\$ 14,632,596	\$ 12,271,013	\$ 16,833,326	\$ (4,137,183)	\$ 10,712,905	\$ 3,555,418	\$ (2,004,826)	\$ 2,671,597
<b>System Fiduciary Net Position - (beginning of year)</b>	<b>107,655,736</b>	<b>131,229,229</b>	<b>116,596,633</b>	<b>104,325,620</b>	<b>87,492,294</b>	<b>91,629,477</b>	<b>80,916,572</b>	<b>77,361,154</b>	<b>79,365,980</b>	<b>76,694,383</b>
<b>System Fiduciary Net Position - (end of year)</b>	<b>\$ 110,828,517</b>	<b>\$ 107,655,736</b>	<b>\$ 131,229,229</b>	<b>\$ 116,596,633</b>	<b>\$ 104,325,620</b>	<b>\$ 87,492,294</b>	<b>\$ 91,629,477</b>	<b>\$ 80,916,572</b>	<b>\$ 77,361,154</b>	<b>\$ 79,365,980</b>
<b>C. Net Pension Liability (NPL) - (end of year): (A) - (B)</b>	<b>\$ 26,461,218</b>	<b>\$ 25,269,316</b>	<b>\$ (1,392,335)</b>	<b>\$ 9,604,408</b>	<b>\$ 19,827,416</b>	<b>\$ 32,999,370</b>	<b>\$ 24,664,946</b>	<b>\$ 31,645,005</b>	<b>\$ 27,664,090</b>	<b>\$ 21,980,049</b>
<b>D. System Fiduciary Net Position as a Percentage of TPL:</b>										
<b>(B) / (A)</b>	80.73 %	80.99 %	101.07 %	92.39 %	84.03 %	72.61 %	78.79 %	71.89 %	73.66 %	78.31 %
<b>E. Covered Employee Payroll **</b>	\$ 11,207,488	\$ 11,071,411	\$ 10,774,549	\$ 10,515,772	\$ 10,320,299	\$ 9,425,032	\$ 9,462,044	\$ 9,291,906	\$ 9,319,386	\$ 8,958,281
<b>F. NPL as a Percentage of Covered Employee Payroll:</b>										
<b>(C) / (E)</b>	236.10 %	228.24 %	(12.92)%	91.33 %	192.12 %	350.12 %	260.67 %	340.57 %	296.84 %	245.36 %
<b>G. Notes to Schedule:</b>										
Valuation Date	01/01/2023	01/01/2022	01/01/2021	01/01/2020	01/01/2019	01/01/2018	01/01/2017	01/01/2016	01/01/2015	01/01/2014
Reporting Date (GASB No. 68)	09/30/2024	09/30/2023	09/30/2022	09/30/2021	09/30/2020	09/30/2019	09/30/2018	09/30/2017	09/30/2016	09/30/2015

Update procedures used to roll forward TPL excluding DROP account balances, if any, to the measurement dates - actual DROP account balances as of measurement dates included in TPL.

See Notes to Schedule of Contributions for a history of assumption changes and benefit changes.

\* Projected - actual amounts will be available after System year end

\*\* Reported payroll on which contributions to the System are based as provided under GASB No. 82



Accounting Disclosure Exhibit

IV. Schedule of Employer Contributions (GASB No. 67)

<u>Fiscal Year Ended 12/31</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll <sup>1</sup></u>	<u>Actual Contribution as a % of Covered Payroll</u>
2013	\$ 3,628,209	\$ 3,628,209	\$ 0	\$ 9,162,598	39.60%
2014	3,511,645	3,511,645	0	8,958,281	39.20%
2015	3,653,199	3,653,199	0	9,319,386	39.20%
2016	3,986,227	3,986,227	0	9,291,906	42.90%
2017	3,860,513	3,860,513	0	9,462,044	40.80%
2018	4,175,289	4,175,289	0	9,425,032	44.30%
2019	4,468,689	4,468,689	0	10,320,299	43.30%
2020	4,174,762	4,596,321	(421,559)	10,515,772	43.71%
2021	3,943,485	4,681,720	(738,235)	10,774,549	43.45%
2022	3,210,709	3,218,570	(7,861)	11,071,411	29.07%
2023 <sup>2</sup>	3,452,176	3,452,176	0	11,207,488	30.80%

<sup>1</sup> Reported payroll on which contributions to the System are based as provided under GASB No. 82

