

Stack'd exists to deliver exceptional consulting services to our clients.

# Solid Waste Program Financial Plan and Utility Rate Model Final Report

Final Version

The City of Winnipeg, Solid Waste Services

September 10, 2020



Suite 201 | 805 1<sup>st</sup> St SW | Calgary, Alberta T2P 7N2  
T 403.454.7125 | [www.stackdconsulting.com](http://www.stackdconsulting.com)

# 1.0 Executive Summary

In September 2019, Stack'd Consulting Inc. was engaged by The City of Winnipeg (The City), Water and Waste Department, Solid Waste Services (SWS) Division to conduct a solid waste program financial plan and utility rate model project. The financial plan and utility rates model project requirements were originally specified in The City of Winnipeg's RFP # 388-2019<sup>1</sup>. Per this RFP and input from The City's Steering Committee, the following key requirements for the project were noted as:

- i. Perform a detailed review of the integrated waste management capital and operational programs and reserve funds and the corresponding proposed funding sources;
- ii. Review various utility model options (i.e. full utility, partial utility, hybrid utility);
- iii. Develop a cost of services rate analysis for existing and proposed programs;
- iv. Develop a recommended user-friendly rates model, including:
  - Different customer classes;
  - New / specialty rates; and
  - Aligns with organizational strategies and practices.
- v. Develop a ten (10) year financial plan.

## 1.1 Current Solid Waste Services and Customer Classes

Upon review of the services provided, a categorization exercise was completed. The following graphic displays the distinct service categories and services provided (*note that Organics Cart collections has been included given that it is considered as a potential expenditure within the 10-year capital plan*):



Figure 1: Scope of The City of Winnipeg's Solid Waste Services

<sup>1</sup> The City of Winnipeg, "Request for Proposals for Solid Waste Program Management Ten Year Financial Plan and Utility Rate Model", Issued May 2019

## 1.2 Current Funding Model

There is currently a variety of funding mechanisms, fees, and customer agreements now in place. These range from property tax funding, daily waste diversion fees included in residential quarterly utility bills, tipping fees at Brady and grant funding. Based on a detailed review in collaboration with The City's Project Team, the following observations were made:

- There is prevalent use of property tax both as a primary funding source and to address funding gaps where fees are intended to cover. Given the property tax funding model, there is also an inherent need to provide the service to customers who pay taxes, even though there may be internal City constraints to achieve the required funds to support the service;
- There are issues in how growth is funded given reliance on constrained property tax and grant funding mechanisms;
- Multi Material Stewardship Manitoba (MMSM) grant funding, which is based on residential collection costs, is insufficient relative to the corresponding costs of service. Additional funding sources for these services are required;
- There are noted inconsistencies in funding methods between customer classes for the same services and service levels, particularly for Registered Charity and Commercial customers;
- The Waste Diversion Fee is not charged to Multi-Family customers due to billing data limitations;
- There are complexities with the current billing systems (i.e. Oracle Customer Care and Billing (CCB) and Carolina Wasteworks);
  - *In particular, as SWS moves towards a revised funding model, it will be required to address its billing system requirements in collaboration with other City departments who also now use these systems.*
- There are issues involved from servicing customers with funds from the Waste Diversion Fee who do not contribute towards it;
- There are challenges in funding solid waste collection services with property tax, particularly for managing large, multi-year collections contracts and a growing customer base;
- There are competitive challenges in setting tipping fees for Brady, as without any flexibility or ability to respond to competitor pricing tactics SWS now effectively sets the market price upon which area landfill competitors can react.
- The recent collapse of the recyclables commodities markets has significantly impacted The City, as historical revenues from sale of commodities have dropped from approximately \$5.5 million in 2017 to only approximately \$900 thousand in 2019;
- There are extensive billing and administration requirements for variety of smaller-cost cart services which can be inefficient (but required to achieve the total revenues required to fund the scope of services provided); and
- Current fees do not usually cover the full, end-to-end cost of providing the service.

## 1.3 External Scan Observations

To support the project's objectives, an external scan of select municipal waste management organizations was completed. Observations were made from their funding models, discussions with representatives as available, and review of publicly available information. In addition, general industry

approaches to pay-as-you-throw mechanisms were noted. Based on this project’s desired learnings and the team’s combined experience, the following municipal solid waste organizations were identified:

- Brandon (Manitoba);
- Calgary (Alberta);
- Edmonton (Alberta);
- Metro Vancouver (British Columbia);
- Saskatoon (Saskatchewan); and
- Toronto (Ontario).

Based on the external scan, a continuum of tax versus rates funded solid waste program models was observed. A visual of this continuum is presented below. The external scan demonstrated that there are several municipal solid waste programs which have implemented full utility user fee models to fund their suite of programs. In addition, consideration to specific sources of public funding (e.g. property taxes or fees) have been considered to fund community-based programming (i.e. where the services are open and or targeted to all residents and generally result in an improved community environmental outcome). Also, as the solid waste programs achieve a higher level of financial sustainability, it was observed that they become less reliant on provincial forms of government grants (with exception being those grants which are specific to the delivery of recycling or broader waste diversion activities).

