Massachusetts Water Resources Authority Retirement System Audit Report

Jan. 1, 2016 - Dec. 31, 2020

PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION
COMMONWEALTH OF MASSACHUSETTS

TABLE OF CONTENTS

Letter from the Executive Director 1

Explanation of Findings and Recommendations 3

Annual Statements (as submitted):

Statement of Ledger Assets and Liabilities 6

Statement of Changes in Fund Balances 7

Statement of Receipts 8

Statement of Disbursements 9

Investment Income 10

Supplementary Information:

Schedule of Allocation of Investments Owned 11

Administration of the System 21

Actuarial Valuation and Assumptions 22

Membership Exhibit 23

PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

PHILIP Y. BROWN, ESQ., *Chair* JOHN W. PARSONS, ESQ., *Executive Director*

Auditor DIANA DIZOGLIO | KATHLEEN M. FALLON | KATE FITZPATRICK | JAMES J. GUIDO | RICHARD MACKINNON, JR. | JENNIFER F. SULLIVAN, ESQ.

August 28, 2023

The Public Employee Retirement Administration Commission (PERAC) has completed a review of the audits of the Massachusetts Water Resources Authority Retirement System (MWRA) conducted by the firm of Clifton Larson Allen, LLP, Certified Public Accountants, (CLA). CLA conducted these audits with auditing standards generally accepted in the United States of America and the standards applicable to financial audits in *Government Auditing Standards,* issued by the Comptroller General of the United States. The audits covered the period from January 1, 2016 to December 31, 2020.

We conducted an inspection of the work papers prepared by CLA. We determined that the audits were conducted in a competent, professional manner and the work papers demonstrated that audit tests and procedures were performed in sufficient detail to allow us to accept the final audit reports as issued. These reports are included within the Massachusetts Water Resources Authority Employees' Retirement System's Annual Comprehensive Financial Report (ACFR) and can be found on the Retirement Board page on the MWRA's website at https://www.mwraretirement.com/general/page/audited-financial-statements

We identified specific differences between these financial audits designed to provide an opinion on financial statements and compliance audits performed in accordance with the accounting and management standards established by PERAC in regulation 840 CMR 25.00 and in compliance with the provisions specified in PERAC Memo #18/2019.

Accordingly, we supplemented the field work conducted in the audits by CLA with certain limited procedures designed to provide additional assurance that the accounting and management standards established by PERAC were adhered to and complied with. The specific objectives of our review were to determine: 1) that the Board is exercising appropriate fiduciary oversight, 2) that cash balances are accurately stated, 3) that contracts were procured in compliance with the provisions of Section 23B of Chapter 32 and that fees paid were in accordance with contracts, 4) that travel expenses were properly documented and accounted for, 5) that retirement contributions are accurately deducted, 6) that retirement allowances were correctly calculated, 7) that required member documentation is maintained, 8) that buybacks were correctly calculated and 9) that refunds issued by the system were correctly calculated.

To achieve these objectives, we inspected certain records of the MWRA Retirement Board in the above areas. Specifically, we reviewed the minutes of the Board meetings for compliance with fiduciary oversight, verified cash balances, examined a sample of investment procurements and recalculated management fees charged.

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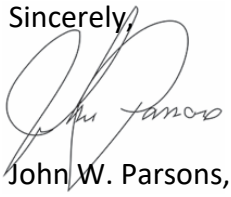
We tested a sample of travel expenses for Board approvals, supporting documentation and proper accounting. We tested the payroll records of a sample of active members to confirm that the correct percentage of regular compensation is being deducted, including the additional two percent over $30,000. We tested a sample of members who retired during our audit period to verify that their retirement allowance was calculated in accordance with the statute. We reviewed a sample of member files for accuracy and completeness. We also reviewed a sample of buyback calculations and tested refunds issued for accuracy.

In our opinion, the financial records are being maintained and the management functions are being performed in conformity with the standards established by PERAC with the exceptions noted in the findings presented in this report.

In closing, I acknowledge the work of CLA, who conducted these examinations, PERAC examiners who conducted limited procedures to supplement the field work and express my appreciation to the MWRA Retirement Board and staff for their courtesy and cooperation.

Sincerely,



John W. Parsons, Esq.
Executive Director

EXPLANATION OF FINDINGS AND RECOMMENDATIONS

1. Cash Books:

The MWRA Retirement Board regularly submits their Cash Books to PERAC's Compliance and Investment Unit late and with revisions to earlier Cash Books provided. MWRA Cash Books are being revised due to adjusting entries being made to prior monthly accounting periods. This was a finding in the prior audit report.

For example, in 2020, the January-May Cash Books were provided in a batch in August, the June-August Cash Books were not provided until November, September-October were provided in January 2021, and November and December were received in March and April, 2021. In 2021, the June-September Cash Books were provided in a batch in December 2021, along with revised January-May Cash Books. The October-December Cash Books were not received until April 2022.

Part of the reason for the consistent delay and revisions is because there is a lag between the end of the quarter and the receipt of some investment manager statements. When MWRA receives these statements they record the activity, which could have occurred up to five or six months prior, in the general ledger (GL) to the quarter in which the statement is referenced. For example, a manager statement for the period ended March 31 is received in July and the necessary adjusting journal entries are recorded in the GL as of March 31, an accounting period that has already closed.

Recommendation: In accordance with 840 CMR 4.03 and PERAC Memo #16/2019, complete Cash Books, including Trial Balances, Cash Receipts, Cash Disbursements, Adjusting Journal Entries, and General Ledgers should be provided to PERAC's Compliance and Investment Unit within four weeks of the close of the month.

The information from the investment manager statements should be posted in the GL in the month it is received. The Board can use the September 30 balance (plus purchases, less sales) for the December 31 quarter end. This practice is successfully applied by other Boards within the Commonwealth in order to timely submit their complete Cash Books.

Board Response:

Management asserts that there have been no material misstatements of net position at any time during the audit period. Further, no material misstatements of net position have been identified during the annual private audits for the years represented by the PERAC audit period. In reference to PERAC's comment regarding Management's submission of January through May financial reporting in one batch, until the prior year's Annual Statement is complete and submitted to PERAC as required by May 1st, and the accounting year is closed in the system, cash entries may be done, but Trial Balances can not be run for the current year. In regard to accounting entries for investments specifically, to the extent possible, the dates assigned to accounting entries by MWRAERS Management are those reflected on the statements issued to the Retirement System by the Investment Managers, i.e. the activity is recorded in the General Ledger as having taken place in the statement period in which it did actually take place. PERAC's stated expectation is that Cashbooks, Adjustments, and Trial Balance must be complete and accurate upon submission, and PERAC also mandates that the reporting be submitted within four weeks of the end of each month. Given that MWRAERB receives reporting from approximately 25 of the 70 investment accounts within four weeks of the close of each month,

Management may make no representation that the submissions are complete and accurate within that timeframe. Therefore, MWRAERS Cashbooks, Adjustments and Trial Balances are filed with PERAC when reporting for a sufficient number of investment accounts, representing a large proportion of MWRAERS assets, has been received, rendering the consequence of any managers' lagging reports immaterial, or when PERAC makes a demand therefor. In that instance, Management advises PERAC in writing whether reporting is substantively complete or not, to avoid any appearance of misrepresentation. Recording transactions in periods other than that in which they occurred for nearly two thirds of the 70 asset accounts could serve to obscure actual fund balances as of any given date, cause an unintended material misrepresentation of net position, make fraudulent activity more difficult to detect, and result in greater risk to the System and its members.

2. Investment Management Fees:

We compared the Board's Annual Statements to the Board's Audited Financial Statements for the years under audit and found there were discrepancies in the reporting of investment management fees in 2017 and 2018. The fees reported on the Audited Financial Statements for 2017 and 2018 were approximately $648,000 and $738,000 higher than the fees on the 2017 and 2018 Annual Statements.

We reviewed the 2020 investment fees in detail and compared them to the Investment Consultant's Report. We noted a total of five investments without management fees recorded in the 2020 GL. These fees were not detailed in manager statements but were estimated by the Investment Consultant. The total fees not recorded to the 2020 GL is approximately $523,000. Understated management fees was also a finding in the prior audit report.

We reviewed the 2016-2019 Schedule 7 reports for the five investments noted above. No fees were recorded to the GL during the audit period, with the exception of one fund with estimated fees in 2017 which were included in the 2017 GL. None of these five funds were at the end of their pre-determined investment period, so fees should have been recorded for each.

Recommendation: The Investment fees recorded in the Audited Financial Statements should match fees recorded in the GL. The estimated fees provided by the Investment Consultant should be compared to fees recorded to the GL and any differences noted should be reviewed. The Board should not "net" management fees for accounting purposes but should record gross management fees and income for each investment. The Board should review fees charged to Fee Schedules from signed investment contracts to determine if the fees are in compliance. The Board should reach out to investment managers to review fees taken from income.

Board Response:

Management asserts that there have been no material misstatements of net position at any time during the audit period. Further, no material misstatements of net position have been identified during the annual private audits for the years represented by the PERAC audit period. Therefore, any understatement of Management Fees Paid cited by PERAC would also have required an understatement of income/gains in identical amounts, although PERAC has not cited understatement

of gains as an issue. On the 2022 Annual Statement, Management did year-end adjusting entries to reflect additional actual or estimated fees and the corresponding additional gains in equal amounts for those managers who are charging management fees, but are reporting returns to MWRAERS net of fees.

FINAL DETERMINATION:
PERAC Audit staff will follow up in six (6) months to ensure appropriate actions have been taken regarding all findings.

ANNUAL STATEMENTS (as submitted)

STATEMENT OF LEDGER ASSETS AND LIABILITIES

	AS OF DECEMBER 31,				
	2020	2019	2018	2017	2016
Net Assets Available For Benefits:					
Cash	$7,494,641	$6,589,580	$8,204,021	$8,015,907	$5,489,485
Short Term Investments	1,580,000	0	0	0	0
Fixed Income Securities	79,245,794	73,063,265	61,605,832	27,646,546	17,902,125
Equities	120,453,475	98,034,094	68,290,289	78,497,658	69,906,376
Pooled Domestic Equity Funds	78,061,292	49,484,975	32,384,467	39,791,865	32,676,569
Pooled International Equity Funds	122,616,942	124,077,745	96,095,915	110,582,067	76,565,580
Pooled Domestic Fixed Income Funds	88,510,335	69,871,395	53,776,040	88,313,622	87,242,531
Pooled Alternative Investment Funds	57,899,532	47,007,533	43,000,188	39,191,601	34,514,875
Pooled Real Estate Funds	49,676,606	45,283,836	45,975,012	38,784,529	33,595,266
Pooled International Balanced Funds	0	28,936,577	69,016,633	71,614,312	63,391,715
Hedge Funds	38,260,801	33,418,182	26,459,135	19,334,677	40,167,776
Prit Core Fund	4,576,506	4,080,725	3,511,378	3,595,319	3,065,596
Interest Due and Accrued	321,317	293,917	259,365	0	0
Accounts Receivable	330,760	140,015	46,880	4,875,190	1,579,609
Accounts Payable	(651,785)	(1,324,887)	(1,333,688)	(424,508)	(495,328)
Total	$648,376,216	$578,956,952	$507,291,467	$529,818,785	$465,602,173
Fund Balances:					
Annuity Savings Fund	$126,696,362	$122,656,836	$121,572,710	$120,388,979	$118,880,924
Annuity Reserve Fund	42,511,462	41,241,026	38,098,282	34,121,616	30,090,620
Pension Fund	2,252,855	6,551,197	16,914,526	25,802,626	36,112,452
Military Service Fund	149,336	149,187	149,038	148,889	148,740
Expense Fund	0	0	0	0	0
Pension Reserve Fund	476,766,202	408,358,706	330,556,912	349,356,676	280,369,438
Total	$648,376,216	$578,956,952	$507,291,467	$529,818,785	$465,602,173

