

# **Waste & Recycling Services Collection Service Review – Appendix 2 Financial Analysis**

**20 March 2015**

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## 1.0 Financial Analysis

### 1.1 Methodology and Assumptions

The following financial analysis has been developed based on Waste & Recycling Services' (WRS) budget forecasts that were approved as part of Action Plan 2015-2018. The budget forecasts were based on the extension of WRS' collection services for both black and blue cart collection through 2015 and 2016, implementation of a city-wide Green Cart program in 2017 and, completing the conversion for a full year of combined black, blue and green cart collection in 2018.

The assumption that WRS would provide all services was necessary to ensure WRS' base budget was adequately funded throughout the 2015 to 2018 business cycle.

A financial comparison between a mixed service delivery model and the current public service model was conducted as part of the analysis.

### 1.2 Direct Costs of Collection

The following elements that have the most direct impact on the cost of collection services and were a primary focus of the analysis:

- Salary & Wages (Labour): cost of collection staff, foremen, direct administrative staff and includes fully loaded benefits.
- Fleet: lease, maintenance, fuel and oil.
- Service Efficiency.
- Contract Administration Costs
- Other Business Expenses: insurance and security, communications, materials and commodities, and facilities.
- Private contractor profit.

The 2018 budget to service 1/3 of the city is outlined in Table 1 and represents the baseline which Option 1 (Mixed Service) was compared to. It must be noted that they do not include processing costs for the recyclables collected in the Blue Cart Program. Similarly, the green cart costs that are used for the analysis only reflect the costs of collection. All costs for processing organics and revenue from compost will be reflected in the Green Cart program user fee.

**Table 1: 2018 Budget – Black, Blue and Green cart collection for approximately 110,000 homes**

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## 2.0 Salary and Wages (Labour)

CH2M HILL's Residential Collection Services review stated that *"in many cases, the majority of the cost savings afforded by the private sector results from paying less to collection workers (in salary plus benefits)"*.

WRS hired an independent consultant that specializes in labour market evaluations (Align HR Consulting). They completed a salary survey of Class 3 drivers in Calgary and Alberta to gain an understanding of local market conditions and to determine if significant savings could be achieved within that market (Table 2).

**Table 2: Market Analysis Data Summary**

Survey Group - Class 3 Driver	Hourly Rate*	City vs. Market
The City - Waste & Recycling Services	\$31.38	
Alberta Private Sector	\$31.37	0%
Alberta Public Sector	\$29.86	+ 5%
AB Government Wage & Salary Survey	\$28.81	+ 9%
<b>Reference Data</b>		
Ontario - Public Sector	\$28.35	+ 11%
British Columbia	\$28.78	+ 9%

\*Median of rates before benefits (2014)  
Source: Align HR Consulting

The salary survey reviewed 19 Alberta private sector organizations and 15 municipalities in Alberta, British Columbia and Ontario. The consultant concluded that the wages of Class 3 drivers in similar positions, in the private sector in Alberta, are exactly aligned to the top rate of pay for The City of Calgary, Class 3 Waste & Recycling Services Drivers (Table 2).

Market conditions for Class 3 drivers are quite challenging across Alberta. Qualified truck drivers continue to be in high demand and have been for over a decade. The consultant noted that "some of the larger companies are not able to fill contract obligations because of the

shortages.” The Conference Board of Canada has predicted that by 2020 Alberta will be short by 6,200 drivers, so the pressure on this market will continue well into the future. As such, it is noted that some organizations are in perpetual “hiring mode” due to the nature of their businesses.

The consultant also concluded that “in Alberta, the demand for drivers exceeds supply, putting pressure on wages. Any organization that pays below market is likely going to struggle to attract and retain high performing and customer focused drivers over the long term.”

This combined with the assessment that for “organization(s) that require: a) a significant number of drivers (more than twenty-five); b) retention of employees, in order to avoid continuous turn-over and training of new drivers; and, c) the ability to attract/retain quality employees that offer a high level of customer service - will be required to pay rates that are market competitive.”

The private sector may achieve some level of cost savings by offering lower levels of benefits, typically 20 per cent of annual salary, compared to 27 per cent fully loaded at The City of Calgary (in 2014). This could equate to a difference of approximately \$500,000 per year that Calgary would pay in benefits over a private company for a contract of 110,000 households per year.

