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City of Edmonton
Waste Services Fiscal Policy Benchmarking Final Report

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1 Executive Summary

1.1 Project Overview

In April 2020, the City of Edmonton (the "City") Waste Services Utility ("Waste Services", "Waste", the "Utility"), engaged Grant Thornton LLP ("Grant Thornton") to conduct benchmarking research in order to make recommendations for appropriate updates to the Waste Management Utility Fiscal Policy C558A (the "Fiscal Policy"). This assignment is to create an evidence base and conclude with guidance so that Waste Services is well positioned to make updates to the Fiscal Policy.

Grant Thornton worked with the City to confirm a list of potential benchmarking candidates which would provide the most value to the study. Grant Thornton contacted representatives from each jurisdiction to assess their willingness to participate in a benchmarking survey. The following six candidates responded positively to the request (Section 3 of this report includes full profiles of the benchmark utilities).

1. Aquatera Utilities (Grande Prairie),
2. City of Halifax,
3. City of Ottawa,
4. City of Regina,
5. City of Saskatoon, and
6. Metro Vancouver.

1.2 Observations and Recommendations

As further detailed in Section 4 of this report, Grant Thornton has synthesized the benchmarking results and has prepared observations and recommendations grouped into five themes. The following table summarizes all observations and recommendations.

1.2.1 Theme 1: Financial Indicators

Relevant Section in Fiscal Policy	Observation	Recommendation
Financial Indicators Subsection 2.2, Debt Financing of Capital, Pg. 6	**Observation 1.1:** Debt to Net Assets is not a common financial indicator for municipally owned utilities (though similar measures such as debt to equity are often tracked by standalone/independent utilities and those who earn a return on rate base).	**Recommendation 1.1:** We recommend that Waste Services continue to use a financial indicator to track its capital structure as an independent Utility, such as the Debt to Net Assets Ratio (DNAR). This will help Waste Services and its regulator (i.e. City of Edmonton Utility Committee) understand the total amount of leverage the Utility has as a portion of its non-contributed asset base. Further, this will also support Waste Services to track debt levels to ensure general municipal debt limits are adhered to (a common practice used amongst benchmarking municipalities). The existing DNAR target range used by Waste Services of 50% to 70% (taking into consideration borrowing rates) is in-line with the limited benchmark sample base (through equivalent debt-to-equity ratios tracked) as well as common debt-to-equity ranges used by publicly regulated utilities. However, the targeted capital structure of a utility is based largely based on the utility and its regulator's level of risk tolerance (i.e. a lower risk tolerance is more associated with lower debt levels). As such, in order

Relevant Section in Fiscal Policy	Observation	Recommendation
		to confirm or modify the existing 50% to 70% DNAR target in the Fiscal Policy, it is suggested that Waste Services quantitatively examine the potential consequences of lowering or raising its DNAR target on utility rates and capital spending (e.g. lowering the DNAR too quickly has the potential to increase equity funding required from rate payers and may also place pressure to decrease expenditures in order to repay debt balances; raising the DNAR has the potential to lower funding required from rate payers, but could place pressure on the Utility's ability to service debt in the future). Because the DNAR was not found to be a common financial indicator amongst benchmarked municipally owned utilities, we further suggest that: (1) Waste Services place greater emphasis (where possible) on the Debt Service Converge Ratio (DSCR) as detailed in Recommendation 1.2 to ensure there are appropriate cash flows available to service debt obligations; and, (2) Waste Services and its regulator evaluate the potential impact of removing DNAR as a financial indicator. This is largely based on the comparative finding which suggests that DNAR is an uncommon financial indicator among municipally owned utilities. Further, DSCR with a minimum target can ensure that the Utility does not take on excess debt beyond its ability to service such debt. This can be coupled with the existing financial indictor of "stable consistent rate increases", which can indirectly support the Utility to keep appropriate debt levels (i.e. stable and consistent equity contributions from rate payers would need to be married with appropriate debt financing). However, at this time, we suggest that the DNAR currently remain as a tracked financial indicator to track proportional debt levels and to ensure the Utility is appropriately leveraged). Without the DNAR in place, there would be limited abilities to quantitatively and directly track and report on changes to the Utility's capital structure.
Financial Indicators Subsection 2.2, Debt Financing of Capital Pg. 6	**Observation 1.2: Cash flow-based indicators (e.g. Debt Service Coverage Ratio) are more common measure for municipally owned utilities.**	**Recommendation 1.2:** We suggest that Waste Services, in line with other utilities, adopts the DSCR as a financial indicator with a target of at least 1.5. A minimum target ensures there is enough cash flows from revenues (after taking into operating expenses) available to service Waster Service's principal and interest obligations. The final target should be based on the agreed upon risk tolerance of Waste Services. It should also align with corporate targets used by the City (this is currently implied as part of 2.2.c. in the existing Fiscal Policy). Furthermore, Waste Services should assess the impact on its other financial indicators as a result of introducing the DSCR.
Financial Indicators Section, Pg. 5, 6	**Observation 1.3: Indicators include both utility (e.g. reserve balances) and rate payer perspectives (e.g. rate increases, affordability).**	**Recommendation 1.3:** It is appropriate to consider indicators for rate payers as part of Waste Service Fiscal Policy. We suggest that the City continue using "stable consistent rate increases" (Indicator Target C on page 6 of the current Fiscal Policy). Furthermore, we suggest Indicator Target B make reference to the operating and capital reserve (as further described in Recommendation 2.2). This would replace the current wording of "an amount derived to mitigate the risk exposures".

1.2.2 Theme 2: Debt Management and Capital Funding

Relevant Section in Fiscal Policy	Observation	Recommendation
Subsection 2.2 Debt Financing of Capital, Pg. 6	**Observation 2.1: Most municipally owned utilities use a 'pay as you go' and reserve-based funding models, however, this is often not formalized in policy directions.**	**Recommendation 2.1:** We suggest that Fiscal Policy continue to limit debt financing for capital related expenditures, and consider the definition of 'capital expenditures' detailed in the City of Edmonton's Debt Management Fiscal Policy. We suggest that further restrictions and directions regarding the use of debt are unnecessary. Removing further restrictions will provide Waste Services the ability to make appropriate decisions regarding debt and pay as you go applications for capital projects.
Subsection 2.1, Rate Sufficient to Meet Cash Flow, Pg. 5	**Observation 2.2: Financial reserves and/or stabilization funds are common in policies.**	**Recommendation 2.2:** We suggest to remove the revenue and expenditure risk descriptions and suggested mitigation descriptions in the current Fiscal Policy (paragraphs two, three and four in section 2.1.b). While these may be sound examples of potential risk and potential mitigation actions, they are not exhaustive, and appear to be overly prescriptive for appropriate fiscal policy direction. Rather, we suggest that further policy guidance be provided on the target and maximum amount for a reserve(s). Though 'Unappropriated Retained Earnings' is defined in the Fiscal Policy (as retained earnings available for other uses), we suggest that the Utility consider adopting a formal reserve structure. Specifically, this can include an (1) operating reserve to account for variations in budgeted revenues and shortfalls (i.e. a 'stabilization' reserve), and (2) a capital reserve to account for unbudgeted capital projects and that can hold capital dollars to be spent from pay as you go funding. As the Utility also holds funds associated for post-closure liability, another explicit reserve can be considered to be included for post-closure liabilities. It is also suggested that appropriate governance direction be included to provide clear uses and procedures of using these reserves. Based on benchmarking results from Regina and Saskatoon, it is also suggested that the operating and capital reserves have targets and maximum limits (e.g. between 5% to 10% of budgeted revenue for the operating reserve and potentially a percentage of capital assets for the capital reserve). This can help ensure that rate payers do not overcontribute to reserves. Furthermore, reserve amounts beyond maximum limits may be used to lower future revenue requirements to benefit rate payers.

1.2.3 Theme 3: Consideration of Dividends for Utilities

Relevant Section in Fiscal Policy	Observation	Recommendation
Policy Statement, #3 'The Utility is exempt from Dividend payment to the City of Edmonton, Pg. 1	**Observation 3.1: Benchmarked utilities have various structures that can provide a dividend / return to their City shareholders.**	**Recommendation 3.1:** We recommend that Waste Services continue to be exempt from providing a dividend payment to the City of Edmonton. As noted above, there would likely be little net benefits to rate payers or tax payers. However, with respect to potential surpluses, we suggest that Waste Services make note of suggestions for reserve allocation and maximum limits (see Recommendation 2.2.). This will help ensure that surpluses are treated in a transparent manner, and any reserves beyond maximum limits benefit rate payers.

Relevant Section in Fiscal Policy	Observation	Recommendation
Policy Statements, Pg. 1	**Observation 3.2: It is not common for municipally owned utilities to a earn a return on its rate base.**	**Recommendation 3.2:** We suggest that Waste Services continue the practice of not generating a return on equity as part of its revenue requirement build-up. As noted earlier, we do recommend that Waste Services consider introducing specific reserves funds to ensure any fiscal surpluses are appropriately earmarked.

1.2.4 Theme 4: Consideration of Dividends for Utilities

Relevant Section in Fiscal Policy	Observation	Recommendation
Section 3.0, Financial Planning, Pg. 6	**Observation 4.1: Most utilities have well defined principles which dictate the end use rates for customers.**	**Recommendation 4.1:** We suggest removing reference to "private sector approaches to rate setting". This can be interpreted in many ways by the reader of the Fiscal Policy, including the use of a return on equity, which is more common for privately owned utilities and rate design. To build upon the objective of "stable consistent rate increases", we suggest that Waste Services consider additional rate setting principles to support decision making. Specifically, we would suggest that a statement regarding 'rate payer equity' be included with the definition to "distribute the cost of service fairly among each customer class". This aligns closely with the benchmarking utilities, as well as common rate setting principles used in the utility industry (i.e. "fairness in apportioning cost of service among different consumers" and "avoidance of undue discrimination amongst customer classes").

1.2.5 Theme 5: Contents in a Utility Fiscal Policy Document

Relevant Section in Fiscal Policy	Observation	Recommendation
All	**Observation 5.1: Most benchmarked utilities do not appear to have a single consolidated utility fiscal policy and often reference several documents and policies.**	**Recommendation 5.1:** We suggest that Waste Services continue to have a single fiscal policy. This supports a singular point of reference for important fiscal policy directions. While not all financial policies need to be included in the Waste Services Fiscal Policy, we would suggest that Policy include a statement that it aligns with other relevant City policies and directives. This would capture the Fiscal Policy's alignment with the City's Strategic Plan, Debt Management Fiscal Policy, Asset Management Policy, etc. Further, there is continued merit to specifically state the alignment with the City of Edmonton's "legislated debt limits" (Section 2.2.c on page 6 of the current Fiscal Policy).
Purpose of the Policy, Pg. 2	**Observation 5.2: Because many utilities do not have dedicated utility fiscal policies, purpose statements vary depending on the intent of each financial policy.**	**Recommendation 5.2:** We suggest that Waste Services maintain the purpose section of the Fiscal Policy to capture the intent and objective of Policy. As the current statement include perspectives for the City, and the Utility, we would suggest to include another purpose for the perspective of rate payers. For example, wording to "ensure the equitable and fair allocation of costs among customer classes" can be considered.

2 Introduction

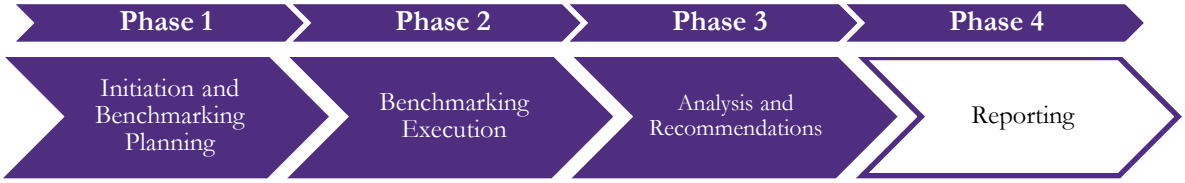
2.1 Project Background and Objectives

In April 2020, the City of Edmonton (the "City") Waste Services Utility ("Waste Services", "Waste Management", "Waste", the "Utility"), engaged Grant Thornton LLP ("Grant Thornton") to conduct benchmarking research in order to make recommendations for appropriate updates to the Waste Management Utility Fiscal Policy C558A (the "Fiscal Policy"). The Fiscal Policy was last updated in September 2014. As such, updates are required to make the Fiscal Policy relevant to how Waste Services' fiscal management is expected to operate today and in the foreseeable future. This assignment is to create an evidence base and conclude with guidance so that Waste Services is well positioned to make updates to the Fiscal Policy.

2.2 Approach

Grant Thornton undertook this assignment using a four-phase approach as illustrated in the figure below.

Figure 1 – Approach outlining the four project phases



2.2.1 Benchmarking Candidates

Grant Thornton conducted a benchmarking analysis of jurisdictions in order to gather relevant lessons learned and common best practices to inform future state recommendations on the Waste Management Utility Fiscal Policy. To select similar and relevant jurisdictions, Grant Thornton worked with the City to confirm a list of potential benchmarking candidates which would provide the most value to the study. The following table summarizes the selected municipalities that were identified as potential benchmarking candidates. As detailed in the table, a key consideration for candidates' inclusion was whether they were funded as a utility (i.e. primarily funded by user rates).

Table 1 – Utility Benchmarking Evaluation Criteria

		Utility type	Similar Total Population	Municipally Owned Utility	100% Cost recovery
S. No.	**City/ Utility**				
1	Metro Vancouver	Solid Waste	×	✓	✓
2	Aquatera Utilities	Water and Wastewater	×	✓	✓
3	City of Saskatoon	Water and Wastewater	✓	✓	✓
4	City of Regina	Water	✓	✓	✓
5	City of Ottawa	Solid Waste	✓	✓	×
6	City of Halifax	Water	✓	✓	✓
7	Seattle Public Utilities[1]	Solid Waste	✓	✓	✓

Following the confirmation of the municipal candidates, Grant Thornton contacted representatives from each jurisdiction to assess their willingness to participate in a benchmarking survey. Six candidates responded positively to the request. Grant Thornton preceded to develop a benchmarking survey for submission to each of the following jurisdictions[1]:

1. Aquatera Utilities (Grande Prairie),
2. City of Halifax,
3. City of Ottawa,
4. City of Regina,
5. City of Saskatoon, and
6. Metro Vancouver.

A copy of the survey that was distributed to the municipal candidates can be found in **Appendix A**.

2.2.2 Publicly Available Data and Secondary Research

In addition to the information directly obtained through the benchmarking survey, the Grant Thornton conducted a review of publicly available information to provide greater insight into the jurisdictions being analyzed. The information assessed included:

- Financial statements,
- Fiscal policies,
- Strategic plans,
- Capital budgets, and
- Prior financial policy studies.

As part of our secondary research, additional publicly available information was collected from municipalities across North America.

2.3 Authorship and Disclaimer

This report is prepared by Grant Thornton for Waste Services. This report is based on information and documentation that was made available to Grant Thornton as well as information obtained from third party sources prior to the time of drafting the report. Much of the information was gathered from the benchmarking survey submitted to selected jurisdictions, as well as publicly available information. As such, Grant Thornton assumes no responsibility and makes no representations with respect to the accuracy or completeness of any information provided to us. We are not guarantors of the information which we have relied upon in preparing our report, and except as stated, we have not attempted to verify any of the underlying information or data contained in this report. It is understood and agreed that all decisions in connection with the information as presented in this report shall be the responsibility of and be made by Waste Services. This report is confidential. This report is not to be used for any other purpose, and we specifically disclaim any responsibility for losses or damages incurred through use of this report for a purpose other than as described.

[1]Seattle Public Utilities (SPU) did not respond directly to the benchmarking survey. However, given the similarities of the City of Edmonton, SPU was included in the analysis and answers to benchmarking questions have been included where possible based on secondary research.

3 Benchmark Utility Profiles

The following section provides more detail on each of the benchmarking participants.

3.1 Metro Vancouver

The Metro Vancouver solid waste utility is owned by the Greater Vancouver Sewerage and Drainage District (GVS&DD). The GVS&DD is independent corporate entity owned by Metro Vancouver. The GVS&DD is regulated under the Province of British Columbia's GVS&DD Act. The GVS&DD utility is responsible for solid waste processing, while member municipalities (18 municipalities that are part of the GVS&DD) are responsible for solid waste and recycling collection. The utility is self-funded from tipping fees, energy revenues (from their waste-to-energy facility), and other minor revenues from various sources.

Capital expenditures are funded with tipping fee revenue projections. Moreover, the utility follows a pay-as-you-go funding model before considering long-term debt options for capital projects (i.e. annual operating and capital expenditures are funded directly from annual revenues. Expenditures not funded by annual revenues or by the reserve are funded by long term debt. Currently, financial metrics/indicators are managed at a consolidated corporate/City level. The utility itself tracks operational information such as annual solid waste flows (tonnage) and the percentage availability of the waste to energy facility.

The utility services regulated and non-regulated customers. Non-regulated customers include private residential customers, and commercial haulers. Metro Vancouver was included in this study given it is a solid waste utility in Western Canada.

3.2 Aquatera Utilities

Aquatera Utilities (Aquatera) is 100% municipally owned with four municipal shareholders: City of Grande Prairie, County of Grande Prairie, Town of Sexsmith, and Town of Wembley. These shareholders receive a 5% annual dividend based on their capital contribution. Annual dividends to municipal shareholders are subject to the review of the utility's financial performance.

Aquatera uses International Financial Reporting Standards (IFRS). Under these standards, the utility states that it does not have an ability to earmark formal reserves, similar to that of the municipality. However, Aquatera has a 'cash management policy' which sets aside a certain portion of annual cash flows for business development and capital replacement. The utility also has a 'restricted cash policy' which ensures it has appropriate cash for infrastructure charges (i.e. capital replacement), customer deposits, and landfill post closure liability. As such, while a formal reserve structure may not be permissible under their interpretations of the accounting standards, the utility does have policies in place to earmark cashflows in a similar manner.

The utility services regulated and non-regulated customers. The utility offers bulk water sales, sump material receiving, septic material receiving, commercial garbage, municipal service contracts, and commercial maintenance on private water and sewer services. Aquatera also provides custom billing services for municipalities.

Aquatera was selected in the study as it can provide a unique perspective for fiscal practices. It has a different structure when compared to other benchmarking options. Specifically, Aquatera is a municipal utility corporation with multiple municipal shareholders. When possible, it also pays dividends to its shareholders, which can impact its debt management practices and policies.

3.3 City of Ottawa

The City of Ottawa operates its solid waste utility through a hybrid funding model, with both user fees and tax levy funding. Collectively, the utility charges $139 per year for curbside households and $84 per year for multi residential households. Given these rates, the utility is forecast to be funded by the following sources in 2020:

- Household fees: 41%
- Tax levy: 31%
- Tipping fees: 8.3%
- Sales of recycled materials: 7.7%
- Provincial subsidies: 6.7%
- Internal City recoveries: 3.3%
- Various other revenues: 1.4%

The utility services regulated and non-regulated customers. Non-regulated customers include collection services to multi residential apartment buildings (all costs are recovered in a similar way as residential curbside customers). The City also provides curbside waste pick up for small commercial businesses that are on the residential curbside pickup routes via the "Yellow Bag Program". These businesses can purchase these yellow bags at a cost of $4.00 per bag.

While its solid waste utility is not fully self-funded, the City of Ottawa was included since it can provide insights on how general fiscal policies of the municipality apply to the utility.

3.4 City of Regina

The City of Regina's water utility is 100% owned by the City of Regina. However, the drinking water treatment plant is 74% owned by Regina and 26% owned by Moose Jaw (located 71 km from Regina). The water source for the treatment plant is approximately halfway between these two cities. Debt for capital projects is managed within the City's overall debt limit to ensure the limit is not exceeded and excess interest burdens are not incurred. The utility does not pay a dividend directly, though does contribute to the City's general fund for services provided (e.g. legal, finance, etc.).

The utility services regulated and non-regulated customers. The utility provides service to non-regulated customers in surrounding areas through separate inter-municipal agreements. Regina was included in the study as it has numerous similarities to Edmonton including a similar utility structure.

3.5 City of Saskatoon

Saskatoon's water and waste water utility is organized among several municipal divisions. Specifically, the utility funds all aspects of water and waste water services performed by the Saskatoon Water Division, Water and Sewer Section of the Water and Waste Operations Division, and the Major Projects and Preservation Division. To fund capital projects, Saskatoon uses a stabilization reserve

which has a separate account for each utility (i.e. water and waste water, electrical, storm water and curbside recycling). Any year-end surpluses in excess of budget are transferred to the operating reserve and each account has a specific cap. For example, water and waste water has a cap of 5% of current years budgeted revenue. Balance surpluses are transferred to capital reserves and/or used to repay existing debt incurred by the utility. A Return on Investment (ROI) will be phased in and will be 10% of budgeted volumetric and fixed/service charges, with revenues paid to the City. This ROI is a new initiative and there is no formal policy document currently available.

The utility provides potable water and other services to non-regulated customers such as SaskWater. Saskatoon was included in the study given the similarities of the utility structure and strategic goals to Edmonton's strategic goals.

3.6 Halifax Regional Water Commission (HRWC)

HRWC is the municipal water, wastewater and stormwater utility owned by the Halifax Regional Municipality (HRM). The utility is fully funded through utility rates. HRWC pays a dividend of 1.56% of annual rate base to HRM. The current rate base used in the dividend formula reflects only water infrastructure assets and not the wastewater or stormwater assets of the HRWC. The annual dividend rate increase will be capped at 1% starting in 2021/22.

The utility services regulated and non-regulated customers. Non-regulated activities are governed by a policy to ensure their cost of service is separately tracked. HRWC's unregulated activities include consulting services, operation of the dewatering facility, treatment of effluent from airplanes, etc. HRWC's guiding principles for unregulated activities include:

1. The rate base cannot be exposed to undue financial risk associated with capital financing of non-regulated activities;
2. Non-regulated expenses must be funded by non-regulated revenue;
3. Cost causation principles must be employed and there should be no subsidization of non-regulated activities from regulated activities; and,
4. There should be a net return/benefit to the rate base from unregulated activities.

HRWC was included in the study to provide a unique perspective of utilities in Eastern Canada. This utility also provides a unique perspective as it provides a dividend to the municipality.

3.7 Seattle Public Utilities (SPU)

Seattle Public Utilities (SPU) is a public agency of the City of Seattle. SPU is composed of three major direct-service providing utilities: the water utility, the drainage and wastewater utility, and the solid waste utility. SPU operations and capital programs are funded almost entirely by fees and charges from ratepayers. SPU also actively seeks government grants to support system maintenance and improvements. It also receives internal reimbursements from other City departments for services provided to those areas.

Financial performance metrics collected from all three utilities include net income; year-end cash balance; the amount of cash versus debt dedicated to the its capital improvement plan; debt service and the debt to asset ratio (only for the drainage and wastewater assets). SPU sells bonds to fund infrastructure investments at the (municipal bonds markets are large in the U.S.).

Seattle was included in the study given Seattle and Edmonton have many similarities with strategic goals, structure and population. It also provides a perspective on utility fiscal policies from the United States.

4 Themes, Observations, Evidence and Recommendations

Grant Thornton has synthesized the benchmarking results and have prepared observations categorized into five themes:

1. Financial indicators;
2. Debt management and capital funding;
3. Considerations of dividends for utilities;
4. Considerations for rate payer equity; and,
5. Contents in a utility fiscal policy document.

As part of the observations in each theme, is accompanying evidence gathered from the benchmarking results. Based on the evidence and Grant Thornton's experience with municipally owned utilities, Grant Thornton has also made recommendations for the City to consider as it updates its Waste Services Fiscal Policy.

4.1 Theme 1: Financial Indicators

Observation 1.1: Debt to Net Assets is not a common financial indicator for municipally owned utilities (though similar measures such as debt to equity are often tracked by standalone/independent utilities and those who earn a return on rate base).

Fiscal Policy Reference: *Financial Indicators Subsection 2.2, Debt Financing of Capital, Pg. 6.*

Evidence: The following table outlines the financial indicators and covenants used among the benchmark participants. As noted, most benchmarking utilities surveyed do not use a Debt to Net Asset Ratio (DNAR) as a measured financial indicator. Some utilities, however, make mention of the need to track debt levels to ensure they are in compliance with general debt limits of their municipalities.

Table 2 – Current Financial Covenants of the Utilities

Name of Utility	Utility type	Debt Service Coverage Ratio	Cash Financing of Capital	Debt to Net Asset Ratio	Debt to Equity Ratio
Metro Vancouver	Solid Waste	1.5x	N/A	N/A	N/A
Aquatera Utilities	Water and Waste Water	N/A	10% of annual cash flow	N/A	1:1
City of Saskatoon	Water and Waste Water	N/A	N/A	N/A	N/A
City of Regina	Water	Target of 5% or less should be maintained	N/A	N/A	N/A
City of Ottawa	Solid Waste	3x	N/A	N/A	N/A
Halifax Regional Water Commission	Water	1.85x (recommended in study)	N/A	N/A	35-50%
Seattle Public Utilities	Solid Waste	1.7x 1.5x (less of taxes)	Greater of 10% or $3.4M	N/A	N/A

The limited popularity of tracking debt-related balance ratios (e.g. DNAR, Debt to Equity, etc.) among Canadian municipally owned utilities is largely because they often do not leverage their asset base as a means to finance new capital growth[2]. This practice is common among those utilities who are able to earn on return on their rate/asset base, and thus may be more inclined to borrow against their asset bases in order to finance new assets. As such, there are more examples of debt-related balance sheet ratios, such as Debt to Equity, tracked by independently operated utilities, who may earn on return on their rate/asset bases.

