

**Waste & Recycling Services
Financial Model Review Summary
2016 February 24**

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1.0 Introduction

Waste & Recycling Services (WRS) currently has a financial model that includes a blend of property tax, grants and user fees to fund the various WRS programs and associated activities. While this financial model has historically served WRS' financial requirements, the evolution of services delivered by WRS requires a review to ensure reliable funding options are in place to provide long-term self-sufficiency in an environment with changing and evolving business drivers. In addition and as part of Action Plan 2015-2018, WRS committed to completion of a Financial Model Review to inform the 2019-2022 business plan and budgeting cycle.

Progress has been made towards achieving financial sustainability over previous business cycles through such mechanisms as the Blue Cart Recycling Fee and the Waste Management Charge for single-family households.

The WRS Financial Model Review has three phases of work: best practice research on financial models; cost of service study to assess the rates and fees allocated to each customer group; and a recommendation and implementation plan for a financial model for the 2019-2022 business cycle.

WRS engaged Stack'd Consulting (in partnership with Tetra Tech EBA) to assist with the completion of this work. The objectives for the consultant's work include:

- Develop a current state assessment of WRS financial model;
- Complete an external municipal scan and leading practices research;
- Evaluate financial model alternatives and recommend a future model for WRS, and;
- Develop rates and fees which appropriately allocate operational and capital costs between customer classes.

The consultant's evaluation of financial model types from the external scan determined that a Self-Sustaining Model provides the strongest support for achieving WRS' future financial model objectives (Attachment 2). Details of the first phase of the WRS Financial Model Review, including a review of WRS' current state and related financial risks and a summary of the consultant's external scan of financial models currently being used by municipal waste management organizations are provided in this report.

The next phase of the Financial Model Review requires financial investigation to understand the impacts of transitioning to a new financial model. This requires the creation of an integrated financial tool (rate model) that will support cost of service and rate development. This tool will assist WRS with determining the Green Cart Program rates for 2017 and 2018. It will also be used for scenario modeling, and evaluating the impacts of variable pricing alternatives and changes in funding sources.

2.0 Financial Model Objectives

For 2019-2022, WRS requires a financial model that is sustainable and supports waste diversion, while remaining transparent and equitable. A financial model that achieves these objectives mitigates the financial risks that WRS currently experiences (refer to Section 3.2). As part of this phase, WRS developed four financial model objectives.

Financially and Operationally Sustainable

A sustainable model means that there is reliable and adequate funding for all operating, capital and long-term liability requirements. Stable funding is required to maintain assets, meet increasingly stringent regulatory requirements, provide reliable, high quality waste and recycling services, and keep pace with growth. A sustainable model is one that is flexible and adaptable to changes within WRS' operating environment.

Supports Waste Diversion

A financial model that supports waste diversion is able to adjust to accommodate new programs and changes to existing programs. WRS will continue to develop diversion strategies for each sector into the next business cycle. The implementation of these new strategies and their overall impact on the services that WRS manages is largely unknown at this time. The future financial model must be able to support the delivery of these strategies and their associated programs and services.

Transparent

A transparent model allows for easy communication between WRS, their stakeholders and customers. It creates a shared understanding of the services that WRS provides, their value and how they are funded. A transparent financial model establishes rates and fees that are justifiable, fair, and stable for the end customers.

Equitable

Ensuring the model is equitable produces rates that have no unintentional cross-customer subsidizations. This supports cost of service principles, such that recipients of a service pay the full cost for that service. This also supports waste reduction behaviour through targeted rate development.

3.0 Current State

Once the objectives of the future model were identified, an analysis of WRS' current financial state was completed. This was done to understand where the current model does not align with objectives and identify areas of risk to be addressed in the future model.

WRS provides collection services for residential waste and recycling, commercial waste, Community Recycling Depots, community clean-ups and festivals and events. Additionally, WRS manages the operations of The City's three active Waste Management Facilities as well as inactive landfills. WRS is also responsible for developing and managing waste diversion programs, and providing infrastructure planning, project delivery and asset management. There

is a strong focus on providing strategic planning services to support maximum waste diversion in all sectors (single-family, multi-family, construction & demolition and industrial, commercial & institutional) to support the target of 70 per cent waste diversion by 2025.

