



**THE INITIAL ACTUARIAL VALUATION FOR  
DUCKETT CREEK SANITARY DISTRICT  
AS OF NOVEMBER 30, 2016**

# Table of Contents

	<b>Page</b>
Actuary's Certification Letter .....	1
Alternate Plans Available .....	3
Employer Contribution Rates	
Regular Eligibility:	
Contributory Plan .....	4
Non-Contributory Plan .....	6
Rule of 80 Eligibility:	
Contributory Plan .....	8
Non-Contributory Plan .....	10
Employer Contribution Dollars .....	12
Appendix I	
Unfunded Actuarial Accrued Liability .....	15
Appendix II	
Summary of Financial Assumptions .....	17
Appendix III	
Summary of LAGERS Provisions .....	21
Appendix IV	
Benefit Illustrations .....	24
Appendix V	
Age & Service Characteristics of Employees .....	33

December 22, 2016

Duckett Creek Sanitary District  
O'Fallon, 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).

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 29, 2016.

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. 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.

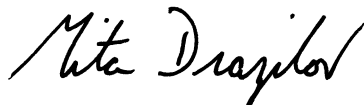
Please note that this entire report must be available as public information for at least 45 calendar days prior to the date final official action is taken by your governing body to join the System. You may wish to make notice of this report in the official minutes of the next meeting of your governing 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 November 30, 2016. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

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

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 opinion herein.

Respectfully submitted,

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

Mita D. Drazilov, ASA, 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.

Duckett Creek Sanitary 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	General	7.80%	2.90%	0.20%	10.90%
L-3	General	9.80	4.10	0.30	14.20
LT-4(65)	General	8.80	3.50	0.20	12.50
LT-5(65)	General	10.60	4.60	0.30	15.50
L-7	General	11.90	5.40	0.30	17.60
LT-8(65)	General	12.40	5.80	0.30	18.50
L-12	General	13.90	6.80	0.40	21.10
LT-14(65)	General	14.10	7.00	0.40	21.50
L-6	General	15.90	8.20	0.50	24.60

\* Assumes that credit is granted for 100% of service rendered prior to the membership date. 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.

Duckett Creek Sanitary 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	General	8.10%	3.00%	0.20%	11.30%
L-3	General	10.20	4.40	0.30	14.90
LT-4(65)	General	9.10	3.70	0.20	13.00
LT-5(65)	General	11.00	4.90	0.30	16.20
L-7	General	12.30	5.70	0.30	18.30
LT-8(65)	General	12.80	6.10	0.30	19.20
L-12	General	14.40	7.10	0.40	21.90
LT-14(65)	General	14.60	7.30	0.40	22.30
L-6	General	16.50	8.50	0.50	25.50

\* Assumes that credit is granted for 100% of service rendered prior to the membership date. 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.

Duckett Creek Sanitary 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	General	8.10%	6.30%	0.20%	14.60%
L-3	General	10.10	7.70	0.30	18.10
LT-4(65)	General	9.10	7.00	0.20	16.30
LT-5(65)	General	10.90	8.20	0.30	19.40
L-7	General	12.20	9.00	0.30	21.50
LT-8(65)	General	12.70	9.40	0.30	22.40
L-12	General	14.20	10.40	0.40	25.00
LT-14(65)	General	14.40	10.60	0.40	25.40
L-6	General	16.20	11.80	0.50	28.50

\* Assumes that credit is granted for 100% of service rendered prior to the membership date. 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.

Duckett Creek Sanitary 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	General	8.40%	6.50%	0.20%	15.10%
L-3	General	10.50	7.90	0.30	18.70
LT-4(65)	General	9.40	7.20	0.20	16.80
LT-5(65)	General	11.30	8.40	0.30	20.00
L-7	General	12.60	9.30	0.30	22.20
LT-8(65)	General	13.10	9.70	0.30	23.10
L-12	General	14.70	10.70	0.40	25.80
LT-14(65)	General	14.90	10.90	0.40	26.20
L-6	General	16.80	12.10	0.50	29.40

\* Assumes that credit is granted for 100% of service rendered prior to the membership date. 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.

Duckett Creek Sanitary 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	General	8.70%	3.40%	0.20%	12.30%
L-3	General	10.90	4.90	0.30	16.10
LT-4(65)	General	10.70	4.80	0.20	15.70
LT-5(65)	General	12.50	5.90	0.30	18.70
L-7	General	13.20	6.30	0.30	19.80
LT-8(65)	General	14.20	6.90	0.30	21.40
L-12	General	15.40	7.80	0.40	23.60
LT-14(65)	General	15.90	8.10	0.40	24.40
L-6	General	17.70	9.30	0.50	27.50

# 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. 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.

Duckett Creek Sanitary 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			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	9.00%	3.60%	0.20%	12.80%
L-3	General	11.30	5.10	0.30	16.70
LT-4(65)	General	11.10	5.00	0.20	16.30
LT-5(65)	General	12.90	6.10	0.30	19.30
L-7	General	13.70	6.60	0.30	20.60
LT-8(65)	General	14.70	7.30	0.30	22.30
L-12	General	16.00	8.10	0.40	24.50
LT-14(65)	General	16.50	8.50	0.40	25.40
L-6	General	18.30	9.70	0.50	28.50

# 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. 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.

Duckett Creek Sanitary 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	General	9.00%	6.90%	0.20%	16.10%
L-3	General	11.20	8.40	0.30	19.90
LT-4(65)	General	11.00	8.20	0.20	19.40
LT-5(65)	General	12.70	9.40	0.30	22.40
L-7	General	13.50	9.90	0.30	23.70
LT-8(65)	General	14.50	10.50	0.30	25.30
L-12	General	15.70	11.40	0.40	27.50
LT-14(65)	General	16.20	11.70	0.40	28.30
L-6	General	18.00	12.90	0.50	31.40

# 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. 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.

Duckett Creek Sanitary 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	General	9.30%	7.10%	0.20%	16.60%
L-3	General	11.60	8.60	0.30	20.50
LT-4(65)	General	11.40	8.50	0.20	20.10
LT-5(65)	General	13.20	9.70	0.30	23.20
L-7	General	13.90	10.20	0.30	24.40
LT-8(65)	General	15.00	10.90	0.30	26.20
L-12	General	16.30	11.70	0.40	28.40
LT-14(65)	General	16.80	12.10	0.40	29.30
L-6	General	18.60	13.30	0.50	32.40

# 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. 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.

Duckett Creek Sanitary 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**

<b>5 Year FAS</b>	
<b>Benefit Program</b>	<b>General</b>
L-1	\$ 290,683
L-3	378,688
LT-4(65)	333,352
LT-5(65)	413,357
L-7	469,360
LT-8(65)	493,361
L-12	562,699
LT-14(65)	573,366
L-6	656,037

<b>3 Year FAS</b>	
<b>Benefit Program</b>	<b>General</b>
L-1	\$ 301,351
L-3	397,356
LT-4(65)	346,686
LT-5(65)	432,025
L-7	488,028
LT-8(65)	512,029
L-12	584,033
LT-14(65)	594,701
L-6	680,039

**Non-Contributory Plan**

<b>5 Year FAS</b>	
<b>Benefit Program</b>	<b>General</b>
L-1	\$ 389,356
L-3	482,694
LT-4(65)	434,691
LT-5(65)	517,363
L-7	573,366
LT-8(65)	597,367
L-12	666,705
LT-14(65)	677,372
L-6	760,043

<b>3 Year FAS</b>	
<b>Benefit Program</b>	<b>General</b>
L-1	\$ 402,690
L-3	498,695
LT-4(65)	448,026
LT-5(65)	533,364
L-7	592,034
LT-8(65)	616,035
L-12	688,039
LT-14(65)	698,706
L-6	784,045

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.

