



Report to: General Committee

Date Report Authored: September 01, 2012

SUBJECT: Diversion Sub Committee Strategy – Markham’s Roadmap to 80% Diversion

PREPARED BY: Claudia Marsales, Senior Manager, Waste & Environmental Management Department

RECOMMENDATION:

1. THAT the report entitled “Diversion Sub Committee Strategy – Markham’s Roadmap to 80% Diversion ” be received;
2. AND THAT Council endorse the attached Diversion Sub Committee Strategy “ The Best of the Best – Markham’s Roadmap to 80% Diversion” and the initiatives and programs outlined in the strategy form the basis of Markham’s 3 year plan to attain 80% diversion by 2014;
3. AND THAT York Region be advised that Markham will support the Regions compostable bag initiative by continuing to provide education to residents on the environmental benefits of using certified compostable bags for Green Bin organics;
4. AND THAT a copy of this report be forwarded to York Region and the Local Municipalities for their information.

AND FURTHER THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

EXECUTIVE SUMMARY:

- This report provides Staff comment and operational impacts of the proposed Diversion Sub Committee strategy outlining 10 initiatives to achieve 80% diversion
 - 1) Mandatory Material Separation By-Law (mandatory recycling)
 - 2) Unlimited Clear Bags for residue
 - 3) Collection Ban - Electronics and Household Batteries
 - 4) Zero Waste for Schools Program
 - 5) Establish Retail Bag Policy for Markham
 - 6) Expanded Textile/Carpet/Electronics Diversion Program
 - 7) Reuse Depot for Renovation Material
 - 8) Eliminate garbage tags, establish Spring and Fall Clean up Days
 - 9) Extended Fall Leaf and Yard Waste Collection Schedule
 - 10) Increased Promotion & Education
- Key proposal is to eliminate garbage tags and 3 bag limit, shift from black to clear garbage bags to reduce collection worker injuries, and provide residents the flexibility to place out extra waste residue when needed – as long as it is not recyclable or compostable

- By moving forward with this diversion strategy, Markham will maintain its leadership role and demonstrate commitment to zero waste and sustainability.
- Strategy would be implemented over the period 2012 to 2014.
- Strategy can be delivered with one time approved 2010 capital project budget of \$35,900 for education/promotion and a 9 month intern position which has been requested for consideration in the 2013 operating budget
- The strategies will not result in increased costs to our residents

PURPOSE:

The purpose of this Report is to provide staff comment and outline the operational impacts of the proposed Diversion Sub Committee strategy recommending 10 initiatives to increase participation, diversion and customer services. This Report also addresses York Region's 2011 request to mandate certified compostable bags for Green Bin organics.

MARKHAM'S SUCCESSFUL 2005 *MISSION GREEN* PROGRAM DIVERTS OVER 70% FROM SINGLE FAMILY HOMES

Recycling in Markham, both at the curbside and community depots is interwoven into the fabric of what makes Markham, Markham.

Mission Green, launched in 2005, was designed to be an innovative program that made it easy and convenient for all our residents, "Mrs & Mr Smith" to understand and participate in. As a result, Markham's multi award winning diversion program is recognized across Canada.

Community surveys and focus groups consistently position high diversion as one of Markham's signature achievements. In 2011, Markham's municipal diversion as reported through MPMP data was 74.3%. Participation has remained constant at over 86%.

Mission Green is now in its sixth year, and it is time to review the program and consider program enhancements that will maintain high community engagement and diversion.

WASTE DIVERSION SUB COMMITTEE FORMED IN 2011 TO REVIEW AND UPDATE MARKHAM'S DIVERSION STRATEGY

In 2011, Council approved the formation of a Diversion Sub Committee to develop a package of program changes and improvements designed to provide a roadmap to 80% diversion and bring Markham closer to being a Sustainable Community as recommended in the Council approved Green Print.

The Diversion Sub-Committee was Chaired by Deputy Mayor Jack Heath and had representation from:

1. Council
2. Markham staff
3. York Region Waste Management Staff,
4. MEAC (Markham Environmental Advisory Committee)

STRATEGY RECOMMENDS TEN INITIATIVES DESIGNED TO ACHIEVE 80% DIVERSION AND IMPROVE CUSTOMER SERVICES

The strategy recommends 10 initiatives to achieve 80% diversion:

Collection Changes:

- Mandatory Material Separation By-Law (mandatory recycling)
- Unlimited Clear Bags for residue
- Collection Ban - Electronics and Household Batteries

Zero Waste:

- Zero Waste for Schools Program
- Establish Retail Bag Policy for Markham

Expanded diversion opportunities:

- Expanded Textile/Carpet/Electronics Diversion Program
- Reuse Depot for Renovation Material

Improved Services:

- Eliminate garbage tags, establish Spring and Fall Clean up Days
- Extended Fall Leaf and Yard Waste Collection Schedule
- Increased Promotion & Education

MANDATORY RECYCLING SENDS A CLEAR MESSAGE AND TARGETS REPEAT NON RECYCLERS

In 1991, Provincial regulation required all municipalities over 5,000 to provide curbside Blue Box collection. Twenty years later, while most people recycle, vast amounts of easily recovered materials continue to flow to landfills and incinerators. Growth in consumption has continued unabated, and most Ontario communities are barely diverting 30% of the household waste stream.

In Markham, the Mandatory Material Separation Bylaw amendment would require both single family and multi residential residents to separate their materials into 4 streams – Blue Box, Organics, Garden materials and residue. The Bylaw would require participation and provide staff the ability to issue warnings and fines to flagrant non participants.

As is commonly the case, Markham is achieving greater participation from its single-family households compared to multi-family (apartment/condo) households. More than twice as much recyclable material is collected from the

average single-family household compared to serviced multi-family households. Making source separation the law in Markham will strengthen our position when working with Condo Boards and Property Management companies and by-laws provide superintendants and property managers with the legal backing to further encourage waste diversion if needed.

Municipalities have the authority to require source-separation of recyclable materials as collection is a municipal responsibility. Supporting a mandatory by-law will send a clear and reasonable signal to households - if it can be recycled it does not belong in the waste residue.

Staff remain committed to educating residents about the importance of participating in diversion programs. Fines would be a last resort. However, when necessary, staff support fines for repeat non-compliance.

MANDATORY RECYCLING COMBINED WITH CLEAR BAGS MAXIMIZE DIVERSION AND PROTECTS COLLECTION WORKERS

A 'clear bag' program refers to the use of a garbage bag that is completely transparent or see-through. Most of the clear bag programs are also supported by a mandatory recycling by-law. Markham Zero Waste facilities have been using clear bags for several years to increase diversion.

The use of clear bags for garbage has several benefits:

- ✓ Clear bags reduce worker injuries and damage to roads, driveways and collection vehicles by identifying non compliant material such as paint cans, sharp objects, propane containers, and hazardous liquid waste containers in the bag;
- ✓ Residents are motivated to recycle due to social and community pressure;
- ✓ Clear bags serve as a prompt. If people forget to separate recyclables from their residue, they are visually reminded by the 'clear bag' because they can view recyclables that should be in the blue box or organics that should be in the green bin;

In Canada, Nova Scotia is considered a leader in applying the concept. Since 2005, 33 of the 55 municipalities have implemented clear bag programs.

IN ONTARIO GUELPH HAS BEEN CLEAR BAG FOR OVER 10 YEARS

Clear bag programs are growing in popularity in Ontario. Guelph has had a very popular clear bag program for over 10 years as part of its 'wet dry' collection system. Several Ontario municipalities are currently considering moving to clear

bags and have completed clear bag pilot programs including Niagara and Durham Regions. Dufferin County introduced clear bags in 2012.

Many municipalities have adopted 'user pay' tag programs or bag limits to drive diversion. Neither of these strategies has a sustainable long-term impact on behaviour change, penalize large families and allow high income residents to 'buy' their way out of recycling.

Markham currently has a bi-weekly 3 bag limit. While bag limits can be an effective diversion tool when properly enforced, they can also lead to illegal dumping, and do not recognize that holidays, parties, and events, result in times when residents will have extra waste residue. An unlimited clear bag program will not add to household costs, and is a cost effective enforcement tool.

Eliminating tags and bag limits combined with an unlimited clear bag program provides residents the flexibility to place out extra material when needed – as long as it is not recyclable or compostable.

MARKHAM 2008 CLEAR BAG PILOT CONFIRMED 'PRIVACY' IS A KEY CONCERN OF RESIDENTS

Although changing the bag colour seems trivial, staff consider it a worthwhile strategy - but not without risk. Several key issues were identified from Markham's 2008 clear bag pilot in Thornhill and Swan Lake:

- ✓ The main concern of residents was the issue of privacy. People were concerned about others being able to view the contents of their garbage and in particular their personal financial documents. Privacy issues must be addressed before implementing a program. Most municipalities permit a small opaque bag(s) which is commonly referred to as a 'privacy bag'; residents can also place their clear bag into a solid garbage can for added privacy.
- ✓ Ensuring a sufficient supply of clear bags at local stores was the second most common concern. Retailers should be given 6 months notice to ensure that they have enough clear bag supplies to meet the demand. Likewise, sufficient notice must be given to the public to help them with the transition and give them time to use up their solid coloured bags.
- ✓ Clear bags make enforcement of recycling easier and less time-consuming. With clear bags, collection crews can accept or reject a bag of garbage at a glance, leave a sticker or door hanger without the need for separate inspection or bylaw staff to visit residents. Proper enforcement is key to success.

ADDITIONAL RECOMMENDED DIVERSION STRATEGIES INCLUDE ELECTRONICS, TEXTILES, CARPET, AND RENOVATION MATERIALS

Textiles and electronics (E waste) recycling has become an extremely profitable business in recent years, yet waste audits indicate that up to 7% of Markham's residue contains recyclable textile materials and residents continue to set out VCR's, DVD, and TV's at the curb.

Like plastic, cans and newspaper, unwanted electronics should never end up in the landfill. Much of the plastic and metal in computers and monitors can be reclaimed and used to make everything from irrigation piping to coins. As well, many older electronics contain heavy metals that, if not handled properly, could have environmental impacts and cause health and safety issues. Some computer monitors contain lead oxide, while printed circuit boards contain a range of heavy metals.

Expanded textile drop off opportunities and attraction of a reuse depot for renovation materials in Markham will provide further diversion opportunities for our residents.

Staff support the recommendations to:

- i) Increase the number of licensed, reputable and secure drop off locations for textiles and E waste at apartment buildings, schools, community centers, and depots
- ii) Increase education to residents of the high value and demand for these materials and approved reuse options
- iii) Attract a Habitat for Humanity 'Re-Store' to Markham for renovation material recycling and reuse

CONTINUED PATH TO A ZERO WASTE COMMUNITY – INNOVATIVE 'ZERO WASTE CHALLENGE' FOR MARKHAM SCHOOLS

Markham is already committed to 'Zero Waste' at all 42 City facilities and a Zero Waste policy for City events. But no community can achieve Zero Waste on its own. It is a sector by sector process.

One sector interested in pursuing Zero Waste are Markham schools. Schools play an important part in the community in diverting materials from landfill and encouraging sustainable waste management and recycling behaviour and practices, with benefits extending to the wider community. Children who learn how to recycle will continue the practise into adulthood.

Markham has 19 separate and 53 public schools. Ten Markham schools have already adopted Zero Waste practises with support from the City Waste &

Environmental Management Department. Only 2 of the 10 schools requested support through MESF to purchase blue boxes and green bins.

Building on the successful Zero Waste school program, staff support development of an official multiyear 'Zero Waste Challenge for Schools' program financially supported through MESF grants of up to a maximum \$2,500 per eligible school with an upset limit of 10 schools per year. The funds are available in the current MESF budget.

REGIONAL AUDITS INDICATE 28% OF RESIDENTS HAVE CHOSEN TO USE COMPOSTABLE BAGS IN THE GREEN BIN

In 2009, Regional Council made a decision to discourage the use of plastic bags and encourage the use of certified compostable bags in the Green Bin system for two key reasons: the Region's contracted SSO processing facilities were experiencing temporary processing disruptions and certified compostable bags are thought to be a better environmental choice than plastic bags.

Resident surveys conducted at the time indicated the major concern residents had about using certified compostable bags were their high purchase cost and sporadic availability. Many preferred using plastic bags, which are convenient, economical, address the 'yuck' factor, and since they are not accepted for recycling in the Blue Box, end up in landfill.

