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 Environmental Services
Solid Waste Section

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IMPLEMENTING A CITY-WIDE RESIDENTIAL CURBSIDE 'GREEN CART' ORGANICS PROGRAM

PRIORITIES – JUNE 18, 2008
PRESENTED BY CHANTAL MATHIEU

Moving Towards a 65% Diversion Rate - Organics

- In 2005, City Council accepted the proposed waste diversion plan in principle and part of the plan included:
 - A recommendation to co-collect blue box materials and organic materials (kitchen food waste and non-recyclable papers); and
 - That the Technical Steering Committee review collection containers; and
 - That staff report back with a detailed implementation plan and financial costs.

Progress to Date – Selection of the Collection Container

- Technical Steering Committee was presented container options and approved the following containers on April 26, 2006:
 - The Norseman ‘Green Bin’ – 46.5 litre capacity, with snapping latch and 3” diameter casters.
 - The ‘Kitchen Collector’ – 7 litre capacity with lid and handle.



What goes in the Green Cart?

- All food waste.
- Household plants, including potting soil.
- Non-recyclable paper products.
 - Disposable paper cups, napkins and plates.
 - Waxed paper and cardboard.
 - Soiled newsprint.
 - Freezer paper.
 - Flour, sugar, salt and popcorn paper bags.
 - Ice cream paper cartons.

Pilot Project & Waste Audit

- The pilot project was launched in October 2006.
- 1110 households located across Greater Sudbury were provided bins and educational information.
- Why conduct a pilot project and waste audit?
 - Test approved collection containers.
 - Test liners and bags.
 - Test the outdoor ‘Windrow’ composting method.
 - Determine quality or identify contamination issues.
 - Determine participation and recycling rates.
 - Based on results, identify educational requirements.

Results - Pilot Project and Waste Audit

- Approved Collection Containers
 - Norseman 'Green Bin'
 - No problems encountered.
 - Easy to use for both the collector and the resident.
 - Bin supported by the MNR.
 - Kitchen Collector
 - Provided in order to encourage participation.
 - Sized to fit under the kitchen sink.



Results - Pilot Project and Waste Audit

- Liners and Bags
 - Determined to be required in order to deal with the 'Yuk or Slime' factor.
 - Paper liners or bags used appropriately reduce the 'Yuk' factor and compost well.
 - Plastic bags eliminate the 'Yuk' factor but are very difficult to remove during processing.
 - Compostable plastic bags eliminate the 'Yuk' factor and breakdown significantly during processing.
 - Must have approved compostable logo.



Results - Pilot Project and Waste Audit

- Outdoor 'Windrow' Composting
 - Conducted within an area at the Sudbury Landfill Site.
 - Efficiencies found by using on-site equipment and staff.
 - Odours controlled with the proper mixture of on-site wood chips.
 - The small quantity of contamination was easily removed by attendant and during final screening.



Finished compost fully met all requirements of the MOE and can be distributed as 'unrestricted'.

Results - Pilot Project and Waste Audit



- The pilot households generated 110 tonnes of organics.
 - 41% participation rate
 - Average of 100 kilograms per household per year.
 - A city-wide program based on these results would divert 5,720 tonnes in the first year.
 - Staff estimates that diversion will increase by 15% in the first few years (based on the blue box program increases).
 - Of the 41% that participated, generation rates were closer to 4.8 kilograms of material per household per week. This translates to 250 kilograms per household per year or approximately 14,000 tonnes per year City-wide.

Results - Pilot Project and Waste Audit

- The waste audit revealed that an additional 1.6 kilograms per household per week could have been diverted.
- Of the 1.6 kg not diverted, soiled paper, meat and bones were the most common materials that could have been placed in the Green Cart.
- A city-wide program based on full participation and a 100% capture rate could divert an additional 19,000 tonnes per year.



City-wide Proposal

- Provision of Curbside Containers, Indoor Containers, Sample Liners, Educational Materials.
- City-wide Residential Organic Curbside Collection Services to approximately 57,000 households.
- Processing Organics in an outdoor 'Windrow' method.
- Provision of replacement containers at no charge, annual compost giveaway and continued education.

Projected Investment Costs (000's)

	2009/10	2010/11	2011/12
Tonnes	5720	6578	7565
Collection	\$144	\$148	\$152
Processing	\$159	\$189	\$223
Equipment	SW Reserves \$1.72 million	\$18	\$18
Staffing & Education		\$23	\$24
Sale of Compost	-	(\$26)	(\$33)
Total	\$303	\$352	\$384

Implementation Plan

- If the City-wide program is approved:
 - Notify pilot project participants of service levels.
 - Hire staff to oversee program development, implementation and additional pilot projects.
 - Submit Certificate of Approval for permanent processing site at the Sudbury Landfill Site.
 - Order approved collection containers.
 - Order sample compostable bags to be provided during launch.
 - Organize distribution outlets for replacement compostable bags based on pilot project results.
 - Develop educational program.

Implementation Plan - continued

- If the City-wide program is approved:
 - Distribute equipment and educational materials.
 - Update Waste Management By-law.
 - Review additional processing methods as approved in the 2008 Capital Budget.
 - Review an organics program for the IC&I sector as part of the IC&I Waste Diversion Strategy.

Benefits

- Composting organic municipal waste lowers the requirement for landfill capacity.
- Finished compost is a valuable soil amendment.
- Compost can also reduce the need for artificial fertilizers.
- Organic composting supplements backyard composting.



Options

Option #1 -

1. That a residential 'Green Cart' organics curbside co-collection system be approved for approximately 57,000 households.
2. That the program be launched once the MOE approvals to process the materials are received (anticipate in mid 2009 if approved in mid 2008).
3. That funding for the approved collection containers, sample compostable bags, distribution, staffing and educational materials be funded from the Solid Waste Reserve Fund at an estimated cost of \$1.72 million.

Options - continued

Option #1 -

4. That the organic pilot project collection service continue until the City-wide residential collection program is implemented and that this cost be funded from the Capital Financing Reserve Fund - Solid Waste at an estimated cost of \$28,200 per month or \$338,400 per year; and
5. That once the pilot project is completed, the IC&I pilot project participants be permitted to deliver source-separated organics to the designated organic composting area within the Sudbury Landfill Site at no charge until Council reviews the recommendations from the IC&I Waste Diversion Study; and
6. That staff organize an annual one tonne compost giveaway program; and

Options - continued

Option #1 -

8. That replacement containers be provided at no cost to encourage continued participation.
9. That residents purchase or provide their own approved compostable liner bags.
10. That the annual operating cost plus inflation be incorporated in future base operating budgets, with an estimated tax levy of 0.2%.

Option #2 -

That Option #1 be presented as a 2009 Budget Enhancement Option.

Recommendation

Staff and the Solid Waste Advisory Panel are recommending that Option #1 be approved.

- small financial savings
- significant service level increase

“I really like the program. It makes for quick clean-ups after supper. Just put the container on the counter and dump everything in it. The regular garbage doesn’t smell anymore”.



“I cannot believe how this program has eliminated the waste we put out every week”.

QUESTIONS?

“I didn’t really want to do it at first but, what an eye opener. I’m the waste police now in my house”.

“Although we have a backyard composter, it is difficult to use in the winter. The curbside program enabled us to continue to compost during the winter”.