Duckett Creek Sanitary 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**

<b>5 Year FAS</b>	
<b>Benefit Program</b>	<b>General</b>
L-1	\$ 328,019
L-3	429,358
LT-4(65)	418,691
LT-5(65)	498,695
L-7	528,030
LT-8(65)	570,699
L-12	629,369
LT-14(65)	650,704
L-6	733,375

<b>3 Year FAS</b>	
<b>Benefit Program</b>	<b>General</b>
L-1	\$ 341,353
L-3	445,359
LT-4(65)	434,691
LT-5(65)	514,696
L-7	549,365
LT-8(65)	594,701
L-12	653,371
LT-14(65)	677,372
L-6	760,043

**Non-Contributory Plan**

<b>5 Year FAS</b>	
<b>Benefit Program</b>	<b>General</b>
L-1	\$ 429,358
L-3	530,697
LT-4(65)	517,363
LT-5(65)	597,367
L-7	632,036
LT-8(65)	674,705
L-12	733,375
LT-14(65)	754,710
L-6	837,381

<b>3 Year FAS</b>	
<b>Benefit Program</b>	<b>General</b>
L-1	\$ 442,692
L-3	546,698
LT-4(65)	536,031
LT-5(65)	618,702
L-7	650,704
LT-8(65)	698,706
L-12	757,376
LT-14(65)	781,378
L-6	864,049

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.

Duckett Creek Sanitary District

Employees and Payroll Included in the Valuation

	General
Number of Employees	44
Annual Payroll	\$ 2,666,819

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:

Duckett Creek Sanitary 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	General	\$ 3,661,370	\$ 3,791,778	\$ 3,810,156	\$ 3,939,951
L-3	General	4,614,876	4,777,396	4,762,552	4,924,887
LT-4(65)	General	4,145,990	4,293,312	4,290,577	4,437,190
LT-5(65)	General	4,978,328	5,153,589	5,122,868	5,297,777
L-7	General	5,567,187	5,762,052	5,715,105	5,909,930
LT-8(65)	General	5,809,478	6,012,827	5,955,304	6,158,571
L-12	General	6,518,825	6,745,996	6,667,547	6,894,831
LT-14(65)	General	6,640,000	6,871,388	6,787,625	7,019,160
L-6	General	7,469,774	7,729,013	7,620,087	7,879,765

Duckett Creek Sanitary 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	General	\$ 4,084,852	\$ 4,231,782	\$ 4,218,701	\$ 4,365,307
L-3	General	5,139,934	5,323,332	5,273,311	5,456,647
LT-4(65)	General	5,037,521	5,218,422	5,165,656	5,346,082
LT-5(65)	General	5,854,432	6,063,324	5,983,555	6,192,207
L-7	General	6,193,949	6,413,745	6,327,954	6,547,908
LT-8(65)	General	6,670,247	6,907,068	6,801,471	7,038,258
L-12	General	7,247,257	7,503,666	7,382,643	7,639,190
LT-14(65)	General	7,485,437	7,750,277	7,619,370	7,884,410
L-6	General	8,300,187	8,592,788	8,437,244	8,730,530

## **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 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.**

**Withdrawal From Active Employment Before Age & Service Retirement  
and Individual Pay Increase Assumptions**

Sample Ages	Years of Service	Percent of Active Members Separating Within Next Year				Percent Increase in Individual's Pay During Next Year Excluding Fire
		General Members		Police	Fire	
		Men	Women			
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	7.30	10.80	9.80	5.00	6.6%
30		6.50	8.90	7.80	4.00	5.8
35		5.00	7.40	6.10	2.80	5.3
40		3.70	5.70	4.40	2.20	4.8
45		3.00	4.20	3.20	1.80	4.3
50		2.40	3.30	1.80	1.00	3.9
55		1.80	2.50	1.00	0.50	3.7
60		1.00	1.20	0.00	0.00	3.6
65		0.00	0.00	0.00	0.00	3.3

Percent Increase in Individual's Pay During Next Year	
Sample Ages	Fire
25	7.2%
30	6.1
35	5.2
40	4.5
45	4.2
50	3.9
55	3.7
60	3.3
65	3.3

**Schedule 2.**

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

**Early Retirement**

<b>Retirement Ages</b>	<b>General Members</b>		<b>Retirement Ages</b>	<b>Police</b>	<b>Fire</b>
	<b>Men</b>	<b>Women</b>			
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**

<b>Retirement Ages</b>	<b>General Members</b>		<b>Retirement Ages</b>	<b>Police</b>	<b>Fire</b>
	<b>Men</b>	<b>Women</b>			
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**