<sup>2</sup> Projected - actual amounts will be available after year end

Accounting Disclosure Exhibit

V. Schedule of Employer Contributions (GASB No. 68)

<u>Fiscal Year End 9/30</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll <sup>1</sup></u>	<u>Actual Contribution as a % of Covered Payroll</u>
2013	\$ 3,560,247	\$ 3,560,247	\$ 0	\$ 9,200,101	38.70%
2014	3,540,786	3,540,786	0	9,009,360	39.30%
2015	3,617,811	3,617,811	0	9,229,110	39.20%
2016	3,902,970	3,902,970	0	9,298,776	41.97%
2017	3,891,942	3,891,942	0	9,419,510	41.32%
2018	4,096,595	4,096,595	0	9,434,285	43.42%
2019	4,395,339	4,395,339	0	10,096,482	43.53%
2020	4,248,244	4,564,413	(316,169)	10,466,904	43.61%
2021	4,001,304	4,660,370	(659,066)	10,709,855	43.51%
2022	3,393,903	3,584,358	(190,455)	10,997,196	32.59%
2023 <sup>2</sup>	3,391,809	3,393,775	(1,966)	11,173,469	30.37%

<sup>1</sup> Based on prorated calendar year pay

<sup>2</sup> Projected - actual amounts will be available after fiscal year end

**Accounting Disclosure Exhibit**

**VI. Notes to Schedule of Contributions (GASB No. 67 & No. 68)**

**Valuation Date:** Actuarially determined contributions are calculated using a valuation date as of the beginning of the plan year (each January 1st).

**Methods and Assumptions Used to Determine Contribution Rates:**

Actuarial Cost Method	Entry Age
Amortization Method	Level Percentage of Pay, Closed
Amortization Period	30 years
Asset Valuation Method	5-year smoothed market
Inflation	2.60%
Salary Increases	4.0% - 7.0%
Investment Rate of Return	7.30%
Payroll Growth Assumption	3.0% per year, but limited to average annual increase over most recent ten years (1.7%).
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	<p>For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.</p> <p>For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.</p> <p>For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvement.</p>
Cost-of-Living Increases	3.0%

Accounting Disclosure Exhibit

VI. Notes to Schedule of Contributions (GASB No. 67 & No. 68) (cont'd)

**Other Information:**

Benefit Changes

2017: Effective October 25, 2017 for Members under Career Average Compensation and on January 1, 2020 for Members under Final Average Compensation, Compensation means a Member's base compensation (hourly rate in effect each pay period multiplied by the corresponding hours earned during that pay period). However, Compensation shall not include overtime (except as necessary to not penalize Members assigned to work 12-hour shifts), commissions, bonuses, expense allowances and any hours that are considered leave without pay. For Members under Final Average Compensation, effective January 1, 2020, the average annual Compensation earned by a Member during the highest 10,440 hours out of the last 20,880 hours of service (which shall be determined using the highest 130.5 payroll periods of the last 261 payroll periods) immediately preceding termination of service or retirement.

Assumption Changes

2022: Investment return updated. 2021: Investment return updated. 2020: Investment return and mortality rates updated; 2019: Investment return, employee withdrawal rates, salary increase factors and retirement rates updated. 2017: Pre-retirement mortality was updated. 2016: Mortality rates updated. 2014: Investment return updated from 8.0% to 7.5%; withdrawal, salary increase and retirement rates updated.

VII. Discount Rate (GASB No. 67 & No. 68)

Discount rates of 7.30% and 7.25% were used to measure the December 31, 2022 TPL and the December 31, 2023 TPL, respectively. These discount rates were based on the expected rate of return on System investments of 7.30% and 7.25%. The projection of cash flows used to determine these discount rates assumed member contributions will be made at the current contribution rate and employer contributions will be made at rates equal to the difference between actuarially determined current contribution rates and the member contribution rate. Based on these assumptions, the pension System's fiduciary net position was projected to be available to make all projected future expected benefit payments of current System members. Therefore, the long-term expected rate of return on System investments was applied to all periods of projected benefit payments to determine the TPL.

Accounting Disclosure Exhibit

VIII. Sensitivity of the NPL to the Discount Rate Assumption (GASB No. 67 & No. 68) (cont'd)

Measurement date: December 31, 2022

	1% Decrease	Current Discount Rate	1% Increase
Discount Rate	6.30%	7.30%	8.30%
NPL	\$ 41,610,162	\$ 25,269,316	\$ 11,751,756

Measurement date: December 31, 2023 \*

	1% Decrease	Current Discount Rate	1% Increase
Discount Rate	6.25%	7.25%	8.25%
NPL	\$ 43,328,470	\$ 26,461,218	\$ 12,515,334

\* Projected - actual amounts will be available after System year end

**Accounting Disclosure Exhibit**

**IX. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - Reporting Date (GASB No. 68)**

Pension Expense for Fiscal Year Ending September 30, 2023: \$ 2,990,896

**Summary of Outstanding Deferred Inflows and Outflows of Resources as of September 30, 2023**

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience on liabilities	\$ 164,627	\$ 893,382
Changes of assumptions or other inputs	834,489	490,771
Net difference between projected and actual earnings on System investments	12,166,642	0
<b>Total</b>	<b>\$ 13,165,758</b>	<b>\$ 1,384,153</b>

