

**WATERTOWN
CONTRIBUTORY RETIREMENT SYSTEM**

Actuarial Valuation Report
January 1, 2026

TABLE OF CONTENTS

	<u>Page</u>
REPORT SUMMARY	
Highlights	1
Introduction	2
Actuarial Experience	3
 ACTUARIAL COSTS AND LIABILITIES	
Normal Costs	4
Present Value of Actuarial Accrued Liabilities	5
Present Value of Future Benefits	6
 FUNDED STATUS AND APPROPRIATIONS	
Market Value of Plan Assets	7
Actuarial Value of Assets	8
Unfunded Actuarial Accrued Liabilities	9
Appropriations	10
Appropriation Forecast	11
 EXHIBITS	
1 Age/Service Distribution with Salary	14
2 Retiree Distribution	15
3 Disabled Retiree Distribution	16
4 Distribution Forecast	17
5 Summary of Plan Provisions	18
6 Actuarial Methods and Assumptions	27
7 Glossary of Terms	32
 CERTIFICATION	34
 BREAKOUTS	35

Report Summary:

Highlights

January 1, 2025

January 1, 2026

Contributions

Funding Schedule FY 2027	\$4,107,191	\$12,080,685
Funding Schedule FY 2028	1,132,434	897,237

Funded Ratios

GAS No. 25	97.9%	96.3%
------------	-------	-------

Participants

Actives	625	636
Retirees and Beneficiaries	366	370
Vested	0	0
Inactives	228	237
Disabled	<u>57</u>	<u>57</u>
Total	1,276	1,300

Payroll

Payroll of Active Members	\$50,526,021	\$55,711,363
Average Payroll	80,842	87,596

Normal Cost

Employer	360,454	351,078
Employee	4,763,833	5,200,771
Administrative Expenses	<u>420,000</u>	<u>420,000</u>
Total	5,544,287	5,971,849

Actuarial Accrued Liabilities

Actives	116,341,020	128,483,258
Retirees, Beneficiaries, Disabilities and Inactives	<u>168,058,579</u>	<u>172,441,863</u>
Total	284,399,599	300,925,121

Actuarial Value of Assets

<u>278,476,942</u>	<u>289,935,485</u>
--------------------	--------------------

Unfunded Actuarial Accrued Liabilities

\$5,922,657	\$10,989,636
-------------	--------------

Introduction

The purpose of this report is to present the findings of an actuarial valuation as of January 1, 2026, of Watertown Contributory Retirement System.

The actuarial valuation is based on:

- Provisions Chapter 32 of the Massachusetts General Laws, "M.G.L", as of January 1, 2026.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the Watertown Contributory Retirement System
- Actuarial assumptions approved by the Retirement Board

The valuation and appropriation forecast are prepared in accordance with Chapter 32 of the M.G.L. as of January 1, 2026.

The valuation and forecast do not account for:

- Any subsequent changes in the law
- Chapter 32 of the M.G.L., Section 3(8)(c) transfers between systems
- State-mandated benefits
- Cost-of-living increases granted to retired members between 1982 and 1997. The cost of these benefits has been assumed by the State under Proposition Two and One-Half.

Actuarial Experience

In performing the actuarial valuation, various assumptions are made regarding such factors as mortality, retirement, disability, and withdrawal rates as well as both payroll, salary increases, and investment returns. A comparison of the current valuation and the prior valuation is made to determine how closely actual experience corresponded to anticipated occurrences. This analysis of the system provides insight into the overall quality of the actuarial assumptions and helps explain any change in the annual appropriation.

During the last year, the total surplus (Assets exceeding Actuarial Accrued Liability) became a deficit of \$10,989,636. The increase in the Unfunded Accrued Liability from \$5,922,657 is the result of net unfavorable actuarial experience during the preceding year. The sources of (Gain) and Loss are as follows:

Asset	1,860,669
Salary Increase	6,003,765
New Participants	4,620,146
Active – Retirement	(855,647)
Active – Termination	(956)
Active – Mortality	(48,352)
Active – Disability	1,102,821
Inactive - Mortality	(1,206,148)
Inactive - Data Adjustments	2,898,786
Other, including data, contribution interest, etc	717,354
Benefit Payments	<u>(3,241,880)</u>
Total (Gain) / Loss	11,850,558

Actuarial Costs and Liabilities:

Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

Table I

	<u>January 1, 2025</u>	<u>January 1, 2026</u>
Superannuation	\$3,070,593	\$3,327,485
Termination	1,271,545	1,379,703
Death	151,606	165,411
Disability	630,543	679,250
Administrative Expenses	<u>420,000</u>	<u>420,000</u>
Total Normal Cost	5,544,287	5,971,849
% of Pay	11.0%	10.7%
Employee Contributions	4,763,833	5,200,771
% of Pay	9.4%	9.3%
Employer Normal Cost	\$780,454	\$771,078
% of Pay	1.5%	1.4%

Present Value of Actuarial Accrued Liabilities

The actuarial accrued liabilities (AAL) represents today's value of all benefits based on the past service of the actives and inactives. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

	<u>January 1, 2025</u>	<u>January 1, 2026</u>
Actives		
Superannuations	\$104,424,030	\$115,055,731
Termination	4,980,250	5,797,068
Death	1,750,474	1,972,956
Disability	5,186,266	5,657,503
Retirees and Inactives		
Retirees and Beneficiaries	132,544,799	134,370,166
Vested	0	0
Terminated (Refund)	4,480,570	5,093,140
Disabled	<u>31,033,210</u>	<u>32,978,557</u>
Total	\$284,399,599	\$300,925,121

Present Value of Future Benefits

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

Table III

	<u>January 1, 2025</u>	<u>January 1, 2026</u>
Actives		
Superannuation	\$125,662,460	\$138,231,554
Termination	10,100,660	11,233,880
Death	2,789,360	3,124,436
Disability	9,897,142	10,721,412
Retirees and Inactives		
Retirees and Beneficiaries	132,544,799	134,370,166
Vested	0	0
Terminated (Refund)	4,480,570	5,093,140
Disabled	<u>31,033,210</u>	<u>32,978,557</u>
Total	\$316,508,201	\$335,753,145

Funded Status and Appropriations:

Market Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

Table IV

	<u>January 1, 2025</u>	<u>January 1, 2026</u>
Cash equivalents	\$1,337,154	\$3,570,377
Short term investments	0	0
Fixed income securities	72,350,242	77,306,048
Equities	64,622,390	72,258,870
International	60,563,766	65,751,381
Real Estate	24,755,333	26,158,423
Venture Capital	0	0
Other	46,005,215	49,409,564
Accounts receivable	110,592	160,192
Accounts payable	(52,165)	(50,119)
Accrued income	<u>3,791</u>	<u>11,964</u>
Total Market Value	\$269,696,318	\$294,576,700
Total Actuarial Value	\$278,476,942	\$289,935,485

Actuarial Value of Assets

The actuarial value of assets is determined by projecting the market value of assets as of the beginning of the prior plan year with the assumed rate of return during that year (7.65%) and accounting for deposits and disbursements with interest at the assumed rate of return. An adjustment is then applied to recognize the difference between the actual investment return and expected return over a five year period. This preliminary actuarial value is not allowed to differ from the market value of assets by more than 10%. The calculation of the actuarial value of assets as of January 1, 2026 is presented in Table V.

Table V

	<u>January 1, 2026</u>
(1) Market value at January 1, 2025	\$269,696,318
(2) 2025 Contributions	\$12,291,472
(3) 2025 Payments	(\$19,986,823)
(4) Net interest adjustment at 7.65% on (1), (2), and (3) to December 31, 2025	\$21,002,043
(5) Expected market value on January 1, 2026	\$283,003,010
(1) + (2) + (3) + (4)	
(6) Actual market value on January 1, 2026	\$294,576,700
(7) 2025 (Gain) / Loss	(\$11,573,690)
(8) 80% of 2025 (Gain) / Loss	(\$9,258,952)
(9) 2024 (Gain) / Loss	(\$2,987,312)
(10) 60% of 2024 (Gain) / Loss	(\$1,792,387)
(11) 2023 (Gain) / Loss	(\$11,769,934)
(12) 40% of 2023 (Gain) / Loss	(\$4,707,974)
(13) 2022 (Gain) / Loss	\$55,590,492
(14) 20% of 2022 (Gain) / Loss	\$11,118,098
Actuarial value on January 1, 2026, (6) + (8) + (10) + (12) + (14)	
(15) but not less than 90% nor greater than 110% of (6)	\$289,935,485
(16) Ratio of actuarial value to market value	98.42%
(17) Market Value Return for 2024	9.1%
(18) Actuarial Value Return for 2024	6.7%
(19) Market Value Return for 2025	12.3%
(20) Actuarial Value Return for 2025	7.0%

Unfunded Actuarial Accrued Liabilities

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table VI.

