Waste & Recycling Services
Financial Plan for 2015-2018

2014 February 26

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1. 80/20 by 2020 Goal

To achieve the goal of 80 per cent waste diversion from City landfills (80/20 by 2020), The City has implemented programs to divert large quantities of waste from landfill. Recent commitments to Council have outlined work to be undertaken to continue the progress towards 80/20 by 2020.

In 2015 - 2018, Administration will build on the success of existing waste diversion initiatives. This work will include:

- Implementation of the green cart residential organics program – including the completion of the composting facility;
- Implementation of a multi-family recycling bylaw;
- Implementation of Council direction for industrial, commercial and institutional waste diversion strategy; and
- Continued support of construction and demolition waste diversion initiatives.

In the 2015 - 2018 business plan and budget cycle, Waste & Recycling Services (WRS) will conduct a Cost of Service Study. This study will assess the rates and fees allocated to each customer class and recommend funding allocation to be implemented in the 2019-2022 business cycle. Options to reinforce waste reduction behaviours through targeted user pay (pay-as-you-throw) programs such as tag-a-bag for excess garbage outside the black cart and variable cart sizes will also be evaluated for implementation in 2019-2022 after a green cart program to compost food and yard waste is in place.

As operational plans to reach 80/20 continue to be developed, it is clear that a financial plan aligned to this goal is also required. This report discusses funding options for the green cart program and a financial plan that outlines actions for 2015-2018 that considers sustainability of the services and supporting infrastructure to achieve 80/20 by 2020.

2. A Financial Plan to Achieve 80/20 by 2020

In 2008, Council committed to improving the financial sustainability of WRS. In the years since, WRS has made great progress toward self-sustaining funding to support both operating and capital programs. The WRS funding model continues to work toward cost of service principles, such that recipients of a service pay the full cost for that service. A sound financial plan is critical to meeting the strategic waste diversion targets included in the 80/20 by 2020 waste diversion strategy.

With sustainable funding, WRS is proceeding with a strategic, long range capital plan that underpins the delivery of critical waste and recycling services. This Waste & Recycling Services Infrastructure Investment Plan (WRIIP) is needed to maintain assets, meet increasingly stringent requirements, provide reliable and high quality waste and recycling services, and keep pace with growth. The WRS financial plan for 2015-2018 includes the following elements, which are discussed in detail below:

- Continued tax support for residential garbage collection and community recycling depots;

- Continued self-sustaining funding for landfill operations through the residential waste management charge and landfill tipping fees;
- Approved program funding for the green cart residential organics program;
- Fully funded landfill liability;
- A 10-year capital plan in accordance with the WRS Infrastructure Investment Plan (WRIIP);
- Self-supported debt matched to asset life;
- A completed Cost of Service Study to determine appropriate funding model for 2019-2022; and
- Delivery on the outcomes of the Collection Services Review.

The recommendations will contribute to the strategic alignment of WRS' financial future to The City's long-term vision and planning documents by ensuring sufficient and flexible funding is available for the continued collection, landfill disposal and treatment, and the associated liability of managing waste as well as the future diversion programs required to meet 80/20 by 2020.

3. Financial Model

To better understand the WRS financial plan actions, it is important to understand the current funding model.

In 2006, 60 per cent of WRS' expenditures were funded through property tax support; an additional 30 per cent of funding was generated from landfill tipping fees, and the remaining 10 per cent was generated from the commercial container business and the sale of recyclables from the community recycling depots.

Also, in 2006 Council approved WRS' cost of service principles. These principles are:

- Resources are available to maintain blue cart recycling and make progress toward the 80/20 by 2020 strategy:
- Resources are adequate to provide for operations, capital, growth, reserves and landfill liabilities;
- Costs to provide services are allocated back to customer classes; and
- Subsidization across customer classes is minimized.

The current funding model, illustrated in Figure 1, has changed considerably from 2006 following a commitment by Council to the financial sustainability of WRS. Funding of services is now more appropriately paid for by the recipients of the service.

