CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Operations Division

TO:	Mayor and Members General Issues Committee
COMMITTEE DATE:	May 7, 2014
SUBJECT/REPORT NO:	Waste Collection Operations - Supplementary Information (PW14047) - (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Bryan Shynal, BSc. BLA (905) 546-2424, Extension 4622
SUBMITTED BY: **SIGNATURE:**	Gerry Davis, CMA General Manager Public Works Department

RECOMMENDATION

(a) That staff report back on the feasibility of expediting the installation of GPS on all City of Hamilton waste collections vehicles prior to the end of 2014;

(b) That staff report annually on waste collection program performance and route optimization;

(c) That the waste collection route review process include consultation with waste collection employees and 5167 executive representatives.

EXECUTIVE SUMMARY

This report provides supplementary information to a recent Waste Collection Operations update attached to Report PW14047 as Appendix A and formal responses to several subsequent media inquiries. The Information Update noted the City's use of a public / contracted waste collections delivery model and confirmed favourable results in the key performance indicator of cost per household based on the activity-based cost analysis for 2010, 2011 and 2012 under the previous waste collection service contract. With a full year of performance data under the new waste collection system now available, staff will initiate the planned route optimization review approved in the 2013 Capital budget to identify long-term and sustainable improvement opportunities to maintain the City's competitive position within the current waste collection system.

Alternatives for Consideration – Not Applicable

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Project funding has been provided in the 2013 Capital Budget.

Staffing: No additional staff are required to complete this project.

Legal: N/A

HISTORICAL BACKGROUND

Background work on the route optimization review initiative began in late 2012 with a scan of route management technologies in use by waste management service providers across North America. The review will consider the benefits of automatic vehicle location (AVL) technology in addition to route management planning. Funding for the collection route review project was identified as part of the 2013 capital budget submission and approved by Council as project 5121357001 as outlined in Report PW14047 as Appendix B.

A *Request for Proposals* for consulting services to implement the route optimization review will be issued targeting an award of contract by August 2014. The route optimization review consists of several components including:

- Identify and account for all significant factors affecting route performance including travel time to waste facilities, number of stops, unit density, service area location, seasonal tonnage fluctuations, business district requirements, and local street conditions, i.e. street condition, street width, on-street parking, bike lanes, school zones, etc.
- Identify and validate assumptions related to:
    - Productivity rates and daily accomplishment expectations for the waste collection operators
    - Contingency capacity to address various factors including:
        - *unplanned fluctuations in tonnages (i.e. storm events)*
        - *growth in service area or units*
        - *program resource issues (staff absences, equipment failure),*
        - *municipal emergencies*
        - *extreme weather conditions*
        - *traffic volumes and construction activity*
- Identify and assess improvement opportunities that respect and maintain the current program delivery model, service levels and collection schedules but consider at minimum the following parameters of current “in house” collection operations:

- utilization of GPS/AVL technology for ongoing program management including opportunities to reduce fleet management costs for vehicle maintenance and fuel consumption
- route design (configuration, number of routes)
- alternate loading technologies (i.e. fully automated)
- operating procedures (i.e. work schedules – seasonal, and shift duration, etc.)
- opportunities to utilize additional reporting locations to reduce fuel consumption

Upon the completion of the review, a staff recommendation report will be provided addressing key improvement opportunities. Subsequent annual reporting of waste collection program performance (*Recommendation b)* will update the effectiveness of the public / contracted waste collections service delivery model.

Inquiries received after the release of the Information Update are summarized in the following along with responses:

Waste Collector operating shifts and supervision

Start of Shift: ~ 6:30 a.m. (*supervisor contact / work assignment & equipment check*).

Route Arrival ~ 7:00 a.m. (*per by-law*).

Yard Return ~ 1:00 p.m. (*average last tipping time; varies seasonally due to higher volumes during April to November*).

Other pre and post collection duties include route assignment, equipment inspection and maintenance, cleanup and report submissions.

