

Clear Bag Garbage Program Implementation Toolkit: A municipal step-by-step guide

Clear Bag (Garbage) Implementation Toolkit

Municipal step-by-step guide

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Acknowledgements

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Glossary

Blue box: Collection container used in Ontario recycling programs for collection of recyclables.

Clear bag: Plastic bag that is not tinted or coloured, but transparent.

Clear bag program: Program implemented for garbage collection that requires the use of clear bags. **Opaque bag:** Plastic bag that is coloured or tinted, not enabling contents to be seen.

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1. Executive Summary

To the champion for the municipality that begins to explore the possibility of a clear bag garbage program, it will become immediately obvious that there are several lasting benefits. Increased diversion, removal of hazardous material, and heightened safety for operations staff are just some of the advantages which are universal in clear bag program implementation. Experience has confirmed that resident concerns fade away as sustainable waste management becomes the new normal regime.

Under a clear bag program, residents cannot simply buy their way out of participation like they may be able to under different systems (i.e. purchase a larger sized container) or pay for the ability to dispose of more bags of mixed garbage and items cannot be easily hidden beyond what may be placed in a privacy bag. The program offers a democratic process whereby everybody must play by the same rules.

Clear bag garbage programs have been implemented in municipalities across North America for over a decade. Throughout Canada, over half a million households are involved in clear bag garbage collection programs. Within Ontario, approximately forty municipalities have implemented such programs. A number of the Ontario based programs including Dufferin County, Markham and West Grey have been highlighted within this toolkit along with examples of resource materials created to support the design, communication and successful rollout of their individual clear bag garbage programs.

Additionally, the Town of Aurora provides a valuable example of a municipality that set out to adopt a clear bag program and was unsuccessful in completing the task. Town staff had undertaken a comprehensive retailer and public education and communication strategy in the months leading up to final Council approval, however, ultimately Council voted not to proceed with this initiative, but rather concentrate on other ways to increase waste diversion.

The intention of this toolkit is to provide Ontario municipalities with relevant resource materials to enable those interested in undertaking a similar journey to be armed with the knowledge, guidance and expertise of those that have already made the transition.

2. Background

In Canada, there has been a municipal focus on waste diversion since the late 1980's. Several initiatives have contributed to diversion of materials from the waste stream including:

- Curbside recycling
- Yard waste collection
- Food waste collection
- Backyard composting
- Bulky goods collection
- E-waste collection
- Hazardous waste collection
- Construction debris diversion

Existing options for municipal diversion programs are currently able to target over 75% of the residential waste stream. Resident participation and capture rates vary by program and material, however, the majority of programs share the common issue of seeing divertible material lost to landfill. In order to minimize this

loss, municipal focus is shifting to increased capture and collection methods that best suit the needs of the municipality. Examples include bins, boxes and bags, which each have their own associated capital and operating equation. An evolution on this front has arisen through the utilization of clear plastic bags for garbage collection. These programs are most common in Atlantic Canada (Nova Scotia and Prince Edward Island) and have had continued success since the early 2000's. Programs have now spread westward to Ontario, where recent program launches include Markham and Dufferin County (2013). Many lessons were learned throughout the implementation of programs, which provide wisdom and insight for program launches in the future.

3. Project Scope

This toolkit is intended to provide municipal staff with direction and information to design and implement a Clear Bag (garbage) Collection Program when exploring options for changes to the current garbage collection program, or once the internal (municipal) decision to proceed has been made.

In 2008, Stewardship Ontario financed an Effectiveness & Efficiency Funded Project # 177 entitled "The Use of Clear Bags for Garbage as a Waste Diversion Strategy: Background research on Clear Garbage Bag Programs across North America" prepared by Quinte Waste Solutions. The purpose of the report was to identify and provide background research on clear bag programs in North America with the aim to inform Ontario municipalities of its potential as a waste diversion strategy. Although this report was reviewed to contribute some background (baseline) information it was not structured as a "how-to" toolkit to the extent of this initiative.

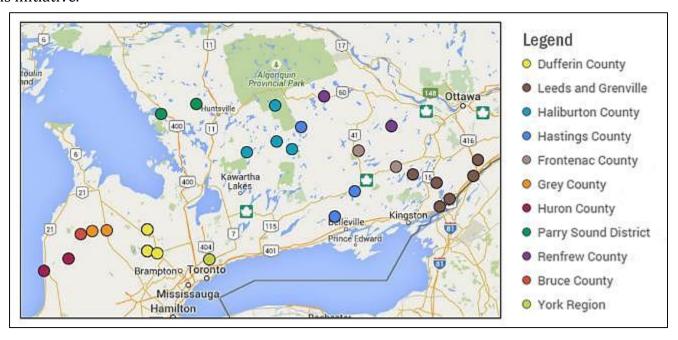


Figure 1: Municipalities in Ontario with clear bag collection, separated by regional district. <u>Click here</u> for an interactive version with the launch date, households and name of each municipality (Google Maps, 2015).

4. Project Goals

The goal of this initiative is to provide Ontario municipal waste managers with a clear road map that lays out a step-by-step strategy to develop, promote (internally and externally) and launch a residential curbside

collection program whereby residents are required to use "clear" plastic bags either independently or in conjunction with other collection systems (i.e. containers).

PHASE ONE: Internal Assessment & Approval

This section will outline the beginning stages of implementing a program and the initial hurdles.

1.1 Assessment Initiation

Unless municipal waste management staff have been directed by Committee or Council to pursue the design and implementation of a clear bag program, it is likely that the initiative has originated at the staff level from individuals seeking cost effective opportunities to increase worker safety and/or increase the diversion of materials from the refuse stream.

Unlike the design and implementation of so many other municipal waste diversion strategies such as curbside recycling or organics collection where residents are typically provided with the tools (i.e. boxes, bags or carts) to incentivize participation, a clear bag garbage program differs substantially in that residents are being required to change their purchasing and curbside participation behaviour from buying and using opaque plastic bags to clear plastic bags.

1.2 The Business Case

Economics, specifically reducing overall costs, is not likely a primary motivator towards the transition to the utilization of clear bags for garbage. Traditional disposal of waste in landfill typically remains the lowest cost option for disposal and the capture of additional recyclables will often increase overall program costs. However, in Ontario, the issues and costs associated with implementing new landfill sites and existing sites filling up at exponential rates, forces diversion to become a primary goal of many municipalities. For most municipalities interested in implementing a clear bag program, the motivating factor is the conservation of landfill space and the desire to increase diversion.

The multiple variables including collection contracts, other diversion programs in place (such as source separated organics), revenue share, capital assets and operating contracts all require that individual municipal assessments be undertaken to conduct cost benefit analyses locally. Similar to the diversion of recyclables, the diversion of source separated organic (SSO) food material through curbside collection programs is typically more costly when compared to straight collection and disposal in landfill.

Municipal experience has shown that the inability to hide various materials in clear bags (including grass clippings, renovation debris, paint cans, food scraps and other items considered banned from the garbage stream) does result in a significant reduction in general waste tonnage. When such material is removed from the curbside collection system there is a positive economic benefit to the municipality via avoidance/reduction of overall tipping fees or extension of landfill life.

1.3 Political approval and authorization to proceed

In advance of receiving Council authorization to proceed with the transition from opaque to clear bags for garbage, waste management staff must undertake significant background research to establish the basis for moving forward. The initial step often requires the formulation of a report to Council that seeks approval through staff recommendation that Council endorse the replacement of black garbage bags with clear bags as an acceptable means to set out waste for collection, along with a rollout plan timeline.

The report should be structured to provide background information including how such a strategy is consistent with the overall municipal (regional, county and/or local level) integrated waste management master plans. Reference to other municipal jurisdictions that have previously proceeded to undertake such a transition offers solid and credible support as well. Stewardship Ontario E&E Project (#177) "The Use of Clear Bags for Garbage as a Waste Diversion Strategy: Background Research on Clear Bag Programs across North America" provides much relevant background information to support the rationale for the transition to clear bags.

Primary rationale for recommending this policy change does vary by municipality, however, the top three reasons cited include:

- 1. Increased worker safety by enabling the waste (garbage) collector to see the contents of the bag and avoid hazardous items (i.e. sharp glass, needles, etc.);
 - 2. Removal of hazardous waste items (i.e. batteries, paint, pharma, oil, etc.) from the waste stream;
- 3. Increased diversion of recyclables (through curbside/depot collection) and organic material from the waste stream.

Having the necessary by-law(s) in place to support a clear bag (garbage) program can greatly contribute to the success of the program, whether the by-law is amended in advance of the recommendation to proceed or after a program is implemented. Often, municipal staff will recommend program revisions in conjunction with clear bag garbage collection, including banning electronic (e-waste), bulky (furniture) material, hazardous items and others from landfill.

As Council often focuses on community engagement and feedback, reports typically include the stipulation that community open-house activities will be undertaken to gage public receptiveness. Although such initiatives do not generally receive widespread public participation, attendance is predominantly by those opposed to such a major program change. This often leaves an overwhelming (and inaccurate) impression that the community as a whole are opposed and has the potential to derail clear bag implementation. However, it also provides a venue for officials to answer the typical frequently asked questions (see Section 1.4) and also appease many residents' concerns. It is not uncommon to see the biggest naysayers transition to staunch supporters, when given satisfactory answers.

An important component for inclusion in the council report is the retailer interaction strategy (Section 2.5) that clearly outlines a plan to interact with local and national level (head office) retail establishments to ensure that the appropriate product (clear bags) will be made available in the right locations at the right time to support the program. Failure to address this issue and risk retail out-of-stock situations has the potential to jeopardize the entire program. A negative experience by a resident seeking appropriate product, only to experience frustration in not being able to find clear bags for purchase risks a cascade of negative letters to local media and calls to local Council.

The report must also identify an extensive community awareness and education campaign (Section 2.2) that clearly shows how the program will be promoted throughout the community, including Council interaction activities.

Consideration is also required for items such as: a possible voluntary (soft) launch prior to a transition to mandatory program enforcement, including timing, how enforcement will be undertaken (by municipal staff and/or the waste collection contractor), as well as determination of tolerance levels and acceptable amounts of divertible material that remain in the garbage.

1.4 Common frequently asked questions (and standard replies)

Regardless of the jurisdiction where a clear bag program is being implemented, there are a number of common questions raised pertaining to the program. The following are the most common frequently asked questions (FAQ's) and typical responses:

Question #1: Why would a municipality want to implement a clear bag program?

Response: The primary reason for implementing a clear bag program revolves around worker safety and protecting the collector from cutting themselves on sharp objects such as broken glass or needles. The collector is also able to conduct a quick assessment of the contents within the clear bag(s) to ensure that no recyclables or hazardous items such as oil, paint, pharmaceutical products or corrosive wastes are in the bag. These items should be disposed of at secure hazardous waste disposal facilities.

Question #2: Do clear plastic bags cost more than traditional opaque (black) plastic bags?

Answer: Both clear plastic and opaque (black) plastic garbage bags are manufactured from the same type of plastic resin – typically linear low-density polyethylene (LLDPE). The only difference between clear and coloured bags is the dyes which have been added to colour bags. From a sales perspective, the manufacturer's suggested retail price (MSRP) should be equal (if not less) between the two products.

Additional comment(s): Price differentials also occur based on the individual bag size, closure type (i.e. drawstring / easy-tie), brand name / private label or packaging size.

Question #3: What should I do with my left over opaque garbage bags?

Answer: Assuming a municipality has provided sufficient lead time notification (say six months), residents should be encouraged to use up existing opaque bags prior to the program implementation. A voluntary (soft) phase in, will also allow additional time to use up opaque bags. In addition, residents can be encouraged to donate their opaque bags to friends/family not in a jurisdiction requiring the use of clear bags or donate left over product to churches, schools, businesses or other IC&I establishments not under a similar program. In some programs, residents are able to utilize one large opaque curbside trash bag as a privacy bag.

Question #4: What about my privacy?

Answer: Most clear bag garbage programs typically allow residents to place a specified number of smaller opaque bags within the larger clear bag placed at the curb. This provides for an adequate method to enable residents to shield material that they would prefer not be exposed for view. Such items may include sanitary products, diapers, incontinence products, financial information, medical/pharmaceutical objects or other personal items. Typically, most municipalities permit the allowance of one to three small opaque bags within the clear bag.

Additional comment(s): In some situations, municipalities have left the number of internal opaque bags vague or at no limit. This is not recommended as it undermines the value of implementing a clear bag program in the first place. An alternative strategy is to launch the program with a higher number of acceptable opaque inner bags (perhaps three) and slowly scale back this allowance over time as residents become accustomed to the new program.

Question #5: Will retailers list clear bags in the local stores?

Answer: Retailers list products to be sold in their jurisdiction based on demand. Residents will only purchase clear bags once a program has been launched. As such, it is imperative that municipalities provide notification to retailers at both the local and head-office level that a program will be implemented. Typical lead time notification of six to ten months is ideal to provide time for all the internal steps required to make the transition on the store shelf. Refer to further information on "retail listings" in Section 2.5.

Question #6: Does the use of clear bags (garbage) increase the diversion of waste from landfill?

Answer: Yes. All participating municipalities have reported an increase in the amount of recyclable material diverted from the curbside garbage into curbside recycling where programs are in place. In addition, the diversion of organics (yard and food material) has also improved where such programs are in place. The amount of incremental diversion will depend upon the maturity and effectiveness of existing programs as well has how comprehensive they are. Experience has illustrated that overall diversion rates could increase by over 10% above current rates.

Question #7: I'm diverting as much material from the garbage as I can, why do I have to do this?

Answer: For residents already doing their best to divert, this program should make no difference except for the colour of bag they use. This program is intended to increase participation from households that do not presently recycle and/or compost material by raising them to the standard of those who already participate.

Question #8: What impact can be made in diverting materials from landfill?

Answer: The quantity depends upon how well the municipality is presently doing. Some programs (such as Markham) have topped 81% diversion from landfill, recording an 11% increase after 1 year of clear bag collection. As most Ontario programs have accomplished between 30 – 55% diversion, the potential increase can be almost 25% higher than current rates dependent on the municipality.

Question #9: What is the difference between a "soft" launch and a "hard" launch?

Answer: A "soft" launch simply refers to a specified time period whereby residents are encouraged to participate but no penalty will be imposed if they do not. A "hard" launch typically means that participation is mandatory and followed up with enforcement (typically non-collection) of non-compliant bags.

Additional comment(s): A municipality will typically "soft" launch a program as a way to ease residents into participation and then transition to a "hard" launch typically three to six months later. This strategy provides an additional benefit of enabling residents to use up existing inventories of opaque plastic bags and offers additional time to enable them to purchase clear bags.

Question #10: Does a municipality have to implement a bag limit on the number of garbage bags allowed to be placed curbside for collection?

Answer: No. One benefit of this program for residents is that it has the potential to remove the regulatory requirement (bag limit). Residents can be informed that if it is truly garbage in the clear bags, they can place as many curbside as they wish. The reality is that once the divertible materials are pulled from the waste stream, the amount of material that remains is often quite low. As a municipal example, the City Markham removed bag limits upon launching their clear bag program (April 30th, 2013). For the twelve months prior,

garbage tonnage collected averaged 1,737 tonnes per month. During the twelve months following the clear bag program launch, monthly garbage tonnage collected decreased by 25% to an average of 1,299 tonnes per month. While the tonnage of recyclable material collected monthly remained relatively consistent pre / post program launch, the amount of food waste collected increased the most, followed by yard waste. (Source: City of Markham 3 Year Garbage Trending report: 2012 – 2014) Maintaining bag limits and/or pay as you throw collection does encourage residents to think about and often act to reduce garbage at the time of purchase.

Question #11: What if a resident places some "divertible" material in the clear bag?

Answer: A tolerance level of up to 20% typically addresses the unacceptable item that ends up in the waste stream. The general premise of the program at a macro level typically results in diversion accomplishments that far exceed the discrete micro level occurrence. The overall program intent is to engage the non-participants and under-participants which are typically a portion of the public significant enough to push the local diversion levels higher.

Question #12: Are clear bags recyclable?

Answer: Although there are (some) recycling programs in place to recycle LLDPE film (i.e. plastic bags), there are no programs in place to recycle plastic bags used to collect garbage as it would be difficult to segregate the plastic bags from the garbage within.

PHASE TWO: The Program Steps

This section will describe the ways in which the plan for a clear bag program can be practically applied, as well as the key municipal players that will have to be informed on the details of the new program.

2.1 Internal relations

(a) The Environmental Advisory Committee

Municipal Environmental Advisory Committees (EAC's) are typically established as the bridge between the municipality, both at the political and staff level, and the local community. Residents are appointed on a voluntary basis for a specific term, usually two years. Staff also participate in discussions and information sharing, usually in a non-voting capacity. A typical EAC mandate is expressed as "A committee for the protection and enhancement of the environment while supporting local initiatives that promote environmental sustainability".

The natural progression of a clear bag recommendation being passed by Council will usually require that any such report be first vetted through the EAC for consideration, input and approval. Considering that EAC members typically possess extensive background expertise and experience in the environmental sector, their support through an EAC resolution greatly assists in establishing initial confidence levels for Council. Often, it is at this stage of development that the local media becomes engaged in monitoring and reporting to the general public that a clear bag (garbage) program may be on the radar.

While EAC members will be most interested in the long term goals and objectives of a clear bag program, they remain less concerned about the smaller tasks that will be required to achieve success. However, a solid strategy by municipal staff and/or third party stakeholders presenting such an initiative will include a summary of alternative options and the potential effectiveness or ineffectiveness of these options for achieving the same goals. EAC members can become important community ambassadors in the positioning of a clear bag garbage program in an environmental (waste reduction and diversion) capacity.

(b) The Councillor Clear Bag Handbook

In the early stages of the program development, prior to any external public (residential) notification, the creation and distribution of a Councillor Clear Bag Handbook is extremely important.

The provision of a high level overview of the clear bag initiative including a summary of the questions, and

A councillor handbook can provide your councillors with the tools to respond to resident concerns, while increasing their knowledge of the program parameters.

An effective councillor handbook would address the following key components:

- What the program entails;
- Why the program is being implemented;
- Why the municipality is pursuing this initiative;
- What implementation timing will be, including all voluntary and/or mandatory phases;
- What this change will mean for residents;
- Answers to the "top ten" common questions;
- Where to direct residents for additional information including staff contact information.

corresponding answers, that political officials could expect to receive from their constituents ensures that officials are not caught off-guard or unprepared to respond to inquiries with relevant content. This handbook can be formulated in a hard cover (binder) format and/or an online PDF format that can be emailed directly to respond to resident inquiries. A sample can be seen in Appendix 35A: Town of Aurora – Councillor Handbook.

