

Bay City Retiree Health Care Plan

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

Fiscal Year Ending September 30, 2020





February 17, 2021

Ms. Scotty Jones
Finance Director
City of Bay City
1901 Fifth St.
Bay City, TX 77414

Dear Ms. Jones:

This report provides information on behalf of the Bay City 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." GASB Statement No. 75 establishes accounting and financial reporting requirements for state and local government employers that provide their employees with 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 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 Bay City only in its entirety and only with the permission of the City. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by the City, 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 Bay City 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 author of the report prior to making such decision.

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

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.

Mr. Riazi and Mr. Fritz 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,



Mehdi Riazi, FSA, EA, FCA, MAAA



Andy Fritz, EA, MAAA

Table of Contents

Page

Section A	Executive Summary	
	Executive Summary.....	1
	Discussion	2-5
Section B	Financial Schedules	
	Schedule of Changes in Total OPEB Liability and Related Ratios.....	1
	Recognition of Deferred Outflows and Deferred Inflows of Resources	2
	Statement of Outflows and Inflows Arising from Current Reporting Period	2
	Statement of OPEB Expense under GASB Statement No. 75	2
	Balances of Deferred Outflows and Deferred Inflows of Resources Related to OPEB.....	3
	Deferred Outflows and Deferred Inflows to be Recognized in Future OPEB Expense.....	3
	Deferred Outflows and Inflows – Amortization Schedule	4
	Actuarial Assumptions and Methods.....	5
	Discount Rate.....	6
	Plan Assets	6
	Summary of Membership Information.....	6
	Sample Disclosures and Required Supplementary Information (RSI)	6
	Sensitivity of Total OPEB Liability	7
Section C	Required Supplementary Information	
	Schedule of Changes in Total OPEB Liability and Related Ratios.....	1
Section D	Summary of Benefits.....	1-2
Section E	Underlying Retiree Claims Cost Development.....	1
Section F	Summary of Participant Data	
	Active Members by Attained Age and Years of Service.....	1
	Retired Members by Attained Age	2
Section G	Valuation Methods and Actuarial Assumptions	
	Valuation Methods	1
	Actuarial Assumptions	2-6
	Miscellaneous and Technical Assumptions	7
	Assumption, Method, and Plan Changes.....	8
Section H	Glossary of Terms	1-3



SECTION A

EXECUTIVE SUMMARY

Executive Summary

Actuarial Valuation Date	December 31, 2019
Measurement Date of the Total OPEB Liability	December 31, 2019
Employer's Fiscal Year Ending Date (Reporting Date)	September 30, 2020

Membership

Number of	
- Retirees and Beneficiaries	1
- Inactive, Nonretired Members	0
- Active Members	133
- Total	134
Covered Payroll	\$ 6,575,716

Total OPEB Liability

Total OPEB Liability	\$ 246,532
Total OPEB Liability as a Percentage of Covered Payroll	3.75 %

Development of the Single Discount Rate

Long-Term Municipal Bond Rate*	2.75 %
--------------------------------	--------

Total OPEB Expense

\$ 21,505

Balances of Deferred Outflows and Deferred Inflows of Resources Related to OPEB

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 0	\$ 33,348
Changes in assumptions	48,223	6,920
Contributions subsequent to the measurement date	1,842	
Total	\$ 50,065	\$ 40,268

* Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in the Fidelity "20-Year Municipal GO AA Index" as of December 31, 2019.

Discussion

Accounting Standard

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

Reporting under GASB 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 within the OPEB note disclosure regarding accounting policies and investments (if any) 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

For plans that do not have formal trusts, GASB Statement No. 75 requires state and local government employers to recognize the total OPEB liability and the OPEB expense on their financial statements, along with the related deferred outflows and inflows of resources. In traditional actuarial terms, the total OPEB liability is analogous to the actuarial accrued liability.

In addition to the deferred outflows/inflows related to plan experience and assumption changes, GASB Statement No. 75 states the benefit payments and administrative costs incurred subsequent to the measurement date and before the end of the employer's reporting period should be reported as a deferred outflow of resources.

Implicit Subsidy

GASB Statements No. 75 and No. 68 are conceptually very similar in terms of the liability which is recognized on the balance sheet, the expense calculation, and the corresponding deferred outflows and inflows of resources. The main differences between the standards are related to the differences between pension and health care benefits. One particular difference is a concept referred to as the "implicit subsidy", which applies to health plans that utilize blended premiums, that has no counterpart in GASB Statement No. 68. The City's health plan utilizes a "blended premium" structure. Said another way, the overall health care premiums for active employees and non-Medicare retirees are stated in terms of a single "blended premium". The difference between the underlying retiree claims and the blended overall health care premium is referred to as an "implicit" or "hidden" subsidy. Because the underlying claims costs for a non-Medicare retiree are on average higher than the blended premium, there is a positive implicit subsidy for the non-Medicare retirees.

GASB defines the employer provided OPEB benefit as the difference between the underlying claims costs and the premium contributions made by retirees. As a result, the employer's portion of the blended health care premium is not what GASB considers the employer benefit. In order to account for the employer provided OPEB benefit, as it's defined by GASB, the explicit premium subsidies need to be adjusted to reflect the implicit subsidy (the difference between the estimated retiree claims and the overall premiums).

Implicit Subsidy (continued)

For plans that use a blended premium structure, Illustrations B1-1 and B1-2 of Implementation Guide No. 2017-3 describe how a portion of the payments made on behalf of the active employees should be reclassified as benefit payments for retiree health care to reflect the retirees' underlying claims costs. Adjusting the explicit health care costs for active employees and retirees by the implicit subsidy estimates provided in this report is equivalent to the reclassification described in the Implementation Guide. **It's important to note that the implicit subsidy is considered an employer contribution and any employer contributions related to OPEB need to include the implicit subsidy.** This report provides the estimated implicit subsidy for the measurement period and for the purpose of the deferred outflow of resources related to benefit payments made after the measurement date.

To summarize, because the health plan utilizes blended premiums, the benefit payments for GASB Statement No. 75 purposes need to include an adjustment for the implicit subsidy. This adjustment reflects the underlying cost of the benefits provided to retirees, which is how GASB defines the employer's OPEB benefit/liability. This adjustment is needed for the benefits during the measurement period and also for the purpose of the deferred outflow related to the benefits paid after the measurement date.

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 total 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 December 31, 2019 and a measurement date of December 31, 2019.

Discount Rate

For plans that do not have a formal trust that meets GASB's requirements, the 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 2.75% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index").

Notes to Financial Statements

Paragraphs 162 – 171 of GASB Statement No. 75 discuss the note disclosures and required supplementary information (RSI) for plans that do not have formal assets. We recommend employers review these paragraphs as well as Illustration 4 in Appendix C of GASB Statement No. 75, which provides sample note disclosures and RSI for a single-employer plan that is not administered through a formal trust. 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 (if any), deferred outflows of resources and inflows of resources related to OPEB, and descriptive information about the plan. The requirements listed below apply to OPEB plans that do not have formal assets that meet the criteria in paragraph 4 of GASB Statement No. 75.

- **Plan Description:**
 - The name of the OPEB plan, the administrator of the OPEB plan, and the identification of the OPEB plan as a single-employer or multiple-employer 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.
 - The authority under which benefit terms are established or may be changed.
 - The number of plan members by category and if the plan is closed.
 - A brief description of member and employer contribution requirements.
 - The fact that there are no assets accumulated in a trust.
- **The total 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.
 - 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 total OPEB liability using +/- 1% on the health care trend rate.**
- **On the discount rate:**
 - The discount rate used and the change in the discount rate since the prior fiscal year-end.
 - The municipal bond rate used and the source of that rate.
 - 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 (including benefit payments that are not paid/reimbursed by a formal trust) made subsequent to the measurement date.**

Required Supplementary Information for Plans that Do Not Have Formal Assets

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

- Sources of changes in the total OPEB liability
- Information about the total OPEB liability and related ratios, including the total OPEB liability as a percent of covered-employee payroll

Actuarial Assumptions

The actuarial assumptions used to value the liabilities are outlined in detail in Section G. 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 demographic assumptions are based on the assumptions that were developed for the defined benefit plan in which the City participates (TMRS).

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;
- Participant behavior or experience differing from expected;
 - Elections at retirement;
 - One-person versus two-person coverage elections;
 - Time of retirement or termination;
 - Catastrophic claims.

Benefits Valued

The benefit provisions that were valued are in Section D. 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

Schedule of Changes in Total OPEB Liability and Related Ratios

Fiscal Year Ending September 30, 2020

Total OPEB liability	
Service cost	\$ 11,851
Interest on the total OPEB liability	8,323
Changes of benefit terms	0
Difference between expected and actual experience of the total OPEB liability	(36,701)
Changes of assumptions	47,273
Benefit payments	(5,236)
Net change in total OPEB liability	25,510
Total OPEB liability – beginning	221,022
Total OPEB liability – ending	246,532
Covered-employee payroll	\$ 6,575,716
Total OPEB liability as a percentage of covered-employee payroll	3.75 %

The ending Total OPEB Liability was as of December 31, 2019.

Changes of assumptions reflect a change in the discount rate from 3.71% as of December 31, 2018 to 2.75% as of December 31, 2019, revised TMRS demographic assumptions, and updates to the health care trend assumption.

The benefit payments during the measurement period were determined as follows:

a. Age-adjusted premiums	\$ 12,036 (retiree contributions * 1.770)
b. Retiree contributions	(6,800) (data provided by the City)
c. Total benefit payments	\$ 5,236

The 1.770 factor equals the ratio of the expected retiree claims to the expected retiree contributions. The underlying retiree claims were estimated using age-adjusted premiums.



Recognition of Deferred Outflows and Deferred Inflows of Resources

Differences between expected and actual experience and changes in assumptions are recognized in 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 1,072 years. Additionally, the total plan membership (active employees and inactive employees) was 134. 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 7.9984 years.

Statement of Outflows and Inflows Arising from Current Reporting Period

	Recognition Period (or amortization years)	Total (Inflow) or Outflow	2020 Recognized in current OPEB expense	Deferred (Inflow) or Outflow in future expense
Due to Liabilities:				
Differences in expected and actual experience	7.9984	\$ (36,701)	\$ (4,589)	\$ (32,112)
Assumption changes	7.9984	\$ 47,273	\$ 5,910	\$ 41,363
Total		\$ 10,572	\$ 1,321	\$ 9,251

This table is provided to document sources of the new deferred inflows and outflows resulting from the current reporting year. The table is not a required disclosure. The required disclosures regarding deferred inflows and outflows of resources related to OPEB are shown on the following page.

Statement of OPEB Expense under GASB Statement No. 75 Fiscal Year Ending September 30, 2020

Service Cost	\$ 11,851
Interest on the Total OPEB Liability	8,323
Current-Period Benefit Changes	0
OPEB Plan Administrative Expense	0
Recognition of Current Year Outflow (Inflow) due to Liabilities	1,321
Amortization of Prior Year Outflow (Inflow) due to Liabilities	10
Total OPEB Expense	\$ 21,505



Balances of Deferred Outflows and Deferred Inflows of Resources Related to OPEB

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 0	\$ 33,348
Changes in assumptions	48,223	6,920
Contributions subsequent to the measurement date	1,842	
Total	\$ 50,065	\$ 40,268

Employer contributions (benefit payments for unfunded plans) made subsequent to the measurement date of the total OPEB liability (December 31, 2019) and prior to the end of the employer's reporting period (September 30, 2020) should be reported by the employer as a deferred outflow related to OPEB. See paragraph 159 of GASB Statement No. 75 for plans that do not have formal assets.

The deferred outflow of \$1,842 for benefit payments paid after the measurement date was developed using the expected employer provided benefits from the most recent actuarial valuation.

Deferred Outflows and Deferred Inflows to be Recognized in Future OPEB Expense

Year Ending September 30	Net Deferred Outflows/(Inflows)
2021	\$ 1,331
2022	1,331
2023	1,331
2024	1,331
2025	1,331
Thereafter	1,300
Total	\$ 7,955

Deferred Outflows and Inflows – Amortization Schedule

	Remaining Recognition Period	Outflow/(Inflow) at beginning of Fiscal Year (or created in current year)	Fiscal Year Ending							Outflow/(Inflow) at end of Fiscal Year	
			2020	2021	2022	2023	2024	2025	Thereafter		
Differences in Experience											
2020	7.9984	(36,701)	(4,589)	(4,589)	(4,589)	(4,589)	(4,589)	(4,589)	(4,589)	(9,167)	(32,112)
2019	7.0311	(1,441)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(211)	(1,236)
2018	6.0311	0	0	0	0	0	0	0	0	0	0
Total			\$ (4,794)	\$ (4,794)	\$ (4,794)	\$ (4,794)	\$ (4,794)	\$ (4,794)	\$ (4,794)	\$ (9,378)	\$ (33,348)
Assumption Changes											
2020	7.9984	47,273	5,910	5,910	5,910	5,910	5,910	5,910	5,910	11,813	41,363
2019	7.0311	(8,068)	(1,148)	(1,148)	(1,148)	(1,148)	(1,148)	(1,148)	(1,148)	(1,180)	(6,920)
2018	6.0311	8,223	1,363	1,363	1,363	1,363	1,363	1,363	1,363	45	6,860
Total			\$ 6,125	\$ 6,125	\$ 6,125	\$ 6,125	\$ 6,125	\$ 6,125	\$ 6,125	\$ 10,678	\$ 41,303
Total Recognized in Future Expense				\$ 1,331	\$ 1,331	\$ 1,331	\$ 1,331	\$ 1,331	\$ 1,331	\$ 1,300	\$ 7,955

This table is provided to document sources of the outstanding deferred inflows and outflows from year to year. The table is not a required disclosure. The required disclosures regarding deferred inflows and outflows of resources related to OPEB are shown on the previous page.

Actuarial Assumptions and Methods

Valuation Date: December 31, 2019

Methods and Assumptions:

Actuarial Cost Method	Individual Entry-Age Normal
Discount Rate	2.75% as of December 31, 2019
Inflation	2.50%
Salary Increases	3.50% to 11.50%, including inflation
Demographic Assumptions	Based on the experience study covering the four-year period ending December 31, 2018 as conducted for the Texas Municipal Retirement System (TMRS).
Mortality	For healthy retirees, the gender-distinct 2019 Municipal Retirees of Texas mortality tables are used. The rates are projected on a fully generational basis using the ultimate mortality improvement rates in the MP tables published through 2019 to account for future mortality improvements.
Health Care Trend Rates	Initial rate of 7.00% declining to an ultimate rate of 4.15% after 14 years
Participation Rates	20% of those retiring between ages 50 and 65 were assumed to elect medical coverage through the City's plan.

Other Information:

Notes
The discount rate changed from 3.71% as of December 31, 2018 to 2.75% as of December 31, 2019. Additionally, the demographic assumptions were updated to reflect the 2019 TMRS Experience Study and the health care trend rates were updated.

Discount Rate

For plans that do not have formal assets, the 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 2.75% (based on the daily rate closest to but not later than the measurement date of the Fidelity “20-Year Municipal GO AA Index”). The discount rate was 3.71% as of the prior measurement date.

Plan Assets

There are no plan assets accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

Summary of Membership Information

The following table provides a summary of the number of participants in the plan as of December 31, 2019:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	0
Active Plan Members	<u>133</u>
Total Plan Members	134

Sample Disclosures and Required Supplementary Information (RSI)

Illustration 4 in Appendix C of GASB Statement No. 75 provides sample note disclosures and required supplementary information for a single-employer plan that is not administered through a formal trust.

Sensitivity of Total OPEB Liability to the Discount Rate Assumption

Regarding the sensitivity of the total OPEB liability to changes in the discount rate, the following presents the plan's total OPEB liability, calculated using a discount rate of 2.75%, as well as what the plan's total OPEB liability would be if it were calculated using a discount rate that is one percent lower or one percent higher:

1% Decrease	Current Discount Rate Assumption	1% Increase
1.75%	2.75%	3.75%
\$ 275,887	\$ 246,532	\$ 220,469

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

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

1% Decrease	Current Healthcare Cost Trend Rate Assumption	1% Increase
\$ 215,353	\$ 246,532	\$ 284,156

