



# Statements No. 67 and 68 of the Governmental Accounting Standards Board (GASB)

Disclosure Report for the Fiscal Year Ending June 30, 2023

For:

# RETIREMENT PLAN FOR THE FULL-TIME EMPLOYEES OF THE TOWN OF LEDYARD

*Issued:* September 5, 2023

Prepared by: USI Consulting Group

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#### INTRODUCTION

We are pleased to present our Governmental Accounting Standards Board (GASB) disclosure report for the fiscal year ending June 30, 2023. This report has been prepared to assist management in meeting the requirements of GASB Statements No. 67 and 68 relating to the Retirement Plan for the Full-Time Employees of the Town of Ledyard (the "Plan") for the fiscal year ending June 30, 2023.

The information presented has been calculated in accordance with our understanding of these Statements. No attempt is being made to provide any accounting opinion or advice, or to reflect any tax effect generated by deferred tax assets or benefits.

The key figure under these Statements is the Net Pension Liability (NPL), which is a comparison of plan assets (Plan Net Position, "PNP") to plan liabilities (called Total Pension Liability, "TPL"). The TPL is determined using a mixture of the plan's assumed long term expected rate of return and a current municipal bond rate. Where plan assets and expected contributions will cover the TPL, those liabilities are discounted at the expected long-term rate of return. When those assets no longer cover future liabilities, they are discounted using the municipal bond rate to reflect the lack of assets in place to cover that outflow.

For the above-mentioned Plan, assets and expected contributions are expected to be sufficient to cover all future expected liabilities and therefore we have used the expected long-term rate of return as the discount rate. Please see Exhibit I for more details.

The additional actuarial assumptions and cost methods used are as set forth in the Actuarial Methods & Assumptions section on page 6 of this report and the Actuarial Assumptions (for calculation of the Net Pension Liability) section on page 13 of this report. Present values and obligations are based on employee data as of July 1, 2023. The method for projecting these obligations is also described in the Actuarial Methods & Assumptions section of this report.

Actuarial computations under GASB Statements No. 67 and 68 shown in this report are solely for the purpose of fulfilling the plan sponsor accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported herein. Accordingly, additional determinations are needed for other purposes, such as judging benefit security at termination or adequacy of funding for an ongoing plan. Furthermore, the NPL (defined above) is not appropriate for assessing the need for or amount of future contributions.

The actuarial liabilities shown in this report are determined using software purchased from an outside vendor which was developed for this purpose. Certain information is entered into this model in order to generate the liabilities specific to your pension plan. These inputs include economic and non-economic assumptions, plan provisions and census information. We rely on the coding within the software to value the liabilities using the actuarial methods and assumptions selected. Both the input to and the output from the model is checked for accuracy and reviewed for reasonableness.

Future measurements may differ significantly from the information contained within this report. These measurements will be based on the market value of plan assets (PNP), which varies based on the underlying portfolio experience, as well as plan sponsor contributions, benefit payments and expenses paid from plan assets. The TPL calculations will be produced in accordance with current census data, the expected long-term rate of return, municipal bond rates and mortality tables in effect at that time of measurement. There has been no calculations or analysis of potential future impacts associated with this report.

This report has been prepared in accordance with generally accepted actuarial standards and procedures, and conforms to the Guidelines for Professional Conduct of the American Academy of Actuaries. It is based on the employee and financial data submitted to USI Consulting Group by the plan sponsor and on the retirement plan provisions as outlined herein. The investment advisor has supplied the data in support of the investment return.

In addition, there exists no relationship between USI Consulting Group and the plan sponsor that might influence the contents of this report.

In our opinion, all costs, liabilities, rates of interest and other factors under the Plan have been determined on the basis of actuarial assumptions and methods, which are each reasonable, (or consistent with authoritative guidance), taking into account the experience of the Plan and future expectations and which, when combined, represent our best estimate of anticipated experience under the Plan.