(c) Municipal Waste Management Collection By-laws

A regulatory backdrop through a municipal by-law amendment provides the legal teeth to enforce the requirement for residents to utilize clear plastic bags. A by-law permits a municipality to pursue punitive actions for non-compliance. Within Ontario, the Municipal Act, RSO 1990, c M.45, authorizes a municipality to pass by-laws for establishing a system for the collection and disposal of refuse:

(www.canlii.org/en/on/laws/stat/rso-1990-c-m45/latest/rso-1990-c-m45.html).

Although not a prerequisite for the implementation of a clear bag program, most municipalities making this transition have revised and amended their waste management collection by-law(s). An example of the County of Dufferin's by-law amendments can be found in Table 1.

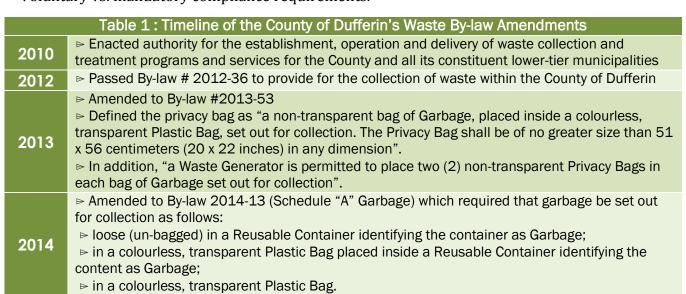
Key amendments to existing by-laws may include:

- Amending the allowable number of garbage bags set out for collection, per household – either an increase or decrease;
- Amendment for the authority to establish, operate and deliver a waste collection program;
- Definition of a "clear" bag and allowable containers for garbage at the curb;
- Definition of a "privacy" bag including the maximum size;
- Declaration of the allowable number of privacy bags;
- Declaration of the penalty for non-compliance;
- Definition of contamination amount by weight or volume;
- Voluntary vs. mandatory compliance requirements.

Key contact for by-law information:

Melissa Kovacs-Reid
Manager of Waste Services, Public Works
Department
County of Dufferin, Ontario
519-941-2816 ext. 2622

mkovacs@dufferin.ca



2.2 External Relations

(a) Communications Strategy – Education and Awareness

A strong communication plan will include:

- Goals and objectives, for example:
 - Increased participation rates for recycling/green bin programs;
 - Increased capture rate of recyclables and organics diversion materials;
 - Increased tonnage of materials diverted from landfill;
- Target Audience
 - Depending upon whether your municipality is comprised of urban, suburban, rural or seasonal dwellings, outreach strategies must be tailored to a varied audience.

Communication tools will vary, but may include:

- Sorting guides
- Billboards
- Brochures and handouts
- Municipal newsletters
- Fairs and festivals
- Social media
- Vehicle decals
- Billboards and road signs
- Community events and exhibit booth
- Public information sessions
- Website
- Waste Management Collection Calendars
- Promotional samples of clear bags
- Fridge magnets
- Television appearances
- Newspaper advertisements
- Press releases
- Smartphone applications
- Transit advertisements
- Flyers
- Posters

Individually, each communication tool has its own strengths and limitations. There is no single way to ensure complete coverage of a jurisdiction. For example, residents with restrictions on receiving unaddressed ad mail will likely not receive general mail notices or flyers. Not all residents read local newspapers or use municipal websites to obtain information. Many residents may also not be able to read or understand English, requiring extensive use of unambiguous graphics to deliver a message.

Make sure that any education stickers affixed to existing bins for information have semipermanent adhesive only, to ensure easy removal by residents.



Collection contractors should not be expected to circulate notices and information (beyond application of non-compliance notification stickers) so as not to interfere with collection efficiencies. Municipal staff, part time, co-op and summer staff offer an excellent means to deliver messaging. Late spring and summer are the times of year when such resources are most available, making this an appropriate time of year to launch a program. Municipalities may also enlist the

volunteer help of guides and scouts and high school students seeking to fulful their community service hour requirements.

(b) Promotion and Education Budget Estimate

The County of Dufferin promotion and education budget for 2013 was \$93,000. These funds were allocated to promote the new clear bag program (through the transition in June), special events and program details for Blue Box, Green Bin, Hazardous and Electronic Waste and Take it Back (proper disposal initiative). Based on 21,257 households within the County, the \$4.38 per household included all program costs as well as the clear bag promotional campaign which comprised approximately \$2 per household of the total amount.

(c) Pre-program launch communication timing

Sufficient lead-time notification must be provided to local retailers (typically six to eight months notification) to ensure that local orders and deliveries can be adequately altered to provide the appropriate inventory of clear bags needed to support the program. Refer to Section 2.5 for more details. Retailers are unlikely to initiate shelf listing alterations until they have municipal confirmation, such as a Council resolution, and official notification from the municipality that the new program is actually approved for implementation.

Residents also require adequate notification to provide sufficient time to use up existing quantities of opaque plastic bags, especially in situations where zero curbside opaque bags are allowed. This is one reason that communities launch a soft (voluntary) program in advance of a hard (mandatory) program.

Table 2 : Typical timeline of municipal communication strategy				
Timeline	Residents	Retailers		
32-52 weeks before (or upon confirmation of launch)	High level notification on municipal website or local paper that program is coming (to provide residents sufficient time to use up existing opaque bags).	Official letter of notification to retailers that program is coming to enable time for internal ordering and shelf listing design.		
8-12 weeks before	Print advertisement campaign reminding residents and providing key "did you know" information.	Local in-store interaction to encourage inventory ramp up.		
2-4 weeks before Local street sign reminders.		Local in-store inventory audits.		
1-2 weeks prior (dependent upon	Major media blitz to remind residents to begin using clear bags.	Continuous in-store monitoring to ensure stores have sufficient		

collection cycles)		inventory.
Launch date	Staff / collector curbside monitoring / feedback (positive & negative).	Continuous in-store monitoring to ensure stores have sufficient inventory.
1-6 weeks after Continuous curbside monitoring and notification campaign.		Continuous in-store monitoring to ensure stores have sufficient inventory.
8-12 weeks after	8-12 weeks after Media campaign informing residents of accomplishments to date and key insights. Ongoing curbside monitoring and notification.	
12 weeks after and beyond	Ongoing curbside monitoring (collector) and notification.	-

(d) Media Interaction and Managing Public Response

Although impossible and ill-advised to attempt to control the media, a properly designed and executed program maintains the ability to deliver the message and to a greater extent, set the tone for the program. Make the reporters' job easier for them by providing a relevant media brief that captures the high points and the common questions/answers that typically arise. The positive intentions of a clear bag program must sound louder than the negative perceptions that occur when unfamiliarity and resistance to change mentalities set in.

A professional and educated message that clearly demonstrates that a clear bag program is a positive change because it reduces injuries to collectors, removes hazardous material from the waste stream and diverts more material from landfill will do much more to garnish a supportive overtone when the fear of the unknown is removed.

Managed through municipal communications and public relations department(s) in conjunction with Waste Management/Operations, invitations to local media to attend an information session that will introduce the program parameters is critical to establishing an open dialogue early on with the key reporters who cover the municipal beat, to ensure that accurate and relevant information is being shared with the public.

(e) The Media Debrief Session

- Ideally held immediately prior to a public information session that would likely be covered by local media:
- Attendees provided with a media package that identifies key components of a clear bag program;
- Inclusion of case study accomplishments, ideally from within the Province along with contact names and numbers of individuals that are able to shed light on similar experiences;
- Inclusion of the top frequently-asked-questions and answers for fact based content and coverage;
- Key municipal contacts for further information and updates.

When the media first publishes the story and begins to cover news that a community is proceeding with a clear bag program, often the general tone of the message is neutral to negative as controversy is often used to capture a reader's interest. From the start, it is absolutely imperative that those covering the story

are provided with a detailed media brief that captures the high points of a clear bag program. While you cannot control what is said, you can ensure that fact-based content is offered.

Undoubtedly, there will be negatively toned messages and letters from the public. However, by addressing the typical concerns immediately and removing the guess work, the vast majority of the negativity will be diffused early on. Equally, the publication of a positive message will go a long way to spreading support and program buy-in. The ability to utilize the media as a community partner and resource to deliver accurate and balanced information to educate residents is extremely important.

Key contact for communication plans:

Ms. Alyssa Broadfoot
Communications and Public Consultation Coordinator
County of Dufferin, Ontario
519-941-2816 ext. 2624
abroadfoot@dufferincounty.ca

(f) Resident participation recognition and acknowledgement strategy

Achieving a high participation rate is critical to influencing a rapid shift to clear bags upon program launch. The curbside visibility of participation provides a very important influence factor from one neighbour to the next and non-compliance stands out. Upon week one of a clear bag program launch, a minimum level of 60 - 75% participation is needed to initiate a rapid shift from opaque to clear bags.

Residents who embrace and conform to the program should be recognized and acknowledged accordingly. A simple acknowledgement, through the use of a removable sticker notification on the recycling container that sends a message back to the homeowner indicating that their efforts are appreciated, will go a long way to secure continued support. This is especially pertinent in the early voluntary stages of a program when other neighbours have not yet conformed to the program, but continue to receive curbside collection of opaque bags.

From a municipal standpoint, it is important not to allocate a lot of additional resources or finances towards this segment of the community but rather concentrate on intensifying efforts to persuade the non-conformers to make the switch to clear bags. See Section 3.2 for detailed information on how Markham implemented phased enforcement through the use of Gold Star and "Oops!" stickers after their program launch.

2.3 Customer Relations – The Help Line

One of the most important communication tools to relay information to residents is via a phone line, either as a dedicated Clear Bag Program call-in line or as part of the existing municipal Customer Service Line. However, regardless of the set up, it is imperative that adequate resources be allocated to handle the potential for a substantial increase in calls, especially before the first month of the program launch date as well as over the month after. Calls could increase by over 300% during the initial stages of your program.

2.4 Social Media

(a) Media platforms and their uses

Social media presents an opportunity to connect with residents as well as to frame your new program with the intentions of the municipality. This has the benefits of quelling many concerns and questions before your program launch and gaining support for the initiative. Social media can help you to gather supporters to continue along the journey to full implementation. The following sections will outline how you can use some common social media platforms to enhance your program promotion and education before and after the launch.

(b) Facebook

Facebook is a great tool for posting photos, explanations and links to new pages on your city website. Announcements can be made to a large audience and resident replies can be addressed as they are posted. Facebook can also be used to link your residents to research and case studies that provide evidence for the benefits of a clear bag program. Many municipalities already use Facebook to interact with residents to provide updates on community events and promotion of your new clear bag program could be an additional component of existing interactions.

Check out this fine example from Dufferin County, which links their Facebook followers to detailed waste information (https://www.facebook.com/DufferinWaste?fref=ts)! Dufferin County has an entire Facebook page dedicated to waste services ("Dufferin County Waste Services") which enables them to direct inquiries to the appropriate department (Appendix 1D).

(c) Twitter



Twitter is useful for shorter announcements as well as linking residents to additional information on other social platforms. This tool can be very useful for reminding your residents of upcoming important dates such as the date your clear bag program becomes mandatory. Quick, catchy reminders can help to add humour and positivity to your messaging.

Check out the great tweet in Appendix 2D, where Rideau Lakes Township provided their residents with a list of locations to purchase clear bags for garbage collection. This is a common resident question with new programs and providing this list via twitter can spread the word quickly!

(d) YouTube

YouTube is a useful platform for showcasing visual information such as instructional videos, tours of waste facilities, or visual representations of municipal diversion statistics. In a clear bag garbage program context, YouTube videos could be used to make a video on tips and tricks for residents, such as how to plan where privacy bags should go in the home. A video could also show residents shrinking landfill space or show off the municipal efforts to divert materials that are recycled by residents.

As in the case of Lunenburg, Nova Scotia, YouTube can also be used to act out common resident questions and answers in a friendly fashion (https://www.youtube.com/watch?v=TnW5gfBYRtY).

This approach is an easy and cost effective way to communicate the key requirements for your program. Don't forget to post the YouTube links in all publications.

(e) E-newsletters and Waste Management Documents



Many municipalities already provide documentation at seasonal intervals to residents which allow for updates or reminders on waste regulations. These newsletters, brochures, booklets, or other materials, are a familiar source of information to residents and can be used to outline clear bag requirements in detail.

As an example, the County of Cumberland, Nova Scotia, and the Resource Recovery Fund Board Inc. included a detailed (but concise) section on clear bag garbage collection in their Summer 2014 Solid Waste Newsletter (found in Appendix 3D).

(f) Applications

Many people rely on smartphone applications and alarms for waste collection reminders and municipal alerts. In keeping with this new avenue for connecting with residents, information regarding clear bag regulations can be communicated through a waste app. This method alleviates repeat questions, as answers are convenient and accessible at all times.

A detailed example from Mono (Dufferin County), Ontario, who have partnered with the MyWaste App to provide real-time information to residents is in Appendix 4D.

(g) Website

Finally, municipal websites are frequented by residents for all types of information on events, programs and services. This online traffic enables announcements to reach a large audience in the form of a banner, pop-up or standalone program pages. Integration of program details with existing waste collection guidelines, along with visuals and contact information, are a complete record for residential inquiries. Having these details on your website for months in advance of the program can help to answer questions and prepare residents for the program rollout (and/or mandatory stage of the program).

See examples of website materials from Greater Madawaska, Ontario, including frequently asked questions as well as a visual outlining projected diversion rate increases for the municipality (Appendix 5D). These two items help residents to understand why the clear bag program is important.

(h) Tricks and Tips

The way in which messaging from a municipality is framed will influence the manner in which it is received by residents. In the case of a clear bag garbage program, where there may be some initial resistance, it is crucial to frame the positives of the program, from the initial internal investigation, until the program is well underway. All messaging should therefore be positive and clear in order to avoid any confusion or frustration. With these goals in mind, some tips for social media are:

- (1) Always highlight the positives of the program. If it is clear to residents why it will benefit the municipality, they will be more likely to get on board.
- (2) Be sure to highlight the champions of your program. For instance, if someone posts about how they think the program is a great idea be sure to respond in a grateful manner that shows appreciation for their support.
- (3) On the other hand, complaints and criticism are best addressed with professionalism and consistency, using information and facts that address the complaint directly. The municipality will be armed with all of the knowledge of previous program start-ups and residents will soon see that a lot of research, preparation and forethought have guided your program.
- (4) Similar to a media type plan, a calendar of messaging also ensures that deadlines are not missed and that messages are projected on an ongoing basis until (and after) the program is launched.
- (5) It may be useful to create a plan for social media that is tailored to your municipality. Every municipality has different needs and outlets for communication and so, creating a list with the goals and objectives of each type of communication (website, newsletters, etc.), can ensure that all bases are covered and that there is consistent messaging across all media.
 - (6) Visual media can aid in getting program details across and having them be remembered.

(i) Avoiding issues

Social media is an integral component of interactions with residents today and can be a huge benefit to new programs. In spite of best efforts, many clear bag programs are faced with social media issues. The online platform allows for opinions, both positive and negative, to be heard, projected and propagated by others. Other than responding with the facts, as was outlined above, there are a few steps a municipality can take, before a social campaign is launched, as preventative measures for social media gone wrong.

- 1. **Avoid messages that could be twisted.** Opponents of your program will use any opportunity to twist municipal messaging. Be careful how things are worded!
- 2. **Don't terminate a feed if there are many negative comments.** Residents who wrote the comments will still have questions. It's best to respond with facts which helps avoid creating debate.
- 3. **Select hashtags carefully.** Many social media campaigns have taken a turn for the worse when the conversation's hashtag was commandeered by the opposing party. #choosewisely

- 4. **Beware the open-ended question.** Asking questions can mean unexpected answers. Informative posts allow for further discussion in a different setting such as at a city council or EAC meetings.
- 5. **Steer the online conversation**. It is important to have a dedicated part time staff member to monitor online issues. This will ensure that the conversation stays on track. Monitoring should commence as on-line discussions materialize, typically as soon as local media begins posting articles, and continue for a short period (approximately two months) beyond a mandatory transition or until the on-line discussions subside(budget estimate: \$5000).
- 6. **Be aware of the general emotion of residents.** If there is still some convincing and campaigning to do, it may be best to stick to social media such as website pages or newsletters.

2.5 Retailer Relations

The importance of involving the retail sector at an early stage is one of the highest priority components of a successful program launch. Sufficient quantities of appropriate clear bags in local stores where residents shop must be in place to meet the surge in demand that always occurs when a clear bag garbage program is implemented. Ensuring that stores are prepared and have sufficient stock of clear bags can avoid resident frustration due to out-of-stock situations.

The need to engage the retail establishment at both the local and corporate (head office) level is paramount and often underestimated. To simply walk in and advise the local store manager will not be enough to confirm shelf listings and product availability. The reason behind this is that most national retail banners establish store plan-o-grams (shelf listings) at a corporate level due to the fact that suppliers often pay store listing fees prior to product being made available at any local level. Not all retailers operate under these terms but many do.

While a clear bag initiative may be a new concept within a specific local jurisdiction, the concept will not be new to national or provincial corporate managers given the number of jurisdictions across Canada (mainly the Atlantic Provinces) that have previously launched these programs. In the past it was not uncommon to see local level retailers quickly sell out of stock of clear bags. Often this was due to the underestimating of consumer demand when based on historic sales within the retail location. Without a mandatory clear bag requirement, a strong buyer's demand for clear bags would not have been established in comparison to the sale of opaque plastic bags, the default bag. Additionally, many residents stock up on garbage bags during sales so home inventory is relatively high. The initial replacement of opaque bag home inventory, which is often left to the last minute by the home owner, can create a huge initial surge and subsequent retail shortages if sufficient lead time and P&E are not provided.

(a) The plan-o-gram: shelf placement of product

Shelf placement of products (also known as the plan-o-gram) is comprised of product facings or a number of individual products placed side-by-side and exposed for viewing by customers. For example, in the photograph (Photo 1), there are three



Photo 1: Example of product facings in local stores.

"facings" of Clear Bags and three "facings" of Opaque bags (double stacked). However, the amount of product behind the front facing items will vary based on shelf depth and package size. An example of three facings by ten deep would mean that a total of thirty individual unit packages were available for purchase.