Upon completion of daily work assignments crews report to the operations yard then clean and secure their vehicles. Staff departure time from the yard will range on average between 1:00 p.m. to 2:30 p.m. and vary relative to route assignment (distance from yard), transfer station waiting times, weather conditions and the employee's approach to taking Lunch/Break and wash-up allowance entitlements pursuant to the Collective Bargaining Agreement (i.e. these may be deferred to the completion of the daily work assignment). Variations in staff departure times is the norm in municipal curb side waste collection and reflects the many variables affecting the time required to complete work assignments, including rate of production.

Waste Collection Operators are permitted to leave once they have completed all of their assigned tasks for their operating shift. As part of the Collective Bargaining Agreement, the Waste Collection Operators are entitled to have breaks and lunches; however, in most cases, staff work continuously through their routes and take their rest periods at the end of their shift. There is no "Task and Finish" policy.

Waste collection is a unique activity, which requires the waste collection operators to perform highly demanding physical activities, within the roadway, in traffic, under all types of weather conditions to achieve a set schedule daily regardless of any of the variables that affect their rate of production.

The route optimization review, which will take into consideration current physical demand assessment for the collection operator position, will provide recommendations as to an appropriate average route and shift length. An opportunity to provide staff education on the physical demands of this work and the associated need for appropriate rest periods may also be incorporated into the review recommendations.

Additionally, the implementation of AVL technology will facilitate increased supervision and improve accountability.

The waste collection supervisors are at work prior to the arrival and after the departure of the front-line staff. During the afternoons, the supervisors deal with multiple tasks including human resource/labour relations issues, begin planning for the next day's activities, follow up with other departments for overnight vehicle maintenance, and respond to customer service inquiries.

Waste Collection Operators overtime costs

The overtime costs in 2013 were approximately $283,000. Approximately 67% of the costs are related to scheduled overtime such as providing collection on a Saturday after a statutory holiday or planned scheduled services such as the Carlisle leaf & yard waste collection depot. The remaining overtime costs are related to other collection variables such as increased waste tonnage or escalated service for storm clean-up. In July 2013, waste collection crews worked cooperatively with other City crews to collect a large amount of oversized tree branches from neighbourhoods after the wind storm

Comparison of Road Maintenance employees and Waste Collection Operators

The operational considerations in waste collection are vastly different than those in roads maintenance, and therefore the situations are not directly comparable. Early shift completion by Waste Collections Operators is not considered as time theft as the work assignments are being fully completed.

Comparisons between waste collection in the public and private sectors

The public sector provides collection services for approximately 15,000 to over 16,000 residential units per day during an eight hour shift. In comparison, the City's contractor GFL collects from approximately 15,000 to 19,000 residential units per day over a ten hour shift. The number of properties serviced per route can range from 500 properties to over 1000 properties depending on the housing density of the area, e.g. rural collection routes include fewer properties due to the long distances between stops, compared to an urban area with multi-residential properties.

- GFL collects recycling at every house which represents 160,200 residences per week
- GFL also collects garbage and leaf and yard waste (B zone) at 89,600 residences per week
- Public forces collect garbage and leaf and yard waste (A zone) at 70,600 residences per week

The City has an activity-based costing model which is used to identify the resources required to collect various waste streams from the City's waste collection zones for the City's waste collection service providers. This model considers a wide range of costs including "direct" and "indirect" costs attributed to waste collection services. "Direct" costs for the public sector includes labour costs and fleet costs such as fuel, equipment, maintenance, repairs, insurance, etc. Direct costs for the contractor are based on the services expenses based on the contract invoices. "Indirect" costs for the public sector include administrative costs for management staff, human resources, operational supplies, and customer service. "Indirect" contractual costs consider the City's expenses for contract supervision and customer service requirements for the contractor's areas.

Historically, the former municipalities within the City of Hamilton provided waste collection with either public sector or contracted service providers. Based on the City's review over the past decade, the split model offers the most benefits for the City by maintaining an ongoing competitive balance between sectors and provides sustained value over the long term. Expanding the public sector's services would require a significant capital outlay for the acquisition of vehicles and additional equipment.

