

NO: **R060**

COUNCIL DATE: **April 8, 2013**

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **April 4, 2013**

FROM: **General Manager, Engineering**

FILE: **5380-01**

SUBJECT: **Rethink Waste Program – Update on Performance and Plans for 2013**

RECOMMENDATION

The Engineering Department recommends that Council receive this report as information.

INTENT

The purpose of this report is to provide an update on the City's Rethink Waste Program and information about the 2013 initiatives relating to this Program.

BACKGROUND

The Metro Vancouver (MV) Integrated Solid Waste and Resource Management Plan (ISWRMP) requires that regional waste diversion increase from 55% to 70% by 2015. Diversion of municipal residential curbside organic (food) waste is identified as one of the significant requirements of the ISWRMP. Accordingly MV is proposing that a full organics waste ban be put in place at transfer stations and landfills by 2015.

In 2009 the Engineering Department undertook a study to develop a waste collection system with the following attributes:

1. Maximizes curbside waste diversion;
2. Can be efficiently conducted using alternative energy vehicles;
3. Is cost effective; and
4. Meets customer service expectations.

The study concluded that the optimal approach to achieving the above objectives would be a cart-based system with weekly organics collection and alternating bi-weekly collection of garbage and recyclables with the services being delivered by means of compressed natural gas (CNG) waste collection vehicles.

Following an extensive public consultation process in 2010 that such an approach would be favourably received by the public, staff initiated a 2,000 household pilot program with a view to making refinements to the program in advance of its full roll out across the City. The findings of the pilot program were favourable with pilot households expressing high levels of satisfaction with the service approach and with the households involved in the pilot achieving an average diversion rate above 70%.

In 2011, the Engineering Department issued a Request for Proposals (RFP) for curbside waste collection services for the entire City modeled on the successful pilot program. The contract was awarded to BFI Canada in late 2011 and the new service commenced on October 1st, 2012.

Over the course of 2012 leading up to the October launch, staff undertook a series of activities to ensure that the new approach to delivering waste collection services was successful, including:

- Development of education and marketing materials;
- Public communications and education regarding the new program;
- Procurement of 300,000 waste carts for the City's 100,000 waste collection customers (at 3 carts per household);
- Communications with all customers regarding cart sizes;
- Establishment of a waste collection call centre; and
- Cart distributions to all households.

The City's new waste collection services were branded Surrey's "Rethink Waste" Program.

DISCUSSION

Service Transition Period

The transition from the City's former waste collection system to the Rethink Waste program was a significant undertaking. Challenges were encountered and addressed during the weeks from mid-September 2012 (two weeks prior to the October 1st, 2012 start date) to approximately the third week of October including:

- A significant volume of calls and other communications from customers;
- Insufficient organic waste bag inventory at City facilities to satisfy higher than anticipated customer demands;
- The completion of delivery of carts to customers in advance of the program start date;
- Addressing cart size exchange requests from customers; and
- Missed collections.

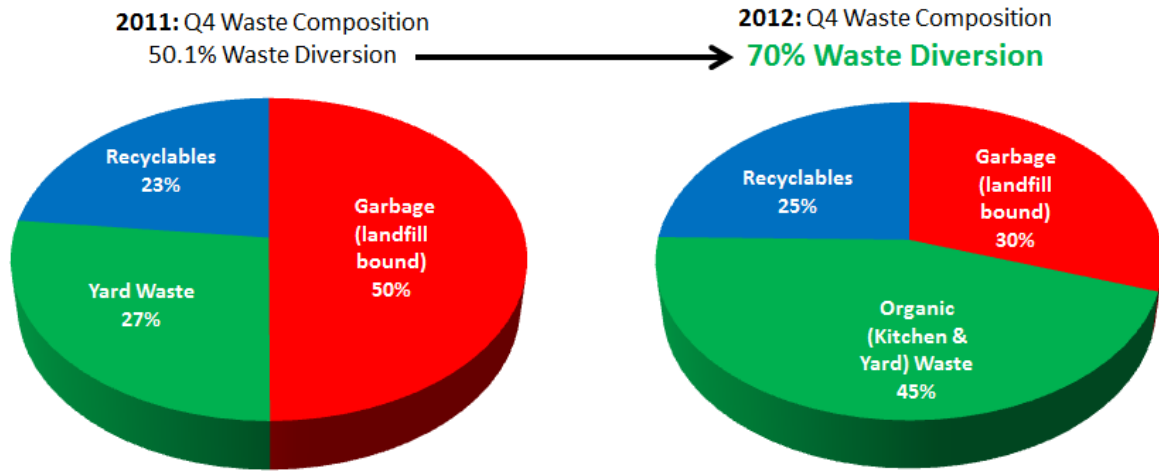
In the first two weeks of October, some customers were affected by missed collections but this was addressed such that by mid-November service was being delivered in a consistent manner across the City's customers.