While this quantity may have sufficed to address pre-program launch demand, it might be quickly consumed (within minutes) upon a program launch. Unless sufficient stock remained available to immediately replenish the shelf requirements consumers would experience an out-of-stock situation. Given the regulated requirement to use clear bags, residents would experience great frustration in trying to fulfill their obligation to purchase and utilize clear bags. This frustration would often first be directed at the retailer and then at the municipality, often expressed through letters to the local paper or via social media, on how difficult it was to find clear bags. Residents would then question the municipal wisdom to imppose such a program when the appropriate product was unavailable. Then when a resident does find available product, they may stock up on extra product (pantry load), creating an even higher demand for clear bags.

This very undesirable situation is easily avoidable with proper planning and appropriate lead-time notification. Ideally, any municipality seeking to implement such a program must provide retailers with six to eight months notification. Although this seems like an extremely long period, there are many behind-the-scene activities needed to make sufficient product available for purchase, which contributes to the ultimate success of the program rollout.

(b) Residential lead-time notification

Residents also require sufficient lead-time notification to provide them with adequate time to consume the inventory of opaque bags that they may have at home. Six months (24 weeks) notification would enable residents to use 48 bags – based on 2 bags per week. Recognizing that many retail packs containing 50 to 100 individual garbage bags are available, one can see why such lead-time notification is required simply from a consumer perspective.

(c) The official retail notification letter

Once the decision has been made to adopt clear bags, a retailer interaction strategy should begin. Although some municipalities have undertaken this task internally, others have found it extremely beneficial to seek external support through the utilization of retailer interaction consultants who have the connections to interact with retailers within the corporate head offices at a level where the plan-o-gram customization takes place. This also saves municipal time and research as the connections and avenues for communication already exist within the industry. Depending upon the size of the municipality and the number of local retail jurisdictions, the associated budget to hire a retail consultant will vary from \$5000 (small municipality of less than 25,000 residents) to \$15,000 (mid-sized municipality up to 300,000 residents) to \$25,000 for a large urban centre of greater than 300,000 residents.

The first step of retailer interaction should include the formulation of a letter of notification that the municipality is pursuing a clear bag program which will be implemented within twelve months. This notification will position local store level management with sufficient knowledge of a pending program especially for when the local media begins to cover the issue and word begins to get out. This way, when residents begin seeking out clear bags the retailers will know what is driving this demand. Of greater importance to the retailer, demand planning forecasting can then begin to ensure they scale back on their

opaque bag requirements and ramp up their clear bag requirements. At the same time, corporate (head office) management, specifically the Category Manager/Buyer for the waste category, can commence with customizing the plan-o-gram (shelf listing) for the specific retail location(s) within that jurisdiction. A COMPLETE RETAIL LETTER OF NOTIFICATION CONSISTS OF:

- 1. **Official letterhead.** To indicate the authenticity of the notice to retailers.
- 2. **The launch date of the program.** Including mandatory and voluntary dates of implementation.
- 3. **The bag specifications.** Including whether tinted bags will be banned and sizes of privacy bags (if applicable). The municipality should also provide a list of recommended bag sizes to stock.
- 4. **Recommendation of increased stock.** To impress upon retailers the importance of sufficient quantities for the increase in purchases typically seen at launch dates of other municipalities. In communities where a clear bag program is brand new, retailers should anticipate an overwhelming demand for clear bags, given every residence will require product. As a method to assist retailers to estimate demand for clear bags, they should estimate that demand and inventory requirements will be equivalent to all existing opaque plastic bag quantities.
- 5. **Contact information.** For any additional questions.

Examples of retail notification letters:

- 1. Township of the Archipelago Appendix 7D
- 2. City of Markham Appendix 11A
- 3. County of Dufferin Appendix 9D & 10D

This first step also enables the municipality to establish a retailer contact and interaction network for further discussions as the program materializes. Ideally, as the program launch date gets closer, inspections of stores for clear bag inventories and/or retailer self-reporting is useful information to share with the staff who manage the municipal information hotline so that they may direct residents to specific retailers if they are having difficulty locating clear bag supplies.

(d) In-store program promotion and signage

Retailers will often, and should be encouraged to, implement in-store signage, whether it is provided by the local municipality or customized internally. These notices provide customers with dates and details regarding the clear bag program as a reminder to purchase applicable clear bags.



Photo 2: Home Depot signage in Markham.



Photo 3: Sobeys signage in Markham.



Photo 4: Whole Foods signage in Markham.



Photo 5: Canadian Tire signage in Markham.

2.6 Private Partnerships – Plastic Bag Suppliers

Interaction with plastic bag suppliers for clear bag samples and coupons can provide the municipality with tangible promotion and educational materials for residents.

Some municipalities have found it beneficial to secure clear bag sample products for distribution to residents as part of the promotion and education campaign notwithstanding that municipal policies are often in place that prevent direct partnership relationships with private sector companies. Typically, through the release of a requests-for-proposal (RFP) or expressions-of-interest (EOI), individual companies are provided the opportunity to submit a proposal to support a program rollout.

Depending upon the complexity and customization requirements defined by the municipality, proposals from individual companies may range from the provision of complimentary sample product to a product for fee based offer.

Interaction with plastic bag suppliers for clear bag samples and coupons can provide the municipality with valuable promotion and educational materials for residents. The provision of a clear bag sample pack consisting of a limited supply of clear bags as well as a rebate discount coupon have proven very popular among municipal residents and advantageous to increasing program awareness and participation.

PHASE THREE: The Launch and Curbside Monitoring

This section describes the launch of your new program, including key considerations for success and resident participation from the beginning.

3.1 The Privacy Factor

Privacy has been identified as the number one concern of residents prior to implementation in many programs, therefore, bag in bag privacy allocations by the municipality should be explained early on to eliminate concerns. Deciding on the privacy approach that will be used within the municipality is a key component for the eventual launch of the program.

The privacy factor will often become the focal point of concern by residents and the most common issue highlighted by local media. The depth of negative reaction will become the litmus test for local politicians to gage where they stand on this issue. Although this issue often becomes the lightning rod for criticism, the perceptions of violations to residents rights and needs for privacy greatly exceed the actual extent of the issue. The inclusion of an opaque "privacy bag" does provide a confidential method to dispose of items such as medical prescriptions or devices, financial reports or personal belongings. Also, concerns of identity theft remain top of the list for residents elevating the need to address privacy issues.

Provided some provision for privacy bags is a part of the program (see below), once programs are implemented, participants soon realize that the issue is not that big of a concern (if any) and resistance dissipates very rapidly. However, this realization only occurs through experience after the launch and it remains a difficult paradigm to overcome without actually experiencing. This is one reason that pre-launch surveys on residential acceptance provide little merit over the long term typically trending at over 75% opposition to the implementation of such a program, providing a misguiding belief that this will be the general feeling after the program launch.

In today's era of social media, much of it streamed in a confidential and faceless medium, it actually takes a very small amount of opposition to generate the perception that the masses are rallying against the initiative. Privacy concerns can be addressed in a number of different ways, all of which offer effective solutions that meet residential needs. No matter which privacy method (see below) is selected for use, it must be communicated clearly, early and frequently, along with complaint statistics from other operating programs, to insure that residents are confident that privacy concerns have been researched and addressed before enforced implementation.

(a) The large separate opaque curbside bag

This option enables residents to place one opaque trash bag curbside along with the remaining clear bags. Any confidential items can be accumulated in this bag as needed. The remainder of garbage considered more benign would be placed inside clear bags.



Pros: Provides a large capacity, easy method to address privacy issues; Provides a solution for residents to use up existing supplies of opaque garbage bags.

Cons: Provides opportunity for non-compliance and loss of divertibles; Potential injury to collector not able to view contents for hazardous items; If residents typically use one bag, there will be no program change.

(b) The opaque "inner" bag inside

The most common, simple and preferred option by municipalities enables residents to place a limited number of opaque smaller bags inside the larger curbside clear bag. This enables residents to maintain limited confidentially while placing the majority of the garbage in the clear outer bag (depending upon the number of opaque smaller bags allowed).



Pros: Provides allowance for use of grocery carry out sacks as opaque bags; Provides an easy method to address privacy issues for generators of small amounts of waste who require a minimal (one) number of curbside garbage bags.

Cons: Provides opportunity for non-compliance and loss of divertibles; Open to abuse as residents exceed number of allowable inner opaque bags; Privacy bag numbers and sizes must be specified and enforced at curbside.

Key contacts:

Melissa Kovacs-Reid

Manager of Waste Services, Public Works
Department
County of Dufferin, Ontario
519-941-2816 ext. 2622
mkovacs@dufferin.ca

Mike Kearns

Manager of Public Works and Facilities
Township of Carling, Ontario
705-342-5856 ext.24
mkearns@carlingtownship.ca

(c) The Clear Bag Variance

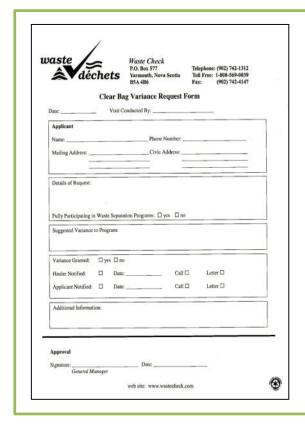
Residents are provided the opportunity to complete a form issued by the municipality requesting permission to opt out of the program. This strategy was implemented in Waste Check (Region 7 – Digby and Yarmouth Counties), Nova Scotia in 2007 when the Clear Bag Program was launched. Residents choosing to opt out of participating in the program were required to complete a clear bag variance request form issued by Waste Check, indicating the reason for an exemption. One common reason cited was for medical reasons requiring that residents having to dispose of medical or personal use items (i.e. incontinence products) that they considered private.

When such requests were approved by the local municipality, notification was provided to the hauler(s) and the addresses were recorded.

Pros: Provides allowance for a full opt out;

Provides an easy method to address privacy issues for larger generators who require more curbside garbage bags.

Cons: Provides greater opportunity for non-compliance and loss of divertibles; Open to abuse as residents move, records become outdated; Requires monitoring, enforcement and periodic checks/auditing.



Waste Check Clear Bag Variance Request Form

This form (Appendix 6D) was available in Region 7 in Nova Scotia in 2007 to allow residents to opt out of the clear bag program for reasons detailed within the form. This permits the opportunity for special cases to be considered by the municipality and approved if deemed appropriate.

Key Contact:

Amy Hillyard
Waste Reduction Coordinator, Waste Check
Region 7 – Digby and Yarmouth Counties,
Nova Scotia
902-742-1312

3.2 Program launch – Phased Enforcement

(a) Stage One - Launch Date: First Collection Cycle

The day has now arrived when all residents are now expected to use clear bags, except for any "privacy" bag exemptions that may have been built into the program. All messaging to date has maintained an explicit message that non-compliant set-out *could* result in material not being collected from this day forward.

At this point, the negative program pressure will be extremely high, likely at its peak, with a high number of residential complaint calls to the customer information line, as well as to Council members. The potential for $5-10\,\%$ of residents to call into the customer service line is not unrealistic or unexpected.

Strategically, it remains imperative for the municipality to remain ahead of the curve with communication to control the messaging. Do not lose sight of the fact that although the complaint calls may appear overwhelming, the majority of residents are quietly supporting the clear bag program. Residents who support the transition to a clear bag program should also be encouraged to write to their local paper, call their local Councillor or post support on social media as one positive comment has the ability to diffuse a much greater number of negative comments. Often those that are initially most outspoken and critical of the program become the best ambassadors.

Soft Enforcement Phase

Upon launch, a fair expectation for compliance is in the range of 60 - 70% and it is imperative that this target is met. A level below this will require immediate efforts to have all residents participate, for instance, enhancing the education and awareness strategy with public notices including temporary street signs, local newspaper bulletins, social media, website postings and staff outreach (curbside).

At this early implementation stage, residents will be watching their neighbours. Those that comply will be watching those that do not and all will be watching the collector to see what happens. It is therefore critical that the conformers be recognized and acknowledged for their immediate participation to maintain their support and continued use of clear bags. A simple and cost effective strategy to address this is through the provision of a sticker that offers appreciation to those that have done the right thing. This simple and effective gesture lets residents know that their actions are not going unnoticed. Although the vast majority of these people likely endorse the program on the positive merits of increased collector safety, removal of hazardous items and increased diversion, this approach will also address the fraction of the community that are doing this out of fear of non-compliance enforcement.

Curbside acknowledgement – The GOLD Star

An example of a curbside sticker acknowledgement outreach strategy is shown with the City of Markham. Upon launch of their program (April 30th, 2013), the City utilized six college co-op students to walk the collection routes (more information available in Markham Case study – Appendix I). The students walked each collection route in advance of the collector and affixed GOLD star stickers to resident's green bin or blue box if they had correctly set out garbage in clear bags.

This proved to be a highly cost effective strategy with individual sticker costs at less than \$0.03 each, enabling Markham to produce over 80,000 stickers for less than \$2500 (Appendix 3, Photo 11). An important note: ensure that all stickers are produced with non-permanent (but waterproof) adhesive glue so that residents wishing to remove any of these stickers may easily do so.

The sticker reward proved sufficient to meet residents' acknowledgement expectations and reinforced their future participation in the program. The GOLD star stickers proved so popular that residents took great pride in displaying their commitment to the program and raised concern that others may actually try to take their sticker.

At the same time, non-conformers (those that did not set clear bags to the curb) continued to receive garbage collection in their traditional manner. However, City officials and collectors left behind a sticker notification in the form of an orange "Oops!" sticker to advise residents of the program requirements. Given that the garbage was collected, the sticker was left on a blue box or green bin or if no such containers were left at the curb, the information was left in the resident's mailbox or door. This soft enforcement enabled the City to impress upon the resident that their method of set-out was being monitored and the resident risked not having their garbage collected if not placed in a clear bag.



During the first week of the program, staff were able to cover approximately 35% of the entire route prior to the garbage being collected from the curb. During the second cycle (two weeks later), staff commenced monitoring at the point not covered during the first week to enable the continuation of a comprehensive outreach strategy to each household. Ultimately, it took staff three collection cycles (six weeks) to cover all 89,000 Markham households, based on three teams of two students monitoring the streets.

Stay ahead of negative messaging

Regardless of how high compliance is in initial stages, negative messages projected through many types of media have the potential to overshadow the fact that the majority of residents are supportive and participating. Experience in most other program rollouts have illustrated that opposition is short lived, fleeting and dissipates once residents start participating and realize that their concerns are not warranted. See the section on Social Media (Section 2.4) for tips on continuing positive messaging after the launch.

Following each collection cycle, staff are able to quantify participation and compliance levels and gage whether further outreach efforts are required. This monitoring and measurement can be done through curbside audits, ride along temporary staff, truck mounted video camera recording and/or collection contractor rejection records.

(b) Stage Two – Second Collection Cycle: Curbside Infraction



During the first week of collection, program administrators should anticipate leaving first infraction notice stickers at approximately 40% of residences. However, by the second collection cycle, the incidences of non-compliance should decrease to less than 10%.

During this second collection period, conforming residents continued to receive GOLD star recognition, specifically those residents now using clear bags without evidence of an acknowledgement sticker on any of their containers.

However, non-conforming residents are elevated to a further level of notification through the provision of a red "Oops!" Reminder

#2 sticker affixed to one rejected non-compliant opaque bag, while the remainder are collected. This situation requires that residents address appropriate set-out requirements with one bag, but provides a final soft sell notification that has still enabled them to have the remainder of their garbage collected.

This strategy assists to reinforce to those in compliance that non-compliance will not be tolerated so as to not risk losing the positive momentum and participation by those who have conformed while also minimizing the negative burden on those that have yet to buy into the program and participate.

(c) Stage Three – Third Collection Cycle: Curbside Infraction

By the third collection cycle (third week under weekly collection/sixth week under bi-weekly collection), the incidence of non-conformance should now comprise less than 5% of overall set-outs. Participating residents continue to receive GOLD star notifications – specifically those that do not have such stickers on other bins at the curb.

At this stage, participation transitions to a fully mandatory requirement for the use of clear plastic bags. It is imperative at this stage that the collection crew never deviates from this requirement and never collects non-compliant bags, beyond what is allowed as a privacy bag. (See Section 3.2 on how to address collector compliance techniques).

All non-compliant bags are tagged with a white "Oops!" non-compliance sticker. Note: A white sticker was selected as this colour stands out the most on opaque (black) garbage bags.



Program Adherence - Monitoring the Collection Crews

As a measure to assess collection crew adherence to program parameters, municipal officials may also place non-compliant opaque bags at specific addresses, returning after the collection vehicle has passed to observe whether material was collected or left behind with appropriate messaging. Informing the collection crews that these measures are being implemented will greatly increase collector adherence to program requirements.

Upon mandatory requirement for use of clear bags, it remains imperative that the collection crews leave all non-compliant material excluding privacy bag(s) exemptions.

Municipal officials may also opt for undertaking spot check audits at transfer stations to assess the vehicle contents when unloading from residential collection. Municipalities have also used a fine system with the collection contractor on a per non-compliant bag rate (i.e. \$1 per bag found in the load), provided that the existing contract or negotiated terms permit this type of liquidated damage assessment.

Waste collection contractors can also be provided with additional yellow "Oops!" stickers for use under a wider variety of non-compliance issues, beyond simply whether the garbage was placed in a clear bag or not. This allows for a customized message to be conveyed to individual households as necessary (Appendix 14A).

PHASE FOUR: The Results

This section describes what can be expected in terms of the results of your program, how to acknowledge important players and how to measure your success.

4.1 Measuring program progress

Within six to twelve months post launch, municipalities will have sufficient waste stream tonnage data to quantify the shifts in material collection streams. This includes changes in recycling and organics rates as well as diversion of other materials such as electronics and hazardous waste. High level diversion rate comparisons between pre and post program launch can be made and promoted to the community (Example: Markham, Mission Green Issue 11 – Fall/Winter 2014, Appendix 16A). This also provides for an opportunity to further reinforce key messaging and program parameter information and give additional guidance and direction to residents as to how best to address various components of the program and their waste disposal needs.

4.2 How to measure success

There are many ways to measure the success of your program in order to have findings that can be used for communication with residents, council and the media. Depending on the type of platform for this information, it may be of interest to use quantitative or qualitative measures of program success. The lists below provide some suggestions for using the potential types of data available:

Quantitative:

- How have the tonnages of divertible materials changed since the program began?
- Is there an increase in capture or tonnage of hazardous or electronic materials?
- Survey could also be conducted post launch to see if resident opinions have changed.
- Curbside participation audits to confirm high levels of community acceptance.
- Date live help line shut down due to lack of use.
- Numbers of complaints shown to be diminishing.