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Total OPEB Liability and Related Ratios

Last 10 Fiscal Years (which may be built prospectively)

Fiscal year ending September 30,	<u>2020</u>	<u>2019</u>	<u>2018</u>
Total OPEB liability			
Service cost	\$ 11,851	\$ 13,282	\$ 11,720
Interest on the total OPEB liability	8,323	7,294	7,406
Changes of benefit terms	0	0	0
Difference between expected and actual experience	(36,701)	(1,646)	0
Changes of assumptions	47,273	(9,216)	10,949
Benefit payments	(5,236)	(4,832)	(4,923)
Net change in total OPEB liability	<u>25,510</u>	<u>4,882</u>	<u>25,152</u>
Total OPEB liability - beginning	<u>221,022</u>	<u>216,140</u>	<u>190,988</u>
Total OPEB liability - ending	<u><u>246,532</u></u>	<u><u>221,022</u></u>	<u><u>216,140</u></u>
Covered-employee payroll	\$ 6,575,716	\$ 6,973,473	\$ 6,759,060
Total OPEB liability as a percentage of covered-employee payroll	3.75 %	3.17 %	3.20 %

Notes to Schedule:

FYE20 - The demographic assumptions were updated to reflect the 2019 TMRS Experience Study and the health care trend rates were updated.

Changes of assumptions reflect the effects of changes in the discount rate each period.

The following are the discount rates used in each period:

2020	2.75%
2019	3.71%
2018	3.31%
2017	3.81%



SECTION D

SUMMARY OF BENEFITS

Summary of Benefits

As of December 31, 2019

Plan Participants

Permanent full-time employees of the Municipality are eligible to participate in the retiree health care plan.

Normal Retirement Benefit Eligibility

The employee must currently be enrolled in the health care policy and be eligible to retire through Texas Municipal Retirement System (TMRS). Bay City's TMRS retirement eligibility is 5 years of service credit and at least 60 years of age or 25 years of service credit at any age. For retiree medical eligibility, there is no minimum service requirement with Bay City.

Vested Termination Benefits

Members terminating before normal retirement conditions are not eligible for retiree health care.

Death-In-Service Retirement Benefits

Municipality does not provide death-in-service benefits to a surviving spouse other than COBRA.

Disability Retirement Benefits

Employees who retire under a disability retirement are immediately eligible for retiree health care benefits.

Benefits for Spouses of Retired Employees

The spouse must be enrolled in the plan at the time of the retiree's retirement to be eligible for coverage. Health care coverage can continue to the surviving spouse of deceased retiree if the spouse had coverage prior to the member's death. A surviving spouse who chooses to maintain their coverage is required to pay the rate for dependent coverage.

Non-Medicare and Medicare-Eligible Provisions

Retirees have the option to maintain their health care coverage after they become eligible for Medicare. The City does not require retirees to enroll in Medicare.

Dental and Vision Coverage

Municipality does not provide subsidized retiree dental or vision care coverage.

Life Insurance Coverage

Municipality does not provide life insurance for retirees.

Opt-Out

Municipality does not provide an "opt-out" benefit for retirees. There is no incentive if they elect not to continue the coverage.



Summary of Benefits As of December 31, 2019

Benefits Paid by the Plan

Retiree pays 100% of the monthly premium (shown below) for health coverage. Retiree may purchase retiree health care coverage for eligible spouses and dependents at their own expense.

Retiree Premiums Effective October 1, 2020

Coverage	Medical Base	Medical Buy-Up	Dental	Vision
Employee Only	\$616.37	\$822.22	\$24.20	\$5.34
Employee + Spouse	1,294.35	1,726.62	48.39	10.31
Employee + Child(ren)	1,109.44	1,479.95	65.50	10.81
Employee + Family	1,849.09	2,466.64	99.20	16.17



SECTION E

UNDERLYING RETIREE CLAIMS COST DEVELOPMENT

Underlying Retiree Claims Cost Development

The retiree costs were estimated based on the plan premiums effective October 1, 2020, and are used for both current and future retirees. An inherent assumption in this methodology is that the projected future retirees will have a similar distribution by plan type as the current active employees and retirees. The fully-insured premiums the City pays its insurance carrier are blended rates based on the combined experience of active and retired members. Because the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees, there is an implicit employer subsidy for the non-Medicare eligible retirees.