Table VI

	<u>January 1, 2025</u>	<u>January 1, 2026</u>
Actuarial Accrued Liability	\$284,399,599	\$300,925,121
Actuarial Assets	<u>278,476,942</u>	<u>289,935,485</u>
Unfunded Actuarial Accrued Liability	\$5,922,657	\$10,989,636
Funded Status	97.9%	96.3%

Appropriations

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the requirements set forth in Section 22D of Chapter 32 of the Massachusetts General Laws. These amounts were calculated to comply with the June 30, 2028, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the unfunded actuarial accrued liability by June 30, 2027
- Interest adjustment for payments deposited at the beginning of the fiscal year.

The pension appropriation can not be less than \$0 and is shown in Table VII.

Table VII

	<u>January 1, 2025</u>	<u>January 1, 2026</u>
Normal cost	\$780,454	\$771,078
Amortization payment of the accrued liability	3,012,398	10,872,449
Amortization payment of Housing Authority liability	<u>0</u>	<u>0</u>
Total cost	\$3,792,852	\$11,643,527
% of Pay	7.5%	20.9%
Fiscal 2027 cost	\$4,107,191	\$12,080,685
Fiscal 2028 cost	\$1,132,434	\$897,237

Appropriation Forecast

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 4.0% per year. The employee contribution rate is expected to increase to 10.5% by 2036 as members contributing base percentages 5%, 7%, and 8% are replaced by new members, whose base contribution is 9%. Payments are assumed to be made at the beginning of the year.

The employer total is designed to increase the funded ratio until reaching 105%. It is then designed to maintain a funded ratio of 105%. The total cost represents less than 3% of payroll. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

Appropriation Forecast

Fiscal Year	Employee Contribution	Employer Normal Cost with Interest	Amortization Payments with Interest	Employer Total Cost with Interest	Employer Total Cost % of Payroll	Unfunded Accrued Liability	Funded Ratio %**
Ending							
2027	\$5,200,771	\$800,028	\$11,280,657	\$12,080,685	21.7	\$10,989,636	96.3
2028	\$5,483,788	\$754,227	\$143,010	\$897,237	1.5	\$126,152	100.0
2029	\$5,781,126	\$703,483	\$0	\$703,483	1.2	\$0	100.0
2030	\$6,093,476	\$647,471	\$0	\$647,471	1.0	\$0	100.0
2031	\$6,421,565	\$585,854	\$0	\$585,854	0.9	\$0	100.0
2032	\$6,766,151	\$518,270	\$0	\$518,270	0.8	\$0	100.0
2033	\$7,128,030	\$444,343	\$0	\$444,343	0.6	\$0	100.0
2034	\$7,508,033	\$363,673	\$0	\$363,673	0.5	\$0	100.0
2035	\$7,907,032	\$275,838	\$0	\$275,838	0.4	\$0	100.0
2036	\$8,325,937	\$180,394	\$0	\$180,394	0.2	\$0	100.0
2037	\$8,658,975	\$187,609	\$0	\$187,609	0.2	\$0	100.0
2038	\$9,005,334	\$195,114	\$0	\$195,114	0.2	\$0	100.0
2039	\$9,365,547	\$202,918	\$0	\$202,918	0.2	\$0	100.0
2040	\$9,740,169	\$211,035	\$0	\$211,035	0.2	\$0	100.0
2041	\$10,129,776	\$219,477	\$0	\$219,477	0.2	\$0	100.0
2042	\$10,534,967	\$228,256	\$0	\$228,256	0.2	\$0	100.0
2043	\$10,956,365	\$237,386	\$0	\$237,386	0.2	\$0	100.0
2044	\$11,394,620	\$246,881	\$0	\$246,881	0.2	\$0	100.0
2045	\$11,850,405	\$256,757	\$0	\$256,757	0.2	\$0	100.0
2046	\$12,324,421	\$267,027	\$0	\$267,027	0.2	\$0	100.0
2047	\$12,817,398	\$277,708	\$0	\$277,708	0.2	\$0	100.0
2048	\$13,330,094	\$288,816	\$0	\$288,816	0.2	\$0	100.0
2049	\$13,863,298	\$300,369	\$0	\$300,369	0.2	\$0	100.0
2050	\$14,417,830	\$312,384	\$0	\$312,384	0.2	\$0	100.0
2051	\$14,994,543	\$324,879	\$0	\$324,879	0.2	\$0	100.0
2052	\$15,594,324	\$337,874	\$0	\$337,874	0.2	\$0	100.0
2053	\$16,218,097	\$351,389	\$0	\$351,389	0.2	\$0	100.0
2054	\$16,866,821	\$365,445	\$0	\$365,445	0.2	\$0	100.0
2055	\$17,541,494	\$380,062	\$0	\$380,062	0.2	\$0	100.0
2056	\$18,243,154	\$395,265	\$0	\$395,265	0.2	\$0	100.0
2057	\$18,972,880	\$411,075	\$0	\$411,075	0.2	\$0	100.0
2058	\$19,731,795	\$427,519	\$0	\$427,519	0.2	\$0	100.0