This analysis suggests that a private sector service provider would have difficulty in attracting and retaining a stable labour force in Calgary and achieve significant cost savings other than through offering a reduced benefits package in comparison to The City of Calgary's.

### **3.0 Fleet: Lease, Maintenance, Fuel and Oil**

CH2M HILL's Residential Collection Services review found that compared to four other public sector operations “WRS' maintenance costs are about average and lease costs are relatively high”. It was identified that “WRS has done a good job maintaining standardization within its fleet.”

In turn, Fleet Services has strived to minimize customization of the corporation's heavy fleet and has, to the greatest extent possible, purchased a standard chassis/engine combination that serves the broadest possible array of The City's vehicle needs. Fleet Services, in conjunction with WRS establishes the specifications for the body/packer part of the collection vehicle and negotiates the best price available within the waste collection equipment supply industry.

A private sector service provider who utilizes similar equipment in a larger market place may be able to realize savings through greater purchasing power. Supply attempted to research this opportunity but information was not made available by the private sector.

While WRS is not able to obtain specific fleet purchasing or fleet maintenance advantages, it is recognized that this represents an element in which a private contractor could leverage overall reduced costs. It is also anticipated that the private sector may be able to achieve reduced

spare fleet ratios due to their ability to access vehicles from other service jurisdictions. For the purposes of the analysis, WRS has considered savings of \$1,500,000.

With respect to the cost of fuel, it is not likely that a private sector service provider would be able to achieve significant savings through lower fuel costs as fuel is sold at a low profit margin. WRS has diesel fuelling facilities at each collection district. Supply pursues bulk purchases of fuel on behalf of the Corporation. Prices are based on "refineries' terminal rack prices" which are subject to the same pricing patterns as every outlet that sells fuel. That said, Supply has offered information indicating that City diesel prices have been tracking below retail outlet prices. Fuel purchased for the light fleet (such as foremen field vehicles) is purchased at a slightly discount rate through a specific retailer.

Since CH2M HILL's study, a number of changes have been approved that will provide some rate relief for lease costs through the elimination of the Return On Equity (ROE) requirement and new reductions to mark-ups charged for various maintenance elements will reduce WRS' overall fleet costs through the business cycle. In June 2015 WRS will be returning to Standing Policy Committee on Utilities and Corporate Services with a status update on operational performance and fleet management opportunities identified by CH2M HILL.