Most municipality-owned utilities appear to be more focused with their ability to service their debt related obligations. Therefore, the more popular ratio used by these utilities is the Debt Service Coverage Ratio given it is an important measure of the cash flow available to pay current debt obligations. This is elaborated further as part of the following observation.

We understand that Waste Services has exceeded its targeted DNAR range of 50% to 70% stated in the Fiscal Policy. While a review of all influencing factors contributing to the higher than target outcome is out of scope of this assignment, is it important to analyze the history of Waste Service's debt and asset levels from its creation as a utility, and acknowledge that it is also constrained by annual rate increases that require approval from the City of Edmonton's Utility Committee. A DNAR target range of 50% to 70% is typical among the limited benchmark sample base (through equivalent debt-to-equity ratios tracked) as well as common debt-to-equity ranges used by publicly regulated utilities[3].

The current calculation methodology used by Waste Service to determine its DNAR uses the net book value of 'non-contributed assets' as the dominator. This appears to be a reasonable calculation methodology. Lenders typically prefer to provide debt against income producing assets. While Waste Services does not earn a return on its asset base (commonly comprised of the net book value of non-contributed assets), the practice of using non-contributed assets is consistent with approaches used by private utilities. 'Contributed assets' are typically provided to the utility to operate and are initially funded by government grants or developers. Through these assets are owned by the utility, they would be unable to earn a return in a typical private sector utility context. Therefore, the use of only including non-contributed assets as part of the DNAR equation is an approach that aligns with common practices used by private sector utilities.

The targeted capital structure of a utility is based largely based on the utility and its regulatory body's level of risk tolerance. As noted earlier, most established municipally owned utilities have lower leverage levels as compared to private owned utilities, due in part to the return incentive provided to most privately-owned utilities to grow their asset base. Declining costs of borrowing due to the present low interest rate environment has likely further encouraged increased borrowing by privately owned utilities. While there are some exceptions, most municipally owned utilities who do not operate with a return on equity have lower proportional leverage. This is influenced by their level of risk tolerance, regulatory ability to set utility rates, and requirement to be in compliance with general municipal debt limits.

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[2]Based on secondary research conducted, Waste Management Holdings based in Texas has a Debt to Net Asset ratio of 74.5% (Waste Management Inc, Annual Report December 2019, United States Securities and Exchange Commission).
[3]EPCOR Water, City of Calgary Water and Wastewater, and City of Red Deer Water and Wastewater use a deemed capital structure of 60% debt and 40% equity. This approximately equates to a DNAR of 60%. (EPCOR Utilities Inc., Investor Presentation, July 2017 (capital structure approved for 2017-21 PBR for Edmonton); City of Calgary, Financial Plan 2019 -2022 Water and Wastewater Lines of Service, March 2018; City of Red Deer, Utility Policy, October 2017).

Recommendation 1.1: We recommend that Waste Services continue to use a financial indicator to track its capital structure as an independent Utility, such as the Debt to Net Assets Ratio (DNAR). This will help Waste Services and its regulator (i.e. City of Edmonton Utility Committee) understand the total amount of leverage the Utility has as a portion of its non-contributed asset base. Further, this will also support Waste Services to track debt levels to ensure general municipal debt limits are adhered to (a common practice used amongst benchmarking municipalities).

The existing DNAR target range used by Waste Services of 50% to 70% (taking into consideration borrowing rates) is in-line with the limited benchmark sample base (through equivalent debt-to-equity ratios tracked) as well as common debt-to-equity ranges used by publicly regulated utilities. However, the targeted capital structure of a utility is based largely based on the utility and its regulator's level of risk tolerance (i.e. a lower risk tolerance is more associated with lower debt levels). As such, in order to confirm or modify the existing 50% to 70% DNAR target in the Fiscal Policy, it is suggested that Waste Services quantitatively examine the potential consequences of lowering or raising its DNAR target on utility rates and capital spending (e.g. lowering the DNAR too quickly has the potential to increase equity funding required from rate payers and may also place pressure to decrease expenditures in order to repay debt balances; raising the DNAR has the potential to lower funding required from rate payers, but could place pressure on the Utility's ability to service debt in the future).

Because the DNAR was not found to be a common financial indicator amongst benchmarked municipally owned utilities, we further suggest that:

(1) Waste Services place greater emphasis (where possible) on the Debt Service Converge Ratio (DSCR) as detailed in Recommendation 1.2 to ensure there are appropriate cash flows available to service debt obligations; and,

(2) Waste Services and its regulator evaluate the potential impact of removing DNAR as a financial indicator. This is largely based on the comparative finding which suggests that DNAR is an uncommon financial indicator among municipally owned utilities. Further, DSCR with a minimum target can ensure that the Utility does not take on excess debt beyond its ability to service such debt. This can be coupled with the existing financial indictor of "stable consistent rate increases", which can indirectly support the Utility to keep appropriate debt levels (i.e. stable and consistent equity contributions from rate payers would need to be married with appropriate debt financing). However, at this time, we suggest that the DNAR currently remain as a tracked financial indicator to track proportional debt levels and to ensure the Utility is appropriately leveraged). Without the DNAR in place, there would be limited abilities to quantitatively and directly track and report on changes to the Utility's capital structure.

Observation 1.2: Cash flow- based indicators (e.g. Debt Service Coverage Ratio) are more common measure for municipally owned utilities.

Fiscal Policy Reference: *Financial Indicators Subsection 2.2, Debt Financing of Capital, Pg. 6.*

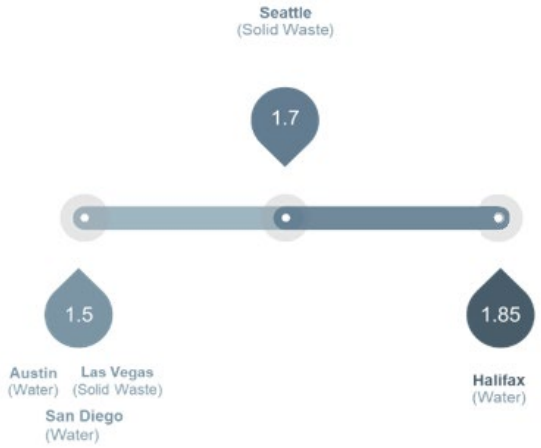
Evidence: Debt Service Coverage Ratio (DSCR) is a popular debt management ratio among benchmark participants. It is a measure of a utility's ability to pay its annual debt service. The DSCR commonly measures net operating income (calculated as revenues less operating expenses) as a proportion of principle and interest repayment. It is a financial indicator that is based largely on cash

flows, as compared to DNAR, which driven by balance sheet inputs. Similar to a lower DNAR target, a higher DSCR target would largely suggest a lower level of financial risk tolerance of a utility (i.e. greater risk aversion). Specifically, a higher DSCR target would have greater net operating income available to cover principal and interest payments.

It is common for municipal utilities to use a 'cash-based' approach to establish their revenue requirement. This is compared to a 'utility-based' model whereby amortization and returns on equity are included as part of the revenue requirement build-up. Given to focus on cash-flows, it is common for municipalities to track their DSCRs closely.

Similar to the proceeding DNAR commentary, the DSCR target or limit selected for a utility is largely driven by its risk tolerance. Based on the benchmarking and secondary data gathered however, it is common for minimum limit of 1.5 to be used. As shown on the following illustration, this limit is used by Austin (water), Las Vegas, and San Diego.

Figure 2 – Range of Minimum Debt Service Coverage Ratios for Utilities



With respect to the calculation of the DSCR, the following formula is used by most benchmarking utilities[4]:

Debt Service Coverage Ratio = Net Operating Income (Revenues less Operating Expenses) / Total Debt Service (principal and interest payments)

'Net operating income' is also commonly referred to as Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA). It a measure of cash flows available after operating expenses are taken into account in order to service debt, account for capital depreciation, and pay applicable taxes.

[4] Some municipally owned utilities, such as the City of Regina's water utility and Metro Vancouver solid waste utility calculate DSCR using revenues rather than net operating income as the numerator. A similar approach using total revenues is also detailed in the Alberta Regulation 255/2000 in the Municipal Government Act. However, it is more common in industry to use revenues available after paying for operating costs as a measure of remaining cash flows to service debt obligations.