Age-graded and sex-distinct per capita costs are utilized by this valuation. These costs are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process “distributes” the average rate over all age/sex combinations and assigns a unique rate for each combination. The age/sex specific costs more accurately reflect the health care utilization and cost at that age.

The monthly per capita costs including medical and prescription drug benefits at select ages are shown below:

For Those Not Eligible For Medicare		
Age	Male	Female
40	\$370.64	\$602.27
50	600.81	740.14
60	1,021.10	1,005.43
64	1,241.69	1,171.81

No Medicare-eligible retirees are assumed to continue their health coverage through the City’s healthcare plan.

SECTION F

SUMMARY OF PARTICIPANT DATA

Bay City
Total Active Members as of December 31, 2019
By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Under 20								
20-24	11							11
25-29	10	8						18
30-34	8	7	3					18
35-39	11	6	2					19
40-44	5	2	1	2	2			12
45-49	4	2	2	3	1	1		13
50-54		4	3	1	2	1	2	13
55-59	3	3	1	3	3	2	2	17
60-64	1	4	2	1	1	3		12
65 & Over								
Totals	53	36	14	10	9	7	4	133

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

Age: 41.8 years

Service: 9.3 years

Bay City
Total Retired Members as of December 31, 2019
By Attained Age

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	0	0	0
55-59	0	0	0
60-64	0	1	1
65 & Over	0	0	0
Totals	0	1	1

The number counts above only include those retirees who have elected to receive retiree health care coverage through the Bay City Retiree Health Care Plan.

SECTION G

VALUATION METHODS AND ACTUARIAL ASSUMPTIONS

Valuation Methods

Actuarial Cost Method – Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Normal Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce/(increase) the Total OPEB Liability.

Actuarial Assumptions

The rate of inflation is assumed to be 2.50% per year.

The discount rate of 2.75% is based on the measurement date of December 31, 2019.

The rates of salary increase used for individual members are in accordance with the following table.

TMRS Years of Service	Male & Female
1	11.50%
2	7.25
3	6.75
4	6.25
5	6.00
6	5.75
7	5.50
8	5.25
9	5.00
10	4.75
11-12	4.50
13-15	4.25
16-20	4.00
21-24	3.75
25+	3.50

The rates of post retirement mortality for healthy retirees:

The gender-distinct 2019 Municipal Retirees of Texas mortality tables were used. The rates are projected on a fully generational basis using the ultimate mortality improvement rates in the MP tables to account for future mortality improvements.

The rates of post retirement mortality for disabled retirees:

The same as healthy retirees, except with a 4-year set-forward for males and a 3-year set-forward for females. In addition, a 3.5% and 3% minimum mortality rate is applied to reflect impairment for younger members who become disabled for males and females, respectively. The rates are projected on a fully generational basis using the ultimate mortality improvement rates in the MP tables to account for future mortality improvements and are applied before the 3.5% and 3% minimum mortality floors are applied.

The rates of mortality for active members:

The gender-distinct Pub-2010 Public Retirement Plans mortality tables were used, with the public safety table (PubS-2010 Employee) used for males and the general employees table (PubG-2010 Employee) used for females. The rates are projected on a fully generational basis using the ultimate mortality improvement rates in the MP tables to account for future mortality improvements.

Actuarial Assumptions

The rates of retirement shown in the following table vary by age. These base rates are adjusted then multiplied by 2 factors based on 1) employee contribution rate and employer match and 2) if the city has a recurring COLA.

Age	Male & Female
<50	5%
50-51	7
52-54	8
55-59	13
60	16
61	17
62	25
63-64	20
65+	100

Note: For cities without a 20-year/any age retirement provision, the rates are loaded by 50% for ages 60 and below with 25 or more years of service. Except for the retirement rates at ages 65 and older, the retirement rates used in the OPEB valuation are the same as those used in the TMRS pension valuation. Because the benefits are assumed to end at age 65, no benefits are accrued after the age of 65.