A minor number of missed collections occur from time to time that appear to be primarily due to carts being placed at the curb too late on the collection day or a wrong combination of carts being placed at the curb by a customer. BFI and staff continue to work with customers to ensure that they receive proper service and reliable service.

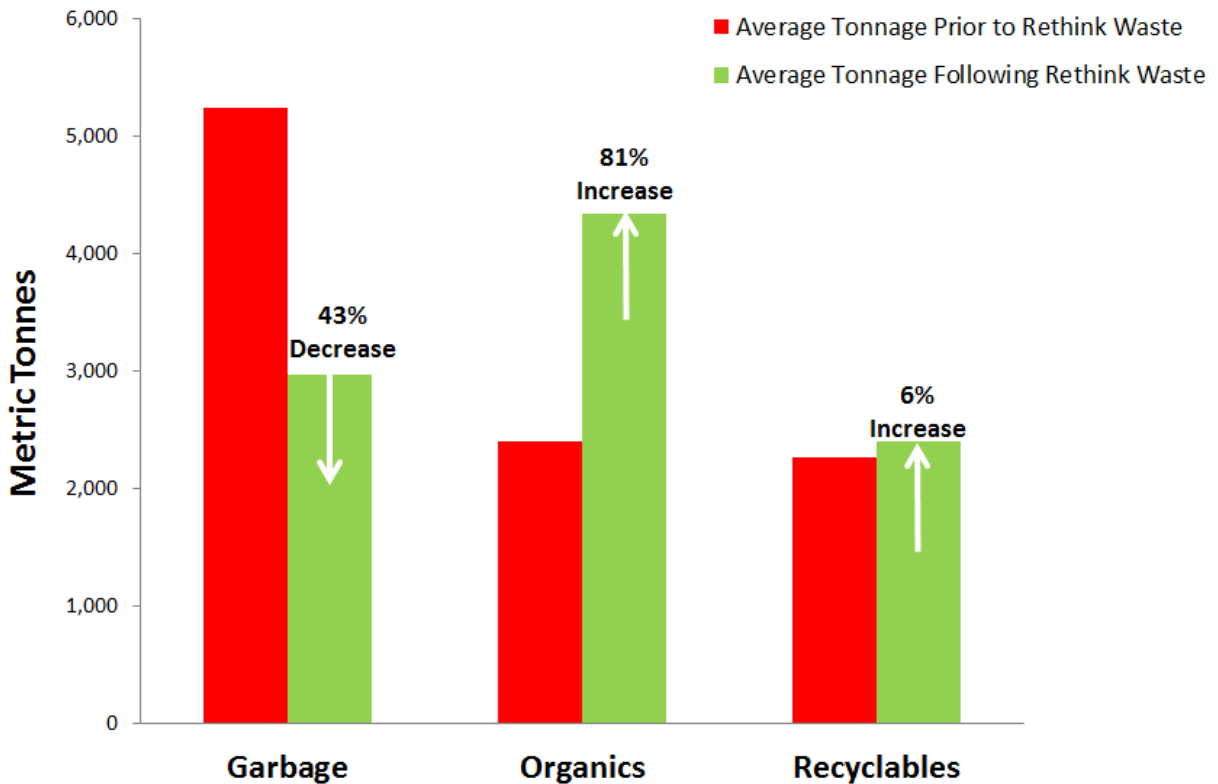
Rethink Waste – Diversion Performance

Customer uptake on the Rethink Waste program has been high. On average over the first three months following the initiation of the program (October through December 2012) landfill-directed garbage dropped by 43% while organic (kitchen and yard) waste tonnage increased by 81% in comparison to the same three-month period in 2011 when only yard waste was collected. In addition, recyclables collection has increased on average by 6% during this same period of time

in comparison to the same period in the previous year. The following charts illustrate these changes.



