

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

Schedules of Employer Allocations and Pension Amounts by Employer As of and for the year ended December 31, 2022

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Independent Auditors' Report

To the Annuity and Pension Board of Employes' Retirement System of the City of Milwaukee

Report on Employer Schedules

Opinion

We have audited the schedule of employer allocations of the Employes' Retirement System of the City of Milwaukee as of and for the year ended December 31, 2022, and the related notes. We have also audited the total for all entities of the columns titled beginning net pension liability, ending net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense excluding that attributable to employer-paid member contributions (specified column totals) included in the accompanying schedule of pension amounts by employer of the Employes' Retirement System of the City of Milwaukee as of and for the year ended December 31, 2022, and the related notes.

In our opinion, the accompanying schedules referred to above present fairly, in all material respects, the employer allocations and beginning net pension liability, ending net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense excluding that attributable to employer-paid member contributions for the total of all participating entities for the Employes' Retirement System of the City of Milwaukee as of and for the year ended December 31, 2022, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (GAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of the Employes' Retirement System of the City of Milwaukee and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedules are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and GAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedules.

Baker Tilly US, LLP, trading as Baker Tilly, is a member of the global network of Baker Tilly International Ltd., the members of which are separate and independent legal entities.

In performing an audit in accordance with GAAS and GAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the schedules, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedules.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures
 that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the
 effectiveness of the Employes' Retirement System of the City of Milwaukee's internal control.
 Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the schedules.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that
 raise substantial doubt about the Employes' Retirement System of the City of Milwaukee's ability to
 continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the Employes' Retirement System of the City of Milwaukee as of and for the year ended December 31, 2022, and our report thereon, dated July 18, 2023, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of the Employes' Retirement System of the City of Milwaukee management, the Annuity and Pension Board, the Employes' Retirement System of the City of Milwaukee employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated July 18, 2023 on our consideration of the Employes' Retirement System of the City of Milwaukee's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Employes' Retirement System of the City of Milwaukee's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Employes' Retirement System of the City of Milwaukee's internal control over financial reporting and compliance.

Milwaukee, Wisconsin August 16, 2023

Baker Tilly US, LLP

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

Schedule of Employer Allocations

As of and for the year ended December 31, 2022

Employer	urrent Year Actuarial Employer ontributions	Employer Allocation Percentage	Prior Year Actuarial Employer Contributions	Employer Allocation Percentage
City of Milwaukee - General City	\$ 14,391,252	16.3404774%	\$ 14,611,772	16.3380656%
City of Milwaukee - Water Department	1,532,759	1.7403638%	1,590,123	1.7779865%
Milwaukee Public Schools	11,031,493	12.5256554%	10,968,446	12.2643024%
Milwaukee Metropolitian Sewerage District	1,683,570	1.9116014%	1,678,752	1.8770865%
Veolia Water Milwakee LLC	76,081	0.0863858%	100,628	0.1125166%
Wisconsin Center District	446,224	0.5066629%	336,349	0.3760866%
Housing Authority of the City of Milwaukee	586,351	0.6657694%	628,912	0.7032142%
City of Milwaukee - Policemen	40,565,027	46.0593638%	42,138,266	47.1166504%
City of Milwaukee - Firemen	17,758,427	20.1637201%	17,380,669	19.4340912%
Total	\$ 88,071,184	100.0000000%	\$ 89,433,917	100.0000000%

The accompanying notes are an integral part of the Schedules of Employer Allocations and Pension Amounts by Employer.

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

Schedule of Pension Amounts by Employer As of and for the year ended December 31, 2022 (in thousands)

