City of Fraser Retiree Health Care Plan

GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions June 30, 2018





November 2, 2018

Mr. Timothy M. Sadowski City Treasurer City of Fraser 33000 Garfield Road Fraser, Michigan 48026

Dear Mr. Sadowski:

This report provides information on behalf of the City of Fraser Retiree Health Care Plan in connection with the Governmental Accounting Standards Board (GASB) Statement No. 75 "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions".

The calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 75. The Net OPEB Liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The Net OPEB Liability is not an appropriate measure for assessing the need for or amount of future employer contributions. The calculation of the plan's liability for this report is not applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement No. 75 may produce significantly different results. This report may be provided to parties other than the City of Fraser Retiree Health Care Plan only in its entirety and only with the permission of the City of Fraser. GRS is not responsible for unauthorized use of this report.

This report complements the actuarial valuation report prepared as of June 30, 2017, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to participant data, economic, demographic, health care trend, morbidity assumptions, and benefit provisions.

This report is based upon information, furnished to us by the City of Fraser, concerning Other Postemployment Benefits (OPEB), active members, deferred vested members, retirees and beneficiaries, and financial data. This information was checked for internal consistency, but it was not audited.

Based on the available data, the information contained in this report is accurate and fairly represents the actuarial position of the City of Fraser Retiree Health Care Plan as of the reporting date. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as the Actuarial Standards of Practice. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision.

Mr. Timothy M. Sadowski November 2, 2018 Page 2

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The signing individuals are independent of the plan sponsor.

Shana M. Neeson and James D. Anderson are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,

Shana M. Neeson, ASA, FCA, MAAA

James D. anderson

James D. Anderson, FSA, EA, FCA, MAAA

Shana M Nelson

SMN/JDA:sc





Auditor's Note – This information is intended to assist in preparation of the financial statements of the City of Fraser Retiree Health Care Plan. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.



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SECTION A

EXECUTIVE SUMMARY

Executive Summary as of June 30, 2018

		2018	
Actuarial Valuation Date	Ju	ne 30, 2017	
Measurement Date of the Net OPEB Liability	June 30, 2018		
Employer's Fiscal Year Ending Date (Reporting Date)	Ju	ne 30, 2018	
Membership			
Number of [#]			
- Retirees and Beneficiaries		101	
- Inactive, Nonretired Members		14	
- Active Members		44	
- Total		159	
Covered Payroll^	\$	4,416,566	
Net OPEB Liability			
Total OPEB Liability	\$	53,375,981	
Plan Fiduciary Net Position		0	
Net OPEB Liability	\$	53,375,981	
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability		0.00 %	
Net OPEB Liability as a Percentage of Covered Payroll		1,208.54 %	
Development of the Single Discount Rate			
Single Discount Rate		3.62 %	
Long-Term Municipal Bond Rate*		3.62 %	
Total OPEB Expense	\$	2,570,464	

Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future OPEB Expenses

	 Outflows ources	 rred Inflows Resources
Difference between expected and actual experience	\$ 0	\$ 153,839
Changes in assumptions	0	286,008
Net difference between projected and actual earnings		
on OPEB plan investments	 0	 0
Total	\$ 0	\$ 439,847

- # As of the actuarial valuation date. GRS does not have membership counts as of June 30, 2018. City staff and auditors may decide that providing membership counts as of the valuation date is sufficient to meet GASB disclosure requirements. Alternatively, the City may decide to update the membership counts to be as of the Plan's fiscal year end.
- ^ Payroll provided separately by the employer.
- * Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year GO AA Index" as of June 29, 2018. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax-exempt securities.



Discussion

Accounting Standard

GASB Statement No. 75 replaces the requirements of Statements No. 45, Accounting and Financial Reporting by Employers for Postemployments Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, for OPEB.

Reporting under GASB Statement No. 75 is effective for fiscal years commencing after June 15, 2017.

The following discussion provides a summary of the information that is required to be disclosed under this new accounting standard. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report. As a result, the employer is responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

Financial Statements

GASB Statement No. 75 requires state and local government employers to recognize the net OPEB liability and the OPEB expense on their financial statements, along with the related deferred outflows and inflows of resources. The net OPEB liability is the difference between the total OPEB liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets.

GASB Statement No. 75 states the employer contributions made to the OPEB plan subsequent to the measurement date and before the end of the employer's reporting period should be reported as a deferred outflow of resources. The information contained in this report does not incorporate any employer contributions made subsequent to the measurement date of June 30, 2018.