I, Frederica S. Daniels, FCA, EA, MAAA, am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Mutter Hundle

Senior Actuarial Consultant

Matthew J. Henderson, EA, FSA, MAAA

**USI Consulting Group** 

Frederica S. Daniels, FCA, EA, MAAA

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Ludi N. Dam

Nelroy Giddings

**Actuarial Consultant** 

Ridding

September 5, 2023

## Schedules of Required Supplementary Information (RSI) Schedule of Changes in the Net Pension Liability (NPL) and Related Ratios

Measurement Period Ended June 30,	2023	2022	2021
Total pension liability			
Service cost	\$506,565	\$473,992	\$539,906
Interest	\$2,073,323	\$1,967,983	\$1,937,222
Changes of benefit terms	\$0	\$0	\$0
Differences between expected and	, ,	**	7-
actual experience	(\$35,422)	\$1,018,759	(\$295,985)
Changes of assumptions	\$0	\$57,714	\$81,306
Benefit payments, including refunds	·	. ,	. ,
of employee contributions	(\$1,924,510)	<u>(\$1,808,430)</u>	<u>(\$1,603,369)</u>
Net change in total pension liability	\$619,956	\$1,710,018	\$659,080
Total pension liability—beginning	\$33,614,272	<u>\$31,904,254</u>	<u>\$31,245,174</u>
Total pension liability—ending (a)	\$34,234,228	\$33,614,272	\$31,904,254
Plan fiduciary net position			
Contributions - employer	\$1,163,197	\$1,131,235	\$1,098,284
Contributions - employee	\$176,215	\$195,857	\$209,846
Net investment income	\$2,273,767	(\$4,381,254)	\$6,258,426
Benefit payments, including refunds			
of employee contributions	(\$1,924,510)	(\$1,808,430)	(\$1,603,369)
Administrative expense	(\$18,352)	(\$30,812)	(\$15,687)
Other	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net change in plan fiduciary net position	\$1,670,317	(\$4,893,404)	\$5,947,500
Plan fiduciary net position—beginning	<u>\$27,120,434</u>	<u>\$32,013,838</u>	<u>\$26,066,338</u>
Plan fiduciary net position—ending (b)	<u>\$28,790,751</u>	<u>\$27,120,434</u>	<u>\$32,013,838</u>
Net pension liability—ending (a) – (b)	<u>\$5,443,477</u>	<u>\$6,493,838</u>	<u>(\$109,584)</u>
Plan fiduciary net position as a percentage			
of the total pension liability	84.10%	80.68%	100.34%
Covered-employee payroll	\$3,728,801	\$4,254,773	\$4,173,503
Net pension liability as a percentage of covered-employee payroll	145.98%	152.62%	-2.63%

## Required Supplementary Information Changes in Net Pension Liability (NPL) by Source

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 06/30/2022*	\$33,614,272	\$27,120,434	\$6,493,838
Changes for the year:			
Service Cost	\$506,565		\$506,565
Interest	\$2,073,323		\$2,073,323
Changes of benefit terms	\$0		\$0
Differences between expected			
and actual experience	(\$35,422)		(\$35,422)
Changes of assumptions	\$0		\$0
Contributions - employer		\$1,163,197	(\$1,163,197)
Contributions - employee		\$176,215	(\$176,215)
Net investment income		\$2,273,767	(\$2,273,767)
Benefit payments, including			
refunds of ee contributions	(\$1,924,510)	(\$1,924,510)	\$0
Administrative expense		(\$18,352)	\$18,352
Other changes		\$0	\$0
Net changes	\$619,956	\$1,670,317	(\$1,050,361)
Balances at 06/30/2023*	\$34,234,228	\$28,790,751	\$5,443,477

<sup>\*</sup> The 6/30/2022 liability was projected from a valuation performed as of July 1, 2021 using assumptions in effect on 6/30/2022. The 6/30/2023 liability comes from a valuation performed as of July 1, 2023 using assumptions in effect on 6/30/2023.

## Statement of Fiduciary Net Position (Market Value of Plan Assets) As of June 30, 2022 and 2023

<u>Assets</u>	06/30/2022	06/30/2023
Cash Equivalent	\$574,096	\$596,449
Receivables	\$0	\$0
Investments		
Interest Receivable	\$0	\$0
Bonds & Equity	\$16,605,341	\$17,450,634
Mutual Funds	\$0	\$0
Corporate Bonds	\$0	\$0
US Treas uries	\$9,932,280	\$10,733,035
Federal Agency Debt Securities	\$0	\$0
Federal Agency Mortgage	<u>\$0</u>	\$0
Total Investments	\$26,537,621	\$28,183,669
Accrued Income	\$8,717	\$10,633
Total Assets	\$27,120,434	\$28,790,751
<u>Liabilities and Net Assets</u>		
Payables	\$0	\$0
Other Liabilities	\$0	\$0
Total Liabilities	\$0	\$0
Net Position	\$27,120,434	\$28,790,751
Statement of Changes in Fide	uciary Net Position	
For the Measurement Period	Ended June 30, 2023	
Net Position at Beginning of Year		\$27,120,434
Contributions Received or Receivable		
Employer	\$1,163,197	
Employee	\$176,215	
Total Contributions		\$1,339,412
Net Unrealized Appreciation/(Depreciation)		\$1,317,095
Net Realized Appreciation/(Depreciation)		\$33,559
Interest and Dividends		\$672,396
Other Income		\$353,395
Total Income		\$3,715,857
Distribution of Benefits		
Benefit Payments	\$1,924,510	
Other	<u> </u>	
Total Distribution of Benefits		\$1,924,510
Expenses		
Administrative	\$18,352	
Investment	\$102,678	
Total Expenses		\$121,030
Net Increase/(Decrease) in Net Position		\$1,670,317
Net Position at Year End		\$28,790,751