ANNUAL STATEMENTS (as submitted) (Continued)

STATEMENT OF CHANGES IN FUND BALANCES

	Annuity Savings Fund	Annuity Reserve Fund	Pension Fund	Military Service Fund	Expense Fund	Pension Reserve Fund	Total All Funds
Beginning Balance 2016	$117,261,867	$26,004,483	$43,601,807	$148,591	$0	$257,567,688	$444,584,437
Receipts	9,169,887	841,635	5,755,953	149	2,581,427	22,801,765	41,150,816
Interfund Transfers	(7,365,095)	7,365,111	0	0	0	(15)	0
Disbursements	(185,735)	(4,120,609)	(13,245,308)	0	(2,581,427)	0	(20,133,080)
Ending Balance 2016	118,880,924	30,090,620	36,112,452	148,740	-	280,369,438	465,602,173
Receipts	9,888,172	940,835	4,349,461	149	3,934,291	69,007,729	88,120,637
Interfund Transfers	(7,695,628)	7,716,118	0	0	0	(20,491)	0
Disbursements	(684,490)	(4,625,957)	(14,659,287)	0	(3,934,291)	0	(23,904,025)
Ending Balance 2017	120,388,979	34,121,616	25,802,626	148,889	0	349,356,676	529,818,785
Receipts	10,044,358	1,073,638	8,278,243	149	2,796,633	(18,779,603)	3,413,418
Interfund Transfers	(8,246,922)	8,322,618	(55,535)	0	0	(20,161)	(0)
Disbursements	(613,705)	(5,419,590)	(17,110,808)	0	(2,796,633)	0	(25,940,736)
Ending Balance 2018	121,572,710	38,098,282	16,914,526	149,038	0	330,556,912	507,291,467
Receipts	10,422,803	1,165,584	8,693,799	149	2,652,021	77,801,966	100,736,322
Interfund Transfers	(8,409,582)	8,424,577	(14,823)	0	0	(172)	0
Disbursements	(929,095)	(6,447,417)	(19,042,304)	0	(2,652,021)	0	(29,070,837)
Ending Balance 2019	122,656,836	41,241,026	6,551,197	149,187	0	408,358,706	578,956,952
Receipts	10,924,154	1,208,495	11,492,330	149	3,216,286	73,203,098	100,044,511
Interfund Transfers	(6,625,361)	6,624,222	4,796,742	0	0	(4,795,603)	0
Disbursements	(259,266)	(6,562,281)	(20,587,414)	0	(3,216,286)	0	(30,625,247)
Ending Balance 2020	$126,696,362	$42,511,462	$2,252,855	$149,336	$0	$476,766,202	$648,376,216

ANNUAL STATEMENTS (as submitted) (Continued)

STATEMENT OF RECEIPTS

	FOR THE PERIOD ENDING DECEMBER 31,				
	2020	2019	2018	2017	2016
Annuity Savings Fund:					
Members Deductions	$10,111,239	$9,624,666	$9,314,733	$8,982,354	$8,586,299
Transfers from Other Systems	603,584	576,514	437,446	675,299	299,070
Member Make Up Payments and Re-deposits	45,869	41,756	61,264	57,337	67,977
Member Payments from Rollovers	30,862	54,912	107,876	51,687	103,263
Investment Income Credited to Member Accounts	132,599	124,954	123,038	121,495	113,277
Sub Total	10,924,154	10,422,803	10,044,358	9,888,172	9,169,887
Annuity Reserve Fund:					
Investment Income Credited to the Annuity Reserve Fund	1,208,495	1,165,584	1,073,638	940,835	841,635
Pension Fund:					
3 (8) (c) Reimbursements from Other Systems	1,461,414	1,365,799	1,265,243	1,055,092	1,102,329
Pension Fund Appropriation	10,000,000	7,315,000	7,000,000	3,277,369	4,632,624
Settlement of Workers' Compensation Claims	30,916	13,000	13,000	17,000	21,000
Recovery of 91A Overearnings	0	0	0	0	0
Sub Total	11,492,330	8,693,799	8,278,243	4,349,461	5,755,953
Military Service Fund:					
Investment Income Credited to the Military Service Fund	149	149	149	149	149
Expense Fund:					
Investment Income Credited to the Expense Fund	3,216,286	2,652,021	2,796,633	3,934,291	2,581,427
Pension Reserve Fund:					
Miscellaneous Income	305,335	43,786	2,647	72,184	4,509
Excess Investment Income	72,897,763	77,758,180	(18,782,250)	68,935,545	22,797,256
Sub Total	73,203,098	77,801,966	(18,779,603)	69,007,729	22,801,765
Total Receipts, Net	$100,044,511	$100,736,322	$3,413,418	$88,120,637	$41,150,816

ANNUAL STATEMENTS (as submitted) (Continued)