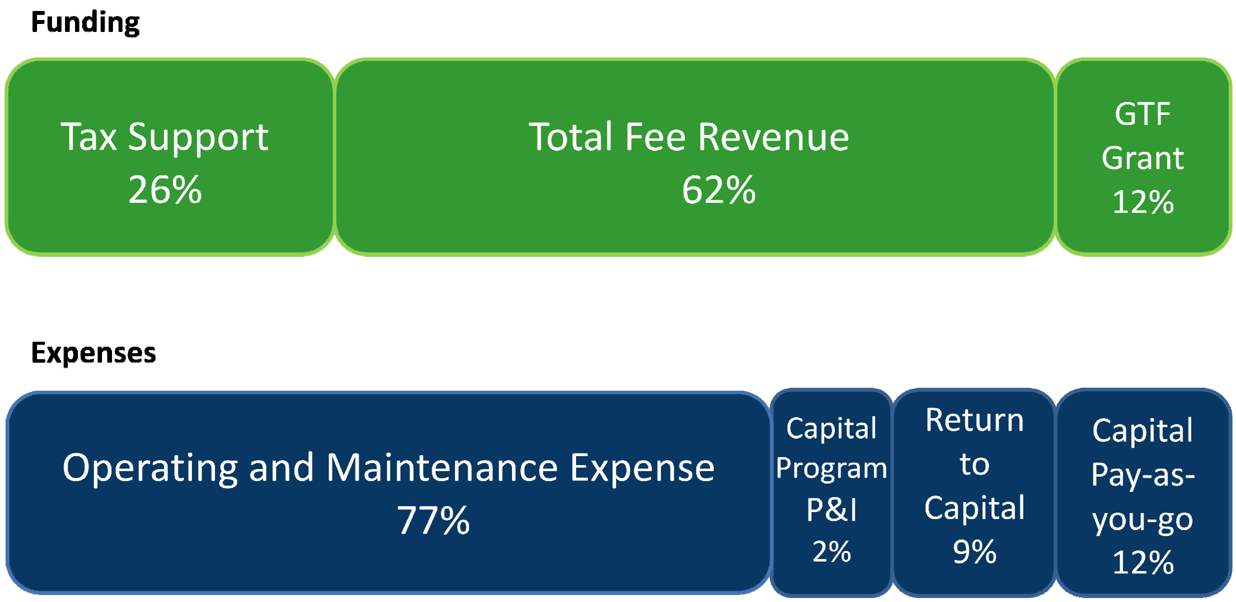

Figure 1: WRS 2013 Funding Model

In 2013, 26 per cent of WRS funding was from tax support, 62 per cent was from fee revenue and 12 per cent from Federal Gas Tax (GTF) funding grants. For WRS expenditures, 77 per cent pays for operating and maintenance expenses and 27 per cent for capital costs: two per cent for capital program principal and interest (P&I) payments; nine per cent is retained for capital; and, 12 per cent GTF funding which goes to cash funding capital projects on WRS' three landfills.

4. 2015 – 2018 Financial Plan

Significant progress has been made towards WRS' financial realignment since the 2009-2011 business planning and budget cycle, with the introduction of the self-supported blue cart recycling program and the landfill waste management charge for single-family residences. In order to continue to make progress towards 80/20 by 2020, implementing the green cart program to turn food and yard waste into compost is required.

Current diversion programs will need to be maintained, including community recycling depots, which will be evaluated with the implementation of the multi-family recycling strategy in 2015-2018. Therefore, WRS has developed a financial plan for 2015-2018.

Few changes are recommended to WRS' Financial Plan in 2015-2018. Citizen satisfaction with the services delivered by WRS remains high. In 2013, 95 per cent of citizens were satisfied with residential garbage collection, and 89 per cent of citizens were satisfied with City operated recycling programs. Support for the green cart program is also strong with 89 per cent of pilot residents saying they are satisfied with the program while 91 per cent support a city-wide program (Ipsos Reid survey, December 2012).

For the 2015-2018 business plan and budget cycle single-family residential garbage collection should remain tax funded. However, 2017 will be a year of transition with the introduction of weekly green cart service paired with a change in black cart collection to once every two weeks. WRS proposes that approximately 70 per cent of the green cart program be funded through a monthly user charge similar to the blue cart program, and approximately 30 per cent through tax support from savings from the change to garbage collection once every two weeks. It is proposed that the multi-family recycling strategy be funded by the savings generated through the reduction in the tax-funded community recycling depot program that will accompany the implementation of the multi-family recycling strategy.