Qualitative:

- Has the general emotion towards the program shifted (on social media, in the news, etc.)?
- Are there anecdotal successes, for instance with the rewards program for active participants?
- Resident stories illustrating why "It's better than the old way"

All information and lessons learned from the start-up of your program will prove valuable as the program is continually improved over time. Keeping a record of changes along the way can provide data to back your findings and continue promoting the success of your program.

Appendix I: Ontario Case Studies

The following sections will detail the process through which Ontario municipalities have implemented clear bag garbage programs. Information such as promotional materials used, council deliberations and results of the programs are provided. The following municipalities are included:

- Municipality of West Grey
- City of Markham
- County of Dufferin
- Town of Aurora
- Township of McMurrich/Monteith
- City of Goderich
- Township of Carling
- Township of the Archipelago

The comparison table on the following page presents an overview of select programs for reference in terms of differing approaches and strategies.

Table 3: Municipal Case Study Comparison				
Component	City of Markham	County of Dufferin	Township of McMurrich / Monteith	
Program type	Curbside collection	Curbside collection	Drop-off (depot / landfill)	
# of Single Family Households	83,710	21,257	787 permanent / 750 seasonal	
P&E Budget (total)	\$49,091	\$94,500	\$3,163	
Promotion & Education Budget (per household)	\$0.59	\$4.45 (covers all aspects of waste management program - not just clear bag refuse)	\$0.48	
Enforcement costs (<6 months)	N/A	N/A	N/A	
Method of Enforcement	Garbage Bag Sticker Campaign First 8 weeks - curbside monitoring (4 students). Afterwards, contractor monitored.	Upon launch, contractor monitored & stickered non- compliant bags	Municipal staff visually assess each bag of garbage brought to landfill.	
Contamination threshold	15% divertables within garbage.	5% divertables within garbage.	15% divertables within garbage.	
% contamination	<15%	<15%	<15%	
% bags rejected	< 1%	<1%	<1%	
Allowance for privacy bags	Unlimited	Yes (2 per outer bag or container). Each no larger than 20 x 22 inches in size.	No	
Privacy bag method	Opaque (small) bag(s) placed in large clear outer bag.		No	
Bag limits	No	One bag (no tag). Additional bags require tags.	No	
By-law revisions	Post program implementation	Yes	Yes	
Change in garbage tonnage (year 1)	Reduction from 21,126 tonnes (2012) to 16,497 tonnes (2014) - reduction of 4,629 tonnes) 22% reduction in garbage tonnage.	-	Increase in garbage from 324 tonnes (2011) to 329 tonnes (2012), however, number of households increased by 31 year over year.	
WSIB claims	N/A	N/A	N/A	

Case Study – Municipality of West Grey

Quick connect:

Ken Gould
Manager of Public Works
Municipality of West Grey, Ontario
519-369-2200 ext. 227
kgould@westgrey.com

On September 1st, 2009, the Municipality of West Grey (population 13,000, located in western Ontario) launched a voluntary curbside and depot clear bag garbage program. Three months later, on January 1st, 2010, this program became mandatory for all 5,500 residences. The clear bag program was implemented to enhance e-waste, Styrofoam and recycling programs. Authority to proceed with this program was granted on May 4th, 2009 through Council resolution # 168 – 09.

To address privacy issues, residents were allowed to place one small coloured (opaque) bag within the clear bag to conceal any personal products. Each clear garbage bag also required a garbage tag to be affixed. The municipality communicated the program changes in notices and reminders to residents (Appendix 1A & 2A). At the time of implementation, the municipality had a diversion rate of 60%. On January 21st, 2010, a media release (Appendix 3A) was issued to remind residents of this new mandatory program, including the program parameters.

By-law # 85 - 2011

Under the jurisdiction of By-law # 85 – 2011, which regulates the handling and collection of garbage, rubbish and other waste material, the municipality maintains the authority over waste management collection. This includes the frequency and procedures of collection, specifically in clear or transparent bags with a maximum size of 26" x 36" and weight of 40 pound with bag tags attached. Residents are also provided the opportunity to place clear bags inside receptacles or containers.

Any person found guilty of an infraction or any provisions of this by-law, shall on conviction, pay a fine or penalty not exceeding five thousand (\$5000) exclusive of costs, for each and every office.

Retailer and residential notifications and reminders

A retail notification strategy was implemented and a letter to area retailers was circulated in May 2009 advising local retailers of this upcoming program requesting that stores stock appropriate clear bags. A similar reminder notice was circulated via general mail to residents of West Grey in December 2009.



Notice Residents of West Grey E-Waste Program

The Council of West Grey has approved a By-Law to prohibit the placement of E-Waste materials into West Grey's Landfill Sites.

As a result an E-Waste program has been implemented effective May 21st, 2009. All E-Waste materials will be accepted at the Durham Landfill Site in a designated area only; at a cost of \$2.00 each.

A listing of the materials is provided on the flip side of this flyer. It is also available on the West Grey website www.westgrey.com. E-Waste materials will be accepted the same day as the Styrofoam program. The next scheduled event day is May 30th, 2009 and continues the last Saturday of each month.



Clear Bag Garbage System

To promote E-Waste, Styrofoam and Recycling Programs,
The Municipality of West Grey is implementing a new program
starting September 1st, 2009 and becoming mandatory January 1st, 2010.
To make garbage visible, all garbage must by bagged in <u>clear</u> bags with a 40lb. limit.
One smaller coloured bag may be used to conceal
any personnel products within the bag.
A West Grey garbage tag must be attached to each bag.



Recycling

If using bags (clear or blue) for recycling materials make sure contents for co-mingle (cans, plastic & glass) are kept separate from fiber (paper, boxboard and cardboard). Recycling materials will not be accepted at curbside or at the landfill site in dark bags.

Contents must be visible to ensure they are recycling.

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"Remember to have your garbage & recycling contents at the curb at 7:00 a.m.



Residents of West Grey

"Reminder"

Clear Bag Garbage System

Effective January 1st, 2010 all garbage must be bagged in clear bags with a 40lb. limit.

- . If using smaller clear bags within your household, they are to be placed within the larger clear bag.
- If not using smaller clear bags the contents will have to be dumped into the large clear bag.
- If using a garbage can, contents must also be inside a large clear bag.
- Only one small coloured bag (20" x 22") may be used to conceal any personnel items within the bag.
- · A West Grey garbage tag must be attached to the top of each bag.
- Clear bags containing multiple coloured bags; recycling; e-waste or hazardous waste will be left at the curb.
- · Please note if taking the garbage to the landfill site it must also be in a clear bag.

The Waste Management and Environmental Committee would like to update the residents of the statistics of materials collected and diverted from the West Grey landfill sites.

Styrofoam Program

The program started last December of 2008. To date approximately 160 cubic yards has been diverted from our landfill sites. In terms of volume this is a substantial amount of material that is not taking up space in our sites, hence extending the site life.

E-Waste Program

The program started May of 2009. To date 21 ton (43,294lbs.) has been collected and delivered to the Stratford E-Waste Facility.

Tire Program

This program launched September 1st, 2009.

To date 8,215 tires have been collected at the 3 landfill sites.

The Ontario Stewardship program covers the collection, transportation and recycling of the tires.

All information pertaining to these programs is available on the West Grey website www.westgrey.com.

Durham New Landfill Hours - Effective January 1st, 2010

Hours of Operation: Thursday & Friday 8:00 a.m. to 5:00 p.m. Saturday 8:00 a.m. to 4:00 p.m. All other days – closed.

This is to inform the public with the upcoming holiday season, there is no change to the regular scheduled pickup for garbage and recycling. The landfill sites will be closed December 26th, 2009, which is the last Saturday of the month, so the alternate day for Styrofoam and E-waste materials to be taken to the Durham Landfill site will be January 2nd, 2010.

The Council of West Grey would like to thank the residents of West Grey for their continued support and cooperation with these new initiatives to persevere to a "Greener Community".



The Corporation of the Municipality of West Grey

402813 Grey Road #4, R.R.#2, Durham, Ontario N0G 1R0

MEDIA RELEASE

Let's All Pitch In..... Garbage Bags – Clear or Transparent

West Grey, January 21, 2010- For Immediate Release

In an effort to promote and encourage environmental stewardship, and extend the landfill site life, the Municipality of West Grey has implemented a new garbage bag program....to make garbage visible, all garbage must be bagged in clear or transparent (ie. colour tinted bags) garbage bags with a 40lb. limit. The transparent bag is a new addition to the garbage bag program. One smaller coloured bag may be used to conceal any personnel products within the clear or transparent bag. Also, a West Grey garbage tag must be attached to the top of each garbage bag.

"I am always concerned with how change will be received. Council is encouraged by the acceptance of the goal that we are striving to attain with our waste disposal," said Mayor Kevin Eccles. "Here's hoping that this small change in policy will make the system even more successful," said Mayor Eccles.

If your preference is to use a garbage can, the contents must also be inside a large clear or transparent bag. Garbage taken to a West Grey landfill site must also be in a clear or transparent bag.

"The Municipality of West Grey wishes to thank the public for their co-operation with this new clear / transparent bag program. We would also like to extend thanks to the retailers for supplying these bags to the consumers," said Ken Gould, Public Works Manager.

The Municipality of West Grey has an obligation to meet diversion rates from Waste Diversion Ontario and this new garbage bag program will assist West Grey in extending the life of the landfill sites.

-30-

Contact: Kevin Eccles Mayor The Municipality of West Grey 519-799-5476 or 519-369-2200

Ken Gould Public Works Manager The Municipality of West Grey 519-369-2200, ext. 227

Case Study – City of Markham

Quick connect:

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Environment and Waste Management
City of Markham, Ontario
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CMarsales@markham.ca

In 2007, Markham received Effectiveness & Efficiency funding to undertake a Clear Garbage Bag Pilot (Project #285). The goal of this project was to test the use of clear garbage bags as a mechanism to increase diversion by optimizing blue box capture rates. The pilot area included 700 households from two neighbourhoods (Swan Lake Village and Johnsview Village) over a three month period (October 1st – December 31st, 2007).

Results of the pilot project were mixed given that no noticeable changes were observed in recycling capture rates from the baseline to the implementation of the project. However, it was anticipated that if a larger sampling was conducted over a longer period of time, meaningful quantitative data would have been generated. Also, for the set-out data results, if data had been collected within a shorter seasonal timeframe (same season), seasonal variables would have been minimized.

Residential Pilot Survey Results

From a residential acceptability point, the satisfaction survey feedback indicated that residents did not have as much of a concern about privacy when using clear bags as originally anticipated. Note that residents were provided the option to place clear bags in garbage cans and use an unlimited quantity of small opaque shopping bags inside their clear garbage bags. Residents did indicate that they became inherently more aware of the items that they were including in their waste bag.

Advantages of the clear bag program were that there was no impact on the current collection program and the clear bags were public awareness tools for residences and an opportunity to reduce the instances of hazardous waste, syringes, smoldering ashes and glass shards entering the curbside garbage bag.





Photo 6: Set out of materials during the Markham Clear Bag Pilot Project (2007).

GARBAGE COLLECTION – A Dangerous Job



A hand injury sustained by a Miller Waste collector while picking up a garbage bag filled with broken glass.

For most of us, the workplace can be stressful, but hardly life-threatening. But stress can take on a whole new meaning for workers, who literally risk their lives each day collecting your garbage. When garbage collectors pick up your waste, they risk traffic accidents, serious injuries from needles and sharp objects, and explosions of hazardous materials. It is not surprising that garbage collection is now one of the most dangerous jobs in Canada.

According to a study of workers' compensation claims by the University of Miami and the Florida Center for Solid and Hazardous Waste Management, garbage collection is now riskier than being an airplane pilot or taxi driver. The injury rate for a garbage collector is five to seven times more than the average worker, with 52.7 injuries per 100 workers. Many of the injuries are back injuries and accidents involving impatient drivers who pass stopped collection vehicles and hit the collector.

Markham's waste contractor, Miller Waste, requires its collectors to attend frequent safety training sessions to minimize the risk of injury. Unfortunately, the public often

Mich produ mater

▲ Appendix 4A: Markham Mission Green Newsletter, Issue 4 - April 2006

Health and safety

Markham officials acknowledged that the potential health and safety benefits to collectors from using clear bags compensated for the extra communication that may have been required to launch the program. Markham further supported clear garbage bags because of the opportunity they offer to collectors to conduct effective curbside enforcement of the waste management program.

The roadmap to 80% diversion

In 2011, Markham developed a Waste Diversion Sub-Committee to develop a package of program changes and improvements designed to provide a roadmap to 80% diversion. A strategy entitled "The Best of the Best – Markham's Roadmap to 80% Diversion" was developed around four key principles – collection changes, zero waste, expanded diversion opportunities and improved services and outlined ten initiatives and programs to form the basis of Markham's three year plan to achieve 80% diversion by 2014.

These initiatives included:

- 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 School Program;
- 5. Establishing a 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 and Education.

Justification of the program

The use of clear bags for garbage was intentionally not highlighted as a primary program change, but rather a secondary driver to the other initiatives. The rationale was to draw attention to the many other initiatives being implemented to assist with increasing diversion, with the added benefit of worker safety with clear bags. This strategy served to secure public support with the rationalization of the importance of protecting the collector from injury and also removing the hazardous materials from the waste stream.

On April 30th, 2013, The City of Markham launched a new curbside waste collection program. The introduction of the requirement to use a clear bag for garbage was considered the cornerstone of the new initiatives. The primary rationale provided to residents for the shift from opaque (black) to transparent (clear) garbage bags was to reduce collection worker injuries and remove hazardous material from the garbage stream prior to it going to incineration.

THE PROPER WAY TO DISPOSE OF BROKEN GLASS



A shard of glass protruding from an opaque garbage bag can cause serious injury to collectors. One option for disposal of broken glass and ceramics is to instruct residents to wrap the pieces in newspaper and place them in a closed and labeled box.

We Need Your help! New Garbage Bag Requirements

Starting April 30th, 2013 – No more tags or 3 bag limit! Residents can place out an unlimited amount of **non-recyclable** garbage in clear garbage bags every other week. Concerned about privacy?

- Tear or shred confidential papers/bills and place in Green Bin.
- Use a small opaque privacy bag in the clear garbage bag.
- Place the clear bag in a garbage can.

WHY? Markham together with York Region is shifting from land-filling garbage to processing garbage for energy recovery at facilities located in other communities. Clean garbage means clean fuel – free of hazardous and toxic materials. Using clear bags also keeps our collectors safe from potential injury. Clear bags can also be used for overflow organics placed **beside** your Green Bin.

No More Limits in Markham – Unlimited Amounts of Properly Separated Material Can Be Placed at the Curb!

▲ Appendix 5A: Markham communication tools regarding clear bag program ▼



One method used to communicate information to residents was via "Mission Green", the Markham Environmental Services based newsletter launched in 2005. In early Spring 2013, each of Markham's 89,000 single family residences received the Mission Green (Spring 2013) newsletter highlighting this exciting new program under the header "New Diversion Strategy: Small Changes – Big Benefits".





The New Economy - Green Jobs and Recycling

A recent study on the economic benefits of recycling in Ontario indicated that for every 1,000 tonnes recycled, seven jobs are created. Recycling is now a worldwide valuable enterprise. Not recycling recreasents an economic loss of recurses and economic opportunity. By not recycling all we can, we fail to integrate recovered resources into new products and packaging that can be used again and again.

At a time when Ontaria needs new strategies to create good jobs and confront climate change, increased recycling recreaents an opportunity to build a stronger, more efficient economy. Mayor Frank Sparo till speaks to the advantages of capturing green technology opportunities, the enhancement of our natural environment and improving the quality of living in our neighbourhoods. "The proud that Council approved a new aggressive diversion target of 80%. As a community, were making great progress on our sustainability goals, as outlined last year in Greenprint, Markham's sustainability plan."

Markham's success in waste diversion has resulted in nine Recycling Council of Ontario (RCO) awards in the past seven years. We've won Platinum and Gold Awards as a top recycling community, and Markham is one of a handt, for municipalities to win multiple Platinum Awards — Ontario's highest honour.

In 2013, Markham Council is once again leading the way with the approval of 10 new diversion initiatives. The benning of electronics and batteries from disposal, clear bags for garbage and our Zero-Waste for Schools program, will position Markham as a world leader.

But it's the day-to-day efforts and small actions we each take that really make a difference. Seconding an even more sustainable community benefits our environment and the economy – today and for denerations to come.

New Diversion Strategy: Small Changes - Big Benefits

Recycling in Markham is interwoven into the fabric of what makes Markham, Markham, Markham's innovative 2005 Mission Green program made it easy and convenient for all residents to recycle and compost. Municipal diversion rose from 36% to 72% and subsequently, all York municipalities followed Markham's lead. There is much to be groud of, but more to be done.

In 2012, Markham's Diversion Committee, Chaired by Deputy Mayor Jack Heath, released "The Best of the Itest" Markham's Road Map to 80% Diversion: which was approved by Council in October 2012.

One of the cornerstones of the new initiatives is a 'clear bag program' requiring residents to use clear bags for general in preparation for the transition from land filling waste to incineration. Clear bags will help collectors ensure Markham's garbage does not contain hazardous.

materials, recyclables, cloatranias, or organios. C cer pags w Treguire residents that do not recycle to start. The current bi-weekly 0 bag limit has been eliminated and replaced by an unlimited placer bag colley to give residents added fex billiny. To endourage

To encourage recycling in schools, Markham's Zero Waste for Schools program will partner with and support schools that want green bins and blue boxes in their classrooms. To date, 10 Markham schools have adopted Zero Waste practices and aphieved over 86% diversion. More importantly, future generations will be learning to properly sort recyclables. Additional changes include mandatory recycling for aparaments and extending leaf and yard material collection by 2 weeks to December 15.

These are small changes that will deliver big benefits to our community. The spirit of the clear bag program goes beyond accressing disposal habits and encourages waste prevention says Deputy Mayor and Beginnal Councillor Jack Heath. "It is less about what is placed into the clear bag; and more about what is less obtuing that is done by everyone can only be a good thing."



▲ Appendix 6A: Markham Mission Green, Issue 101 – Spring 2013



▲ Appendix 7A: Markham Advertisement – Green Bin Tips

Although a transition to clear bags is often promoted as an initiative to increase the diversion of waste from landfill, city officials were very clear in promoting that the primary motivator behind this program transition was to help collectors to ensure that Markham's garbage does not contain hazardous materials, recyclables, electronics or organics that would be disposed of at the new energy from waste (EFS) facility that Markham would now be sending their waste to in Durham Region.



▲ Appendix 8A: Markham Promotional Flyer – Small Change, Big Benefit!

Privacy issues - # 1 concern for residents

Having undertaken a clear bag pilot project in 2008, officials had identified that the main concern of residents was the issue of privacy. People were concerned about others being able to see 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 "privacy" bag(s) and/or allow residents to place their clear bag into a solid garbage can for added privacy.



▲ Appendix 9A: Privacy tips for the new clear bag program



▲ Appendix 10A: Markham educational ads – How to set out garbage in a clear bag

Retail availability of clear plastic bags – # 2 residential concern

The second most common concern was insuring a sufficient supply of clear bags at local retail locations. Retailers must be provided at least six months lead time notification to enable that store plan-ograms are altered accordingly and an adequate supply of clear bags are made available.

To address this issue, the city hired a retail consultant with the capability to interact with both local and head office retail officials to advise of the importance in resolving this issue in a timely manner. An official retail letter of notification was provided to retailers months in advance of the program implementation.



January 15th, 2013

A Special Message to all Markham Area Retailers from the Markham Waste Management Dept.,

Re: Retail availability of Clear Plastic Bags to Markham Residents.

As the City of Markham has a long standing reputation with regards to developing and implementing leading programs to maximize the diversion of residential solid waste from landfill, we are about to embark on our newest program and we request your support to make this happen.

On April 30th, 2013, all Markham residents will be required to use clear plastic bags (rather than opaque) to place their solid waste at the curbside for municipal pick-up. Residents of apartment buildings will also be required to use clear bags. This program is being implemented to enable us to screen the waste being collected to minimize the inclusion of potentially environmentally hazardous items such as batteries and chemical products.

One caveat to address any potential concerns related to privacy concerns is that we will allow residents to place one smaller kitchen catcher sized "opaque" bag of waste inside the larger clear bags placed at the curb. All other internal bags will have to be "clear".

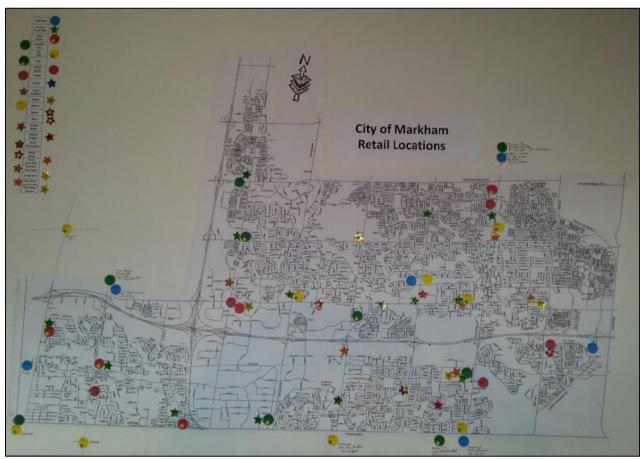
We request your assistance in working with your suppliers to list the appropriate plastic bags by mid April 2013 as residents will begin receiving our program promotional support information directing them to use clear bags by April 30th. We are already receiving calls from residents seeking such product as our 2013 Collection Calendar has recently been distributed to residences and this program is identified. We anticipate that you will experience a substantial increase in demand for these products as the program rolls out and highly recommend that you also include end-aisle displays and extra facings to meet the needs of Markham residents and not run out of stock.

We recommend that your on-shelf garbage bag offering include:

- Large clear garbage bags;
- Small clear kitchen-catcher bags;
- Small opaque kitchen-catcher bags;
- Continued supply of opaque garbage bags (fewer facings) commercial clients.

Should you have any questions pertaining to this program, please contact us. Sincerely,

Claudia Marsales Senior Manager – Solid Waste Department 905-477-7000, ext: 3560



▲ Appendix 12A: Markham retailer location outreach map used during the retailer notification stage

In addition, local retailers were visited on numerous occasions both pre and post program launch to assess and document the availability of clear bags. To address the initial onslaught of demand right around the launch date, many retailers supplemented on-shelf product with end-aisle displays, dump bins and floor pallets which proved essential to meeting demand. Often residents would purchase numerous retail packages to "pantry load" their supply at home, increasing demand even further.



Photo 7: Costco pallet load.



Photo 8: Loblaws dump bins.



Photo 9: Longo`s shelf product.



Photo 10: No Frills shelf product.

Using up existing supply of opaque bags - # 3 residential concern

Sufficient lead-time notification to residents (ideally six to eight months) is also very important to enable residents to consume their already purchased supply of opaque bags, especially considering that many consumers prefer to purchase large bulk packs of garbage bags (often containing over 100 bags). This is extremely critical in situations where a transition to clear bags does not provide the option for residents to continue to use a limited number of full size curbside opaque bags as privacy bags.



▲ Appendix 13A: Mission Green – Issue 101, Spring 2013 insert

Curbside enforcement strategy

The initial launch of the clear bag program on April 30th, 2013 provided a phased in soft (voluntary) launch to provide residents with a limited period of time to transition to using clear bags. This is a very delicate situation given the importance of accomplishing early stage buy in and participation by residents. Ideally, a target of at least 60-75% participation upon launch should be a minimum target level. The key is to allow flexibility to notify and educate non-conformers in a positive way, to not alienate them and also continue to maintain support by residents who immediately transitioned to clear bags.

Immediately upon launch (April 30th) Markham staff undertook extensive curbside participation audits by walking the streets in tandem with the waste collection contractor to observe set-outs. Those residents that had made the transition to clear bags were acknowledged and rewarded with a "gold star" that was affixed to their blue box or green bin. The impact was immediate and highly successful, to the point where accusations were made by some residents that a neighbour had taken their gold star.

Recognize and acknowledge those that make the switch to clear bags. Encouragement will motivate those that have not yet transitioned, based on friendly neighbourhood competition.



Photo 11: Residential gold star recognition for participating residents.

Over 80,000 star stickers were distributed throughout the community. For the majority of the early converters, this was all the motivation that they required to buy in to the program and participate. From a municipal standpoint, it is important not allocate excessive resources or funds towards this segment of the community but rather concentrate on intensifying efforts to persuade the non-conformers to make the switch to clear bags.

The non-conformers at launch – First Oops reminder

Residents who failed to place clear bags at the curb upon the program launch (day one) did continue to receive collection of their non-compliant (opaque) bags. However, they were left an orange "Oops!" notification sticker affixed to their blue box or green bin if either was set out, or notification at their door. This information was left by Markham staff rather than the waste collector. This provided residents with a grace period to transition to clear bags with a friendly reminder.





The non-conformer – second time ground

Upon the second garbage collection cycle two weeks later (week of May 14th), residents who continued to use non-compliant (opaque) bags were left with a red "Oops!" sticker affixed to one opaque bag, while the remainder of the bags were collected. If only one bag was placed at the curb, it was collected and the sticker was affixed to the blue box or green bin, or at the door if no containers were left out.

Mandatory enforcement of clear bags at the curb – six weeks post launch

On the third collection cycle, the program transitioned to a mandatory requirement that clear bags be used. Any opaque bags placed curbside were affixed with a white "Oops!" sticker and left behind. The colour white was chosen as the sticker was easily distinguished and highly visible on an opaque (black) bag.



Waste collection contractors were also provided with additional yellow "Oops!" stickers for use under a wider variety of non-compliance issues, beyond simply whether the garbage was placed in a clear bag or not. This allowed for a customized message to be conveyed to individual households as necessary.



▲ Appendix 14A: Broad based "Oops!" sticker used for a wider variety of reasons

Enforcement considerations

During the initial program implementation – specifically the first twelve weeks (May through July), City officials (summer students) maintained primary responsibility to undertake curbside assessment and determination as to the acceptability of the garbage placed curbside, whether it was the correct clear bag and/or the amount of "divertible" material within each bag. This was fulfilled through staff walking collection routes in advance of the collector (contractor) removing material. Non-compliant set-outs were flagged via sticker system (see previous section).

In addition, collection contractors were provided verbal guidance to follow similar actions in areas where City officials had not first undertaken assessments, simply due to funding constraints that prohibited the hiring of sufficient numbers of students to adequately cover all routes simultaneously. However, as a quality control monitoring model, City officials did document random non-compliance set-outs in random routes to cross check after the collectors had passed by to ensure that the set-out was addressed appropriately. Also, City officials undertook random spot checks of the waste material being dumped at the transfer station with the ability to fine the collector \$1 per bag for every non-compliant opaque bag collected from the routes. Although the fine possibility was there, no punitive penalties were ever issued.

Collection contractors were instructed to visually assess the contents of the bags at their own discretion for non-compliance (i.e. inclusion of too much divertible recyclable or organic material). While the guideline of 15% divertibles was the official upper threshold level, in reality it came down to a judgement call by the collector to assess for blatant disregard for attempts to divert material. For example, a set-out absent of segregated recycle material or a green bin (food organics) and only clear bag(s) of commingled material would raise a flag that the homeowner is not likely participating in diversion programs. However, a situation where it is obvious that the homeowner has taken efforts to divert material to recycling and/or organics but a small amount of divertible material remains visible in the clear bag would be assessed as compliant.

The neighbour factor – social obedience

The risk to residents of being identified as non-compliant in a manner visible to neighbours, through the Oops sticker process, proved to be a very important motivator for residents to conform early on. Few want to risk being identified as not conforming to the program rules, which greatly contributed to a very rapid transition to over 98% compliance within the first two months of the clear bag program launch. Initial opposition evaporated almost immediately as residents realized that this transition really didn't change things in a drastic manner for them.

Community outreach, promotion and education strategies



Photo 12: Collection vehicles became billboards, communicating the clear bag program throughout Markham.

Sharing the results with the community

Within twelve weeks of launching the clear bag program, Markham residents surpassed their new 80% curbside diversion target, rising from 71% (2013) to 81% (2014) with nearly 100 % participation.



Photo 13: Diversion scale at a community event.

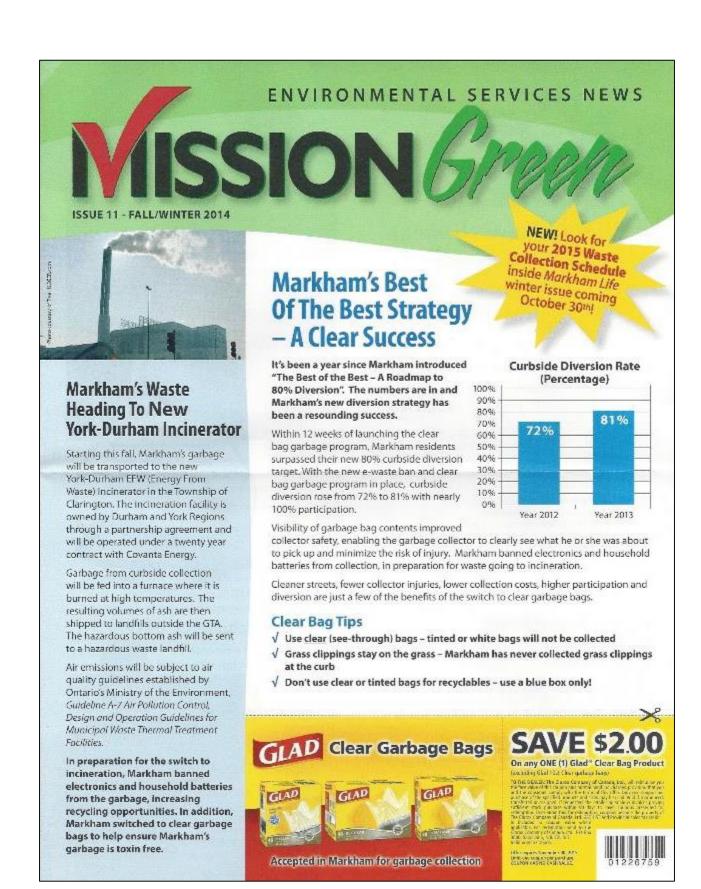


Photo 14: Tonnage by category at a community event.

Visibility of garbage bag contents improved collector safety, enabling the garbage collector to clearly see what he or she was about to pick up and minimize the risk of injury. Cleaner streets, fewer collection injuries, lower disposal costs, higher participation and diversion are just a few of the benefits of the switch to clear garbage bags in Markham. Achievements were shared with Markham residents through "Mission Green" in the Fall of 2014.



▲ Appendix 15A: "Markham Clear Bag Program Achievements" Media Event, Sept. 2014



▲ Appendix 16A: Markham Mission Green - Issue 11 - Fall / Winter 2014

City of Markham Diversion Achievements

Prior to the implementation of the clear bag program, the last full calendar year (2012) saw an overall diversion rate of approximately 74% achieved in Markham. During 2013, the transition year whereby the clear bag program was in place for only eight of the twelve months (April – Dec.) the diversion rate increased by 5% to 79%. In 2014, the first full year under a clear bag program, the overall waste diversion rate was 80%, an overall increase of 6%. Additional diversion was achieved through a separate e-waste program which diverted approximately 60 additional tonnes of e-waste in 2014, up from 19.5 tonnes in 2013.

Tonnage (tonnes)	T	or	nnage	e (to	nnes)
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Year	2012	2013	2014
Garbage	21,160	16,945	16,497
Green Bin	27,719	29,182	29,615
Blue Box	22,578	22,936	23,097
GAP - recycling	23,819	24,817	25,371
Yard Material	9,735	10,370	11,865
Total *	82,433	81,314	83,348

^{*} Exclude Markham Blue Box tonnage (used GAP – General Accepted Principles)

Percentage (%)

Year	2012	2013	2014
Garbage	26%	21%	20%
Green Bin	34%	36%	36%
Blue Box *			
GAP - recycling	29%	31%	30%
Yard Material	12%	13%	14%

^{*} excluded - GAP tonnage (York Region used instead)

Year	2012	2013	2014
Total (%)	100%	100%	100%
Diversion (%)	74%	79%	80%

The reduction in garbage tonnage (6%) was almost evenly distributed incrementally between green bin (+2%), yard waste (+2%) and recycling (+2%).

Promotional Program cost summary

The overall clear bag promotional campaign costs incurred by the City of Markham totaled just under \$50,000 for all 83,710 households or \$0.59 per household. This extensive P&E program included a number of outreach strategies (listed below) and outlined further in the Markham case study section.

1. Promotion and education costs (excluding HST):

Radio Ads	\$2628	
Newspaper Ads (Economist & Sun, Tamil Mirror, Ming Pao)	\$2992	
Mobile Signs	\$3840	
Miller Truck Decal	\$3720	
Public Space advertising- 3 stream bins	\$1000	
Oops Stickers	\$24,700	
Leaflet	\$2146	
"How-to" Ads	\$1465	
Newsletter	\$4114	
Consultant/translator	\$2486	
TOTAL:	\$49,091	

Total cost/household: \$49,091/83,710 households= \$0.59

2. Markham Customer Service Calls

In the four months leading up to the clear bag launch (Jan. – April 2013), the City did not receive any calls pertaining to the program. However, upon launch (April 30th) and through the months to Dec. there were a total of thirty one (31) direct complaints and sixteen (16) clarification inquiries through the City customer service line. Note: This number is extremely low and likely speaks to the extensive P&E campaign that was implemented in the months leading up to the program launch.

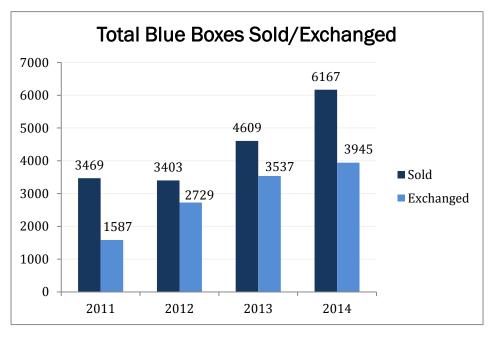
3. Resident Participation:

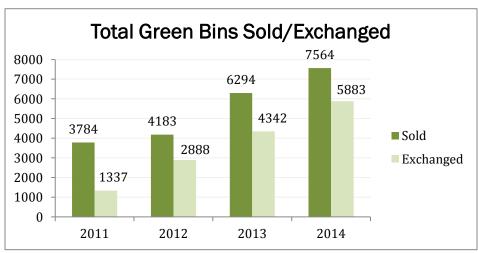
Upon launch, residential compliance, deemed anyone utilizing a clear bag for garbage placement at the curb, was assessed at 60% based on staff curbside assessment. This was the targeted goal for first week, with continued interaction in the following weeks, targeting non-compliant households. By the end of week six, (June 15th, the third garbage collection cycle under a bi-weekly collection program) compliance was estimated at over 90%. By Sept. 2013, compliance was estimated at over 99% and has remained at that level ever since.

4. Unanticipated findings

An unexpected outcome of the campaign was the change in behaviour towards recycling and composting. As a result of the clear bag program, residents purchased additional blue boxes and green bins from the municipality and exchanged broken containers. The chart below outlines sales and exchanges of green bin and blue boxes from all Markham Recycling Depots, community centres and the Contact Centre for 2011-2014.

Green bins			Blue Boxes		
	Sold	Exchanged	Sold	Exchanged	
2011	3784	1337	3469	1587	
2012	4183	2888	3403	2729	
2013	6294	4342	4609	3537	
2014	7564	5883	6167	3945	





Appendix 17A: Frequently Asked Questions (from the Markham website):

1. What is Markham's Clear Bag Program?

Starting April 30, 2013 we are asking Markham residents to switch from dark garbage bags to clear garbage bags. You can set out as many clear bags of non-recyclable/non-compostable garbage as you need. Good News! There will be no more 3 bag limit or bag tags required.

2. When should I start using clear bags?

The program takes effect April 30, 2013. This gives residents time to use up their dark bags. After April 30th, your left over dark garbage bags can be used to line your green bin (applicable to Markham's program);

3. Why is Markham changing from dark bags to clear bags?

Black garbage bags can hide a multitude of materials that should not be in the garbage such as toxic items - paint, solvents, batteries as well as recyclables. Progressive municipalities audit what is in residents' garbage bags to improve waste management practices. Recent audits and audits performed by the province indicate high amounts of textiles, paint, household hazardous waste, food, paper, recyclables and thousands of household batteries are being sent for disposal.

Markham's garbage is transitioning from being landfilled to being processed and incinerated to make and supply energy. For air quality issues, we have a responsibility to ensure our garbage does not contain potentially toxic materials such as batteries, electronics and any household hazardous materials. Clean waste means clean fuel and air for everyone!