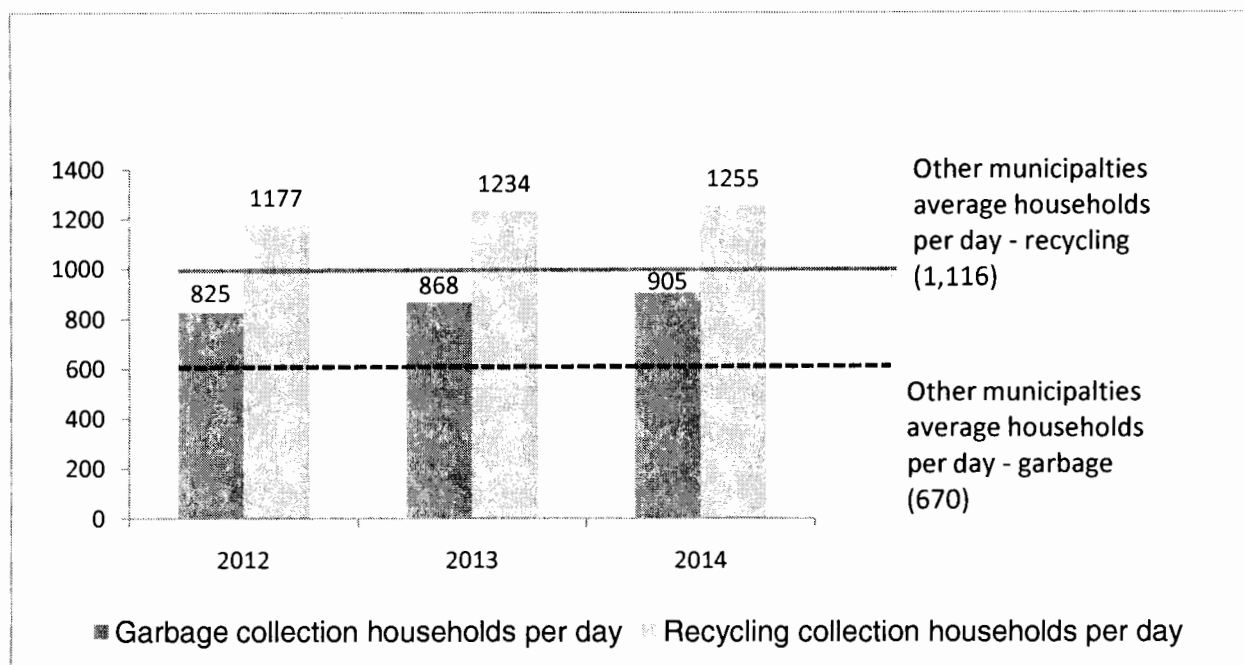
#### **4.0 Service Efficiency**

In assessing WRS' service efficiency, the consultant reviewed the number of households served per day compared to other municipalities and the private sector. In 2012, Calgary averaged 825 households per collection day for garbage; this has increased to 905 in 2014. The other municipalities in the review ranged from 431 to 1,022 households per day. In the report, the consultant states "The average number of stops per day for garbage collection in 2013 at five private operations surveyed ranged from a low of 665 to a high of 1,368 with an average of 990." This is now very close to what is being achieved by WRS, while recognizing that Calgary is the only jurisdiction using fully-automated collection that allows customers to set out "excess" material outside of their black carts.

For blue cart recycling, Calgary now averages 1,255 households per day (1,177 in 2012) compared to a range of 988 to 1,310 for the other public sector communities. The two private sector operations that provided data to the consultant about recycling collect from slightly fewer households per day than Calgary.

The increase in collection efficiencies that WRS has achieved are shown in the following chart:

**Chart 1: The City of Calgary Average Households per day**



Servicing growth of new homes is always a challenge for any collection services operation. The City has a requirement to service each additional home as it is occupied and is built. Accommodating that growth requires the restructuring of single-family residential collection routes on an on-going basis. WRS has in-house route designers who create new collection services routes to increase efficiency and on an as-needed basis to accommodate growth. The City has improved black cart efficiency by 10 per cent and blue cart efficiency by 7 per cent over two years.

Table 3 is a comparisons of The City's black cart collection to other municipalities and private sector service providers.

**Table 3: Black Cart Collection Comparison**

Black cart garbage collection	Average Households per day	Efficiency
The City of Calgary - Average households per day 2014	905	~
Other Municipalities - Average households per day 2012	670	Calgary is 50% more efficient than other municipalities

Black cart garbage collection	Average Households per day	Efficiency
	110,000 home contract area	Calgary uses 11 fewer trucks than other municipalities Equivalent to \$2,200,000 savings
Private Operators - Average households per day 2013	990	Calgary is 8% less efficient than private operators, but WRS is one of only two municipalities that does not impose limits and/or additional charges on extra volumes of garbage that is not contained in the black cart.

Table 4 is a comparison of The City's blue cart collection to other municipalities and private sector service providers.

**Table 4: Blue Cart Collection Comparison**

Blue cart recyclable collection	Average Households per day	Efficiency
The City of Calgary - Average households per day 2014	1,255	~
Other Municipalities - Average households per day 2012	1,116	Calgary is 11% more efficient than other municipalities
	110,000 home contract area	Calgary uses 3 fewer trucks than other municipalities Equivalent to \$600,000 savings
Private Operators - Average households per day 2013	Slightly fewer households than Calgary	Calgary is equally efficient compared to private operators
	110,000 home contract area	Calgary uses equivalent trucks to other private operators



The change in service levels that will be achieved beyond the implementation of the Green Cart program, offers an opportunity to impose volume restrictions on garbage thereby bringing The City's black cart collection efficiency in line with the private sector. Increased efficiency in blue cart collection is unlikely as Calgary has optimized this collection service.

Caution must be exercised in pushing towards higher numbers of service stops within a set shift. Customer service standards can significantly decrease if collection staff applies increasingly strict tolerances when it comes to serving their customers. Example: cart placement requires reasonable clearances between carts, fences, garages and other vehicles; strict adherence to these clearances, versus the collector exiting the vehicle and manually repositioning the cart for collection, can result in a significant deterioration of good customer service.

