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**OGEMAW COUNTY ROAD COMMISSION  
ACTUARIAL VALUATION OF RETIREE MEDICAL BENEFITS**

**GASB 74 and 75 DISCLOSURE  
Fiscal Year Ending: September 30, 2019**

**Prepared by**

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## Certification

Actuarial computations presented in this report under Statements No. 74 and 75 of the Governmental Accounting Standards Board are for purposes of assisting the Commission in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for the fiscal year ending September 30, 2019. The reporting date for determining plan assets and obligations is September 30, 2019. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of September 30, 2019 furnished by the Commission. This information includes, but is not limited to, statutory provisions, member census data, and financial information. The membership as of September 30, 2019 includes 26 active participants and 7 retirees.

We performed a limited review of the census and financial information used directly in our analysis and have found them to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Code of Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Each of the assumptions used in this valuation with the exception of those set by law was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

This valuation report is only an estimate of the plan's financial condition as of a single date. It can neither predict the plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of plan benefits, only the timing of plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

As an entity that qualifies to use the Alternative Measurement Method (AMM), the calculation of the Total OPEB Liability and OPEB Expense may be completed without a traditional Actuarial Valuation. The AMM calculation process is similar to an actuarial valuations, but with simplification of several assumptions permitted under GASB guidelines. The calculations in the enclosed exhibits have been made on a basis consistent with the Alternative Measurement Method.

## Certification

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

Milliman's work is prepared solely for the internal use and benefit of the Ogemaw County Road Commission. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Fund; and (b) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

This report and its use are subject to the terms of our Consulting Services Agreement with the Ogemaw County Road Commission dated January 10, 2018.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. I am a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



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John M. Chmielewski, FSA, EA, MAAA  
Principal and Consulting Actuary

## Overview of GASB 74 and GASB 75

The Governmental Accounting Standards Board (GASB) released new accounting standards for public postemployment benefit plans other than pension (OPEB) and participating employers in 2015. These standards, GASB Statements No. 74 and 75, have substantially revised the accounting requirements previously mandated under GASB Statements No. 43 and 45. The most notable change is that the Annual Required Contribution (ARC) has been eliminated and the Net OPEB Liability will be an item on the employer's financial statement rather than a footnote entry.

GASB 74 applies to financial reporting for public OPEB plans and is required to be implemented for plan fiscal years beginning after June 15, 2016. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a trust fund of a government, it is subject to GASB 74. Under GASB 74, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 75 governs the specifics of accounting for public OPEB plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2017. GASB 75 requires a liability for OPEB obligations, known as the Net OPEB Liability (Total OPEB Liability for unfunded plans), to be recognized on the balance sheets of participating employers. Changes in the Net OPEB Liability (Total OPEB Liability for unfunded plans) will be immediately recognized as OPEB Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

## **Executive Summary**

### **Relationship Between Valuation Date, Measurement Date, and Reporting Date**

The Valuation Date is September 30, 2019. This is the date as of which the actuarial valuation is performed. The Measurement Date is September 30, 2019. This is the date as of which the total OPEB liability is determined. The Reporting Date is September 30, 2019. This is the plan's and/or employer's fiscal year ending date.

### **Significant Changes**

There have been no significant changes between the valuation date and fiscal year end.

## Actuarially Determined Contribution Using Uniform Actuarial Assumptions

The State of Michigan released Uniform Actuarial Assumptions that must be used in reporting liabilities for public Retiree Health Care plans. The only assumption that was adjusted from the assumptions used for the rest of this report to be compliant with these provisions was the trend. The following exhibit provides the detailed calculation of the Actuarially Determined Contribution for the September 30, 2019 plan year using those assumptions.

