`

Public Employees Retirement Association of Minnesota Statewide Volunteer Firefighter Plan Actuarial Valuation Report as of December 31, 2024 for the City of Lake Elmo Volunteer Fire Department

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July 15, 2024

Public Employees Retirement Association of Minnesota
St. Paul, Minnesota

Re: City of Lake Elmo Volunteer Fire Department Actuarial Valuation as of December 31, 2024

Dear PERA Trustees:

The results of the December 31, 2024 Actuarial Valuation of the City of Lake Elmo Volunteer Fire Department (the Plan) are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Public Employees Retirement Association (PERA) and the Plan and those designated or approved by the Board or the Plan. This report may be provided to parties other than PERA and the Plan only in its entirety and only with the permission of the Board or the Plan. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Plan's funding progress and to determine the **required contribution for the fiscal year ending December 31, 2025**. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution in this report is determined using the actuarial assumptions and methods disclosed on page 8 of this report. This report includes risk metrics on page 6 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the governing body to make the contributions necessary to fund this plan. A determination regarding whether or not the governing body is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data and other information through December 31, 2023. The valuation was based upon information furnished by PERA concerning the Plan, financial transactions, plan provisions, and active and terminated members. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by PERA.

Actuarial assumptions, including discount rates, and others identified in this report, are prescribed by Minnesota Statutes Section 353G.08, the Legislative Commission on Pensions and Retirement (LCPR), and the Trustees. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the Methods and Assumptions section of this report. PERA is solely responsible for communicating to GRS any changes required thereto.

All actuarial assumptions used in this report are reasonable for the purposes of this valuation. The combined effect of the assumptions is expected to have no significant bias (i.e. not significantly optimistic or pessimistic). All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in the section of this report entitled Methods and Assumptions. We have assessed that the contribution allocation procedure calculated under the current funding policy is a reasonable Actuarially Determined Employer Contribution (ADEC) and is not significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Plan as of the valuation date and was performed in accordance with the requirements of Minnesota Statutes Section 353G.08, and the requirements of the Standards for Actuarial Work established by the LCPR. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable statutes.

Bonita J. Wurst and Sheryl L. Christensen are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. In addition, GRS meets the requirements of "approved actuary" under Minnesota Statutes Section 356.215, Subdivision 1, Paragraph (c).

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Bonita J. Wurst

Sheryl L. Christensen

Bonita J. Wurst, ASA, EA, FCA, MAAA	Sheryl L. Christensen, FSA, EA, FCA, MAAA

Executive Summary

The Required Contributions for 2024 and 2025 are summarized in the following table:

Summary of Results

Plan Data	2024	2023*
1. Current Benefit Level	$ 7,000	$ N/A
2. Number of Participants		
a. Active members	24	
b. Deferred members	9	
c. Total	33	
Funded Status	**2024**	**2023***
1. Projected Assets at End of Year	$ 1,542,698	$ N/A
2. Accrued Liability at End of Year	1,046,711	N/A
3. Surplus / (Deficit)	$ 495,987	$ N/A
4. Funded Ratio	147.39%	N/A
5. Account Status	Surplus Over Full Funding	N/A
Contributions	**2024**	**2023***
1. Financial Requirement		
a. Total Financial Requirement	$ 141,510	$ N/A
b. Reduction to the Financial Requirement	(217,267)	N/A
c. Required Contribution	$ **0**	**$ N/A**
2. Contribution Due Date	12/31/2025	12/31/2024

** 2023 results calculated and provided by PERA.*

Valuation Results

Financial Requirement for Following Calendar Year

	2024	2023*
1. Determination of Surplus / (Deficit)		
a. Projected Assets	$ 1,542,698	$ N/A
b. Accrued Liability	1,046,711	N/A
2. Surplus / (Deficit) [1a-1b]	$ 495,987	$ N/A
3. Financial Requirement Charges		
a. Increase/(Decrease) in liability	$ 139,530	$ N/A
b. Administrative Fees	1,980	N/A
c. One-Tenth of Deficit / (Surplus)^	0	N/A
d. Net Financial Requirement Charge [3a+3b+3c, not less than zero]	**$ 141,510**	**$ N/A**
4. Financial Requirement Credits		
a. Fire State Aid Current Year x 1.035	$ (106,671)	$ N/A
b. Supplemental State Aid Current Year	(18,034)	N/A
c. 6% interest on Projected Present Assets	(92,562)	N/A
d. Net Financial Requirement Credit [4a+4b+4c]	**$ (217,267)**	**$ N/A**
5. Required Contribution [3d+4d, not less than zero]	**$ 0**	**$ N/A**
6. Contribution Due Date	12/31/2025	12/31/2024

Benefit Level Analysis

	2024	2023*
1. Current Benefit Level	$ 7,000	$ N/A
2. Financial Requirement Charges	141,510	N/A
3. Fire State Aid (including supplemental aid)	124,705	N/A
4. Fire State Aid Use Ratio	113%	N/A

** 2023 results calculated and provided by PERA.*

^ Zero if the plan has had a surplus for only one year.

Your organization uses all of the available Fire State Aid towards its financial requirement.

Projection of Accrued Liability

		2024		2023*
1. Active Member Liability	$	685,129	$	
2. Deferred Member Liability		361,582		
3. Total Accrued Liability at year-end (1+2)	$	1,046,711	$	N/A
4. Projected Accrued Liability at next year-end		1,186,241		N/A
5. Increase/(Decrease) in Liability (4-3)	$	139,530	$	N/A

Projection of Assets

		2024		2023*
1. Actual Assets at Beginning of Year	$	1,342,066	$	
2. Projected Change in Asset Value				
a. Fire State Aid		103,064		
b. Fire Supplemental Aid		18,034		
c. Required Contribution		0		
d. Net Investment Income		80,524		
e. PERA Administrative Fee		(990)		
f. Net Change in Present Assets	$	200,632	$	
3. Projected Assets at End of Year	$	1,542,698	$	N/A

** 2023 results calculated and provided by PERA.*

Cost Impact of Increase in Benefit Level

Benefit Level	2024 $7,000	$7,100	$7,200	$8,000
1. Determination of Surplus / (Deficit)				
a. Projected Assets	$ 1,542,698	$ 1,542,698	$ 1,542,698	$ 1,542,698
b. Accrued Liability	1,046,711	1,056,499	1,066,286	1,144,587
2. Surplus / (Deficit) [1a-1b]	$ 495,987	$ 486,199	$ 476,412	$ 398,111
3. Financial Requirement Charges				
a. Increase/(Decrease) in liability	$ 139,530	$ 141,213	$ 142,897	$ 156,364
b. Administrative Fees	1,980	1,980	1,980	1,980
c. One-Tenth of Deficit / (Surplus)^	0	0	0	0
d. Net Financial Requirement Charge [3a+3b+3c, not less than zero]	**$ 141,510**	**$ 143,193**	**$ 144,877**	**$ 158,344**
4. Financial Requirement Credits				
a. Fire State Aid Current Year x 1.035	$ (106,671)	$ (106,671)	$ (106,671)	$ (106,671)
b. Supplemental State Aid Current Year	(18,034)	(18,034)	(18,034)	(18,034)
c. 6% interest on Projected Present Assets	(92,562)	(92,562)	(92,562)	(92,562)
d. Net Financial Requirement Credit [4a+4b+4c]	**$ (217,267)**	**$ (217,267)**	**$ (217,267)**	**$ (217,267)**
5. Required Contribution [3d+4d, not less than zero]	**$ 0**	**$ 0**	**$ 0**	**$ 0**

^ Zero if the plan has had a surplus for only one year.

Summary of Participant Data

	December 31, 2024	December 31, 2023*
Active Members		
Number	24	
Average Age	39.3	
Average Service	5.5	
Deferred Vested Members		
Number	9	
Average Age	43.6	
Total Benefits	$ 516,280	

** 2023 results calculated and provided by PERA.*

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; 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. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, and are highly dependent on the timing of lump sum payments, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees or other relevant contribution base;
4. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease).

The required contribution shown on page 1 may be considered as a minimum contribution that complies with Minnesota Statutes. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Low-Default-Risk Obligation Measure

Actuarial Standards of Practice No. 4 (ASOP No. 4) was revised and reissued in December 2021 by the Actuarial Standards Board (ASB). It includes a new calculation called a Low-Default-Risk Obligation Measure (LDROM) to be prepared and issued annually for defined benefit pension plans. The transmittal memorandum for ASOP No. 4 includes the following explanation:

"The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure is not intended to suggest that this is the "right" liability measure for a pension plan. However, the ASB does believe that this additional disclosure provides a more complete assessment of a plan's funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date."

The following information has been prepared in compliance with this new requirement. Unless otherwise noted, the measurement date, actuarial cost methods, and assumptions used are the same as for the funding valuation covered in this actuarial valuation report.

A. Low-Default-Risk Obligation Measure of benefits earned as of the measurement date: $1,109,145

B. Discount rate used to calculate the LDROM: 4.83%

C. Other significant assumptions that differ from those used for the funding valuation: none

D. Actuarial cost method used to calculate the LDROM: Entry Age Actuarial Cost Method

E. Valuation procedures to value any significant plan provisions that are difficult to measure using traditional valuation procedures, and that differ from the procedures used in the funding valuation: none

F. The LDROM is a market-based measurement of the pension obligation. It estimates the amount the plan would need to invest in low risk securities to provide the benefits with greater certainty. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation.

The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on the risk in a diversified portfolio.

Methods and Assumptions

Actuarial Methods	
Valuation Date	December 31, 2024, projected from data as of December 31, 2023
Funding Method	Entry age normal level dollar with no pre-retirement decrements per MN Statutes 353G.08
Market Assets	Trustee value plus any receivable income and less any payables
Actuarial Assets	Market assets projected to the end of the valuation year, per MN Statutes 353G.08

Economic Assumptions	
Valuation Rate	6.00%, net of investment expenses
Increases to Fire State Aid	3.50% per year
Future Benefit Level Increases	None
Interest on Deferred Benefits	As indicated in member data

Other Assumptions	
Mortality (pre-retirement)	None
Mortality (post-retirement)	Not Applicable
Disability	None
Withdrawal	None
Retirement Age	Later of Age 50 or 20 years of service
Form of Payment	Lump Sum
Administrative Expenses	$30 per participant; increasing to $60 per participant for plan year 2025

Assumption Changes: None

Summary of Plan Provisions

Following is a summary of the major plan provisions used to determine the plan's financial position. It should not be used in determining plan benefits.

Fire Department	City of Lake Elmo Volunteer Fire Department
Plan Year	Calendar year
Vesting Schedule	Members are 40% vested upon completion of 5 years of service. The vesting percentage increases by 4% for each complete year of service above 5 years until the member is 100% vested with 20 years of service.
Normal Form of Payment	Lump sum
Deferred Vested Benefit	Eligible upon termination, after completion of at least 5 years of service. Lump sum of $7,000 per year of service, subject to the vesting schedule, payable at age 50. The benefit may be subject to an interest rate credit during the time that a member is deferred.
Normal Retirement Benefit	Eligible upon attainment of age 50 and completion of 20 years of service. Lump sum of $7,000 per year of service.

Plan Member Detail*

Member Name	Status	Date of Entry	As of 12/31/2024 Total Service Years	Vesting %	Vested Benefit	Accrued Benefit	Projected Ben at Ret
Anderson, Brent	Active	7/16/2019	5	40%	$14,000	$35,000	$140,000
Awoyinka, Oluwole	Active	10/29/2019	5	40%	$14,000	$35,000	$140,000
Beard, Alex	Active	11/4/2022	2	0%	$0	$14,000	$175,000
Bermudez, Bill P	Active	1/6/2021	4	0%	$0	$28,000	$147,000
Chapman, Brian A	Active	11/4/2022	2	0%	$0	$14,000	$140,000
Goodspeed, Robin L	Active	6/1/2010	15	80%	$84,000	$105,000	$140,000
Haveman, Peter	Active	8/17/2021	3	0%	$0	$21,000	$203,000
Johnson, Brian J	Active	12/8/1992	32	100%	$224,000	$224,000	$224,000
Klein, Chris	Active	8/19/2008	16	84%	$94,080	$112,000	$140,000
Klitzke, Dale B	Active	8/17/2021	3	0%	$0	$21,000	$140,000
Lembrich, Adam J	Active	11/4/2022	2	0%	$0	$14,000	$140,000
Lilly, Andrew	Active	1/1/2024	1	0%	$0	$7,000	$140,000
Lovett, Doug	Active	6/21/2018	7	48%	$23,520	$49,000	$140,000
Malone, Quinn	Active	1/4/2021	4	0%	$0	$28,000	$175,000
Montgomery, Joshua D	Active	1/1/2024	1	0%	$0	$7,000	$140,000
Penman, Jeremy J	Active	5/19/2015	10	60%	$42,000	$70,000	$140,000
Rivera, Anthony	Active	1/1/2024	1	0%	$0	$7,000	$140,000
Rosenberg, Nicholas M	Active	1/1/2024	1	0%	$0	$7,000	$140,000
Salchow, Colin	Active	11/17/2021	3	0%	$0	$21,000	$175,000
Schwarz, Mike	Active	11/21/2018	6	44%	$18,480	$42,000	$189,000
Thone, Jordan	Active	1/1/2024	1	0%	$0	$7,000	$140,000
Wagner, Nathaniel W	Active	9/21/2021	3	0%	$0	$21,000	$140,000
Watt, Matt	Active	11/4/2022	2	0%	$0	$14,000	$140,000
Weil, Alex R	Active	11/4/2022	2	0%	$0	$14,000	$168,000
Cornell, Lawrence M	Deferred	12/30/2010				$35,100	$35,100
Cornell, Michael R	Deferred	6/5/2007				$64,467	$64,467
Hauser, Brian	Deferred	7/31/2002				$32,232	$32,232
Malmquist, Noah	Deferred	8/15/2006				$65,949	$65,949
Olson, Lee	Deferred	7/31/2002				$27,937	$27,937
Rutkowski, Steve	Deferred	7/31/2002				$96,876	$96,876
Sachs, Barney	Deferred	11/16/1999				$26,701	$26,701
Springborn, Richie W	Deferred	2/20/1996				$123,338	$123,338
Witter, Nicholas B	Deferred	9/15/2009				$43,680	$43,680

**Information was provided by PERA for valuation purposes and should not be relied upon. Any changes in the data provided would produce different valuation results and estimated benefit amounts.*