Clear bags will aid our collectors to identify materials that are banned from disposal. Unfortunately, our collectors have been injured from hidden glass, nails and other sharp items hidden in the dark bags. Using clear bags keeps our collectors safe from injuries.

4. Will someone be looking through my garbage?

No. Collectors will not be going through or opening your garbage bags.

5. Will clear bags cost more and where can I buy clear bags?

No, clear bags will be similar pricing as dark bags. Clear bags can also be used for your overflow organics. Clear bags can be purchased at any retail location that sells garbage bags starting Spring 2013.

6. What about my privacy?

If you have security concerns, use small opaque bags (grocery bags) inside the clear bag or place your clear bag inside a garbage can. Reminder – items such as confidential papers / bills, tissues, soiled paper, feminine products go in your Green Bin which is collected weekly.

7. What if I use solid colour bags under my sink throughout my home (i.e. grocery bags), can I tie them and throw them in?

A limited number of small grocery bags are permitted within your clear bag. Your privacy is important to us; please remember that most bathroom waste (tissue, paper, feminine products) should be placed in your Green Bin.

8. What happens if I don't use clear bags as of April 30, 2013 effective date?

Clear bags will help Markham identify residents who do not recycle or compost at all. After several reminders dark coloured garbage bags set out for collection may not be collected. Our priority is to encourage everyone to participate.

9. Can I use a clear bag for my recyclables?

No. Recyclables need to be loose in your Blue Box and not in plastic bags.

10. Can I use a garbage can instead of a clear plastic bag?

No. Markham's By-law, for health and safety purposes, has always required garbage to be contained in a bag and not loose in a garbage can. A garbage can (0.5 m x 0.9 m), less than 18 kg is acceptable. Starting April 30^{th} , 2013 garbage must be contained in a clear bag not a dark coloured bag.

11. Do other communities use clear garbage bags?

Yes! The City of Guelph has had clear garbage bags for over 10 years! Other communities include: Dufferin County, Grand Valley and the majority of communities in Nova Scotia and all of Prince Edward Island.

12. Why does Markham keep changing collection rules?

Waste management has had many changes over the years. Changes in collection services as part of a sustainable waste management system. Markham is now targeting 80% waste diversion by 2014, a target that if reached will position Markham residents as the best of the best in waste diversion.

Case Study: County of Dufferin

Dufferin County's By-Law 2010-29 enabled the County to assume responsibility for waste management in all of the lower tier municipalities by the end of 2012.

On June 1st, 2013, the County of Dufferin launched a new curbside waste collection program. There were many components of this program, including:

Quick connect:

Ms. Melissa Kovacs-Reid
Manager of Waste Services, Public Works
Department
County of Dufferin, Ontario
519-941-2816 ext. 2622
mkovacs@dufferin.ca

- Harmonization of collection frequency;
- Harmonization of garbage bag limits and blue box set-out requirements;
- Implementation of curbside collection (Melancthon);
- Harmonizing the recycling set-out containers;
- Harmonizing the recycling collection stream;
- Harmonizing the eligible blue box materials;
- Adopting a County Waste Management By-law;
- Harmonization of the promotional and educational materials;
- Harmonizing the User Fees and Pay-As-You-Through (PAYT) policies;
- Reviewing the Capacity of the Blue Box (and adding blue bags);
- Adopting an annual per household diversion rate; and
- Adopting a mandatory recycling by-law.

Under the new program, residents were required to place their garbage at the curb in:

- A colourless, transparent (clear) bag;
- A colourless, transparent bag in a reusable container; or;
- Loose in a reusable container.



Four of the local municipalities (Amaranth, East Luther Grand Valley, Melancthon and Mulmur) already had a clear bag policy for garbage. The benefits of a clear bag program included residential motivation to recycle more material through public pressure and enforcing program compliance by enabling the collection contractor to check bag contents for prohibited materials.

While there was a range in diversion impacts with respect to implementing a clear bag policy,

on average there was a 22% increase in recycling rates. Expanding this program across all of Dufferin County was expected to capture an additional 955 tonnes of recyclables (Dufferin County, 2011).



Additional changes and improvements which were made included:

- Shifting collection schedules (days) to make routes more efficient;
- Expanding to include curbside recycling collection services of garbage and recycling (from depot drop off) for the first time in some local communities (e.g. Melancthon);
- Offering bulky items and white goods collection on a monthly on-call basis;
- Curbside yard waste collection services to rural areas and enhanced collection to urban areas;
- Altering the curbside recycling (blue box) program items accepted to better reflect current recycling market conditions; and
- The expansion of hazardous & electronic waste events.

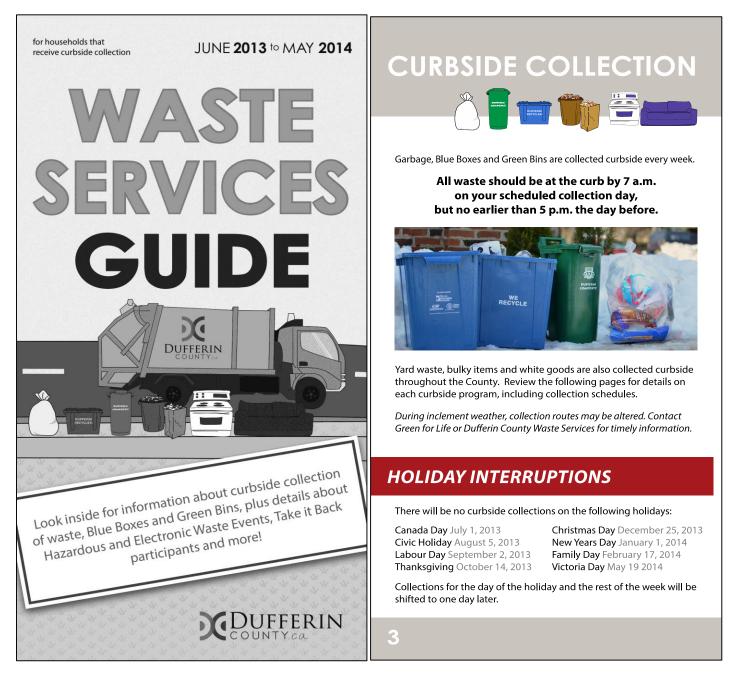
The County offered numerous ways for residents and businesses to keep up-to-date including the distribution of a "Waste Services Guide" booklet in early May 2013, the launch of a MyWaste Smartphone App, a Facebook page (/dufferinwaste), a Twitter account (@dufferinwaste) and an E-Newsletter - "The Diversion Digest" (eepurl.com/vf2Fv).

In advance of the program rollout, staff created the Dufferin County Waste Services Communication Plan" in September 2012. This comprehensive document included background information (County and local level jurisdictions), Clear Bag Program description, future direction, goals, objectives, target audience, key messages, promotional and education tools and rollout schedules. This document is available for further review through the County of Dufferin.



▲ Appendix 18A: Dufferin County New Waste Program flyer

The Waste Services Guide was mailed to all County residences (21,257 households) via Canada Post (unaddressed ad mail) in early May 2013. The 36-page booklet contained comprehensive information about garbage collection, blue box and green bin programs, yard waste, bulky items and white goods collection, hazardous and electronics waste events and a 'Take it Back' directory for hard to dispose of items.



▲ Appendix 19A: Dufferin County Waste Services Guide (June 2013 to May 2014) - Pages 1 and 3

GARBAGE

Garbage is collected weekly.



Clear bags

Garbage must be placed at the curb (i) in a **transparent (clear)** garbage bag, (ii) in a transparent clear bag within a garbage container, or, (iii) loose in a container. **Nontransparent (opaque) bags will not be collected.**

Privacy bag

Each bag/container may contain 1 opaque privacy bag. The privacy bag should be about the size of a standard grocery bag and must not exceed 38 cm (15 in.) in any dimension.

Weekly garbage collection

Garbage will be collected weekly throughout the County. Your current municipal bag limit will remain in effect until May 2014, at which time it will be reviewed. Bag limits have been converted to a weekly limit (as opposed to a bi-weekly or yearly limit) where applicable. Please contact Dufferin County Waste Services or visit dufferincounty.ca/waste for more information.

Any garbage bags that exceed the limit must have a County-issued garbage bag tag attached to them.

Each bag/container must not exceed 20 kg (44 lbs) by weight, 79 x 107 cm (31 x 42 in) in dimension, and 125 L (33 gallons) in volume.

How to tag your bags and containers



5

attach the tag to the neck of your garbage bag

OR

place the tag on top of the contents in your container so that it is clearly visible



All waste streams should be at the curb by 7 a.m. on your scheduled

Broken glass and other sharp items should be placed in a rigid container (no larger than 0.6 m/2 ft in any dimension), sealed closed and clearly labelled "Sharp Object". Please place this container beside or on top of your garbage bag/container.

Medical sharps/needles and **pharmaceuticals** are not permitted in any curbside collection program. Please check the Take It Back Directory (pg. 23) or bring them to a Hazardous Waste Event (pg. 15).

Fireplace ashes should be left to cool for at least 10 days before placing them at the curb. Another option is to spread ashes in gardens for fertilizer.

CLEAR BAGS

What are the benefits to using transparent (clear) bags?

Local municipal experiences and waste studies have shown that using clear bags for garbage contributes to increased diversion of recyclables, food wastes and hazardous wastes from landfill.

Another key benefit of using clear bags is the health and safety aspect. Clear bags help collection staff identify potential hazards, such as broken glass, needles, other sharp items and combustible containers (e.g. propane cylinders) that can potentially cause injuries during collection.

What if I use small non-transparent (opaque) bags under my sink or throughout my home (i.e. grocery bags or white kitchen bags), can I tie them up and throw them in the large clear bag? No. Smaller clear bags can be used under your sink/throughout your home, or dump contents of these containers straight into your larger clear bag or garbage container. Only one small non-transparent privacy bag (e.g. grocery bag) is permitted within your clear bag.

Can I use a garbage can instead of a clear plastic bag?

Yes. You can place your garbage loose in a garbage container. Just make sure that any kitty litter and dog wastes are bagged for health and safety reasons. Private bathroom wastes (e.g. hygiene products) should be placed in your privacy bag.

For more Frequently Asked Questions, please visit dufferincounty.ca/waste

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▲ Appendix 20A: Dufferin County Waste Services Guide (June 2013 to May 2014) - Pages 5 and 6

WINTER 2013



The County of Dufferin's Waste Services Newsletter



Curbside waste collection is now being provided by Dufferin County. You'll notice details for curbside pickup of garbage, Blue Box, Green Bin, yard waste and bulky items are still the same, as current curbside collection contracts have been extended until May 31st, 2013. Check your collection calendar for program details.

You should now contact Dufferin County for any waste-related inquiries.

Garbage missed? Not sure what's recyclable? Want to know about our upcoming events? Didn't receive your collection calendar? Looking for Green Bin tips?

Give us a ring! Shoot us an email! Drop in to the office! Find us on Facebook or Twitter! Check our website!

There are many ways to get in touch. So, if you have inquiries about any waste service, just remember you can ask Dufferin County Waste Services. Whether that is garbage, Blue Box, Green Bin, yard waste, white goods, bulky items, hazardous or electronic waste - we're here to help.

Dufferin County Waste Services

55 Zina Street, Orangeville, ON L9W 1E5 519.941.2816 ext. 2620

dufferincounty.ca/waste dufferinwaste@dufferincounty.ca



▲ Appendix 21A: The Diversion Digest – Dufferin County Waste Services Newsletter (Winter 2013, Page 1)



▲ Appendix 22A: The Diversion Digest – Dufferin County Waste Services Newsletter (Winter 2013, Page 4)



PRESS RELEASE

County of Dufferin 55 Zina Street, Orangeville, ON L9W 1E5 For Immediate Release: March 19, 2013

NEW WASTE PROGRAM WILL BEGIN JUNE 1, 2013

Dufferin County, 2013 – Dufferin County Waste Services is gearing up for the start of a new curbside waste collection program, set to begin on June 1, 2013. Details of the new program are outlined in the paragraphs below and will be communicated through various avenues over the coming months.

Starting on June 1, garbage, Blue Boxes and Green Bins will be collected on a weekly basis across Dufferin County. The weekly garbage allowance will remain at the current limits in each local municipality, being converted to a weekly limit, as opposed to a bi-weekly or yearly limit, where applicable. Dufferin bag tags will only be required for extra garbage bags placed to the curb for collection.

In order to make collection routes more efficient, some collection days will be shifted to another



day. The new collection schedule and map with collection days will be available in the "Waste Services Guide" being distributed in late April/early May, and on the County's website.

Melancthon residents will receive curbside collection of garbage and recycling for the first time. Blue Boxes will be distributed through the municipal office in late April/early May.

As of June 1st, 2013, residents will have the option to place their garbage

at the curb in the following ways; (i) in a colourless, transparent (clear) bag, (ii) in a colourless, transparent bag in a reusable container, or (iii) placed loose in a reusable container. Non-transparent (opaque) garbage bags will not be accepted after June 1, 2013. Four of the eight local municipalities in Dufferin County already have clear bag programs (Amaranth, Grand Valley, Melancthon and Mulmur).

▲ Appendix 23A: Dufferin County Press Release - March 19, 2013 (Page 1 of 2)

Residents will be permitted one non-transparent (opaque) "privacy" bag within each clear bag/container, which can be the size of an average grocery bag. It is recommended that any papers with private or sensitive information are shredded and put into your Green Bin for composting.

Clear bags will aid the collector in quickly identifying materials that are unacceptable and/or are dangerous. Non-transparent garbage bags can hide a multitude of materials that should not be in the garbage. Unacceptable materials include toxic items such as paint, solvents, batteries, and sharps/needles, in addition to recyclables and food waste.

If you require additional Blue Boxes and/or a Green Bin for recyclables and food waste please contact Dufferin County Waste Services. Toxic items such as paint, solvents, batteries and sharps/needles can be taken (at no charge) to one of the County's Household Hazardous Waste Days for safe and proper disposal or recycling.

In the past, collectors have been injured from broken glass, needles and other sharp items hidden within non-transparent bags. The use of clear bags will help keep our collectors safe from these injuries moving forward. Please remember that broken glass should be placed in a rigid container or box, and labeled as 'broken glass' for garbage collection.

The Blue Box program will be updated to reflect current recycling market conditions. As such, takeout coffee cups, Polystyrene (i.e. Styrofoam, foam packaging), and plastic films/bags will not be permitted in the Blue Box program. A full list of acceptable and non-acceptable items will be available in May.

Bulky items and white goods will be collected on a monthly on-call basis. Bulky items, such as furniture, will be collected for \$20 for a maximum of four items. White goods, including fridges and other appliances, will be collected for \$20 each, with an additional charge of \$30 if refrigerants (i.e. Freon) need to be removed.

Curbside yard waste collection will be available for the first time to rural areas of Dufferin County on a monthly, on-call basis from April to November. Urban areas will receive yard waste collection every other week in spring and fall, and monthly during the summer.

There are many ways to keep up-to-date with what is happening. Dufferin County Waste Services will be sending out a "Waste Services Guide" booklet in late April/early May. In addition to finding information on our website at dufferincounty.ca/waste, there will also be a free Smartphone App available for residents, called My-Waste. You can also like our page on Facebook (facebook.com/dufferinwaste), follow us on Twitter (@dufferinwaste), or sign up for our e-Newsletter (http://eepurl.com/vf2Fv) for timely reminders and news from Dufferin County Waste Services.

For more information, please contact:

Scott Burns, Director of Public Works sburns@dufferincounty.ca 519.941.2816 ext. 2600

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▲ Appendix 24A: Dufferin County Press Release - March 19, 2013 (Page 2 of 2)



QUESTIONS ABOUT CLEAR GARBAGE BAGS

What is the Clear Bag Program?

Starting June 1st, 2013 all Dufferin County residents will use transparent (clear) garbage bags for curbside garbage collection. Non-transparent (opaque) bags will not be acceptable. Currently, households in four local municipalities already use clear bags for garbage collection (Amaranth, Grand Valley, Melancthon and Mulmur).

When should I start using clear bags?

The program takes effect County-wide June 1st, 2013.

What are the benefits to using transparent (clear) bags?

Local municipal experiences and waste studies have shown that using clear bags for garbage contributes to increased diversion of recyclables, food wastes and Household Hazardous Wastes from landfill.

Another key benefit of using clear bags is the health and safety aspect. Clear bags help collection staff identify potential hazards, such as broken glass, needles and other sharp items that can potentially cause injuries during collection.

Why is Dufferin County transitioning from non-transparent (opaque) bags to transparent (clear) garbage bags?

The four local municipalities that currently use clear bags in Dufferin County have seen an increase in materials diverted from landfill. Non-transparent garbage bags can hide a multitude of materials that should not be in the garbage. Unacceptable materials include hazardous items such as paint, solvents, batteries, and sharps/needles, in addition to recyclables and food waste. There are existing diversion programs available to divert all these materials from the garbage stream.

In the past, our collectors have been injured from broken glass, needles and other sharp items hidden within non-transparent bags. The use of clear bags will help keep our collectors safe from these injuries moving forward. Please remember that broken glass should be placed in a rigid container or box, and labeled as 'broken glass' for garbage collection.

As recyclables and food wastes are not acceptable in my clear garbage bag, where can I get additional Blue Boxes and/or a Green Bin?

If your household requires an extra Blue Box for recycling and/or a Green Bin for composting, please contact Dufferin County Waste Services, or check www.dufferincounty.ca/waste for a list of locations.

I understand that Household Hazardous and Electronic Wastes should not be thrown in my garbage. How do I properly dispose/recycle these items?

Hazardous items such as paint, solvents, batteries and sharps/needles, and electronic wastes can be taken (at no charge) to one of the County's Household Hazardous Waste Days for safe and proper disposal/recycling. Check out our "Take It Back" Directory for more options.

Dufferin County Waste Services | dufferincounty.ca/waste | 519.941.2816 ext. 2620 | 🕴 🔰 dufferinwaste

▲ Appendix 25A: Dufferin County Frequently Asked Questions (Page 1 of 2)

How many bags of garbage can I put out at the curb for collection?

Your municipality's current bag limit will stay in effect on a weekly basis (i.e. garbage will be collected weekly throughout Dufferin County).

What can I do with my extra non-transparent bags?

Non-transparent (opaque) garbage bags can be given to family or friends in other areas that accept non-transparent garbage bags for collection. You can use them for clothing donations, or give them to a local charity that may have a use for them.

What about my privacy?

If you have privacy concerns, use a small non-transparent (opaque) bag, such as a grocery bag, inside the clear bag or place your clear bag inside a garbage can.