**September 30, 2019**

<b>Normal Cost</b>		\$9,693
<b>Unfunded Actuarial Accrued Liability</b>		
Actuarial Accrued Liability		643,872
Assets		<u>26,793</u>
Unfunded Actuarial Accrued Liability		617,079
<b>Amortization</b>		
Period (years)		30
Amount		41,265
<b>Interest to September 30, 2019</b>		2,930
<b>Actuarially Determined Contribution</b>		<u><u>\$53,888</u></u>
Sum of Normal Cost and Amortization		

FYE	Expected net retiree medical benefit payment
2020	47,542
2021	43,885
2022	40,079
2023	45,228
2024	51,172
2025	57,864
2026	55,088
2027	51,218
2028	49,549
2029	38,609

**Amortization Method: 30 Year Open Amortization Period as a Level Percent of Pay**

## Statement of Fiduciary Net Position

September 30, 2019

**Assets**

Cash and cash equivalents	\$277
Receivables and prepaid items:	
Receivable contributions	0
Receivable investment income	0
Receivables from brokers for unsettled trades	0
Prepaid items	0
Total receivables and prepaid items	0
Investments:	
Fixed income	19,124
Stocks	34,135
Short-term investments	0
Real estate	0
Alternative investments	0
Total investments	53,259
Invested securities lending cash collateral	0
Capital assets net of accumulated depreciation	0
Total assets	53,536
Securities lending cash collateral	0
Payable to brokers for unsettled trades	0
Total liabilities	0
<b>Net position restricted for postemployment benefits other than pensions</b>	<b>\$53,536</b>



## Statement of Changes in Fiduciary Net Position

September 30, 2019

### Additions

Member contributions	\$0
Employer contributions	65,078
Miscellaneous revenue	0
Total contributions	65,078
Investment income (loss):	
Interest	0
Dividends	0
Equity fund income, net	0
Net increase in fair value of investments	1,743
Securities lending income	0
Less investment expenses:	
Direct investment expense	0
Securities lending management fees	0
Securities lending borrower rebates	0
Net investment income	1,743
Other income	0
Total additions	66,821

### Deductions

Service Benefits	40,078
Disability Benefits	N/A
Death benefits	N/A
Refunds of member contributions	N/A
Administrative expenses	0
Total deductions	40,078
Net increase	26,743

### Net position restricted for postemployment benefits other than pensions

Beginning of year (September 30, 2018)	26,793
End of year (September 30, 2019)	\$53,536

## Money-Weighted Rate of Return

Fiscal Year Ending September 30	Net Money-Weighted Rate of Return
2010	N/A
2011	N/A
2012	N/A
2013	N/A
2014	N/A
2015	N/A
2016	N/A
2017	13.03%
2018	7.63%
2019	3.50%

### Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods	Period	Net External Cash Flows With Interest
Ending Value - September 30, 2018	\$26,793	12.00	1.00	27,731
Monthly net external cash flows:				
October	0	12.00	1.00	0
November	25,000	11.00	0.92	25,805
December	0	10.00	0.83	0
January	0	9.00	0.75	0
February	0	8.00	0.67	0
March	0	7.00	0.58	0
April	0	6.00	0.50	0
May	0	5.00	0.42	0
June	0	4.00	0.33	0
July	0	3.00	0.25	0
August	0	2.00	0.17	0
September	0	1.00	0.08	0
Ending Value - September 30, 2019				53,536
Money-Weighted Rate of Return	3.50%			

## Long-Term Expected Rate of Return

The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman's investment consulting practice as of September 30, 2019.

Asset Class	Index	Actual Allocation	Long-Term Expected Arithmetic Real Rate of Return	Long-Term Expected Geometric Real Rate of Return
US Cash	BAML 3-Mon Tbill	0.52%	0.71%	0.71%
US Core Bonds	Bloomberg Barclays Gvt/Credit	35.72%	1.82%	1.70%
US Large Caps	S&P 500	18.61%	4.44%	3.33%
US Small & Mid Caps	Russell 2500	7.77%	5.49%	3.82%
US Large Value	Russell 1000 Value	9.14%	4.47%	3.38%
US Growth	Russell 3000 Growth	5.00%	5.10%	3.57%
Global Equity	MSCI ACWI NR	23.24%	5.38%	4.11%

**Long-Term Expected Rate of Return**

**5.75%**

## Depletion Date Projection

GASB 74 and 75 generally require that a blended discount rate be used to measure the Total OPEB Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year tax-exempt municipal bond yield or index rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 74 and 75 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB 74 and 75 (paragraph 29) do allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the Ogemaw County Road Commission:

- The Commission intends to contribute \$25,000 per year to the fund, in addition to the pay-as-you-go retiree medical benefits.