Much of the financial focus in the 2015-2018 cycle will be to develop a foundation for the 2019-2022 funding model. As Calgary moves to further increase waste diversion, additional capital investments, as outlined in WRIIP, and operational changes will be required, WRS' financial model will need to adapt to these scenarios.

5. Tax supported services

As previously shown, 26 per cent of WRS funding is from property tax support, which is three per cent of The City's tax allocation in 2014. In 2013, $37.9 million funded residential garbage collection for 300,000 single family residences, 60,000 condominium units in 1,200 developments, and 47 community recycling depots (CRD).

Significant operational efficiencies were achieved during 2009-2011 in the single-family residential sector with the introduction of blue cart recycling and black cart collection. With the introduction of blue cart recycling, the CRD collection routes and depot layouts were updated. To date, 16 workers have been reassigned from this operation to other areas of WRS and the full-time equivalent (FTE) count was reduced by 11. Looking forward, the CRD program will be evaluated and potentially reduced with the introduction of the multi-family recycling bylaw.

In the 2012 to 2014 budget cycle, WRS was able to offset the full impacts of inflation and growth through the introduction of the blue cart program and the conversion to automated, black cart residential collection that was completed in 2011. Improved collection efficiency resulted in a savings of 48 FTEs in 2012, in addition to the reduction of 18 FTEs in 2011 and 19 FTEs in the 2010 budget adjustments. These savings also covered the full costs of implementing the green cart organics pilot program. WRS continues to manage growth and maintain black cart operational efficiencies by completing annual route design revisions and through ongoing operational improvement efforts.

Development of new housing is the key driver for WRS' need to increase the capacity of frontline collection services. A portion of residential growth can be accommodated through route design and collection efficiencies, however, depending on the pace and location of new housing, a growth vehicle is required for every 3,500 to 3,800 new homes. The full cost of a vehicle includes its capital cost (incurred as a lease cost to Fleet Services), maintenance, fuel and driver. Each of these elements is subject to inflationary pressures and the ongoing increase in housing stock impacts WRS' operating budget requirement.

Further efficiencies are expected in black cart garbage collection beginning in 2017 with the introduction of the green cart program. It is proposed that savings achieved through the reduction of residential garbage collection from weekly to once every two weeks be reinvested into the green cart program to reduce the monthly charge for the program for single-family residences.

The 2015-2018 business plan and budget will incorporate the growth and inflation requirements for residential collection, a review of the CRDs, along with savings realized through black cart collection changes.

6. Self-sustaining residential services

Blue Cart

Residents pay a monthly blue cart recycling fee. The blue cart recycling fee has two main elements: collection and processing. In 2012, efficiencies in blue cart collection saw rates to residents reduced from $8.75 in 2011 to $7.10 in 2012, increasing to $7.70 in 2014. It is anticipated that inflationary increases will be sufficient to support both collection and processing to maintain and extend blue cart recycling to new customers from 2015-2018. The impacts of growth are absorbed as new residents pay a collection fee when they begin receiving blue cart service.

Waste Management

Residents also pay the residential waste management charge (WMC) which contributes to funding the operating and capital costs of residential waste disposal at landfill. Inflationary increases to residential rates will be proposed for 2015-2018. The impacts of growth are absorbed as new residents pay a collection fee when they begin receiving black cart service.

Green Cart Program

WRS is introducing a green cart residential organics program to single-family residences beginning in 2017. The annual green cart program costs will include collections, facility operations, capital costs and program administration and education, as shown in Figure 2.