Notes to Financial Statements

GASB Statement No. 75 requires the notes of the employer's financial statements to disclose the total OPEB expense, the OPEB plan's liabilities and assets, and deferred outflows of resources and inflows of resources related to OPEB.

In addition, GASB Statement No. 75 requires the notes of the financial statements for employers to include certain additional information, including:

Plan Description:

- The name of the OPEB plan, the administrator of the OPEB plan; and the identification of whether the OPEB plan is a single-employer, agent, or cost-sharing OPEB plan.
- A brief description of the types of benefits provided by the plan, automatic or ad hoc postemployment benefit changes including COLAs, and terms or policies regarding the sharing of benefit-related costs with inactive plan members.
- o The authority under which benefit terms are established or may be changed.
- o The number of plan members by category and if the plan is closed.
- A brief description of contribution requirements, including a description of the plan's funding policy, as well as member and employer contribution requirements.
- o The availability of a stand-alone financial report for the OPEB plan.

• Components of the net OPEB liability:

o The total OPEB liability; the fiduciary net position; and the net OPEB liability.

Significant assumptions and other inputs used to measure the total OPEB liability:

- Significant assumptions include: Inflation, healthcare cost trend rates, salary changes, ad hoc postemployment benefit changes, and the sharing of benefit-related costs with inactive plan members.
- o If applicable, the patterns of practice relied upon for projecting the sharing of benefit-related costs with inactive plan members.
- Source of the assumptions for mortality and dates of experience studies.
- Measure of the net OPEB liability using +/- 1% on the health care trend rate.

On the discount rate:

- o The discount rate used and the change in the discount rate since the prior fiscal year-end.
- Assumptions about projected cash flows.
- The long-term expected rate of return on OPEB investments and a description of how it was determined.
- o The municipal bond rate used and the source of that rate.
- o The periods of projected benefit payments to which the long-term expected rate of return are used
- The assumed asset allocation of the portfolio and the long-term expected real rate of return for each major asset class, and whether the returns are arithmetic or geometric.
- Measure of the net OPEB liability using +/- 1% on the discount rate.
- The measurement date, the date of the actuarial valuation, and if applicable the fact that update procedures were used to roll forward the total OPEB liability.
- A brief description of changes in benefit terms or assumptions that affected the measurement of the total OPEB liability since the prior measurement date.
- A brief description of changes made between the measurement date and reporting date.
- The employer's contributions made subsequent to the measurement date.



Required Supplementary Information

GASB Statement No. 75 requires a 10-year fiscal history of:

- sources of changes in the net OPEB liability;
- information about the components of the net OPEB liability and related ratios, including the OPEB plan's fiduciary net position as a percentage of the total OPEB liability, and the net OPEB liability as a percent of covered-employee payroll;
- comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy; and
- for plans with an actuarially determined contribution, the schedule covering each of the 10 most recent fiscal years of the actuarially determined contribution, contributions to the OPEB plan and related ratios.

Timing and Frequency of the Actuarial Valuation

An actuarial valuation to determine the total OPEB liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net OPEB liability and OPEB expense should be measured as of the employer's "measurement date" which may not be earlier than the employer's prior fiscal year end-date. If the actuarial valuation used to determine the total OPEB liability is not calculated as of the measurement date, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total OPEB liability shown in this report is based on an actuarial valuation performed as of June 30, 2017 and a measurement date of June 30, 2018.

Single Discount Rate

For plans that do not have formal assets, the single discount rate should equal the tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date. For the purpose of determining the Total OPEB Liability as of June 30, 2018, the measurement date, the municipal bond rate is 3.62% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"). For the purpose of determining the Total OPEB Liability as of June 30, 2017, the municipal bond rate used was 3.56%.

Actuarial Assumptions

The actuarial assumptions used to value the liabilities are outlined in detail in Section F. The assumptions include details on the health care trend assumption, the aging factors as well as the cost method used to develop the OPEB expense. The rationale for the rates of merit and longevity salary increase, base wage inflation, rates of mortality, early retirement rates, rates of separation from active membership, and disability rates used in this valuation is included in the MERS 5-year experience study for the period January 1, 2009 to December 31, 2013 performed by the prior MERS pension actuary.



Future Uncertainty or Risk

Future results may differ from those anticipated in this valuation. Reasons include, but are not limited to:

- Actual medical trend differing from expected;
- Changes in the healthcare plan designs offered to active and retired members; and
- Participant behavior differing from expected;
 - Elections at retirement;
 - o One-person versus two-person coverage elections; and
 - o Time of retirement or termination.

Benefits Valued

The benefit provisions that were valued are in Section C. The valuation is required to be performed on the current benefit terms and existing legal agreements. Consideration is to be given to the written plan document as well as other communications between the employer and plan members and an established pattern of practice for cost sharing. The summary of major plan provisions is designed to outline principal plan benefits. If the plan summary is not in accordance with the actual provisions, please alert the actuaries immediately so they can both be sure the proper provisions are valued.

Effective Date and Transition

GASB Statement No. 75 is effective for an employer's fiscal years beginning after June 15, 2017.



SECTION B

FINANCIAL SCHEDULES

Auditor's Note – This information is intended to assist in preparation of the financial statements of the City of Fraser Retiree Health Care Plan. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Statement of OPEB Expense Under GASB Statement No. 75 Fiscal Year Ended June 30, 2018

A. Expense

1. Service Cost	\$ 972,690
2. Interest on the Total OPEB Liability	1,866,367
3. Current-Period Benefit Changes	0
4. Employee Contributions (made negative for addition here)	0
5. Projected Earnings on Plan Investments (made negative for addition here)	0
6. OPEB Plan Administrative Expense	0
7. Other Changes in Plan Fiduciary Net Position	0
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	(268,593)
9. Recognition of Outflow (Inflow) of Resources due to Assets	 0
10. Total OPEB Expense	\$ 2,570,464

Recognition of Deferred Outflows and Inflows of Resources

Differences between expected and actual experience and changes in assumptions are recognized in the OPEB expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with OPEB through the OPEB plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the current measurement period, the expected remaining service lives of all active employees in the plan was approximately 419 years. Additionally, the total plan membership (active employees and inactive employees) was 159, as of the valuation date. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 2.6376 years.

Additionally, differences between projected and actual earnings on OPEB plan investments should be recognized in the OPEB expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the OPEB expense as a level dollar amount over the closed period identified above.



Statement of Outflows and Inflows Arising from Current Reporting Period Fiscal Year Ended June 30, 2018

A. Outflows (Inflows) of Resources due to Liabilities

1. Difference between expected and actual experience of the Total OPEB Liability	
(gains) or losses	\$ (247,781)
2. Assumption Changes (gains) or losses	\$ (460,659)
3. Recognition period for Liabilities: Average of the expected remaining service lives	
of all employees {in years}	2.6376
4. Outflow (Inflow) of Resources to be recognized in the current OPEB expense for the	
difference between expected and actual experience of the Total OPEB Liability	\$ (93,942)
5. Outflow (Inflow) of Resources to be recognized in the current OPEB expense for	
assumption changes	\$ (174,651)
6. Outflow (Inflow) of Resources to be recognized in the current OPEB expense	
due to Liabilities	\$ (268,593)
7. Deferred Outflow (Inflow) of Resources to be recognized in future OPEB expenses for the	
difference between expected and actual experience of the Total OPEB Liability	\$ (153,839)
8. Deferred Outflow (Inflow) of Resources to be recognized in future OPEB expenses for	
assumption changes	\$ (286,008)
9. Deferred Outflow (Inflow) of Resources to be recognized in future OPEB expenses	
due to Liabilities	\$ (439,847)
B. Outflows (Inflows) of Resources due to Assets	
1. Net difference between projected and actual earnings on OPEB plan investments	
(gains) or losses	\$ 0
2. Recognition period for Assets {in years}	5.0000
3. Outflow (Inflow) of Resources to be recognized in the current OPEB expense	
due to Assets	\$ 0
4. Deferred Outflow (Inflow) of Resources to be recognized in future OPEB expenses	
due to Assets	\$ 0



Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Fiscal Year Ended June 30, 2018

A. Outflows and Inflows of Resources by Source to be Recognized in Current OPEB Expense

	Outfl of Reso		-	nflows Resources	t Outflows Resources
1. Differences between expected and actual experience	\$	0	\$	93,942	\$ (93,942)
2. Assumption changes		0		174,651	(174,651)
3. Net difference between projected and actual					
earnings on OPEB plan investments		0		0	 0
4. Total	\$	0	\$	268,593	\$ (268,593)

B. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future OPEB Expenses

	Deferred (of Reso		 red Inflows lesources	Net Deferred Outflows of Resources	
1. Differences between expected and actual experience	\$	0	\$ 153,839	\$	(153,839)
2. Assumption changes		0	286,008		(286,008)
3. Net difference between projected and actual					
earnings on OPEB plan investments		0	 0		0
4. Total	\$	0	\$ 439,847	\$	(439,847)

C. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future OPEB Expenses

Year Ending June 30	 erred Outflows Resources
2019	\$ (268,593)
2020	(171,254)
2021	0
2022	0
2023	0
Thereafter	 0
Total	\$ (439,847)

Employer contributions that were made subsequent to the measurement date of the net OPEB liability and prior to the end of the employer's reporting period should be reported by the employer as a deferred outflow of resources related to OPEB. The information contained in this report does not incorporate any contributions made subsequent to the measurement date.

See paragraph 44 of GASB 75 for single and agent employers with trusted plans.

Also, Question 4.32 of Implementation Guide No. 2017-1 provides additional guidance for trusted plans.



Schedule of Changes in Net OPEB Liability and Related Ratios Current Reporting Period Fiscal Year Ended June 30, 2018

A. Total OPEB liability	
1. Service cost	\$ 972,690
2. Interest on the total OPEB liability	1,866,367
3. Changes of benefit terms	0
4. Difference between expected and actual experience	
of the total OPEB liability	(247,781)
5. Changes of assumptions	(460,659)
6. Benefit payments, including refunds	
of employee contributions*	 (1,388,659)
7. Net change in total OPEB liability	741,958
8. Total OPEB liability – beginning	 52,634,023
9. Total OPEB liability – ending	\$ 53,375,981
B. Plan fiduciary net position	
1. Contributions – employer*	\$ 1,388,659
2. Contributions – nonemployer contributing entities	0
3. Contributions – employee	0
4. Net investment income	0
5. Benefit payments, including refunds	
of employee contributions*	(1,388,659)
6. OPEB plan administrative expense	0
7. Other	 0
8. Net change in plan fiduciary net position	 0
9. Plan fiduciary net position – beginning	0
10. Plan fiduciary net position – ending	\$ 0
C. Net OPEB liability	\$ 53,375,981
D. Plan fiduciary net position as a percentage	
of the total OPEB liability	0.00 %
E. Covered-employee payroll^	\$ 4,416,566
F. Net OPEB liability as a percentage	
of covered-employee payroll	1,208.54 %

^{*} Includes amounts being paid outside of the Trust.



[^] Payroll separately provided by the employer.

Schedules of Required Supplementary Information Schedule of Changes in Net OPEB Liability and Related Ratios Multiyear

Fiscal year ending June 30,	 2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total OPEB liability										
Service cost	\$ 972,690									
Interest on the total OPEB liability	1,866,367									
Changes of benefit terms	0									
Difference between expected and										
actual experience	(247,781)									
Changes of assumptions	(460,659)									
Benefit payments, including refunds										
of employee contributions*	 (1,388,659)									
Net change in total OPEB liability	741,958									
Total OPEB liability - beginning	 52,634,023									
Total OPEB liability - ending (a)	\$ 53,375,981									
Plan fiduciary net position										
Employer contributions*	\$ 1,388,659									
Nonemployer contributing entities										
contributions	0									
Employee contributions	0									
OPEB plan net investment income	0									
Benefit payments, including refunds										
of employee contributions*	(1,388,659)									
OPEB plan administrative expense	0									
Other	 0									
Net change in plan fiduciary net position	0									
Plan fiduciary net position - beginning	 0									
Plan fiduciary net position - ending (b)	\$ 0									
Net OPEB liability - ending (a) - (b)	\$ 53,375,981									
Plan fiduciary net position as a percentage										
of total OPEB liability	0.00 %									
Covered-employee payroll	\$ 4,416,566									
Net OPEB liability as a percentage										
of covered-employee payroll^	1,208.54 %									
Notes to Schedule:										
N/A										

^{*} Includes amounts being paid outside of the Trust.

[^] Payroll separately provided by the employer.



Schedule of Contributions Multiyear

		Actuarially			Co	ontribution		Actual Contribution
FY Ending	D	etermined		Actual	١	Deficiency	Covered	as a % of
June 30,	Co	ntribution	Со	ntribution*		(Excess)	 Payroll^	Covered Payroll
2009								
2010								
2011								
2012								
2013								
2014								
2015								
2016								
2017								
2018	\$	3,597,282	\$	1,388,659	\$	2,208,623	\$ 4,416,566	31.44 %

^{*} Includes amounts being paid outside of the Trust.