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 74 and 75 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses

## Net OPEB Liability

Net OPEB Liability	<u>September 30, 2018</u>	<u>September 30, 2019</u>
Total OPEB liability	\$470,806	\$470,012
Fiduciary net position	26,793	53,536
Net OPEB liability	444,013	416,476
Fiduciary net position as a % of total OPEB liability	5.69%	11.39%
Covered payroll	N/A	N/A
Net OPEB liability as a % of covered payroll	N/A	N/A

The total OPEB liability was determined by an actuarial valuation as of the measurement date, calculated based on the discount rate and actuarial assumptions below.

### Discount Rate

Discount rate	4.18%	5.75%
Long-term expected rate of return, net of investment exp	5.75%	5.75%
Municipal bond rate	4.18%	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total OPEB liability is equal to the long-term expected rate of return.

Valuation date	September 30, 2017	September 30, 2019
Measurement date	September 30, 2018	September 30, 2019
Actuarial cost method	Entry Age Normal	Entry Age Normal
Salary increases including inflation	3.50%	3.50%
Mortality	RP-2014 Mortality Tables projected back to 2006 base year using Projection Scale MP-2014 with generational projection using Projection Scale MP- 2017	RP-2014 Mortality Tables projected back to 2006 base year using Projection Scale MP-2014 with generational projection using Projection Scale MP- 2019

## Changes in Net OPEB Liability

Changes in Net OPEB Liability	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
	(a)	(b)	(a) - (b)
Balances as of September 30, 2018	\$470,806	\$26,793	\$444,013
Changes for the year:			
Service cost	8,122		8,122
Interest on total OPEB liability	19,190		19,190
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	80,316		80,316
Effect of assumptions changes or inputs	(68,344)		(68,344)
Benefit payments	(40,078)	(40,078)	0
Employer contributions		65,078	(65,078)
Member contributions		0	0
Net investment income		1,743	(1,743)
Administrative expenses		0	0
Balances as of September 30, 2019	470,012	53,536	416,476

### Sensitivity Analysis

The following presents the net OPEB liability of the Commission, calculated using the discount rate of 5.75%, as well as what the Commission's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (4.75%) or 1 percentage point higher (6.75%) than the current rate.

	Current		
	1% Decrease	Discount Rate	1% Increase
	4.75%	5.75%	6.75%
Total OPEB liability	\$504,974	\$470,012	\$438,364
Fiduciary net position	53,536	53,536	53,536
Net OPEB liability	451,438	416,476	384,828

The following presents the net OPEB liability of the Commission, calculated using the current healthcare cost trend rates as well as what the Commission's net OPEB liability would be if it were calculated using trend rates that are 1 percentage point lower or 1 percentage point higher than the current trend rates.

	Current		
	1% Decrease	Trend Rate	1% Increase
Total OPEB liability	\$435,653	\$470,012	\$508,814
Fiduciary net position	53,536	53,536	53,536
Net OPEB liability	382,117	416,476	455,278

**Schedule of Changes in Net OPEB Liability and Related Ratios**  
(in 1,000s)

	Fiscal Year Ending September 30									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<b>Total OPEB Liability</b>										
Service cost	\$8	\$9	\$10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Interest on total OPEB liability	19	18	16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Changes of benefit terms	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Effect of economic/demographic (gains) or losses	80	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Effect of assumption changes or inputs	(68)	(20)	(23)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benefit payments	(40)	(41)	(21)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net change in total OPEB liability	(1)	(34)	(19)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total OPEB liability, beginning	471	505	523	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total OPEB liability, ending (a)	470	471	505	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Fiduciary Net Position</b>										
Employer contributions	\$65	\$41	\$21	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Member contributions	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net Investment income	2	2	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benefit payments	(40)	(41)	(21)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Administrative expenses	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net change in plan fiduciary net position	27	2	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fiduciary net position, beginning	27	25	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fiduciary net position, ending (b)	54	27	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net OPEB liability, ending = (a) - (b)	\$416	\$444	\$480	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fiduciary net position as a % of total OPEB liability	11.39%	5.69%	4.93%	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Covered payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Net OPEB liability as a % of covered payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