Changes in Surrey's Monthly Average Waste Tonnages



The City's residential curbside waste diversion has reached the 70% regional waste diversion target, well in advance of 2015 that was stipulated in the regional plan.

Waste diversion has remained constant to date in 2013 as documented in the following table, which compares waste tonnages in the first quarter of 2012 (January to March inclusive) with the first quarter of 2013.

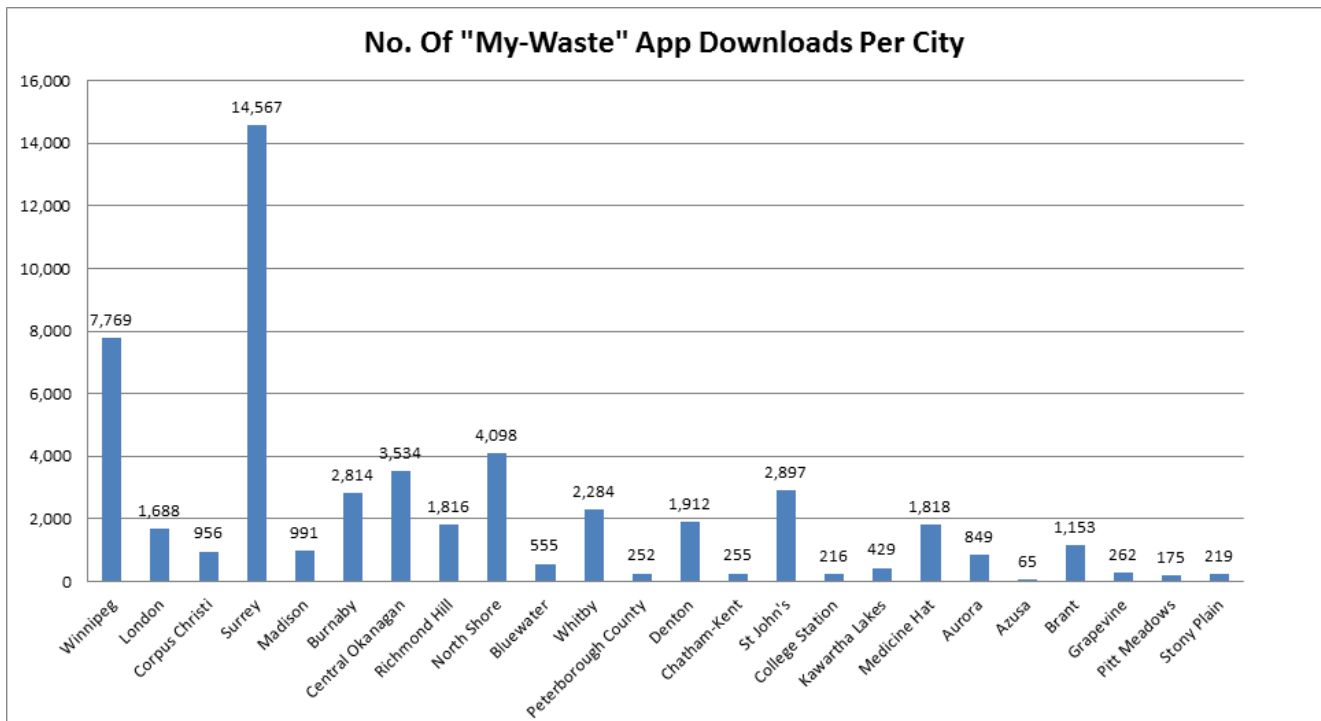
Surrey Curbside Waste Tonnages: January 2012 versus January 2013