Projected Deferred Outflows for Utility Board Contributions to Be Recognized in Pension Expense after the Measurement Date \$ 2,589,132

**Summary of Deferred Outflows and Inflows of Resources to be Recognized in Pension Expense in Future Years**

Year ending 30-Sep	Amount
2024	\$ (288,379)
2025	2,499,122
2026	3,876,613
2027	5,694,249
2028	0
Thereafter	0

Accounting Disclosure Exhibit

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

X. Components of Pension Expense (GASB No. 68)

Measurement Date	Projected									
	12/31/2023 *	12/31/2022	12/31/2021	12/31/2020	12/31/2019	12/31/2018	12/31/2017	12/31/2016	12/31/2015	12/31/2014
Service Cost	\$ 1,593,948	\$ 1,632,373	\$ 1,541,442	\$ 1,547,225	\$ 1,533,031	\$ 1,513,840	\$ 1,653,371	\$ 1,689,246	\$ 1,615,566	\$ 1,688,924
Interest on Total Pension Liability	9,545,560	9,302,578	9,139,976	8,932,525	8,833,919	8,625,293	8,313,210	8,043,700	7,503,157	7,233,694
Current-Period Benefit Changes	0	0	0	0	0	0	132,646	0	0	0
Contributions - Member	0	0	0	0	0	0	0	0	0	0
Projected Earnings on System Investments	(7,642,996)	(9,414,860)	(8,470,581)	(7,633,352)	(6,439,791)	(6,790,606)	(5,996,682)	(5,744,536)	(5,897,913)	(5,705,665)
Administrative Expenses	84,937	126,645	69,981	58,185	59,031	76,329	58,967	57,971	67,452	75,519
Other Changes in System Fiduciary Net Position	0	0	0	0	0	0	0	0	0	0
Recognition of Beginning Deferred Outflows / (Inflows) due to Liabilities	(18,821)	(431,790)	(352,775)	(416,979)	(40,373)	934,737	1,036,752	1,938,318	884,669	1,009,509
Recognition of Beginning Deferred Outflows / (Inflows) due to Assets	25,617	1,775,950	(5,245,874)	(3,342,328)	(656,217)	2,202,620	452,284	1,779,855	1,648,965	359,272
Total Pension Expense	<u>\$ 3,588,245</u>	<u>\$ 2,990,896</u>	<u>\$ (3,317,831)</u>	<u>\$ (854,724)</u>	<u>\$ 3,289,600</u>	<u>\$ 6,562,213</u>	<u>\$ 5,650,548</u>	<u>\$ 7,764,554</u>	<u>\$ 5,821,896</u>	<u>\$ 4,661,253</u>

\* Projected - actual amounts will be available after measurement date



Accounting Disclosure Exhibit

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

XI. Recognition of Deferred Outflows and (Inflows) due to Liabilities - Measurement Date (GASB No. 68)

Recognition of Deferred Outflows due to Differences Between Actual and Expected Experience on Liabilities

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 12/31/2022	Recognition Amount for 2022	Balance as of 12/31/2022
2019	\$ 26,942	3.7	0.0	\$ 5,096	\$ 0
2020	781,979	3.8	0.8	205,784	164,627
2021	0	3.5	1.5	0	0
2022	0	3.7	2.7	0	0
TOTAL				\$ 210,880	\$ 164,627

Recognition of Deferred (Inflows) due to Differences Between Actual and Expected Experience on Liabilities

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 12/31/2022	Recognition Amount for 2022	Balance as of 12/31/2022
2019	\$ 0	3.7	0.0	\$ 0	\$ 0
2020	0	3.8	0.8	0	0
2021	(444,296)	3.5	1.5	(126,942)	(190,412)
2022	(963,329)	3.7	2.7	(260,359)	(702,970)
TOTAL				\$ (387,301)	\$ (893,382)

Recognition of Deferred Outflows due to Changes of Assumptions or Other Inputs on Liabilities

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 12/31/2022	Recognition Amount for 2022	Balance as of 12/31/2022
2019	\$ 0	3.7	0.0	\$ 0	\$ 0
2020	0	3.8	0.8	0	0
2021	711,728	3.5	1.5	203,351	305,026
2022	725,561	3.7	2.7	196,098	529,463
TOTAL				\$ 399,449	\$ 834,489

Accounting Disclosure Exhibit

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

XI. Recognition of Deferred Outflows and (Inflows) Due to Liabilities - Measurement Date (GASB No. 68) (cont'd)

Recognition of Deferred (Inflows) due to Changes of Assumptions or Other Inputs on Liabilities

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 12/31/2022	Recognition Amount for 2022	Balance as of 12/31/2022
2019	\$ (218,579)	3.7	0.0	\$ (41,354)	\$ 0
2020	(2,331,163)	3.8	0.8	(613,464)	(490,771)
2021	0	3.5	1.5	0	0
2022	0	3.7	2.7	0	0
TOTAL				\$ (654,818)	\$ (490,771)

XII. Recognition of Deferred Outflows / (Inflows) due to Assets - Measurement Date (GASB No. 68)

Recognition of Deferred Outflows / (Inflows) due to Differences Between Projected and Actual Earnings on Pension Plan Investments

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 12/31/2022	Recognition Amount for 2022	Balance as of 12/31/2022
2018	\$ 8,751,673	5	0	\$ 1,750,335	\$ 0
2019	(12,497,818)	5	1	(2,499,564)	(2,499,562)
2020	(6,982,086)	5	2	(1,396,417)	(2,792,835)
2021	(8,863,273)	5	3	(1,772,655)	(5,317,963)
2022	28,471,253	5	4	5,694,251	22,777,002
TOTAL				\$ 1,775,950	\$ 12,166,642

## Outline of Principal Provisions of the Retirement Plan

### A. Effective Date:

April 9, 1954, as amended and restated as of October 25, 2017, and further amended through Resolution No. 22-01 effective May 11, 2022.

### B. Eligibility Requirements:

All regular and permanent employees of the Utility Board shall become members of the Plan immediately upon completion of probationary period. All regular and permanent employees of the Utility Board employed prior to October 2, 2003 became members of the Plan immediately upon employment. Elected Utility Board officials become members of the Plan immediately upon election.

### C. Member Contributions:

Eliminated effective October 1, 1985 (October 1, 1983 for management members).

### D. Utility Board Contributions:

The Utility Board shall contribute an amount which will be determined annually by decision of the Utility Board.

### E. Credited Service:

Credited service is service performed subject to a maximum of 30 years. However, any member with more than 30 years of credited service as of November 20, 1998 will be grandfathered under the prior 35 year cap.

### F. Final Average Compensation:

Final average compensation (FAC) equals the average annual pensionable earnings earned during a period of the five highest years out of the last ten years of service immediately preceding retirement. Pensionable earnings are calculated using the member's base hourly rate each pay period, multiplied by 80 hours, less any hours that are considered *leave without pay*.

Effective January 1, 2020, FAC equals the average of the pensionable earnings earned by a member during the highest 10,440 hours out of the last 20,880 hours of service (which shall be determined using the highest 130.5 payroll periods of the last 261 payroll periods) immediately preceding termination of service or retirement. Pensionable earnings are calculated using the member's base hourly rate in effect each pay period, multiplied by the corresponding hours earned during that pay period, less any hours that are considered *leave without pay* or are otherwise excluded from pensionable earnings.

## Outline of Principal Provisions of the Retirement Plan

### G. Career Average Compensation:

Career average compensation (CAC) means the average of the pensionable earnings earned by a member from date of participation to termination of service. Pensionable earnings are calculated using the member's base hourly rate in effect each pay period, multiplied by the corresponding hours earned during that pay period, less any hours that are considered *leave without pay* or are otherwise excluded from pensionable earnings.

### H. Normal Retirement:

#### 1. Eligibility:

Earlier of:

- (a) Attainment of age 60 and completion of 10 years of credited service, attainment of age 60 if a Plan Member on or before November 13, 2008.
- (b) Completion of 30 years of credited service.

#### 2. Benefit:

For employees hired on or before May 31, 2010, 2.4% times FAC times years of credited service. For employees hired on or after June 1, 2010, 2.0% times CAC times years of credited service.

### I. Early Retirement:

#### 1. Eligibility:

Earliest of:

- (a) Attainment of age 55 with completion of 10 years of credited service.
- (b) Completion of 20 years of credited service.

#### 2. Benefit:

Benefit as calculated for normal retirement based on credited service and FAC or CAC as of early retirement date. The member may elect to defer receipt of the benefit until the normal retirement date or alternatively, may elect a benefit reduced 5% for each year the benefit commencement date precedes normal retirement date.

### J. Disability Retirement:

#### 1. Eligibility:

Totally and permanently disabled as defined under the Plan and completion of 10 years of credited service as of date of disability.

## Outline of Principal Provisions of the Retirement Plan

### 2. Benefit:

For employees hired on or before May 31, 2010, benefit as calculated for normal retirement based on credited service and average basic compensation during the three years immediately preceding disability, minimum benefit of 20% of final three year average basic compensation at date of disability.

For employees hired on or after June 1, 2010, benefit as calculated for normal retirement based on credited service and CAC as of date of disability, minimum benefit of 20% of CAC at date of disability.

These benefits will be offset by any benefits payable under Workers' Compensation or similar injury or disability benefit payments.

### K. Pre-Retirement Death Benefit:

In the case of death of a member while currently employed, the amount of the projected benefit which such member would have received had the member continued employment until normal retirement date at the current rate of pay shall be determined. For members currently employed beyond their normal retirement date, the projected benefit shall be equal to their accrued benefit at date of death.

Each Plan Member may elect survivor payment under Option 1 or Option 2, however, Option 2 is only available if the Plan Member has children under 21 years of age (25 years of age provided the child is a full-time student in college or disabled under Social Security).

Option 1, 75% of the benefit calculated above payable during the remaining lifetime of the spouse or domestic partner.

Option 2, 100% of the benefit calculated above payable until the youngest child is 21 years of age (25 years of age provided the child is a full-time student in college or disabled under Social Security). Upon attainment of age 21 (age 25 provided the child is a full-time student in college or disabled under Social Security) by the youngest child, 60% of the benefit calculated above payable during the remaining lifetime of the surviving spouse or domestic partner.

Notwithstanding the above, the minimum death benefit paid shall not be less than the accumulated employee contributions, if any, as of date of death.

### L. Termination Benefit:

Upon termination prior to normal or early retirement date a member shall be entitled to choose (1) or (2) below, where:

- (1) is a refund of employee contributions plus 1% if termination with 5 years or less of service, or 3% if termination after 5 years of service; and,

Outline of Principal Provisions of the Retirement Plan

(2) is (a) x (b), where (a) is the benefit as calculated for normal retirement, based on FAC or CAC and credited service at date of termination, and (b) is a percentage as shown on the following table:

<u>Years of Credited Service</u>	<u>Percentage</u>
Less than 5	0%
5	25%
6	30%
7	40%
8	60%
9	80%
10 or more	100%

If this option is selected, unreduced vested benefits commence as of the terminated employees' normal retirement date. Alternatively, the member may elect to commence receiving a reduced vested benefit any time after early retirement eligibility requirements are met. Such benefit is reduced by 5% for each year that commencement of benefits precedes the date which the member would have been eligible for normal retirement.

M. Deferred Retirement Option Program (DROP)

1. Eligibility: Attainment of normal retirement date.
2. No COLA increases are paid while in the DROP.
3. The maximum period of participation in the DROP is sixty (60) months.
4. An employee's account in the DROP program shall be credited with interest equal to the Applicable Federal Rate for long term debt instruments (annual rate) in effect as of the beginning of the applicable Plan year but no less than 1.3% or more than 4.0%, compounded annually.
5. No payment may be made from DROP until the employee actually separates from service with the Utility Board.

N. Normal Form of Payment:

Monthly life annuity with final payment due in month in which death occurs. Effective January 1, 1986, monthly benefits are increased 2% per annum. Effective January 1, 2001, monthly benefits are increased 3% per annum. No annual benefits increase shall be applied to members while in DROP.

O. Changes Since Previous Valuation

There was no DROP.

**Actuarial Assumptions and Actuarial Cost Methods  
Used in the Valuation**

A. Mortality

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvement.

Sample Ages (2023)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	32.83	35.24	28.93
60	27.97	30.21	24.82	28.08
62	26.07	28.23	23.19	26.25

Sample Ages (2043)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	34.46	36.72	30.95
60	29.53	31.65	26.68	29.76
62	27.60	29.64	24.99	27.88

B. Interest to be Earned by Fund

7.25%, net of investment expenses, compounded annually - includes inflation of 2.60%.

C. Allowances for Expenses or Contingencies

Average of actual administrative expenses during prior three (3) years.

**Actuarial Assumptions and Actuarial Cost Methods  
Used in the Valuation**

D. Employee Withdrawal Rates

Withdrawal rates were used in accordance with tables per the following illustrative example:

<u>Withdrawal Rates</u>	
<u>Service</u>	<u>Unisex Rates</u>
0	9.0%
1	8.1%
2	7.2%
3	5.4%
4	3.6%
5+	3.3%

E. Salary Increase Factors

Current salary was assumed to increase according to the following table.

<u>Age</u>	<u>Salary Increase Factors</u>		
	<u>Assumed Wage Inflation</u>	<u>Promotion &amp; Seniority</u>	<u>Total Current Rates</u>
< 35	3.25%	3.75%	7.00%
35 - 49	3.25%	1.75%	5.00%
50 & After	3.25%	0.75%	4.00%

F. Disability Benefits

Class (01) Inter-Company modified disability rates for males were used. Rates for females were doubled. No Workers' Compensation benefits are assumed to be payable.

G. Assumed Retirement Age

Employees are assumed to retire at the rates shown in the following table.

<u>Less than 30 Years of Service</u>			
<u>Age</u>	<u>Rate of Retirement</u>	<u>Age</u>	<u>Rate of Retirement</u>
< 55	6.5%	60	35.0%
55 - 58	15.0%	61 - 69	5.0%
59	30.0%	70 +	100.0%
<u>30 or More Years of Service</u>			
<u>Age</u>	<u>30 Years of Service Rate of Retirement</u>	<u>31+ Years of Service Rate of Retirement</u>	
< 50	35.0%	50.0%	
50 +	100.0%	100.0%	





**Actuarial Assumptions and Actuarial Cost Methods  
Used in the Valuation**

L. Disclosure of Assumptions

The investment return, salary increases, withdrawal and retirement rates were updated based on the most recent experience study performed for the five years ending December 31, 2017. The mortality rates are based upon the July 1, 2022 FRS Actuarial Valuation, as required under F.S., Chapter 2015 -157.