## Required Supplementary Information Schedule of Contributions

Measurement Period Ended June 30,	2023	2022	2021
Actuarially determined contribution	\$1,129,512	\$1,096,614	\$1,098,284
Contributions in relation to the actuarially determined contribution	<u>\$1,163,197</u>	<u>\$1,131,235</u>	\$1,098,284
Contribution deficiency (excess)	<u>(\$33,685)</u>	<u>(\$34,621)</u>	<u>\$0</u>
Covered-employee payroll	\$3,728,801	\$4,254,773	\$4,173,503
Contributions as a percentage of covered- employee payroll	31.19%	26.59%	26.32%

## **Actuarial Methods & Assumptions**

Actuarial cost method: Entry Age Actuarial Cost Method

Amortization method: Amortization of unfunded liability with 3.00% per year increase, closed.

Remaining amortization period: 5 years as of July 1, 2022

Asset valuation method: The market value of assets less unrecognized returns in each of the last 5

years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of

2022

assets

Salary increases: 4.00% Cost of living increases: N/A Investment rate of return: 6.25%

Retirement age: 100% at Retirement Age

Mortality: PubG-2010(B) Public Plan Mortality for General Employees, Scale MP-

2020

Disabled Mortality: PubG-2010(B) Public Plan Mortality for General Employees, Scale MP-

2023

2020

**Schedule of Investment Returns** 

Annual money-weighted rate of return,
net of investment expense 8.55% -14.01% 24.50%

2021

## Required Supplementary Information Pension Expense and Deferred Outflows and Inflows of Resources Related to Pensions

For the measurement period ended June 30, 2023, the Plan recognized pension expense of \$1,625,340. At June 30, 2023, the Plan reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	 red Outflows Resources	 erred Inflows Resources
Differences between expected and actual		
experience	\$ 53,111	\$ 15,239
Changes of assumptions	\$ 3,008	\$ -
Net difference between projected and actual		
earnings on pension plan investments	\$ 3,910,466	\$ 2,333,389
Total	\$ 3,966,585	\$ 2,348,628

Amounts reported in deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June	30:	
2024	\$	357,570
2025	\$	226,040
2026	\$	1,153,811
2027	\$	(119,464)
2028	\$	-
Thereafter	\$	-

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2023

## I. Summary of Significant Accounting Policies

Method used to value investments. Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Asset statements were provided by Webster Private Bank.

### **Actuarial Cost Method**

Individual entry age normal cost. Under this method, the annual cost is equal to the normal cost, plus amortization of unfunded accrued liabilities over a fixed period of years selected within the minimum (10 years) and the maximum (5 to 30 years) periods permitted by law.

The normal cost is the sum of the individual normal costs, determined as the level percentage of compensation which would have been necessary to fund the employee's projected retirement, death and withdrawal benefits, from entry age (the age at which he would have entered the plan had it been in effect on his employment date), to his retirement age. Thus, the dollar normal cost is expected to increase with the salary projection assumption.

The actuarial accrued liability is the accumulation, based on the actuarial assumptions, of all assumed prior normal costs. Thus, it represents the amount of reserves which would be held by the plan had, it always been in effect for the present group of participants and had plan experience followed that predicted by the actuarial assumptions. The unfunded accrued liability is the excess, if any, of the accrued liability over the plan assets.

Actuarial gains and losses arising from differences between plan experience and that predicted by the actuarial assumptions, as measured by the difference between actual and expected unfunded actuarial accrued liabilities, are amortized over the average of the expected remaining service lives of all employees (active and inactive), as required by GASB Statement No. 68.

#### **Attribution Parameters**

Attribution parameters determine how growth in the benefit formula is allocated to years of service.

Accrual rate proration, by component – This method attributes the benefit separately for each component of the benefit formula, based on the credited service. If there are no accrual definitions in the benefit formula, then the entire projected benefit is assigned to past service (and considered fully accrued as of the valuation date). This results in "natural" or "direct differencing" attribution.