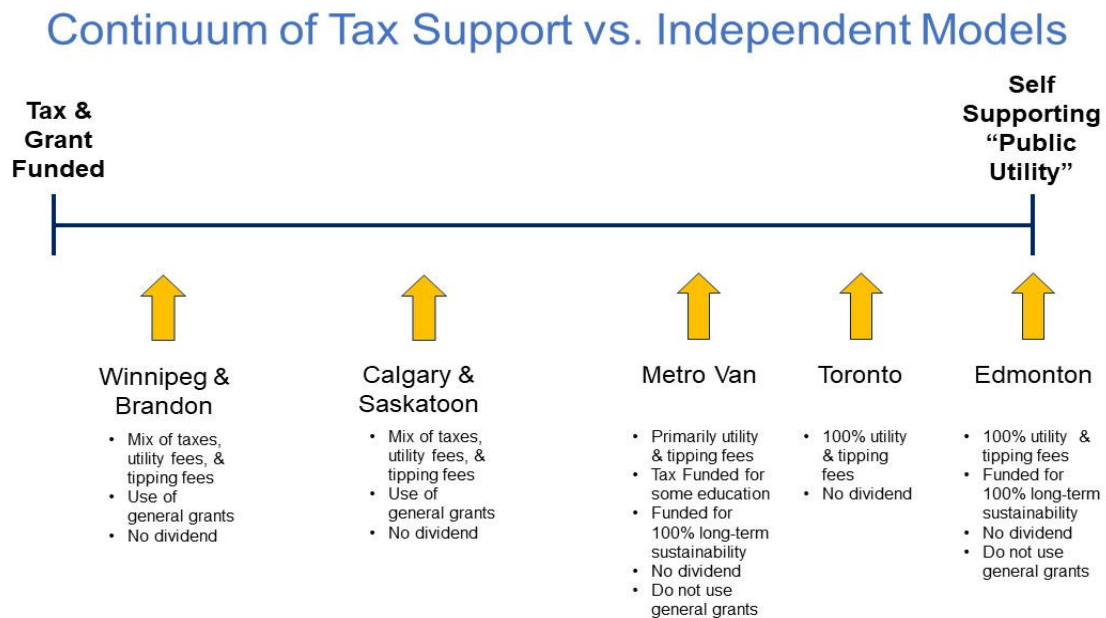


Figure 2: External Scan Continuum of Solid Waste Program Funding Models

From these observations and general municipal solid waste management trends, the introduction of user fees is appropriate as customers can tangibly see and value the specific services they receive. A user fee set to match the full cost of service will allow both the municipality and the customer to understand the true cost of service. Further, a user-fee model can also enable the ability for customers to choose (and pay for) either higher or lower service levels. In addition, user fees can be built to incent customers to divert waste and participate in diversion programs, ultimately contributing to the achievement of waste

diversion goals. Finally, there can also be increased levels of customer equity by adhering to user pay principles to avoid cross subsidization.

Challenges municipalities have encountered when moving from a tax-based to a user-fee based funding model include:

- Failing to provide taxpayers with a commensurate reduction in property taxes (i.e. the total funding to be displaced by purposeful user fees); and
- The counter view that a user fee will benefit taxpayers with higher property values and penalize those with lower valued properties (given how property tax funding is administered), as with a user fee model all customers will pay the same amount for the same level of service.

## 1.4 To-Be Funding Model

A key objective of this project was to develop a new funding model which will best support Solid Waste Services for 2022 and beyond. To select a preferred future funding model, considerations were made regarding specific Solid Waste Division objectives, observations from the external research, risks identified from a review of the current financial model, and leading practices.

In developing a concept for the recommended “To-Be” SWS Funding Model, a final set of prioritized, recommended future funding model objectives were developed as per the following table:

Objective	Description
<b>1. Achieves Financial &amp; Operational Sustainability</b>	<ul style="list-style-type: none"> <li>• Reliably fund ongoing operational and capital costs and landfill liability obligations</li> <li>• Achieves funding stability vs. operational and capital expenditure where feasible</li> <li>• Features appropriate mitigations for operating (i.e. both revenue and expenses) and capital risks</li> </ul>
<b>2. Transparent / Effectively Communicates Full Cost of Service</b>	<ul style="list-style-type: none"> <li>• Creates clear rates for services and levels of service which are aligned to their respective cost of service</li> <li>• Supports communications with customers and stakeholders</li> </ul>
<b>3. Supports Customer Equity</b>	<ul style="list-style-type: none"> <li>• Minimizes unintentional cross-customer subsidizations</li> <li>• Supports principle of “user pay” – residential rates are justifiable, and fair based on their degree of usage</li> </ul>
<b>4. Achieves Balance of Waste Diversion vs. Financial Outcomes</b>	<ul style="list-style-type: none"> <li>• Adequately funds programs required for targeted waste diversion goals</li> <li>• Able to respond to Industrial, Commercial, and Institutional (ICI) disposal opportunities where SWS has existing capabilities to help drive financial performance</li> </ul>
<b>5. Ease of Administration</b>	<ul style="list-style-type: none"> <li>• Minimizes administrative requirements</li> <li>• Minimizes customer complexities when interacting with The City</li> </ul>

Table 1: To-Be SWS Funding Model Objectives

The highest priority objective which the future Funding Model needs to achieve is **financial and operational sustainability**. This means that all required, forward-looking operational, capital, and landfill closure / post-closure obligations can be consistently and reliably funded. In addition, this requires the implementation of appropriate mitigations for future operating and capital results. This was felt to be especially important given the perceived dynamic and changing nature of SWS’ business and the continual need to support both residential and non-residential programs.

Based on the analysis and discussion of various alternative funding model solutions considered, the following table summarizes the preferred “To-Be” Funding Model for SWS Solid Waste Management Program:

Funding Mechanism	Purpose & Description
<b>Provincial Funding Grants</b>	<ul style="list-style-type: none"> <li>Continue to leverage provincial funding grants where feasible to help fund recycling and waste diversion activities for residential customers</li> </ul>
<b>Residential Utility User Fee</b>	<ul style="list-style-type: none"> <li>Replace the Waste Diversion Fee and property taxes with a new, purposeful Utility User Fee each for Single-Family (i.e. 1-7 dwelling units) and Multi-Family (i.e. 8 or greater dwelling units) segments <ul style="list-style-type: none"> <li>Ensure the fees address the full end-to-end cost of service</li> <li>Ensure the utility fees include cart and bin maintenance costs</li> <li>Focus on charging Multi-Family segment on a per dwelling unit basis with a standard level of service</li> </ul> </li> <li>Continue to charge customers incremental fees if they select additional service levels (i.e. upgrades and surplus waste)</li> </ul>
<b>Fee for Service Collections</b>	<ul style="list-style-type: none"> <li>Update fee-for-service rates for Commercial and internal City customers which represent the full cost of service <ul style="list-style-type: none"> <li>Ensure variable revenues are greater than variable costs for commercial customers</li> <li>Consider adding surcharge to Residential Utility User Fees if there is a funding gap between internal City revenues (based on funding constraints from other City departments) and their associated cost of service. It is noted that this should only be viewed as a back-up plan, the preference would be to prevent this cross-subsidization</li> </ul> </li> </ul>
<b>Tipping Fees</b>	<ul style="list-style-type: none"> <li>Consider tipping fee adjustments for services now provided but not charged for and for select increases to reflect the true cost of service</li> <li>Consider adjusting the amount of landfill rehabilitation reserve contribution rates per tonne of disposed waste versus required closure and post-closure requirements</li> <li>Consider adding flexibility and authority for SWS to negotiate and adjust tipping fees for customers which can guarantee large volumes and total revenues, which is reflective of the competitive business environment in which the Brady Landfill operates and the decision-making responsiveness which can be required to maximize revenues</li> </ul>
<b>Universal Solid Waste Community Programming Fee</b>	<ul style="list-style-type: none"> <li>Establish a flat fee to add in to all Single-Family and Multi-Family customers to fund Community Programming, including Community Recycling Depots, unfunded collection costs required from servicing Registered Charities, 4R Depots, Community Dead Animal and Clean-Up Collections, and any unfunded Closure and Post-Closure costs (as appropriate)</li> <li>Consider a flat fee which can be charged to small commercial entities to address their usage of select Community Programming services, including 4R Depots and Community Recycling Depots</li> </ul>

Table 2: Summary of Preferred "To-Be" SWS Funding Model

### 1.5 Cost of Service Exercise

An industry-accepted practice was followed to both analyze costs, develop a desired rate structure, and create a new SWS Cost of Service Model (excel based). This Model has also been delivered to The City as a project deliverable.

The Cash Basis was used as the primary method to calculate the rate revenue requirements for SWS. This method is a conventional method as used by other municipal waste management utilities. It focuses on analyzing all cash flow transactions as incurred and recognized by operating expenses, capital expenditures, transfers, and revenues. The following figure summarizes the Cash Basis method:

Cash Basis	
+	O&M Expenses (Full Costs)
+	Transfers (As Appropriate)
+	Debt Servicing (Principal + Interest)
+	Capital Projects Funded from Cash
+	Dividend (assume = 0)
-	Non-Rate Revenues
-----	
∑	Total Funding Requirements

Figure 3: SWS Basis for Rate Revenue Requirements

Based on this method, a detailed review of SWS' costs incurred during the 2018 and 2019 fiscal years was performed. This identified detailed allocations of both operating expenses and capital investments to specific services, functions, and cost centers. Further, a detailed review of how each service is resourced was completed to map all functions and cost centers to individual services. Costs were allocated based on a combination of identified cost drivers (typically number of customers and tonnes by material type) and management estimates. Finally, costs of service were projected out across a 10-year horizon based on the latest Capital Plan and growth assumptions. Cost of service projections were then compared to customer units of service to allow evaluation of appropriate service and customer-facing per unit costs (e.g. cost per tonne, cost per customer, etc.).

Note that at the time of this report, the various SWS capital and operational planning inputs were incorporated as received as of the end of May 2020. *It is acknowledged that as SWS makes subsequent refinements to these plans, the specific financial projections are likely to change a slight degree versus the cost of service numbers presented in the remainder of this report.*

From the cost analysis performed, it was determined that SWS' overall cash funding requirements (after consideration of non-rate revenues) was \$52.4 million in the 2019 base year. This is projected to climb to between approximately \$60.2 - \$62.7 million across 2020-2022. This is split between the various service categories as can be seen in the following figure based on the average net revenue requirements across 2019-2022:

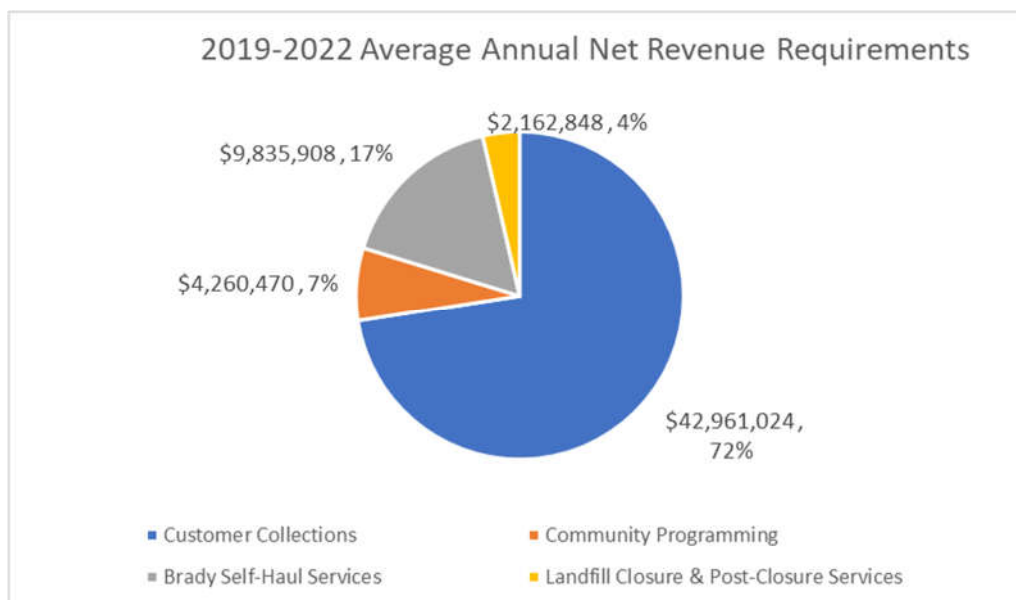


Figure 4: 2019-2022 Average Projected Cost of Service by Service Category



As demonstrated from the above figure, approximately 72% of SWS' funding requirements across 2019-2022 are focused on Collections customers (note that these costs include all required costs for materials processing and disposal). Brady Self-Haul services (for self-haul customers) account for 17%.

Finally, another perspective is to analyze the 2019-2022 cost of service results by SWS function. The following figure presents the average gross funding requirements (i.e. before non-rate revenues are applied) by function:

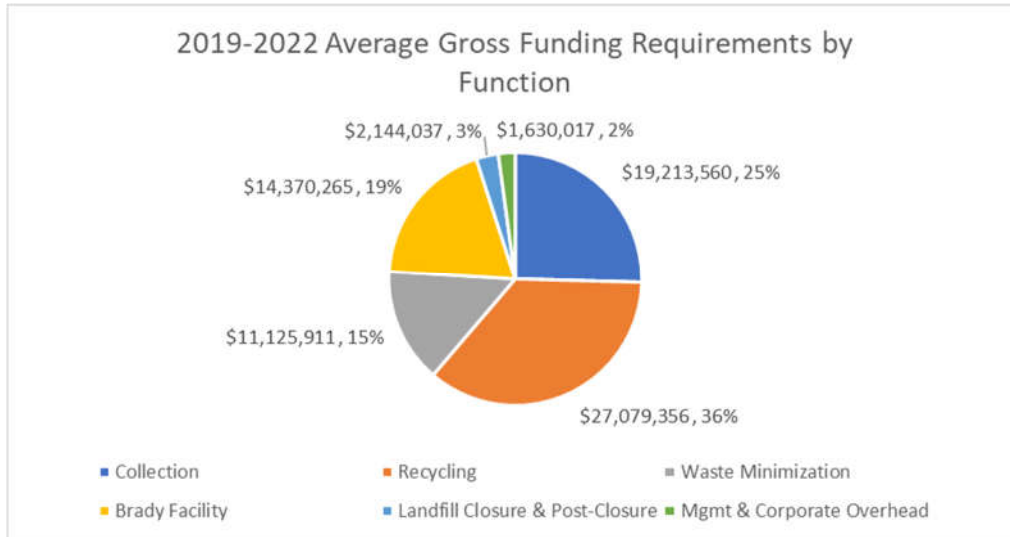


Figure 5: 2019-2022 Average Gross Revenue Requirements by Function

This analysis demonstrates that the Recycling is projected to, on average, constitute the highest gross funding requirements at 36% of total. The Collection function follows this at 25%, while the Brady Facility (19%) and Waste Minimization (15%) follow. The total average annual gross funding requirements across 2019-2022 for SWS are projected to be approximately \$75.6 million.

Based on the results of the Cost of Service and the preferred "To-Be" SWS Funding Model, forward-looking funding mechanism and rate strategies were developed. This section outlines the analysis and initial rate projections for each service and customer class as appropriate.

## 1.6 Ratemaking Considerations

Based on the results of the Cost of Service and the preferred "To-Be" SWS Funding Model, forward-looking rate strategies were developed as described in the following sub-sections:

### 1.6.1 Single-Family Customers

Ratemaking projections were developed for both customers of Cart and Leaf & Yard Waste collections. By default, this includes rate projections for single-family customers (and other customers who receive these collection services). Based on the projected annual costs, customers, and volumes for each service, the following rate revenue requirements per customer per 30-days were projected for customers with a standard 240 litre (L) cart:



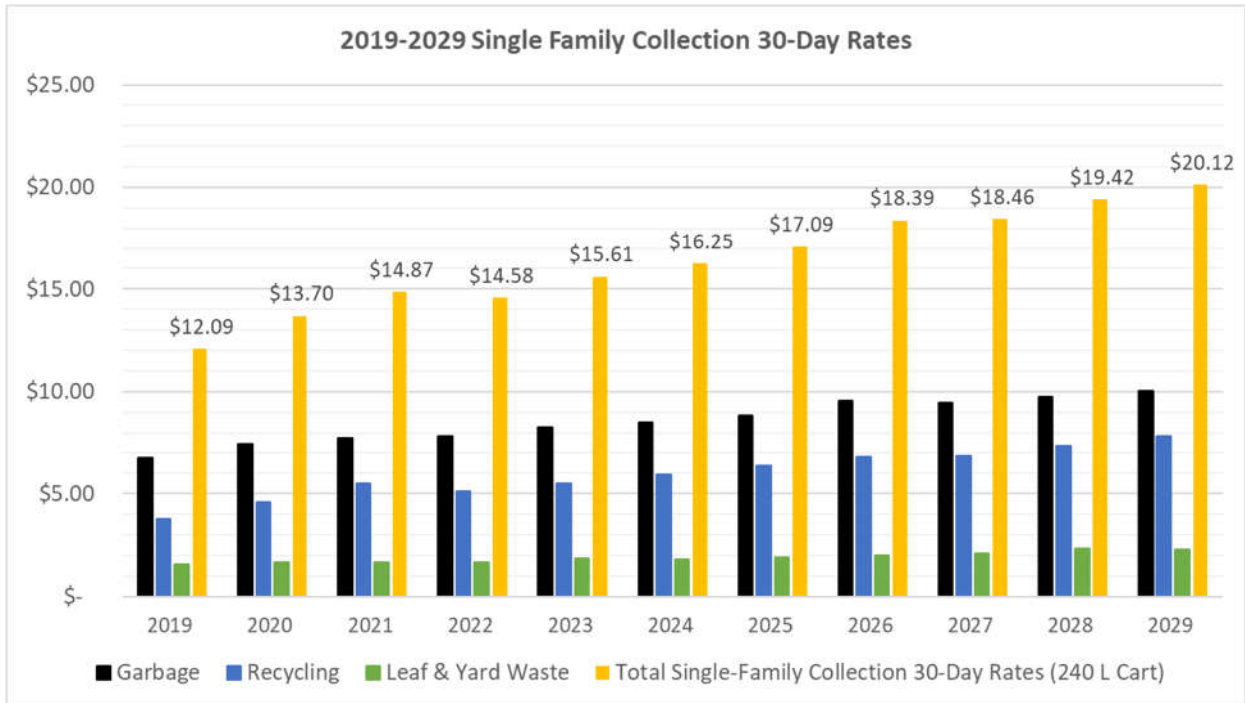


Figure 6: Projected 2019-2029 30-Day Rate Revenue Requirements per 240L Cart Customer

### 1.6.2 Bin Collections and Multi-Family Customers

Projected cost of service analysis was performed on bin collections versus forecasted customer accounts and collection capacities. In addition, focus was applied to each customer class, as it is acknowledged that multi-family premises can now receive both cart-based and bin-based collection services. This analysis is detailed below in the following figure:

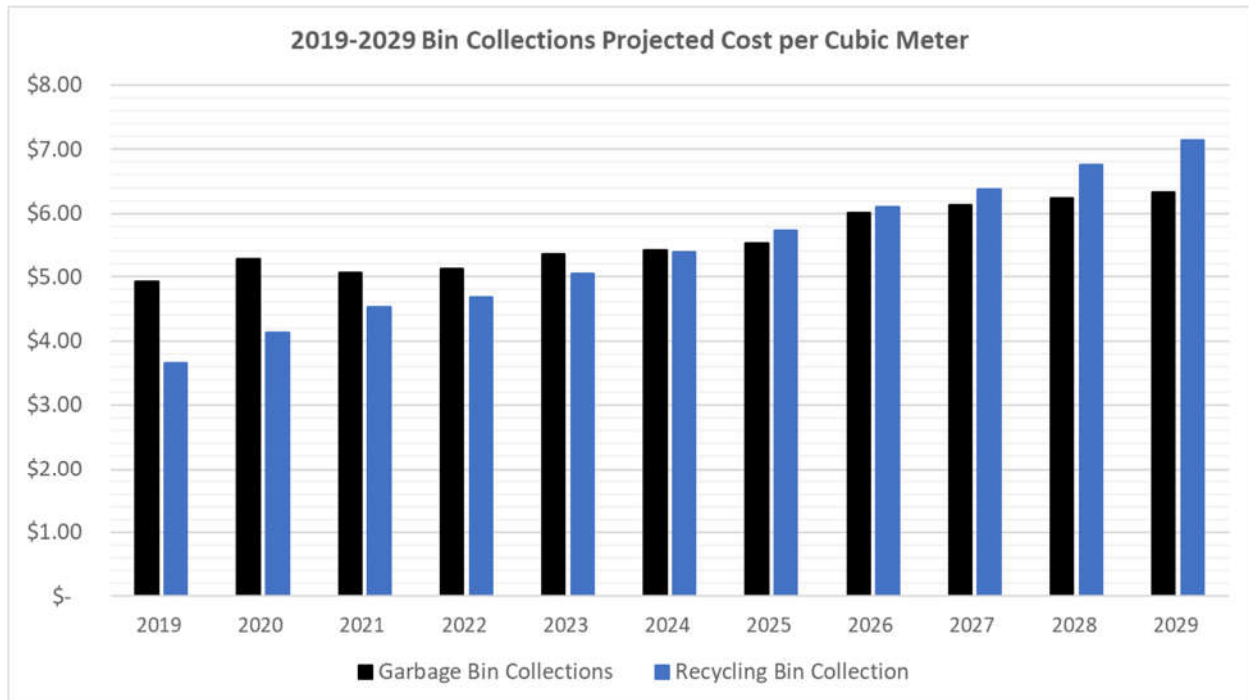


Figure 7: 2019-2029 Projected Cost per Cubic Meter for Bin Collections Services

From this cost of service analysis and forecasted collection capacity required, it is projected that the average costs across 2019-2022 per service are:

- Garbage Bin Collections: \$5.10 per cubic meter
- Recycling Bin Collections: \$4.25 per cubic meter

Additional analysis was focused on the multi-family customer class. Per the preferred “To-Be” SWS Funding Model, it is envisioned to establish a utility user fee which can be applied for garbage services (to replace property tax as the current primary funding mechanism). Analysis was developed to identify costs specifically for multi-family premises and their forecasted units of service for collection services now provided via both cart and front-end bin collection methods. The following table summarizes this for the 2019-2022 period both for garbage and recycling collections:

Garbage: Multi-Family Class	2019	2020	2021	2022	2019-2022 Avg.
Total Annual Cubic Meters Collected	1,062,288	1,073,124	1,084,069	1,095,127	1,078,652
MF Bin Collection Costs	\$ 5,220,988	\$ 5,649,894	\$ 5,481,152	\$ 5,609,273	\$ 5,490,327
MF Cart Collection Costs	\$ 51,921	\$ 57,696	\$ 61,199	\$ 64,914	\$ 58,933
Total MF Collection Costs	\$ 5,272,909	\$ 5,707,590	\$ 5,542,351	\$ 5,674,188	\$ 5,549,260
Average MF Rate per Cubic Meter	\$ 4.96	\$ 5.32	\$ 5.11	\$ 5.18	\$ 5.14
Average 30-Day Rate per MF Dwelling	\$ 4.16	\$ 4.39	\$ 4.14	\$ 4.11	\$ 4.20
Recycling: Multi-Family Class	2019	2020	2021	2022	2019-2022 Avg.
Total Annual Cubic Meters Collected	169,979	171,713	173,465	175,234	172,598
MF Bin Collection Costs	\$ 551,292	\$ 629,208	\$ 695,425	\$ 726,010	\$ 650,484
MF Cart Collection Costs	\$ 1,141,816	\$ 1,268,809	\$ 1,332,249	\$ 1,413,130	\$ 1,289,001
Total MF Collection Costs	\$ 1,693,108	\$ 1,898,017	\$ 2,027,674	\$ 2,139,140	\$ 1,939,484
Average MF Rate per Cubic Meter	\$ 9.96	\$ 11.05	\$ 11.69	\$ 12.21	\$ 11.23
Average 30-Day Rate per MF Dwelling	\$ 1.34	\$ 1.46	\$ 1.51	\$ 1.55	\$ 1.46

Table 3: 2019-2022 Projected Multi-Family Garbage and Recycling Collection Rates

From this analysis, it was projected that the average 2019-2022 multi-family rates would be approximately \$5.14 per cubic meter (or \$4.20 per 30-days) for garbage and \$11.23 per cubic meter (or \$1.46 per 30-days) for recycling.

### 1.6.3 Brady and Summit Self-Haul Services

Ratemaking analysis was performed on Brady and Summit tipping fees, as these can represent a combination of billing techniques based on per load (i.e. fixed fee per customer visit) and per tonne (i.e. variable rates based on the number of tonnes). Based on this analysis, the following key observations were made:

- Self-Haul Landfill Disposal Customers:** On average, the cost per visit for a customer was approximately \$79.85 in 2019 (or approximately \$38.41 per tonne). Based on the average tonne per visit and 2019 tipping fees, it was calculated that the average customer which disposes of garbage directly at the landfill face contributes approximately \$164.24 per visit. Thus, the average Self-Haul Landfill Disposal customer **provides a net margin of approximately \$84.39 per visit.**
  - *It should be noted that this is typical of most municipal landfill operations as large customers who directly haul to the landfill face are the most efficient to process on a per tonne basis.*

- ii. **4R Depot Garbage Customers:** On average, the cost per visit for a customer was approximately \$43.30 in 2019 (or approximately \$217.01 per tonne). Since approximately 81% of these customers only pay minimum fee of \$20 (as the average tonne per load for this type of customer is less than 0.3 tonne) and the remaining 19% dispose of approximately 0.53 tonnes on average (and are then charged \$65 per tonne), the average Self-Haul Landfill Disposal customer **represents a loss of approximately \$20.55 per visit.**
  - *It should be noted that this is also typical of most municipal landfill operations as residential loads are typically much smaller, require additional customer service and safety provisioning, and require double handling of the received materials.*
- iii. **Special Handling:** Based on the cost analysis and the forecasted number of dead animal stock tonnes, it was projected that the average cost to handle dead animal stock across 2019-2022 is approximately \$55.39 per tonne. It is noted that this is approximately 44% more costly than the base cost of service for self-haul landfill disposal customers.
- iv. **Clean Soil:** This material is typically offloaded separate from the landfill and then used periodically for operational uses (i.e. landfill daily cover and site road construction). Given the cost analysis and forecasted number of tonnes, it was projected that the average cost to handle clean soil across 2019-2022 is approximately \$8.52 per tonne.
  - *It is noted that currently there is no charge for this material as it is used within the landfill operations. However, there is now sufficient volumes onsite to support ongoing operations and incremental efforts are required to manage it. As such, it is reasonable to consider the establishment of a nominal fee for this material.*
- v. **Compost, Wood Grinding, and Soil Fabrication:** Analysis was also performed to analyze the per tonnage costs for self-hauled leaf and yard waste compost, biosolids compost, wood grinding, and soil fabrication. From the cost of service analysis and forecasted tonnes per service, the average cost per tonne across 2019-2022 for each service was projected as:
  - Leaf and Yard Waste Compost: \$62.67
  - Biosolids Compost: \$59.13
  - Brady Wood Grinding: \$48.02
  - Summit Wood Grinding: \$57.53
  - Soil Fabrication: \$36.05

### 1.6.4 Community Programming

Based on the cost analysis, the following projected cost of service across 2019-2022 for Community Recycling Depots, Dead Animal and Community Clean-ups, 4R Depot (Diversion Materials), unfunded costs of service for Registered Charity Collections, and Closure and Post-Closure Activities was developed:

Service	2019	2020	2021	2022	2019-2022 Avg.
Community Recycling Depots	\$ 198,645	\$ 230,451	\$ 265,372	\$ 255,744	\$ 237,553
Dead Animal & Garbage Collections	\$ 225,271	\$ 247,729	\$ 273,154	\$ 275,321	\$ 255,368
4R Depots: Diversion	\$ 3,612,246	\$ 3,834,209	\$ 3,879,263	\$ 3,744,476	\$ 3,767,549
Unfunded Registered Charity Collection Costs	\$ 165,061	\$ 178,325	\$ 175,013	\$ 176,986	\$ 173,846
Closure & Post-Closure Activities	\$ 1,129,072	\$ 1,423,569	\$ 1,229,100	\$ 616,882	\$ 1,099,656
<b>Total "Community Programming"</b>	<b>\$ 5,330,294</b>	<b>\$ 5,914,283</b>	<b>\$ 5,821,902</b>	<b>\$ 5,069,409</b>	<b>\$ 1,581,423</b>
Annual Fee per Residential Dwelling Unit	\$ 17.78	\$ 19.43	\$ 18.83	\$ 16.13	<b>\$18.04</b>
30-Day Fee per Residential Dwelling Unit	\$ 1.46	\$ 1.60	\$ 1.55	\$ 1.33	<b>\$1.48</b>

Table 4: 2019-2022 Projected Community Programming Costs and Residential 30-Day Rates

This analysis projects that the average equivalent 30-day rate which could be added to utility bills to all residential dwellings (i.e. both single and multi-family) is approximately \$1.48 across 2019-2022.

### 1.6.5 Aligning SWS Ratemaking to Cash and Debt Management

Finally, projected SWS financial results were developed in the SWS Cost of Service Model. Based on the projected costs of service, rates, and customer units of service, the model projects annual results for cash flow from operations, financing, and investing activities. It also projects the year-to-year cash reserve and long-term debt balances. It is recommended that annual ratemaking exercises consider trade-offs between the following typical utility financial sustainability objectives prior to finalizing a recommended rate structure:

- Long-term debt balance relative to maximum allowable debt limits and City Debt Strategy;
- Annual debt-servicing obligations relative to annual net income levels;
- Minimum cash-flow requirements based on desired levels for both operating and capital risk mitigations, forecasted equity-financed capital funding, and rate stabilization requirements;
- Annual positive net income;
- Desired levels of customer equity amongst customer classes and services;
- Year-over-year customer rate stability; and
- Desired level of waste diversion performance.

## 1.7 Pay-As-You-Throw

Additionally, observations on Pay-As-You-Throw (PAYT) models were made based both from a high-level external scan engagement and review of common industry practices. It was found that, in general, PAYT throw models fall into the categories visualized in the following figure:

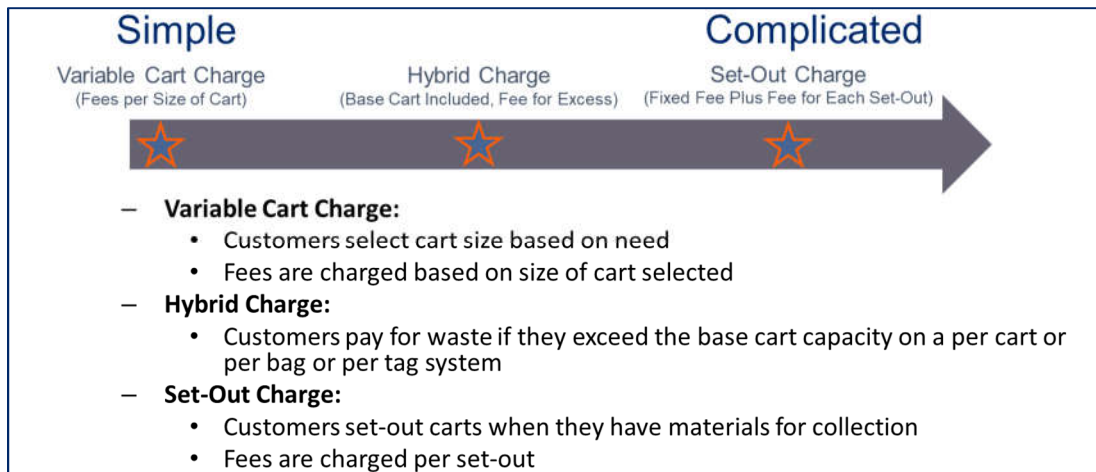


Figure 8: General PAYT Models

The reported advantages of these PAYT mechanisms include:

- Increasing the level of customer equity (i.e. customers only pay what they use);
- Providing customers with more choice and the option to select and pay for a level of service they desire; and
- Increasing customer's willingness to use waste diversion programming services.

Potential challenges with implementing a PAYT program include:

- Managing cart inventory and customer change-out requirements;
- Potentially writing-off existing, functional carts already deployed in the field;
- Establishing higher levels of cart collections customer service and billing technologies and processes;
- Difficulty in measuring specific waste diversion effects directly attributable to PAYT;
- Additional administrative costs in managing customer service and billing inquiries;
- Responding to and resolving potential cases of billing inaccuracies which can occur when customer collection points are too close together for the technology to reliably distinguish the correct billing address; Accuracy in billing when collection points on multiple premises are close; and
- Incremental efforts and costs required to deal with higher levels of cross-waste stream contamination and respond to customers who cause this contamination (as some customers may be incented to dispose of garbage within their recyclables or organics bins in order to reduce their PAYT fees).

It is further noted that, to an extent, SWS is already providing a form of PAYT through the charging of higher fees for enhanced levels of service (i.e. larger cart capacity).

Given this, there are significant challenges and risks which SWS should plan for and address if it pursues any further PAYT servicing models. In addition, it should explicitly understand and clarify what the intended benefits may be from pursuing a potential PAYT mechanism, as (a); these will require potential trade-offs versus other funding model objectives, and (b); it will be imperative that SWS can sufficiently measure its performance and customer behaviours to ensure it can attribute any results directly to PAYT.

## 1.8 Recommendations

A suite of funding model and ratemaking recommendations were developed and are listed in Section 8 of this report. These are listed below for convenience.

### 1.8.1 Transition to the “To-Be” SWS Funding Model

Through facilitated discussions with the SWS Steering Committee, it was noted that a preferred strategy was to ensure the achievement of financial sustainability and better align funding and funding sources with their respective total costs of service and target users who benefit from these services. As such, it is recommended to adopt a new financial model for the start of 2022 with the following funding mechanisms:

- 1. Single-Family Daily User Fees:** replace the current mix of property taxes and waste diversion fee funding with a new, single fee for all single-family households for Garbage Cart, Recycling Cart, and Leaf & Yard Waste collection services. This provides a purposeful fee which addresses end-to-end activities required to support these services and reflects a user-pay philosophy.
- 2. Multi-Family Daily User Fees:** replace the current mix of property taxes and waste diversion fee funding with a new, single fee for all multi-family dwellings for both Garbage and Recycling collection services. Such a fee should be based on a standard service level (e.g. 120 Litre cart collection capacity each week).
  - It is noted that this funding technique will require updates to The City’s utility billing system to identify all multi-family dwellings and to accurately bill each for this service.
  - This technique will also require that The City mandate that this fee be mandatory across all multi-family properties.
- 3. Universal Community Programming Utility Fee:** implement a new fixed fee across all residential dwellings (i.e. both single-family and multi-family) to fund all required SWS community programming services. This will also leverage the updates to the utility’s billing system to accurately target multi-family dwellings as described in #2 above.
- 4. Collection Fee-for-Service:** update fee-for-service rates for Commercial, Registered Charity, and internal City customers to represent the full cost of service to support these customers.
- 5. Landfill Tipping Fees:** continue to leverage tipping fees charged at the Brady and Summit landfill site locations. In addition, consider entering into agreements with select customers which can guarantee sufficiently large volumes to assist in supporting higher levels of operational and financial sustainability. As well, it should be considered to enable SWS with flexibility and authority to negotiate such agreements to better enable its ability to operate and respond to competitor pricing tactics within this competitive environment.

It is also noted and assumed that The City will continue to draw upon and leverage all existing sources of non-rate revenues, including sale of commodities (pending market rates for these materials) and provincial government grants.

### 1.8.2 Ratemaking

Based on the ratemaking analysis and strategies analyzed, it was noted that additional review will be required to determine appropriate rate strategies and rates for not only 2021 (i.e. landfill rates), but also 2022 and beyond. These include the following areas:

- 1. Single-Family and Multi-Family Utility User Fees (for 2022 and beyond):** SWS will need to review required cost of service projections and establish (1) a new single-family utility user fee to

address the costs for Garbage, Recyclables, and Leaf & Yard Waste Collections, and (2) a new multi-family utility user fee for both Garbage and Recycling Collections.

- i. Single-Family Customers:** For single-family customers, the combined 30-day costs of service per customer (for a standard 240 L cart) are projected to range between \$14.59 - \$17.09 across 2022 – 2025. It is recommended that rates be set to achieve stable and consistent annual rate increases and target cost recovery levels while managing SWS’s overall cash and debt servicing requirements;
        - ii. Multi-Family Customers:** Similarly, equivalent 30-day costs of service for multi-family dwellings are projected to be stable across 2022-2025 (i.e. between \$4.11 - \$4.21 per dwelling for Garbage and \$1.55 to \$1.73 for Recycling). Similar considerations to single-family rates should be taken prior to setting annual multi-family rates;
        - iii. Service Level Upgrades:** Additionally, it is noted that SWS will likely continue to provide customers options for higher levels of service (e.g. collection capacity upgrades and surplus waste). It is noted that these should continue to be priced and billed separately to each customer account who is requesting these enhanced service levels to ensure that cost recovery is obtained. Some of these additional charges would be covered under a future PAYT system if implemented; and
        - iv. Community Programming Flat Fee:** Finally, it is proposed that both single-family and multi-family fees include a flat, fixed fee amount to fund all required community programming. The annual 30-day cost of service per residential dwelling is projected to range between \$1.33 - \$1.55 across 2022 – 2025. Again, final rates should reflect desired levels of rate stability while ensuring sufficient SWS cash and debt levels.
- 2. Updated Non-Residential Collections Rates:** To support the “To-Be” SWS Funding Model, updates to collection rates for non-residential customers may be required. Rates should be based on the following considerations:
  - i. Commercial Customers:** assurance that variable revenues are greater than variable costs to ensure net value creation for The City;
    - *It is further noted that Places of Worship will be treated as a Commercial customer moving forward.*
  - ii. Registered Charities:** it is acknowledged that preference would be for each Registered Charity to pay a fee-for-service rate commensurate for their allocated cost of service. However, it is also acknowledged that this may be a challenge given existing rates and potential lack of political / community acceptance. As such, SWS should plan to obtain this unfunded portion by inclusion in the Universal Community Programming Utility Fee;
  - iii. Internal City Departments:** communicate the full cost of service for internal City customers to ensure transparency and clarity. It is acknowledged that rates with individual Departments will require engagement and negotiations given that, for many, access to additional funding may be limited; and
  - iv. Impact to Residential Utility User Fees:** Given any funding gaps between costs of service and rates for internal City, SWS should then consider adding surcharge to Residential Utility User Fees. It is noted that it is preferable that any cross-subsidization of this customer segment be eliminated.
- 3. Updated Brady Facility Tipping Fees:** It is recommended SWS evaluate the following adjustments to Brady tipping fees:



- i. **4R Depot Residential Garbage:** consider increases to the minimum fee and variable tonnage fees to reflect the cost of service required for typical residential loads;
- ii. **Special Handling:** given the cost of service results, there is merit in evaluating potential increases to variable tonnage rates now charged for dead animal stock and potentially to medical / hospital waste;
- iii. **Internal City Disposal Rates:** although the difference between existing City rates (i.e. \$33/tonne until 2022, upon which it is scheduled to drop to \$26.60 per tonne) are close to the projected cost per tonne for landfill disposal (approximately \$36.35 across 2019-2022), there may be a longer-term opportunity to slightly increase variable tonnage fees charged to internal City customers for landfill disposal to ensure cost recovery;
- iv. **Clean Soil:** evaluate the introduction of a variable fee for Clean Soil materials pending Brady's supply of daily, intermediate, and final cover materials. This introduction should be managed in accordance with existing contractual commitments incurred for current City construction projects;
- v. **Clean Concrete:** similarly, there may an opportunity to introduce a fee to help fund the costs to handle loads of concrete. It is acknowledged that concrete is often crushed and used to help create road base within the Brady site. A nominal fee may be appropriate to reflect the costs incurred for Operations while also managing Brady's supply. This fee may also be applicable for materials such as clean Asphalt Concrete Pavement; and
- vi. **Wood Grinding:** develop a common wood grinding tipping fee for clean wood across both Brady and Summit locations to reflect the same level of service provided.