M. Changes Since Previous Valuation

1. Interest to be Earned by Fund

7.30%, net of investment expenses, compounded annually - includes inflation of 2.60%.

2. Assumed Retirement Age

Employees are assumed to retire at the rates shown in the following table.

Less than 30 Years of Service	
<u>Age</u>	<u>Rate of Retirement</u>
< 55	6.5%
55 - 58	15.0%
59 - 60	30.0%
61 - 69	5.0%
70 +	100.0%
30 Years of Service	
<u>Age</u>	<u>Rate of Retirement</u>
< 50	50.0%
50 +	100.0%

### Reconciliation of System Participants

#### A. Active Participants

1. Active participants previous year	130
2. Retired during year	0
3. DROPs during year	(5)
4. Deceased during year	0
5. Disabled during year	0
6. Terminated during year	(8)
7. New active participants	7
8. Rehired participants	0
9. Active participants	124

#### B. Participants Receiving Benefits

1. Participants receiving benefits previous year	194
2. New retired participants	0
3. Former DROP participants	0
4. New terminated vested receiving benefits	1
5. New disabled receiving benefits	0
6. New beneficiaries receiving benefits	3
7. Deceased or ceased payment during year	(7)
8. Retired or terminated vested receiving benefits current year	191

#### C. DROP Participants

1. DROP participants previous year	0
2. Died during year	0
3. Became disabled during year	0
4. Employment terminated and retired during year	0
5. Enter DROP during year	5
6. DROP participants current year	5

#### D. Terminated Vested Participants Entitled to Future Benefits

1. Terminated vested entitled previous year	19
2. Deceased during year	0
3. Commenced receiving benefits during year	(1)
4. New terminated vested	1
5. Terminated vested paid lump sum	0
6. Terminated vested rehired during year	0
7. Adjustment	0
8. Terminated vested entitled current year	19

**Distribution by Attained Age Groups  
and Service Groups as of January 1, 2023**

Attained Age Group	-----COMPLETED YEARS OF SERVICE-----							Total
	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 &amp; Over</u>	
Under 25	4	-	-	-	-	-	-	4
25 - 29	6	2	-	-	-	-	-	8
30 - 34	7	5	1	1	-	-	-	14
35 - 39	4	10	6	4	1	-	-	25
40 - 44	4	3	2	7	-	-	-	16
45 - 49	2	3	1	6	4	-	-	16
50 - 54	4	1	2	5	1	-	1	14
55 - 59	5	1	-	5	1	3	-	15
60 - 64	1	1	1	4	1	-	-	8
65 - 69	-	1	-	-	-	-	-	1
70 & Over	1	-	-	2	-	-	-	3
<b>TOTAL</b>	<b>38</b>	<b>27</b>	<b>13</b>	<b>34</b>	<b>8</b>	<b>3</b>	<b>1</b>	<b>124</b>
				<u>01/01/2022</u>		<u>01/01/2023</u>		
				44.18 years		44.16 years		
				33.49 years		33.39 years		
				\$ 87,799		\$ 90,383		
				33.1%		34.7%		





## Recent Compensation, Termination and Investment Return Experience

Calendar Year	Compensation		Termination Ratio of Actual to Expected	Investment Return		
	% Increase (Decrease)	Assumed Increase		Smoothed Actuarial Value	Market Value	Assumed Rate of Return
2022	5.7%	5.1%	1.7	6.67%	(14.78%)	7.30%
2021	4.8%	5.2%	0.2	13.15%	15.04%	7.35%
2020	4.5%	5.1%	1.1	11.45%	14.17%	7.40%
2019	4.9%	5.2%	0.7	7.80%	21.91%	7.45%
2018	5.4%	5.8%	0.0	5.2%	(2.2%)	7.5%
2017	5.5%	5.6%	0.2	8.6%	15.8%	7.5%
2016	2.0%	5.6%	0.3	7.9%	6.6%	7.5%
2015	9.7%	5.6%	0.9	7.7%	(0.7%)	7.5%
2014	2.3%	5.6%	1.2	10.5%	5.1%	7.5%
2013	3.1%	7.2%	1.2	12.8%	21.0%	8.0%
Last 3 Years	5.0%	5.1%	0.9	10.39%	3.83%	7.35%
Last 5 Years	5.1%	5.3%	0.6	8.8%	5.9%	7.4%
Last 10 Years	4.8%	5.6%	0.7	9.1%	7.6%	7.5%