There is a wide range of opinions among municipalities across North America concerning contracting out waste collection services and which option offers the most benefits for the public. One of the main reasons municipalities opt to privatize waste collection services is to reduce their program costs assuming they receive competitive pricing offered by private-sector companies. Depending on economic conditions, municipalities may receive favourable pricing through their bid process if there are multiple companies willing to compete for the contract. In the absence of competition, contract pricing may not be favourable if there is a service monopoly.

The City plans to maintain its existing waste collection system for the remainder of the City's existing contract. The activity-based costing model is used to review the City's waste collection service costs over a period of time and assists in identifying areas for improvement to the public side of the public sector / private sector service delivery model.

Citizen calls and complaints

In 2013, the City received 54,595 calls for A zones (public) vs 43,900 calls for the B zones (private). The calls may have been complaints, general inquiries or to schedule a bulk pickup. There are approximately 67 different service codes related to waste services. There is a subset of codes that pertain to calls for service or follow-up, however, Hansen currently does not include a specific category for "complaints". Certain service categories may be inferred as a complaint (e.g. missed waste collection or damaged containers). Other examples of service categories include, waste not collected, requests for recycling containers or green carts, bulk waste bookings, etc.

A Public Works report from 2011 (PW04113a) included a comparison of the number of waste related calls for the areas serviced by the public sector and the City's waste collection contractor. Although the report indicated that the calls were related to

"complaints", the information provided included the number of calls for other service related questions or concerns, such as program inquiries.

The City is divided into six waste collection zones to identify service areas with specific demographics, i.e. urban, sub-urban, and rural areas. The City provides collection of organic waste, yard waste, garbage and bulk waste in the "A" zones, while the contractor provides similar services in the "B" zones. The City's recycling program and front end bin service programs are operated under a contract for both the "A" and "B" zones. There are overall more waste related calls in the A zones compared to the B zones, including calls for other types of services provided strictly through contracts, i.e. recycling collection, apartment bin collection. This could be related to demographics, i.e. certain wards historically place more calls for service compared to other wards. Typically, there are also more By-Law related calls in the A zones, and this is likely related to the public sector's use of its radio system to report waste collection concerns noted on-route; however, it can also mean that more 'infractions' occur in the A zones compared to the B zones which may be related to demographics.

In order to ensure clarity and accuracy in monitoring customer satisfaction and feedback, staff will review key performance measures and implement call processing improvements.

GPS Monitoring

The City presently does not have GPS monitoring on its vehicles. The City has previously piloted GPS technology for a portion of the waste collection fleet as a corporate pilot project. Based on advances in GPS/AVL technology, the City is planning to introduce this system in the near future in conjunction with the route optimization study. This may be expedited as per recommendation (i), which asks staff to explore the feasibility of earlier installation.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

In developing this report staff consulted with the City Manager's Office and Human Resources.

ANALYSIS AND RATIONAL FOR RECOMMENDATIONS

N/A

ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2012 – 2015 STRATEGIC PLAN

Strategic Priority #1

A Prosperous & Healthy Community

WE enhance our image, economy and well-being by demonstrating that Hamilton is a great place to live, work, play and learn.

Strategic Objective

1.5 Support the development and implementation of neighbourhood and City wide strategies that will improve the health and well-being of residents.

1.6 Enhance Overall Sustainability (financial, economic, social and environmental).

Strategic Priority #2

Valued & Sustainable Services

WE deliver high quality services that meet citizen needs and expectations, in a cost effective and responsible manner.

Strategic Objective

2.1 Implement processes to improve services, leverage technology and validate cost effectiveness and efficiencies across the Corporation.

2.2 Improve the City's approach to engaging and informing citizens and stakeholders.

2.3 Enhance customer service satisfaction.

Strategic Priority #3

Leadership & Governance

WE work together to ensure we are a government that is respectful towards each other and that the community has confidence and trust in.

Strategic Objective

3.2 Build organizational capacity to ensure the City has a skilled workforce that is capable and enabled to deliver its business objectives.

3.3 Improve employee engagement.

3.4 Enhance opportunities for administrative and operational efficiencies.

APPENDICES AND SCHEDULES ATTACHED

Appendix A – Information Update – Waste Collection Operations – Program Update

Appendix B – 2013 Capital Budget Submission (5121357001)