** Beginning of Fiscal Year

EXHIBITS

Exhibit 1 - Age/Service Distribution with Salary as of January 1, 2026

Attained Age	Average Salary	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
20-24	22	0	0	0	0	0	0	0	0	0	22
	54,717	0	0	0	0	0	0	0	0	0	54,717
25-29	60	11	0	0	0	0	0	0	0	0	71
	68,865	112,852	0	0	0	0	0	0	0	0	75,680
30-34	42	35	3	0	0	0	0	0	0	0	80
	78,630	102,706	123,937	0	0	0	0	0	0	0	90,862
35-39	33	20	19	2	0	0	0	0	0	0	74
	78,679	87,846	108,810	136,365	0	0	0	0	0	0	90,452
40-44	26	13	18	17	4	0	0	0	0	0	78
	56,278	90,383	117,705	116,805	136,497	0	0	0	0	0	93,443
45-49	25	5	5	6	9	4	0	0	0	0	54
	59,885	90,242	78,908	84,660	120,025	124,203	0	0	0	0	81,998
50-54	23	10	8	5	23	13	2	0	0	0	84
	64,004	54,905	85,950	108,159	126,671	142,916	98,554	0	0	0	97,833
55-59	19	7	8	9	4	11	6	1	0	0	65
	61,963	74,039	86,508	73,017	74,038	135,429	159,727	140,687	0	0	91,226
60-64	11	10	10	10	8	13	4	2	1	0	69
	79,027	44,188	76,544	88,540	91,988	108,048	141,349	100,253	100,004	0	86,499
65-69	5	2	7	3	5	6	0	0	1	0	29
	59,979	40,847	80,550	50,808	73,417	53,736	0	0	77,331	0	64,300
70+	1	1	3	2	1	0	1	0	1	0	10
	0	0	80,382	48,117	87,009	0	113,865	0	42,532	0	72,207
Total Employees	267	114	81	54	54	47	13	3	3	0	636
Average Salary	67,466	86,053	97,562	94,414	111,589	118,542	141,133	113,731	73,289	0	86,413

Exhibit 2 - Retiree Distribution as of January 1, 2026

Attained Age	Number of Employees			Total Payments		
	Female	Male	Total	Female	Male	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	0	0	0	0	0	0
45-49	1	0	1	46,399	0	46,399
50-54	1	2	3	53,501	60,528	114,029
55-59	4	3	7	185,644	303,384	489,028
60-64	11	18	29	416,307	1,063,627	1,479,935
65-69	38	35	73	1,119,339	2,202,894	3,322,232
70-74	32	41	73	970,302	2,032,051	3,002,354
75-79	50	34	84	1,518,990	1,488,250	3,007,240
80-84	26	22	48	570,032	1,059,441	1,629,473
85-89	17	9	26	402,719	272,598	675,318
90-94	14	6	20	367,955	201,317	569,272
95+	6	0	6	158,777	0	158,777
Total	200	170	370	5,809,967	8,684,089	14,494,057
Average (Age/Payment)	76.57	73.79	75.29	29,050	51,083	39,173
Frequency Percent	54.1	45.9	100	40.1	59.9	100

Exhibit 3 - Disabled Retiree Distribution as of January 1, 2026

Attained Age	Number of Employees			Total Payments		
	Female	Male	Total	Female	Male	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	0	0	0	0	0	0
45-49	2	4	6	126,807	282,993	409,800
50-54	1	0	1	27,919	0	27,919
55-59	1	6	7	22,991	392,546	415,537
60-64	2	6	8	107,253	366,411	473,664
65-69	0	10	10	0	635,251	635,251
70-74	2	6	8	56,651	369,699	426,351
75-79	1	7	8	31,982	293,000	324,983
80-84	0	7	7	0	260,894	260,894
85-89	1	1	2	31,034	31,116	62,151
90-94	0	0	0	0	0	0
95-99	0	0	0	0	0	0
Total	10	47	57	404,639	2,631,911	3,036,549
Average (Age/Payment)	64.36	68.67	67.92	40,464	55,998	53,273
Frequency Percent	17.5	82.5	100	13.3	86.7	100

EXHIBIT 4 - CASHFLOW FORECAST:

The following is a 30 year forecast of benefit payments net of state reimbursable COLA payments, Contribution Income and Investment Returns.