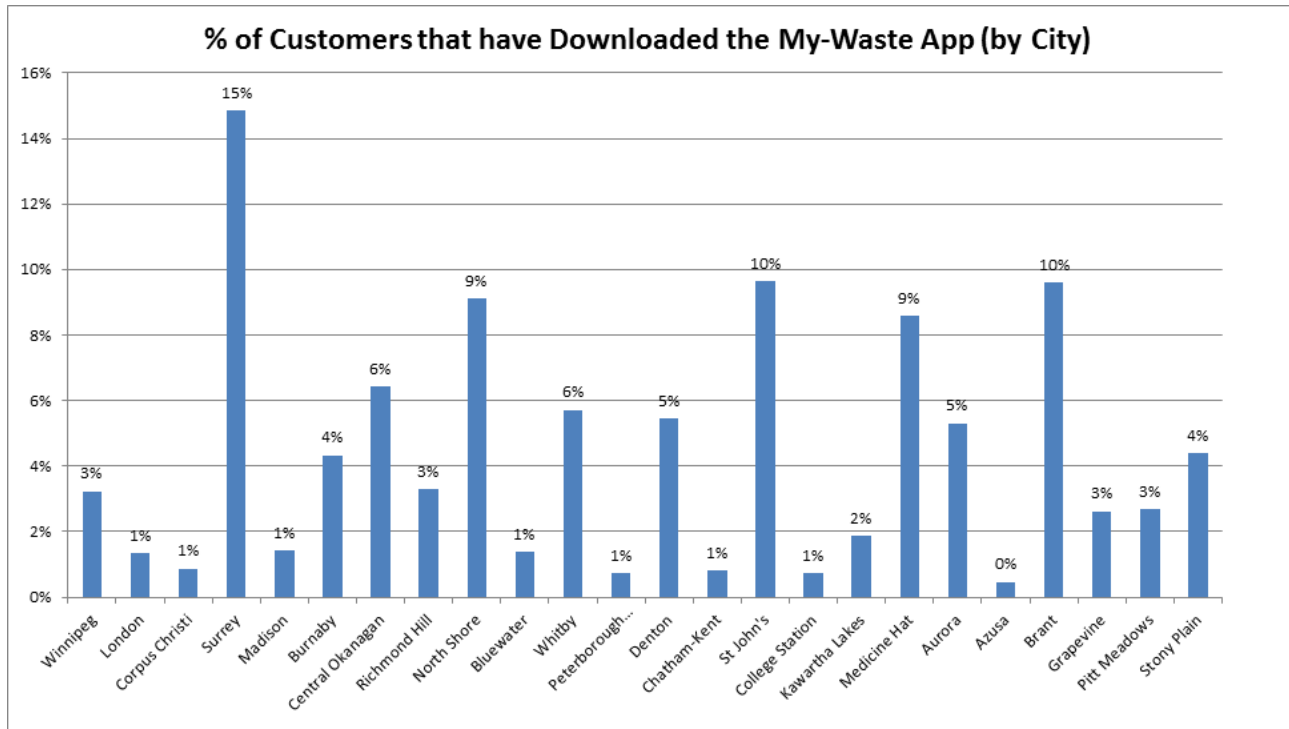
Commodity	Q1 2012 Tonnage	Q1 2013 Tonnage	% change
Garbage	15,109	8,426	44% decrease
Recyclables	6,836	7,221	6% increase
Organics	2,317 ¹	8,090 ²	249% increase

1. yard waste only
2. kitchen & yard waste

The success of the program (i.e., outstanding participation by residents in diverting waste) is attributed to the extensive communication and education efforts that were undertaken in advance of the introduction of the new program and which continue.

Surrey's Waste Service Hotline (604-590-7289) remains the most frequently utilized form of communication by our customers to convey service related concerns and requests. Online service request forms are also available for residents to request cart size changes and to communicate other service requirements. Residents are also taking advantage of other online tools such as the free "MyWaste" smartphone app which has experienced a high number of downloads in comparison to the experiences of other municipalities across Canada and the United States (as illustrated in the following charts) who are offering the same app. This suggests that Surrey's communication efforts have been well targeted.





