

# The Water and Power Employees' Retirement Plan of the City of Los Angeles

## **Governmental Accounting Standard Board Statement 74 (GAS 74) Actuarial Valuation for the Death Benefit Funds**

As of June 30, 2022

- Family Death Benefit Allowance Fund
- Supplemental Family Death Benefit Allowance Fund
- Insured Lives Portion of the Death Benefit Fund

This report has been prepared at the request of the Board of Administration to assist in administering the Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Administration and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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September 23, 2022

Board of Administration  
The Water and Power Employees' Retirement Plan of the City of Los Angeles  
111 North Hope Street, Room 357  
Los Angeles, CA 90012

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 74 Actuarial Valuation of the Death Benefit Fund as of June 30, 2022. It contains various information that will need to be disclosed in order to comply with GAS 74.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement Plan. The census and financial information on which our calculations were based was prepared by the Retirement Office. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Eva Yum, FSA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Plan.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

A handwritten signature in black ink, appearing to read "Paul Angelo", written over a horizontal line.

Paul Angelo, FSA, MAAA, FCA, EA  
Senior Vice President and Actuary

A handwritten signature in black ink, appearing to read "Eva Yum", written over a horizontal line.

Eva Yum, FSA, MAAA, EA  
Vice President and Actuary

PP/jl

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# Section 1: Actuarial Valuation Summary

## Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards (GAS) 74 for the Water and Power Employees' Death Benefit Fund as of June 30, 2022. This valuation is based on:

- The benefit provisions of the Fund, as administered by the Board;
- The characteristics of covered active members, inactive vested members, and retired and disabled members as of March 31, 2022, provided by the Retirement Office;
- The assets of the Fund as of June 30, 2022, provided by the Retirement Office;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the July 1, 2022 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the July 1, 2022 valuation.

## General observations on GAS 74 actuarial valuation

1. The Governmental Accounting Standards Board (GASB) rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB funding purposes. Employers and plans should develop and adopt funding policies under current practices.
2. When measuring OPEB Death Benefit liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as WPERP uses for funding. This means that the Total OPEB Liability (TOL) measure for financial reporting shown in this report is determined on the same basis as WPERP's Death Benefit Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
3. The Net OPEB Liability (NOL) is equal to the difference between the TOL and the Plan Fiduciary Net Position. The Plan Fiduciary Net Position is equal to the market value of assets and therefore, the NOL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NOL reflects all investment gains and losses as of the measurement date.

## Section 1: Actuarial Valuation Summary

### Highlights of the valuation

1. The NOLs measured as of June 30, 2022 and 2021 have been determined from the actuarial valuations as of July 1, 2022 and July 1, 2021, respectively.
2. The June 30, 2022 measurement date results reflect changes in the economic and demographic assumptions as recommended by Segal and adopted by the board for the July 1, 2022 valuation on July 13, 2022. These changes were documented in our *Analysis of Actuarial Experience During the Period July 1, 2018 through June 30, 2021* for The Water and Power Employees' Retirement Plan of the City of Los Angeles and in our letter Review of Investment Return Assumption for Death and Disability Funds dated May 20, 2022.
3. For the June 30, 2022 measurement, we used assumptions and methods consistent with those used by the Retirement Plan, with the exception of a 2.75% discount rate assumption and additional assumptions regarding family composition for the Family Death Benefit and Supplemental Family Death Benefit. The 2.75% discount rate is based on the Death Benefit Fund's current target asset allocation that is virtually all fixed income investments. It reflects expected real returns for that asset class as well as the 2.50% inflation assumption used for the July 1, 2022 retirement plan valuation.
4. The NOL increased from \$93.3 million as of June 30, 2021 to \$112.7 million as of June 30, 2022. The primary reasons for the increase in NOL were the assumption changes and the unfavorable investment return during the year ending June 30, 2022 (-10.23% return which was lower than the assumed return of 3.50%) partially offset by the employer contributions made during 2021-2022 to pay down the Unfunded Actuarial Accrued Liability. Changes in these values during the last two fiscal years ending June 30, 2021 and June 30, 2022 can be found in Section 2, Schedule of changes in Net OPEB Liability on page 15.
5. The discount rates used to determine the TOL and NOL as of June 30, 2022 and 2021 were 2.75% and 3.50%, respectively. Details on the derivation of the discount rate as of June 30, 2022 can be found in Section 2, Determination of discount rate and investment rates of return on page 13. Various other information that is required to be disclosed can be found throughout Section 2. Actuarial assumptions and methods can be found in the Actuarial Assumptions and Methods subsection in Section 2.
6. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2022. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the Plan Year. Moreover, this actuarial valuation is based on Plan data as of March 31, 2022 (adjusted to June 30, 2022 by adding 3 months of age, service and interest on contribution balance, and increasing benefit by the assumed July 1 COLA for members in pay status) and it does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after March 31, 2022, except for actual death benefit payments that are reflected in the plan assets as of June 30, 2022. While it is impossible to determine how the pandemic will affect market conditions and other demographic experience of the Plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.