Plan Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2026	\$24,975,726	\$5,200,771	\$12,080,685	\$21,641,647	\$13,947,377
2027	21,007,960	5,483,788	897,237	22,428,696	7,801,761
2028	21,988,449	5,781,126	703,483	22,997,958	7,494,117
2029	22,848,269	6,093,476	647,471	23,541,207	7,433,886
2030	23,667,495	6,421,565	585,854	24,081,583	7,421,507
2031	24,494,825	6,766,151	518,270	24,620,933	7,410,529
2032	25,209,425	7,128,030	444,343	25,163,913	7,526,861
2033	25,856,039	7,508,033	363,673	25,718,598	7,734,265
2034	26,416,530	7,907,032	275,838	26,292,652	8,058,993
2035	26,913,926	8,325,937	180,394	26,894,203	8,486,607
2036	27,318,890	8,658,975	187,609	27,528,232	9,055,925
2037	27,675,343	9,005,334	195,114	28,207,634	9,732,739
2038	27,984,578	9,365,547	202,918	28,940,587	10,524,474
2039	28,196,969	9,740,169	211,035	29,737,743	11,491,977
2040	28,343,761	10,129,776	219,477	30,611,376	12,616,868
2041	28,437,996	10,534,967	228,256	31,573,037	13,898,265
2042	28,359,968	10,956,365	237,386	32,639,194	15,472,976
2043	28,219,691	11,394,620	246,881	33,828,153	17,249,963
2044	28,026,084	11,850,405	256,757	35,155,054	19,236,132
2045	27,781,363	12,324,421	267,027	36,635,817	21,445,902
2046	27,562,416	12,817,398	277,708	38,284,660	23,817,350
2047	27,377,521	13,330,094	288,816	40,113,641	26,355,030
2048	27,195,065	13,863,298	300,369	42,136,662	29,105,265
2049	27,011,674	14,417,830	312,384	44,370,113	32,088,653
2050	26,860,024	14,994,543	324,879	46,830,602	35,289,999
2051	26,624,083	15,594,324	337,874	49,539,158	38,847,274
2052	26,392,017	16,218,097	351,389	52,519,702	42,697,170
2053	26,099,476	16,866,821	365,445	55,797,033	46,929,823
2054	25,813,723	17,541,494	380,062	59,397,909	51,505,742
2055	26,584,326	18,243,154	395,265	63,309,181	55,363,274

amounts in thousands

EXHIBIT 5 – SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Chapter 32 as of January 1, 2026, and does not take into account any subsequent changes.

1. Administration

Each of the 104 contributory retirement systems for public employees of the Commonwealth of Massachusetts are guided by the applicable provisions of Chapter 32 of the Massachusetts General Laws and other applicable statutes. Although these boards operate semi-independently, there is a uniform set of rules governing benefits, eligibility, contributions, financing, and accounting.

2. Participation

Participation is mandatory for all full-time employees whose employment commences prior to age 65. Eligibility with respect to part-time, professional, temporary, or intermittent employment is governed by the local board. Membership is optional for certain elected officials, State officials appointed by the Governor, and certain hospital interns.

There are four classes of membership as follows:

- (i) Group 1: Most general employees in State and local government
- (ii) Group 2: Certain specified hazardous duty positions
- (iii) Group 3: State police officers and inspectors
- (iv) Group 4: Local police officers, firefighters, and designated employees of the municipal light department.

For members in more than one group, participation will be proportional.

Chapter 176 of the Acts of 2011 created different plan provisions within these groups for those hired on or after April 2, 2012.

3. **Salary**

Salary is defined as gross regular compensation. Salary does not include bonuses, overtime, severance pay, unused sick leave credit, or other similar compensation.

