



The Initial Valuation For

New Melle Fire Protection District

as of March 31, 2019



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May 10, 2019

New Melle Fire Protection District
New Melle, Missouri

Ladies and Gentlemen:

Submitted in this report are the results of the actuarial valuation prepared to determine the employer contribution rates required to support, for your employees, the benefits provided by the Missouri Local Government Employees Retirement System (LAGERS). This report contains the information needed to comply with Missouri State disclosure requirements regarding the adoption of LAGERS benefits by a political subdivision (Sections 105.660 - 106.685 RSMo). 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.

This report was prepared at the request of the political subdivision and is intended for use by the political subdivision and those designated or approved by the political subdivision. This report may be provided to parties other than the political subdivision only in its entirety and only with the permission of the political subdivision. GRS is not responsible for unauthorized use of this report.

The contribution requirement for benefits likely to accrue as a result of the future service of your employees is described on pages 4 thru 11 as the current cost plus the disability cost. This contribution rate, expressed as a percent of active employee payroll, will depend on the benefit program adopted.

The contribution requirement to pay for benefits likely to result from service rendered by your employees before you join LAGERS is described on pages 4 thru 11 as the prior service cost. The value established for prior service is called the unfunded actuarial accrued liability (these amounts are further described in Appendix I). The prior service cost is the rate of contribution designed to pay for the unfunded actuarial accrued liability over a period of not more than 30 years.

Section 70.730 of the Revised Statutes of Missouri requires participating employers to contribute the current cost, disability cost, and prior service cost (the total employer cost as shown on pages 4 thru 11). These contributions are mandatory after official action has been taken to join the System.

The total annual dollar costs shown on pages 12 and 13 represent the dollar cost of each benefit program for a one year period based on the payroll reported for this actuarial valuation. In budgeting amounts for LAGERS contributions you should consider any changes in payroll which have been made since data was submitted for the valuation and any changes anticipated to be made before the end of the period for which you are preparing the budget.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of this report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2018.

The computed contributions required for LAGERS participation will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the State law which governs LAGERS. This valuation assumed the ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our expertise and not performed. Summary provisions of the law as well as benefit illustrations can be found in Appendices III and IV.

Projections needed to comply with Missouri State disclosure requirements (Section 105.665 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision are available upon request from LAGERS.

Please note that this entire report must be available as public information for at least 45 calendar days prior to the date final official action is taken by your governing body to join the System. You may wish to make notice of this report in the official minutes of the next meeting of your governing body. This action would not be binding on your subdivision, yet would establish the beginning date of the 45 day waiting period.

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was March 31, 2019. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

This report includes risk commentary in Appendix VI, 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.

If you have any questions concerning this report or LAGERS in general, please contact the LAGERS office in Jefferson City.

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 political subdivision as of the valuation date. 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.

Mita D. Drazilov is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuary is independent of the plan sponsor.

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA



Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for either a contributory plan or a non-contributory plan, with benefits based on either a 5 year or 3 year Final Average Salary (FAS).

Contributory Plan. Under the contributory plan, each covered member contributes 4% of compensation to LAGERS. If an employee terminates before being eligible for an immediate benefit, the member's contributions, plus any interest credited to the member's individual account, are refunded upon request.

Non-Contributory Plan. Under the non-contributory plan, there is no individual employee contribution to the plan, no individual account maintained for each employee, and no refund paid to employees who terminate before being eligible for a benefit.

The law further provides for nine different benefit programs (benefit formula factors) and allows an employer to elect "rule of 80" eligibility for benefits. Under the rule of 80, employees are eligible for unreduced benefits at the earlier of (i) attainment of their minimum service retirement age or (ii) such time as their years of age plus years of LAGERS credited service equals 80.

In total this allows for 72 different combinations of benefit plans, giving employers considerable latitude in designing the retirement program which they feel best suits their particular situation.

The applicable combinations of these items may be changed from time to time, however, there are limitations on the frequency of changes. A more detailed description of plan provisions may be found in Appendix III of this report.

New Melle Fire Protection District

Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Fire	8.50%	4.60%	0.60%	13.70%
L-3	Fire	10.70	6.40	0.70	17.80
LT-4(65)	Fire	11.00	6.60	0.60	18.20
LT-5(65)	Fire	12.50	8.00	0.70	21.20
L-7	Fire	12.80	8.30	0.80	21.90
LT-8(65)	Fire	14.00	9.40	0.80	24.20
L-12	Fire	15.00	10.10	0.90	26.00
LT-14(65)	Fire	15.60	10.60	0.90	27.10
L-6	Fire	17.10	12.10	1.00	30.20

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

New Melle Fire Protection District

Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Fire	8.80%	4.90%	0.60%	14.30%
L-3	Fire	11.00	6.80	0.70	18.50
LT-4(65)	Fire	11.30	7.00	0.60	18.90
LT-5(65)	Fire	12.90	8.40	0.70	22.00
L-7	Fire	13.30	8.60	0.80	22.70
LT-8(65)	Fire	14.50	9.80	0.80	25.10
L-12	Fire	15.50	10.60	0.90	27.00
LT-14(65)	Fire	16.10	11.20	0.90	28.20
L-6	Fire	17.70	12.60	1.00	31.30

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

New Melle Fire Protection District

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS) (No member contributions)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Fire	8.60%	8.40%	0.60%	17.60%
L-3	Fire	10.70	10.30	0.70	21.70
LT-4(65)	Fire	11.00	10.50	0.60	22.10
LT-5(65)	Fire	12.60	11.80	0.70	25.10
L-7	Fire	12.90	12.10	0.80	25.80
LT-8(65)	Fire	14.10	13.20	0.80	28.10
L-12	Fire	15.00	14.00	0.90	29.90
LT-14(65)	Fire	15.60	14.50	0.90	31.00
L-6	Fire	17.20	15.90	1.00	34.10

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

New Melle Fire Protection District

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (No member contributions)

Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Fire	8.90%	8.70%	0.60%	18.20%
L-3	Fire	11.10	10.60	0.70	22.40
LT-4(65)	Fire	11.40	10.80	0.60	22.80
LT-5(65)	Fire	13.00	12.20	0.70	25.90
L-7	Fire	13.30	12.50	0.80	26.60
LT-8(65)	Fire	14.60	13.60	0.80	29.00
L-12	Fire	15.50	14.50	0.90	30.90
LT-14(65)	Fire	16.20	15.00	0.90	32.10
L-6	Fire	17.80	16.40	1.00	35.20

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

New Melle Fire Protection District

Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Fire	8.60%	4.60%	0.60%	13.80%
L-3	Fire	10.80	6.50	0.70	18.00
LT-4(65)	Fire	11.20	6.80	0.60	18.60
LT-5(65)	Fire	12.70	8.20	0.70	21.60
L-7	Fire	13.00	8.30	0.80	22.10
LT-8(65)	Fire	14.20	9.50	0.80	24.50
L-12	Fire	15.10	10.30	0.90	26.30
LT-14(65)	Fire	15.80	10.70	0.90	27.40
L-6	Fire	17.30	12.20	1.00	30.50

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

New Melle Fire Protection District

Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			Total Employer Contribution Rate
		Prior Service Cost *	Current Cost	Disability Cost	
L-1	Fire	8.90%	4.90%	0.60%	14.40%
L-3	Fire	11.20	6.80	0.70	18.70
LT-4(65)	Fire	11.60	7.10	0.60	19.30
LT-5(65)	Fire	13.20	8.50	0.70	22.40
L-7	Fire	13.40	8.80	0.80	23.00
LT-8(65)	Fire	14.70	9.90	0.80	25.40
L-12	Fire	15.70	10.70	0.90	27.30
LT-14(65)	Fire	16.30	11.30	0.90	28.50
L-6	Fire	17.90	12.70	1.00	31.60

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

New Melle Fire Protection District

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS) (No member contributions)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Fire	8.70%	8.40%	0.60%	17.70%
L-3	Fire	10.90	10.30	0.70	21.90
LT-4(65)	Fire	11.30	10.60	0.60	22.50
LT-5(65)	Fire	12.80	12.00	0.70	25.50
L-7	Fire	13.00	12.20	0.80	26.00
LT-8(65)	Fire	14.30	13.30	0.80	28.40
L-12	Fire	15.20	14.10	0.90	30.20
LT-14(65)	Fire	15.80	14.60	0.90	31.30
L-6	Fire	17.40	16.00	1.00	34.40

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

New Melle Fire Protection District

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (No member contributions)

Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	Fire	9.00%	8.70%	0.60%	18.30%
L-3	Fire	11.20	10.70	0.70	22.60
LT-4(65)	Fire	11.60	11.00	0.60	23.20
LT-5(65)	Fire	13.20	12.30	0.70	26.20
L-7	Fire	13.50	12.60	0.80	26.90
LT-8(65)	Fire	14.80	13.70	0.80	29.30
L-12	Fire	15.70	14.60	0.90	31.20
LT-14(65)	Fire	16.40	15.10	0.90	32.40
L-6	Fire	18.00	16.50	1.00	35.50

The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

* Assumes that credit is granted for 100% of service rendered prior to the membership date for employees working in a covered position on the membership date and employed continuously in a covered position for one year with this employer. If the governing body wishes to elect one of the lesser percents allowed by law -- 75%, 50%, or 25% -- the prior service cost will be reduced. An additional actuarial valuation will need to be performed to determine the employer contribution rate.

New Melle Fire Protection District

Employer Contribution Dollars Regular Retirement Eligibility

Employer contributions are payable monthly, and each month's actual dollar contribution will be the contribution percent multiplied by the payroll during the month. If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation, the approximate employer dollar contribution for the year would be as follows:

Contributory Plan

5 Year FAS	
Benefit Program	Fire
L-1	\$ 98,366
L-3	127,804
LT-4(65)	130,676
LT-5(65)	152,216
L-7	157,242
LT-8(65)	173,756
L-12	186,680
LT-14(65)	194,578
L-6	216,836

3 Year FAS	
Benefit Program	Fire
L-1	\$ 102,674
L-3	132,830
LT-4(65)	135,702
LT-5(65)	157,960
L-7	162,986
LT-8(65)	180,218
L-12	193,860
LT-14(65)	202,476
L-6	224,734

Non-Contributory Plan

5 Year FAS	
Benefit Program	Fire
L-1	\$ 126,368
L-3	155,806
LT-4(65)	158,678
LT-5(65)	180,218
L-7	185,244
LT-8(65)	201,758
L-12	214,682
LT-14(65)	222,580
L-6	244,838

3 Year FAS	
Benefit Program	Fire
L-1	\$ 130,676
L-3	160,832
LT-4(65)	163,704
LT-5(65)	185,962
L-7	190,988
LT-8(65)	208,220
L-12	221,862
LT-14(65)	230,478
L-6	252,736

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.

New Melle Fire Protection District

Employer Contribution Dollars Rule of 80 Retirement Eligibility

Employer contributions are payable monthly, and each month's actual dollar contribution will be the contribution percent multiplied by the payroll during the month. If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation, the approximate employer dollar contribution for the year would be as follows:

Contributory Plan

5 Year FAS	
Benefit Program	Fire
L-1	\$ 99,084
L-3	129,240
LT-4(65)	133,548
LT-5(65)	155,088
L-7	158,678
LT-8(65)	175,910
L-12	188,834
LT-14(65)	196,732
L-6	218,990

3 Year FAS	
Benefit Program	Fire
L-1	\$ 103,392
L-3	134,266
LT-4(65)	138,574
LT-5(65)	160,832
L-7	165,140
LT-8(65)	182,372
L-12	196,014
LT-14(65)	204,630
L-6	226,888

Non-Contributory Plan

5 Year FAS	
Benefit Program	Fire
L-1	\$ 127,086
L-3	157,242
LT-4(65)	161,550
LT-5(65)	183,090
L-7	186,680
LT-8(65)	203,912
L-12	216,836
LT-14(65)	224,734
L-6	246,992

3 Year FAS	
Benefit Program	Fire
L-1	\$ 131,394
L-3	162,268
LT-4(65)	166,576
LT-5(65)	188,116
L-7	193,142
LT-8(65)	210,374
L-12	224,016
LT-14(65)	232,632
L-6	254,890

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.

New Melle Fire Protection District

Employees and Payroll Included in the Valuation

	Fire
Number of Employees	12
Annual Payroll	\$ 718,001

Information regarding the age and service characteristics of the employees is contained in Appendix V.

APPENDIX I

UNFUNDED ACTUARIAL ACCRUED LIABILITY

Unfunded Actuarial Accrued Liability (UAAL)

If the decision is made to join LAGERS the governing body also must decide how much credit to grant employees for their service before the membership date. The options are to cover 25%, 50%, 75% or 100% of prior service. The granting of prior service credit results in the establishment of an actuarial accrued liability. Because your political subdivision will not have established an asset balance with the System as of the membership date, the value established for prior service is an unfunded actuarial accrued liability.

The policy of the LAGERS Board of Trustees provides that unfunded liabilities are to be paid for by level percent of payroll contributions over a period of 30 years. The contribution rates shown on pages 4 through 11 as the "Prior Service Cost" are designed to pay for the applicable unfunded actuarial accrued liability. This procedure will allow your political subdivision to retire the unfunded actuarial accrued liability in an orderly fashion over a period of years without the need for an immediate large payment upon joining the System.

Should the governing body elect to grant credit for 100% of the employees' prior service, the unfunded actuarial accrued liability as of the date of this valuation would be as follows:

New Melle Fire Protection District

Regular Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	Fire	\$ 1,075,598	\$ 1,112,974	\$ 1,086,223	\$ 1,123,363
L-3	Fire	1,348,222	1,394,913	1,357,776	1,404,230
LT-4(65)	Fire	1,386,421	1,434,794	1,395,445	1,443,623
LT-5(65)	Fire	1,581,330	1,636,296	1,589,717	1,644,418
L-7	Fire	1,620,719	1,676,688	1,629,396	1,685,073
LT-8(65)	Fire	1,776,148	1,837,563	1,784,038	1,845,162
L-12	Fire	1,893,143	1,958,373	1,900,964	1,965,912
LT-14(65)	Fire	1,970,885	2,038,813	1,978,296	2,045,969
L-6	Fire	2,165,508	2,240,002	2,172,552	2,246,771

New Melle Fire Protection District

Unfunded Actuarial Accrued Liability (UAAL)

Rule of 80 Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	Fire	\$ 1,087,451	\$ 1,125,384	\$ 1,098,010	\$ 1,135,735
L-3	Fire	1,362,976	1,410,324	1,372,512	1,419,683
LT-4(65)	Fire	1,415,000	1,464,579	1,423,952	1,473,329
LT-5(65)	Fire	1,608,618	1,664,730	1,616,976	1,672,859
L-7	Fire	1,638,346	1,695,158	1,647,105	1,703,600
LT-8(65)	Fire	1,802,140	1,864,703	1,810,087	1,872,356
L-12	Fire	1,913,665	1,979,847	1,921,606	1,987,537
LT-14(65)	Fire	1,995,586	2,064,615	2,003,119	2,071,926
L-6	Fire	2,188,929	2,264,495	2,196,150	2,271,473

APPENDIX II

SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

1. The investment return rate used in making the valuations was 7.25% per year, net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. The price inflation rate used in making the valuations was 2.50% and the wage inflation rate used in making the valuations was 3.25%. The investment return rate translates to an assumed real rate of return over price inflation of 4.75% and over wage inflation of 4.00%. Adopted 2011 and 2016.
2. The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The disabled retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The pre-retirement mortality tables used were the RP-2014 employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. For both the post-retirement and pre-retirement tables, the base year for males was then established to be 2017. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to the above described tables. Adopted 2016.
3. The probabilities of withdrawal and disability from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2016.
4. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2016.
5. Post-retirement cost of living allowances are assumed to be 2.50% per year. Adopted 2016.
6. Total active member payroll is assumed to increase a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. In effect, this assumes no change in the number of active members per employer. Adopted 2016.
7. An individual entry-age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1986.
8. The data about persons now covered was furnished by the political subdivision. Although examined for general reasonableness, the data was not audited by us.

Schedule 1.

Separations From Active Employment (Not Including Death-In-Service) Before Age & Service Retirement and Individual Pay Increase Assumptions

		Percent of Active Members Separating Within Next Year							
Sample Ages	Years of Service	General Members				Police		Fire	
		Men		Women		Disability	Withdrawal	Disability	Withdrawal
All	0		19.00%		22.00%		18.00%		10.00%
	1		17.00		20.00		17.00		8.00
	2		15.00		17.00		16.00		7.00
	3		13.00		14.00		13.00		6.00
	4		11.00		13.00		12.00		6.00
25	5 & Over	0.09%	7.30	0.02%	10.80	0.10%	9.80	0.06%	5.00
30		0.12	6.50	0.03	8.90	0.11	7.80	0.10	4.00
35		0.15	5.00	0.06	7.40	0.16	6.10	0.23	2.80
40		0.21	3.70	0.10	5.70	0.22	4.40	0.35	2.20
45		0.30	3.00	0.16	4.20	0.34	3.20	0.56	1.80
50		0.44	2.40	0.24	3.30	0.53	1.80	0.85	1.00
55		0.68	1.80	0.34	2.50	0.88	1.00	1.31	0.50
60		1.02	1.00	0.48	1.20		0.00		0.00
65			0.00		0.00		0.00		0.00

Sample Ages	Percent Increase in Individual's Pay During Next Year	
	General & Police	Fire
25	6.55%	7.15%
30	5.75	6.05
35	5.25	5.15
40	4.75	4.45
45	4.25	4.15
50	3.85	3.85
55	3.65	3.65
60	3.55	3.25
65	3.25	3.25

Schedule 2.

Percent of Eligible Active Members Retiring Within Next Year Without Rule of 80 Eligibility

Early Retirement

Retirement Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
55	3.00%	3.00%	50	2.50%	2.50%
56	3.00%	3.00%	51	2.50%	2.50%
57	3.00%	3.00%	52	2.50%	2.50%
58	3.00%	3.00%	53	2.50%	2.50%
59	3.00%	3.00%	54	2.50%	2.50%

Normal Retirement

Retirement Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
60	10%	10%	55	10%	13%
61	10	10	56	10	13
62	25	15	57	10	13
63	20	15	58	10	13
64	20	15	59	10	13
65	25	25	60	10	15
66	25	25	61	10	15
67	20	25	62	25	20
68	20	25	63	20	20
69	20	20	64	20	20
70	100	100	65	100	100

Schedule 2. (Continued)

Percent of Eligible Active Members Retiring Within Next Year With Rule of 80 Eligibility

Retirement Ages	General Members		Police	Fire
	Men	Women		
50	15%	15%	25%	25%
51	15	15	25	20
52	15	15	15	20
53	15	15	15	20
54	15	15	15	20
55	15	15	15	20
56	15	15	15	20
57	15	15	15	25
58	15	15	15	25
59	15	15	15	25
60	15	15	15	35
61	15	15	25	35
62	30	15	30	45
63	30	15	30	45
64	30	20	30	45
65	30	25	100	100
66	30	25		
67	30	25		
68	30	25		
69	30	25		
70	100	100		

APPENDIX III

SUMMARY OF LAGERS PROVISIONS

Missouri Local Government Employees Retirement System

Brief Summary of LAGERS

Benefits and Conditions Evaluated and/or Considered as of February 28, 2018

(Section references are to RSMo)

Voluntary Retirement. Sections 70.645 & 70.600. A member may retire with an age & service allowance after both (i) completing 5 years of credited service, and (ii) attaining the minimum service retirement age.

The minimum service retirement age is age 60 for a general employee and age 55 for a police or fire employee. Optionally, employers may also elect to provide for unreduced benefits for employees whose combination of years of age and years of service equals 80 or more.

Final Average Salary. Section 70.600. The average of a member's monthly compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) of credited service producing the highest monthly average, which period is contained within the 120 consecutive months of credited service immediately preceding retirement.

Age & Service Allowance. Section 70.655. The allowance, payable monthly for life, equals a specified percent of a member's final average salary multiplied by the number of years of credited service. Each employer elects the percent applicable to its members, from the following programs:

L-1 Benefit Program:	1.00% for life
L-3 Benefit Program:	1.25% for life
L-7 Benefit Program:	1.50% for life
L-12 Benefit Program:	1.75% for life
L-6 Benefit Program:	2.00% for life
LT-4(65) Benefit Program:	1.00% for life, plus 1.00% to age 65
LT-5(65) Benefit Program:	1.25% for life, plus 0.75% to age 65
LT-8(65) Benefit Program:	1.50% for life, plus 0.50% to age 65
LT-14(65) Benefit Program:	1.75% for life, plus 0.25% to age 65

The only LT benefit programs available for adoption after August 1, 1994 are the LT(65) programs.

Benefit programs L-9 and LT-10(65) are unavailable for adoption after August 1, 2005.

Benefit program L-11, available only to groups not covered by social security, provides for 2.5% for life.

Subsequent to joining the System the governing body can elect to change benefit programs for the employees, but not more often than once every 2 years.

Early Allowance. Section 70.670. A member may retire with an early allowance after both (i) completing 5 years of credited service, and (ii) attaining age 55 if a general employee or age 50 if a police or fire employee.

The early allowance amount, payable monthly for life, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of early retirement, but reduced to reflect the fact that the age when payments begin is younger than the minimum service retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month the age at retirement is younger than the minimum service retirement age.

Deferred Allowance. Section 70.675. If a member leaves LAGERS-covered employment (i) before attaining the early retirement age, and (ii) after completing 5 years of credited service, the member becomes eligible for a deferred allowance; provided the former member lives to the minimum service retirement age and does not withdraw the accumulated contributions.

The deferred allowance amount, payable monthly for life from the minimum service retirement age, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of leaving LAGERS coverage.

Deferred allowances are also payable any time after reaching the early retirement age, with the reduction for early retirement noted on the previous page.

Non-Duty Disability Allowance. Section 70.680. A member with 5 or more years of credited service who becomes totally and permanently disabled from other than duty-connected causes becomes eligible to receive a non-duty disability allowance computed in the same manner as an age & service allowance, based upon the service & earnings record to time of disability.

Duty Disability Allowance. Section 70.680. A member regardless of credited service who becomes totally and permanently disabled from duty-connected causes becomes eligible to receive a duty disability allowance computed in the same manner as an age & service allowance, based upon the earnings record to time of disability but based upon the years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

Death-in-Service. Section 70.661. Upon the death of a member who had completed 5 years of credited service, the eligible surviving dependents receive the following benefits:

- (a) The surviving spouse receives an allowance equal to the Option A allowance (joint and 75% survivor benefit) computed based upon the deceased members' service & earnings record to time of death.
- (b) When no spouse benefit is payable, the dependent children under age 18 (age 23 if they are full time students) each receive an equal share of 60% of an age & service allowance computed based upon the deceased member's service & earnings record to time of death.
- (c) If the death is determined to be duty related, the 5 year service requirement is waived and the benefit is based on years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

Benefit Changes After Retirement. Section 70.655. For retirements effective after September 28, 1975, there is an annual redetermination of monthly benefit amount, beginning the October first following 12 months of retirement. As of each October first the amount of each eligible benefit is redetermined as follows:

- (a) Subject to the maximum in (b), the redetermined amount is the amount other-wise payable multiplied by: 100% plus up to 4%, as determined by the LAGERS Board of Trustees, for each full year of retirement.
- (b) The redetermined amount may not exceed the amount otherwise payable multiplied by the ratio of the Consumer Price Index for the immediately preceding month of June to the Consumer Price Index for the month of June immediately preceding retirement.

Member Contributions. Sections 70.690 & 70.705. Each member contributes 4% of compensation beginning after completion of sufficient employment for 6 months of credited service.

If a member leaves LAGERS-covered employment before an allowance is payable, the accumulated contributions are refunded to the member. If the member dies, his accumulated contributions are refunded to a designated beneficiary.

The law governing LAGERS also has a provision for the adoption of a non-contributory plan in which the full cost of LAGERS participation is paid by the employer. Adoption of the non-contributory provisions may be done at the time of membership or a later date; however, a change from contributory to non-contributory or vice-versa may not be made more frequently than every 2 years. Under the non-contributory provisions there is no individual account maintained for each employee and no refund of contributions if an employee terminates before being eligible for a benefit.

Employer Contributions. Section 70.730. Each employer contributes the remainder amounts necessary to finance the employees' participation in LAGERS. Contributions to LAGERS are determined based upon level-percent-of-payroll principles, so that contribution rates do not have to increase over decades of time.

APPENDIX IV

BENEFIT ILLUSTRATIONS

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-1 Benefit Program is Years of Credited Service
times: 1.00% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 889	\$1,414	94%
2,000	700	1,032	1,732	87%
2,500	875	1,175	2,050	82%
3,000	1,050	1,318	2,368	79%
3,500	1,225	1,462	2,687	77%
4,000	1,400	1,604	3,004	75%
25 Years of Service:				
\$1,500	\$ 375	\$ 889	\$1,264	84%
2,000	500	1,032	1,532	77%
2,500	625	1,175	1,800	72%
3,000	750	1,318	2,068	69%
3,500	875	1,462	2,337	67%
4,000	1,000	1,604	2,604	65%
15 Years of Service:				
\$1,500	\$225	\$ 889	\$1,114	74%
2,000	300	1,032	1,332	67%
2,500	375	1,175	1,550	62%
3,000	450	1,318	1,768	59%
3,500	525	1,462	1,987	57%
4,000	600	1,604	2,204	55%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-3 Benefit Program is Years of Credited Service
times: 1.25% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 656	\$ 889	\$1,545	103%
2,000	875	1,032	1,907	95%
2,500	1,094	1,175	2,269	91%
3,000	1,313	1,318	2,631	88%
3,500	1,531	1,462	2,993	86%
4,000	1,750	1,604	3,354	84%
25 Years of Service:				
\$1,500	\$ 469	\$ 889	\$1,358	91%
2,000	625	1,032	1,657	83%
2,500	781	1,175	1,956	78%
3,000	938	1,318	2,256	75%
3,500	1,094	1,462	2,556	73%
4,000	1,250	1,604	2,854	71%
15 Years of Service:				
\$1,500	\$281	\$ 889	\$1,170	78%
2,000	375	1,032	1,407	70%
2,500	469	1,175	1,644	66%
3,000	563	1,318	1,881	63%
3,500	656	1,462	2,118	61%
4,000	750	1,604	2,354	59%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-7 Benefit Program is Years of Credited Service
times: 1.50% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 788	\$ 889	\$1,677	112%
2,000	1,050	1,032	2,082	104%
2,500	1,313	1,175	2,488	100%
3,000	1,575	1,318	2,893	96%
3,500	1,838	1,462	3,300	94%
4,000	2,100	1,604	3,704	93%
25 Years of Service:				
\$1,500	\$ 563	\$ 889	\$1,452	97%
2,000	750	1,032	1,782	89%
2,500	938	1,175	2,113	85%
3,000	1,125	1,318	2,443	81%
3,500	1,313	1,462	2,775	79%
4,000	1,500	1,604	3,104	78%
15 Years of Service:				
\$1,500	\$338	\$ 889	\$1,227	82%
2,000	450	1,032	1,482	74%
2,500	563	1,175	1,738	70%
3,000	675	1,318	1,993	66%
3,500	788	1,462	2,250	64%
4,000	900	1,604	2,504	63%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-12 Benefit Program is Years of Credited Service
times: 1.75% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 919	\$ 889	\$1,808	121%
2,000	1,225	1,032	2,257	113%
2,500	1,531	1,175	2,706	108%
3,000	1,838	1,318	3,156	105%
3,500	2,144	1,462	3,606	103%
4,000	2,450	1,604	4,054	101%
25 Years of Service:				
\$1,500	\$ 656	\$ 889	\$1,545	103%
2,000	875	1,032	1,907	95%
2,500	1,094	1,175	2,269	91%
3,000	1,313	1,318	2,631	88%
3,500	1,531	1,462	2,993	86%
4,000	1,750	1,604	3,354	84%
15 Years of Service:				
\$1,500	\$ 394	\$ 889	\$1,283	86%
2,000	525	1,032	1,557	78%
2,500	656	1,175	1,831	73%
3,000	788	1,318	2,106	70%
3,500	919	1,462	2,381	68%
4,000	1,050	1,604	2,654	66%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(L-6 Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³	Estimated Social Security ²	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 889	\$1,939	129%
2,000	1,400	1,032	2,432	122%
2,500	1,750	1,175	2,925	117%
3,000	2,100	1,318	3,418	114%
3,500	2,450	1,462	3,912	112%
4,000	2,800	1,604	4,404	110%
25 Years of Service:				
\$1,500	\$ 750	\$ 889	\$1,639	109%
2,000	1,000	1,032	2,032	102%
2,500	1,250	1,175	2,425	97%
3,000	1,500	1,318	2,818	94%
3,500	1,750	1,462	3,212	92%
4,000	2,000	1,604	3,604	90%
15 Years of Service:				
\$1,500	\$ 450	\$ 889	\$1,339	89%
2,000	600	1,032	1,632	82%
2,500	750	1,175	1,925	77%
3,000	900	1,318	2,218	74%
3,500	1,050	1,462	2,512	72%
4,000	1,200	1,604	2,804	70%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-4(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.00% of FAS ¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 889	\$1,050	\$1,414	70%	94%
2,000	1,400	700	1,032	1,400	1,732	70%	87%
2,500	1,750	875	1,175	1,750	2,050	70%	82%
3,000	2,100	1,050	1,318	2,100	2,368	70%	79%
3,500	2,450	1,225	1,462	2,450	2,687	70%	77%
4,000	2,800	1,400	1,604	2,800	3,004	70%	75%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 889	\$ 750	\$1,264	50%	84%
2,000	1,000	500	1,032	1,000	1,532	50%	77%
2,500	1,250	625	1,175	1,250	1,800	50%	72%
3,000	1,500	750	1,318	1,500	2,068	50%	69%
3,500	1,750	875	1,462	1,750	2,337	50%	67%
4,000	2,000	1,000	1,604	2,000	2,604	50%	65%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 889	\$ 450	\$1,114	30%	74%
2,000	600	300	1,032	600	1,332	30%	67%
2,500	750	375	1,175	750	1,550	30%	62%
3,000	900	450	1,318	900	1,768	30%	59%
3,500	1,050	525	1,462	1,050	1,987	30%	57%
4,000	1,200	600	1,604	1,200	2,204	30%	55%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-5(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.25% of FAS ¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 656	\$ 889	\$1,050	\$1,545	70%	103%
2,000	1,400	875	1,032	1,400	1,907	70%	95%
2,500	1,750	1,094	1,175	1,750	2,269	70%	91%
3,000	2,100	1,313	1,318	2,100	2,631	70%	88%
3,500	2,450	1,531	1,462	2,450	2,993	70%	86%
4,000	2,800	1,750	1,604	2,800	3,354	70%	84%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 889	\$ 750	\$1,358	50%	91%
2,000	1,000	625	1,032	1,000	1,657	50%	83%
2,500	1,250	781	1,175	1,250	1,956	50%	78%
3,000	1,500	938	1,318	1,500	2,256	50%	75%
3,500	1,750	1,094	1,462	1,750	2,556	50%	73%
4,000	2,000	1,250	1,604	2,000	2,854	50%	71%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 889	\$ 450	\$1,170	30%	78%
2,000	600	375	1,032	600	1,407	30%	70%
2,500	750	469	1,175	750	1,644	30%	66%
3,000	900	563	1,318	900	1,881	30%	63%
3,500	1,050	656	1,462	1,050	2,118	30%	61%
4,000	1,200	750	1,604	1,200	2,354	30%	59%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-8(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.50% of FAS ¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 788	\$ 889	\$1,050	\$1,677	70%	112%
2,000	1,400	1,050	1,032	1,400	2,082	70%	104%
2,500	1,750	1,313	1,175	1,750	2,488	70%	100%
3,000	2,100	1,575	1,318	2,100	2,893	70%	96%
3,500	2,450	1,838	1,462	2,450	3,300	70%	94%
4,000	2,800	2,100	1,604	2,800	3,704	70%	93%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 889	\$ 750	\$1,452	50%	97%
2,000	1,000	750	1,032	1,000	1,782	50%	89%
2,500	1,250	938	1,175	1,250	2,113	50%	85%
3,000	1,500	1,125	1,318	1,500	2,443	50%	81%
3,500	1,750	1,313	1,462	1,750	2,775	50%	79%
4,000	2,000	1,500	1,604	2,000	3,104	50%	78%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 889	\$ 450	\$1,227	30%	82%
2,000	600	450	1,032	600	1,482	30%	74%
2,500	750	563	1,175	750	1,738	30%	70%
3,000	900	675	1,318	900	1,993	30%	66%
3,500	1,050	788	1,462	1,050	2,250	30%	64%
4,000	1,200	900	1,604	1,200	2,504	30%	63%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

Missouri LAGERS
Illustrations of Age and Service Allowance Amounts
For Sample Combinations of Service & Salary
(LT-14(65) Benefit Program is Years of Credited Service
times: 2.00% of FAS ¹ to age 65)
1.75% of FAS ¹ at age 65)

Final Average Salary (FAS) ¹	LAGERS BENEFIT ³		Estimated Social Security ²	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 919	\$ 889	\$1,050	\$1,808	70%	121%
2,000	1,400	1,225	1,032	1,400	2,257	70%	113%
2,500	1,750	1,531	1,175	1,750	2,706	70%	108%
3,000	2,100	1,838	1,318	2,100	3,156	70%	105%
3,500	2,450	2,144	1,462	2,450	3,606	70%	103%
4,000	2,800	2,450	1,604	2,800	4,054	70%	101%
25 Years of Service:							
\$1,500	\$ 750	\$ 656	\$ 889	\$ 750	\$1,545	50%	103%
2,000	1,000	875	1,032	1,000	1,907	50%	95%
2,500	1,250	1,094	1,175	1,250	2,269	50%	91%
3,000	1,500	1,313	1,318	1,500	2,631	50%	88%
3,500	1,750	1,531	1,462	1,750	2,993	50%	86%
4,000	2,000	1,750	1,604	2,000	3,354	50%	84%
15 Years of Service:							
\$1,500	\$ 450	\$ 394	\$ 889	\$ 450	\$1,283	30%	86%
2,000	600	525	1,032	600	1,557	30%	78%
2,500	750	656	1,175	750	1,831	30%	73%
3,000	900	788	1,318	900	2,106	30%	70%
3,500	1,050	919	1,462	1,050	2,381	30%	68%
4,000	1,200	1,050	1,604	1,200	2,654	30%	66%

¹ "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

² "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

³ Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

APPENDIX V

AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES

New Melle Fire Protection District

March 31, 2019

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20									
20-24									
25-29									
30-34	2							2	\$ 90,520
35-39				1				1	\$ 59,947
40-44									
45-49			1	4				5	\$ 302,398
50-54			1	1				2	\$ 124,922
55-59					1			1	\$ 80,267
60-64				1				1	\$ 59,947
65-69									
70 & Over									
Totals	2		2	7	1			12	\$ 718,001

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 46.5 years.

Benefit Service: 13.7 years.

Annual Pay: \$59,833.

APPENDIX VI

RISK COMMENTARY

Risk Commentary

The determination of the accrued liability and the actuarially determined contribution (i.e., total employer contribution rate) 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 Risk** – changes in asset values may not match changes in liabilities, 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, covered payroll, or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability, contributions and contribution rates differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **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). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rates shown on pages 4 thru 11 may be considered as a minimum contribution rate for the selected benefit provisions that complies with the Board's funding policy. 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.

Risk Commentary (Concluded)

PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures are described below.

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

DURATION OF ACTUARIAL ACCRUED LIABILITY

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

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.



May 10, 2019 E-mail

Mr. Robert Wilson, Executive Secretary
Missouri Local Government
Employees Retirement System
P.O. Box 1665
Jefferson City, Missouri 65102

Dear Bob:

Enclosed is the report of the March 31, 2019 Initial Actuarial Valuation of LAGERS benefits for the employees of

New Melle Fire Protection District

Sincerely,

A handwritten signature in black ink that reads "Mita Drazilov". The signature is written in a cursive, flowing style.

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp

May 10, 2019

New Melle Fire Protection District
New Melle, Missouri

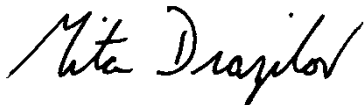
Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the March 31, 2019 Initial Valuation for the New Melle Fire Protection District dated May 10, 2019.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of the Initial Valuation Report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2018.

Mita Drazilov is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinions herein.

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA

New Melle Fire Protection District - Fire

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	13.7%	\$98,366	\$ 1,075,598	17.8%	\$127,804	\$ 1,348,222	18.2%	\$130,676	\$ 1,386,421
2020	741,336	13.7	101,563	1,090,334	17.8	131,958	1,366,692	18.2	134,923	1,405,415
2021	765,429	13.7	104,864	1,104,082	17.8	136,246	1,383,925	18.2	139,308	1,423,136
2022	790,305	13.7	108,272	1,116,705	17.8	140,674	1,399,747	18.2	143,836	1,439,407
2023	815,990	13.7	111,791	1,128,052	17.8	145,246	1,413,970	18.2	148,510	1,454,033
2024	842,510	13.7	115,424	1,137,959	17.8	149,967	1,426,388	18.2	153,337	1,466,803
2025	869,892	13.7	119,175	1,146,248	17.8	154,841	1,436,778	18.2	158,320	1,477,488
2026	898,163	13.7	123,048	1,152,726	17.8	159,873	1,444,898	18.2	163,466	1,485,838
2027	927,353	13.7	127,047	1,157,184	17.8	165,069	1,450,485	18.2	168,778	1,491,584
2028	957,492	13.7	131,176	1,159,394	17.8	170,434	1,453,255	18.2	174,264	1,494,432

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	21.2%	\$152,216	\$ 1,581,330	21.9%	\$157,242	\$ 1,620,719	24.2%	\$173,756	\$ 1,776,148
2020	741,336	21.2	157,163	1,602,994	21.9	162,353	1,642,923	24.2	179,403	1,800,481
2021	765,429	21.2	162,271	1,623,207	21.9	167,629	1,663,639	24.2	185,234	1,823,184
2022	790,305	21.2	167,545	1,641,765	21.9	173,077	1,682,659	24.2	191,254	1,844,028
2023	815,990	21.2	172,990	1,658,447	21.9	178,702	1,699,756	24.2	197,470	1,862,765
2024	842,510	21.2	178,612	1,673,012	21.9	184,510	1,714,684	24.2	203,887	1,879,124
2025	869,892	21.2	184,417	1,685,199	21.9	190,506	1,727,174	24.2	210,514	1,892,812
2026	898,163	21.2	190,411	1,694,723	21.9	196,698	1,736,935	24.2	217,355	1,903,510
2027	927,353	21.2	196,599	1,701,277	21.9	203,090	1,743,652	24.2	224,419	1,910,871
2028	957,492	21.2	202,988	1,704,526	21.9	209,691	1,746,981	24.2	231,713	1,914,520

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	26.0%	\$186,680	\$ 1,893,143	27.1%	\$194,578	\$ 1,970,885	30.2%	\$216,836	\$ 2,165,508
2020	741,336	26.0	192,747	1,919,079	27.1	200,902	1,997,886	30.2	223,883	2,195,175
2021	765,429	26.0	199,012	1,943,277	27.1	207,431	2,023,078	30.2	231,160	2,222,855
2022	790,305	26.0	205,479	1,965,494	27.1	214,173	2,046,208	30.2	238,672	2,248,269
2023	815,990	26.0	212,157	1,985,465	27.1	221,133	2,066,999	30.2	246,429	2,271,113
2024	842,510	26.0	219,053	2,002,902	27.1	228,320	2,085,152	30.2	254,438	2,291,059
2025	869,892	26.0	226,172	2,017,492	27.1	235,741	2,100,341	30.2	262,707	2,307,748
2026	898,163	26.0	233,522	2,028,894	27.1	243,402	2,112,211	30.2	271,245	2,320,791
2027	927,353	26.0	241,112	2,036,740	27.1	251,313	2,120,379	30.2	280,061	2,329,766
2028	957,492	26.0	248,948	2,040,629	27.1	259,480	2,124,428	30.2	289,163	2,334,215

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

New Melle Fire Protection District - Fire

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	14.3%	\$102,674	\$ 1,112,974	18.5%	\$132,830	\$ 1,394,913	18.9%	\$135,702	\$ 1,434,794
2020	741,336	14.3	106,011	1,128,222	18.5	137,147	1,414,023	18.9	140,113	1,454,450
2021	765,429	14.3	109,456	1,142,448	18.5	141,604	1,431,853	18.9	144,666	1,472,790
2022	790,305	14.3	113,014	1,155,510	18.5	146,206	1,448,223	18.9	149,368	1,489,628
2023	815,990	14.3	116,687	1,167,251	18.5	150,958	1,462,938	18.9	154,222	1,504,764
2024	842,510	14.3	120,479	1,177,502	18.5	155,864	1,475,786	18.9	159,234	1,517,979
2025	869,892	14.3	124,395	1,186,079	18.5	160,930	1,486,536	18.9	164,410	1,529,036
2026	898,163	14.3	128,437	1,192,782	18.5	166,160	1,494,937	18.9	169,753	1,537,678
2027	927,353	14.3	132,611	1,197,395	18.5	171,560	1,500,718	18.9	175,270	1,543,624
2028	957,492	14.3	136,921	1,199,681	18.5	177,136	1,503,584	18.9	180,966	1,546,572

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	22.0%	\$157,960	\$ 1,636,296	22.7%	\$162,986	\$ 1,676,688	25.1%	\$180,218	\$ 1,837,563
2020	741,336	22.0	163,094	1,658,713	22.7	168,283	1,699,658	25.1	186,075	1,862,737
2021	765,429	22.0	168,394	1,679,628	22.7	173,752	1,721,090	25.1	192,123	1,886,225
2022	790,305	22.0	173,867	1,698,831	22.7	179,399	1,740,767	25.1	198,367	1,907,790
2023	815,990	22.0	179,518	1,716,093	22.7	185,230	1,758,455	25.1	204,813	1,927,175
2024	842,510	22.0	185,352	1,731,164	22.7	191,250	1,773,898	25.1	211,470	1,944,100
2025	869,892	22.0	191,376	1,743,774	22.7	197,465	1,786,820	25.1	218,343	1,958,261
2026	898,163	22.0	197,596	1,753,629	22.7	203,883	1,796,919	25.1	225,439	1,969,328
2027	927,353	22.0	204,018	1,760,410	22.7	210,509	1,803,868	25.1	232,766	1,976,943
2028	957,492	22.0	210,648	1,763,771	22.7	217,351	1,807,312	25.1	240,330	1,980,718

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	27.0%	\$193,860	\$ 1,958,373	28.2%	\$202,476	\$ 2,038,813	31.3%	\$224,734	\$ 2,240,002
2020	741,336	27.0	200,161	1,985,202	28.2	209,057	2,066,744	31.3	232,038	2,270,690
2021	765,429	27.0	206,666	2,010,234	28.2	215,851	2,092,804	31.3	239,579	2,299,322
2022	790,305	27.0	213,382	2,033,217	28.2	222,866	2,116,731	31.3	247,365	2,325,610
2023	815,990	27.0	220,317	2,053,876	28.2	230,109	2,138,239	31.3	255,405	2,349,240
2024	842,510	27.0	227,478	2,071,914	28.2	237,588	2,157,018	31.3	263,706	2,369,872
2025	869,892	27.0	234,871	2,087,007	28.2	245,310	2,172,730	31.3	272,276	2,387,135
2026	898,163	27.0	242,504	2,098,802	28.2	253,282	2,185,010	31.3	281,125	2,400,626
2027	927,353	27.0	250,385	2,106,918	28.2	261,514	2,193,460	31.3	290,261	2,409,909
2028	957,492	27.0	258,523	2,110,941	28.2	270,013	2,197,648	31.3	299,695	2,414,511

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

New Melle Fire Protection District - Fire

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	17.6%	\$126,368	\$ 1,086,223	21.7%	\$155,806	\$ 1,357,776	22.1%	\$158,678	\$ 1,395,445
2020	741,336	17.6	130,475	1,101,104	21.7	160,870	1,376,377	22.1	163,835	1,414,562
2021	765,429	17.6	134,716	1,114,988	21.7	166,098	1,393,732	22.1	169,160	1,432,399
2022	790,305	17.6	139,094	1,127,736	21.7	171,496	1,409,666	22.1	174,657	1,448,776
2023	815,990	17.6	143,614	1,139,195	21.7	177,070	1,423,989	22.1	180,334	1,463,497
2024	842,510	17.6	148,282	1,149,200	21.7	182,825	1,436,495	22.1	186,195	1,476,350
2025	869,892	17.6	153,101	1,157,571	21.7	188,767	1,446,959	22.1	192,246	1,487,104
2026	898,163	17.6	158,077	1,164,113	21.7	194,901	1,455,137	22.1	198,494	1,495,509
2027	927,353	17.6	163,214	1,168,615	21.7	201,236	1,460,764	22.1	204,945	1,501,292
2028	957,492	17.6	168,519	1,170,846	21.7	207,776	1,463,553	22.1	211,606	1,504,159

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	25.1%	\$180,218	\$ 1,589,717	25.8%	\$185,244	\$ 1,629,396	28.1%	\$201,758	\$ 1,784,038
2020	741,336	25.1	186,075	1,611,496	25.8	191,265	1,651,718	28.1	208,315	1,808,479
2021	765,429	25.1	192,123	1,631,816	25.8	197,481	1,672,545	28.1	215,086	1,831,283
2022	790,305	25.1	198,367	1,650,472	25.8	203,899	1,691,667	28.1	222,076	1,852,220
2023	815,990	25.1	204,813	1,667,242	25.8	210,525	1,708,856	28.1	229,293	1,871,040
2024	842,510	25.1	211,470	1,681,884	25.8	217,368	1,723,864	28.1	236,745	1,887,472
2025	869,892	25.1	218,343	1,694,135	25.8	224,432	1,736,421	28.1	244,440	1,901,221
2026	898,163	25.1	225,439	1,703,710	25.8	231,726	1,746,235	28.1	252,384	1,911,966
2027	927,353	25.1	232,766	1,710,298	25.8	239,257	1,752,988	28.1	260,586	1,919,360
2028	957,492	25.1	240,330	1,713,564	25.8	247,033	1,756,335	28.1	269,055	1,923,025

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	29.9%	\$214,682	\$ 1,900,964	31.0%	\$222,580	\$ 1,978,296	34.1%	\$244,838	\$ 2,172,552
2020	741,336	29.9	221,659	1,927,007	31.0	229,814	2,005,398	34.1	252,796	2,202,316
2021	765,429	29.9	228,863	1,951,305	31.0	237,283	2,030,685	34.1	261,011	2,230,086
2022	790,305	29.9	236,301	1,973,614	31.0	244,995	2,053,902	34.1	269,494	2,255,582
2023	815,990	29.9	243,981	1,993,668	31.0	252,957	2,074,772	34.1	278,253	2,278,501
2024	842,510	29.9	251,910	2,011,177	31.0	261,178	2,092,993	34.1	287,296	2,298,512
2025	869,892	29.9	260,098	2,025,827	31.0	269,667	2,108,239	34.1	296,633	2,315,255
2026	898,163	29.9	268,551	2,037,276	31.0	278,431	2,120,154	34.1	306,274	2,328,340
2027	927,353	29.9	277,279	2,045,154	31.0	287,479	2,128,353	34.1	316,227	2,337,344
2028	957,492	29.9	286,290	2,049,059	31.0	296,823	2,132,417	34.1	326,505	2,341,807

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

New Melle Fire Protection District - Fire

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	18.2%	\$130,676	\$ 1,123,363	22.4%	\$160,832	\$ 1,404,230	22.8%	\$163,704	\$ 1,443,623
2020	741,336	18.2	134,923	1,138,753	22.4	166,059	1,423,468	22.8	169,025	1,463,400
2021	765,429	18.2	139,308	1,153,112	22.4	171,456	1,441,417	22.8	174,518	1,481,853
2022	790,305	18.2	143,836	1,166,295	22.4	177,028	1,457,897	22.8	180,190	1,498,795
2023	815,990	18.2	148,510	1,178,146	22.4	182,782	1,472,711	22.8	186,046	1,514,024
2024	842,510	18.2	153,337	1,188,493	22.4	188,722	1,485,645	22.8	192,092	1,527,321
2025	869,892	18.2	158,320	1,197,150	22.4	194,856	1,496,467	22.8	198,335	1,538,447
2026	898,163	18.2	163,466	1,203,916	22.4	201,189	1,504,925	22.8	204,781	1,547,142
2027	927,353	18.2	168,778	1,208,572	22.4	207,727	1,510,745	22.8	211,436	1,553,125
2028	957,492	18.2	174,264	1,210,880	22.4	214,478	1,513,630	22.8	218,308	1,556,091

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	25.9%	\$185,962	\$ 1,644,418	26.6%	\$190,988	\$ 1,685,073	29.0%	\$208,220	\$ 1,845,162
2020	741,336	25.9	192,006	1,666,946	26.6	197,195	1,708,158	29.0	214,987	1,870,440
2021	765,429	25.9	198,246	1,687,965	26.6	203,604	1,729,697	29.0	221,974	1,894,025
2022	790,305	25.9	204,689	1,707,263	26.6	210,221	1,749,473	29.0	229,188	1,915,679
2023	815,990	25.9	211,341	1,724,610	26.6	217,053	1,767,249	29.0	236,637	1,935,144
2024	842,510	25.9	218,210	1,739,756	26.6	224,108	1,782,770	29.0	244,328	1,952,139
2025	869,892	25.9	225,302	1,752,429	26.6	231,391	1,795,756	29.0	252,269	1,966,359
2026	898,163	25.9	232,624	1,762,333	26.6	238,911	1,805,905	29.0	260,467	1,977,472
2027	927,353	25.9	240,184	1,769,148	26.6	246,676	1,812,889	29.0	268,932	1,985,119
2028	957,492	25.9	247,990	1,772,526	26.6	254,693	1,816,351	29.0	277,673	1,988,910

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	30.9%	\$221,862	\$ 1,965,912	32.1%	\$230,478	\$ 2,045,969	35.2%	\$252,736	\$ 2,246,771
2020	741,336	30.9	229,073	1,992,845	32.1	237,969	2,073,998	35.2	260,950	2,277,551
2021	765,429	30.9	236,518	2,017,974	32.1	245,703	2,100,150	35.2	269,431	2,306,269
2022	790,305	30.9	244,204	2,041,045	32.1	253,688	2,124,161	35.2	278,187	2,332,636
2023	815,990	30.9	252,141	2,061,784	32.1	261,933	2,145,744	35.2	287,228	2,356,338
2024	842,510	30.9	260,336	2,079,891	32.1	270,446	2,164,589	35.2	296,564	2,377,032
2025	869,892	30.9	268,797	2,095,042	32.1	279,235	2,180,357	35.2	306,202	2,394,347
2026	898,163	30.9	277,532	2,106,882	32.1	288,310	2,192,680	35.2	316,153	2,407,879
2027	927,353	30.9	286,552	2,115,029	32.1	297,680	2,201,159	35.2	326,428	2,417,190
2028	957,492	30.9	295,865	2,119,068	32.1	307,355	2,205,362	35.2	337,037	2,421,806

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

New Melle Fire Protection District - Fire

Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	13.8%	\$99,084	\$ 1,087,451	18.0%	\$129,240	\$ 1,362,976	18.6%	\$133,548	\$ 1,415,000
2020	741,336	13.8	102,304	1,102,349	18.0	133,440	1,381,649	18.6	137,888	1,434,385
2021	765,429	13.8	105,629	1,116,249	18.0	137,777	1,399,071	18.6	142,370	1,452,472
2022	790,305	13.8	109,062	1,129,011	18.0	142,255	1,415,066	18.6	146,997	1,469,078
2023	815,990	13.8	112,607	1,140,483	18.0	146,878	1,429,444	18.6	151,774	1,484,005
2024	842,510	13.8	116,266	1,150,499	18.0	151,652	1,441,998	18.6	156,707	1,497,038
2025	869,892	13.8	120,045	1,158,880	18.0	156,581	1,452,502	18.6	161,800	1,507,943
2026	898,163	13.8	123,946	1,165,430	18.0	161,669	1,460,711	18.6	167,058	1,516,465
2027	927,353	13.8	127,975	1,169,937	18.0	166,924	1,466,360	18.6	172,488	1,522,329
2028	957,492	13.8	132,134	1,172,171	18.0	172,349	1,469,160	18.6	178,094	1,525,236

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	21.6%	\$155,088	\$ 1,608,618	22.1%	\$158,678	\$ 1,638,346	24.5%	\$175,910	\$ 1,802,140
2020	741,336	21.6	160,129	1,630,656	22.1	163,835	1,660,791	24.5	181,627	1,826,829
2021	765,429	21.6	165,333	1,651,218	22.1	169,160	1,681,733	24.5	187,530	1,849,864
2022	790,305	21.6	170,706	1,670,096	22.1	174,657	1,700,960	24.5	193,625	1,871,013
2023	815,990	21.6	176,254	1,687,066	22.1	180,334	1,718,243	24.5	199,918	1,890,024
2024	842,510	21.6	181,982	1,701,882	22.1	186,195	1,733,333	24.5	206,415	1,906,623
2025	869,892	21.6	187,897	1,714,279	22.1	192,246	1,745,959	24.5	213,124	1,920,511
2026	898,163	21.6	194,003	1,723,968	22.1	198,494	1,755,827	24.5	220,050	1,931,365
2027	927,353	21.6	200,308	1,730,635	22.1	204,945	1,762,617	24.5	227,201	1,938,834
2028	957,492	21.6	206,818	1,733,940	22.1	211,606	1,765,983	24.5	234,586	1,942,536

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	26.3%	\$188,834	\$ 1,913,665	27.4%	\$196,732	\$ 1,995,586	30.5%	\$218,990	\$ 2,188,929
2020	741,336	26.3	194,971	1,939,882	27.4	203,126	2,022,925	30.5	226,107	2,218,917
2021	765,429	26.3	201,308	1,964,343	27.4	209,728	2,048,433	30.5	233,456	2,246,896
2022	790,305	26.3	207,850	1,986,801	27.4	216,544	2,071,853	30.5	241,043	2,272,585
2023	815,990	26.3	214,605	2,006,989	27.4	223,581	2,092,905	30.5	248,877	2,295,677
2024	842,510	26.3	221,580	2,024,615	27.4	230,848	2,111,286	30.5	256,966	2,315,838
2025	869,892	26.3	228,782	2,039,363	27.4	238,350	2,126,665	30.5	265,317	2,332,707
2026	898,163	26.3	236,217	2,050,889	27.4	246,097	2,138,684	30.5	273,940	2,345,891
2027	927,353	26.3	243,894	2,058,820	27.4	254,095	2,146,954	30.5	282,843	2,354,963
2028	957,492	26.3	251,820	2,062,751	27.4	262,353	2,151,054	30.5	292,035	2,359,460

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

New Melle Fire Protection District - Fire

Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	14.4%	\$103,392	\$ 1,125,384	18.7%	\$134,266	\$ 1,410,324	19.3%	\$138,574	\$ 1,464,579
2020	741,336	14.4	106,752	1,140,802	18.7	138,630	1,429,645	19.3	143,078	1,484,644
2021	765,429	14.4	110,222	1,155,187	18.7	143,135	1,447,672	19.3	147,728	1,503,364
2022	790,305	14.4	113,804	1,168,394	18.7	147,787	1,464,223	19.3	152,529	1,520,552
2023	815,990	14.4	117,503	1,180,266	18.7	152,590	1,479,101	19.3	157,486	1,536,002
2024	842,510	14.4	121,321	1,190,632	18.7	157,549	1,492,091	19.3	162,604	1,549,492
2025	869,892	14.4	125,264	1,199,305	18.7	162,670	1,502,960	19.3	167,889	1,560,779
2026	898,163	14.4	129,335	1,206,083	18.7	167,956	1,511,454	19.3	173,345	1,569,600
2027	927,353	14.4	133,539	1,210,747	18.7	173,415	1,517,299	19.3	178,979	1,575,670
2028	957,492	14.4	137,879	1,213,059	18.7	179,051	1,520,196	19.3	184,796	1,578,679

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	22.4%	\$160,832	\$ 1,664,730	23.0%	\$165,140	\$ 1,695,158	25.4%	\$182,372	\$ 1,864,703
2020	741,336	22.4	166,059	1,687,537	23.0	170,507	1,718,381	25.4	188,299	1,890,249
2021	765,429	22.4	171,456	1,708,816	23.0	176,049	1,740,049	25.4	194,419	1,914,084
2022	790,305	22.4	177,028	1,728,353	23.0	181,770	1,759,943	25.4	200,737	1,935,968
2023	815,990	22.4	182,782	1,745,915	23.0	187,678	1,777,826	25.4	207,261	1,955,639
2024	842,510	22.4	188,722	1,761,248	23.0	193,777	1,793,439	25.4	213,998	1,972,814
2025	869,892	22.4	194,856	1,774,078	23.0	200,075	1,806,503	25.4	220,953	1,987,185
2026	898,163	22.4	201,189	1,784,105	23.0	206,577	1,816,713	25.4	228,133	1,998,416
2027	927,353	22.4	207,727	1,791,004	23.0	213,291	1,823,738	25.4	235,548	2,006,144
2028	957,492	22.4	214,478	1,794,424	23.0	220,223	1,827,220	25.4	243,203	2,009,975

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	27.3%	\$196,014	\$ 1,979,847	28.5%	\$204,630	\$ 2,064,615	31.6%	\$226,888	\$ 2,264,495
2020	741,336	27.3	202,385	2,006,971	28.5	211,281	2,092,900	31.6	234,262	2,295,518
2021	765,429	27.3	208,962	2,032,278	28.5	218,147	2,119,290	31.6	241,876	2,324,463
2022	790,305	27.3	215,753	2,055,513	28.5	225,237	2,143,520	31.6	249,736	2,351,038
2023	815,990	27.3	222,765	2,076,399	28.5	232,557	2,165,300	31.6	257,853	2,374,927
2024	842,510	27.3	230,005	2,094,635	28.5	240,115	2,184,316	31.6	266,233	2,395,784
2025	869,892	27.3	237,481	2,109,893	28.5	247,919	2,200,227	31.6	274,886	2,413,236
2026	898,163	27.3	245,198	2,121,817	28.5	255,976	2,212,662	31.6	283,820	2,426,875
2027	927,353	27.3	253,167	2,130,022	28.5	264,296	2,221,218	31.6	293,044	2,436,260
2028	957,492	27.3	261,395	2,134,089	28.5	272,885	2,225,459	31.6	302,567	2,440,912

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

New Melle Fire Protection District - Fire

Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	17.7%	\$127,086	\$ 1,098,010	21.9%	\$157,242	\$ 1,372,512	22.5%	\$161,550	\$ 1,423,952
2020	741,336	17.7	131,216	1,113,053	21.9	162,353	1,391,315	22.5	166,801	1,443,460
2021	765,429	17.7	135,481	1,127,088	21.9	167,629	1,408,859	22.5	172,222	1,461,661
2022	790,305	17.7	139,884	1,139,974	21.9	173,077	1,424,966	22.5	177,819	1,478,372
2023	815,990	17.7	144,430	1,151,557	21.9	178,702	1,439,445	22.5	183,598	1,493,394
2024	842,510	17.7	149,124	1,161,670	21.9	184,510	1,452,087	22.5	189,565	1,506,510
2025	869,892	17.7	153,971	1,170,132	21.9	190,506	1,462,664	22.5	195,726	1,517,484
2026	898,163	17.7	158,975	1,176,745	21.9	196,698	1,470,931	22.5	202,087	1,526,060
2027	927,353	17.7	164,141	1,181,296	21.9	203,090	1,476,619	22.5	208,654	1,531,961
2028	957,492	17.7	169,476	1,183,552	21.9	209,691	1,479,439	22.5	215,436	1,534,886

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	25.5%	\$183,090	\$ 1,616,976	26.0%	\$186,680	\$ 1,640,551	28.4%	\$203,912	\$ 1,810,087
2020	741,336	25.5	189,041	1,639,128	26.0	192,747	1,663,026	28.4	210,539	1,834,885
2021	765,429	25.5	195,184	1,659,796	26.0	199,012	1,683,996	28.4	217,382	1,858,022
2022	790,305	25.5	201,528	1,678,772	26.0	205,479	1,703,249	28.4	224,447	1,879,265
2023	815,990	25.5	208,077	1,695,830	26.0	212,157	1,720,556	28.4	231,741	1,898,360
2024	842,510	25.5	214,840	1,710,723	26.0	219,053	1,735,667	28.4	239,273	1,915,032
2025	869,892	25.5	221,822	1,723,184	26.0	226,172	1,748,310	28.4	247,049	1,928,982
2026	898,163	25.5	229,032	1,732,923	26.0	233,522	1,758,191	28.4	255,078	1,939,884
2027	927,353	25.5	236,475	1,739,624	26.0	241,112	1,764,990	28.4	263,368	1,947,386
2028	957,492	25.5	244,160	1,742,946	26.0	248,948	1,768,360	28.4	271,928	1,951,104

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	30.2%	\$216,836	\$ 1,921,606	31.3%	\$224,734	\$ 2,003,119	34.4%	\$246,992	\$ 2,196,150
2020	741,336	30.2	223,883	1,947,932	31.3	232,038	2,030,561	34.4	255,020	2,226,237
2021	765,429	30.2	231,160	1,972,494	31.3	239,579	2,056,165	34.4	263,308	2,254,308
2022	790,305	30.2	238,672	1,995,045	31.3	247,365	2,079,673	34.4	271,865	2,280,081
2023	815,990	30.2	246,429	2,015,316	31.3	255,405	2,100,804	34.4	280,701	2,303,249
2024	842,510	30.2	254,438	2,033,015	31.3	263,706	2,119,254	34.4	289,823	2,323,477
2025	869,892	30.2	262,707	2,047,824	31.3	272,276	2,134,691	34.4	299,243	2,340,402
2026	898,163	30.2	271,245	2,059,398	31.3	281,125	2,146,756	34.4	308,968	2,353,629
2027	927,353	30.2	280,061	2,067,362	31.3	290,261	2,155,058	34.4	319,009	2,362,731
2028	957,492	30.2	289,163	2,071,310	31.3	299,695	2,159,173	34.4	329,377	2,367,243

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

New Melle Fire Protection District - Fire

Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	18.3%	\$131,394	\$ 1,135,735	22.6%	\$162,268	\$ 1,419,683	23.2%	\$166,576	\$ 1,473,329
2020	741,336	18.3	135,664	1,151,294	22.6	167,542	1,439,132	23.2	171,990	1,493,513
2021	765,429	18.3	140,074	1,165,811	22.6	172,987	1,457,279	23.2	177,580	1,512,345
2022	790,305	18.3	144,626	1,179,140	22.6	178,609	1,473,940	23.2	183,351	1,529,636
2023	815,990	18.3	149,326	1,191,121	22.6	184,414	1,488,917	23.2	189,310	1,545,178
2024	842,510	18.3	154,179	1,201,582	22.6	190,407	1,501,993	23.2	195,462	1,558,748
2025	869,892	18.3	159,190	1,210,335	22.6	196,596	1,512,934	23.2	201,815	1,570,102
2026	898,163	18.3	164,364	1,217,175	22.6	202,985	1,521,485	23.2	208,374	1,578,976
2027	927,353	18.3	169,706	1,221,882	22.6	209,582	1,527,369	23.2	215,146	1,585,082
2028	957,492	18.3	175,221	1,224,215	22.6	216,393	1,530,285	23.2	222,138	1,588,109

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	26.2%	\$188,116	\$ 1,672,859	26.9%	\$193,142	\$ 1,703,600	29.3%	\$210,374	\$ 1,872,356
2020	741,336	26.2	194,230	1,695,777	26.9	199,419	1,726,939	29.3	217,211	1,898,007
2021	765,429	26.2	200,542	1,717,160	26.9	205,900	1,748,715	29.3	224,271	1,921,940
2022	790,305	26.2	207,060	1,736,792	26.9	212,592	1,768,708	29.3	231,559	1,943,913
2023	815,990	26.2	213,789	1,754,439	26.9	219,501	1,786,680	29.3	239,085	1,963,665
2024	842,510	26.2	220,738	1,769,847	26.9	226,635	1,802,371	29.3	246,855	1,980,911
2025	869,892	26.2	227,912	1,782,739	26.9	234,001	1,815,500	29.3	254,878	1,995,341
2026	898,163	26.2	235,319	1,792,814	26.9	241,606	1,825,761	29.3	263,162	2,006,618
2027	927,353	26.2	242,966	1,799,747	26.9	249,458	1,832,821	29.3	271,714	2,014,378
2028	957,492	26.2	250,863	1,803,184	26.9	257,565	1,836,321	29.3	280,545	2,018,224

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2019	\$ 718,001	31.2%	\$224,016	\$ 1,987,537	32.4%	\$232,632	\$ 2,071,926	35.5%	\$254,890	\$ 2,271,473
2020	741,336	31.2	231,297	2,014,766	32.4	240,193	2,100,311	35.5	263,174	2,302,592
2021	765,429	31.2	238,814	2,040,171	32.4	247,999	2,126,795	35.5	271,727	2,331,626
2022	790,305	31.2	246,575	2,063,496	32.4	256,059	2,151,111	35.5	280,558	2,358,283
2023	815,990	31.2	254,589	2,084,463	32.4	264,381	2,172,968	35.5	289,676	2,382,245
2024	842,510	31.2	262,863	2,102,769	32.4	272,973	2,192,052	35.5	299,091	2,403,167
2025	869,892	31.2	271,406	2,118,086	32.4	281,845	2,208,020	35.5	308,812	2,420,672
2026	898,163	31.2	280,227	2,130,057	32.4	291,005	2,220,499	35.5	318,848	2,434,353
2027	927,353	31.2	289,334	2,138,294	32.4	300,462	2,229,086	35.5	329,210	2,443,767
2028	957,492	31.2	298,738	2,142,377	32.4	310,227	2,233,342	35.5	339,910	2,448,433

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
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