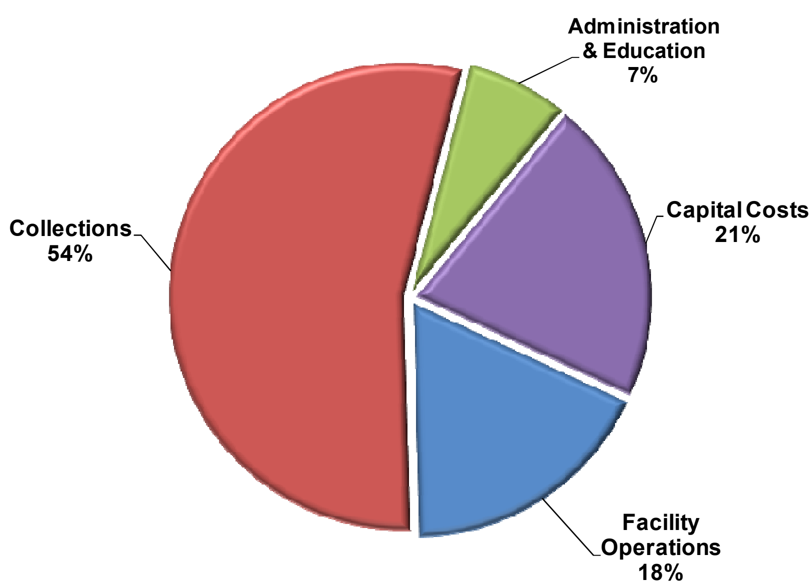

Figure 2: Breakdown of annual green cart program costs

The current estimate for the annual operating cost for the program is projected to be $36 million, in 2018 dollars. Reducing black cart collection to once every two weeks is projected to save $10 million in 2018 dollars, resulting in a net program cost of $26 million.

The first full year of the green cart program will be 2018 following a phased roll out commencing in 2017. Three options to fund the green cart program were investigated. Each option covers the program operating costs and the annual debt repayment for the processing facility:

1. Recover the full program cost from each household through a monthly fee of $9/household/month, and reduce the tax support required by WRS by $10 million due changing black cart collection to once every two weeks.

2. Reduce the monthly fee to residents from $9/household/month to $6.50/household/month by using the $10 million in black cart savings to partially offset the green cart program cost. This was the option presented to Council on 2013 April 15.

3. Fully tax supported funding for green cart, including the reinvestment of black cart savings. This would require an additional $26 million net budget.

Option 2, using the savings from the reduction in black cart service to offset the monthly green cart fee to residents is recommended.

The composting facility will also compost biosolids for the Water Utility. In 2013 February the Water Utility communicated the need to address both the increasing volumes of biosolids and the risks associated with the biosolids management program (UCS2013-0082).

Work between the Water Utility and WRS concluded that a joint composting facility would benefit The City of Calgary and its citizens with economies of scale and operational efficiencies. The Water Utility will pay about $10 million per year to WRS for its share of the operations, maintenance and capital recovery for biosolids composting. The incremental cost to water is $7.2 million per year, as the composting facility will reduce third party contracting costs to handle biosolids by $2.8 million. These costs will be reflected in the Utilities' indicative rates.

7. Landfill Tipping Fee

In 2007, as part of the construction and demolition waste diversion strategy, the base rate for landfill tipping fees was increased to encourage waste diversion. Tipping fees are now at the appropriate level to realize waste diversion and only inflationary increases in 2015-2018 are required to address the increases in equipment contractor expenses over the next business cycle.

Landfill tipping fees contribute to some waste diversion programs (through a small contribution to the Waste Management Sustainment Reserve), maintenance of landfills and the capital program for landfill development and operations and maintenance. In terms of meeting WRS' financial objectives in 2015-2018, the proposed landfill tipping fees along with the residential waste management charge ensure landfill operational, capital and liability requirements will be met.

8. Sustainment Reserve

The WRS sustainment reserve holds a minimum of 10 per cent of revenues to provide a contingency against fluctuating revenues (largely the sale of recyclables and landfill revenues) and manages cash flow for WRS' capital program. The economy, diversion opportunities and high landfill tipping fees may have a negative impact on anticipated revenues. As well, the market for recyclables is volatile and creates a revenue risk, which is mitigated by the sustainment reserve.

9. Landfill Liability

Funds need to be set aside to pay for long-term landfill closure and post-closure care. Current closure and post-closure care activities are funded. These activities include: landfill cell cap design and construction; landfill cap maintenance, drainage system maintenance and repair, operation and maintenance of leachate (the liquid produced from waste) and landfill gas collection and treatment facilities.