It is common for financial indicators to influence each other. For example, a DSCR limit will influence the amount of debt the utility may take on, thereby impacting the DNAR. As such, it will be important to acknowledge the interrelationships of each financial indicator and have appropriate targets in place.

Recommendation 1.2: We suggest that Waste Services, in line with other utilities, adopts the DSCR as a financial indicator with a target of at least 1.5. A minimum target ensures there is enough cash flows from revenues (after taking into operating expenses) available to service Waster Service's principal and interest obligations. The final target should be based on the agreed upon risk tolerance of Waste Services. It should also align with corporate targets used by the City (this is currently implied as part of 2.2.c. in the existing Fiscal Policy). Furthermore, Waste Services should assess the impact on its other financial indicators as a result of introducing the DSCR.

Observation 1.3: Indicators include both utility (e.g. reserve balances) and rate payer perspectives (e.g. rate increases, affordability).

Fiscal Policy Reference: *Financial Indicators Section, Pg. 5, 6.*

Evidence: The DSCR was the most common financial indicator mentioned by surveyed utilities followed by some measure of rate affordability. There are also unique financial indicators used by some of the surveyed utilities. The table below details some of the indicators among a sample of benchmark participants.

Table 3 – Utility Financial Indicators

Name of Utility	Financial indicators
Aquatera Utilities	• Cash flow from operations (for growth)- Target of $25M by 2020 • Cash costs as a percentage of revenue (for efficiency) • Targets to use median utility rates when compared to sized municipality rates in Alberta (for affordability)
Halifax Regional Water Commission	• Debt Service Coverage Ratio- 1.85 • Debt to Equity: 35-50% • Debt Operating Revenue: 148% • Average annual residential bills as a % of median household income • An accumulated operating surplus that is 3-5% of annual expenditures
City of Regina	• Debt Service Coverage Ratio- target of 5% or less should be maintained • Reserve balance range - $25M minimum -$90M maximum • Goal of affordable utility rates • Reporting of revenue to expenditure • Percent of capital investment funding shortfall over 10 years and % water charge of household income.
City of Austin	• Quick Ratio (Current Assets less inventory divided by Current Liability)

Over recent months (largely due to the Covid-19 pandemic), there has been additional emphasis on rate payer affordability. A study recently prepared for the American Water Works Association assessed

methodologies to quantify the level of affordability of utility rates on households[5]. As such, some municipally owned utilities are increasing assessing rate affordability as part of their overall fiscal practices. However, while a common strategic objective, rate affordability is difficult indicator to apply for self-funded utilities, with no tax levy subsidization (i.e. rate affordability may conflict with collecting the full cost of service from rate payers). Further, the calculations and methodologies used to determine rate payer affordability (commonly calculated as the average monthly utility bill as a percentage of medium monthly household income) are based on several assumptions, may be difficult to administer, and can be challenged with alternative approaches (e.g. utility bill as a percentage of lower household incomes).

Recommendation 1.3: It is appropriate to consider indicators for rate payers as part of Waste Service Fiscal Policy. We suggest that the City continue using "stable consistent rate increases" (Indicator Target C on page 6 of the current Fiscal Policy). Furthermore, we suggest Indicator Target B make reference to the operating and capital reserve (as further described in Recommendation 2.2). This would replace the current wording of "an amount derived to mitigate the risk exposures".

4.2 Theme 2: Debt Management and Capital Funding

Observation 2.1: Most municipally owned utilities use a 'pay as you go' and reserve-based funding models, however, this is often not formalized in policy directions.

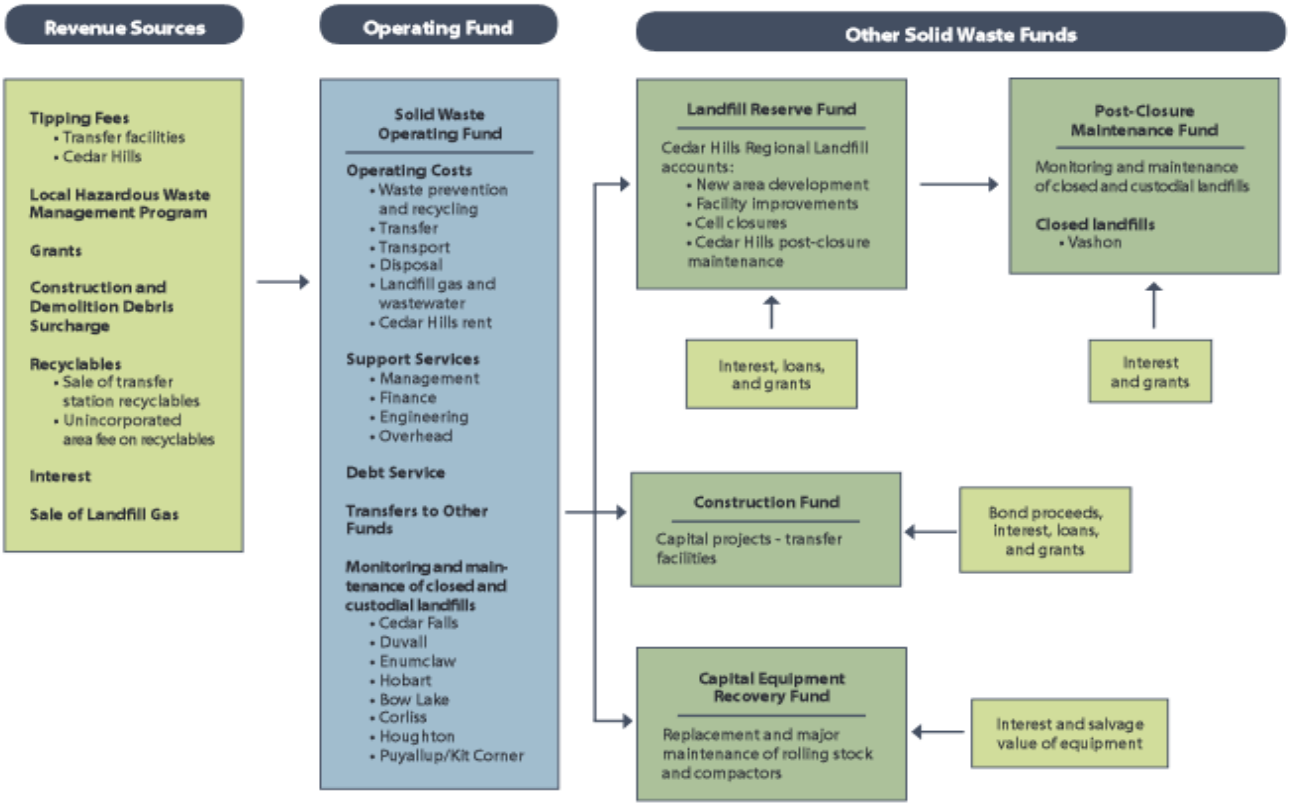
Fiscal Policy Reference: *Subsection 2.2 Debt Financing of Capital, Pg. 6.*

Evidence: Municipally owned utilities have limited options to fund capital projects, and as such prefer to leverage cash on hand and in their Reserve before looking at long term financing and revenue bonds. This is related to previous observations regarding debt levels associated with utility's level of risk tolerance. Some examples include:

- Metro Vancouver specifically follows a pay-as-you-go funding model where annual operating and capital expenditures are funded directly from annual revenues from user rates, fees, levies or requisitions.
- Seattle prefers to fund capital projects with existing revenue surpluses before exploring longer term financing like revenue bonds. See the illustration below of Seattle's various Solid Waste reserve funds.

[5] Affordability can be perceived across the following viewpoints: (1) household-level affordability: refers to the ability of households to pay for water services without facing undue economic hardship; (2) community level affordability: pertains to the collective ability to pay for investments in utility facilities and required sustainable service delivery with full compliance of laws and regulations; (3) regional/municipal affordability: refers to the extent that utilities can pay for the costs associated with specific regulatory requirements and service delivery without creating economic burden that is fiscally unsustainable for communities and households in that region. (Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector, April 2019).

Figure 3 – Illustration of the Seattle Solid Waste Operating and Reserve Funds



While there appears to be a preference to use cash among benchmarking utilities, no utility recorded to have a specific policy direction on this practice. In the absence of specific policy direction, some benchmarked utilities follow guidance provided by their municipality's general debt management policy. Furthermore, each utility is also influenced by their own cash and debt management approaches, with associated limits and ratios as detailed in the following table.