<b>Retirement Ages</b>	<b>General Members</b>		<b>Police</b>	<b>Fire</b>
	<b>Men</b>	<b>Women</b>		
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 29, 2016**  
**(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 <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 882	\$1,407	94%
2,000	700	1,028	1,728	86%
2,500	875	1,174	2,049	82%
3,000	1,050	1,320	2,370	79%
3,500	1,225	1,465	2,690	77%
4,000	1,400	1,611	3,011	75%
25 Years of Service:				
\$1,500	\$ 375	\$ 882	\$1,257	84%
2,000	500	1,028	1,528	76%
2,500	625	1,174	1,799	72%
3,000	750	1,320	2,070	69%
3,500	875	1,465	2,340	67%
4,000	1,000	1,611	2,611	65%
15 Years of Service:				
\$1,500	\$225	\$ 882	\$1,107	74%
2,000	300	1,028	1,328	66%
2,500	375	1,174	1,549	62%
3,000	450	1,320	1,770	59%
3,500	525	1,465	1,990	57%
4,000	600	1,611	2,211	55%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 656	\$ 882	\$1,538	103%
2,000	875	1,028	1,903	95%
2,500	1,094	1,174	2,268	91%
3,000	1,313	1,320	2,633	88%
3,500	1,531	1,465	2,996	86%
4,000	1,750	1,611	3,361	84%
25 Years of Service:				
\$1,500	\$ 469	\$ 882	\$1,351	90%
2,000	625	1,028	1,653	83%
2,500	781	1,174	1,955	78%
3,000	938	1,320	2,258	75%
3,500	1,094	1,465	2,559	73%
4,000	1,250	1,611	2,861	72%
15 Years of Service:				
\$1,500	\$281	\$ 882	\$1,163	78%
2,000	375	1,028	1,403	70%
2,500	469	1,174	1,643	66%
3,000	563	1,320	1,883	63%
3,500	656	1,465	2,121	61%
4,000	750	1,611	2,361	59%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 788	\$ 882	\$1,670	111%
2,000	1,050	1,028	2,078	104%
2,500	1,313	1,174	2,487	99%
3,000	1,575	1,320	2,895	97%
3,500	1,838	1,465	3,303	94%
4,000	2,100	1,611	3,711	93%
25 Years of Service:				
\$1,500	\$ 563	\$ 882	\$1,445	96%
2,000	750	1,028	1,778	89%
2,500	938	1,174	2,112	84%
3,000	1,125	1,320	2,445	82%
3,500	1,313	1,465	2,778	79%
4,000	1,500	1,611	3,111	78%
15 Years of Service:				
\$1,500	\$338	\$ 882	\$1,220	81%
2,000	450	1,028	1,478	74%
2,500	563	1,174	1,737	69%
3,000	675	1,320	1,995	67%
3,500	788	1,465	2,253	64%
4,000	900	1,611	2,511	63%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 919	\$ 882	\$1,801	120%
2,000	1,225	1,028	2,253	113%
2,500	1,531	1,174	2,705	108%
3,000	1,838	1,320	3,158	105%
3,500	2,144	1,465	3,609	103%
4,000	2,450	1,611	4,061	102%
25 Years of Service:				
\$1,500	\$ 656	\$ 882	\$1,538	103%
2,000	875	1,028	1,903	95%
2,500	1,094	1,174	2,268	91%
3,000	1,313	1,320	2,633	88%
3,500	1,531	1,465	2,996	86%
4,000	1,750	1,611	3,361	84%
15 Years of Service:				
\$1,500	\$ 394	\$ 882	\$1,276	85%
2,000	525	1,028	1,553	78%
2,500	656	1,174	1,830	73%
3,000	788	1,320	2,108	70%
3,500	919	1,465	2,384	68%
4,000	1,050	1,611	2,661	67%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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 <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 882	\$1,932	129%
2,000	1,400	1,028	2,428	121%
2,500	1,750	1,174	2,924	117%
3,000	2,100	1,320	3,420	114%
3,500	2,450	1,465	3,915	112%
4,000	2,800	1,611	4,411	110%
25 Years of Service:				
\$1,500	\$ 750	\$ 882	\$1,632	109%
2,000	1,000	1,028	2,028	101%
2,500	1,250	1,174	2,424	97%
3,000	1,500	1,320	2,820	94%
3,500	1,750	1,465	3,215	92%
4,000	2,000	1,611	3,611	90%
15 Years of Service:				
\$1,500	\$ 450	\$ 882	\$1,332	89%
2,000	600	1,028	1,628	81%
2,500	750	1,174	1,924	77%
3,000	900	1,320	2,220	74%
3,500	1,050	1,465	2,515	72%
4,000	1,200	1,611	2,811	70%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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<sup>1</sup> to age 65)  
1.00% of FAS<sup>1</sup> at age 65)

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	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	\$ 882	\$1,050	\$1,407	70%	94%
2,000	1,400	700	1,028	1,400	1,728	70%	86%
2,500	1,750	875	1,174	1,750	2,049	70%	82%
3,000	2,100	1,050	1,320	2,100	2,370	70%	79%
3,500	2,450	1,225	1,465	2,450	2,690	70%	77%
4,000	2,800	1,400	1,611	2,800	3,011	70%	75%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 882	\$ 750	\$1,257	50%	84%
2,000	1,000	500	1,028	1,000	1,528	50%	76%
2,500	1,250	625	1,174	1,250	1,799	50%	72%
3,000	1,500	750	1,320	1,500	2,070	50%	69%
3,500	1,750	875	1,465	1,750	2,340	50%	67%
4,000	2,000	1,000	1,611	2,000	2,611	50%	65%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 882	\$ 450	\$1,107	30%	74%
2,000	600	300	1,028	600	1,328	30%	66%
2,500	750	375	1,174	750	1,549	30%	62%
3,000	900	450	1,320	900	1,770	30%	59%
3,500	1,050	525	1,465	1,050	1,990	30%	57%
4,000	1,200	600	1,611	1,200	2,211	30%	55%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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<sup>1</sup> to age 65)  
1.25% of FAS<sup>1</sup> at age 65)

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	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	\$ 882	\$1,050	\$1,538	70%	103%
2,000	1,400	875	1,028	1,400	1,903	70%	95%
2,500	1,750	1,094	1,174	1,750	2,268	70%	91%
3,000	2,100	1,313	1,320	2,100	2,633	70%	88%
3,500	2,450	1,531	1,465	2,450	2,996	70%	86%
4,000	2,800	1,750	1,611	2,800	3,361	70%	84%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 882	\$ 750	\$1,351	50%	90%
2,000	1,000	625	1,028	1,000	1,653	50%	83%
2,500	1,250	781	1,174	1,250	1,955	50%	78%
3,000	1,500	938	1,320	1,500	2,258	50%	75%
3,500	1,750	1,094	1,465	1,750	2,559	50%	73%
4,000	2,000	1,250	1,611	2,000	2,861	50%	72%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 882	\$ 450	\$1,163	30%	78%
2,000	600	375	1,028	600	1,403	30%	70%
2,500	750	469	1,174	750	1,643	30%	66%
3,000	900	563	1,320	900	1,883	30%	63%
3,500	1,050	656	1,465	1,050	2,121	30%	61%
4,000	1,200	750	1,611	1,200	2,361	30%	59%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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<sup>1</sup> to age 65)  
1.50% of FAS<sup>1</sup> at age 65)

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	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	\$ 882	\$1,050	\$1,670	70%	111%
2,000	1,400	1,050	1,028	1,400	2,078	70%	104%
2,500	1,750	1,313	1,174	1,750	2,487	70%	99%
3,000	2,100	1,575	1,320	2,100	2,895	70%	97%
3,500	2,450	1,838	1,465	2,450	3,303	70%	94%
4,000	2,800	2,100	1,611	2,800	3,711	70%	93%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 882	\$ 750	\$1,445	50%	96%
2,000	1,000	750	1,028	1,000	1,778	50%	89%
2,500	1,250	938	1,174	1,250	2,112	50%	84%
3,000	1,500	1,125	1,320	1,500	2,445	50%	82%
3,500	1,750	1,313	1,465	1,750	2,778	50%	79%
4,000	2,000	1,500	1,611	2,000	3,111	50%	78%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 882	\$ 450	\$1,220	30%	81%
2,000	600	450	1,028	600	1,478	30%	74%
2,500	750	563	1,174	750	1,737	30%	69%
3,000	900	675	1,320	900	1,995	30%	67%
3,500	1,050	788	1,465	1,050	2,253	30%	64%
4,000	1,200	900	1,611	1,200	2,511	30%	63%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> 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<sup>1</sup> to age 65)  
1.75% of FAS<sup>1</sup> at age 65)

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	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	\$ 882	\$1,050	\$1,801	70%	120%
2,000	1,400	1,225	1,028	1,400	2,253	70%	113%
2,500	1,750	1,531	1,174	1,750	2,705	70%	108%
3,000	2,100	1,838	1,320	2,100	3,158	70%	105%
3,500	2,450	2,144	1,465	2,450	3,609	70%	103%
4,000	2,800	2,450	1,611	2,800	4,061	70%	102%
25 Years of Service:							
\$1,500	\$ 750	\$ 656	\$ 882	\$ 750	\$1,538	50%	103%
2,000	1,000	875	1,028	1,000	1,903	50%	95%
2,500	1,250	1,094	1,174	1,250	2,268	50%	91%
3,000	1,500	1,313	1,320	1,500	2,633	50%	88%
3,500	1,750	1,531	1,465	1,750	2,996	50%	86%
4,000	2,000	1,750	1,611	2,000	3,361	50%	84%
15 Years of Service:							
\$1,500	\$ 450	\$ 394	\$ 882	\$ 450	\$1,276	30%	85%
2,000	600	525	1,028	600	1,553	30%	78%
2,500	750	656	1,174	750	1,830	30%	73%
3,000	900	788	1,320	900	2,108	30%	70%
3,500	1,050	919	1,465	1,050	2,384	30%	68%
4,000	1,200	1,050	1,611	1,200	2,661	30%	67%

<sup>1</sup> "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.