In the current business cycle, WRS' operating and capital programs are funded from a mix of property taxes, user fees and grants, as outlined in Figure 1. In the 2015-2018 business cycle, WRS' annual operating budget will grow from \$145.1 million to \$190.7 million, with the addition of the residential Green Cart Program starting mid-year in 2017.

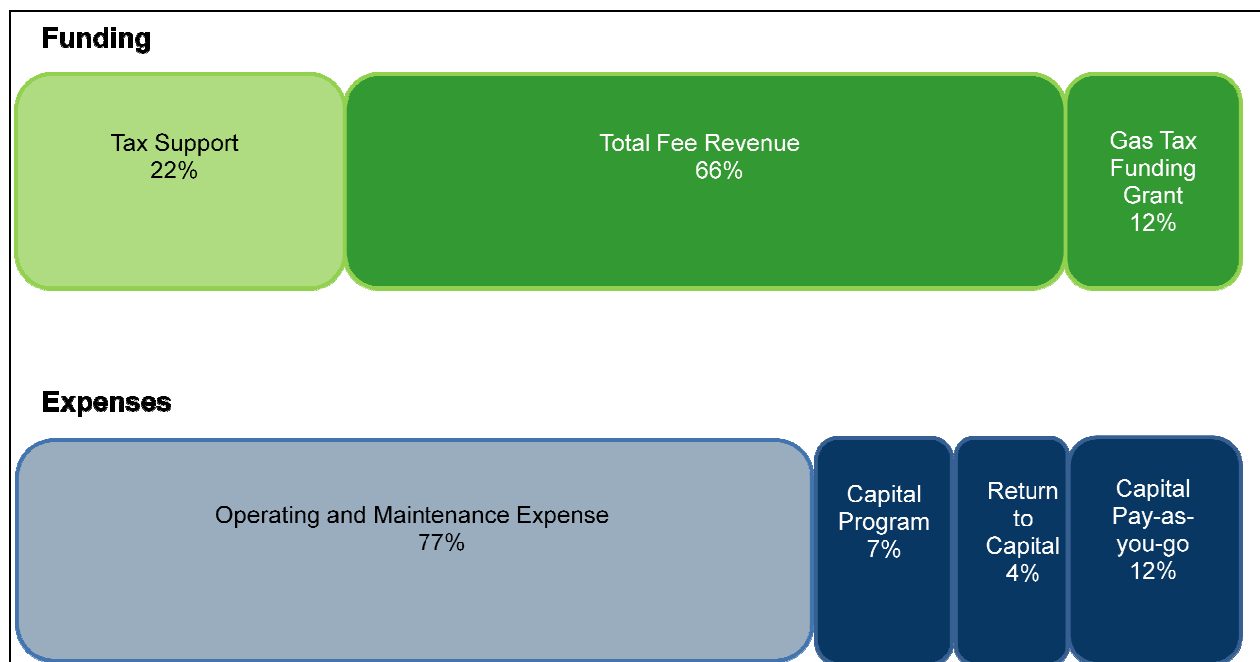


Figure 1: WRS Funding and Expenses (Average Action Plan 2015-2018)

The Waste & Recycling Infrastructure Investment Plan (WRIIP) identifies capital investments that are required to address four key investment drivers: maintain assets, meet increasingly stringent regulatory requirements, provide reliable and high quality waste and recycling services, and keep pace with growth. The WRIIP contains proposed investments of \$646 million to be completed over the next 10 years. Council approved a total of \$326 million in capital spending in Action Plan 2015-2018, which will be funded through a combination of self-supported debt (50 per cent), revenues/reserves (20 per cent) and Gas Tax Funding (30 per cent).

3.1 Sources of Funding

Funding is generated largely from user fees, including landfill tipping fees. WRS also relies on property taxes and grants, and utilizes several funding tools. More details on each WRS funding source are outlined below.