**Notes to Schedule:**

\* May not add due to rounding

## OPEB Expense

OPEB Expense	October 1, 2017 to September 30, 2018	October 1, 2018 to September 30, 2019
Service cost	\$8,817	\$8,122
Interest on total OPEB liability	17,956	19,190
Effect of plan changes	0	0
Administrative expenses	0	0
Member contributions	0	0
Expected investment return net of investment expenses	(1,431)	(2,249)
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	0	11,328
Recognition of assumption changes or inputs	(6,428)	(16,067)
Recognition of investment gains or losses	(415)	(314)
OPEB Expense	18,499	20,010

As of September 30, 2019, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	\$0	\$68,988
Changes of assumptions	(85,826)	0
Net difference between projected and actual earnings	(922)	405
Contributions made subsequent to measurement date	0	0
Total	(86,748)	69,393

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to other postemployment benefits will be recognized in OPEB expense as follows:

Year ended September 30:	
2020	(\$5,053)
2021	(5,052)
2022	(4,731)
2023	(3,802)
2024	(555)
Thereafter*	1,838

\* Note that additional future deferred inflows and outflows of resources may impact these numbers.



## Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Recognition Period*	Amount Recognized in 09/30/2019 Expense	Balance of Deferred Inflows 09/30/2019	Balance of Deferred Outflows 09/30/2019
<b>Investment (gains) or losses</b>	(\$1,604)	09/30/2017	5.0	(\$321)	(\$641)	\$0
	(469)	09/30/2018	5.0	(94)	(281)	0
	506	09/30/2019	5.0	<u>101</u>	<u>0</u>	<u>405</u>
		Total		(314)	(922)	405
<b>Economic/demographic (gains) or losses</b>	0	09/30/2017	0.00	0	0	0
	0	09/30/2018	0.00	0	0	0
	80,316	09/30/2019	7.09	<u>11,328</u>	<u>0</u>	<u>68,988</u>
		Total		11,328	0	68,988
<b>Assumption changes or inputs</b>	(23,476)	09/30/2017	6.76	(3,473)	(13,057)	0
	(19,974)	09/30/2018	6.76	(2,955)	(14,064)	0
	(68,344)	09/30/2019	7.09	<u>(9,639)</u>	<u>(58,705)</u>	<u>0</u>
		Total		(16,067)	(85,826)	0
<b>Total for economic/demographic gains or losses and assumption changes or inputs</b>					(922)	69,393
<b>Net deferred (inflows)/outflows for investment gains or losses</b>					(85,826)	0
<b>Total deferred (inflows)/outflows</b>					(86,748)	69,393
<b>Total net deferrals</b>					(17,355)	

\* Investment (gains)/losses are recognized in OPEB expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

### OPEB Liability and Expense Summary

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability	Deferred Inflows	Deferred Outflows	Net Deferrals	Net OPEB Liability plus Net Deferrals	Annual Expense
<b>Balances as of September 30, 2018</b>	(\$470,806)	\$26,793	(\$444,013)	(\$34,886)	\$0	(\$34,886)	(\$478,899)	
Service cost	(8,122)		(8,122)					8,122
Interest on total OPEB liability	(19,190)		(19,190)					19,190
Effect of plan changes	0		0					0
Effect of liability gains or losses	(80,316)		(80,316)		80,316	80,316		
Effect of assumption changes or inputs	68,344		68,344	(68,344)		(68,344)		
Benefit payments	40,078	(40,078)	0					
Administrative expenses		0	0					0
Member contributions		0	0					0
Expected investment income (net of inv expenses)		2,249	2,249					(2,249)
Investment gains or losses		(506)	(506)		506	506	65,078	
Employer contributions		65,078	65,078					
Recognition of liability gains or losses					(11,328)	(11,328)		11,328
Recognition of assumption changes or inputs				16,067		16,067		(16,067)
Recognition of investment gains or losses				415	(101)	314		(314)
Annual expense							(20,010)	20,010
<b>Balances as of September 30, 2019</b>	(470,012)	53,536	(416,476)	(86,748)	69,393	(17,355)	(433,831)	