### **Accrued and Vested Benefits**

Vested benefits are based on the plan document's vesting schedule based on years of service. Please refer to the Plan Provisions section of this report for requirements for particular benefits.

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2023 (continued)

## **II. Plan Description**

### A. Plan Administration

The Retirement Plan for the Full-Time Employees of the Town of Ledyard (the "Plan") is a single-employer defined benefit pension plan that provides pensions to any employee in covered employment (as defined in the Plan Document) who has met, and continues to meet, the eligibility requirements for participation in the Plan.

## **B.** Participant Data

1. Inactive Plan Participants as of July 1, 2023:

a.) Retirees and beneficiaries currently receiving benefits	114
b.) Terminated employees entitled to deferred benefits	36
c.) Non-Vested Terminated employees due a refund	4
d.) Total	154

2. Active Plan Participants as of July 1, 2023:

a.) Vested	48
b.) Non-Vested	0
c.) Total	48

#### **C. Plan Provisions**

Effective Date 06/01/1977

Plan Year Beginning 07/01/2023

<u>Plan Sponsor</u> Town of Ledyard

**Eligibility** Eligible employee with completion of one year of service. Employee

must work 20 hours per week or completion of 5 months per year. Plan

is closed to new participants according to the following schedule:

Group	Close Date
Town (except Supervisors)	7/1/2009
Town Supervisors	6/6/2012
Police	7/1/2012
Board of Education	7/1/2012
Public Works	7/1/2012
Fire	1/1/2013

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2023 (continued)

## C. Plan Provisions (continued)

Member Contributions	Supervisors/Professional Employees, Town Hall Employees, Educational	

Secretaries, Police, Fire, Administrative Non Union Professionals and Public Works Employee – 5% of earnings (Police contributions are not capped at

130% of base pay)

*Non-Certified Board of Education* – 3% of earnings. Employee contributions

receive interest at 5% per year

Normal Retirement Date
Supervisors/Professional Employees, Town Hall Employees, Educational

Secretaries, Administrative Non Union Professionals and Non-Certified

**Board of Education** – Age 65 and 1 year Credited Service

Fire Employees – Age 55 and 10 years Credited Service (but not later than

age 65)

**Police Employees** – Age 55 and 10 years Credited Service or 25 years of Credited Service with no age requirement (but not later than age 65)

**Public Work Employees** – Age 65 and 1 year Credited Service or Rule of 82

if hired pre 7/1/2007 or Rule of 85 if hired post 7/1/2007.

## **Normal Retirement Benefit**

Benefit Formula

Supervisors/Professional Employees, Town Hall Employees, Educational

Secretaries, Administrative Non Union Professionals, Nurses and Library Employees – 1.5% of Final Average Earnings times Credited Service.

Maximum normal retirement benefit is 50% of Final Average Earnings.

Fire & Police Employees – 2.0% of Final Average Earnings times Credited Service. Maximum normal retirement benefit is 75% of Final Average

Earnings.

**Public Works Employee** -1.5% of Final Average Earnings times Credited Service. Maximum normal retirement benefit is 50% of Final Average Earnings. Unreduced benefit per Rule of 82 if hired before July 1<sup>st</sup>, 2007.

Unreduced benefit per Rule of 85 if hired post July 1st, 2007.

Non-Certified Board of Education – 1.0% of Final Average Earnings times

Credited Service (capped at 30 years).

Final Average Earnings Supervisors/Professional Employees, Town Hall Employees, Educational

Secretaries, Police, Fire, Administrative Non Union Professionals, Public Work Employees, Nurses and Library Employees – Highest 3 out of last 10 consecutive Plan Year. Police earnings are capped at 130% of base pay.

Non-Certified Board of Education – Highest 5 out of last 10 consecutive Plan

Year

Credited Service Years and months of service from Date of Hire upon member satisfying

annual employee contributions provision.

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2023 (continued)

C. Plan Provisions (continued)

<u>Early Retirement Date</u> Supervisors/Professional Employees, Town Hall Employees,

Educational Secretaries, Administrative Non Union Professionals, Public Works Employee, Nurses and Public Library Employees – Age 55 with 10 years of Credited Service

Non-Certified Board of Education – Age 62 with 10 years of

**Credited Service** 

Fire Employees - Completion of 10 years of Credited Service (no

age requirement)

Police Employees - None

<u>Early Retirement Benefit</u>

Supervisors/Professional Employees, Town Hall Employees,

Educational Secretaries, Administrative Non Union Professionals, Public Works Employee, Nurses and Public Library Employees – 0.5% reduced each month prior to age 65

Fire Employees – 0.5% reduced each month prior to Normal

Retirement Age.