User Fees

On average during Action Plan 2015-2018, over 65 per cent of WRS funding comes from user fees. WRS' primary user fees are Landfill Tipping Fees, the Blue Cart Recycling Fee, and the Waste Management Charge. WRS' reliance on user fees as a source of funding has increased

over the last several business cycles. User fees can be utilized to build a practical variable pricing system. Variable pricing creates a connection between the level of service (or amount of garbage) and costs for managing those materials. Variable pricing creates an incentive for a resident to change behaviour, and can result in reduced waste generation and increased diversion.

Blue Cart Program

The Blue Cart Recycling fee was introduced in 2009 with the implementation of the Blue Cart Program. This fee covers the full program cost including collections, processing, education, communication and marketing. The rate charged is net of revenues received from the sale of recyclables.

Waste Management Charge

The Waste Management Charge (WMC) is used to cover financial gaps in both operating and capital budgets. This user fee was first introduced in 2009, and billed to residential customers who receive property tax funded black cart collection services. Revenues from this fee contribute to funding the operating and capital costs of residential waste disposal at landfill. These funds have been critical to WRS' financial sustainability. With the introduction of the Green Cart Program in 2017, the volume of waste from residents will be significantly reduced, which led to the decision to keep WMC rates the same over the 2015-2018 business cycle.

Green Cart Program

WRS will implement a new user fee for the Green Cart Program in 2017. The fee will cover the full program costs including collection, processing, education and communication, net of revenues received from the sale of compost. The rate will be offset by the projected savings realized from reducing black cart collection from weekly to once every two weeks.

Landfill Tipping Fees

Landfill tipping fees have been set at a level to encourage development of private diversion opportunities. Current pricing has been successful in establishing private sector processors and recyclers in Calgary. Reduced tipping fees for specific materials have been set to encourage separation of loads containing recyclables, and increased Designated Material tipping fees have been set for waste loads containing recyclables.

Property Taxes

The tax supported portion of the WRS budget is used to fund residential garbage collection (including condominiums), and Community Recycling Depots (CRDs). Property taxes do not cover the cost to dispose of waste collected from residents, and additional funding is collected via the Waste Management Charge (WMC) for this purpose. Absorbing growth and accommodating inflationary pressures in tax supported programs continues to be a challenge. In Action Plan 2015-2018, WRS committed to increased operating efficiencies within the existing Black Cart Program to service new homes.

Grants (Gas Tax Funding)

The federal Gas Tax Fund (GTF) was confirmed as part of the federal Budget in 2014, and is expected to be available between 2014 and 2024. GTF is intended to cover capital costs only

and may not be used for maintenance and operating costs, debt reduction, or replacement of existing municipal infrastructure. WRS has received Gas Tax Funding since 2006, and has relied on it for the completion of many capital projects. WRS will continue to receive GTF to support funding the capital budget in Action Plan 2015-2018.

WRS Sustainment Reserve

The WRS Sustainment Reserve is not a source of funding, but a funding mechanism that enables WRS to pay for both operating and capital expenses. The purpose of this reserve is to provide an operating contingency to offset revenue fluctuations and to manage cash flow (ensuring funds are available to meet both operating and capital requirements) and financing needs associated with capital expenditures. A target balance for sustainment purposes of 10 per cent of the current year's annual revenue is to be maintained.

Landfill Liability Fund

The Public Sector Accounting Board (PSAB) requires that a liability for closure and post closure care of landfills must be recognized on government financial statements. The calculation of the landfill liability and the funding of that liability are two separate actions.

Self-Supported Debt

In recent years, WRS has started to utilize more self-supported debt in the funding plan for capital projects. In Action Plan 2015-2018 the capital budget is funded by up to 50 per cent debt, which is largely being used for construction of the Organics & Biosolids Composting Facility.

3.2 Financial Risks

A risk assessment was completed to ensure that existing financial risks to WRS are addressed in the development of the new financial model. Key risks have been identified and categorized below, and mitigation strategies will be developed within the new model.