## Section 1: Actuarial Valuation Summary

### Summary of key valuation results

Measurement Date	June 30, 2022	June 30, 2021
<b>Disclosure elements for fiscal year ending June 30:</b>		
Service Cost <sup>1</sup>	\$5,052,420	\$5,040,195
Total OPEB Liability	153,187,434	134,038,066
Plan Fiduciary Net Position <sup>2</sup>	40,525,139	40,738,247
Net OPEB Liability	112,662,295	93,299,819
<b>Schedule of contributions for fiscal year ending June 30:</b>		
Actuarially determined contributions <sup>3</sup>	\$13,075,979	\$12,565,096
Actual contributions	13,133,730	12,898,727
Contribution deficiency (excess)	-57,751	-333,631
<b>Demographic data for plan year ending June 30:</b>		
Number of beneficiaries <sup>4</sup>	93	82
Number of retired members	7,760	7,621
Vested terminated members <sup>5</sup>	595	599
Number of active members <sup>6</sup>	10,799	10,605
<b>Key assumptions as of June 30:</b>		
Discount rate	2.75%	3.50%
Inflation rate	2.50%	2.75%
Projected salary increases <sup>7</sup>	4.25% to 10.00%; varying by service, including inflation	4.50% to 10.25%; varying by service, including inflation
Cost of living adjustments	2.75% for Tier 1 and 2.00% for Tier 2	2.75% for Tier 1 and 2.00% for Tier 2

<sup>1</sup> The service cost is always based on the previous year's assumptions, meaning that the June 30, 2022 and June 30, 2021 measurement values are based on the assumptions shown in the June 30, 2021 columns as there had been no changes in the actuarial assumptions between the July 1, 2020 and July 1, 2021 valuations.

<sup>2</sup> Based on preliminary unaudited financial statements as of June 30, 2022.

<sup>3</sup> Based on actual covered payroll reported by the Retirement Office.

<sup>4</sup> Receiving Family Death or Supplemental Family Death benefits.

<sup>5</sup> Includes members receiving Permanent Total Disability (PTD) benefits. Excludes terminated members with less than five years of service who are not eligible for death benefits.

<sup>6</sup> Includes 1,587 and 1,593 active members who have Supplemental Family Death Benefit coverage for 2022 and 2021 respectively.

<sup>7</sup> Includes inflation at 2.50% and 2.75% per year plus real across-the-board salary increases of 0.50% plus merit and promotion increases as of June 30, 2022 and 2021, respectively.

## Section 1: Actuarial Valuation Summary

### Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of an OPEB plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

<b>Plan of benefits</b>	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan provisions.
<b>Participant data</b>	An actuarial valuation for a plan is based on data provided to the actuary by the Retirement Office. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
<b>Assets</b>	This valuation is based on the market value of assets as of the measurement date, as provided by the Retirement Office.
<b>Actuarial assumptions</b>	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, termination, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
<b>Models</b>	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

## Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

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The valuation is prepared at the request of the WPERP to assist the Plan in preparing their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.

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An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

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If WPERP is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

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Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The WPERP should look to their other advisors for expertise in these areas.

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As Segal has no discretionary authority with respect to the management or assets of WPERP, it is not a fiduciary in its capacity as actuaries and consultants with respect to WPERP.

# Section 2: GAS 74 Information

## General information about the OPEB Plan

### Plan Description

*Plan administration.* The Water and Power Employees' Retirement Plan of the City of Los Angeles (WPERP) was established by the Los Angeles Department of Water and Power in 1938. WPERP is a single employer public employee retirement system whose main function is to provide retirement benefits to employees of the Los Angeles Department of Water and Power.

Under the provisions of the City Charter, the Board of Administration (the "Board") has the responsibility and authority to administer the Plan and to invest its assets. The Board members serve as trustees and must act in the exclusive interest of the Plan's members and beneficiaries. The Board has seven members: one member of the Board of Water and Power Commissioners, the General Manager, the Chief Accounting Employee, three employee members who are elected for three-year terms by active members of the Plan, and one retiree who is appointed by the Board of Water and Power Commissioners for a three-year term.