2013 Rethink Waste Refinements

Staff has identified a number of focus areas for improvements to and expansions of the program over the course of 2013. These are described in the following sections:

1. Organic Waste Contamination

Over the months of January and February 2013, our organic waste processor (Fraser Richmond Soil and Fibre) advised that Surrey's organic waste stream contains approximately 4% residual materials (non-organic waste) that should not be in the organic waste stream. These contaminants are mainly plastic bags and other non-organic matter that residents place in their organics cart. While the level of contamination does not appear high, the City pays a premium in its tipping fee to the organic waste processor, Fraser Richmond Soil & Fibre (FRSF), when the organics contain more than 1% of non-organics by weight. A level of contamination higher than 1% creates challenges in relation to processing the organic materials into high grade compost and mulch materials, which clearly is an important outcome from a sustainability perspective.

In mid-March 2013, staff initiated waste audits to identify problem routes and non-compliant households. Through these efforts and via an increased public awareness and education campaign, Surrey's citizens have decreased contamination to approximately 1%. The public awareness campaign will continue through the month of April 2013 in an effort to further decrease contamination. Subsequently, curbside waste audits conducted by BFI Canada will continue on an ongoing basis in order to monitor the effectiveness of the City's campaign.

2. Implementation of Waste Collection Vehicle On-board Intelligence

The CNG waste collection trucks deployed by BFI Canada have communications tools incorporated within each vehicle that record each collection. If staff receives a call from a resident regarding a missed collection, staff is able to immediately access the system to verify if the carts were placed at the time of pick-up and if the truck serviced the address. This will confirm the customer's concern and staff will then be able to quickly initiate a process to address the problem. This system is not currently fully deployed. BFI Canada is working to complete the implementation of the full communications system by the end of April 2013. The system will also verify for staff that the contractor has completed daily route collection. When a BFI driver communicates at the end of a shift that they have completed collections, an exception report is automatically generated that alerts staff to any gaps in route completion and if gaps exist the driver will be directed to those areas to complete the collections.

3. Cart Washing Services (2013 Pilot Program)

Engineering staff is working with a number of entities that offer curbside cart washing services. Such a service will pick up empty carts via automated equipment and thoroughly clean the inside of the cart. Waste water from the process will be captured and appropriately discarded for treatment. This service is intended to be deployed on a pilot basis in April or May of this year. Staff will monitor the effectiveness, benefit, cost and demand from residents for such service with a view to determining whether it should be implemented by the City as part of the waste collection service (via contract), or to simply allow residents to select cart cleaning services from those entities presently established to provide the service (i.e. direct user pay between the customer and the private service provider). Further updates will be provided to Council in due course.

Multi-family Recyclables Collection

The new cart-based collection program includes the collection of recyclables from approximately 500 multi-family residential complexes across the City, which includes over 34,000 multi-family dwelling units. Since 1998 recyclables from these complexes have been collected on a weekly basis. With the new service delivery approach implemented in October of 2012, recyclables collection from the multi-family complexes was to be shifted to a bi-weekly collection schedule to complement the bi-weekly (single family) curbside collection service that is being provided to single family dwelling units across the City. However, staff recognized that multi-family complexes may require a greater number of recycling carts but that it may be challenging to accommodate more carts in some multi-family complexes due to space limitations. In multi-family complexes, recycling carts are most often situated alongside garbage carts in a centralized area within the complex. Accordingly, it was decided that weekly recyclables collection for multi-family complexes would continue until a proper assessment could be completed as to how best to move such complexes to a bi-weekly schedule without creating undue hardship.

Over the course of the spring of 2013, staff will be carrying out a consultation program with representatives of the multi-family complexes to determine if the current cart capacities at each complex can accommodate bi-weekly recyclables collection and/or if additional carts may be required and, if so, how the additional carts will be accommodated on each site.