Late Retirement Benefit Accrued benefit. Payments are suspended while active and

accruing.

<u>Disability Benefit</u> 10 years of Credited Service. Normal pension accrued based on

Final Average Earnings and Credited Service at disability.

Payment stops at Normal Retirement Age.

Normal Form of Benefit Modified Cash Refund

<u>Optional Forms of Payment</u> 50%, 66.67%, 75% & 100% Joint & Survivor annuities; Life

Annuity with 10 years certain; Social Security Adjustment Option; Lump Sum Option if the present value is less than

\$1,000 or monthly annuity benefit is under \$50.

Accrued Benefit Normal Retirement Benefit based on Final Average Earnings and

Credited Service to date of separation from employment.

<u>Vesting Service</u> Years and months of service from Date of Hire. 100% Vested

upon attainment of Early Retirement and Normal Retirement. 5-Year cliff for all members (excluding Non-Certified Board of Education employees). 10-Year cliff for Non-Certified Board of

education employees.

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2023 (continued)

## D. Contribution Required

Actuarially determined contributions to the Plan are determined each year as part of the Actuarial Valuation process. These contributions are determined according to the following funding policy (and contribution policy):

## **Actuarial Cost Method**:

Entry Age Actuarial Cost Method

### **Asset Valuation Method:**

The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of assets.

### **Amortization Method:**

Amortization of unfunded liability with 3.00% per year increase

#### III. Investments

Investment information has been provided by Webster Private Bank.

## Investment policy.

The following was the Town's adopted asset allocation policy as of June 30, 2023:

	Target
Asset Class	Allocation
US Equity - Large Cap	21.50%
US Equity - Small/Mid Cap	12.00%
Non-US Equity - Developed	16.00%
Non-US Equity - Emerging	6.50%
US Corporate Bonds - Core	36.00%
US Corporate Bonds - Dynamic	2.50%
US Treasuries (Cash Equivalents)	3.00%
Real Estate	2.50%
Total	100.00%

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2023 (continued)

#### Rate of return

For the year ended June 30, 2023, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 8.55%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

## IV. Net Pension Liability

The Town's net pension liability at June 30, 2023 is \$5,443,477. The following assumptions were used in the calculation of the net pension liability:

## A. Actuarial Assumptions & Methods (for calculation of the Net Pension Liability)

## **Measurement Date**

June 30, 2023

#### **Valuation Date**

July 1, 2023

### Mortality

PubG-2010 – Public Plan Mortality for General Employees with Scale MP-2021

#### **Discount Rate**

6.25% per annum

#### Inflation

2.60% per annum. This assumption is an underlying component of a number of these economic assumptions. This assumption reflects the following factors:

- Consumer price indices
- Forecasts of inflation
- Yields on government securities of various maturities
- Yields on nominal and inflation-indexed debt

## **Salary Projection**

4.00% per annum. The assumption selected is consistent with the plan sponsor's current compensation practice. This assumption reflects the following factors:

- Available compensation data, including
  - o Plan sponsor's current compensation practice and any anticipated changes
  - o Historical compensation increases and practices of the plan sponsor and other plan sponsors in the same industry or geographic area

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2023 (continued)

## A. Actuarial Assumptions & Methods (continued)

## **Retirement Age**

100% at Retirement Age

## **Disability Rates**

Disability Rate Table; see sample rates below.

## Withdrawal rates

See sample rates below (excludes Police). There's no withdrawal assumption for Police.

	<u>With</u>	<u>drawal</u>	<u>Disa</u>	<u>bility</u>
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
20	7.94%	7.94%	0.06%	0.06%
25	7.72%	7.72%	0.09%	0.09%
30	7.22%	7.22%	0.11%	0.11%
35	6.28%	6.28%	0.15%	0.15%
40	5.15%	5.15%	0.22%	0.22%
45	3.98%	3.98%	0.36%	0.36%
50	2.56%	2.56%	0.61%	0.61%
55	0.94%	0.94%	1.01%	1.01%
60	0.09%	0.09%	1.63%	1.63%

## B. Long-Term Expected Rate of Return on Pension Plan Investments

The long-term expected rate of return on pension plan investments was determined by the investment advisor. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2023 (see the discussion of the pension plan's investment policy) are summarized in the table on page 15.

## NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2023 (continued)

## B. Long-Term Expected Rate of Return on Pension Plan Investments (continued)

	Target	Long-Term Expected	
Asset Class	Allocation	Real Rate of Return*	Weighting
US Equity - Large Cap	21.50%	4.10%	0.88%
US Equity - Small/Mid Cap	12.00%	3.90%	0.47%
Non-US Equity - Developed	16.00%	6.30%	1.01%
Non-US Equity - Emerging	6.50%	8.20%	0.53%
US Corporate Bonds - Core	36.00%	2.40%	0.86%
US Corporate Bonds - Dynamic	2.50%	3.00%	0.08%
US Treasuries (Cash Equivalents)	3.00%	1.20%	0.04%
Real Estate	2.50%	4.20%	0.11%
Total	100.00%	_	3.98%
Diversification Benefit			1.00%
Long-Term Inflation Assumption			2.60%
Long-Term Expected Nominal Rate of Return			7.58%

<sup>\*</sup> Long-Term real rates of return were provided by Fiducient Advisors. Returns are arithmetic means.

Long-term capital market assumptions (20+ years) are applicable to approximate future return expectations. We utilized a modified building blocks methodology because being able to identify historical return premiums of asset classes in the context of varying market environments provides a reasonable basis to estimate the performance of asset classes going forward.

## C. Discount rate.

The discount rate used to measure the total pension liability was 6.25%. The projection of cash flows used to determine the discount rate assumes that Town contributions will be made according to their established funding policy to contribute the actuarially determined contribution. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

## D. Sensitivity of the net pension liability to changes in the discount rate

	1% Decrease	Current Discount	1% Increase		
	(5.25%)	Rate (6.25%)	(7.25%)		
Net pension liability	\$9,059,618	\$5,443,477	\$2,365,401		

#### **CALCULATION OF THE DISCOUNT RATE**

The discount rate is the single rate that reflects (1) the long-term expected rate of return on pension plan investments that are expected to be used to finance the payment of benefits, to the extent that the pension plan's fiduciary net position is projected to be sufficient to make projected benefit payments and pension plan assets are expected to be invested using a strategy to achieve that return, and (2) a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another scale), to the extent that the conditions for use of the long-term expected rate of return are not met.

As demonstrated in the illustration, a discount rate of 6.25% satisfies the condition that the total actuarial present value of all projected benefit payments is equal to the sum of the actuarial present values determined in Table 3, columns (f) and (g).

## **Facts and Assumptions for Calculation of the Discount Rate**

The following facts and assumptions are used in this illustration:

- 1. The illustration is performed on a closed group basis.
- 2. The actuarially determined contribution is calculated in accordance with the plan's funding policy and the methods and assumptions disclosed on page 6.
- 3. Projected benefit payments include all benefits to be provided to current active and inactive plan members though the pension plan in accordance with the benefits terms in force at the pension plan's fiscal year end.
- 4. The pension plan's initial fiduciary net position as noted on page 5.
- 5. Initial pension plan administrative expenses are as noted on page 5.
- 6. Salary is assumed to increase as noted on page 6.
- 7. Contributions, employee contributions, benefit payments, and pension plan administrative expenses occur halfway through the year for purposes of projecting pension plan investment earnings.
- 8. The long-term expected rate of return on pension plan investments is 6.25%.

## **Calculation of a Money-Weighted Rate of Return**

The following illustration depicts the calculation of a money-weighted rate of return on pension plan investments as required by paragraph 30b(4) of Statement 67. A money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. The rate of return is then calculated by solving, through an iterative process, for the rate that equates (1) the sum of the weighted external cash flows into and out of pension plan investments to (2) the ending value of pension plan investments.

The value of pension plan investments at the beginning of the fiscal year is \$27,120,434, and the value of pension plan investments at the end of the fiscal year is \$28,790,751. Inputs (external cash flows) are determined on a monthly basis and are assumed to occur at the end of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash outflow in each month of this illustration.

The following details the two broad steps of the calculation of the money-weighted rate of return ( $r_{mw}$ ) for the period from July 1–June 30.