## 5.0 Contract Administration Costs

CH2M HILL noted that cities often fail to account for what it costs to monitor and oversee contracts with private service providers. Based on the experience of other municipalities (4-7 per cent of the contract) and WRS' own cost estimates, the contract administration costs are expected to be an incremental **INFORMATION WITHHELD DUE TO CONFIDENTIALITY** per year. This would include costs to manage the contract, oversee the Request for Proposal (RFP) contract process with Supply and day-to-day onsite inspectors and represents 3.5 per cent of the contract. There would also be a one-time contract expense of \$550,000 to prepare the RFP and tender the work.

## 6.0 Other Business Expenses

Other business expenses include: insurance and security, communications, materials and commodities, and facilities and other supporting expenses. Collectively, they represent five (5) per cent of the direct cost of WRS' collection services.

Costs related to the storage of collection vehicles, represents the largest portion of the 'Other Business Expenses'. WRS owns fleet storage facilities at each of the three Waste Management Facilities. The collection fleet is the majority user of these facilities but space is shared with the respective landfill site vehicles and equipment. The initial capital investment for the facilities was supported from corporate funding over 40 years ago. In recent years, WRS has assumed all responsibility for facility maintenance, upgrades, replacement and operating costs.

It would be expected that a contracted service provider would provide their own facility/vehicle storage and maintenance requirements. This reflects the requirements of all of the other municipalities who were interviewed.

The combination and magnitude of other expenses would vary depending on the business structure of any potential private sector service provider. As noted, WRS would assume prime responsibility for city-wide communications and education. However, a contractor would be required to engage with citizens on a day-to-day basis.

While the private sector may experience higher or lower Business Expenses, WRS considers that the cost impact would be neutral.

## 7.0 Profit

It must be recognized that a private contractor will need to achieve a profit. CH2M HILL identified a 5-20 per cent profit range in the private sector. A profit margin of 10 per cent would represent an addition of **INFORMATION WITHHELD DUE TO CONFIDENTIALITY** to the cost of the base budget.

## 8.0 Financial Analysis Summary

The following table represents the summary of all financial elements discussed above.

**Table 5: Comparison of Financial Elements**

Element	The City of Calgary (Public)	Private
<b>Salary &amp; Wage</b>	Class 3 Driver Hourly rate \$31.38 Benefits 27%	Class 3 Driver Hourly rate \$31.37 Benefits approximately 20%
<b>Fleet (Lease fuel and maintenance)</b>	Fleet negotiates purchase price Lower financing costs Bulk fuel purchaser with associated terminal rack price	May achieve some level of purchasing power May have more flexibility with spare fleet WRS has considered savings of \$1,500,000
<b>Service Efficiency</b>	Black cart – households per day 905 and includes excess Efficiencies to be realized in 2019-2022 with bag limits Blue cart – households per day 1,255	Black cart – households per day 990, with no excess collection. Blue cart – slightly fewer households per day Recycling – No advantage
<b>Contract Administration</b>	Not required	Total estimate administration cost of <b>INFORMATION WITHHELD DUE TO CONFIDENTIALITY</b>
<b>Profit</b>	Not required	5% to 20% approx. <b>INFORMATION WITHHELD DUE TO CONFIDENTIALITY</b>

The following table compares The City's base costs for a three cart collection system to the estimated differences for a private contractor for a 110,000 home three cart collection area.

**Table 6: Financial Analysis**

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### 8.1 Financial analysis conclusion

In the CH2M HILL report it was concluded that at least initially, a competitive private sector procurement process would be likely to result in lower costs to residents than WRS' current collection operations (for an equivalent level of service). The extent of any initial savings would depend on many factors; it could be quite small, or perhaps substantial.

It is also possible that the continuation of recent efficiency improvement trends within WRS could make the costs of public sector and private sector collection quite similar. In the long-run, cost savings from switching to private sector collection is less certain, experience in other municipalities has found initial savings can be difficult to sustain over many years.

WRS financial analysis found that potential private contracting savings due to lower employee benefits and fleet costs would be offset by additional contract management costs and private sector profit. In addition, there was no evidence that the private sector collection would be more efficient than public sector collection. Accordingly, there would be no clear financial benefit realized by adopting a mixed service model at this time.