			· · · · · · · · · · · · · · · · · · ·	Deferre	ed Outflows of Res	sources		-	Deferred Inflow	s of Resources	· · · · · · · · · · · · · · · · · · ·	-	Pension Expense	
	Beginning Net Pension	Ending Net Pension	Differences Between Expected and Actual	Net Difference Between Projected and Actual Earnings on Pension Plan	Changes of	Changes in	Total Deferred Outflows of	Differences Between Expected and Actual	Net Difference Between Projected and Actual Earnings on Pension Plan	Changes in	Total Deferred Inflows of	Proportionate Share of Plan Pension	Net Recognition of Deferred Amounts from Changes in Proportionate	Total Employer Pension
Employer	Liability	Liability	Experience	Investments	Assumptions	Proportion	Resources	Experience	Investments	Proportion	Resources	Expense	Share	Expense
City of Milwaukee - General City City of Milwaukee - Water Department Milwaukee Public Schools Milwaukee Metropolitan Sewerage District Veolia Water Milwaukee LLC Wiseonsin Center District Housing Authority of the City of Milwaukee City of Milwaukee - Policemen City of Milwaukee - Firemen	\$ 73,478 7,996 55,157 8,442 506 1,691 3,163 211,900 87,402	26,476 190,555 29,082 1,314 7,708 10,128 700,710	\$ 2,109 225 1,617 247 11 65 86 5,946 2,603	\$ 139,256 14,832 106,746 16,291 736 4,318 5,674 392,526 171,839	\$ 4,731 504 3,626 553 25 147 193 13,334 5,837	\$ 642 509 5,140 927 - 1,165 - 5,444	\$ 146,738 16,070 117,129 18,018 772 5,695 5,953 411,806 185,723	\$ 644 69 494 75 3 20 26 1,817 795	\$ 86,235 9,185 66,103 10,088 456 2,674 3,514 243,074 106,412	\$ 329 281 - 407 745 708 11,025 332	\$ 87,208 9,535 66,597 10,163 866 3,439 4,248 255,916 107,539	\$ 37,541 3,998 28,777 4,392 198 1,164 1,530 105,819 46,325	\$ 103 289 3,273 553 (321) 256 (465) (5,940) 2,252	\$ 37,644 4,287 32,050 4,945 (123) 1,420 1,065 99,879 48,577
Total for All Entities	\$ 449,735	\$ 1,521,319	\$ 12,909	\$ 852,218	\$ 28,950	\$ 13,827	\$ 907,904	\$ 3,943	\$ 527,741	\$ 13,827	\$ 545,511	\$ 229,744	<u> </u>	\$ 229,744

The accompanying notes are an integral part of the Schedules of Employer Allocations and Pension Amounts by Employer.

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE NOTES TO THE SCHEDULES OF EMPLOYER ALLOCATIONS AND PENSION AMOUNTS BY EMPLOYER AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022 (DOLLAR AMOUNTS IN THOUSANDS)

Plan Description

The following brief description of the more common provisions of the Employes' Retirement System of the City of Milwaukee (the "Retirement System" or "ERS") is provided for financial statement purposes only. The provisions described reflect changes to the Retirement System enacted in 2000 as part of what is known as the Global Pension Settlement ("GPS"). GPS increased benefits to all members who consented to the settlement in exchange for allowing the City to make certain changes in plan administration, including allowing the use of Retirement System assets to pay for all costs to administer the Retirement System.

Plan Administration

The Retirement System was established pursuant to the Retirement Act (Chapter 396 of the Laws of Wisconsin of 1937) to provide the payment of retirement and other benefits to employees of the City of Milwaukee (the "City"). Chapter 441 of the Laws of Wisconsin of 1947 made the benefits contractual and vested. The Retirement System is a cost-sharing, multi-employer plan, which also provides benefits to employees of the Milwaukee Metropolitan Sewerage District, Wisconsin Center District, Veolia Water Milwaukee LLC, Milwaukee Housing Authority, and non-certified staff of Milwaukee Public Schools (the "Agencies"). City employees comprise approximately 55% of the active participants in the Retirement System.

Measurement Focus and Basis of Accounting

The ERS is accounted for using the flow of economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, contributions are recognized in the accounting period in which the underlying earnings on which the contributions are based are due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the ERS. Investment transactions and the related gains and losses are recorded on a trade date basis. Dividend and interest income are accrued as earned. Investments are reported at fair value.

Estimates

The financial statements are presented in conformity with generally accepted accounting principles. These principles require management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE NOTES TO THE SCHEDULES OF EMPLOYER ALLOCATIONS AND PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022 (DOLLAR AMOUNTS IN THOUSANDS)

Long-term Expected Rate of Return

The long-term expected rate of return on pension plan investments was reviewed as part of the regular experience study, covering the five-year period ending December 31, 2021, which was adopted by the ERS Pension and Annuity Board in February 2023. Several factors are considered in evaluating the long-term rate of return assumption, including long-term historical data, estimates inherent in current market data, and an analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation), along with estimates of variability and correlations, as developed by the Retirement System's investment consultant, for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. This assumption is intended to be a long-term assumption (30 to 50 years) and is not generally expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

Best estimates of arithmetic real rates of return (net of inflation) for each major asset class included in the Retirement System's target asset allocation as of December 31, 2022, are listed in the table below:

Asset Class	Asset Allocation	Rate of Return*
Public Equity	44.0%	7.3%
Fixed Income & Cash	23.0%	3.1%
Real Estate	9.7%	5.1%
Real Assets	3.3%	4.6%
Private Equity	10.0%	10.0%
Absolute Return	10.0%	3.6%
	100.0%	-