<sup>2</sup> "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 2016 - it does not include any amounts which might be payable to an eligible spouse or children.

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

**APPENDIX V**

**AGE AND SERVICE  
CHARACTERISTICS OF  
EMPLOYEES**

Duckett Creek Sanitary District

November 30, 2016

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
<b>Under 20</b>	2							2	\$ 76,088
<b>20-24</b>	1							1	\$ 38,044
<b>25-29</b>	1							1	\$ 38,044
<b>30-34</b>		2						2	\$ 93,051
<b>35-39</b>	2		4	1				7	\$ 323,166
<b>40-44</b>	1	1	1	1	1			5	\$ 252,236
<b>45-49</b>		1	3	2				6	\$ 321,893
<b>50-54</b>	2	1	1	2	1	1		8	\$ 602,249
<b>55-59</b>	3		1	1	2		1	8	\$ 600,399
<b>60-64</b>				1			2	3	\$ 244,603
<b>65-69</b>							1	1	\$ 77,046
<b>70 &amp; Over</b>									
<b>Totals</b>	<b>12</b>	<b>5</b>	<b>10</b>	<b>8</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>44</b>	<b>\$ 2,666,819</b>

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

Age: 45.9 years.

Benefit Service: 13.1 years.

Annual Pay: \$60,610.

December 22, 2016 E-mail

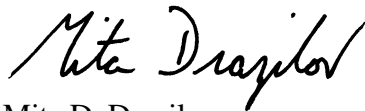
Mr. Keith Hughes, Executive Secretary  
Missouri Local Government  
Employees Retirement System  
P.O. Box 1665  
Jefferson City, Missouri 65102

Dear Keith:

Enclosed is the report of the November 30, 2016 Initial Actuarial  
Valuation of LAGERS benefits for the employees of

Duckett Creek Sanitary District

Sincerely,



Mita D. Drazilov

MDD:adh

December 22, 2016

Duckett Creek Sanitary District  
O'Fallon, Missouri

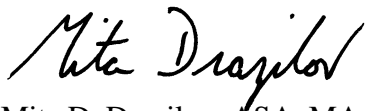
Ladies and Gentlemen:

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 November 30, 2016 Initial Valuation for the Duckett Creek Sanitary District dated December 22, 2016.

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 29, 2016.

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 opinion herein.

Respectfully submitted,



Mita D. Drazilov, ASA, MAAA

Duckett Creek Sanitary District - General

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
2016	\$ 2,666,819	10.9%	\$290,683	\$ 3,661,370	14.2%	\$378,688	\$ 4,614,876	12.5%	\$333,352	\$ 4,145,990
2017	2,753,490	10.9	300,130	3,711,530	14.2	390,996	4,678,099	12.5	344,186	4,202,789
2018	2,842,978	10.9	309,885	3,758,330	14.2	403,703	4,737,087	12.5	355,372	4,255,784
2019	2,935,375	10.9	319,956	3,801,299	14.2	416,823	4,791,246	12.5	366,922	4,304,440
2020	3,030,775	10.9	330,354	3,839,924	14.2	430,370	4,839,929	12.5	378,847	4,348,177
2021	3,129,275	10.9	341,091	3,873,648	14.2	444,357	4,882,435	12.5	391,159	4,386,364
2022	3,230,976	10.9	352,176	3,901,865	14.2	458,799	4,918,000	12.5	403,872	4,418,316
2023	3,335,983	10.9	363,622	3,923,917	14.2	473,710	4,945,795	12.5	416,998	4,443,287
2024	3,444,402	10.9	375,440	3,939,091	14.2	489,105	4,964,921	12.5	430,550	4,460,469
2025	3,556,345	10.9	387,642	3,946,613	14.2	505,001	4,974,401	12.5	444,543	4,468,986

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
2016	\$ 2,666,819	15.5%	\$413,357	\$ 4,978,328	17.6%	\$469,360	\$ 5,567,187	18.5%	\$493,361	\$ 5,809,478
2017	2,753,490	15.5	426,791	5,046,530	17.6	484,614	5,643,457	18.5	509,396	5,889,067
2018	2,842,978	15.5	440,662	5,110,164	17.6	500,364	5,714,617	18.5	525,951	5,963,324
2019	2,935,375	15.5	454,983	5,168,588	17.6	516,626	5,779,952	18.5	543,044	6,031,502
2020	3,030,775	15.5	469,770	5,221,106	17.6	533,416	5,838,682	18.5	560,693	6,092,788
2021	3,129,275	15.5	485,038	5,266,960	17.6	550,752	5,889,959	18.5	578,916	6,146,297
2022	3,230,976	15.5	500,801	5,305,326	17.6	568,652	5,932,863	18.5	597,731	6,191,069
2023	3,335,983	15.5	517,077	5,335,310	17.6	587,133	5,966,394	18.5	617,157	6,226,059
2024	3,444,402	15.5	533,882	5,355,942	17.6	606,215	5,989,466	18.5	637,214	6,250,135
2025	3,556,345	15.5	551,233	5,366,169	17.6	625,917	6,000,903	18.5	657,924	6,262,069

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
2016	\$ 2,666,819	21.1%	\$562,699	\$ 6,518,825	21.5%	\$573,366	\$ 6,640,000	24.6%	\$656,037	\$ 7,469,774
2017	2,753,490	21.1	580,986	6,608,132	21.5	592,000	6,730,967	24.6	677,359	7,572,109
2018	2,842,978	21.1	599,868	6,691,456	21.5	611,240	6,815,840	24.6	699,373	7,667,589
2019	2,935,375	21.1	619,364	6,767,959	21.5	631,106	6,893,765	24.6	722,102	7,755,252
2020	3,030,775	21.1	639,494	6,836,728	21.5	651,617	6,963,812	24.6	745,571	7,834,052
2021	3,129,275	21.1	660,277	6,896,771	21.5	672,794	7,024,971	24.6	769,802	7,902,853
2022	3,230,976	21.1	681,736	6,947,009	21.5	694,660	7,076,143	24.6	794,820	7,960,420
2023	3,335,983	21.1	703,892	6,986,271	21.5	717,236	7,116,135	24.6	820,652	8,005,410
2024	3,444,402	21.1	726,769	7,013,287	21.5	740,546	7,143,653	24.6	847,323	8,036,367
2025	3,556,345	21.1	750,389	7,026,679	21.5	764,614	7,157,294	24.6	874,861	8,051,712

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 28<sup>th</sup> 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.