[^] Payroll separately provided by the employer.

Notes to Schedule of Contributions

Methods and Assumptions Used to Determine Contribution Amounts for the Fiscal Year Ending June 30, 2018*:

Actuarial Cost Method Entry-Age Normal
Amortization Method Level Dollar
Remaining Amortization Period 20 years, closed

Asset Valuation Method There are no assets as of the measurement date.

Price Inflation 2.50% Wage Inflation 4.00%

Salary Increases 4.00% to 17.00%

Investment Rate of Return 4.50%, net of OPEB plan investment expense

Retirement Age Experience-based table of rates that are specific to the type of eligibility condition

Mortality The RP-2000 Mortality Combined Healthy Tables projected 20 years

with U.S. Projection Scale BB.

Health Care Trend Rates Initial trend of 9.00% gradually decreasing to an ultimate trend rate of 4.00% in year 10

Excise Tax No load was applied in connection with the "Cadillac" tax.

Aging Factors Based on an internal GRS study using several pricing manuals from National Health Care

Consultant groups and incorporating analysis and data from an SOA survey regarding aging

practices used in health care valuations.

Other Information:

Notes There were no benefit changes during the year.

The mortality tables and other demographic assumptions were updated to be consistent with the MERS pension assumptions. The new assumptions were reflected in the June 30, 2017 funding valuation which develops the contribution amounts for the fiscal years ending

June 30, 2020 and June 30, 2021. The new assumptions were also reflected in the

development of the Total OPEB Liability as of June 30, 2018.



^{*} Based on valuation assumptions used in the June 30, 2015 actuarial valuation.

Single Discount Rate

For plans that do not have formal assets, the single discount rate should equal the tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date. For the purpose of this valuation, the municipal bond rate is 3.62% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"). As a result, the Single Discount Rate of 3.62% was used to measure the Total OPEB Liability as of June 30, 2018. Please note this represents a change in assumption. The Single Discount Rate used to measure the Total OPEB Liability as of June 30, 2017 was 3.56%. The Single Discount Rate changed due to changes in the municipal bond rate.

Plan Assets

As of the measurement date, there are no plan assets accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75. It is our understanding that a trust has been established and contributions were made subsequent to the measurement date. In future years the GASB report is expected to include assets.

Summary of Membership Information#

The following table provides a summary of the number of participants in the plan:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	101
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	14
Active Plan Members	44
Total Plan Members	159

[#] As of the actuarial valuation date, GRS does not have membership counts as of June 30, 2018. City staff and auditors may decide that providing membership counts as of the valuation date is sufficient to meet GASB disclosure requirements. Alternatively, the City may decide to update the membership counts to be as of the Plan's fiscal year end.



Sensitivity of Net OPEB Liability

Regarding the sensitivity of the Net OPEB Liability to changes in the Single Discount Rate, the following presents the plan's Net OPEB Liability, calculated using a Single Discount Rate of 3.62%, as well as what the plan's Net OPEB Liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

Sensitivity of Net OPEB Liability to the Single Discount Rate Assumption

Current Single Discount				
1% Decrease	Rate Assumption	1% Increase		
2.62%	3.62%	4.62%		
\$ 61,912,541	\$ 53,375,981	\$ 46,508,570		

Regarding the sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rates, the following presents the plan's Net OPEB Liability, calculated using the assumed trend rates as well as what the plan's Net OPEB Liability would be if it were calculated using a trend rate that is one percent lower or one percent higher:

Sensitivity of Net OPEB Liability to the Healthcare Cost Trend Rate Assumption

Current Healthcare Cost				
1% Decrease	Trend Rate Assumption	1% Increase		
\$ 45,868,260	\$ 53,375,981	\$ 62,832,323		



SECTION C

SUMMARY OF BENEFITS

Summary of Benefits

This report complements the actuarial valuation report prepared as of June 30, 2017, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to benefit provisions.





DEVELOPMENT OF BASELINE CLAIMS COSTS

Development of Baseline Claims Costs

This report complements the actuarial valuation report prepared as of June 30, 2017, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to baseline claims costs.





SUMMARY OF PARTICIPANT DATA

Summary of Participant Data

This report complements the actuarial valuation report prepared as of June 30, 2017, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to participant data.





VALUATION METHODS AND ACTUARIAL ASSUMPTIONS

Valuation Methods and Actuarial Assumptions

This report complements the actuarial valuation report prepared as of June 30, 2017, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to valuation methods and actuarial assumptions.