Table 4 – Utilities' Approaches to Debt Management

Name of Utility	Approach to managing debt
Metro Vancouver	Utility has a Financial Management Policy that addresses debt management which includes: • Pay as you go funding is prioritized vs long term debt financing to fund capital expenditures • Debt Service Coverage Ratio: target of 1.5 • Debt amortization period: long term debenture financing procured will be amortized over 15 years
Aquatera Utilities	Aquatera relies on a debt limit outlined in their shareholder agreement. The limit is based on a 1:1 ratio of debt to equity
City of Saskatoon	The utility follows a 20% debt management policy (not part of an official policy) where 20% of budgeted revenues is used for debt management. It is derived from a combination of best practice, internal judgement and direction, and the Corporate debt limit of $558M

Name of Utility	Approach to managing debt
City of Regina	Utility legal debt limit of currently $450M which is set by the provincial government. The City has developed internal soft limits in their Debt Management Policy that outlines their ability to pay debt back in a manner that is affordable to taxpayers and ratepayers. They have three debt policy ratio targets (applicable to the entire City including the utility): • Debt Interest Payment Ratio (interest/total revenues): target of 2.5% • Debt Service Coverage Ratio (debt payments/total revenue) - target of 5%* • Tax-and-Rate-Supported Debt Ratio (debt/total revenue) - target of 1.66 **The City of Regina uses revenues as part of its DSCR formula, rather than net operating income as suggested in Recommendation 1.2.*
Halifax Regional Water Commission	Utility assesses three areas when reviewing the impact of financing: • Debt Service Coverage Ratio: target of 1.85 • Debt to equity measure: target of 35-50% • Rate affordability: rates should not exceed 4-5% of median household income

As per section 2.2 of the existing Fiscal Policy, Waste Services is not to utilize debt to finance operating expenditures. This is common practice among municipal owned utilities. However, there are several additional restrictions on the use of debt (e.g. projects with benefits that extend 10 years or longer, major rehabilitation or upgrade of existing assets, etc.) that are unique to Waste Services as compared to benchmarked utilities. The City of Edmonton's Debt Management Fiscal Policy lists the following guidelines for the use of debt and considerations for the definition of capital expenditures (listed on page 3 of 6):

2.01 Use of Debt
2.01.1 The City will not issue Long-Term Debt or Short-Term Debt obligations to finance current operating expenditures.
2.01.2 When making a decision about the use of debt, alternative capital financing sources should be considered.
2.01.3 Long-Term Debt will be considered for Capital Expenditures for:
a) large projects with long-term benefits;
b) projects with benefits to the community at large (for tax-supported debt);
c) growth related projects;
d) emerging needs to support corporate priorities and approved strategic plans; and
e) major rehabilitation of existing assets as a short-term strategy to eliminate a significant backlog.
2.01.4 Short-Term Debt can be considered for interim Financing for Capital Expenditures.

Recommendation 2.1: We suggest that Fiscal Policy continue to limit debt financing for capital related expenditures, and consider the definition of 'capital expenditures' detailed in the City of Edmonton's Debt Management Fiscal Policy. We suggest that further restrictions and directions regarding the use of debt are unnecessary. Removing further restrictions will provide Waste Services the ability to make appropriate decisions regarding debt and pay as you go applications for capital projects.

Observation 2.2: Financial reserves and/or stabilization funds are common in policies.

Fiscal Policy Reference: *Subsection 2.1, Rate Sufficient to Meet Cash Flow, Pg. 5.*

Evidence: Most municipally owned benchmarked utilities have financial reserves and/or stabilization funds. Policies are typically in place to govern how these funds may be used. For example, surveyed utilities used their reserves to cover capital expenditure funding, unexpected expenditures, covered delayed revenue collection or fund operational shortfalls. The following table outlines this in greater detail.

Table 5 – Utility Reserve Structures

Name of Utility	Description of Utility Reserves
Metro Vancouver	Surpluses are transferred to the operating, statutory, and/or discretionary reserves (as per policy direction) and any surplus/reserves earn a rate of return based on the average rate of return on Metro Vancouver's investment portfolio.
City of Regina	Revenue surpluses are transferred to the General Utility Reserve where the reserve is used to finance capital projects and fund emergency expenditure. Moreover, Regina's utility rates are set to generate a surplus to cover capital projects over the next 25 years.
City of Saskatoon	Saskatoon uses a stabilization reserve which has a separate account for each utility (Water and waste water, electrical, storm water and curbside recycling). Any year-end surpluses in excess of budget is transferred to the reserve and each account has a specific cap. For example, water and waste water has a cap of 5% of current years budgeted revenue. Balance surpluses are transferred to capital reserves or used to repay existing debt.
City of Ottawa	The utility has a Solid Waste Reserve to fund capital projects. Even though the City of Ottawa's utilities are partially funded by the tax-base, there are separate reserves for all other utilities (water, wastewater and stormwater).
Seattle Public Utilities	Has an Emergency Reserve which includes working capital (to account for variation in revenue/expense cycles), contingency (unplanned shortfalls in revenue or increases in expenses) and emergencies (dealing with revenue disruptions until additional financing can be obtained
City of Austin	Utility has a Stabilization Reserve.

Currently, the Waste Service's Fiscal Policy states "a portion of Unappropriated Retained Earnings is maintained for the purpose of meeting unforeseen and therefore unbudgeted net expenditures" (page 5). Given the risks to revenues and expenditure further elaborated in the policy, the Utility would have funds available for other uses. The current Fiscal Policy however, does not provide a targeted or maximum amount for this funding pool, nor specific direction on its intended use or governance. Furthermore, none of the benchmark utilities referenced fiscal policies which documented itemized risks in similar fashion.

Recommendation 2.2: We suggest to remove the revenue and expenditure risk descriptions and suggested mitigation descriptions in the current Fiscal Policy (paragraphs two, three and four in section 2.1.b). While these may be sound examples of potential risk and potential mitigation actions, they are not exhaustive, and appear to be overly prescriptive for appropriate fiscal policy direction. Rather, we suggest that further policy guidance be provided on the target and maximum amount for a reserve(s). Though 'Unappropriated Retained Earnings' is defined in the Fiscal Policy (as retained earnings available for other uses), we suggest that the Utility consider adopting a formal reserve structure. Specifically, this can include an (1) operating reserve to account for variations in budgeted revenues and

shortfalls (i.e. a 'stabilization' reserve), and (2) a capital reserve to account for unbudgeted capital projects and that can hold capital dollars to be spent from pay as you go funding. As the Utility also holds funds associated for post-closure liability, another explicit reserve can be considered to be included for post-closure liabilities. It is also suggested that appropriate governance direction be included to provide clear uses and procedures of using these reserves. Based on benchmarking results from Regina and Saskatoon, it is also suggested that the operating and capital reserves have targets and maximum limits (e.g. between 5% to 10% of budgeted revenue for the operating reserve and potentially a percentage of capital assets for the capital reserve). This can help ensure that rate payers do not overcontribute to reserves. Furthermore, reserve amounts beyond maximum limits may be used to lower future revenue requirements to benefit rate payers.

4.3 Theme 3: Consideration of Dividends for Utilities

Observation 3.1: Benchmarked utilities have various structures that can provide a dividend / return to their City shareholders.

Fiscal Policy Reference: *Policy Statement, #3 'The Utility is exempt from Dividend payment to the City of Edmonton, Pg. 1.*

Evidence: There is no common approach outlined by the surveyed utilities on providing a dividend to their municipal shareholders. As a municipally owned utility corporation, Aquatera provides a 5% dividend to its shareholders on their contributed capital, with the ability to declare an additional discretionary dividend. HRWC also pays a dividend, though it is also considered as a transfer in lieu of municipal property taxes. While Regina's utilities do not pay an explicit dividend to the municipality, the utilities provide a transfer to the City of Regina calculated as 5% of budgeted utility revenues for administrative services provided to utility from the municipality. The City of Saskatoon is beginning to phase in a 10% charge on rates to be collected as a dividend by 2021. City of Ottawa and Metro Vancouver do not have a dividend structure.

Table 6 – Utility Dividend Arrangements

Name of Utility	Dividend Structure
Aquatera Utilities	Pays a mandatory 5% annual dividend on the capital contribution of the shareholders. Its board of director has the ability to declare a discretionary dividend above the mandatory dividend (with unanimous approval by all shareholders).
Halifax Regional Water Commission	Pays a 1.56% dividend to the Halifax Regional Municipality. This dividend is considered a grant in lieu of taxes and calculated based on a dividend rate times the asset base.
City of Regina	Regina's transfers funds to the City's General Fund for administrative services such as (legal, finance, etc.). Funds are calculated as 5% of the budgeted utility revenues for the previous year.
City of Saskatoon	Utility is planning on including a return on investment by 2021, whereby 10% of budgeted volumetric and fixed/service charge revenues (or metered revenues) will be collected as a potential dividend.