Step 1:

	nvestments/Net mal Cash Flows	Periods Invested	Period Weight	
	(a)	(b)	(c) = (b) ÷ 12	(d) = (a) x $(1+r_{mw})^{(c)}$
Beginning Value - July 1 Monthly net external cash flows:	\$ 27,120,434	12	1.00	\$27,120,434 x (1+r <sub>mw</sub> ) <sup>(1.00)</sup>
July	(142,429)	11	0.92	$(142,429) \times (1+r_{mw})^{(0.92)}$
August	(140,473)	10	0.83	$(140,473) \times (1+r_{mw})^{(0.83)}$
September	(142,448)	9	0.75	$(142,448) \times (1+r_{mw})^{(0.75)}$
October	(173,205)	8	0.67	$(173,205) \times (1+r_{mw})^{(0.67)}$
November	(142,843)	7	0.58	$(142,843) \times (1+r_{mw})^{(0.58)}$
December	(140,587)	6	0.50	$(140,587) \times (1+r_{mw})^{(0.50)}$
January	(147,957)	5	0.42	$(147,957) \times (1+r_{mw})^{(0.42)}$
February	(142,561)	4	0.33	$(142,561) \times (1+r_{mw})^{(0.33)}$
March	1,015,270	3	0.25	$1,015,270 \text{ x } (1+r_{\text{mw}})^{(0.25)}$
April	(147,862)	2	0.17	$(147,862) \times (1+r_{mw})^{(0.17)}$
May	(150,484)	1	0.08	$(150,484) \times (1+r_{mw})^{(0.08)}$
June	(147,871)	0	0.00	$(147,871) \times (1+r_{mw})^{(0.00)}$
Ending Value - June 30	\$ 28,790,751			

#### Step 2:

Solve for  $r_{mw}$  such that the ending value of pension plan investments, which is \$28,790,751, equals the sum of amounts in column (d). The  $r_{mw}$  is 8.55%.

## Participant Data as of Most Recent Funding Valuation Date, July 1, 2023

Active Employees	
Number	48
Average Accrued Service	20.74
Average Attained Age	57.22
Deferred Vested Employees	
Number	36
Average Monthly Benefit	600.54
Average Attained Age	58.46
Retired Employees, Beneficiaries, and Contingent Annuitants	
Number	114
Average Monthly Benefit	1,478.06
Average Attained Age	70.51
Non-Vested Terminated Employees Due Employee Contributions	
Number	4
Balance of Employee Contributions	16,159.00

## Calculation of GASB 68 Pension Expense for Measurement Period Ended June 30, 2023

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Deferred Outflows of Resources	Deferred Inflows of Resources	Pension Expense
Balances at 06/30/2022	\$33,614,272	\$27,120,434	\$6,493,838	\$5,929,201	\$2,798,740	
Changes for the year:						
Service Cost	506,565		506,565			506,565
Interest	2,073,323		2,073,323			2,073,323
Changes of benefit terms	-		-			-
Differences between expected and actual						
experience	(35,422)		(35,422)	-	15,239	(20,183)
Changes of assumptions	-		-	-	-	-
Contributions - employer		1,163,197	(1,163,197)			
Contributions - employee		176,215	(176,215)			(176,215)
Projected Earnings on pension plan						
investments		1,676,455	(1,676,455)			(1,676,455)
Differences between projected and						
actual earnings		597,312	(597,312)	-	477,850	(119,462)
Benefit payments, including refunds of						
ee contributions	(1,924,510)	(1,924,510)	-			-
Administrative expense		(18,352)	18,352			18,352
Other changes		-	-			-
Expense for beginning deferred amounts				(1,962,616)	(943,201)	1,019,415
Net changes	619,956	1,670,317	(1,050,361)	(1,962,616)	(450,112)	
Balances at 06/30/2023	\$34,234,228	\$28,790,751	\$5,443,477	\$3,966,585	\$2,348,628	\$1,625,340

## Pension Expense for Measurement Period Ended 06/30/2023

Total	1.625.340
Plus: Employer Contributions	1,163,197
Plus: Change in Deferred Inflows	(450,112)
Less: Change in Deferred Outflows	1,962,616
Change in the Net Pension Liability	(1,050,361)