The long-term rate of investment return used for GASB Statement No. 75 reporting purposes was 3.62%.



Miscellaneous and Technical Assumptions

This report complements the actuarial valuation report prepared as of June 30, 2017, and information herein should be considered along with the information from that report, especially for additional discussions of the nature of actuarial calculations and for more information related to miscellaneous and technical assumptions.

Experience Studies

Certain actuarial assumptions were based upon the results of the MERS 5-year experience study for the period January 1, 2009 to December 31, 2013 performed by the prior MERS pension actuary.

The tables used to model the impact of aging on claims utilization were developed by the Society of Actuaries in 2013. The other OPEB specific assumptions (health care trend, plan elections, etc.) are reviewed during each OPEB valuation and updated as needed.

Roll-Forward Disclosure

The Total OPEB Liability was determined by an actuarial valuation as of June 30, 2017 and a measurement date of June 30, 2018. The roll-forward procedure increases the June 30, 2017 actuarial accrued liability with normal cost and interest and decreases it with expected benefit payments.





DISCUSSION OF THE SINGLE DISCOUNT RATE

Discussion of the Single Discount Rate

GASB Statement No. 75 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total OPEB Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a municipal bond rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on OPEB plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For plans that do not have formal assets, projections are not needed. The single discount rate should equal the tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date. For the purpose of this valuation, the municipal bond rate is 3.62% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index").



SECTION **H**

GLOSSARY OF TERMS

Accrued Service

Service credited under the system that was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability (AAL)

The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability".

Actuarial Assumptions

These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.

Actuarial Cost Method

A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the OPEB trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.

Actuarial Equivalent

A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Gain (Loss)

The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.

Actuarial Present Value (APV)

The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.

Actuarial Valuation

The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total OPEB liability, and related actuarial present value of projected benefit payments for OPEB.

Actuarial Valuation Date

The date as of which an actuarial valuation is performed.



Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)

A calculated contribution into an OPEB plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

Amortization Method

The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year).

Amortization Payment

The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.

Cost-of-Living Adjustments

Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

Cost-Sharing Multiple-Employer Defined Benefit OPEB Plan (cost-sharing OPEB plan) A multiple-employer defined benefit OPEB plan in which the OPEB obligations to the employees of more than one employer are pooled and OPEB plan assets can be used to pay the benefits of the employees of any employer that provides benefits through the OPEB plan.

Covered-Employee Payroll

The payroll of employees that are provided with benefits through the OPEB plan.

Deferred Inflows and Outflows

The deferred inflows and outflows of OPEB resources are amounts used under GASB Statement No. 75 in developing the annual OPEB expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in the OPEB expense should be included in the deferred inflows or outflows of resources.

Discount Rate

For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:

- 1. The benefit payments to be made while the OPEB plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and
- 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.



Entry Age Actuarial Cost Method (EAN)

The EAN is a cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.

Fiduciary Net Position

The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.

GASB

The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

Long-Term Expected Rate of Return

The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.

Money-Weighted Rate of Return

The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 74, the money-weighted rate of return is calculated as the internal rate of return on OPEB plan investments, net of OPEB plan investment expense.

Multiple-Employer Defined Benefit OPEB Plan

A multiple-employer plan is a defined benefit OPEB plan that is used to provide OPEB payments to the employees of more than one employer.

Municipal Bond Rate

The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.

Net OPEB Liability (NOL)

The NOL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit OPEB plan.

Non-Employer Contributing Entities

Non-employer contributing entities are entities that make contributions to an OPEB plan that is used to provide OPEB payments to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contributing entities.



Normal Cost

The portion of the actuarial present value allocated to a valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of service cost.

Other Postemployment Benefits (OPEB)

All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.

Real Rate of Return

The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.

Service Cost

The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Total OPEB Expense

The total OPEB expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

- 1. Service Cost
- 2. Interest on the Total OPEB Liability
- 3. Current-Period Benefit Changes
- 4. Employee Contributions (made negative for addition here)
- 5. Projected Earnings on Plan Investments (made negative for addition here)
- 6. OPEB Plan Administrative Expense
- 7. Other Changes in Plan Fiduciary Net Position
- 8. Recognition of Outflow (Inflow) of Resources due to Liabilities
- 9. Recognition of Outflow (Inflow) of Resources due to Assets

Total OPEB Liability (TOL)

The TOL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL)

The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets

The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statement Nos. 74 and 75, the valuation assets are equal to the market value of assets.