It is also common for utilities to provide a 'franchise fee' to their municipalities to provide consideration in lieu of property taxes and for the right to operate as a utility in their jurisdiction. Regardless, a dividend to the municipal shareholder is typically gathered from utility rate payers. This can be a net benefit when a municipally owned utility provides services and earns a profit from non-

regulated customers, including customers outside of their municipal jurisdiction. However, when a municipally owned utility is regulated to provide a mandatory dividend to its municipal shareholder with no augmentation of revenues beyond its regulated municipal customer base, there is often no net benefit to rate payers or tax payers.

Recommendation 3.1: We recommend that Waste Services continue to be exempt from providing a dividend payment to the City of Edmonton. As noted above, there would likely be little net benefits to rate payers or tax payers. However, with respect to potential surpluses, we suggest that Waste Services make note of suggestions for reserve allocation and maximum limits (see Recommendation 2.2.). This will help ensure that surpluses are treated in a transparent manner, and any reserves beyond maximum limits benefit rate payers.

Observation 3.2: It is not common for municipally owned utilities to a earn a return on its rate base.

Fiscal Policy Reference: *Policy Statements, Pg. 1.*

Evidence: Most municipally owned utilities do not apply a regulated return on their rate base. As such, there is no direct relationship between the net book value of non-contributed assets on the utilities' balance sheets and their ability to generate revenue from these assets. As noted earlier in this report, it is common for municipal utilities to use a 'cash-based' approach to establish their revenue requirement. This is compared to a 'utility-based' model whereby amortization and returns on equity are included as part of the revenue requirement build-up. Given this approach, using returns on equity are less common for municipally owned utilities. Among the benchmark participants, there are two exceptions:
1) Halifax Regional Water Commission earns a rate of return sufficient to cover its annual debt servicing obligations and depreciation of utility plant in service. As part of its dividend formula to the HRM, the HRWC applies 1.56% on its asset base.
2) Aquatera earns a return on equity and uses the Alberta Utilities Commission (AUC) generic cost of capital as a benchmark. Currently, Aquatera uses a return on equity of 8.75%.

It is common for those utilities who provided a dividend to their shareholders to also include a return on equity as a means to fund the dividend distribution.

Recommendation 3.2: We suggest that Waste Services continue the practice of not generating a return on equity as part of its revenue requirement build-up. As noted earlier, we do recommend that Waste Services consider introducing specific reserves funds to ensure any fiscal surpluses are appropriately earmarked.

4.4 Theme 4: Considerations for Rate Payer Equity

Observation 4.1: Most utilities have well defined principles which dictate the end use rates for customers.

Fiscal Policy Reference: *Section 3.0, Financial Planning, Pg. 6.*

Evidence: Benchmarked utilities outline common principles for rate development such as affordability, stability, promotion of long-term financial sustainability, and equitable allocation of costs to current and future users. Among the benchmark participants, the following principles regarding rate design were noted:

- sufficient to meet revenue requirements
- equitable
- cover indirect and direct costs from each customer class
- structured to encourage waste reduction
- stable over time
- clear for customers to understand
- consistent with financial policies in the City to ensure financial stability
- structured to minimize admin costs
- created to mitigate risk of increased service rate

Furthermore, benchmarked utilities generally define 'equitable rates' as a fair allocation of costs among and between customer classes. This is further detailed in responses shown in the table below.

Table 7 – Definition of Equitable Rates by Utility

Name of Utility	Definition of Equitable Rates
City of Saskatoon	Utility uses the American Water Works Association rate setting standards which defines equitable as rates that distribute the cost of service fairly among each type and class of service.
Halifax Regional Water Commission	1) Fairness by class: rate structures that avoid discrimination in rate relationship that avoid inter-customer burdens 2) 'Defendable vs costs': rates that apportion cost of service among the different customer classes that are not arbitrary and capricious
Seattle Public Utilities	Rates that should reflect a fair apportionment of the different costs of providing services among groups of customers.

It is generally accepted by utility regulators that any utility's cost allocation and rate setting methodology should be based on a set of clear principles. These principles then guide the utility's cost allocation and rate design approach. The utility also establishes rates to recover its revenue requirements in a manner that is consistent with the principles. Within the utility industry, a commonly used reference for defining these principles is the work of James Bonbright[6]. These principles for utility cost allocation and rate design include:

- **Rate attributes:** simplicity, understandability, public acceptability, and feasibility of application;
- Freedom from controversies as to proper **interpretation**;
- Effectiveness of yielding total **revenue requirements**;
- **Revenue (and cash flow) stability** from year to year;
- **Stability of rates** themselves, minimal unexpected changes that are seriously adverse to existing customers;
- **Fairness** in apportioning cost of service among different consumers;
- Avoidance of **undue discrimination** amongst customer classes;
- **Efficiency**, promoting efficient use of energy and resources.

[6] James C. Bonbright, Albert L. Danielsen, David R. Kamerschen, The Principles of Public Utility Rates (Second Edition), 1988.

While the current Fiscal Policy directs Waste Services to use "private sector approaches to rate setting" (page 1) and provide "stable consistent rate increases" (page 6), there is no explicit direction regarding other rate setting principles.

Recommendation 4.1: We suggest removing reference to "private sector approaches to rate setting". This can be interpreted in many ways by the reader of the Fiscal Policy, including the use of a return on equity, which is more common for privately owned utilities and rate design. To build upon the objective of "stable consistent rate increases", we suggest that Waste Services consider additional rate setting principles to support decision making. Specifically, we would suggest that a statement regarding 'rate payer equity' be included with the definition to "distribute the cost of service fairly among each customer class". This aligns closely with the benchmarking utilities, as well as common rate setting principles used in the utility industry (i.e. "fairness in apportioning cost of service among different consumers" and "avoidance of undue discrimination amongst customer classes").

4.5 Theme 5: Contents in a Utility Fiscal Policy Document

Observation 5.1: Most benchmarked utilities do not appear to have a single consolidated utility fiscal policy and often reference several documents and policies.

Fiscal Policy Reference: *All.*

Evidence: Most benchmarked utilities reference multiple policies or documents that provide fiscal directions, rather than a single policy. It is common for these to be general corporate financial documents developed to be followed by the entire municipality, including utility areas. In the absence of a specific utility fiscal policy, benchmarked utilities rely on the general municipal policies. Aquatera is an outlier as they document each financial activity with a separate policy. See the table below for a breakdown of each utility's various documents and their high-level contents.

Table 8 – Documents and Contents in Benchmarked Utilities' Fiscal Policy

City/ Utility	Document and Contents
Metro Vancouver	1. Financial management policy • Financial management principles (sources of capital funding) • Debt Service level • Debt amortization level 2. Reserve policy • Principles of using reserves and surpluses
Aquatera Utilities	1. Purchasing Policy 2. Cash Management Policy 3. Investment Policy 4. Trust Funds Policy 5. Delegation of Management Authority Policy 6. Restricted Cash Policy Amendment 7. Infrastructure Charge Policy 8. Shareholders Agreement
City of Saskatoon	1. Rate setting standards/principles (guided by American Water Works Association) 2. Reserves for Future Expenditure Policy

City/ Utility	Document and Contents
	• Source and Application of Funds 3. Borrowing for Capital Projects Policy • Utility debt considerations • Capital borrowing
City of Regina	1. Debt Management policy • Debt Policy • Debt Structural Features • Approval of Debt Issuance 2. Reserve Policy • Purpose and principle of reserves • Administration of reserves • Reporting on reserves 3. Financial policies Framework • Guiding Principles • Targets • Accountability
City of Ottawa	1. City Fiscal Framework • Guiding Principles • Targets • Accountability 2. Integrated Waste Management Master Plan/ Solid Waste Flat Fee Funding Implementation Report • Direction/approval of the current funding model 3. Long Range Financial Plan • Funding mechanisms and revenue streams
Halifax Regional Water Commission	1. Debt Study Directive • Includes benchmarking best practices on debt management policies, debt capacity, policy review findings, long term capital requirements, etc. 2. Cost of Service Manual • Rate setting principles • Revenue requirements • Cost Allocation • Capital Assets • Allocation to Customer Classes

Waste Services is unique compared to the benchmarking participants as it has a single Fiscal Policy. We believe this is beneficial practice since it provides important direction to guide the fiscal practices of Waste Services. The existing Policy makes reference to be in alignment with other directions and policies of the City of Edmonton. This includes the following:

- "The Utility is to contribute towards achieving the City's Strategic Plan." (page 1)
- "The Waste Management Utility is operated in a manner that reflects City Council's overall vision and philosophical objectives for the Utility." (page 2)
- The Utility should "follow the City of Edmonton processes for debt issuance, including the term of the debt and will be consolidated with City debt in determining the City's position relative to the legislated debt limits." (page 6)

While the Fiscal Policy refers to general City of Edmonton plans and direction, it does not specifically reference other City policy documents.