Plan Design Factors Applied to Base Retirement Rates

Employer Match	Employee Contribution Rate		
	5%	6%	7%
1 - 1	0.75	0.80	0.84
1.5 - 1	0.81	0.86	0.92
2 - 1	0.86	0.93	1.00

Recurring COLA: 1.00

No Recurring COLA: 0.95

The plan design factors are applied to the base retirement rates for ages less than 62.

Actuarial Assumptions

Rates of separation from active membership are as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability).

1. For the first 10 years of service, the base table rates vary by gender, entry age, and length of service. For each city, the base table is then multiplied by a factor from 75% to 125% based on the experience of the individual city. A further multiplier is applied depending on an employee's classification: 1) Fire - 68%, 2) Police - 86%, or 3) Other - 108%. Sample base rates are shown below:

Male Age	SERVICE									
	0	1	2	3	4	5	6	7	8	9
20	0.3079	0.2766	0.2305	0.2037	0.1951	0.1764	0.1612	0.1311	0.1078	0.0860
25	0.2798	0.2393	0.1911	0.1638	0.1507	0.1336	0.1210	0.1060	0.0976	0.0798
30	0.2585	0.2163	0.1697	0.1395	0.1138	0.1052	0.0945	0.0817	0.0785	0.0655
35	0.2642	0.2183	0.1663	0.1334	0.1107	0.1048	0.0894	0.0758	0.0655	0.0598
40	0.2602	0.2172	0.1647	0.1279	0.1103	0.0994	0.0849	0.0749	0.0633	0.0608
45	0.2392	0.2040	0.1640	0.1287	0.1110	0.0976	0.0857	0.0750	0.0638	0.0607
50	0.2191	0.1825	0.1489	0.1211	0.1072	0.0935	0.0851	0.0755	0.0636	0.0609
55	0.2112	0.1759	0.1334	0.1132	0.0908	0.0911	0.0813	0.0719	0.0643	0.0591
60	0.2108	0.1626	0.1298	0.1118	0.0833	0.0915	0.0794	0.0721	0.0602	0.0579
65	0.2109	0.1542	0.1305	0.1121	0.0847	0.0914	0.0798	0.0738	0.0577	0.0581
70	0.2109	0.1557	0.1304	0.1121	0.0845	0.0914	0.0797	0.0735	0.0581	0.0581

Female Age	SERVICE									
	0	1	2	3	4	5	6	7	8	9
20	0.3080	0.2836	0.2258	0.2132	0.2030	0.2054	0.1561	0.1565	0.1590	0.1600
25	0.2828	0.2449	0.2101	0.1995	0.1739	0.1690	0.1392	0.1375	0.1206	0.1144
30	0.2617	0.2224	0.1981	0.1791	0.1369	0.1370	0.1297	0.1145	0.0989	0.0817
35	0.2464	0.2153	0.1834	0.1462	0.1294	0.1258	0.1130	0.1103	0.1016	0.0782
40	0.2281	0.2026	0.1641	0.1365	0.1316	0.1115	0.1040	0.0940	0.0847	0.0745
45	0.2227	0.1884	0.1450	0.1359	0.1072	0.1034	0.0909	0.0797	0.0717	0.0737
50	0.2238	0.1823	0.1369	0.1249	0.0901	0.0896	0.0837	0.0735	0.0686	0.0628
55	0.2236	0.1766	0.1372	0.1218	0.0848	0.0819	0.0725	0.0717	0.0696	0.0560
60	0.2236	0.1548	0.1372	0.1191	0.0811	0.0856	0.0656	0.0649	0.0436	0.0386
65	0.2236	0.1454	0.1372	0.1169	0.0813	0.0871	0.0678	0.0603	0.0281	0.0285
70	0.2236	0.1471	0.1372	0.1173	0.0813	0.0868	0.0675	0.0611	0.0308	0.0303

The rates shown above do not include the employer and employee specific loads.