On December 16, 2009 Regional Council approved the mandatory use of compostable bags in the Green Bin effective May 1, 2011 and requested local municipalities amend their collection by-laws accordingly. Markham Council decided to continue to allow residents to use the bag of their choice for Green Bin organics: paper, compostable or plastic. A key consideration at the time was that a requirement to inspect Green Bins for compliance would increase collection costs and negatively impact diversion.

Table #1 below provides the recent Regional Green Bin audit results indicating the percentage of compostable bags found in municipal Green Bins after the Regional directive:

Table #1
Percentage Use of Compostable Bags

Markham	Vaughan	Richmond Hill	Newmarket	Region Average
28%	15%	16%	21%	33%

York Region's unique integrated waste management partnership model recognizes local autonomy and supports important program changes be implemented according to local timetables, recognition of local issues and consideration of the one taxpayer principal.

Markham will revisit the Region's directive once a dedicated regional compost facility is established that benefits from the use of compostable bags. Staff recommends that Markham continue to encourage voluntary behavior change by providing information on the broad environmental benefits of compostable bags.

ESTABLISH RETAIL BAG POLICY FOR MARKHAM FOR COUNCIL CONSIDERATION

In 2012, Toronto Council rescinded the Toronto by law that requires retailers to charge five cents for a plastic bag. Toronto Council adopted a motion to establish a new bylaw prohibiting all retail stores in Toronto from providing customers with single-use, plastic carryout shopping bags, including those advertised as compostable, biodegradable, photodegradable or similar, effective January 1, 2013. Subsequently, the City of Mississauga announced its intention to look at a similar initiative.

For Markham residents, the GTA is where they shop, work and play. Having different retail bag rules is both confusing and inefficient and retail chain stores are challenged to provide retail bags according to municipal boundaries.

As part of the integrated partnership with York Region, staff support the development of a policy similar to the Toronto Bag By-Law for Council consideration.

IMPROVED SERVICES INCLUDE SPRING AND FALL CLEANUP DAYS AND EXTENDED LEAF AND YARD MATERIAL COLLECTION SEASON

Changing climate conditions have altered the patterns associated with the seasons, one trend is that trees are keeping their leaves longer into the fall/winter.

The current service level provides bi-weekly collection of leaf and yard material from April to November. The November cut off date for the curb side collection of leaves frequently results in residents having uncollected bags of leaves at the curb which they are forced to store until spring.

To address this situation, staff support requesting Miller Waste extend leaf collection into December (weather permitting) to ensure bags are not left at the curb. This will not impact collection costs as this service extension will not result in additional volume.

PUBLIC ENGAGEMENT AND EDUCATION IS THE KEY TO CONTINUED SUCCESS

The Diversion subcommittee will be developing a major communications campaign that will promote the benefits of unlimited clear bags for residue and how this simple switch will put Markham on the path to becoming the 'Best of the Best' with an 80% diversion target. The promotion campaign will be the same as the Mission Green campaign and include mobile signs, newsletter, in store campaigns using citizen 'ambassadors'.

The Clorox Company, manufacturers of clear residue bags under the trade name 'Glad' have offered to partner with Markham to support the switch to clear. If approved, the clear bag initiative target launch date will be during Earth Week in April 2013.

The Markham Environmental Advisory Committee will continue to be engaged in the development and execution of the diversion strategy as 'ambassadors' of the program.

80% DIVERSION AND ZERO WASTE POSITIONS MARKHAM AS LEADER IN THE GTA AND ONTARIO

By moving forward with this diversion strategy, Markham will maintain its leadership role and demonstrate commitment to sustainability.

Staff anticipate that the strategy would be implemented over the period 2012 to 2014. The strategies are envisioned as creative solutions to achieving difficult and complex behavior change. With the exception of one time capital funding for education and promotion, none of the strategies result in increased costs to our residents. It is anticipated that additional detailed reports on the strategy implementation and required by-law approvals will be presented for Council approval as required.


ALIGNMENT WITH STRATEGIC PRIORITIES:


Aligns with Environmental Strategic priorities and Green Print principals.

BUSINESS UNITS CONSULTED AND AFFECTED:

Communications and Community Relations; Sustainability Office; By-laws

RECOMMENDED BY:


Peter Loukes, P. Eng
Director, Operations
Community and Fire Services


Brenda Librecz, Commissioner
Community and Fire Services

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