^{*} Rates provided by the System's investment consultant, Callan Associates

Rate of Return

For the year ended December 31, 2022, the annual money-weighted rate of return, net of investment expense is shown below. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

	2022
Annual money-weighted rate of return,	
net of investment expense	-6.58%

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE NOTES TO THE SCHEDULES OF EMPLOYER ALLOCATIONS AND PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022 (DOLLAR AMOUNTS IN THOUSANDS)

Actuarial Assumptions

The last actuarial valuation was performed as of January 1, 2022, and the amounts were used to roll-forward the total pension liability to the plan's year-end, December 31, 2022, and was determined using the following actuarial assumptions, applied to all prior periods included in the measurement:

Valuation Date January 1, 2022

Actuarial Cost Method Entry Age Normal - Level Percentage of Pay

Amortization Method Level percent of payroll, closed

Asset Valuation Method 5-year smoothing of difference between expected return on actuarial value and actual return on market

value

Actuarial Assumptions:

Long-term Rate of Return, net of investment expense, including price

7.50%

inflation

Projected Salary Increases, including $\,$ General City: 3.0% - 7.5%

wage inflation Police & Fire: 3.0% - 19.0%

Inflation Assumption 2.50%

Cost of Living Adjustments Varies by employee group and decrement type (see plan provisions)

Mortality Assumption Pre-retirement mortality rates for General employees were based on the Pub-2010 Below Median

General Employee Mortality Table with a one-year age setback for males and a two-year age set

forward for females, projected generationally using SOA Scale MP-2021.

Pre-retirement mortality rates for Police and Firemen were based on the Pub-2010 Median Public Safety Employee Mortality Table with a one-year age set forward for males and females, projected generationally using SOA Scale MP-2021.

Post-retirement mortality rates for General retirees were based on the Pub-2010 Below Median General Retiree Mortality Table with a one-year age setback for males and a two-year age set forward for females, projected generationally using SOA Scale MP-2021.

Post-retirement mortality rates for Police and Firemen retirees were based on the Pub-2010 Median Public Safety Retiree Mortality Table with a one-year age set forward for males and females, projected generationally using SOA Scale MP-2021.

Mortality rates for survivors of General employees were based on the Pub-2010 Below Median Contingent Survivors Mortality Table with a one-year age setback for males and a two-year age set forward for females, projected generationally using SOA Scale MP-2021.

Mortality rates for survivors of Police and Firemen were based on the Pub-2010 Median Contingent Survivors Mortality Table with a one-year age set forward for males and females, projected generationally using SOA Scale MP-2021.

Disabled mortality rates for General employees were based on the Pub-2010 Non-Safety Disabled Retiree Mortality Table with a one-year age setback for males and a two-year age set forward for females, projected generationally using SOA Scale MP-2021.

Disabled mortality rates for Police and Firemen were based on the Pub-2010 Safety Disabled Retiree Mortality Table with a one-year age set forward for males and females, projected generationally using

SOA Scale MP-2021.

Experience Study

The actuarial assumptions used in this valuation, are based on the results of the most recent experience

study covering the five-year period ending December 31, 2021.

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE NOTES TO THE SCHEDULES OF EMPLOYER ALLOCATIONS AND PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022 (DOLLAR AMOUNTS IN THOUSANDS)

Net Pension Liability

The components of the pension liability of the ERS as of December 31, 2022, were as follows:

Total pension liability	\$ 7,047,276
Plan fiduciary net position	 (5,525,957)
Net pension liability	\$ 1,521,319
Plan fiduciary net position as a percentage of the total pension liability	78.41%
Covered payroll	\$ 579,351
Net pension liability as a percentage of covered payroll	262.59%

Discount Rate

The discount rate used to measure the total pension liability was 7.50 percent. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from ERS agencies will be made at contractually required rates, actuarially determined. Based on those assumptions, the ERS' fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. The cross over analysis produces a single rate of 7.50 percent, which reflects the long-term expected rate of return on ERS investments. Therefore, the discount rate was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the ERS calculated using the discount rate of 7.50 percent, as well as what the ERS' net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50 percent) or 1-percentage-point higher (8.50 percent) than the current rate:

		Current	
	1% Decrease	Discount	1% Increase
	(6.50%)	(7.50%)	(8.50%)
Net pension liability	\$ 2,346,824	\$ 1,521,319	\$ 833,437

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE NOTES TO THE SCHEDULES OF EMPLOYER ALLOCATIONS AND PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022 (DOLLAR AMOUNTS IN THOUSANDS)

Schedule of Employer Allocations

The Employer Allocation Percentage is based on the employers' required contribution compared to the required contribution for all employers. The Employer Allocation Percentage is rounded to seven decimal places.