Actuarial Assumptions

Rates of Separation (continued)

2. After 10 years of service, separation rates vary by gender and by the number of years remaining until first retirement eligibility. For each city, the base table is then multiplied by a factor from 75% to 125% based on the experience of the individual city. A further multiplier is applied depending on an employee's classification: 1) Fire - 54%, 2) Police - 83%, or 3) Other - 113%. Sample base rates are shown below:

Years from Retirement	Male	Female
1	1.82%	2.34%
2	2.43	3.15
3	2.87	3.75
4	3.24	4.25
5	3.55	4.67
6	3.83	5.06
7	4.08	5.40
8	4.32	5.72
9	4.53	6.02
10	4.74	6.30
11	4.93	6.57
12	5.11	6.82
13	5.28	7.06
14	5.45	7.28
15	5.60	7.50

Termination rates end at first eligibility for retirement.

The rates shown above do not include the employer and employee specific loads.

Rates of disability among active members. Sample rates are shown below:

Age	Male & Female
20	0.0003%
25	0.0019
30	0.0074
35	0.0194
40	0.0371
45	0.0603
50	0.0891
55	0.1235
60	0.1635
65	0.2090

Actuarial Assumptions

Health cost increases are displayed in the following table:

Year	Health Care Trend Inflation Rates
	Medical and Drug
2021	7.00%
2022	7.00
2023	6.75
2024	6.50
2025	6.25
2026	6.00
2027	5.75
2028	5.50
2029	5.25
2030	5.00
2031	4.80
2032	4.60
2033	4.40
2034	4.20
2035 & Later	4.15

The premiums effective October 1, 2020 were known at the time of valuation. The increases shown above are assumed to occur on October 1 of each year, with the first increase assumed to occur on October 1, 2021.

Miscellaneous and Technical Assumptions

Administrative Expenses	No explicit assumption has been made for administrative expenses.
Claims Utilization	To model the impact of aging on the underlying health care costs, the valuation relied on the Society of Actuaries' 2013 Study "Health Care Costs – From Birth to Death". Chart 1 (2010 Aggregate Commercial Costs) was used to model the impact of aging for ages less than 65.
Decrement Timing	Decrements of all types are assumed to occur mid-year.
Decrement Operation	Disability does not operate during retirement eligibility.
Eligibility Testing	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Marriage Assumption	Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Medicare Coverage	Assumed to be available for all covered employees on attainment of age 65. Disabled retirees were assumed to be eligible for Medicare coverage at age 65.
Election Percentage	<p>It was assumed that 20% of those retiring between ages 50 and 65 would choose to receive retiree health care benefits through the City, and that all retirees and spouses would discontinue coverage at age 65. The election rate for disabled retirees was assumed to be 20%, regardless of age.</p> <p>Of those assumed to elect coverage, 10% of retirees were assumed to elect two-person coverage. For those that elect two-person coverage, it was assumed that coverage would continue to the spouse upon death of the retiree, if eligible.</p>
Demographic Assumptions	This report has used the same demographic assumptions used to value the defined benefit retirement plan in which the members participate. We are reliant upon the retirement plan actuary to develop the demographic assumptions. Based on our experience, the assumptions appear reasonable.

Assumption, Method, and Plan Changes

Assumption, Method, and Plan Changes

1. The discount rate decreased from 3.71% as of December 31, 2018 to 2.75% as of December 31, 2019. This change increased the total OPEB liability.
2. The demographic assumptions were updated to reflect the 2019 TMRS Experience Study. This change increased the total OPEB liability.
3. The health care trend rates were updated to better reflect the plan's anticipated experience. This change increased the total OPEB liability.

SECTION H

GLOSSARY OF TERMS

Glossary of Terms

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

Glossary of Terms

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.

For plans that do not have formal assets, the discount rate will equal the prevailing 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.

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.



Glossary of Terms

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.
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 post-employment 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	<p>The total OPEB expense is the sum of the following items that are recognized at the end of the employer’s fiscal year:</p> <ol style="list-style-type: none">1. Service Cost2. Interest on the Total OPEB Liability3. Current-Period Benefit Changes4. Employee Contributions (made negative for addition here)5. Projected Earnings on Plan Investments (made negative for addition here)6. OPEB Plan Administrative Expense7. Other Changes in Plan Fiduciary Net Position8. Recognition of Outflow (Inflow) of Resources due to Liabilities9. Recognition of Outflow (Inflow) of Resources due to Assets <p>Note: Items 5, 7 and 9 are not applicable to unfunded plans.</p>
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.