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**To:** Public Works and Transportation Committee                      **Date:** September 4, 2012  
**From:** Tom Stewart, AScT.  
Director, Public Works Operations    **File:** 10-6370-10-05/2012-  
Vol 01  
**Re:** Food Scraps/Organics Recycling Program Expansion

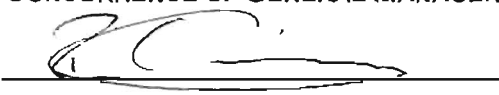


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**Staff Recommendation**

That

1. the new and enhanced recycling program service levels, effective June, 2013, outlined in Option 2 of the staff report from the Manager, Fleet and Environmental Programs be referred for consideration as part of the 2013 utility and capital budget processes to:
  - i) add a new level of service for food scraps and organics collection services using City-provided wheeled carts for all multi-family townhome residents currently receiving the City's blue box collection services;
  - ii) provide wheeled carts to all residents in single-family households for the storage and weekly collection of food scraps and organic materials;
  - iii) provide kitchen containers for the temporary storage of food scraps/organics to all residents in single-family and townhome units who currently receive the City's blue box collection services.
2. a large item pickup program, limited to four items per household per year, as outlined in Option 2a) of the staff report from the Manager, Fleet and Environmental Programs, be considered as part of the 2013 utility budget process for implementation in June, 2013 for all single-family and townhome residents in conjunction with the proposed expanded food scraps/organics recycling program.
3. staff review and report on potential options for food scraps and organics collection services for residents in multi-family dwellings and commercial businesses.

Tom Stewart, AScT.  
Director, Public Works Operations  
(604-233-3301)

REPORT CONCURRENCE			
<b>ROUTED TO:</b> Finance Division	<b>CONCURRENCE</b> <input checked="" type="checkbox"/>	<b>CONCURRENCE OF GENERAL MANAGER</b> 	
<b>REVIEWED BY SMT SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>REVIEWED BY CAO</b>	<b>INITIALS:</b> 

## Staff Report

### Origin

At their May 28, 2012 meeting, Council received a report on “Green Cart Pilot Program Results” and approved the following resolution:

1. That based on the successful results of the Green Cart Pilot Program, staff report back on costs and options for an expanded cart-based collection program for a food scraps and organics recycling program for all townhome units in conjunction with the introduction of a similar program for residents in single-family homes; and
2. That the Green Cart Pilot program be continued pending a determination by Council on actions relating to a permanent food scraps/organics recycling program for townhomes.

This report responds to this resolution.

### Analysis

#### *Background*

A principal strategy and action outlined in the regional Integrated Solid Waste and Resource Management Plan (ISWRMP) is to divert organic waste, including food scraps, from the single-family, multi-family and commercial sectors. Food waste comprises 21% of waste disposed and can be composted along with yard and garden waste to produce a beneficial and marketable compost product. The ISWRMP also establishes an action to ban all compostable organics from the waste disposal stream by 2015. In light of this pending disposal ban, expansion of food scraps and organics programs to multi-family residents is a key next step in order to ensure residents have reasonable alternatives for recycling this aspect of their waste.

Further, on November 14, 2011, Council established the Solid Waste Strategic Program as a component of the City’s Sustainability Framework and as part of working toward our target to achieve community-wide waste diversion of 70% by 2015. Given that food scraps represent the largest remaining component of the waste disposal stream, food scraps and organics recycling is an important initiative in advancing overall community waste diversion.

#### *Actions to Date*

Single-Family Homes: Richmond was one of the first municipalities in the region to implement food scraps collection starting in April, 2010 for single-family homes. Through this program, labelled as the “Green Can” program, an estimated additional 1,000 – 1,500 tonnes of material is being diverted from disposal annually. The total amount of waste disposed by residents in single-family homes has also reduced substantially, i.e. between 2,000-3,000 tonnes since the introduction of food scraps recycling.

Townhomes: A pilot program commenced in April, 2011 involving approximately 3,200 townhome units as part of next steps in introducing food scraps recycling for multi-family residents. This program provided valuable information to help guide potential future expansion

to this portion of the multi-family residential sector (outlined in the May 9, 2012 staff report – “Green Cart Pilot Program Results”).

This program resulted in estimated diversion of approximately 22% of total estimated waste generated by townhomes involved in the pilot program, or approximately 140 kg. per unit per year. Based on expanding this program to all 11,217 townhome units currently serviced under the City’s recycling program for blue box service, it is estimated that an additional 1,500 tonnes could be diverted from the waste disposal stream annually, increasing our overall diversion rate by 2.5%.

The pilot program is continuing to maintain services to residents involved in the pilot program pending a decision on options for potential program expansion. Due to the nature of the program being a pilot, the associated costs have been funded via the sanitation and recycling provision. This means that no fees have been charged to these townhome residents, nor has the cost of this program impacted the solid waste and recycling rates charged to residents.