Duckett Creek Sanitary District - General

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
2016	\$ 2,666,819	11.3%	\$301,351	\$ 3,791,778	14.9%	\$397,356	\$ 4,777,396	13.0%	\$346,686	\$ 4,293,312
2017	2,753,490	11.3	311,144	3,843,725	14.9	410,270	4,842,846	13.0	357,954	4,352,130
2018	2,842,978	11.3	321,257	3,892,192	14.9	423,604	4,903,911	13.0	369,587	4,407,008
2019	2,935,375	11.3	331,697	3,936,691	14.9	437,371	4,959,977	13.0	381,599	4,457,393
2020	3,030,775	11.3	342,478	3,976,691	14.9	451,585	5,010,375	13.0	394,001	4,502,684
2021	3,129,275	11.3	353,608	4,011,616	14.9	466,262	5,054,378	13.0	406,806	4,542,228
2022	3,230,976	11.3	365,100	4,040,838	14.9	481,415	5,091,196	13.0	420,027	4,575,315
2023	3,335,983	11.3	376,966	4,063,676	14.9	497,061	5,119,970	13.0	433,678	4,601,173
2024	3,444,402	11.3	389,217	4,079,390	14.9	513,216	5,139,769	13.0	447,772	4,618,966
2025	3,556,345	11.3	401,867	4,087,179	14.9	529,895	5,149,583	13.0	462,325	4,627,786

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
2016	\$ 2,666,819	16.2%	\$432,025	\$ 5,153,589	18.3%	\$488,028	\$ 5,762,052	19.2%	\$512,029	\$ 6,012,827
2017	2,753,490	16.2	446,065	5,224,192	18.3	503,889	5,840,991	19.2	528,670	6,095,202
2018	2,842,978	16.2	460,562	5,290,066	18.3	520,265	5,914,642	19.2	545,852	6,172,059
2019	2,935,375	16.2	475,531	5,350,547	18.3	537,174	5,982,264	19.2	563,592	6,242,624
2020	3,030,775	16.2	490,986	5,404,913	18.3	554,632	6,043,049	19.2	581,909	6,306,055
2021	3,129,275	16.2	506,943	5,452,381	18.3	572,657	6,096,121	19.2	600,821	6,361,437
2022	3,230,976	16.2	523,418	5,492,098	18.3	591,269	6,140,527	19.2	620,347	6,407,776
2023	3,335,983	16.2	540,429	5,523,138	18.3	610,485	6,175,231	19.2	640,509	6,443,991
2024	3,444,402	16.2	557,993	5,544,496	18.3	630,326	6,199,111	19.2	661,325	6,468,910
2025	3,556,345	16.2	576,128	5,555,083	18.3	650,811	6,210,948	19.2	682,818	6,481,262

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
2016	\$ 2,666,819	21.9%	\$584,033	\$ 6,745,996	22.3%	\$594,701	\$ 6,871,388	25.5%	\$680,039	\$ 7,729,013
2017	2,753,490	21.9	603,014	6,838,415	22.3	614,028	6,965,525	25.5	702,140	7,834,899
2018	2,842,978	21.9	622,612	6,924,643	22.3	633,984	7,053,356	25.5	724,959	7,933,692
2019	2,935,375	21.9	642,847	7,003,812	22.3	654,589	7,133,997	25.5	748,521	8,024,397
2020	3,030,775	21.9	663,740	7,074,977	22.3	675,863	7,206,485	25.5	772,848	8,105,932
2021	3,129,275	21.9	685,311	7,137,112	22.3	697,828	7,269,775	25.5	797,965	8,177,121
2022	3,230,976	21.9	707,584	7,189,101	22.3	720,508	7,322,731	25.5	823,899	8,236,686
2023	3,335,983	21.9	730,580	7,229,731	22.3	743,924	7,364,117	25.5	850,676	8,283,237
2024	3,444,402	21.9	754,324	7,257,689	22.3	768,102	7,392,594	25.5	878,323	8,315,269
2025	3,556,345	21.9	778,840	7,271,547	22.3	793,065	7,406,710	25.5	906,868	8,331,147

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 28<sup>th</sup> 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.

Duckett Creek Sanitary District - General

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
2016	\$ 2,666,819	14.6%	\$389,356	\$ 3,810,156	18.1%	\$482,694	\$ 4,762,552	16.3%	\$434,691	\$ 4,290,577
2017	2,753,490	14.6	402,010	3,862,355	18.1	498,382	4,827,798	16.3	448,819	4,349,357
2018	2,842,978	14.6	415,075	3,911,057	18.1	514,579	4,888,673	16.3	463,405	4,404,200
2019	2,935,375	14.6	428,565	3,955,772	18.1	531,303	4,944,565	16.3	478,466	4,454,553
2020	3,030,775	14.6	442,493	3,995,966	18.1	548,570	4,994,806	16.3	494,016	4,499,815
2021	3,129,275	14.6	456,874	4,031,060	18.1	566,399	5,038,672	16.3	510,072	4,539,334
2022	3,230,976	14.6	471,722	4,060,424	18.1	584,807	5,075,375	16.3	526,649	4,572,400
2023	3,335,983	14.6	487,054	4,083,372	18.1	603,813	5,104,059	16.3	543,765	4,598,242
2024	3,444,402	14.6	502,883	4,099,163	18.1	623,437	5,123,797	16.3	561,438	4,616,024
2025	3,556,345	14.6	519,226	4,106,990	18.1	643,698	5,133,581	16.3	579,684	4,624,838

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
2016	\$ 2,666,819	19.4%	\$517,363	\$ 5,122,868	21.5%	\$573,366	\$ 5,715,105	22.4%	\$597,367	\$ 5,955,304
2017	2,753,490	19.4	534,177	5,193,051	21.5	592,000	5,793,401	22.4	616,782	6,036,891
2018	2,842,978	19.4	551,538	5,258,532	21.5	611,240	5,866,452	22.4	636,827	6,113,012
2019	2,935,375	19.4	569,463	5,318,652	21.5	631,106	5,933,523	22.4	657,524	6,182,902
2020	3,030,775	19.4	587,970	5,372,694	21.5	651,617	5,993,813	22.4	678,894	6,245,726
2021	3,129,275	19.4	607,079	5,419,879	21.5	672,794	6,046,453	22.4	700,958	6,300,578
2022	3,230,976	19.4	626,809	5,459,359	21.5	694,660	6,090,497	22.4	723,739	6,346,474
2023	3,335,983	19.4	647,181	5,490,214	21.5	717,236	6,124,919	22.4	747,260	6,382,342
2024	3,444,402	19.4	668,214	5,511,445	21.5	740,546	6,148,604	22.4	771,546	6,407,023
2025	3,556,345	19.4	689,931	5,521,969	21.5	764,614	6,160,345	22.4	796,621	6,419,257

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
2016	\$ 2,666,819	25.0%	\$666,705	\$ 6,667,547	25.4%	\$677,372	\$ 6,787,625	28.5%	\$760,043	\$ 7,620,087
2017	2,753,490	25.0	688,373	6,758,891	25.4	699,386	6,880,614	28.5	784,745	7,724,481
2018	2,842,978	25.0	710,745	6,844,116	25.4	722,116	6,967,374	28.5	810,249	7,821,882
2019	2,935,375	25.0	733,844	6,922,364	25.4	745,585	7,047,032	28.5	836,582	7,911,309
2020	3,030,775	25.0	757,694	6,992,702	25.4	769,817	7,118,636	28.5	863,771	7,991,695
2021	3,129,275	25.0	782,319	7,054,114	25.4	794,836	7,181,154	28.5	891,843	8,061,881
2022	3,230,976	25.0	807,744	7,105,499	25.4	820,668	7,233,464	28.5	920,828	8,120,606
2023	3,335,983	25.0	833,996	7,145,657	25.4	847,340	7,274,345	28.5	950,755	8,166,501
2024	3,444,402	25.0	861,101	7,173,290	25.4	874,878	7,302,475	28.5	981,655	8,198,081
2025	3,556,345	25.0	889,086	7,186,987	25.4	903,312	7,316,419	28.5	1,013,558	8,213,735

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 28<sup>th</sup> 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.

Duckett Creek Sanitary District - General

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
2016	\$ 2,666,819	15.1%	\$402,690	\$ 3,939,951	18.7%	\$498,695	\$ 4,924,887	16.8%	\$448,026	\$ 4,437,190
2017	2,753,490	15.1	415,777	3,993,928	18.7	514,903	4,992,357	16.8	462,586	4,497,979
2018	2,842,978	15.1	429,290	4,044,289	18.7	531,637	5,055,307	16.8	477,620	4,554,696
2019	2,935,375	15.1	443,242	4,090,527	18.7	548,915	5,113,104	16.8	493,143	4,606,770
2020	3,030,775	15.1	457,647	4,132,090	18.7	566,755	5,165,058	16.8	509,170	4,653,579
2021	3,129,275	15.1	472,521	4,168,379	18.7	585,174	5,210,419	16.8	525,718	4,694,448
2022	3,230,976	15.1	487,877	4,198,743	18.7	604,193	5,248,373	16.8	542,804	4,728,644
2023	3,335,983	15.1	503,733	4,222,473	18.7	623,829	5,278,035	16.8	560,445	4,755,369
2024	3,444,402	15.1	520,105	4,238,801	18.7	644,103	5,298,445	16.8	578,660	4,773,758
2025	3,556,345	15.1	537,008	4,246,895	18.7	665,037	5,308,562	16.8	597,466	4,782,873

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
2016	\$ 2,666,819	20.0%	\$533,364	\$ 5,297,777	22.2%	\$592,034	\$ 5,909,930	23.1%	\$616,035	\$ 6,158,571
2017	2,753,490	20.0	550,698	5,370,356	22.2	611,275	5,990,895	23.1	636,056	6,242,942
2018	2,842,978	20.0	568,596	5,438,073	22.2	631,141	6,066,436	23.1	656,728	6,321,662
2019	2,935,375	20.0	587,075	5,500,246	22.2	651,653	6,135,793	23.1	678,072	6,393,937
2020	3,030,775	20.0	606,155	5,556,134	22.2	672,832	6,198,138	23.1	700,109	6,458,905
2021	3,129,275	20.0	625,855	5,604,930	22.2	694,699	6,252,572	23.1	722,863	6,515,629
2022	3,230,976	20.0	646,195	5,645,758	22.2	717,277	6,298,118	23.1	746,355	6,563,091
2023	3,335,983	20.0	667,197	5,677,666	22.2	740,588	6,333,713	23.1	770,612	6,600,183
2024	3,444,402	20.0	688,880	5,699,622	22.2	764,657	6,358,206	23.1	795,657	6,625,706
2025	3,556,345	20.0	711,269	5,710,505	22.2	789,509	6,370,347	23.1	821,516	6,638,358

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
2016	\$ 2,666,819	25.8%	\$688,039	\$ 6,894,831	26.2%	\$698,706	\$ 7,019,160	29.4%	\$784,045	\$ 7,879,765
2017	2,753,490	25.8	710,400	6,989,289	26.2	721,414	7,115,321	29.4	809,526	7,987,717
2018	2,842,978	25.8	733,488	7,077,420	26.2	744,860	7,205,041	29.4	835,836	8,088,437
2019	2,935,375	25.8	757,327	7,158,336	26.2	769,068	7,287,416	29.4	863,000	8,180,912
2020	3,030,775	25.8	781,940	7,231,071	26.2	794,063	7,361,463	29.4	891,048	8,264,038
2021	3,129,275	25.8	807,353	7,294,577	26.2	819,870	7,426,114	29.4	920,007	8,336,616
2022	3,230,976	25.8	833,592	7,347,713	26.2	846,516	7,480,208	29.4	949,907	8,397,343
2023	3,335,983	25.8	860,684	7,389,240	26.2	874,028	7,522,484	29.4	980,779	8,444,802
2024	3,444,402	25.8	888,656	7,417,815	26.2	902,433	7,551,574	29.4	1,012,654	8,477,458
2025	3,556,345	25.8	917,537	7,431,979	26.2	931,762	7,565,994	29.4	1,045,565	8,493,645

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 28<sup>th</sup> 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.

Duckett Creek Sanitary District - General

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
2016	\$ 2,666,819	12.3%	\$328,019	\$ 4,084,852	16.1%	\$429,358	\$ 5,139,934	15.7%	\$418,691	\$ 5,037,521
2017	2,753,490	12.3	338,679	4,140,814	16.1	443,312	5,210,350	15.7	432,298	5,106,534
2018	2,842,978	12.3	349,686	4,193,027	16.1	457,719	5,276,049	15.7	446,348	5,170,924
2019	2,935,375	12.3	361,051	4,240,966	16.1	472,595	5,336,370	15.7	460,854	5,230,043
2020	3,030,775	12.3	372,785	4,284,058	16.1	487,955	5,390,592	15.7	475,832	5,283,185
2021	3,129,275	12.3	384,901	4,321,682	16.1	503,813	5,437,934	15.7	491,296	5,329,584
2022	3,230,976	12.3	397,410	4,353,163	16.1	520,187	5,477,546	15.7	507,263	5,368,407
2023	3,335,983	12.3	410,326	4,377,766	16.1	537,093	5,508,503	15.7	523,749	5,398,747
2024	3,444,402	12.3	423,661	4,394,695	16.1	554,549	5,529,805	15.7	540,771	5,419,624
2025	3,556,345	12.3	437,430	4,403,087	16.1	572,572	5,540,364	15.7	558,346	5,429,973

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
2016	\$ 2,666,819	18.7%	\$498,695	\$ 5,854,432	19.8%	\$528,030	\$ 6,193,949	21.4%	\$570,699	\$ 6,670,247
2017	2,753,490	18.7	514,903	5,934,637	19.8	545,191	6,278,805	21.4	589,247	6,761,628
2018	2,842,978	18.7	531,637	6,009,469	19.8	562,910	6,357,977	21.4	608,397	6,846,888
2019	2,935,375	18.7	548,915	6,078,175	19.8	581,204	6,430,667	21.4	628,170	6,925,168
2020	3,030,775	18.7	566,755	6,139,935	19.8	600,093	6,496,008	21.4	648,586	6,995,534
2021	3,129,275	18.7	585,174	6,193,858	19.8	619,596	6,553,058	21.4	669,665	7,056,971
2022	3,230,976	18.7	604,193	6,238,976	19.8	639,733	6,600,793	21.4	691,429	7,108,376
2023	3,335,983	18.7	623,829	6,274,237	19.8	660,525	6,638,099	21.4	713,900	7,148,550
2024	3,444,402	18.7	644,103	6,298,500	19.8	681,992	6,663,769	21.4	737,102	7,176,194
2025	3,556,345	18.7	665,037	6,310,527	19.8	704,156	6,676,493	21.4	761,058	7,189,897

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
2016	\$ 2,666,819	23.6%	\$629,369	\$ 7,247,257	24.4%	\$650,704	\$ 7,485,437	27.5%	\$733,375	\$ 8,300,187
2017	2,753,490	23.6	649,824	7,346,543	24.4	671,852	7,587,986	27.5	757,210	8,413,898
2018	2,842,978	23.6	670,943	7,439,178	24.4	693,687	7,683,666	27.5	781,819	8,519,992
2019	2,935,375	23.6	692,749	7,524,230	24.4	716,232	7,771,513	27.5	807,228	8,617,401
2020	3,030,775	23.6	715,263	7,600,683	24.4	739,509	7,850,479	27.5	833,463	8,704,962
2021	3,129,275	23.6	738,509	7,667,435	24.4	763,543	7,919,425	27.5	860,551	8,781,412
2022	3,230,976	23.6	762,510	7,723,287	24.4	788,358	7,977,113	27.5	888,518	8,845,379
2023	3,335,983	23.6	787,292	7,766,937	24.4	813,980	8,022,197	27.5	917,395	8,895,370
2024	3,444,402	23.6	812,879	7,796,972	24.4	840,434	8,053,219	27.5	947,211	8,929,769
2025	3,556,345	23.6	839,297	7,811,860	24.4	867,748	8,068,596	27.5	977,995	8,946,820

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 28<sup>th</sup> 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.

Duckett Creek Sanitary District - General

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
2016	\$ 2,666,819	12.8%	\$341,353	\$ 4,231,782	16.7%	\$445,359	\$ 5,323,332	16.3%	\$434,691	\$ 5,218,422
2017	2,753,490	12.8	352,447	4,289,757	16.7	459,833	5,396,261	16.3	448,819	5,289,914
2018	2,842,978	12.8	363,901	4,343,848	16.7	474,777	5,464,304	16.3	463,405	5,356,616
2019	2,935,375	12.8	375,728	4,393,511	16.7	490,208	5,526,777	16.3	478,466	5,417,858
2020	3,030,775	12.8	387,939	4,438,153	16.7	506,139	5,582,934	16.3	494,016	5,472,908
2021	3,129,275	12.8	400,547	4,477,130	16.7	522,589	5,631,965	16.3	510,072	5,520,973
2022	3,230,976	12.8	413,565	4,509,743	16.7	539,573	5,672,990	16.3	526,649	5,561,190
2023	3,335,983	12.8	427,006	4,535,231	16.7	557,109	5,705,052	16.3	543,765	5,592,620
2024	3,444,402	12.8	440,883	4,552,769	16.7	575,215	5,727,114	16.3	561,438	5,614,247
2025	3,556,345	12.8	455,212	4,561,462	16.7	593,910	5,738,050	16.3	579,684	5,624,967

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
2016	\$ 2,666,819	19.3%	\$514,696	\$ 6,063,324	20.6%	\$549,365	\$ 6,413,745	22.3%	\$594,701	\$ 6,907,068
2017	2,753,490	19.3	531,424	6,146,391	20.6	567,219	6,501,612	22.3	614,028	7,001,694
2018	2,842,978	19.3	548,695	6,223,893	20.6	585,653	6,583,593	22.3	633,984	7,089,981
2019	2,935,375	19.3	566,527	6,295,050	20.6	604,687	6,658,863	22.3	654,589	7,171,040
2020	3,030,775	19.3	584,940	6,359,013	20.6	624,340	6,726,523	22.3	675,863	7,243,904
2021	3,129,275	19.3	603,950	6,414,860	20.6	644,631	6,785,598	22.3	697,828	7,307,523
2022	3,230,976	19.3	623,578	6,461,588	20.6	665,581	6,835,027	22.3	720,508	7,360,753
2023	3,335,983	19.3	643,845	6,498,107	20.6	687,212	6,873,656	22.3	743,924	7,402,354
2024	3,444,402	19.3	664,770	6,523,235	20.6	709,547	6,900,237	22.3	768,102	7,430,979
2025	3,556,345	19.3	686,375	6,535,691	20.6	732,607	6,913,413	22.3	793,065	7,445,168

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
2016	\$ 2,666,819	24.5%	\$653,371	\$ 7,503,666	25.4%	\$677,372	\$ 7,750,277	28.5%	\$760,043	\$ 8,592,788
2017	2,753,490	24.5	674,605	7,606,465	25.4	699,386	7,856,455	28.5	784,745	8,710,508
2018	2,842,978	24.5	696,530	7,702,378	25.4	722,116	7,955,520	28.5	810,249	8,820,342
2019	2,935,375	24.5	719,167	7,790,439	25.4	745,585	8,046,475	28.5	836,582	8,921,184
2020	3,030,775	24.5	742,540	7,869,597	25.4	769,817	8,128,235	28.5	863,771	9,011,831
2021	3,129,275	24.5	766,672	7,938,711	25.4	794,836	8,199,620	28.5	891,843	9,090,976
2022	3,230,976	24.5	791,589	7,996,539	25.4	820,668	8,259,349	28.5	920,828	9,157,198
2023	3,335,983	24.5	817,316	8,041,733	25.4	847,340	8,306,028	28.5	950,755	9,208,952
2024	3,444,402	24.5	843,878	8,072,831	25.4	874,878	8,338,148	28.5	981,655	9,244,563
2025	3,556,345	24.5	871,305	8,088,246	25.4	903,312	8,354,069	28.5	1,013,558	9,262,215

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 28<sup>th</sup> 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.