STATEMENT OF DISBURSEMENTS

	FOR THE PERIOD ENDING DECEMBER 31,				
	2020	2019	2018	2017	2016
Annuity Savings Fund:					
Refunds to Members	$259,266	$558,392	$479,298	$280,035	$185,735
Transfers to Other Systems	0	370,703	134,407	404,455	0
Sub Total	259,266	929,095	613,705	684,490	185,735
Annuity Reserve Fund:					
Annuities Paid	6,562,281	6,121,621	5,396,643	4,625,957	4,036,345
Option B Refunds	0	325,796	22,948	0	84,265
Sub Total	6,562,281	6,447,417	5,419,590	4,625,957	4,120,609
Pension Fund:					
Pensions Paid:					
Regular Pension Payments	16,050,830	14,668,802	12,868,039	11,277,051	9,860,763
Survivorship Payments	1,490,467	1,326,055	1,203,088	1,028,523	983,488
Ordinary Disability Payments	295,890	295,457	314,317	302,108	297,014
Accidental Disability Payments	2,488,102	2,365,307	2,358,879	1,900,945	1,865,406
Accidental Death Payments	0	(9,572)	0	0	0
Section 101 Benefits	1,514	9,982	9,691	9,409	9,135
3 (8) (c) Reimbursements to Other Systems	260,611	386,274	356,793	141,252	229,502
Sub Total	20,587,414	19,042,304	17,110,808	14,659,287	13,245,308
Expense Fund:					
Salaries	270,502	299,038	310,764	292,394	276,409
Legal Expenses	21,337	25,297	28,900	26,241	20,097
Medical Expenses	274	168	89	1,141	92
Travel Expenses	40	8,981	6,501	5,067	8,042
Administrative Expenses	15,165	31,197	26,677	25,481	17,358
Professional Services	578	0	549	612	629
Actuarial Services	24,500	24,000	24,500	23,000	10,000
Accounting Services	25,000	24,500	24,000	23,000	26,000
Education and Training	0	4,490	3,650	4,400	4,700
Management Fees	2,600,840	1,983,193	2,128,290	3,298,737	2,003,661
Custodial Fees	92,233	85,745	85,278	79,389	45,153
Consultant Fees	120,000	118,750	113,750	109,700	106,561
Service Contracts	32,946	34,050	31,634	33,338	51,100
Fiduciary Insurance	12,872	12,611	12,051	11,790	11,625
Sub Total	3,216,286	2,652,021	2,796,633	3,934,291	2,581,427
Total Disbursements	$30,625,247	$29,070,837	$25,940,736	$23,904,025	$20,133,080

ANNUAL STATEMENTS (as submitted) (Continued)

INVESTMENT INCOME

	FOR THE PERIOD ENDING DECEMBER 31,				
	2020	2019	2018	2017	2016
Investment Income Received From:					
Cash	$52,284	$266,605	$176,370	$9,126	$33,608
Short Term Investments	1,227	0	0	0	0
Fixed Income	1,382,423	1,202,964	1,531,324	665,867	0
Equities	1,344,488	1,736,492	1,054,575	1,197,213	1,078,158
Pooled or Mutual Funds	6,360,583	4,589,469	5,382,922	5,406,571	7,068,467
Commission Recapture	0	0	0	(648,129)	0
Total Investment Income	9,141,005	7,795,530	8,145,192	6,630,648	8,180,233
Plus:					
Realized Gains	18,141,021	10,974,630	14,077,286	10,539,708	18,080,828
Unrealized Gains	127,991,451	88,390,886	31,768,033	63,781,842	47,247,394
Interest Due and Accrued - Current Year	321,317	293,917	259,365	0	0
Sub Total	146,453,789	99,659,433	46,104,684	74,321,550	65,328,222
Less:					
Paid Accrued Interest on Fixed Income Securities	0	0	0	(595)	0
Realized Losses	(8,731,143)	(1,589,597)	(2,877,434)	(2,170,891)	(4,389,313)
Unrealized Losses	(68,643,754)	(23,959,815)	(65,483,746)	(4,848,399)	(42,785,399)
Int Due & Accrued Prior Year	(293,917)	(259,365)	0	0	0
Carried Interest Expenses	(301,259)	139,481	(708,647)	0	0
Equalization Expenses	(12,686)	59,973	130,612	0	0
Miscellanous Investment Expenses	(156,742)	(144,750)	(99,452)	0	0
Sub Total	(78,139,501)	(25,754,074)	(69,038,667)	(7,019,884)	(47,174,711)
Net Investment Income	77,455,293	81,700,889	(14,788,792)	73,932,314	26,333,744
Income Required:					
Annuity Savings Fund	132,599	124,954	123,038	121,495	113,277
Annuity Reserve Fund	1,208,495	1,165,584	1,073,638	940,835	841,635
Military Service Fund	149	149	149	149	149
Expense Fund	3,216,286	2,652,021	2,796,633	3,934,291	2,581,427
Total Income Required	4,557,529	3,942,708	3,993,458	4,996,769	3,536,488
Net Investment Income	77,455,293	81,700,889	(14,788,792)	73,932,314	26,333,744
Less: Total Income Required	4,557,529	3,942,708	3,993,458	4,996,769	(3,536,488)
Excess Income (Loss) To The Pension Reserve Fund	$72,897,763	$77,758,180	($18,782,250)	$68,935,545	$22,797,256

SUPPLEMENTARY INFORMATION

SCHEDULE OF ALLOCATION OF INVESTMENTS OWNED

(percentages by category)

	AS OF DECEMBER 31, 2020	
	MARKET VALUE	PERCENTAGE OF TOTAL ASSETS
Cash	$7,494,641	1.2%
Short Term Investments	1,580,000	0.2%
Fixed Income Securities	79,245,794	12.2%
Equities	120,453,475	18.6%
Pooled Domestic Equity Funds	78,061,292	12.0%
Pooled International Equity Funds	122,616,942	18.9%
Pooled Domestic Fixed Income Funds	88,510,335	13.7%
Pooled Alternative Investment Funds	57,899,532	8.9%
Pooled Real Estate Funds	49,676,606	7.7%
Hedge Funds	38,260,801	5.9%
PRIT Core Fund	4,576,506	0.7%
Grand Total	$648,375,924	100.0%

For the year ending December 31, 2020, the rate of return for the investments of the Massachusetts Water Resources Authority Retirement System was 13.42%. For the five-year period ending December 31, 2020, the rate of return for the investments of the Massachusetts Water Resources Authority Retirement System averaged 9.55%. For the 35-year period ending December 31, 2020, since PERAC began evaluating the returns of the retirement systems, the rate of return on the investments of the Massachusetts Water Resources Authority Retirement System was 8.33%.