What if I use small non-transparent (opaque) bags under my sink or throughout my home (i.e. grocery bags or white kitchen catchers), can I tie them up and throw them in the large clear bag?

No. Smaller clear bags can be used under your sink/throughout your home, or dump contents of these containers straight into your larger clear bag or garbage container. Only two small non-transparent privacy bags (i.e. kitchen bags) are permitted within your clear bag.

Can I use a garbage can instead of a clear plastic bag?

Yes, you can place your garbage out loose in a garbage container. Just make sure that any kitty litter and dog wastes are bagged for health and safety reasons. Private bathroom wastes (i.e. hygiene products) should be placed in your privacy bag.

Where do we buy clear garbage bags?

Clear bags can be purchased at retail locations that sell garbage bags. Contact Dufferin County if you require

Will clear bags cost more?

No, transparent (clear) garbage bags will be similar in price to non-transparent bags. If you need a sample clear bag to get you started, please contact Dufferin County Waste Services at 519.941.2816 ext. 2620 or dufferinwaste@dufferincounty.ca.

Can I use a clear bag for my recyclables?

Recyclables should be loose in your Blue Boxes. They do not have to be sorted between containers and paper products. If you have overflow, you may purchase another Blue Box, or use blue tinted recycling bags.

Do other communities use clear garbage bags?

Yes. The City of Guelph has used clear garbage bags for over 15 years. The majority of communities in Nova Scotia and all of Prince Edward Island also use clear bags. Markham is switching to clear bags at the end of April 2013.

Dufferin County Waste Services | dufferincounty.ca/waste | 519.941.2816 ext. 2620 | 📫 💆 dufferinwaste

▲ Appendix 26A: Dufferin County Frequently Asked Questions (Page 2 of 2)



Photo 15: Community advertising – street signs



Photo 16: Community advertising – billboards

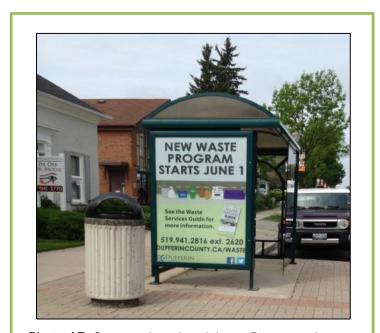


Photo 17: Community advertising – Bus stop signage

▲ Appendix 27A: Dufferin County Community Advertising Campaign



Starting June 1, 2013 transparent (clear) bags will be required for garbage collection throughout Dufferin County. Non-transparent (opaque) bags will not be collected.

Here are some tips for using clear bags.

Place private bathroom wastes in a grocery bag.

Each clear bag/garbage container put out for collection can contain one opaque privacy bag, the size of a standard grocery bag.

You can place garbage at the curb in a container.

Garbage can be placed at the curb i) in a clear transparent bag; ii) in a clear transparent bag within a container; or, iii) loose in a container.

Paperwork with sensitive information can be shredded and put in the Green Bin for composting.

For more Frequently Asked Questions about clear bags, visit dufferincounty.ca/waste.

The Waste Services Guide will be mailed out in early May with full details of the new waste collection program.

Contact Dufferin County Waste Services for more information. dufferincounty.ca/waste | dufferinwaste@dufferincounty.ca | 519.941.2816 ext. 2620

▲ Appendix 28A: Dufferin County community newspaper (The Banner) ads

just a reminder...

New waste collection program is in effect

June 1 marked the start of a new curbside collection program in Dufferin County.

- Blue Boxes, Green Bins and garbage are collected every week.
- Your current municipal bag limit has remained in effect and converted to a weekly limit (as opposed to a bi-weekly or yearly limit) where applicable.
- Your collection day may have changed.
- Yard waste is collected in rural areas on a monthly call-in basis. Yard waste is collected in urban areas bi-weekly in spring and fall and monthly during the summer.
- Bulky items and white goods are now collected on a monthly call-in basis for a fee.
- Clear bags are required for garbage. Each clear bag can contain two small opaque "privacy" bags and garbage can be placed at the curb in a container, if desired.



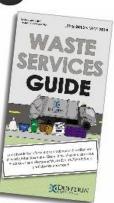
▲ Appendix 29A: Dufferin County community newspaper (The Banner) ads



▲ Appendix 30A: Dufferin County Community Information Sessions advertisement (The Banner)

NEW WASTE PROGRAM STARTS JUNE 1, 2013

The Waste Services Guide, with full details about the new program, has been mailed to all households. If you did not receive yours, please contact Dufferin County Waste Services.



Keep in mind that starting June 1:

- · Blue Boxes, Green Bins and garbage will be collected every week.
- Your current municipal bag limit will remain in effect and be converted to a weekly limit (as opposed to a bi-weekly or yearly limit) where applicable.
- · Your collection day may change.
- · Yard waste will now be collected in rural areas on a call-in basis.
- · Bulky items and white goods will be collected on a monthly call-in basis for a fee.
- Residents will have the option to place their garbage at the curb in clear (transparent) bags, in clear (transparent) bags within a container, or loose in a reusable container. Each clear bag/container can contain two small opaque "privacy" bags. Non-transparent (opaque) garbage bags will not be accepted after June 1, 2013.





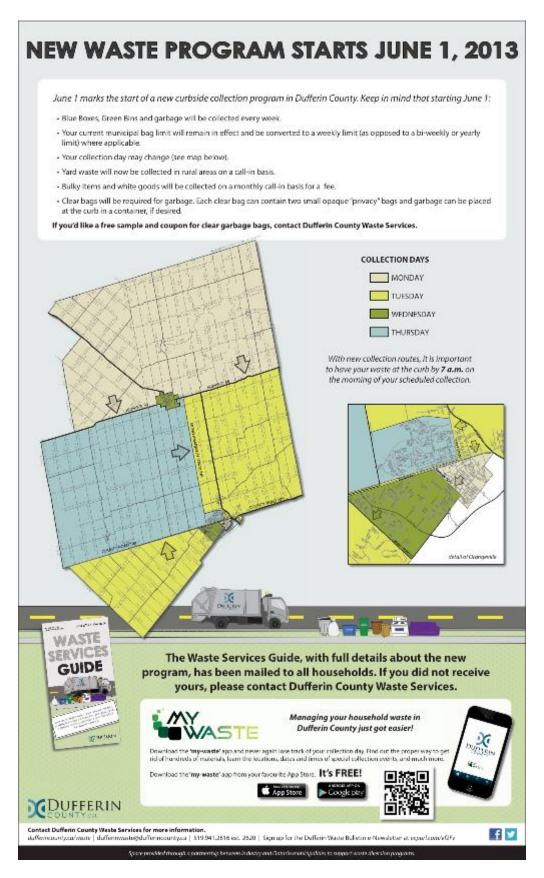
Contact Dufferin County Waste Services for more information.

dufferincounty.ca/waste | dufferinwaste@dufferincounty.ca | 519.941.2816 ext. 2620

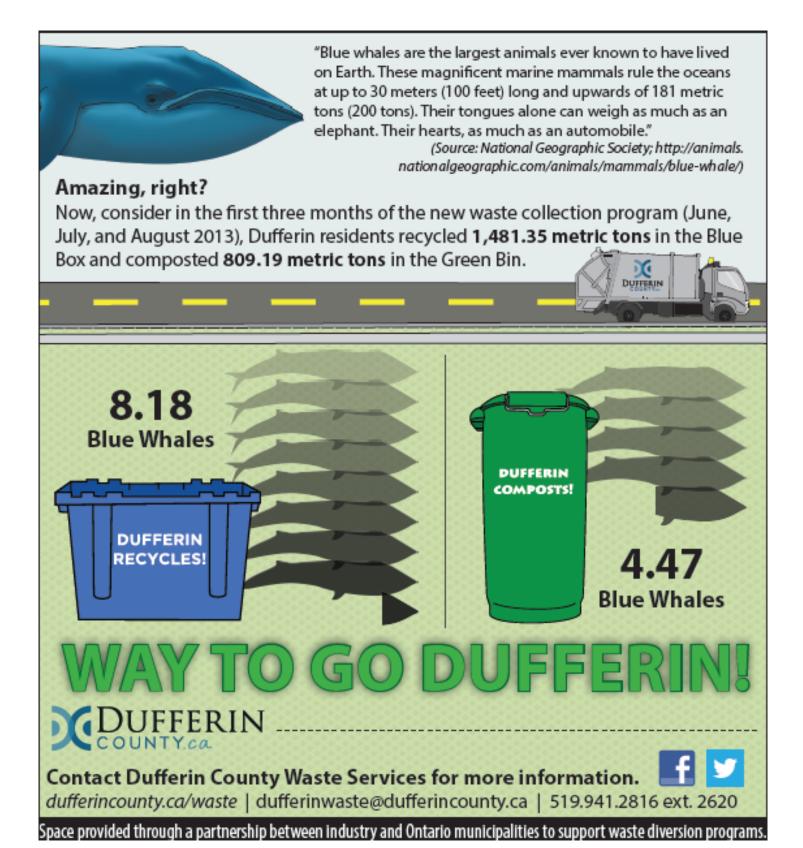
Sign up for the Dufferin Waste Bulletin e-Newsletter at eepurl.com/vf2Fv



▲ Appendix 31A: Dufferin County community poster campaign



▲ Appendix 32A: Town of Shelburne – New Program poster campaign



▲ Appendix 33A: Dufferin County Clear Bag Program "Way To Go" ad (The Banner)

Where can I buy clear bags?

Clear garbage bags are available at the following local retailers.

GRAND VALLEY

IFT Grocery Store

5 Main Street South, Grand Valley

Guardian Drug Store

23 Main Street South, Grand Valley

MULMUR

Esso Hasty Market

936593 Airport Road

ORANGEVILLE

Dollarama

50 Fourth Avenue, Orangeville

Dollarama

215 Centennial, Orangeville

Dufferin Supply

70 Centennial Road, Orangeville

Canadian Tire

99 First Street, Orangeville

FreshCo

Broadway and Dawson, Orangeville

Home Depot

49 Fourth Avenue, Orangeville

Home Hardware

60 Fourth Avenue, Orangeville

Metro

150 First Street, Orangeville

No Frills

90 C Line, Orangeville

PharmaPlus

520 Riddell Road, Orangeville

Sobeys

500 Riddell Road, Orangeville

TSC Stores

207211 9 Hwy, Orangeville

Walmart

95 First Street, Orangeville

Zehrs

50 Fourth Avenue, Orangeville

SHELBURNE

Giant Tiger

226 First Avenue East, Shelburne

Fines Home Hardware

725 Steeles Street, Shelburne

Foodland

226 First Avenue East, Shelburne

No Frills

101 Second Line, Shelburne



Case Study - Town of Aurora

Ouick connect:

Amanda Cutler
Waste & Recycling Coordinator
Town of Aurora, Ontario
905-727-3123 ext. 3447
acutler@aurora.ca

Despite designing and implementing an aggressive community awareness campaign targeting both local retailers and residents with a comprehensive advance notification campaign, City Council ultimately voted against proceeding four months prior to the targeted launch date.

One critical consideration that likely attributed to the reversal of Council support was the Ontario municipal election (Oct. 27, 2014) occurring between the initial date of Council endorsement in principle in the spring of 2014 and the requirement for final Council approval by the new Council in 2015. Upon initial approval to proceed, staff were directed to implement a community awareness campaign and open house to gage residential support for a clear bag program. This was undertaken Oct.-Dec. 2014, right in the middle of the municipal election.

Although the clear bag program did not become an election platform consideration, as the Mayor was re-elected and an avid supporter of the program, a number of Councillors who had supported the transition to a clear bag program were not re-elected. As a result, three new Councillors were elected to Aurora Council, none of whom were familiar with the concept or the positive attributes of a clear bag program.

Unfortunately, the approval to proceed with the clear bag program had been structured that the new Council would hold the final vote at their first Council meeting in the Jan. 2015. This agenda item was ultimately deferred to the second Council meeting due to time constraints at the inaugural meeting.

In the meantime, staff had to consider whether to proceed with an internal Council information strategy to provide all Councillors, especially the new members, with a detailed understanding of the merits and challenges associated with a clear bag program. The decision was made to not proceed with this internal interaction opting to allow Councillors to review the information as it was presented through staff report.

Upon consideration by Council in Feb., a number of Councillors did not feel confident that they had enough information to endorse the transition to a clear bag program and voted against proceeding. As anticipated in advance, public opposition is always most prevalent at this time and a few calls to Council and letters to the editor created the illusion that the majority of residents did not support this program. Ironically, of the two members of the audience at the Council meeting specifically to address this program, only one was against the program.

This experience illustrates the importance of ensuring that all Council members are fully briefed and aware of all components of a clear bag garbage program in advance of them having to vote on the ultimate decision to proceed or decline.

<u>Appendix 35A: Town of Aurora – Councillor Handbook – CLEAR GARBAGE BAG PROGRAM INFORMATION</u>

Introduction

In February 2015, Council will vote on a staff recommendation to proceed with the implementation of a program to transition from black opaque garbage bags to clear plastic garbage bags for waste collection. The following information provides background initiatives undertaken in preparation of this program and what it means for residents, businesses and the Town.

What is the Clear Garbage Bag Program?

This program is a transition from the use of black opaque garbage bags to clear plastic garbage bags for curbside garbage collection in Aurora.

Why is this program being recommended?

- 1) Increase safety for garbage collectors by enabling them to pre-screen material to avoid injury from dangerous items (i.e. broken glass) placed in the bag
- 2) Increase resident awareness on the importance of maximizing the diversion of recyclable and organic material from the garbage stream, (current diversion rate is 54%)
- Reduce the amount of hazardous material (i.e. medications, chemicals, batteries) in the garbage stream that could otherwise end up in the Durham Energy-from-Waste facility
- 4) Reduce the amount of other waste streams such as electronics and yard waste, often found in the garbage stream

Who else is doing this type of program?

Across Canada more than 500,000 households participate in similar programs that have been implemented since the early 2000s. Many other municipalities are considering similar programs. In 2013, the City of Markham implemented a clear bag program and they have been recognized as one of the highest waste diversion municipalities in Canada, with 81% diversion.

How does this impact residents?

Residents can begin transitioning to clear garbage bags with their next bag purchase. Any unused black garbage bags can be either donated to agencies in need or used for other household purposes. There should be no impact in a resident's day to day behaviour on how waste is managed within their home.

Is the program more expensive for residents?

No. Opaque and clear bags are priced similarly as both are made out of exactly the same material (LDPE plastic). Clear bags simply don't contain the dye present in black bags.

What about privacy concerns?

Residents may still place their clear bags inside a rigid container placed at the curb. Additionally, residents may use smaller opaque "privacy" bags inside their large clear bag. This still allows the garbage collector to undertake a quick visual assessment to determine if the contents contain a high proportion of recyclable materials.

How are we providing Aurora residents with awareness towards this program?

A weekly "Did You Know?" campaign ran for nine weeks in fall 2014, providing residents with information the proposed clear bag program and what it means to them. An information session was held at Town Hall on February 9 and an online survey was available for four weeks in March 2015. To-date, staff has received fewer than 20 inquiries/concerns about this program and all questions have been addressed.

Are local retailers aware of this program?

Yes. Since November 2014, a local retail interaction specialist with VisionQuest Environmental Strategies Corp. has contacted local retailers to inform them of this pending program and changes they should undertake to meet the demand for clear bags should the program be approved.

When would this program be implemented?

With Council approval, the intent would be to launch a voluntary program on June 5 (United Nations Environment Day) to provide sufficient lead-time for retailers to stock clear bags and allow residents time to use up their existing supplies of opaque bags. The Town would continue to educate residents of this program until October 19 (Canada Waste Reduction Week) at which time the program would become mandatory.

Is this a voluntary or mandatory program and how will it be enforced?

The program will be voluntary from June 5 to October 19, 2015. After October 19, the program will be mandatory. During the mandatory period, waste not placed in a clear bag will be tagged by the collector as not complying with the by-law and will not be collected. This is the same enforcement in place to ensure compliance with the by-law with respect to Blue Box materials and yard waste. Residents will be offered any additional assistance or information to encourage compliance of the program.

Will this program slow down garbage collection and cost the Town money?

No. Garbage collectors found it actually speeds up the process, as less garbage can potentially be placed curbside due to increased diversion.

Costs? – No, other municipalities such as Dufferin County and City of Markham have reported cost savings due to overall reduction in weight as inappropriate materials are removed from the curbside collection program.

Where should we direct residential inquiries?

Although Customer Service has been educated on this program, residents and participating businesses can be directed to the Waste Management department at 905-727-3123 ext. 3447.

For more information, who should we call?

Please contact Amanda Cutler – Waste/Recycling Coordinator ext. 3447.

Community Education Campaign in Aurora

In advance of pending Council approval, staff were directed to implement a community education and awareness campaign through the fall of 2014. The following eight advertisements (with differing "Did you know?" sections) were placed in the local Aurora Banner (complimentary newspaper) to highlight and address key aspects of a clear bag program:

A SMALL CHANGE WITH CLEAR BENEFITS.

In January/February 2015, Aurora Town Council will vote to consider adopting clear (transparent) plastic bags for municipal waste collection, replacing the use of traditional opaque (black) bags.

Similar to other municipalities across Canada, The Town of Aurora is considering clear bags to:

- Improve safety for our garbage collectors by enabling them to see the contents in the bags
- Increase the diversion of household hazardous material from landfills to environmentally-appropriate disposal facilities
- Increase the amount of garbage diverted from landfills through increased recycling and green bin collection

DID YOU KNOW?

Clear plastic garbage bags cost the same as traditional opaque (black) bags as they are made from the same type of plastic. The only difference is no dyes (colouring) have been used to colour the bags.

LOOK HERE EACH WEEK FOR MORE FACTS ABOUT CLEAR GARBAGE BAGS

For more information, please contact: The Town of Aurora Info@aurora.ca • 905-727-1375



▲ Appendix 36A: Aurora "Did you know?" campaign

DID YOU KNOW?

More than 500,000 Canadian households have already transitioned from using opaque (black) garbage bags to clear bags, many since the early 2000s.

DID YOU KNOW?

Demand for extra Blue Boxes and Green Bins typically increases when clear garbage bag programs are launched. As a result, The Town of Aurora has a well-stocked supply of boxes and bins to ensure these are available for residents.

DID YOU KNOW?

The Town of Aurora is providing this advance notice of the possible transition to clear bags, to allow residents time to use their existing supply of opaque (black) garbage bags.

DID YOU KNOW?