## Historical Schedule of Changes in the Net Pension Liability (NPL) and Related Ratios

Measurement Period Ended June 30,	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability										
Service cost	\$506,565	\$473,992	\$539,906	\$519,140	\$736,078					
Interest	\$2,073,323	\$1,967,983	\$1,937,222	\$1,881,133	\$1,875,490					
Changes of benefit terms	\$0	\$0	\$0	\$0	\$0					
Differences between expected and	•	•	·	·	•					
actual experience	(\$35,422)	\$1,018,759	(\$295,985)	\$0	(\$699,447)					
Changes of assumptions	\$0	\$57,714	\$81,306	\$0	(\$249,585)					
Benefit payments, including refunds										
of employee contributions	(\$1,924,510)	(\$1,808,430)	<u>(\$1,603,369)</u>	(\$1,468,176)	<u>(\$1,242,451)</u>					
Net change in total pension liability	\$619,956	\$1,710,018	\$659,080	\$932,097	\$420,085					
Total pension liability—beginning	\$33,614,272	\$31,904,254	\$31,245,174	\$30,313,077	\$29,892,992					
Total pension liability—ending (a)	<u>\$34,234,228</u>	<u>\$33,614,272</u>	<u>\$31,904,254</u>	<u>\$31,245,174</u>	<u>\$30,313,077</u>					
Plan fiduciary net position										
Contributions - employer	\$1,163,197	\$1,131,235	\$1,098,284	\$1,066,295	\$1,278,376					
Contributions - employee	\$176,215	\$195,857	\$209,846	\$219,562	\$239,257					
Net investment income	\$2,273,767	(\$4,381,254)	\$6,258,426	\$1,113,027	\$1,076,186					
Benefit payments, including refunds										
of employee contributions	(\$1,924,510)	(\$1,808,430)	(\$1,603,369)	(\$1,468,176)	(\$1,242,451)					
Administrative expense	(\$18,352)	(\$30,812)	(\$15,687)	(\$32,004)	(\$14,910)					
Other	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>					
Net change in plan fiduciary net position	\$1,670,317	(\$4,893,404)	\$5,947,500	\$898,704	\$1,336,458					
Plan fiduciary net position—beginning	\$27.120.434	\$32.013.838	\$26.066.338	\$25.167.634	\$23.831.176					
Plan fiduciary net position—ending (b)	<u>\$28,790,751</u>	<u>\$27,120,434</u>	<u>\$32,013,838</u>	<u>\$26,066,338</u>	<u>\$25,167,634</u>					
Net pension liability—ending (a) – (b)	<u>\$5,443,477</u>	<u>\$6,493,838</u>	<u>(\$109,584)</u>	<u>\$5,178,836</u>	<u>\$5,145,443</u>					
Plan fiduciary net position as a percentage										
of the total pension liability	84.10%	80.68%	100.34%	83.43%	83.03%					
Covered-employee payroll	\$3,728,801	\$4,254,773	\$4,173,503	\$4,731,754	\$4,903,307					
Net pension liability as a percentage of covered-employee payroll	145.98%	152.62%	-2.63%	109.45%	104.94%					

## **Historical Schedule of Contributions**

Measurement Period Ended June 30,	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Actuarially determined contribution	\$1,129,512	\$1,096,614	\$1,098,284	\$1,066,295	\$1,278,376	\$1,241,142	\$1,057,393	\$1,026,595	\$1,168,151	\$1,123,041
Contributions in relation to the actuarially determined contribution	\$1.163.197	<u>\$1.131.235</u>	\$1.098.284	<u>\$1.066.295</u>	<u>\$1.278.376</u>	<u>\$1.278.376</u>	\$1.057.393	\$1.109.374	<u>\$1.075.000</u>	<u>\$969.442</u>
Contribution deficiency (excess)	<u>(\$33,685)</u>	<u>(\$34,621)</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>(\$37,234)</u>	<u>\$0</u>	<u>(\$82,779)</u>	<u>\$93,151</u>	<u>\$153,599</u>
Covered-employee payroll	\$3,728,801	\$4,254,773	\$4,173,503	\$4,731,754	\$4,903,307	\$5,681,648	\$5,809,341	\$5,884,824	\$7,935,812	\$7,630,588
Contributions as a percentage of covered-employee payroll	31.19%	26.59%	26.32%	22.53%	26.07%	22.50%	18.20%	18.85%	13.55%	12.70%

**Actuarial Methods & Assumptions** 

Actuarial cost method: Entry Age Actuarial Cost Method

Amortization method: Amortization of unfunded liability with 3.00% per year increase, closed.

Remaining amortization period: 5 years as of July 1, 2022

Asset valuation method: The market value of assets less unrecognized returns in each of the last 5 years. Unrecognized return is equal to the difference between actual and expected

returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of

2018

2017

2016

2015

2019

assets will stay within 20% of the market value of assets

2021

Salary increases: 4.00%
Cost of living increases: N/A
Investment rate of return: 6.25%

Retirement age: 100% at Retirement Age

Mortality: PubG-2010(B) Public Plan Mortality for General Employees, Scale MP-2020
Disabled Mortality: PubG-2010(B) Public Plan Mortality for General Employees, Scale MP-2020

**Schedule of Investment Returns** 

Annual money-weighted rate of return, net of investment expense 8.55% -14.01% 24.50% N/A N/A

2022

2023

2020

2014