Financial Model Complexity

The complexity of WRS' current financial model presents significant risk. Services are currently funded from multiple sources, making it difficult to understand the sources and uses of funds. This complexity makes it challenging to manage, track, and make appropriate, informed business and financial decisions. Simplicity within the future financial model would address financial risk in an environment with changing and evolving business drivers.

Funding Stability

In the current environment, emphasis on diversion of waste and compliance with stringent environmental requirements make risks to the stability of funding an increasingly relevant issue. Stable long-term capital funding is required to implement prioritized projects and meet regulatory and legislated requirements as outlined in the WRIIP.

It is recognized that care must be taken when setting rates for landfill tipping fees in an environment of competitive disposal options. There is the risk that rate setting to encourage diversion could result in waste being sent to alternate facilities outside of the city boundaries.

This could create an unstable revenue stream, and shift waste to another facility rather than the intended effect of encouraging additional diversion.

Reliance on Property Tax Funding

In Action Plan 2015-2018, WRS' financial model will rely on property taxes to fund approximately 22 per cent of the operating budget. The serviced based nature of WRS operations, combined with the structured business planning & budgeting process, results in a need to balance high citizen expectations with limited resources.

Budgets are established based on forecasts, however there is typically a variance between projected and actual household growth. There is always a timing difference between new customers serviced and the provision of tax support to the Business Unit. WRS has worked to maximize efficiencies in route design and technology in order to accommodate growth within approved budgets, but the risk that customer satisfaction will decline is a possibility if household growth is not consistently and adequately budgeted for.

Cost of Service Principles

Before the introduction of the Blue Cart Recycling Program, WRS diversion programs were largely funded by tipping fees received from waste disposal. As WRS moves towards the vision of leading the community towards zero waste, rate setting with cost of service principles in mind becomes increasingly important. Long-term reliance on tipping fee revenue to fund diversion programs is not sustainable. Risk of insufficient funding for diversion programs increases as projected tipping fee revenues decrease and operating costs for programs continue to rise.

Reduced tonnages are also projected for the Blue Cart Program due to a reduction in overall materials generated, stemming from changes in both customer behaviour and the composition of packaging materials. This could increase the operating cost per tonne for the program if tonnages fall below an established threshold in the processing contract. As diversion programs are expanded and become more complex, operating costs could also increase.

Cross-subsidization between Customer Classes

Some inequity between user fee rates charged to various customer classes and the service provided have been identified, which results in cross-subsidization between programs and customers. For example, residential black cart collection is funded via property taxes, yet the level of service provided remains the same for all single-family residents. Condominium owners also pay property taxes, but not all receive service from WRS. Instead, many condominiums choose to employ private haulers.

4.0 Consultant's Findings and Recommendation

4.1 External Scan

The consultant completed a comprehensive external scan of municipal waste management organizations. The scan was structured to capture knowledge around financial trends in

municipal government with respect to solid waste and recycling services, financial management practices, operating and capital funding, implementation plans and lessons learned. Organizations were selected to ensure a full spectrum of financial models was represented.

WRS acknowledges participation from the following corporations:

- City of Edmonton
- City of Toronto
- Metro Vancouver
- Aquatera (Grande Prairie)
- Seattle Public Utilities
- City of San Francisco
- City of Vancouver
- Region of Peel

Focusing on the external scan results for funding sources, a financial model continuum was developed to depict the extent to which each municipal organization relies on different sources of funding. The continuum was separated into three main types of financial models, as shown in Figure 2.

Financial Model Type	Description
Tax and Grant Funded Model	<ul style="list-style-type: none"> Primarily relies on taxes for operational funding General grants for capital infrastructure investment
Self-Sustaining Model	<ul style="list-style-type: none"> Various types of user fees where rates have been developed to include all applicable costs No reliance on general infrastructure grants for capital investment No dividend or payment back to the municipality
For-Profit Model	<ul style="list-style-type: none"> Various types of user fees where rates have been developed to include all applicable costs No reliance on general infrastructure grants for capital investments Dividend payments back to the municipality An independent board generally provides oversight The entity is often encouraged to pursue revenue-generating business opportunities

Figure 2: Financial Model Types

Full discussion of the external scan can be found in Attachment 2, Section 4. Other elements of the external scan will be utilized in future phases of the Financial Model Review in 2016 and 2017.