Recommendation 5.1: We suggest that Waste Services continue to have a single fiscal policy. This supports a singular point of reference for important fiscal policy directions. While not all financial policies need to be included in the Waste Services Fiscal Policy, we would suggest that Policy include a statement that it aligns with other relevant City policies and directives. This would capture the Fiscal Policy's alignment with the City's Strategic Plan, Debt Management Fiscal Policy, Asset Management Policy, etc. Further, there is continued merit to specifically state the alignment with the City of Edmonton's "legislated debt limits" (Section 2.2.c on page 6 of the current Fiscal Policy).

Observation 5.2: Because many utilities do not have dedicated utility fiscal policies, purpose statements vary depending on the intent of each financial policy.

Fiscal Policy Reference: *Purpose of the Policy, Pg. 2.*

Evidence: Policy and purpose statements provide high-level directions. Some benchmark participants include strategic purpose statements, while others who have more perspective policies, include purpose statements for each policy. The table below includes such statements from the benchmarked utilities.

Table 9 – Purpose statements found in various policies

City/ Utility	Purpose Statement or Equivalent
Metro Vancouver	As the primary regional service and utility provider for the region, Metro Vancouver is responsible for ensuring that the services it delivers provide value to its member jurisdictions, to its businesses and to its residents. Ensuring this value is achieved for ratepayers over the long term requires an adherence to sound fiscal policies that balance equity, affordability and continuous improvement through responsible fiscal management.
Aquatera Utilities	There are multiple individual financial policies with specific purpose statements. Example: the restricted cash policy purpose statement: to manage restricted cash accounts for monies set aside for specific purposes and to set expenditure guidelines for the use of these funds
City of Saskatoon	Deliver safe, reliable, and cost-effective water, and wastewater services that meet and exceed health and environmental regulatory standards
City of Regina	The City is committed to providing potable water to customers and planning for a sustainable water service that supports growth and addresses challenges related to climate change, environmental conditions, aging and deteriorating infrastructure and funding constraints.
City of Ottawa	N/A
Halifax Regional Water Commission	Halifax Water's mission is to provide world class services for our customers and our environment; and our vision of how we will accomplish this is threefold. 1. We will provide our customers with high quality water, wastewater and stormwater service. 2. Through the adoption of best practices, we will place the highest value on public health, customer service, fiscal responsibility, workplace safety and security, asset management, regulatory compliance and stewardship of the environment. 3. We will fully engage employees through teamwork, innovation and professional development
Seattle Public Utilities	1. To ensure the financial integrity of the solid waste utility 2. To moderate rate increases for solid waste customers over the near and medium term 3.To ensure an equitable allocation of capital costs between current and future ratepayers

Currently, the Waste Services Fiscal Policy has three purpose statements for the policy (page 2):

- 'Ensure that the Waste Management Utility is operated in a manner that reflects City Council's overall vision and philosophical objectives for the Utility;
- Ensure that there is a consistent approach year over year for the financial planning, budgeting and rate setting for the City managed Utility; and,
- Ensure that the Utility is financially sustainable over the long term.

Recommendation 5.2: We suggest that Waste Services maintain the purpose section of the Fiscal Policy to capture the intent and objective of Policy. As the current statement include perspectives for the City, and the Utility, we would suggest to include another purpose for the perspective of rate payers. For example, wording to "ensure the equitable and fair allocation of costs among customer classes" can be considered.

Appendix A: Fiscal Policy Review Benchmarking Questionnaire

Prepared by Grant Thornton on behalf of The City of Edmonton

Name:

Organization:

Background

Grant Thornton LLP has been engaged by the City of Edmonton to conduct a benchmarking study of municipally owned utilities regarding their fiscal/financial policies and practices (e.g. financial indicators, etc.).

We would like to ask for and greatly appreciate your participation in this benchmarking questionnaire. It is anticipated that the benchmarking process will require approximately 1.5 to 2 hours, depending on the availability of information within your organization. **In return for your participation, we will provide you with a document containing the summarized, anonymous themes collected during this benchmarking process.**

Included in this document are questions for your consideration. Please complete this form and return it to Grant Thornton (feel free to attach additional reference documents as you see fit). Alternatively, you may request that we schedule a telephone call for you to provide your information. We require all responses completed by **May 22, 2020**. We will be in contact with you shortly to confirm the successful delivery of the questionnaire and answer any questions you may have.

If you have any questions please do not hesitate to contact Ricky Soni at Grant Thornton at 780-401-8219 (ricky.soni@ca.gt.com) or Ryan Kos at The City of Edmonton at 780-940-0958 (ryan.kos@edmonton.ca).

Fiscal Policy Introduction

1. Does your Utility have a fiscal policy/framework that it should follow (e.g. a policy document which may include directions pertaining to debt uses/limits, reserves, rate creation, etc.). If Yes, please share the fiscal policy document(s) with us.

2. Please elaborate on how the Utility is governed with respect to debt management/uses, contingency planning, funding capital expenditures and other key financial indicators for operating a sustainable Utility?

3. In addition to specific fiscal policies pertaining to the Utility, are your Utility fiscal practices also guided by broader polices that apply across your organization? If Yes, please elaborate on and share the policies, and describe how they impact the fiscal practices of the Utility.

Ownership/Shareholder

4. To confirm, is the Utility wholly (100%) owned by the City? *[Y/N]* If N, please elaborate on the ownership of the Utility.

5. Does the Utility operate on a full cost recovery basis (funded by **user fees**) or is it subsidized by other sources (e.*g. tax levy)*? If it does not operate on full cost recovery, please elaborate on other sources of funding?

6. Does the Utility pay dividends to the City/shareholders? If Yes, please elaborate on the policy that governs payment of dividends to the City/shareholders (i.e. how is the divided amount decided, and by whom).

The following questions pertain to specific fiscal practices that are used by your Utility. Please feel free to provide elaborate responses to the questions below or alternatively, please respond by referring to sections/statements from relevant policy documents.

Utility Financing: Debt Financing, Capital Expenditure Funding and Operating Expenditure Funding

7. How may debt financing be used by your Utility? (i.e. for which purposes may the Utility borrow debt, such as for new capital projects beyond 10 years of useful life). Please elaborate on any criteria and/or restrictions that guide the Utility's use of debt (e.g. cannot use debt to fund operating expenditures).

8. Please elaborate on other forms of policies/guidelines that guide how debt may be used for the Utility (e.g. relevant legislations, provincial/federal guidelines).

Financial Indicators

9. What are the financial indictors used by your Utility? Please list and elaborate on the financial indicators used by your Utility. (e.g. positive net income, minimum reserve balances, etc.).

10. What are other financial indictors/metrics that should be considered, but may not be formally tracked by the Utility? Please list and elaborate on such indicators/metrics.

11. Does the Utility use '*Debt to Net Assets ratio'* (or a similar ratio) as an indicator?

12. Please elaborate on the methodology that is used (or should be used) to calculate a *Debt to Net Assets ratio'* that you use (or would use) to determine this ratio (*e.g. usage of multi-year rolling historical averages*)? Specifically, please specify what is (or should be) included if the ratio to determine *'Debt'* as well as *'Net Assets' (e.g. Debt considers current debt, long term debt etc.; Net Assets includes only non-contributed assets, or also contributed assets, cash etc.).*

13. What is the target '*Debt to Net Assets ratio*' that is used (should be used) by the Utility?

Rate Revenues and Contingency Planning for Meeting Expenditures and Cash Flow

14. What are the policies/guidelines that inform the Utility's financial contingency and risk planning?

15. Please elaborate on the Utility's approach to financial contingency and risk planning.

16. Please describe any defined indicators used to manage financial contingency and risk planning (e.g. *stable rate increases and positive net income, etc.)*

Financial Planning / Performance

17. What principles *e.g. regulatory principles, rate setting principles and long-range financial planning* does the Utility follow to ensure robust financial planning?

Other Comments

18. What other factors/statements/criteria should be documented a Utility's fiscal policy?

19. Please share any additional comments you may have.