The landfill liability was adjusted in 2012 from $56.1 million to $60.1 million and again in 2013 to $64.7 million to meet audit requirements and required additional funding. Over the next four-year business cycle landfill liability will continue to be funded from landfill tipping fees and the WMC. The adjusted model increased the liability forecast to approximately $67 million and the increase was funded through WRS' Sustainment Reserve. In the 2015-2018 business plan and budget, WRS will continue to assess the appropriate landfill liability requirements and a long-term funding plan to achieve the end-of-life requirements will be developed.

10. Capital Plan

WRS has developed the Waste & Recycling Services Infrastructure Investment Plan (WRIIP) to meet future needs for facilities, equipment, and support assets. The development of a 10-year infrastructure investment plan allows for a review and prioritization of infrastructure projects based on expected timing of needs and availability of resources (funding, land and construction capacity). This helps ensure planned investments can meet existing and emerging customer and environmental priorities. It also ensures financial and resource plans are in place for the delivery and construction of the proposed infrastructure projects. The WRIIP is outlined in UCS2014-0023 and is summarized in Figure 3.

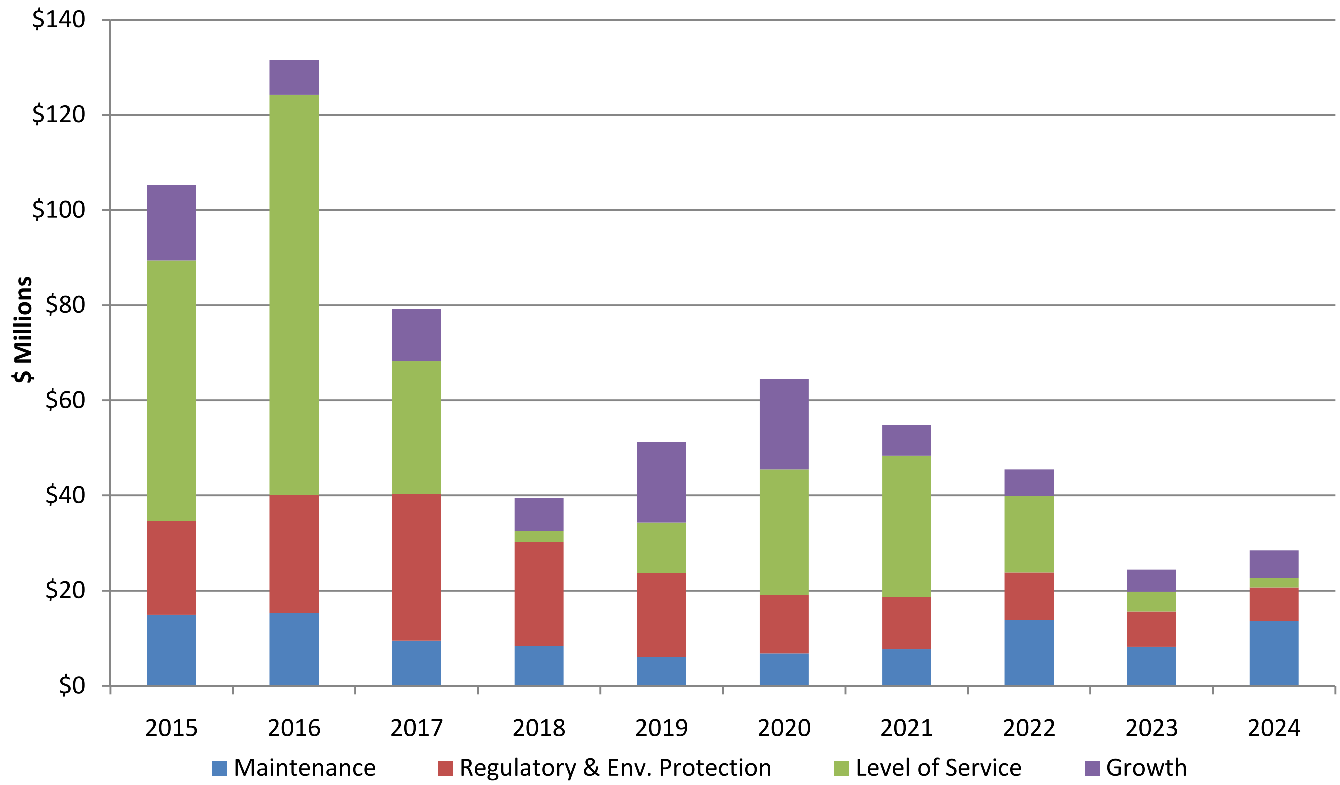

Figure 3: Expenditure by Investment Driver

WRS debt profile is aligned with the 10-year capital program. Debt will only be used for long-term assets including the composting facility, buildings and equipment. WRS' self-supported cumulative debt is illustrated in Figure 4.