Plan membership. At June 30, 2022, the members of the Death Benefit Fund consisted of the following:

Beneficiaries currently receiving benefits from Death Benefit Fund	93
Retired members currently receiving benefits from Retirement Plan	7,760
Vested terminated members entitled to, but not yet receiving benefits <sup>1</sup>	595
Active members	10,799
Total	19,247

<sup>1</sup> Includes members receiving Permanent Total Disability (PTD) benefits. Excludes terminated members with less than five years of service who are not eligible for death benefits.

*Benefits provided.* The WPERP Death Benefit Fund pays death benefits to the beneficiaries of eligible employees. Generally, to be eligible for the Family Death Benefit allowance, an employee must be a full member of WPERP and contributing to WPERP at the time of death. If death occurs after retirement, the retired member must be receiving a monthly retirement allowance from WPERP, and had a least five years of Department Service at retirement. The Family Death Benefit program pays a monthly allowance of \$416 to the surviving spouse of a member with minor (or disabled) children plus \$416 for each minor (or disabled) child up to a maximum monthly allowance of \$1,170. In addition, the spouse's portion will not be paid if the spouse is receiving a Survivor's Optional Death Benefit Allowance or an Eligible Spouse Allowance from the Retirement Plan.

## Section 2: GAS 74 Information

The Supplemental Family Death program is similar, but is optional and subject to making additional member contributions. The Supplemental Family Death Benefit program pays a monthly allowance of \$520 for each surviving spouse or child, in addition to the amounts payable from the Family Death Benefit program, subject to a maximum of \$1,066 for the additional benefits.

The Insured Lives Death Benefit Fund for Contributing Members provides death benefits to employees that die while employed by the Department. Generally, to be eligible, an employee must be a full member of WPERP and contributing to WPERP at time of death. The benefit paid from the Death Benefit Fund is a single sum that is equal to 14 times the member's monthly compensation with no maximum.

The Insured Lives Death Benefit Fund for Noncontributing Members provides death benefits to employees that were employed by the Department for at least five years and death occurred after retirement. The death benefit is paid in a single sum that is equal to the lesser of 14 times the member's Full Retirement Allowance or \$20,000.

The LADWP contributes to the Death Benefit Fund based upon actuarially determined contribution rates adopted by the Board of Administration. Employer contribution rates are adopted annually based upon recommendations received from WPERP's actuary after the completion of the review of the death benefit fund. The employer and member contribution rates as of June 30, 2022 are as follows:

	Department	Members	
		Active	Retired
Total Death Benefit Fund	1.11% of payroll		
Family Death Benefit		N/A	N/A
Supplemental Family Death Benefit		\$2.25 biweekly	\$4.90 monthly
Insured Lives:			
Contributing		\$1.00 biweekly	N/A
Noncontributing		N/A	N/A

## Section 2: GAS 74 Information

### Net OPEB Liability

Measurement Date	June 30, 2022	June 30, 2021
<b>Components of the Net OPEB Liability</b>		
Total OPEB Liability	\$153,187,434	\$134,038,066
Plan Fiduciary Net Position	<u>-40,525,139</u>	<u>-40,738,247</u>
Net OPEB Liability	\$112,662,295	\$93,299,819
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	26.45%	30.39%

The Net OPEB Liability (NOL) was measured as of June 30, 2022 and 2021 and determined based upon the Plan Fiduciary Net Position (plan assets) and Total OPEB Liability (TOL) from actuarial valuations as of July 1, 2022 and 2021, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NOL are the same as those described previously.

*Actuarial assumptions.* The TOL as of June 30, 2022 was determined by the actuarial valuation as of July 1, 2022. The actuarial assumptions used in the June 30, 2022 measurement were based on results of an experience study for the period from July 1, 2018 through June 30, 2021. They are the same as the assumptions used in the July 1, 2022 actuarial valuation for the Retirement Plan, with the exception of a 2.75% investment return assumption and additional assumptions regarding family composition for the Family Death Benefit and Supplemental Family Death Benefit. In particular, the following assumptions were applied to all periods included in the June 30, 2022 measurement:

<b>Inflation</b>	2.50%
<b>Cost of living adjustment</b>	2.75% for Tier 1 and 2.00% for Tier 2
<b>Salary increases</b>	4.25% to 10.00%, vary by service, including inflation
<b>Investment rate of return</b>	2.75%, net of investment expense, including inflation
<b>Other assumptions:</b>	Same as those described in the Actuarial assumptions and Methods subsection in Section 2.

## Section 2: GAS 74 Information

The TOL as of June 30, 2021 was determined by an actuarial valuation as of July 1, 2021. The actuarial assumptions used in the June 30, 2021 measurement were based on the results of an experience study for the period from July 1, 2015 through June 30, 2018. They are the same as the assumptions used in the July 1, 2021 actuarial valuation for the Retirement Plan, with the exception of a 3.50% investment return assumption and additional assumptions regarding family composition for the Family Death Benefit and Supplemental Family Death Benefit. In particular, the following assumptions were applied to all periods included in the June 30, 2021 measurement:

<b>Inflation</b>	2.75%
<b>Cost of living adjustment</b>	2.75% for Tier 1 and 2.00% for Tier 2
<b>Salary Increases</b>	4.50% to 10.25%, varying by service, including inflation
<b>Investment Rate of Return</b>	3.50%, net of pension plan investment expense, including inflation
<b>Other assumptions</b>	Same as those described in the Actuarial assumptions and Methods subsection in Section 2.

## Section 2: GAS 74 Information

### Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments was determined in 2022 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. This information is 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, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption as of June 30, 2022 are summarized in the following table. This information will change every three years based on the actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Fixed Income	100%	0.36%
Total	100%	

*Discount rate:* The discount rates used to measure the TOL were 2.75% and 3.50% as of June 30, 2022 and 2021, respectively. A “crossover test” was not explicitly performed as of June 30, 2022 since the municipal bond rate as of June 30, 2022 was 3.54%, which was higher than the 2.75% long-term expected rate of return on the Death Benefit Fund’s investments. Therefore, the long-term expected rate of return on the Death Benefit Fund’s investments was applied to all periods of projected benefit payments to determine the TOL as of June 30, 2022.

The projection of cash flows used to determine the June 30, 2021 discount rate assumed member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the required contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on the Death Benefit Fund's investments was applied to all periods of projected benefit payments to determine the TOL as June 30, 2021.

## Section 2: GAS 74 Information

### Discount rate sensitivity

*Sensitivity of the Net OPEB Liability to changes in the discount rate.* The following presents the NOL of the Plan as of June 30, 2022, calculated using the discount rate of 2.75%, as well as what the Plan NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (1.75%) or 1-percentage-point higher (3.75%) than the current rate:

	1% Decrease (1.75%)	Current Discount Rate (2.75%)	1% Increase (3.75%)
Net OPEB Liability as of June 30, 2022	\$138,630,944	\$112,662,295	\$92,097,795

Because there is no trend rate assumption used in valuing these benefits, the NOL is unaffected by any changes in trend rates.

## Section 2: GAS 74 Information

### Schedule of changes in Net OPEB Liability

Measurement Date	June 30, 2022	June 30, 2021
<b>Total OPEB Liability</b>		
• Service Cost	\$5,052,420	\$5,040,195
• Interest	4,704,713	4,677,912
• Change of benefit terms	0	0
• Differences between expected and actual experience	1,508,032	828,147
• Changes of assumptions	17,224,419	0
• Benefit payments	-9,340,216	-10,245,251
<b>Net change in Total OPEB Liability</b>	<b>\$19,149,368</b>	<b>\$301,003</b>
<b>Total OPEB Liability – beginning</b>	<b>\$134,038,066</b>	<b>\$133,737,063</b>
<b>Total OPEB Liability – ending (a)</b>	<b>\$153,187,434</b>	<b>\$134,038,066</b>
<b>Plan Fiduciary Net Position</b>		
• Contributions – employer (including those for administrative expenses)	\$14,991,933	\$14,522,798
• Contributions – employee	372,258	373,989
• Net investment income	-4,381,121	343,631
• Benefit payments	-9,340,216	-10,245,251
• Administrative expense	-1,855,962	-1,621,742
<b>Net change in Plan Fiduciary Net Position</b>	<b>-\$213,108</b>	<b>\$3,373,425</b>
<b>Plan Fiduciary Net Position – beginning</b>	<b>\$40,738,247</b>	<b>\$37,364,822</b>
<b>Plan Fiduciary Net Position – ending (b)</b>	<b>\$40,525,139</b>	<b>\$40,738,247</b>
<b>Net OPEB Liability – ending (a) – (b)</b>	<b>\$112,662,295</b>	<b>\$93,299,819</b>
<b>Plan Fiduciary Net Position as a percentage of the Total OPEB Liability</b>	<b>26.45%</b>	<b>30.39%</b>
<b>Covered payroll</b>	<b>\$1,178,016,102</b>	<b>\$1,121,883,556</b>
<b>Plan Net OPEB Liability as percentage of covered payroll</b>	<b>9.56%</b>	<b>8.32%</b>