The composite rate of return for all retirement systems for the year ending December 31, 2020 was 12.80%. For the five-year period ending December 31, 2020, the composite rate of return for the investments of all retirement systems averaged 10.38%. For the 36-year period ending December 31, 2020, since PERAC began evaluating the returns of the retirement systems, the composite rate of return on the investments of all retirement systems averaged 9.31%.

SUMMARY OF PLAN PROVISIONS

The plan is a contributory defined benefit plan covering all Massachusetts Water Resources Authority Retirement System member unit employees deemed eligible by the retirement board.

ADMINISTRATION

There are 104 contributory retirement systems for public employees in Massachusetts. Each system is governed by a retirement board and all boards, although operating independently, are governed by Chapter 32 of the Massachusetts General Laws. This law in general provides uniform benefits, uniform contribution requirements and a uniform accounting and funds structure for all systems.

PARTICIPATION

Participation is mandatory for all full-time employees. Eligibility with respect to part-time, provisional, temporary, seasonal or intermittent employment is governed by regulations promulgated by the retirement board and approved by PERAC. Membership is optional for certain elected officials.

There is only one class of membership in the MWRA Retirement System:

Group 1:
General employees, including clerical, administrative, technical and all other employees not otherwise classified.

SUPPLEMENTARY INFORMATION (Continued)

MEMBER CONTRIBUTIONS

Member contributions vary depending on the most recent date of membership:

Prior to 1975:	5% of regular compensation
1975 - 1983:	7% of regular compensation
1984 to 6/30/96:	8% of regular compensation
7/1/96 to present:	9% of regular compensation
1979 to present:	an additional 2% of regular compensation in excess of $30,000.

In addition, members of Group 1 who join the system on or after April 2, 2012, will have their withholding rate reduced to 6% after achieving 30 years of creditable service.

RATE OF INTEREST

Interest on regular deductions made after January 1, 1984, is a rate established by PERAC in consultation with the Commissioner of Banks. The rate is obtained from the average rates paid on individual savings accounts by a representative sample of at least 10 financial institutions.

RETIREMENT AGE

There is no mandatory retirement age for employees in Group 1.

SUPERANNUATION RETIREMENT

A person who became a member before April 2, 2012, is eligible for a superannuation retirement allowance (service retirement) upon meeting the following conditions:

- completion of 20 years of service, or
- attainment of age 55 if hired prior to 1978, or
- attainment of age 55 with 10 years of service, if hired after 1978, and if classified in Group 1.

A person who became a member on or after April 2, 2012, is eligible for a superannuation retirement allowance (service retirement) upon meeting the following conditions:

- attainment of age 60 with 10 years of service if classified in Group 1.

AMOUNT OF BENEFIT

A member's annual allowance is determined by multiplying average salary by a benefit rate related to the member's age and job classification at retirement, and the resulting product by his creditable service. The amount determined by the benefit formula cannot exceed 80% of the member's highest three year (or five years as discussed below) average salary. For veterans as defined in G.L. c. 32, s. 1, there is an additional benefit of $15 per year for each year of creditable service, up to a maximum of $300.

For employees who become members after January 1, 2011, regular compensation is limited to 64% of the federal limit found in 26 U.S.C. 401(a)(17). In addition, regular compensation will be limited to prohibit "spiking" of a member's salary to increase the retirement benefit.

- For persons who became members prior to April 2, 2012, Average Salary is the average annual rate of regular compensation received during the 3 consecutive years that produce the highest average, or, if greater, during the last 3 years (whether or not consecutive) preceding retirement.

- For persons who became members on or after April 2, 2012, Average Salary is the average annual rate of regular compensation received during the 5 consecutive years that produce the highest average, or, if greater, during the last 5 years (whether or not consecutive) preceding retirement.

- The Benefit Rate varies with the member's retirement age. For persons who became members prior to April 2, 2012, the highest rate of 2.5% applies to Group 1 employees who retire at or after age 65. A .1% reduction is applied for each year of age under the maximum age for the member's group.

- For persons who became members on or after April 2, 2012 and retire with less than 30 years of creditable service, the highest rate of 2.5% applies to Group 1 employees who retire at or after age 67. A .15% reduction is applied for each year of age under the maximum age for the member's group.

- For persons who became members on or after April 2, 2012, and retire with more than 30 years of creditable service, the highest rate of 2.5% applies to Group 1 employees who retire at or after age 67. A .125% reduction is applied for each year of age under the maximum age for the member's group.

DEFERRED VESTED BENEFIT

A participant who has attained the requisite years of creditable service can elect to defer his or her retirement until a later date. Certain public safety employees cannot defer beyond age 65. All participants must begin to receive a retirement allowance or withdraw their accumulated deductions no later than April 15 of the calendar year following the year they reach age 70½.

WITHDRAWAL OF CONTRIBUTIONS

Member contributions may be withdrawn upon termination of employment. The interest rate for employees who first become members on or after January 1, 1984, who voluntarily withdraw their contributions with less than 10 years of service will be 3%. Interest payable on all other withdrawals will be set at regular interest.

DISABILITY RETIREMENT

The Massachusetts Retirement Plan provides 2 types of disability retirement benefits:

ORDINARY DISABILITY

Eligibility: Non-veterans who become totally and permanently disabled by reason of a non-job related condition with at least 10 years of creditable service (or 15 years creditable service in systems in which the local option contained in G.L. c. 32, s. 6(1) has not been adopted).