4. **Member Contributions**

Member contributions vary depending upon date hired as follows:

<u>Date of Hire</u>	<u>Member Contribution Rate</u>
Prior to 1975	5.0% of Salary
1975 to 1983	7.0% of Salary
1984 to 1996	8.0% of Salary
1996 and Later plus	9.0% of Salary
1979 and Later	2.0% of Salary in excess of \$30,000

For Group 1 employees who become members on or after April 2, 2012, the Contribution Rate shall be 6% after the completion of 30 years of service.

5. **Average Salary**

Average salary is used to determine a participant's benefit. It is defined as the average salary during the three consecutive-year period that produces the highest average. (Alternatively, if a greater amount results, it is the average rate of salary earned during the period or periods, whether or not consecutive, that constitutes the last three years preceding retirement.). For employees who become members on or after April 2, 2012, the averaging period shall be five years.

6. **Creditable Service**

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

7. Service Retirement**a. Eligibility:**

For an employee to be eligible for service retirement (also referred to as superannuation), one of the following conditions must be met:

- (i) completion of 20 years of service
- (ii) for an employee hired prior to January 1, 1978, attainment of age 55 as an active member
- (iii) for an employee hired on or after January 1, 1978, attainment of age 55 as an active member and completion of ten years of service
- (iv) for a Group 1 employee hired on or after April 2, 2012, attainment of age 60 and completion of ten years of service

b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times Creditable Service, where Benefit Rate is determined from the following table for those hired prior to April 2, 2012:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
65 or Over	.025	.025	.025
64	.024	.025	.025
63	.023	.025	.025
62	.022	.025	.025
61	.021	.025	.025
60	.020	.025	.025
59	.019	.024	.025
58	.018	.023	.025
57	.017	.022	.025
56	.016	.021	.025
55	.015	.020	.025
54	.014	.014	.024
53	.013	.013	.023
52	.012	.012	.022
51	.011	.011	.021
50	.010	.010	.020
49	.009	.009	.019
48	.008	.008	.018
47	.007	.007	.017
46	.006	.006	.016
45	.005	.005	.015
44	.004	.004	.004
43	.003	.003	.003
42	.002	.002	.002
41	.001	.001	.001

For those hired after April 1, 2012 who retire with less than 30 years of service, the following rates are applied:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
67 or Over	.0250	.0250	.0250
66	.0235	.0250	.0250
65	.0220	.0250	.0250
64	.0205	.0250	.0250
63	.0190	.0250	.0250
62	.0175	.0250	.0250
61	.0160	.0235	.0250
60	.0145	.0220	.0250
59		.0205	.0250
58		.0190	.0250
57		.0175	.0250
56		.0160	.0235
55		.0145	.0220
54			.0205
53			.0190
52			.0175
51			.0160
50			.0145

For those hired after April 1, 2012 who retire with at least 30 years of service, the following rates are applied:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
67 or Over	.02500	.02500	.02500
66	.02375	.02500	.02500
65	.02250	.02500	.02500
64	.02125	.02500	.02500
63	.02000	.02500	.02500
62	.01875	.02500	.02500
61	.01750	.02375	.02500
60	.01625	.02250	.02500
59		.02125	.02500
58		.02000	.02500
57		.01875	.02500
56		.01750	.02375
55		.01625	.02250
54			.02125
53			.02000
52			.01875
51			.01750
50			.01625

8. Deferred Vested Retirement

a. Eligibility:

A participant who has completed ten or more years of creditable service is eligible for a deferred vested retirement benefit. If termination is involuntary, the participant is vested after six years.

b. Benefit Amount:

The participant's accrued benefit is payable commencing at age 55, or may be deferred until later at the employee's option.

c. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions. Members with ten or more years of service are entitled to 100% of the credited interest on their contributions. Members with five to ten years of service are entitled to 50% of the credited interest on their contributions. No credited interest is provided for members with less than five years of service.

9. Accidental Disability

a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

b. Benefit Amount:

The accidental disability amount is 72% of annual salary plus \$450 per year for each child plus an additional annuity based upon accumulated Member Contributions with credited interest.

10. Ordinary Disability

a. Eligibility:

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service (and be less than age 55 or age 60 if hired on or after April 2, 2012).

b. Benefit Amount:

The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55 (age 60 if hired on or after April 2, 2012). If the member was 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 participant is over age 55 (age 60 if hired on or after April 2, 2012), he

will receive not less than the superannuation allowance to which he is entitled.