## Glossary

<b>Actuarially Determined Contribution</b>	A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
<b>Deferred Inflows/Outflows of Resources</b>	Portion of changes in net OPEB liability that is not immediately recognized in OPEB Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
<b>Discount Rate</b>	Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of: <ol style="list-style-type: none"><li>1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.</li><li>2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.</li></ol>
<b>Fiduciary Net Position</b>	Equal to market value of assets.
<b>Long-Term Expected Rate of Return</b>	Long-term expected rate of return on plan investments expected to be used to finance the payment of benefits, net of investment expenses.
<b>Money-Weighted Rate of Return</b>	The internal rate of return on plan investments, net of investment expenses.
<b>Municipal Bond Rate</b>	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
<b>Net OPEB Liability</b>	Total OPEB Liability minus the Plan's Fiduciary Net Position.
<b>Projected Benefit Payments</b>	All benefits estimated to be payable through the OPEB plan to current active and inactive employees as a result of their past service and expected future service.
<b>Service Cost</b>	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<b>Total OPEB Liability</b>	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 74 and 75.

## Summary of Actuarial Assumptions

### Interest Discount Rate

Measurement Date	Rate
September 30, 2018	4.18%
September 30, 2019	5.75%

### Mortality Rates

**Base Table:** RP-2014 mortality table (Employee and Healthy Annuitant, as appropriate) projected back to 2006 base year using Projection Scale MP-2014 (male and female as appropriate).

**Projection:** Generational projection using MP-2019 (male and female as appropriate).

### Termination Rates

Sarason Table T-7 turnover Table by age.

Age	Rate
25	9.68%
40	7.77%
55	1.57%

### Retirement Rates

Age-based as follows:

Age	Rate
55-59	20%
60	50%
61-64	20%
65+	100%

### Percentage Married

Not applicable. Stipend only for retiree.

### Stipend Increase

We have assumed an annual increase in the stipend of 3.0%.

### Participation Rate

100% of future eligible retirees are assumed to receive the stipend from the Commission. The stipend payment is used to purchase insurance outside of the County's health care plan. Therefore, no implicit rate subsidy is valued.

## Salary Adjustment Factors

3.5% per year.

## CHANGES IN ASSUMPTIONS SINCE PRIOR VALUATION

The discount rate was updated from 4.18% to 5.75%. The results of this assumption change is a decrease in liabilities.

## RATIONALE FOR SIGNIFICANT ASSUMPTIONS

With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. The following assumptions should be reviewed for appropriateness.

**Discount Rate:** The discount rate is equal to the expected return on assets rate as of the measurement date since, based on the current contribution plan, the plan will always be funded.

**Mortality Rates:** We have used the most recent projection scale published by the Society of Actuaries.

**Other Demographic Assumptions:** All other demographic assumptions are based on historical plan experience and the best estimate of future experience.

## Summary of Participant Data

We have relied on the data as of September 30, 2019.

	Participant Count	Average Age	Average Service
Active Employees	26	40.8	12.5
Retirees	7	58.9	N/A

## Summary of Plan Provisions

### Eligibility

Employees who retire and are age 55 with 25 years of service.

Effective January 1, 2015, the Road Commission's contribution for retiree health care is limited to the single subscriber amount as set forth in PA 152, as amended yearly by the Treasury Department of the State of Michigan. Currently PA 152 states contributions to a single subscriber cannot be larger than \$568.24 a month for calendar year 2020.