Veterans with ten years of creditable service who become totally and permanently disabled by reason of a non-job related condition prior to reaching “maximum age”. “Maximum age” applies only to those employees classified in Group 4 who are subject to mandatory retirement.

Retirement Allowance: For persons who became members prior to April 2, 2012, the benefit is equal to the accrued superannuation retirement benefit as if the member was age 55. If the member is a veteran, the benefit is 50% of the member’s final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 55, he or she will receive not less than the superannuation allowance to which he or she is entitled.

For persons in Group 1 who became members on or after April 2, 2012, the benefit is equal to the accrued superannuation retirement benefit as if the member was age 60. If the member is a veteran, the benefit is 50% of the member’s final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 60, he or she will receive not less than the superannuation allowance to which he or she would have been entitled had they retired for superannuation.

ACCIDENTAL DISABILITY

Eligibility: Applies to members who become permanently and totally unable to perform the essential duties of the position as a result of a personal injury sustained or hazard undergone while in the performance of duties. There are no minimum age or service requirements.

Retirement Allowance: 72% of salary plus an annuity based on accumulated member contributions, with interest. This amount is not to exceed 100% of pay. For those who became members in service after January 1, 1988 or who have not been members in service continually since that date, the amount is limited to 75% of pay. There is an additional pension of $980.88 per year (or $312 per year in systems in which the local option contained in G.L. c. 32, s. 7(2)(a)(iii) has not been adopted), per child who is under 18 at the time of the member's retirement, with no age limitation if the child is mentally or physically incapacitated from earning. The additional pension may continue up to age 22 for any child who is a full time student at an accredited educational institution. For systems that have adopted Chapter 157 of the Acts of 2005, veterans as defined in G.L. c. 32, s. 1 receive an additional benefit of $15 per year for each year of creditable service, up to a maximum of $300.

ACCIDENTAL DEATH

Eligibility: Applies to members who die as a result of a work-related injury or if the member was retired for accidental disability and the death was the natural and proximate result of the injury or hazard undergone on account of which such member was retired.

Allowance: An immediate payment to a named beneficiary equal to the accumulated deductions at the time of death, plus a pension equal to 72% of current salary and payable to the surviving spouse, dependent children or the dependent parent, plus a supplement of $980.88 per year, per child (or $312 per year in systems in which the local option contained in G.L. c. 32, s. 9(2)(d)(ii) has not been adopted), payable to the spouse or legal guardian until all dependent children reach age 18 or 22 if a full time student, unless mentally or physically incapacitated.

The surviving spouse of a member of a police or fire department or any corrections officer who, under specific and limited circumstances detailed in the statute, suffers an accident and is killed or sustains injuries while in the performance of his duties that results in his death, may receive a pension equal to the maximum salary for the position held by the member upon his death. In addition, an eligible family member may receive a one-time payment of $300,000 from the State Retirement Board. This lump sum payment is also available to the family of a public prosecutor in certain, limited circumstances.

DEATH AFTER ACCIDENTAL DISABILITY RETIREMENT

Effective November 7, 1996, Accidental Disability retirees were allowed to select Option C at retirement and provide a benefit for an eligible survivor. For Accidental Disability retirees prior to November 7, 1996, who could not select Option C, if the member's death is from a cause unrelated to the condition for which the member received accidental disability benefits, a surviving spouse will receive an annual allowance of $6,000. For Systems that accept the provisions of Section 28 of Chapter 131 of the Acts of 2010, the amount of this benefit is $9,000. For Systems that accept the provisions of Section 63 of Chapter 139 of the Acts of 2012, the amount of this benefit is $12,000.

DEATH IN ACTIVE SERVICE (OPTION D)

Allowance: An immediate allowance equal to that which would have been payable had the member retired and selected Option C on the day before his or her death. For a member who became a member prior to April 2, 2012 whose death occurred prior to the member's superannuation retirement age, the age 55 benefit rate is used. For a member classified in Group 1 who became a member on or after April 2, 2012 whose death occurred prior to the member's superannuation retirement age, the age 60 benefit rate is used. If the member died after age 60, the actual age is used. The minimum annual allowance payable to the surviving spouse of a member in service who dies with at least two years of creditable service is $3,000 unless the retirement system has accepted the local option increasing this minimum annual allowance to $6,000, provided that the member and the spouse were married for at least one year and living together on the member's date of death.

The surviving spouse of such a member in service receives an additional allowance equal to the sum of $1,440 per year for the first child and $1,080 per year for each additional child until all dependent children reach age 18 or 22 if a full time student, unless mentally or physically incapacitated.

COST OF LIVING

If a system has accepted Chapter 17 of the Acts of 1997, and the Retirement Board votes to pay a cost of living increase (COLA) for that year, the percentage is determined based on the increase in the Consumer Price Index used for indexing Social Security benefits, but cannot exceed 3.0%. Section 51 of Chapter 127 of the Acts of 1999, if accepted, allows boards to grant COLA increases greater than that determined by CPI but not to exceed 3.0%. Only a certain portion of a retiree's total allowance is subject to a COLA. The total COLA for periods from 1981 through 1996 is paid for by the Commonwealth of Massachusetts.

Under the provisions of Chapter 32, Section 103(j) inserted by Section 19 of Chapter 188 of the Acts of 2010, systems may increase the maximum base on which the COLA is calculated in multiples of $1,000. For many years the COLA base was calculated based upon the first $12,000 of a retiree's allowance. Now the maximum base upon which the COLA is calculated varies from system to system. Each increase in the base must be accepted by a majority vote of the Retirement Board and approved by the legislative body.

METHODS OF PAYMENT

A member may elect to receive his or her retirement allowance in one of 3 forms of payment.