The Town of Aurora is working with local retailers in Aurora and the surrounding areas to ensure that clear garbage bags are available, should Aurora Town Council adopt a clear garbage bag program next year.

DID YOU KNOW?

Aurora residents divert approximately 54 per cent of waste through recycling and organics diversion. However, we anticipate that diversion may increase to 70 per cent or higher, if the Town transitions to a clear bag program.

DID YOU KNOW?

The Town of Aurora and our waste collectors will exercise common sense and discretion should residents place divertable items in their clear garbage bags by accident.

DID YOU KNOW?

Aurora residents will be able to address privacy concerns by using smaller opaque bags, such as grocery bags, inside the clear bags.

Case Study - Township of McMurrich/Monteith

Quick connect:

April Stockfish Landfill Technician Town of Aurora, Ontario 705-571-1943 astockfish@hotmail.com



Depot clear bag program

The Township of McMurrich-Monteith operates a single landfill location. Of the 1,500 total households within the Township, over 65% (900) are seasonal cottagers.

Although the Township had a by-law in effect to maximize diversion through recycling, it was very difficult to enforce due to the fact that most garbage was being deposited in opaque plastic bags that masked the contents. As a result, a large proportion of recyclable materials were being deposited in landfill, which resulted in a missed opportunity for diversion, as well as increased pressure on landfill capacity. For this reason, a clear bag strategy was implemented in the Township.



Photo 18: Landfill signage at the depot



Photo 19: Community advertising - billboards

In 2012, the Township received a CIF Promotion and Education funding grant (Project #536.2) to enhance signage with a professional image and to demonstrate municipal commitment towards diversion initiatives with resident cooperation (Photo 29). The key messages focused on saving landfill space and money through diversion of recyclables.

The primary focus of this initiative was to build positive relationships with residents through education. First time offenders were educated and staff assisted to sort material and pull recyclables from the garbage bag. Repeat offenders (second offence) were re-educated and directed to signage. Again, staff assisted with the removal of recyclable material from the garbage stream.



Photo 20: Municipal staff aided in explaining the rules.

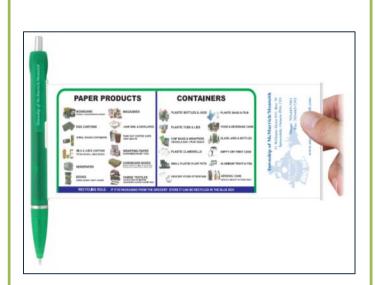


Photo 21: Promotional support included the provision of pens with sorting messaging.

Promotional support included the provision of clear bag samples, as well as information on the types of materials diverted from landfill. This included magnets and pens with municipal branded messaging for residents.

The results of municipal dedication to the clear bag program were that recyclable tonnage increased 62% from 50 tonnes (2011) to 81 tonnes (2013) while cost per tonne decreased by 43%. The tonnage of garbage received from the 795 households in 2011 was 324 tonnes while in 2012 they collected 329 tonnes from 787 households. In 2013, although the number of households increased to 827 (an additional 31 over 2012) the garbage tonnage remained consistent at 329 tonnes for the year, under a clear bag program.



Photo 22: April Stockfish accepts garbage in clear bags from a Township resident.

Key lessons learned:

- Additional staff are required during transition period (from one month pre-launch to two months post-launch);
- Provide residents with sufficient lead-time notice of program change (ideally 3-4 months);
 - Plan-plan-plan;
- Enact a strong by-law that enables for enforcement (if/when required) a necessary evil;
- Maintain control over waste disposal site at all times and develop relationships with residents as they access the facility;
- Continuous messaging, both in the home (mail outs) and at the depot/landfill;
 - Clear bags work.

Case Study - City of Goderich

The Town of Goderich implemented a clear bag garbage program on March $1^{\rm st}$, 2009 due to the fact that the Mid-Huron Landfill Site was nearing capacity. This initiative was implemented to try to extend the life of the landfill site. This program made recycling mandatory. Although the outer (clear) bag must be no larger than 26 x 36 inches, residents are allowed to place one opaque privacy bag no larger than 20 x 22 inches inside the larger clear bag. If garbage was not in a clear bag, it would be left at the curb.

Case Study - Township of Carling

The Township of Carling implemented a mandatory requirement for residents to use clear/transparent plastic bags (rather than opaque) to dispose of all residential waste at municipal solid waste facilities. Although the by-law had been in place for a number of years, enforcement of the provisions of this by-law began as of July 2014.

The by-law has addressed any potential concerns related to privacy by allowing residents to place one smaller opaque bag of personal items inside the larger clear bags. All other internal bags will have to be clear.

Case Study - Township of the Archipelago

The Township of the Archipelago implemented a mandatory requirement for residents to use clear/transparent plastic bags (rather than opaque) to dispose of all residential waste at municipal solid waste facilities. Although the by-law had been in place for a number of years, enforcement of the provisions of this by-law began as of July 2014.

Appendix II: Key Municipal Contacts



Claudia Marsales

Senior Manager – Environment and Waste Management City of Markham, Ontario 905-477-7000 ext. 3560 416-881-3266 (cell) CMarsales@markham.ca



Bridget Mitchell

Supervisor – Waste Management Operations, Environmental Services Department City of Markham, Ontario 905-477-7000 ext. 3710 BMitchell@markham.ca www.markham.ca



www.markham.ca **Kimberly Dunsmoor**

Community Outreach Assistant Waste & Environmental Management Department City of Markham, Ontario 905-477-7000 ext. 3399 416-891-2347 (cell) KDunsmoor@markham.ca



Amanda Cutler

Waste and Recycling Coordinator Town of Aurora, Ontario 905-727-3123 ext. 3447 ACutler@aurora.ca

www.aurora.ca



www.markham.ca Melissa Kovacs-Reid

Manager of Waste Services Public Works Department County of Dufferin, Ontario 519-941-2816, ext. 2622 mkovacs@dufferincountv.ca

www.dufferincounty.ca



Alyssa Broadfoot

Coordinator - Communications and **Public Consultation** County of Dufferin, Ontario 519-941-2816 ext. 2624 abroadfoot@dufferincounty.ca; www.dufferincounty.ca



Valda Walsh, BSc, TME EP

Regional Coordinator Region 6 Solid Waste Management Nova Scotia 902-624-1339

region6@ns@sympatico.ca www.facebook.com/Region6SWM



Darlyne Proctor

Waste Reduction Manager County of Colchester, Nova Scotia 902-897-0450 ext. 104 902-897-8226 (cell) dproctor@colchester.ca

www.colchester.ca



Mike Kearns, A.Sc.T.

Manager of Public Works and **Facilities** Township of Archipelago, Ontario 705-746-4243

mkearns@thearchipelago.on.ca www.thearchipelago.on.ca



Mike Kearns A.Sc.T.

Manager of Public Works and Facilities Township of Carling, Ontario 705-342-5856 ext. 24

mkearns@carlingtonship.ca www.carlingtownship.ca



Ivan Ingram

Department Head - Environmental & Property Management Township of Minden Hills, Ontario 705-286-1260 ext. 216

IIngram@mindenhills.ca www.mindenhills.ca



April Stockfish

Landfill Technician Township of McMurrich / Monteith, Ontario 705-685-7901

astockfish@hotmail.com www.mcmurrichmonteith.com

Appendix III: Miscellaneous Municipal Materials



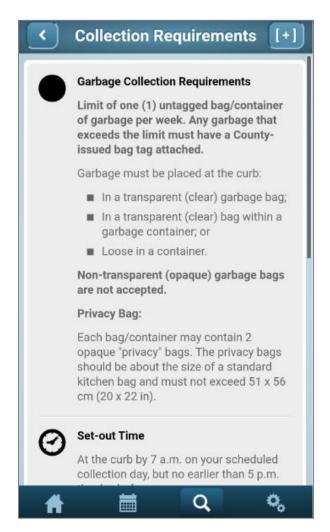
▲ Appendix 1C: Example of Facebook communications (Dufferin County Waste Services).

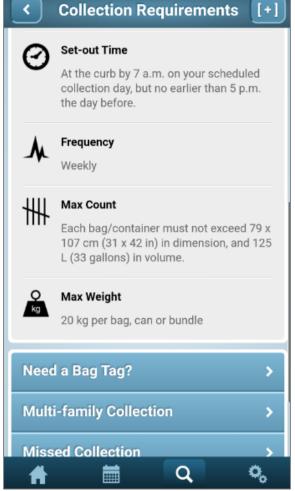


▲ Appendix 2C: Example of Twitter communications (Rideau Lakes Township).

RESIDENTIAL COLLECTION REMINDERS

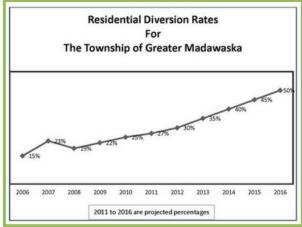
- Materials must be set out for collection by 6:30am, within 3 meters of the curb.
- Garbage must be placed in clear non-coloured bags.
 One privacy bag, 20" by 22", per clear bag is permitted.
- Residential bag limit: Garbage - 4 bags (bi-weekly), Recycling - no limit
- One bulky item (i.e. furniture) per garbage collection is permitted. This does NOT include construction and demolition debris such as toilets and metal items such as washers/dryers, etc.
- ▲ Appendix 3C: Example of newsletter communications (County of Cumberland, NS).





▲ Appendix 4C: Example of smartphone application use for communications (MyWaste – Mono, Dufferin County).





▲ Appendix 5C: Example of website communications and visuals for residents (Township of Greater Madawaska).



▲ Appendix 6C: Clear Bag Variance request form from Yarmouth, Nova Scotia.

This form allowed residents to opt out of the program.



9 JAMES STREET - PARRY SOUND, ONTARIO - P2A 1T4 PHONE: (705) 746-4243 FAX: (705) 746-7301

www.thearchipelago.on.ca

A Special Message relating to all Area Retailers

Retail availability of Clear Plastic Bags to Residents. Re:

All Township of The Archipelago residents will now be required to use clear/transparent plastic bags (rather than opaque) to dispose of their waste at Municipal solid waste facilities. The Township has had a bylaw in place for a number of years outlining this requirement and we have embarked on enforcing the provisions of this bylaw as of July, 2014

We request your assistance in working with your suppliers to ensure that appropriate products and quantities are available for purchase in local retail outlets.

We anticipate an increased demand for clear bag products as a result of our enforcement and education efforts.

Should you have any questions or concerns please feel free to contact me at your convenience

Mike Keams A.Sc.T.

Manager of Public Works and Facilities

Township of The Archipelago mkearns@thearchipelago.on.ca Waste Services cfast@dufferincounty.ca www.dufferincounty.ca



55 Zina Street, 2" Floor Orangeville, Ont. L9W 1E5 Telephone: (519) 941-2816 Ext.2623 Fax No: (519) 941-4565

COUNTY OF DUFFERIN WASTE SERVICES

Attention: Glad Representative

Re: Request for your support in the New Waste Collection Program in the County of Dufferin.

The County of Dufferin will be implementing a new County-wide waste collection program on <u>June 1, 2013</u>. The program will offer curb-side collection of garbage, recycling, organics and yard waste to all residents. As a bag manufacturer, we are aware that you offer various types of bags utilized by County residents to dispose of their waste. In order to support this new program, the County of Dufferin is requesting the assistance Glad to offer the appropriate acceptable bags. This letter provides detail on which bags and containers will be acceptable as of June 1, 2013.

Garbage Requirements

The program requirements are as follows for garbage collection:

- As of June 1st, the garbage that is set out for curb-side collection by a resident can be:
 - Placed in a transparent (clear) plastic bag (Size must not exceed 79 centimeters (31 inches) x 107 centimeters (42 inches));
 - in a transparent (clear) plastic bag placed in a reusable container (Size must not exceed 125 Liters (33 gallons)); or
 - loose in a reusable container (Size must not exceed 125 Liters (33 gallons)).
- A resident is allowed to place only one non-transparent privacy bag, no greater in size than 38 centimeters (15 inches) in any dimension, inside each clear bag for collection. Any other smaller bags placed inside the garbage bag must be clear. If any other type/colour of bag is set out with garbage contents, those bags will not be collected.
- Weekly garbage bag allotments per household vary across municipalities.

Recycling Requirements

The program requirements are as follows for recycling collection:

 The recyclables that are set out for collection by a resident can be placed loose inside a reusable container (blue box or otherwise). The container cannot weigh more than 20 kilograms (44 pounds).

▲ Appendix 8C: Retail letter example – Dufferin County (Page 1).

 If a resident has extra recyclables (periodic overflow), they can place them in a blue-tinted transparent plastic bag. The bag cannot exceed 79 centimeters (31 inches) x 107 centimeters (42 inches).

Green Bin Requirements

The program requirements are as follows for organics collection:

- Compost materials can be either placed loose in a reusable container or in a certified compostable bag, paper bag or liner placed inside a reusable container.
- The reusable container or bag cannot weigh more than 20 kilograms (44 pounds).
- Kitchen catcher sized bags are allowed inside the compost container if they are
 <u>certified compostable</u>. All bags used in green bins or kitchen catchers must be
 <u>certified by the Biodegradable Products Institute (BPI) and must display the
 logo shown below. Any bag that does not have this logo will not be accepted.
 Please ensure your products are BPI certified to prevent the sale and usage of non certified BPI bags, as they will not be collected.
 </u>



Yard Waste Requirements

The program requirements are as follows for yard waste collection:

 Residents are permitted to set out yard waste if it is contained in a biodegradable paper bag and/or contained in a ridged reusable container. The containers or bags cannot be greater than 120 litres (32 gallons) in size and must not weigh more than 20 kilograms (44 pounds). If the yard waste is not in a biodegradable paper bag, it will not be collected.

Supplying the acceptable bags to residents is an essential piece to our Programs success. We thank you for your support in enhancing the transition of the County of Dufferin's new waste collection program. We look forward to seeing Glad's clear, blue-tinted and certified compostable bags stocked on store shelves to assist our residents with their waste collection efforts.

For further information or if you have any questions, please call Chris Fast, Collections Coordinator with the County of Dufferin Waste Services department at 519-941-2816 ext. 2623 or email cfast@dufferincounty.ca.

▲ Appendix 9C: Retail letter example – Dufferin County (Page 2)

Appendix IV: Program Implementation Checklist

This checklist can be used to ensure that major components of the program are addressed throughout the planning and execution of your program. Timelines may vary, but estimates are provided.

Phase One: Pre-Approval (Timeline: 1 year prior to program launch)
☐ Internal (staff) Business Case Assessment (Section 1.2)
☐ External program review
☐ Internal impact assessment evaluation
☐ Internal discussions and advocacy (Section 2.1)
☐ Intra-departmental:
☐ Council
☐ Waste Management,
☐ Finance,
□ By-law,
☐ Enforcement,
☐ External agency(s):
☐ Regional government
☐ Local government
☐ Collection Contractor
☐ Environmental Advisory Committee involvement (Section 2.1)
☐ Program Overview
☐ Political Endorsement (Section 2.1 & 2.2)
☐ Public Information Session(s)
☐ Council
Phase Two: Approval / Pre-launch (Timeline 12 – 9 months prior to program launch)
□ Development of a public communications strategy (Section 2.2)
□ Retailer notification & interaction strategy (Section 2.5)
☐ Product supplier (i.e. bag manufacturer) partnership strategy (Section 2.6)
☐ Municipal waste by-law amendment (Section 2.1)
Phase Three: Pre-launch (timeline 9 – 0 months prior to program launch)
☐ Councillor clear bag handbook creation and distribution (Section 2.2)
☐ Community Information Strategy (Section 2.2)
☐ Print Media Campaign
☐ Frequently Asked Questions
☐ Retailer (in-store) Listing Campaign
☐ Municipal Customer Service/Information Line
Resident communication and media advertisements (Section 2.3)
☐ Help line creation (Section 2.3)
☐ Private partnerships (clear bag samples) (Section 2.6)
☐ Print Media Campaign (Section 2.2)
☐ Retailer (in-store) promotional campaign (Section 2.5)

Program Launch – Voluntary to Mandatory Transition

Voluntary Stage (Immediately upon launch)
☐ Curbside monitoring & distribution of non-compliance reminder messaging (Section 3.2)
☐ Acknowledgement (i.e. gold star) of correct set-out practices (Section 3.2)
☐ Repeated reminders – each collection cycle – and non-compliance (i.e. Oops!) messaging (Section 3.2)
Mandatory Stage (Timelines vary, but approximately 1 – 3 months after voluntary launch)
☐ Recognition of resident participants (Section 3.2)
☐ Curbside quality control monitoring and non-compliance (i.e. Oops sticker) (Section 3.2)
Post Launch (Timeline 3 months before launch & beyond)
☐ Waste Stream Tonnage & Diversion Assessment (Section 4.2)
☐ Savings statistics (WSIB claims reduced, landfill tonnage reduced, recyclables increased, etc.)
☐ Residential achievement & acknowledgement newsletter (Section 4.1)

Appendix V: Sources

Genivar, Inc. (2011). *Dufferin County Waste Recycling Strategy and Waste Management Collection Plan – Final Report (Part 1)*. County of Dufferin, Orangeville, ON.

Quinte Waste Solutions (2008). *Clear Bags for Garbage: The Use of Clear Bags for Garbage as a Waste Diversion Strategy.* Continuous Improvement Fund, Barrie, ON.

City of Markham (2014). City of Markham 3 Year Garbage Trending report: 2012 – 2014. Markham, ON.

Claudia Marsales, Senior Manager – Environment and Waste Management, City of Markham, Ontario;

Kimberley Dunsmoor, Community Outreach Assistant – Environmental & Waste Management, City of Markham, Ontario;

Amanda Cutler, Waste Management Coordinator – Town of Aurora, Ontario;

Ilmar Simanovskis, Director - Infrastructure & Environment, Town of Aurora;

Melissa Kovacs-Reid, Manager of Waste Services, County of Dufferin, Ontario;

Alyssa Broadfoot, Coordinator – Communications and Public Consultation, County of Dufferin, Ontario;

Chris Fast, Waste Services Collections Coordinator, County of Dufferin, Ontario;

Ivan Ingram, Department Head – Environmental & Property Management, Township of Minden Hills;

Valda Walsh, BSc TME EP, Regional Coordinator, Region 6 Solid Waste Management, Nova Scotia;

Darlyne Proctor, Waste Reduction Manager, County of Colchester, Nova Scotia;

April Stockfish, Manager of Waste Services, Township of McMurrich / Monteith, Ontario;

Joyce Nuhn, Public Works Administrative Assistant, Municipality of West Grey.