11. Survivor Benefits

a. Occupational Death:

The survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participant's annual Salary.

b. Non-Occupational Death:

Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of \$250 per month to the surviving spouse, plus \$120 for the first child, plus \$90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of \$250 per month plus \$120 for the first child and \$90 for each additional child.

c. Refund of Contributions:

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

12. Cost-of-Living Increases

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$15,000. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and are not the liability of the Retirement System.

13. Postretirement Death Benefits

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement. There are three available forms as follows:

- (i) Option A – Life annuity
- (ii) Option B – Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member
- (iii) Option C – Life annuity with 66-2/3% of benefit continued after death of member to designated joint annuitant

EXHIBIT 6 – ACTUARIAL METHODS AND ASSUMPTIONS:

The actuarial cost method, factors, and assumptions used in determining cost estimates are presented below.

1. **Member Data**

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired, and disabled members of the employer as supplied by the employer to the actuary.

2. **Valuation Date**

January 1, 2026.

3. **Actuarial Cost Method**

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

4. **Rate of Investment Return**

It is assumed that the assets of the fund will accumulate at a compound annual rate of 7.65% per annum, net of investment expenses.

5. **Salary Scale**

It is assumed that salaries including longevity will increase at a rate of 3.5% per year.

6. **Cost-of-Living Increases**

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and \$15,000 per year.

7. **Value of Investments**

Assets held by the fund are valued at market value as reported by the Public Employees' Retirement Administration Commission (PERAC). The actuarial value of assets is determined

using a five-year smoothing of asset returns greater than or less than the assumed rate of return, with a 10% corridor.

8. **Annual Rate of Withdrawal Prior to Retirement**

Based on an analysis of experience, the assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

<u>Service</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
0	0.2080	0.1500
5	0.1020	0.1000
10	0.0650	0.0600
15	0.0417	0.0600
20	0.0400	0.0000
30	0.0000	0.0000

9. **Annual Rate of Mortality**

It is assumed that mortality for is represented by the various SOA Pub-2010 Public Retirement Plans Mortality Tables specific to the Group, Pre-retirement versus Post, Disabled and Beneficiaries, with Scale MP-2018 improvements until 2026.

10. Service Retirement

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages for those hired prior to April 2, 2012:

<u>Age</u>	<u>Male General Employees</u>	<u>Female General Employees</u>	<u>Male and Female Police and Fire Employees</u>
50	0.0360	0.1019	0.0382
51	0.0405	0.0714	0.0351
52	0.0437	0.0562	0.0436
53	0.0366	0.0448	0.0527
54	0.0451	0.0488	0.0999
55	0.0477	0.0469	0.1110
56	0.0574	0.0518	0.1413
57	0.0632	0.0509	0.1292
58	0.0765	0.0552	0.1499
59	0.0917	0.0645	0.1679
60	0.1057	0.0774	0.1871
61	0.1224	0.1038	0.2073
62	0.1473	0.1168	0.2176
63	0.1777	0.1440	0.3338
64	0.2136	0.1708	0.5664
65	0.2615	0.1939	1.00000
66	0.2682	0.1959	1.00000
67	0.2500	0.2000	1.00000
68	0.2500	0.2000	1.00000
69	0.2500	0.2000	1.00000
70 to 76	0.2500	0.2500	1.00000
77 to 79	0.3500	0.2500	1.00000
80	1.0000	1.0000	1.00000

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages for those hired on or after April 2, 2012:

<u>Age</u>	<u>Male General Employees</u>	<u>Female General Employees</u>	<u>Male and Female Police and Fire Employees</u>
50	0.0000	0.0000	0.0191
51	0.0000	0.0000	0.0176
52	0.0000	0.0000	0.0436
53	0.0000	0.0000	0.0211
54	0.0000	0.0000	0.0266
55	0.0000	0.0000	0.0370
56	0.0000	0.0000	0.1060
57	0.0000	0.0000	0.1938
58	0.0000	0.0000	0.1499
59	0.0000	0.0000	0.1119
60	0.0477	0.0469	0.0936
61	0.0574	0.0518	0.1555
62	0.0632	0.0509	0.1741
63	0.0765	0.0552	0.2670
64	0.0917	0.0645	0.4720
65	0.1057	0.0774	0.2500
66	0.1224	0.1038	0.3000
67	0.1473	0.1168	1.0000
68	0.1777	0.1440	1.0000
69	0.2136	0.1708	1.0000
70	0.2615	0.1939	1.0000
70 to 76	0.2682	0.1959	1.0000
77 to 79	0.2500	0.2000	1.0000

12. Annual Rate of Disability Prior to Retirement

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following probabilities at the following ages:

<u>Attained Age</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
20	0.000100	0.000500
30	0.000152	0.000967
40	0.000663	0.002500
50	0.001271	0.007634

In addition, it is assumed for the general employees that 20% of all disabilities are ordinary (80% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

13. Family Composition

It is assumed that 80% of all members will be survived by a spouse and that females (males) are three years younger (older) than members.