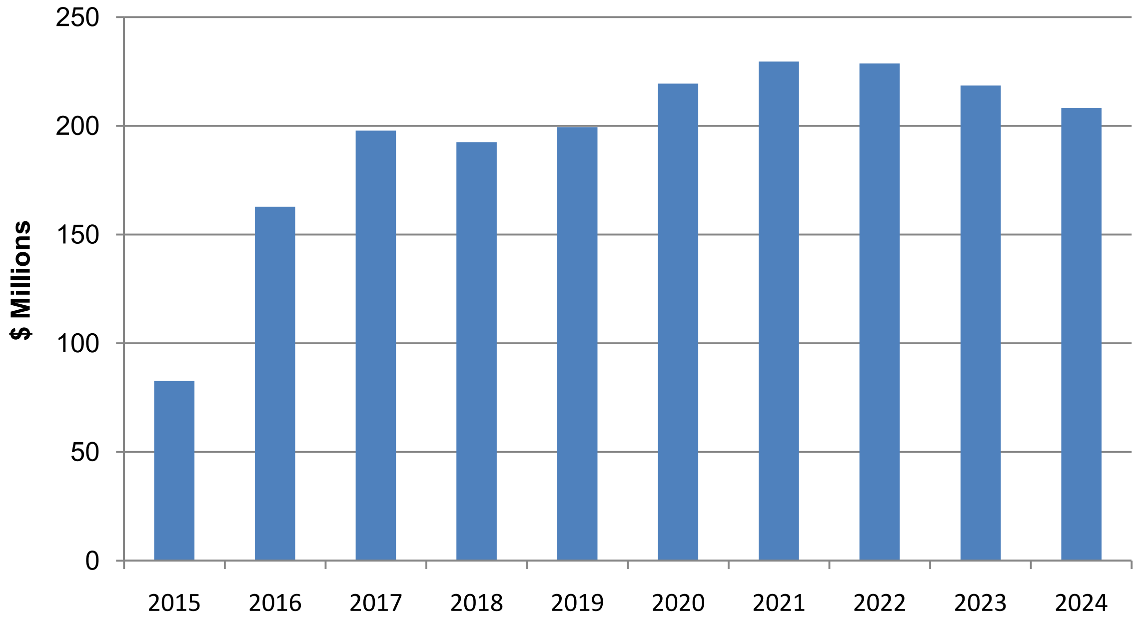

Figure 4: WRS' Cumulative Self-Supported Debt

A key element of achieving the 80/20 by 2020 waste diversion goal is developing a waste to energy (WTE) strategy. WTE is not included in the current capital plan. A new funding plan for WTE will be developed in the 2015-2018 business plan and budget.

11. Cost of Service Study

Also, looking forward to the 2019-2022 business plan and budget, WRS will undertake a Cost of Service Study to assess the rates and fees allocated to each customer class and recommend funding allocation to be implemented in the 2019-2022 cycle. Options to reinforce waste reduction behaviours through education, landfill tipping fees and targeted user pay (pay-as-you-throw) programs such as tag-a-bag for excess garbage outside the black cart and variable cart sizes will also be evaluated for implementation during 2019-2022.

12. Collection Service Review

To further prepare for the 2015-2018 business plan and budget, WRS is completing a collection services review which will be presented to the SPC on U&CS. This review aims to inform Council about how the types of services and methods of service delivery compare to peer jurisdictions, and provide information about the relative efficiency and effectiveness of its current collection services. The results will be used to inform actions The City can take to improve service delivery efficiencies. The results can also inform decisions about whether The City should continue to provide a full suite of residential collection services (black, blue and green carts), or whether introducing some form of private sector involvement in collection services would present an opportunity to deliver desired service levels and lower cost. The 2015-2018 business plan and budget will incorporate opportunities identified in the report.