Option A: Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member's death.

Option B: A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided, however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.

Option C: A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

ALLOCATION OF PENSION COSTS

If a member's total creditable service was partly earned by employment in more than one retirement system, the cost of the "pension portion" is allocated between the different systems pro rata based on the member's service within each retirement system. In certain circumstances, if a member received regular compensation concurrently from two or more systems on or after January 1, 2010, and was not vested in both systems as of January 1, 2010, such a pro-ration may not be undertaken. This is because such a person may receive a separate retirement allowance from each system.

SUPPLEMENTARY INFORMATION (Continued)

SIGNIFICANT ACCOUNTING POLICIES

The accounting records of the System are maintained on a calendar year basis in accordance with the standards and procedures established by the Public Employee Retirement Administration Commission.

Cash accounts are considered to be funds on deposit with banks and are available upon demand.

Short Term Investments are highly liquid investments that will mature within twelve months from the date of acquisition.

Investments are reported at their fair value. Securities traded on recognized exchanges are valued at the most recent sales price at year end. If no sale was reported, the mean of the bid and asked price is used when available, or the most recent bid price. Mutual, commingled and pooled funds are valued based on the net asset or unit value at year end. Real estate and alternative investments are valued based on estimates provided by the managers of those respective investments. Purchases and sales of securities are reflected on the date the trade is initiated. Realized gain or loss is largely based on the difference between the cost or the value at the prior year end and the funds realized upon liquidation. Dividend income is generally recorded when received. Interest income is recorded as earned on an accrual basis. Income from alternative investments is recorded as reported by the managing partner. Appreciation or depreciation in the value of investments consists of the unrealized gains and losses reported as the difference between the previous period and the current value.

The system makes estimates and assumptions that affect the reported values of assets and liabilities and the reported amounts added and deducted during the reporting periods. The fair value of real estate and alternative investment holdings are generally estimated in the absence of reliable exchange values. The actual funds realized upon liquidation may differ from these estimates.

The provisions of Massachusetts General Laws Chapter 32, § 23(2) generally govern the investment practices of the system. The Board retains an investment consultant to closely monitor the implementation and performance of their investment strategy and advise them of the progress toward full funding of the system. That strategy seeks to balance the exposure to common deposit and investment risks related to custody, credit concentrations, interest rate and foreign currency fluctuations.

Operating expenses include the ordinary and necessary cost of investment and professional services and the other miscellaneous administrative expenses of the system.

SUPPLEMENTARY INFORMATION (Continued)

The Annuity Savings Fund is the fund in which members' contributions are deposited. Voluntary contributions, re-deposits, and transfers to and from other systems, are also accounted for in this fund. Members' contributions to the fund earn interest at a rate determined by PERAC. Interest for some members who withdraw with less than ten years of service is transferred to the Pension Reserve Fund. Upon retirement, members' contributions and interest are transferred to the Annuity Reserve Fund. Dormant account balances must be transferred to the Pension Reserve Fund after a period of ten years of inactivity.

The Annuity Reserve Fund is the fund to which a member's account is transferred upon retirement from the Annuity Savings Fund and Special Military Service Credit Fund. The annuity portion of the retirement allowance is paid from this fund. Interest is credited monthly to this fund at the rate of 3% annually on the previous month's balance.

The Special Military Service Credit Fund contains contributions and interest for members while on a military leave for service in the Armed Forces who will receive creditable service for the period of that leave.

The Expense Fund contains amounts transferred from investment income for the purposes of administering the retirement system.

The Pension Fund contains the amounts appropriated by the governmental units as established by PERAC to pay the pension portion of each retirement allowance.

The Pension Reserve Fund contains amounts appropriated by the governmental units for the purposes of funding future retirement benefits. Any profit or loss realized on the sale or maturity of any investment or on the unrealized gain of a market valued investment as of the valuation date is credited to the Pension Reserve Fund. Additionally, any investment income in excess of the amount required to credit interest to the Annuity Savings Fund, Annuity Reserve Fund, and Special Military Service Credit Fund is credited to this Reserve account.

The Investment Income Account is credited with all income derived from interest and dividends of invested funds. At year-end the interest credited to the Annuity Savings Fund, Annuity Reserve Fund, Expense Fund, and Special Military Service Credit Fund is distributed from this account and the remaining balance is transferred to the Pension Reserve Fund.

SUPPLEMENTARY INFORMATION (Continued)

ADMINISTRATION OF THE SYSTEM

The System is administered by a five-person Board of Retirement consisting of one member of the MWRA's Board of Directors who shall be a member ex-officio, a second member appointed by the governing authority, a third and fourth member who shall be elected by the members in or retired from service of such system, and a fifth member appointed by the other four board members.

Ex-officio Member:	Brian Pena		
Appointed Member:	Matthew Horan	Serves until a successor is appointed	
Elected Member:	James M. Fleming, Chairman	Term Expires:	06/30/24
Elected Member:	Kevin McKenna	Term Expires:	04/29/26
Appointed Member:	Frank Zecha	Term Expires:	01/24/25

The Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the system. The board must annually file a financial statement of condition for the system with the Executive Director of PERAC.

The investment of the system's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the system has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by two persons designated by the Board.

Retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. Fidelity insurance is the only required policy coverage under Ch. 32 §21 and §23 as well as 840 CMR 17.01. The policy is designed to cover specific intentional acts such as theft, fraud or embezzlement and also specify who commits such acts, most commonly employees of the system. This coverage reimburses the system for the losses it suffers as a result of its employees' actions. It does not insure the employees for their illegal acts. Statutorily required coverage is provided by the current fidelity insurance policy to a limit of $1,000,000 with a $10,000 deductible issued through Travelers Casualty and Surety Company. The system also has Fiduciary coverage to a limit of $50,000,000 under a blanket policy issued through the Massachusetts Association of Contributory Retirement Systems.

BOARD REGULATIONS

The MWRA Retirement Board has adopted Supplemental which are available on the PERAC website at https://www.mass.gov/mass-water-resources-authority-retirement-board-regulations.

ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by Segal Consulting as of January 1, 2022.

The actuarial liability for active members was	$382,757,285
The actuarial liability for vested terminated members was	9,799,309
The actuarial liability for non-vested terminated members was	1,374,683
The actuarial liability for retired, survivor, and inactive members was	354,770,931
The total actuarial liability was	$748,702,208
System assets as of that date were (actuarial value)	666,688,320
The unfunded actuarial liability was	$82,013,888
The ratio of system's assets to total actuarial liability was	89.0%
As of that date the total covered employee payroll was	$99,689,252

The normal cost for employees on that date was	10.4% of payroll
The normal cost for the employer including administrative expenses was	4.2% of payroll

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	6.90% per annum
Rate of Salary Increase:	Service Based

SCHEDULE OF FUNDING PROGRESS AS OF JANUARY 1, 2022

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Cov. Payroll ((b-a)/c)
1/1/2022	$666,688,320	$748,702,208	$82,013,888	89.0%	$99,689,252	82.3%
1/2/2021	$628,924,930	$712,864,392	$83,939,462	88.2%	$102,143,068	82.2%
1/1/2020	$566,190,373	$653,616,012	$87,425,639	86.6%	$98,145,213	89.1%
1/1/2019	$541,622,416	$607,247,081	$65,624,665	89.2%	$95,818,684	68.5%
1/1/2018	$523,135,101	$550,843,740	$27,708,639	95.0%	$92,975,107	29.8%

MEMBERSHIP EXHIBIT

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Retirement in Past Years										
Superannuation	18	35	38	37	24	47	49	44	50	36
Ordinary Disability	0	0	0	0	1	0	0	0	0	0
Accidental Disability	2	2	1	5	2	2	3	1	2	0
Total Retirements	20	37	39	42	27	49	52	45	52	36
Total Retirees, Beneficiaries and Survivors	364	396	431	476	492	536	578	627	685	719
Total Active Members	1,103	1,092	1,091	1,088	1,098	1,105	1,108	1,117	1,106	1,108
Pension Payments										
Superannuation	$4,971,773	$5,634,067	$6,689,144	$7,820,536	$8,697,085	$9,860,763	$11,277,051	$12,868,039	$14,668,802	$16,050,830
Survivor/Beneficiary Payments	599,582	631,904	679,657	752,009	890,616	$983,488	1,028,523	1,203,088	1,326,055	1,490,467
Ordinary Disability	237,073	255,859	253,583	258,097	276,111	$297,014	302,108	314,317	295,457	295,890
Accidental Disability	1,376,440	1,453,868	1,515,071	1,574,881	1,816,610	$1,865,406	1,900,945	2,358,879	2,365,307	2,488,102
Other	154,784	111,824	167,215	173,996	202,846	238,637	150,661	366,484	386,684	262,125
Total Payments for Year	$7,339,652	$8,087,523	$9,304,669	$10,579,518	$11,883,269	$13,245,308	$14,659,287	$17,110,808	$19,042,304	$20,587,414

COMMONWEALTH OF MASSACHUSETTS
Public Employee Retirement Administration Commission
Five Middlesex Avenue, Suite 304 | Somerville, MA 02145
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PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

PHILIP Y. BROWN, ESQ., *Chair* WILLIAM T. KEEFE, *Executive Director*

Auditor DIANA DIZOGLIO | KATHLEEN M. FALLON | KATE FITZPATRICK | JAMES J. GUIDO | RICHARD MACKINNON, JR. | JENNIFER F. SULLIVAN, ESQ.

June 24, 2024

James M. Fleming, Esq., Chairperson
Massachusetts Water Resources Authority Employees' Retirement Board
Two Griffin Way
Chelsea, MA 02150

REFERENCE: Report of the Examination of the Massachusetts Water Resources Authority (MWRA) Employees' Retirement Board for the five-year period from January 1, 2016 through December 31, 2020.

Dear Chairperson Fleming:

The Public Employee Retirement Administration Commission has completed a follow-up review of the findings and recommendations contained in its audit report of the MWRA Employees' Retirement Board for the period referenced above. We conduct these visits as a regular part of the oversight process to ensure the timely implementation of the recommendations contained in that report. The examination also addressed the other matters discussed at the completion of the audit. The results are as follows:

1. The Audit Report cited a finding that MWRA Employees' Retirement Board regularly submitted their Cash Books to PERAC's Compliance and Investment Unit late and with revisions to earlier Cash Books provided.

Follow-up Result: We reviewed the Cash Books submitted to PERAC for the calendar year 2023. In addition, we confirmed the status of submissions with the Compliance and Investment Unit at PERAC. The Cash Books submitted to PERAC were late, but there were no revisions to earlier Cash Books. This issue is partially resolved.

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2. The Audit Report cited a finding that management fees for five investments were not recorded separately to General Ledger (GL) 5304 Management Fees for the audit period. The Board recorded investment income net of these fees.

Follow-up Result: We reviewed the 2022 and 2023 Annual Statements and Schedule 7 reports and found that the estimated management fees were recorded to GL 5304. This issue is resolved.

The additional matters discussed have been reviewed and most have been resolved.

The Commission wishes to acknowledge the effort demonstrated by the staff of the MWRA Employees' Retirement Board to correct many of the issues from the most recent examination of the system. PERAC auditors will conduct further follow-up as warranted to ensure corrections have been made in those areas that have not been resolved at this time.

Thank you for your continued cooperation in this matter.

Sincerely,

William T. Keefe.
Executive Director

WTK/cms
cc: MWRA Employees' Retirement Board Members