14. Administrative Expenses

The normal cost is increased by an amount equal to the anticipated administrative expenses for the upcoming fiscal year. The amount for fiscal year 2026 is \$420,000 and is anticipated to increase at 4% per year.

EXHIBIT 7 – GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

1. **Actuarial Accrued Liability**

That portion of the Actuarial Present Value of projected plan benefits that is not provided for by future employer Normal Costs or employee contributions.

2. **Actuarial Assumptions**

Assumptions as to the occurrence of future events affecting the Retirement System such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

3. **Actuarial Cost Method**

A procedure for allocating the Actuarial Present Value of projected pension plan benefits between Normal Cost and Actuarial Accrued Liability.

4. **Actuarial Present Value**

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

5. **Forecast**

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions, and additional assumptions as to the replacement of terminating employees with new employees.

6. **Normal Cost**

That portion of the Actuarial Present Value of future benefits that is assigned to the current

year.

7. Unfunded Actuarial Accrued Liability

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

8. Actuarial Valuation Method

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs, and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

9. Vested Liability

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

CERTIFICATION:

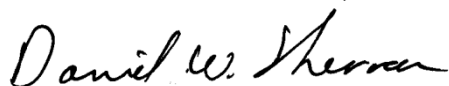
This report fairly represents the actuarial position of the Town of Watertown Retirement System contributing as of January 1, 2026, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. The economic assumptions were selected by the Retirement Board. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost are reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

The funded status measure is appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations. The funded status measure is appropriate for assessing the need for or the amount of future contributions. The funded status measure would be different if the measure reflected the market value of assets rather than the actuarial value of assets.

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; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

The report was prepared under the supervision of Daniel Sherman, an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries, who takes responsibility for the overall appropriateness of the analysis, assumptions and results. Daniel Sherman is deemed to meet the General Qualification Standard and the basic education and experience requirement in the pension area. Based on over thirty years of performing valuations of similar complexity, Mr. Sherman is qualified by experience. Daniel Sherman has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sherman Actuarial Services, LLC



Daniel W. Sherman, ASA, MAAA
July, 2026

BREAKOUTS

Breakouts

	<u>Total</u>	<u>All Others</u>	<u>Housing</u>
(1) Participants			
(a) Actives	636	621	15
(b) Retirees	370	358	12
(c) Inactives	237	228	9
(d) Disabled Retirees	<u>57</u>	<u>56</u>	<u>1</u>
(e) Total	1300	1263	37
(2) Payroll of Active Participants	\$55,711,363	\$54,254,976	\$1,456,387
(3) Normal Cost			
(a) Total Normal Cost	5,971,849	5,809,939	161,910
(b) Expected Employee Contributions	5,200,771	5,063,928	136,843
(c) Administrative Expenses	<u>420,000</u>	<u>408,613</u>	<u>11,387</u>
(d) Net Employer Normal Cost (a) - (b)	771,078	746,011	25,067
(4) Actuarial Accrued Liability	300,925,121	294,436,711	6,488,410
(5) Assets*	<u>289,935,485</u>	<u>283,536,337</u>	<u>6,399,148</u>
(6) Unfunded Actuarial Accrued Liability (4) - (5)	10,989,636	10,900,374	89,262
(7) Amortizations*	10,872,449	10,784,139	88,310
(8) Total Required Employer Contributions (3d) + (7)	11,643,527	11,530,150	113,377
(9) Fiscal 2027 Cost	\$12,080,685	\$11,963,051	\$117,634
(10) Fiscal 2028 Cost	\$897,237	\$888,501	\$8,737
(11) Fiscal 2029 Cost	\$703,483	\$696,633	\$6,850
(12) Fiscal 2030 Cost	\$647,471	\$641,166	\$6,305
(13) Fiscal 2031 Cost	\$585,854	\$580,149	\$5,705
(14) Fiscal 2032 Cost	\$518,270	\$513,223	\$5,047
Percentage of Total Cost	100.0%	99.0263%	0.9737%

* Allocation is based on the ratio of the Unfunded Actuarial Accrued Liability