Duckett Creek Sanitary District - General

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
2016	\$ 2,666,819	16.1%	\$429,358	\$ 4,218,701	19.9%	\$530,697	\$ 5,273,311	19.4%	\$517,363	\$ 5,165,656
2017	2,753,490	16.1	443,312	4,276,497	19.9	547,945	5,345,555	19.4	534,177	5,236,425
2018	2,842,978	16.1	457,719	4,330,421	19.9	565,753	5,412,959	19.4	551,538	5,302,453
2019	2,935,375	16.1	472,595	4,379,930	19.9	584,140	5,474,845	19.4	569,463	5,363,076
2020	3,030,775	16.1	487,955	4,424,434	19.9	603,124	5,530,474	19.4	587,970	5,417,570
2021	3,129,275	16.1	503,813	4,463,291	19.9	622,726	5,579,045	19.4	607,079	5,465,149
2022	3,230,976	16.1	520,187	4,495,803	19.9	642,964	5,619,685	19.4	626,809	5,504,959
2023	3,335,983	16.1	537,093	4,521,212	19.9	663,861	5,651,446	19.4	647,181	5,536,071
2024	3,444,402	16.1	554,549	4,538,696	19.9	685,436	5,673,300	19.4	668,214	5,557,479
2025	3,556,345	16.1	572,572	4,547,363	19.9	707,713	5,684,133	19.4	689,931	5,568,091

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
2016	\$ 2,666,819	22.4%	\$597,367	\$ 5,983,555	23.7%	\$632,036	\$ 6,327,954	25.3%	\$674,705	\$ 6,801,471
2017	2,753,490	22.4	616,782	6,065,529	23.7	652,577	6,414,646	25.3	696,633	6,894,650
2018	2,842,978	22.4	636,827	6,142,011	23.7	673,786	6,495,531	25.3	719,273	6,981,587
2019	2,935,375	22.4	657,524	6,212,232	23.7	695,684	6,569,794	25.3	742,650	7,061,407
2020	3,030,775	22.4	678,894	6,275,354	23.7	718,294	6,636,549	25.3	766,786	7,133,157
2021	3,129,275	22.4	700,958	6,330,466	23.7	741,638	6,694,834	25.3	791,707	7,195,803
2022	3,230,976	22.4	723,739	6,376,579	23.7	765,741	6,743,601	25.3	817,437	7,248,220
2023	3,335,983	22.4	747,260	6,412,617	23.7	790,628	6,781,714	25.3	844,004	7,289,185
2024	3,444,402	22.4	771,546	6,437,415	23.7	816,323	6,807,939	25.3	871,434	7,317,373
2025	3,556,345	22.4	796,621	6,449,707	23.7	842,854	6,820,939	25.3	899,755	7,331,345

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
2016	\$ 2,666,819	27.5%	\$733,375	\$ 7,382,643	28.3%	\$754,710	\$ 7,619,370	31.4%	\$837,381	\$ 8,437,244
2017	2,753,490	27.5	757,210	7,483,784	28.3	779,238	7,723,754	31.4	864,596	8,552,833
2018	2,842,978	27.5	781,819	7,578,150	28.3	804,563	7,821,146	31.4	892,695	8,660,679
2019	2,935,375	27.5	807,228	7,664,791	28.3	830,711	7,910,565	31.4	921,708	8,759,696
2020	3,030,775	27.5	833,463	7,742,672	28.3	857,709	7,990,944	31.4	951,663	8,848,702
2021	3,129,275	27.5	860,551	7,810,671	28.3	885,585	8,061,123	31.4	982,592	8,926,414
2022	3,230,976	27.5	888,518	7,867,567	28.3	914,366	8,119,843	31.4	1,014,526	8,991,437
2023	3,335,983	27.5	917,395	7,912,032	28.3	944,083	8,165,734	31.4	1,047,499	9,042,254
2024	3,444,402	27.5	947,211	7,942,628	28.3	974,766	8,197,311	31.4	1,081,542	9,077,221
2025	3,556,345	27.5	977,995	7,957,794	28.3	1,006,446	8,212,964	31.4	1,116,692	9,094,554

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 28<sup>th</sup> 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.

Duckett Creek Sanitary District - General

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
2016	\$ 2,666,819	16.6%	\$442,692	\$ 4,365,307	20.5%	\$546,698	\$ 5,456,647	20.1%	\$536,031	\$ 5,346,082
2017	2,753,490	16.6	457,079	4,425,111	20.5	564,465	5,531,402	20.1	553,451	5,419,323
2018	2,842,978	16.6	471,934	4,480,909	20.5	582,810	5,601,149	20.1	571,439	5,487,657
2019	2,935,375	16.6	487,272	4,532,139	20.5	601,752	5,665,187	20.1	590,010	5,550,397
2020	3,030,775	16.6	503,109	4,578,190	20.5	621,309	5,722,750	20.1	609,186	5,606,794
2021	3,129,275	16.6	519,460	4,618,397	20.5	641,501	5,773,009	20.1	628,984	5,656,035
2022	3,230,976	16.6	536,342	4,652,039	20.5	662,350	5,815,062	20.1	649,426	5,697,235
2023	3,335,983	16.6	553,773	4,678,331	20.5	683,877	5,847,927	20.1	670,533	5,729,434
2024	3,444,402	16.6	571,771	4,696,422	20.5	706,102	5,870,541	20.1	692,325	5,751,590
2025	3,556,345	16.6	590,353	4,705,390	20.5	729,051	5,881,751	20.1	714,825	5,762,573

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
2016	\$ 2,666,819	23.2%	\$618,702	\$ 6,192,207	24.4%	\$650,704	\$ 6,547,908	26.2%	\$698,706	\$ 7,038,258
2017	2,753,490	23.2	638,810	6,277,039	24.4	671,852	6,637,613	26.2	721,414	7,134,681
2018	2,842,978	23.2	659,571	6,356,188	24.4	693,687	6,721,309	26.2	744,860	7,224,645
2019	2,935,375	23.2	681,007	6,428,858	24.4	716,232	6,798,153	26.2	769,068	7,307,244
2020	3,030,775	23.2	703,140	6,494,181	24.4	739,509	6,867,228	26.2	794,063	7,381,492
2021	3,129,275	23.2	725,992	6,551,215	24.4	763,543	6,927,538	26.2	819,870	7,446,319
2022	3,230,976	23.2	749,586	6,598,936	24.4	788,358	6,978,001	26.2	846,516	7,500,561
2023	3,335,983	23.2	773,948	6,636,231	24.4	813,980	7,017,438	26.2	874,028	7,542,952
2024	3,444,402	23.2	799,101	6,661,894	24.4	840,434	7,044,575	26.2	902,433	7,572,121
2025	3,556,345	23.2	825,072	6,674,615	24.4	867,748	7,058,026	26.2	931,762	7,586,580

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
2016	\$ 2,666,819	28.4%	\$757,376	\$ 7,639,190	29.3%	\$781,378	\$ 7,884,410	32.4%	\$864,049	\$ 8,730,530
2017	2,753,490	28.4	781,991	7,743,846	29.3	806,773	7,992,425	32.4	892,131	8,850,137
2018	2,842,978	28.4	807,406	7,841,491	29.3	832,993	8,093,204	32.4	921,125	8,961,732
2019	2,935,375	28.4	833,647	7,931,142	29.3	860,065	8,185,733	32.4	951,062	9,064,191
2020	3,030,775	28.4	860,740	8,011,730	29.3	888,017	8,268,908	32.4	981,971	9,156,291
2021	3,129,275	28.4	888,714	8,082,092	29.3	916,878	8,341,528	32.4	1,013,885	9,236,705
2022	3,230,976	28.4	917,597	8,140,965	29.3	946,676	8,402,291	32.4	1,046,836	9,303,988
2023	3,335,983	28.4	947,419	8,186,975	29.3	977,443	8,449,778	32.4	1,080,858	9,356,571
2024	3,444,402	28.4	978,210	8,218,634	29.3	1,009,210	8,482,454	32.4	1,115,986	9,392,753
2025	3,556,345	28.4	1,010,002	8,234,327	29.3	1,042,009	8,498,651	32.4	1,152,256	9,410,688

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 28<sup>th</sup> 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.