## Section 2: GAS 74 Information

### Schedule of Employer Contributions – Last Seven Fiscal Years

Year Ended June 30	Actuarially Determined Contributions <sup>1,2</sup>	Contributions in Relation to the Actuarially Determined Contributions <sup>1</sup>	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2016	\$7,206,780	\$7,206,780	\$0	\$861,818,854	0.84%
2017	7,137,953	7,137,953	0	892,332,196	0.80%
2018	7,137,211	7,137,211	0	953,635,670	0.75%
2019	7,259,955	7,259,955	0	1,028,212,002	0.71%
2020	13,334,780	13,299,775	35,005	1,130,066,141	1.18%
2021	12,565,096	12,898,727	-333,631	1,121,883,556	1.15%
2022	13,075,979	13,133,730	-57,751	1,178,016,102	1.11%

See accompanying notes to this schedule on the next page.

<sup>1</sup> Excludes employer contributions towards administrative expenses.

<sup>2</sup> Starting in 2020, the actuarially determined contribution is determined based on actual covered payroll reported by the Retirement Office.

## Section 2: GAS 74 Information

### Notes to Schedule:

#### Methods and assumptions used to establish “actuarially determined contribution” (ADC) rates:

<b>Valuation date:</b>	Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported
<b>Actuarial cost method:</b>	Entry Age Actuarial Cost Method
<b>Asset valuation method:</b>	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and expected returns on a market value basis and is recognized over a five-year period.
<b>Amortization Method</b>	Level dollar amortization
<b>Remaining amortization period</b>	The July 1, 2019 Unfunded Actuarial Accrued Liability is amortized over a fifteen-year period commencing July 1, 2019 (fully amortized as of July 1, 2034). Any subsequent changes in Surplus or Unfunded Actuarial Accrued Liability are amortized over separate fifteen-year periods.

#### Actuarial assumptions:

<b>Valuation Date:</b>	<b>July 1, 2022 Valuation Date</b>	<b>July 1, 2021 Valuation Date</b>
<b>Investment rate of return:</b>	2.75%, net of investment expenses	3.50%, net of investment expenses
<b>Inflation rate:</b>	2.50%	2.75%
<b>Real across-the-board salary increase:</b>	0.50%	0.50%
<b>Projected salary increases:<sup>1</sup></b>	4.25% to 10.00%	4.50% to 10.25%
<b>Cost of living adjustments:</b>	2.75% (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1, 2.00% maximum for Tier 2)	2.75% (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1, 2.00% maximum for Tier 2)
<b>Other assumptions:</b>	Same as those used in the July 1, 2022 funding actuarial valuation	Same as those used in the July 1, 2021 funding actuarial valuation

<sup>1</sup> Includes inflation at 2.50% and 2.75% as of July 1, 2022 and 2021, respectively plus real across-the-board salary increases of 0.50% plus merit and promotion increases.

## Section 2: GAS 74 Information

### Actuarial Assumptions and Methods

#### Actuarial assumptions:

<b>Net Investment Return:</b>	2.75%, net of investment expenses.		
<b>Family Composition at Death for Active Members:</b>	<b>Plan</b>	<b>Family Death Benefits</b>	<b>Supplemental Family Death Benefit</b>
	Not Married; No Children	20%	0%
	Not Married; One Child	5%	15%
	Not Married; 2+ Children	7%	17%
	Married; No Children	16%	0%
	Married; One Child	15%	22%
	Married; 2+ Children	30%	39%
	Married; One Disabled Child	7%	7%
	1 <sup>st</sup> Child's Age	10	10
	2 <sup>nd</sup> Child's Age	8	8
	No benefits are assumed to be payable upon deaths of active members age 55 or over or deaths of inactive vested members (receiving a Permanent Total Disability benefit) or retirees at any age.		
	Healthy child payments are assumed to end when the child reaches age 18. Disabled child payments are assumed to continue for life.		
<b>Other Actuarial Assumptions:</b>	Same as those used in the July 1, 2022 actuarial valuation report for the Retirement Plan		
<b>Actuarial cost method:</b>	Entry Age Actuarial Cost Method.		
<b>Changes in Actuarial Assumptions:</b>	The discount rate was decreased from 3.50% to 2.75%.		
	Same as those shown in the July 1, 2022 actuarial valuation report for the Retirement Plan		

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