It is noted that recyclables in multi-family complexes are collected by the City's waste collection contractor while garbage collection is provided by private independent waste collection contractors not under the City's waste collection program.

Transition to Multi-family Recyclables and Organics Collection

Given the success to date with single family residential curbside waste diversion, the Engineering Department is intending to examine the implementation of organics waste collection services for multi-family complexes. Information from other cities in Canada and the United States reveals two prevalent themes in relation to such service as follows:

1. Contamination levels are usually very high (i.e., in excess of 5%) in multi-family organic waste streams. This is due to the communal nature of waste disposal at multi-family complexes where there is no individual ownership of problems associated with contamination, and enforcement is challenging (compared to single family homes); and
2. Space constraints are a common challenge with regard to accommodating a three-stream waste collection system (i.e., garbage, recycling and organic waste).

Engineering staff intend to establish a pilot project to assess various methodologies geared towards best addressing the above two issues and will provide a report to Council later in 2013 with recommendations regarding multi-family organics collection.

Assessment of Waste Collection Services to Households within Surrey's Agricultural Land Reserve

Surrey does not carry out waste collection services for dwellings located within the Agricultural Land Reserve except where requests for such services are made and can be reasonably accommodated. There are approximately 1,100 such dwellings in Surrey. Historically, the owners of these homes have decided against City waste collection services as they were satisfied with managing their own waste and did not want to be charged a levy for this service. Over the course of the past few years, the City has experienced a trend toward increasing numbers of these owners wanting City waste collection. Currently, the City provides service to approximately 150 such homes.

Given the regional mandate for increased waste diversion and in recognition of the increasing demand from ALR residents for curbside collection service, staff will be undertaking an assessment to determine whether there is a broader interest across owners of dwellings in the ALR for City collection services. Staff will be initiating door-to-door communications of ALR residents in April 2013 and will provide a report to Council complete with recommendations later this year.

City Hall Office Waste Reduction

In January 2012 a pilot project to eliminate office garbage cans was initiated in the Engineering Department at City Hall in an effort to reduce or eliminate the amount of waste generated as part of day to day operations. An audit of the office waste stream established that the majority of office garbage was either waste paper or organics. During the pilot program garbage at individual work stations were eliminated in favour of

centrally located organic waste containers and recycling stations, where staff could dispose of recyclables, organics and any remaining small amount of garbage. This pilot program realized a 61% reduction in office garbage. Most of this reduction was due to organics from lunches being diverted to the organic waste stream.

Given the resounding success of the pilot a feedback survey was undertaken with staff. The results indicated that staff bought into the program and felt pride in the steps they had taken toward waste reduction. In January 2013, the program was rolled out across all of City Hall. A further waste audit will be completed in the early summer to gauge the success of the program on a City Hall-wide basis. This program will also form the basis of the organics and waste diversion program at the New City Hall.

Organic Biofuel Project

A project team is working toward the implementation of a Surrey Organics Biofuel Processing facility, which is a major component of Surrey's vision for a closed loop waste management system. The following activities related to this project are scheduled for 2013 and 2014:

- A Request for Qualifications (RFQ) is to be released in April 2013;
- In June 2013 a short-list of Proponents selected from the RFQ process will be invited to submit a proposal through a Request for Proposals (RFP) process;
- A preferred proposal/proponent will be selected by the end of 2013;
- Negotiations with the preferred proponent toward entering into a contract will be completed in early 2014;
- Construction is expected to commence in the spring of 2014; and
- The facility is expected to be operational by late 2015.

Staff will continue to provide Council with updates on the progress of this project.

CONCLUSION

The services being delivered under the Rethink Waste Program have been embraced by Surrey residents and through their efforts, the Program has surpassed expectations in reaching a 70% reduction in garbage tonnage well in advance of the 2015 timeline stipulated under the Regional plan. Further expansion of the services delivered under the Program to residences in the ALR and in relation to organics collection for multi-family residences are planned for 2013. The upcoming implementation of an Organics Biofuel Processing facility will position the City of Surrey as having the first closed loop organics collection, processing and fuel production system in Canada.

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