Schedule of Pension Amounts

The employer's proportionate share of the Collective Net Pension Liability, Deferred Outflows of Resources, Deferred Inflows of Resources, and Total Employer Pension Expense (Income) is based on the Employer Allocation Percentage.

The Total Pension Liability is measured as of December 31, 2022 based on a January 1, 2022 actuarial valuation rolled forward to December 31, 2022 using standard roll-forward techniques as shown below:

		2022
Total pension liability		
Service cost	\$	83,123
Interest		505,466
Changes in benefit items		-
Differences between expected and actual experience		(5,552)
Changes of assumptions		40,766
Benefit payments including refunds of member		
contributions		(457,618)
Net change in total pension liability		166,185
Total pension liability - beginning		6,881,091
Total pension liability - ending	\$	7,047,276
Plan fiduciary net position		
Contributions - employer	\$	121,571
Contributions - member	•	32,204
Net investment income (loss)		(594,375)
Benefit payments, including refunds of member		())
contributions		(457,618)
Administrative expense		(7,181)
Net change in plan fiduciary net pension		(905,399)
Plan fiduciary net position - beginning		6,431,356
Plan fiduciary net position - ending	\$	5,525,957
Net pension liability - ending	\$	1,521,319

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE NOTES TO THE SCHEDULES OF EMPLOYER ALLOCATIONS AND PENSION AMOUNTS BY EMPLOYER AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022 (DOLLAR AMOUNTS IN THOUSANDS)

The Fiduciary Net Position is 78.41% of the Total Pension Liability, so the ERS has a Net Pension Liability.

The Collective Deferred Inflows and Outflows of Resources due to liabilities are amortized over the Average Expected Service Lives of all Employees of 3.45 years. The Collective Deferred Inflows and Outflows of Resources due to the net difference between projected and actual earnings on pension plan investments is amortized over five years.

Collective Deferred Inflows and Outflows of Resources to be recognized in the Current Pension Expense are as follows:

			Net
			Outflows
	Outflows of	Inflows of	(Inflows) of
	Resources	Resources	Resources
Differences between expected and actual experience	\$ 41,376	\$ (1,836)	\$ 39,540
Changes of assumptions	13,002	-	13,002
Differences between projected and actual earnings	331,721	(247,186)	84,535
Changes in proportion	8,346	(8,346)	-
	\$ 394,445	\$ (257,368)	\$ 137,077

Collective Deferred Inflows and Outflows of Resources to be recognized in the Future Pension Expense are as follows:

	_	ıtflows of		flows of	(Ir	t Outflows nflows) of
	R	esources	Re	esources	R	esources
Differences between expected and actual experience	\$	12,909	\$	(3,943)	\$	8,966
Changes of assumptions		28,950		-		28,950
Differences between projected and actual earnings		852,218		(527,741)		324,477
Changes in proportion		13,827		(13,827)		-
	\$	907,904	\$	(545,511)	\$	362,393

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE NOTES TO THE SCHEDULES OF EMPLOYER ALLOCATIONS AND PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022 (DOLLAR AMOUNTS IN THOUSANDS)

Deferred Outflows and Inflows of Resources to be recognized in the Future Pension Expense are as follows:

	Ne	t Outflows
Year Ending	(Ir	ıflows) of
December 31,	R	esources
2023	\$	(11,677)
2024		83,245
2025		77,772
2026		213,053

Employers may also need to recognize a Deferred Outflow or Inflow of Resources related to a change in their proportionate share of the Net Pension Liability and for differences between employer contributions and proportionate share of contributions.

The Collective Pension Expense is determined as follows:

Service cost	\$ 83,123
Interest cost on total pension liability	505,466
Projected earnings on plan investments	(470,899)
Contributions - Member	(32,204)
Administrative expense	7,181
Recognition of net deferred outflows (inflows)	
Changes in assumptions	11,816
Differences between expected and actual liability experience	(1,609)
Difference between projected and actual earnings	213,055
Recognition of prior years':	
Deferred outflows	161,228
Deferred inflows	(247,413)
Total Pension Expense	\$ 229,744

Additional Financial Information for the ERS - For additional information regarding ERS's financial statements and audit report, please visit the ERS web site at: http://www.cmers.com/About-Us/Reports.htm