4.2 Proposed Financial Model for WRS

Building on the knowledge gained from the external scan, the consultant evaluated each financial model type to determine how well it met WRS' financial model objectives. The evaluation gave a ranking from weak to strong to show the level of support for achieving each objective.

The evaluation found that a Self-Sustaining Model provides the strongest support for achieving WRS' future financial model objectives. The consultant proposes that WRS' transition to a self-

sustaining financial model for the 2019-2022 business cycle. Figure 3 shows how this would transition WRS on a financial model continuum. For the full evaluation, refer to Attachment 2.

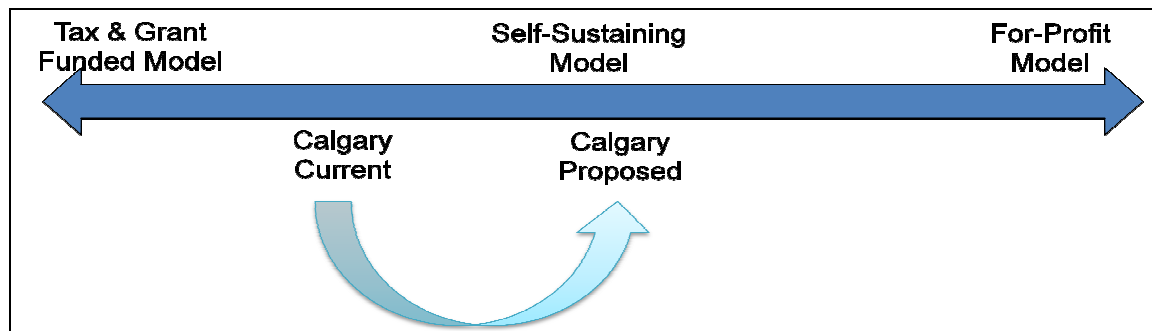


Figure 3: Financial Model Continuum

A transition to a Self-Sustaining Financial Model would be a substantial change for WRS, which is currently only partially user fee funded and relies on property tax and grant funding. Given WRS' dependence on both property taxes (\$41.5 million in 2018) and GTF (\$16.8 million in 2018), the extent to which the 2019-2022 funding model could forego reliance on these two sources of funding will be investigated further in the subsequent cost of service and integrated rate modeling phases of work.

5.0 Next Steps

The next phase of the Financial Model Review requires financial investigation to understand the impacts of transitioning to a Self-Sustaining Financial Model and the creation of an integrated financial tool that will support cost of service and rate development. This tool will assist WRS with determining the Green Cart Program rates for 2017 and 2018. It will also be used for scenario modeling, and evaluating the impacts of variable pricing alternatives and changes in funding source from tax support and grants to user fees.

WRS will seek approval of Green Cart Rate as part of mid-cycle adjustments. The Green Cart Program rate will be based on full program costs, offset by the savings realized from changing black cart collection from weekly to once every two weeks.

As discussed in the Waste Diversion Target Update Report (UCS2015-0835), a variable pricing approach is an important component of WRS' overall strategy to achieve the 70 per cent by 2025 waste diversion target. As this strategy is planned for the 2019-2022 business cycle it will be further developed and incorporated into the future financial model and considered in rate setting discussions.

WRS will also complete an assessment of the implications of changing to a Self-Sustaining Financial Model, specifically related to funding sources. To demonstrate the differences between the current model and the proposed model, WRS will evaluate the following two scenarios and compare them with the current funding model:

- 1) No reliance on property tax funding, continued reliance on gas tax funding; and
- 2) No reliance on property tax funding, no reliance on gas tax funding.