### *Options for Program Expansion*

In the May 9, 2012 staff report on the “Green Cart Pilot Program Results”, staff were requested to report back on two options:

1. *Townhomes only Food Scraps/Organics Collection Program Expansion (Not Recommended)*: Amend the City’s existing waste management services contract (current expiry date December 31, 2014) to include food scraps/organics recycling to all townhomes (those currently receiving City blue box recycling collection service – or approximately 11,217 units). Key elements of this program would include:
  - Wheeled carts provided by the City, where residents choose between a 46.5 L or 80 L cart (one cart per townhome unit). Residents may use paper yard waste bags for any additional garden trimmings which may not fit into the cart.
  - A kitchen container provided by the City as a one-time issue for temporary food scraps storage inside the home to promote ongoing participation.
  - Weekly service, with collection provided door-to-door on the same day as City blue box collection service.

This option is not recommended due to the short-term nature of the contract (to December 31, 2014), which will result in higher annual operating costs to townhome residents than that identified under Option 2, which follows.

2. *Townhomes Food Scraps/Organics Collection Program Expansion in Conjunction with Introducing a Cart-Based Collection Program for Single-Family Homes (Recommended)*: Expand food scraps/recycling collection to all townhomes currently receiving City blue box recycling collection service (11,217 units), **in conjunction with** a cart-based collection program for residents in single-family homes. Under this option, the existing waste management services contract is extended to December 31, 2017 to achieve economies of scale for optimal pricing. Key elements of this program would include:

- As per Option 1 (above) - all townhomes currently receiving City blue box collection services are serviced with food scraps/organics recycling using wheeled carts provided by the City.
- Wheeled carts provided by the City to single-family households, where residents choose between one 80L, 120L, 240L or 360L cart (one cart per single-family household). Residents may continue to use paper yard waste bags for any additional garden trimmings which may not fit into the cart on an on-going basis. Residents may also continue to use their existing Green Cans as part of the program phase-in process, with the intent of phasing out the use of Green Cans after the end of 2013.
- A kitchen container provided by the City as a one-time issue per household for temporary food scraps storage inside the home to promote ongoing participation.
- Weekly service, with collection provided door-to-door on the same day as City blue box collection service for single-family and townhome residents on City blue box service.
- Contract T.2988, Residential Garbage and Recycling Collection Services, is extended to December 31, 2017 for all garbage and recycling services.

This option is recommended as it results in the least annual cost option for townhome residents and provides for cart-based collection for single-family households at minimal increased operating cost. This approach:

- ensures a consistent level of service for townhome residents and single-family residents,
- allows for reductions in waste disposed by residents in townhomes, which can translate into reduced costs for garbage collection servicing arrangements for those townhomes. This is particularly important in light of planned Metro Vancouver tipping/disposal fee increases, i.e. currently \$107/tonne and projected to increase to \$205/tonne by 2016,
- is expected to increase the volume of food scraps collected from single-family homes due to switching to wheeled carts since the carts offer greater animal/rodent-resistance (encouraging greater participation in food scraps recycling),
- will eliminate weight concerns since the carts will be serviced using automated tippers,
- will reduce missed pick-ups due to lack of the Green Can labels being visible to collectors (with the phasing out of Green Cans).

**a) Large Item Pick-Up Program**

The provision of a new service to residents for collection of large items is opportune associated with the potential extension of the existing service contract T.2988 through December 31, 2017. Under this new service, residents in single-family homes and those townhomes with blue box collection (and food scraps/organics collection – if approved) would also be eligible to have up to four large items collected per year. This could include items such as a mattress, couch, stove, refrigerator, household furniture (table, chair, etc.).

Under this program, residents would contact the service provider and arrange for collection of up to four items at one time, or one item on four different occasions, or two items on two different occasions, etc. The additional collection and disposal costs would be paid by the City as part of the Solid Waste and Recycling utility.

It is recommended that Item a) be included as part of an enhanced level of service associated with the introduction of the expanded food scraps/organics recycling program.

A summary of the costs of the options described above is provided in the table below:

Option	Service Description	Capital Cost (One-Time)	Annual Operating Cost	2013 Operating Cost Portion
1.	Townhome Food Scraps/ Organics Recycling (to December 31, 2014)	\$535,000	\$742,500	\$433,100
2.	Townhome Food Scraps/ Organics Recycling PLUS cart-based collection for single-family homes (to December 31, 2017)	\$3,250,000	\$700,000	\$408,400
a)	Optional Large Item Pickup Program (townhomes and single-family)		\$250,000	\$145,800
	<b>Total – Option 2 a) (Recommended)</b>	<b>\$3,250,000</b>	<b>\$950,000</b>	<b>\$554,200</b>

The total cost of the recommended option, (Option 2 a), is \$4.2 million, which includes \$3.25 million one-time capital costs and \$950,000 annual operating. The 2013 portion would be slightly lower (\$3,804,200) based on costs prorated to a June 1, 2013 start date.

3. Status Quo – No Expansion of Programs (Not Recommended): Existing service levels for food scraps/organics recycling can be maintained, where residents in single-family homes continue to use the Green Can program. The existing pilot program for townhome organics recycling would need to be discontinued, and residents in townhomes would then be required to make independent arrangements for their food scraps/organics

recycling requirements to comply with the pending organics disposal ban. Under this Option, a large item collection service would not be offered, however, residents could continue to take advantage of the City's Garbage Disposal Voucher program. Under this program, residents purchase a voucher for \$5 from any City facility and can use the voucher to dispose of up to \$20 worth of garbage items at the Vancouver Landfill.