## Actuarial Valuation as of January 1, 2023

State Required Exhibit

	<b>Current Assumptions 01/01/2023</b>	<b>Prior Assumptions 01/01/2023</b>	<b>01/01/2022</b>
<b>A. <u>Participant Data</u></b>			
1. Active participants	124	124	130
2. Retired participants and beneficiaries receiving benefits including DROPs	189	189	186
3. Disabled participants receiving benefits	7	7	8
4. Terminated vested participants	19	19	19
5. Annual payroll of active participants	\$ 11,207,488	\$ 11,207,488	\$ 11,413,810
6. Annual benefits payable to those currently receiving benefits including DROPs	\$ 8,244,395	\$ 8,244,395	\$ 7,669,484
<b>B. <u>Smoothed Actuarial Value of Assets</u></b>	<b>\$ 119,822,378</b>	<b>\$ 119,822,378</b>	<b>\$ 116,700,566</b>
<b>C. <u>Liabilities</u></b>			
1. Actuarial present value of future expected benefit payments for active members			
a. Retirement benefits	\$ 38,475,180	\$ 38,053,504	\$ 41,002,437
b. Vesting benefits	1,872,286	1,845,590	1,891,257
c. Death benefits	1,074,144	1,068,557	1,062,702
d. Disability benefits	1,299,272	1,292,831	1,267,041
e. Total	<u>\$ 42,720,882</u>	<u>\$ 42,260,482</u>	<u>\$ 45,223,437</u>
2. Actuarial present value of future expected benefit payments for terminated vested members	\$ 1,466,835	\$ 1,454,086	\$ 1,513,300
3. Actuarial present value of future expected benefit payments for members currently receiving benefits			
a. Service retired including DROPs	\$ 95,724,109	\$ 95,255,134	\$ 89,021,407
b. Disability retired	1,565,750	1,559,829	1,790,024
c. Beneficiaries	6,376,858	6,347,563	5,807,446
d. Total	<u>\$ 103,666,717</u>	<u>\$ 103,162,526</u>	<u>\$ 96,618,877</u>





Actuarial Valuation as of January 1, 2023

State Required Exhibit

	Current Assumptions 01/01/2023	Prior Assumptions 01/01/2023	01/01/2022
<b>F. <u>Pension Cost</u></b>			
1. Total normal cost	\$ 1,678,885	\$ 1,657,066	\$ 1,694,772
2. Payment required to amortize unfunded liability	1,652,527	1,604,590	1,493,329
3. Interest adjustment	120,764	119,050	116,366
4. Total required contribution	\$ 3,452,176	\$ 3,380,706	\$ 3,304,467
5. Item 4 as a percentage of payroll	30.8%	30.2%	29.0%
6. Estimated employee contributions	\$ 0	\$ 0	\$ 0
7. Item 6 as a percentage of payroll	0.0%	0.0%	0.0%
8. Net amount payable by Utility Board	\$ 3,452,176	\$ 3,380,706	\$ 3,304,467
9. Item 8 as a percentage of payroll	30.8%	30.2%	29.0%
<b>G. <u>Past Contributions</u></b>			
1. Total contribution required (% of actual payroll)	\$ 3,452,176	\$ 3,380,706	\$ 3,210,709
2. Actual contributions made	N/A	N/A	\$ 3,218,570
<b>H. <u>Net Actuarial Gain / (Loss)</u></b>	\$ (1,059,289)	\$ (1,059,289)	\$ 7,002,505
<b>I. <u>Disclosure of Following Items:</u></b>			
1. Actuarial present value of future salaries - attained age	\$ 105,074,932	\$ 104,951,648	\$ 104,522,733
2. Actuarial present value of future employee contributions - attained age	\$ 0	\$ 0	\$ 0
3. Actuarial present value of future contributions from other sources	N/A	N/A	N/A
4. Amount of active members' accumulated contributions	\$ 0	\$ 0	\$ 0
5. Actuarial present value of future salaries and future benefits at entry age	N/A	N/A	N/A
6. Actuarial present value of future employee contributions at entry age	N/A	N/A	N/A

State Required Exhibit

	Unfunded Actuarial Accrued Liabilities	Current Unfunded Liabilities	Current Assumption Amortization Payment	Prior Assumption Amortization Payment	Remaining Funding Period
01/01/2003	Actuarial Loss / (Gain)	6,587,836	830,376	831,947	10 years
01/01/2003	Method Change	(5,687,927)	(716,945)	(718,301)	10 years
01/01/2003	Assumption Change	(359,640)	(45,331)	(45,417)	10 years
01/01/2004	Actuarial Loss / (Gain)	1,471,500	172,800	173,160	11 years
01/01/2005	Retiree Benefit Corrections	(990,478)	(109,240)	(109,487)	12 years
01/01/2005	Actuarial Loss / (Gain)	1,466,557	161,747	162,113	12 years
01/01/2006	Actuarial Loss / (Gain)	1,986,343	207,141	207,648	13 years
01/01/2007	Plan Amendment	39,068	3,874	3,884	14 years
01/01/2007	Actuarial Loss / (Gain)	1,399,432	138,775	139,139	14 years
01/01/2008	Actuarial Loss / (Gain)	(321,534)	(30,469)	(30,554)	15 years
01/01/2009	Actuarial Loss / (Gain)	8,670,111	788,407	790,747	16 years
01/01/2009	Assumption Change	1,593,480	144,901	145,331	16 years
01/01/2009	Plan Amendment	29,930	2,722	2,730	16 years
01/01/2010	Actuarial Loss / (Gain)	(1,919,321)	(168,101)	(168,628)	17 years
01/01/2011	Actuarial Loss / (Gain)	1,989,789	168,395	168,950	18 years
01/01/2012	Actuarial Loss / (Gain)	2,383,619	195,480	196,155	19 years
01/01/2013	Actuarial Loss / (Gain)	2,981,514	237,546	238,403	20 years
01/01/2014	Actuarial Loss / (Gain)	(3,115,498)	(241,697)	(242,605)	21 years
01/01/2014	Assumption Change	3,561,702	276,313	277,351	21 years
01/01/2015	Actuarial Loss / (Gain)	(2,244,376)	(169,886)	(170,550)	22 years
01/01/2016	Actuarial Loss / (Gain)	270,568	20,020	20,101	23 years
01/01/2016	Assumption Change	2,563,605	189,685	190,453	23 years
01/01/2017	Actuarial Loss / (Gain)	(1,048,678)	(75,974)	(76,292)	24 years
01/01/2017	Assumption Change	103,939	7,530	7,562	24 years
01/01/2017	Plan Amendment	121,796	8,824	8,861	24 years
01/01/2018	Actuarial Loss / (Gain)	(577,591)	(41,034)	(41,211)	25 years
01/01/2019	Combined Bases *	1,227,481	233,222	233,477	6 years
01/01/2019	Actuarial Loss / (Gain)	1,959,351	136,689	137,298	26 years
01/01/2019	Assumption Change	(204,525)	(14,268)	(14,332)	26 years
01/01/2020	Actuarial Loss / (Gain)	434,748	29,820	29,956	27 years
01/01/2020	Assumption Change	(2,212,525)	(151,758)	(152,454)	27 years
01/01/2021	Actuarial Loss / (Gain)	(4,202,769)	(283,756)	(285,092)	28 years
01/01/2021	Assumption Change	690,186	46,599	46,818	28 years
01/01/2022	Actuarial Loss / (Gain)	(7,049,339)	(468,988)	(471,255)	29 years
01/01/2022	Assumption Change	730,414	48,594	48,829	29 years
01/01/2023	Actuarial Loss / (Gain)	1,059,289	69,511	69,855	30 years
01/01/2023	Assumption Change	777,246	51,003	N/A	30 years
	TOTAL	\$ 14,165,303	\$ 1,652,527	\$ 1,604,590	

\* Combined per Internal Revenue Code Regulation 1.412(b)-1

This actuarial valuation and/or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate, and in our 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 other wise provided for in the valuation. All known events or trends which may require material increase in Plan costs or required contribution rates have been taken into account in the valuation.

*Michelle Jones*

Shelly L. Jones, A.S.A.  
Enrollment Number: 23-08646

*Jennifer Borregard*

Jennifer M. Borregard, E.A.  
Enrollment Number: 23-07624

Dated: April 5, 2023



## Glossary

**Actuarial Accrued Liability.** The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.

**Actuarial Assumptions.** Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members and other items.

**Actuarial Cost Method.** A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.

**Actuarial Equivalent.** Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.

**Actuarial Present Value of Future Benefits.** The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.

**Actuarial Valuation.** The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.

**Actuarial Value of Assets.** The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

**Amortization Method.** A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

## Glossary

**Amortization Payment.** That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

**Amortization Period.** The period used in calculating the Amortization Payment.

**Annual Required Contribution.** The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The annual required contribution consists of the Employer Normal Cost and Amortization Payment plus interest adjustment.

**Closed Amortization Period.** A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.

**Employer Normal Cost.** The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

**Equivalent Single Amortization Period.** For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

**Experience Gain/Loss.** A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. Losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

**GASB.** Governmental Accounting Standards Board.

## Glossary

**GASB No. 67 and GASB No. 68.** These are the governmental accounting standards that set the accounting rules for public retirement plans and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the plans themselves, while Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement plans.

**Normal Cost.** The annual cost assigned, under the Actuarial Cost Method, to the current plan year.

**Open Amortization Period.** An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

**Unfunded Actuarial Accrued Liability.** The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.

**Valuation Date.** The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

**Vested Benefit Security Ratio.** The ratio of the Market Value of Assets to the Actuarial Present Value of Vested Accrued Benefits.