This option is not recommended as it does not encourage greater recycling of food scraps from single-family homes through the use of a designated, secure container. It is also expected to result in higher costs to townhomes associated with needing to make independent recycling arrangements for food scraps/organics recycling. Further, by not managing the program/service for townhomes, the City would not get the recycling tonnage data in order to be able to measure recycling rates as part of tracking our diversion progress. Finally, the lack of a City-coordinated collection program for large items contributes to illegal dumping and is inconvenient to residents who do not have vehicles large enough to take advantage of the Garbage Disposal Voucher program.

### ***Multi-Family and Commercial Properties***

The suggested Option 2 a) provides for a comprehensive and full service food scraps/organics recycling program for those residents in townhomes (who currently receiving blue box collection services) as well as residents in single-family homes. However, it does not address food scraps/organics collection service for residents in multi-family complexes or commercial properties. In light of the pending regional disposal ban for organics in 2015, program options for multi-family food scraps/organics recycling should also be evaluated to provide recycling services for these residents. Staff suggest a review of options be undertaken and reported back to Council for consideration. To assist businesses, staff can also evaluate whether there might be opportunities to frame a potential multi-family program expansion to include optional servicing to interested commercial properties. It is suggested that staff include this in their review and report back with findings and a suggested approach.

### **Financial Analysis**

***Capital:*** Funding for the capital cost (carts, containers and related items of \$3.25 m) is proposed from the sanitation and recycling provision, hence there would be no direct financial impact reflected in the rates charged to residents for sanitation and recycling services. This reserve funding has been established with this type of program expansion/change envisioned. Staff will submit a 2013 capital budget request for consideration of the capital costs associated with this proposed program implementation.

***Operating:*** The annual operating cost is proposed to be funded from the sanitation and recycling utility rates, and therefore, reflected in the rates charged to residents who are eligible for the services. This would represent a ***new charge*** to townhome residents who received City blue box service of approximately \$49/unit/year and an increased charge to residents in single-family homes of approximately \$15.50/unit/year. These charges are summarized in the following table. Note that residents in multi-family/apartment developments would not be assessed any charges for the organics services associated with the new and enhanced recycling programs outlined in this report since the service is not available to them at this time. Future charges for multi-family

developments would be applied if and when a food scraps/organics program is introduced for these residents.

<b>Anticipated Annual Utility Rate Increase</b>					
<i>Resident Type</i>	<i>Current ~Net Organics Service Charge<sup>1</sup></i>	<i>Anticipated Increase for Organics per Option 2</i>	<i>Anticipated Increase for Large Item Pick Up Program (Item a of Option 2)</i>	<i>Total Anticipated Increase</i>	<i>Total Annual Estimated Organics Charge</i>
Townhomes on Blue Box	\$0.00	\$42.00	\$7.00	<b>\$49.00</b>	\$49.00
Single-Family Residents	\$68.50	\$8.50	\$7.00	<b>\$15.50</b>	\$84.00

<sup>1</sup> Organics charge only, not including recycling or garbage service charges, etc.

The rate impact in 2013 would be pro-rated based on the June 1st implementation date, or approximately one-half. The above rates are approximate and would be formalized upon completion of the sanitation and recycling utility budget and rates.

### **Financial Impact**

This report has no direct financial impact as the related costs will be considered as part of the 2013 capital and 2013 and future utility budget processes.

### **Conclusion**

Expansion of food scraps and organics recycling to residents in multi-family residences is a priority in light of pending disposal bans for this material in 2015. The success of the pilot program undertaken during 2011 demonstrated that 22% of the waste generated in townhomes (or approximately 1,500 tonnes) can be diverted by expanding food scraps/organics recycling to all townhomes.

The provision of wheeled carts will make it easy and convenient for residents to participate in the program. For consistency in levels of service and to encourage greater participation in food scraps recycling by residents in single-family homes, this report recommends transitioning the existing Green Can program to cart based collection. In-home kitchen containers are also suggested to be provided as part of improving convenience for residents and serving as a regular reminder to encourage ongoing participation.

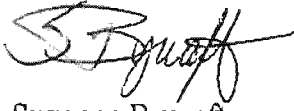
The contract expansion presents the opportunity to also offer a large item collection service for residents, which provides a convenient alternative to dispose of up to four large items annually at minimal increased cost. This would enhance the City's level of service by assisting residents who do not have the ability to transport large items to disposal/recycling facilities.

It is recommended that these new and enhanced recycling program service levels be referred for consideration as part of the 2013 capital and utility budget processes. It is further recommended that staff review and report back on options to provide food scraps/organics collection services to multi-family and potentially commercial businesses.



September 4, 2012

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A handwritten signature in black ink, appearing to read 'S. Bycraft', with a stylized flourish extending from the end.

Suzanne Bycraft  
Manager, Fleet & Environmental Programs  
(604-233-3338)

SJB: