

## Appendix D

### Other Policy Options Explored

In order to develop the recommended approach, staff explored a number of policies to deal with plastic retail shopping bags, hot drink cups and plastic take-out food containers.

#### **Adding the Target Materials to Blue Bin or Green Bin:**

In order to make our recycling program easy to use and efficient, the City collects all recyclables together – single stream. This single stream mixture of over 25 packaging and printed paper product classes is then sorted at one of our two recycling processing centres. The simplicity, ease of access and efficiency of our recycling stream is fundamentally based on our ability to collect, in a co-operative fashion, a broad mix of recyclable items and separate them at a Material Recovery Facility (“MRF”).

With the current introduction of the new, larger size Blue Bin, to single family homes the City can potentially include more materials in the recycling stream. Including items such as the Target Materials identified in this report should be considered with the caveat of additional cost to Toronto’s waste management stream. All of the material included in the Blue Bin program is currently funded (up to 50% of the net cost to the City), by industry stewards (i.e., Stewardship Ontario), through Waste Diversion Ontario.

To consider items for inclusion in the residential Blue Bin recycling stream, the material streams must be compatible with the City’s MRFs and be marketable as a recyclable material. Any new material added must be recognizable and sortable from the single stream material mix. It is a particular challenge, for example, to visually separate clear (“crystal”) polystyrene plastic take-out containers from identical looking PET clamshell take-out containers on a MRF sorting line. PET and polystyrene are two different plastic resins they cannot be melted and recycled together because each resin type behaves differently under various conditions (e.g., temperature, injection moulding, blow moulding). Therefore, to recycle material, the MRF must be able to effectively and efficiently separate the various material types.

While recycling helps to divert waste away from landfill, simply adding material to the Blue Bin stream ignores the first two Rs in the 3Rs hierarchy. Recycling uses energy, time and money, and should be considered as the third step in a waste management policy. It is important to move towards introduction of all of the subject materials into the Blue Bin program, but it is also important to focus on policies that reduce the use of the subject materials so as to be left with a minimum of material to manage through the recycling stream and, ideally, none to manage at the landfill.

Plastic retail shopping bags and expanded polystyrene foam take-out food containers: Beginning December 8, 2008 plastic retail shopping bags and expanded polystyrene foam take-out food containers will be added to the Blue Bin program.

A new contract will allow us to add polystyrene foam take-out food containers to the Blue Bin program beginning December 8, 2008, however; it was not feasible to add other plastic take-out food containers (including non-foam polystyrene containers) at this time.

The City has allowed plastic bags to be used as liners in the Green Bin to help encourage the use of the program by reducing the “yuck factor” of handling waste organic material. These “reused” bags are currently removed from the organic material at the Green Bin Processing facility and disposed of as residue. Options to recycle these bags are being examined.

While soiled paper take-out food containers are currently permitted in the Green Bin program, plastic take-out food containers are not.

### **Hot Drink Cups:**

Most hot drink cups available from retailers in Toronto are paper coffee cups are made from high quality bleached paperboard fibre coated with a thin layer of polyethylene plastic (this material is generally referred to as “polycoat”) with an associated polystyrene lid.

The composition of this style hot drink cup is very similar to polycoat paper milk or juice containers, and the City of Toronto currently accepts milk carton polycoat paper in the Blue Bin program. In discussions with our end market – a paper mill that produces tissue paper from polycoat – paper cups could possibly be an acceptable addition to a program only if we can provide assurance that all polystyrene plastic lids have been removed, as the lids are a contaminate in the paper making process. Based on the multiple and complex “points of entry” into the Toronto recycling program (i.e., residential Blue Bin, public space recycling, used by Toronto residents and visitors alike) we are not confident that we could provide this assurance even if a public education program were in place.

The City’s current paper mill markets have strongly expressed that they are currently accepting their maximum tolerance of contamination in the paper stream. Any additions to the Blue Bin program with the likelihood of increasing the existing level of contamination in the paper stream would risk the loss of these markets and leave the City with paper that cannot be sold to recyclers and would therefore have to be landfilled.

Based on investigation of current contracts, staff estimates additional operating costs of at least \$1,000,000 annually to process hot drink cups and lids in the current system, but this does not take into account the potential cost to the City of rejected loads of marketable paper that have been contaminated with polystyrene lids. Alternatively, staff estimates that a capital investment of at least \$3,000,000 would be required to purchase optical sorting equipment that may have the potential to capture polycoat cups, however this amount does not take into consideration the capital cost of redesigning the existing MRFs to accommodate efficient sorting of hot drink cups and lids, or even if it is feasible to redesign the MRFs in the existing buildings.

Technological advances at the MRFs and end-market mills, changes to the design and materials of hot drink cups, and public education may lead to a more recyclable hot drink cup at some point in the future, however it is not feasible for the City to include hot drink cups for recycling in the Blue Bin program at this time.

Some jurisdictions in Ontario are accepting hot drink cups in their residential Green Bin programs. Municipalities such as Hamilton and Halton Region are composting the paper body cup and either removing the lid from the process or encouraging residents to put the polystyrene lid in the garbage. Staff does not recommend processing hot drink cups through the residential Green Bin program.

While the City does include some “soiled paper food packaging” as acceptable material in the Green Bin program, the intention of this policy is to encourage as much food waste to enter the organics processing stream and to eliminate the “yuck factor” associated with trying to scrape out food waste from packaging. Paper based, polycoat coffee cups do not normally have a significant amount of food residue after use.

Beverages in single-use disposable hot drink cups are normally consumed away from home and the cups are predominantly disposed of in public space litter bins (i.e., curbside and in parks), at the workplace or other privately run waste or litter disposal (e.g., office garbage, waste bins at coffee retail establishments), and therefore away from Toronto’s residential Green Bin program.

It is more economical for the City to process hot drink cups through the Blue Bin recycling stream. Green Bin processing is approximately \$150 per tonne, while Blue Bin processing is approximately \$60 per tonne. The Blue Bin program is designated under the WDO for municipal funding while the Green Bin program is not currently designated under WDO.

The polystyrene lid is not digestible in the Green Bin program and would have to be removed from the process as residue. Currently, plastic bags are permissible as bin liners in the Green Bin to encourage the use of the program (i.e., eliminating the “yuck factor”), and are removed by an automated “rake arm” in the hydropulper. The physical nature of the plastic bags allows the rake to capture the bags easily; however, the physical nature of the polystyrene lids would not result in the same capture.

It is more environmentally sound to drive the paper-based cup into the Blue Bin program. If it becomes possible to separate and capture the cups in the polycoat stream at the MRF, and end markets are able to find a way to process the cups, they can theoretically be recycled into things like tissue. The tissue can then be used and then deposited in the Green Bin program, thereby increasing the useful life of the fibre.

Implementing in-store recycling programs or adding new materials to the Blue Bin or Green Bin programs, however, does not encourage the source reduction or promote reusable alternatives to hot drink cups. The City should proceed with a policy that encourages source reduction and promotes reusable alternatives while continuing to work with manufactures and marketers of hot drink cups to find ways of making the cup and lid packaging acceptable in both public and private recycling programs.

**Adding the Target Materials to the Blue Bin program:**

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>◆ Including new items in the Blue Bin would decrease disposal costs and WDO funding.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Does not encourage the source reduction of the Target Materials.</li> </ul>
<ul style="list-style-type: none"> <li>◆ Diverting new materials to Blue Bin or recycling programs would extend the life of the Green Lane landfill.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Hot Drink Cups and some plastic take-out food containers are not compatible with the City of Toronto Blue Bin program at this time.</li> </ul>
<ul style="list-style-type: none"> <li>◆ Would be consistent with the City’s curbside-focused service model.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Operating and capital costs to the City increase by adding new materials.</li> </ul>
<ul style="list-style-type: none"> <li>◆ Would not create a significant impact on Toronto retailers who use the Target materials.</li> </ul>	

**Return to Retail or Take-it-Back Programs:**

A take-it-back scheme would require the participation of industry/retail partners to accept used (or “end-of-life”) materials back at a designated location (e.g., the retail location or other return depot). In a take-it-back program, customers would return waste (or used) products/packaging back to an industry/retail partner rather than in the residential waste stream. The industry/retailer involved would be responsible for bulking, on-site storage, transportation and processing of the waste material involved.

Take-it-back programs rely on the willingness of residents to bulk and store materials (at home, at work, etc.) prior to transporting them back to the point of purchase or a return depot. A take-it-back program could work as a voluntary program, where the City would help publicly promote, and recruit participating retailers (as in the case of the City of Ottawa), or as a mandatory program where the material is banned from the residential waste stream and the only way to deal with the material would be to return it to the point of purchase where the retailer would dispose or recycle it.

Under a take-it-back program, the City might attempt to require that retailers dedicate a certain amount of retail floor space for accepting the returned Target Materials, though it is not clear that the City has the power to compel retailers to do so because Solid Waste Management staff did not feel this was a viable option to explore. Retailers might have

to ensure that the appropriate insurance, storage requirements and staff training are in place prior to handling, storing and ultimately transporting the material (e.g., training for foodservice staff handling used hot drink cups, hazardous material training and certification for retailers collecting batteries), depending on the material included in the program.

**Plastic Retail Shopping Bags:**

Currently plastic bags returned-to-retail in Durham Region are collected and shipped for recycling by the retailer. For resident and customer convenience a return-to-retail system should be available at all retailers who distribute plastic retail shopping bags. This system would provide another opportunity for residents to dispose of plastic bags, but does not drive source reduction of plastic retail shopping bags.

**Hot drink cups:**

Customers are currently encouraged to recycle hot drink cups at some participating Tim Hortons drive through locations and this is an example of a voluntary take-it-back program sponsored by a retailer. However, a take-it-back program would not encourage the source reduction of single-use disposable cups and would not be feasible at all retail locations (i.e., storage and space requirements for handling and storing).

A take it back program for hot drink cups and lids would likely not achieve successful source reduction of single-use disposable hot drink cups as it simply promotes another method of disposal for single-use cups.

**Plastic take-out food containers:**

A take it back program for plastic take-out food containers would not be feasible at all retail locations that use this type of container. Many delis, cafes and food court retailers do not have space within their shop to safely and effectively store returned, soiled take-out food containers.

Managing the Target Materials through a Return to Retail or Take-it-Back program:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>◆ Provides additional choice for the resident of either curbside or at-store disposal.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Could lead to the City losing WDO funding by removing certain materials from the Blue Bin program.</li> </ul>
<ul style="list-style-type: none"> <li>◆ Would reduce the amount of Target Materials managed through the City waste management system.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Does not effectively encourage the source reduction of the Target Materials.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Onerous on retailers to operate and administer.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Health and safety concerns (i.e., food contamination) around foodservice staff managing returned soiled food packaging.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ A take-it-back program would not be feasible at all retail locations that use the target materials (i.e., storage and space requirements at small kiosks and food court locations).</li> </ul>
	<ul style="list-style-type: none"> <li>◆ A take-it-back program may not be able to guarantee that the returned materials would be recycled or reused.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Not consistent with the curbside-focused service model offered by Solid Waste Management.</li> </ul>

**Deposit Return:**

Deposit return programs are typically run at a provincial or state level due to the complexities of managing the amount of money involved and administering the program. There was a single example of a local deposit return program (i.e., a municipal program): The City of Columbia, Missouri. The Columbia Beverage Container Deposit Ordinance was established in April 1977 to reduce litter. A 5 cent deposit was implemented in 1982 on beer, malt, carbonated/mineral water and soft drink containers. No information is available on the containers recovered or the amount of unredeemed deposits. Columbia repealed the deposit in 2002 after the Columbia introduced a curbside recycling program.

A deposit return system run at the municipal level would be vulnerable to border issues. Target materials purchased outside the city could be brought into the city for a deposit, resulting in the program collecting more material and paying out more money than intended. Retailers accepting the deposit bearing items would need some system to ensure that they are not accepting for return items that were purchased outside of the deposit system. As such manufacturers, retailers, franchisers and distributors that sell these products would have to create a unique distribution and labelling scheme for products sold within the boundaries of the City of Toronto, in that “Toronto” labelled items would not be distributed to surrounding regions. This would create significant financial and administrative impacts on retailers and distributors to redesign or create Toronto-specific packaging.

Administration costs of establishing and operating the program could possibly include accounting, promotion and education, enforcement, infrastructure, customer service, staffing, audits of collected material. Fraudulent activity could also increase costs of the running the program (e.g., manufacturing deposit-bearing materials). A portion of the costs associated with operating such a program could be somewhat offset by the increased revenue flow from unredeemed deposits and environmental fees.

Generally, deposit return programs operating without other collection systems (e.g., curbside collection) result in increased capture rates of the applicable materials because there is a financial incentive to return the materials and redeem the paid deposit. Bottle deposit return programs in other jurisdictions (e.g., Oregon, California, Alberta, B.C.) were originally intended to reduce litter and/or increase the capture of recyclable material but not to reduce the use of bottles.

**A Deposit Return System for the Target Materials:**

In addition to the border issues cited, a deposit return program would not be feasible for the Target Materials, given the volume of materials to be managed and the time required to count and refund deposits. A program like this, run by retailers, would be difficult and onerous to administer, prone to fraud and would place an unfair burden on Toronto retailers.

Managing the Target Materials through a deposit return system:

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>◆ A deposit return program decreases litter and increases the capture rate by placing an economic value on the designated materials.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Local deposit systems are problematic because of boundary issues. Local-specific labelling would be required, and due to the nature of the retailers using the subject materials in this report (i.e., the majority have franchises inside and outside of the borders of the City of Toronto), would create a significant operational impact on Toronto based retailers who use the subject materials in order to comply with a deposit return policy.</li> </ul>
<ul style="list-style-type: none"> <li>◆ A deposit return program could be operated by retailers, limiting the City's involvement to legislation, auditing and enforcement.</li> </ul>	<ul style="list-style-type: none"> <li>◆ A deposit return program may preclude the City of Toronto from receiving funding for specific items from stewards through Waste Diversion Ontario.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Deposit return programs do not promote source reduction. They are designed to recover a specific material for reuse or recycling though an economic incentive aimed at the consumer.</li> <li>◆ Given the administrative structure, return depots, promotion and education, enforcement and auditing required by existing deposit return programs, the anticipated costs associated with implementing and operating a deposit return program in Toronto would come with significant capital investment and operating costs.</li> <li>◆ Not consistent with the curbside-focused service model offered by Solid Waste Management.</li> <li>◆ Onerous on retailers that would have to provide space for materials, return depots and additional time spent counting and refunding deposits.</li> </ul>

**Bans:**

Staff explored the concept of an outright ban on all of the Target Materials, but concluded that this would be onerous, inconvenient and impractical for both retailers and residents. Single-use Target Materials should still be available, as long as they are compatible with recycling programs. Our recommended approach drives the recyclability of the Target Materials and provides residents with the tools and knowledge to make an environmentally responsible choice.

Bans on certain material types are often associated with driving retailers to use alternative packaging comprised of recyclable or compostable material. The cities of Santa Cruz and San Francisco both require “biodegradable, compostable or recyclable” alternatives in lieu of plastic or foam disposable food service ware. The City of Seattle is pursuing a ban on expanded polystyrene foam take-out food containers and cups, in favour of driving retailers to offer recyclable or compostable foodservice containers. Staff’s recommended approach to the target materials is similar to these concepts by banning Target Materials that are not compatible with the City’s recycling programs and which must be landfilled.

**Banning the Target Materials:**

Advantages	Disadvantages
♦ Banning non-recyclable materials would reduce the amount of Target Materials managed through the City’s Green Lane Landfill.	♦ Transition period away from banned materials may impact retailers and consumers.
♦ Would immediately result in source reduction of the banned material.	• Research and development costs for retailers and manufacturers to develop packaging that is compatible with Blue Bin recycling programs.
♦ Would help to drive the use of reusable alternatives to banned materials.	♦ Would have a health and safety impact, in the case of plastic take-out food containers.
♦ Would help to drive the use of recyclable materials in lieu of the banned materials.	
♦ Low impact on consumers if acceptable reusable or recyclable alternatives are offered.	
♦ Would increase the WDO funding for the City if more readily recyclable alternatives were used in lieu of banned materials.	

**Taxes:**

Subsection 267 of the *City of Toronto Act* sets out the City's ability to impose taxes. There are two requirements that must be met for the City to impose a tax under this section.

- the tax must be a direct tax within the City
- the tax must not fall within the list of thirteen exclusions (noted in ss.267(2))

Generally, for the purposes of the Target Materials, if a tax were to be effective to encourage customers to choose to avoid paying the tax, the tax would have to be a sales tax, i.e. a tax of a certain amount charged to a customer in the purchase of a plastic bag. An approach such as this would be similar to the Irish plastic bag levy, which (noted below) was highly successful at reducing the demand for plastic retail shopping bags.

However, the *City of Toronto Act* only allows the City to impose sales taxes on alcohol, tobacco and admission to a place of amusement. The *City of Toronto Act* does not allow the City to impose a sales tax on the Target Materials.

Given that a sales tax on the Target Materials is not permissible under the *City of Toronto Act*, Solid Waste Management Services is not recommending a tax. However, Solid Waste Management Services acknowledges based on a review of comparable jurisdictions who have imposed taxes on the Target Materials, that the tax is a useful tool for consumer source reduction. Acknowledging this, Solid Waste Management Services submitted a recommendation to seek the power to apply a charge akin to a "Green Tax" or "Advanced Recovery Fee" during the 2008 City of Toronto Act review process.

**Fees**

Generally, the City can impose a fee on persons for services or activities the City provides or does on behalf of persons. There are components in each fee that the City imposes, first that the City is providing a service to a person or allowing the person to use the City's property and second that the revenue that will be collected is reasonably connected to the cost of providing that service or allowing the use of that property. There are also limitations on our ability to calculate the fee we wish to impose found in the *City of Toronto Act*. Specifically the City cannot impose a fee that is based on the use, purchase or consumption by a person of property other than property belonging to the City.

While these Target Materials are found in litter, the City is already charging the Volume Based Rate fee on residents to help in part cover the costs of our litter cleanup service. staff does not believe there is another service in which we could collect a fee for to be able to deal with the Target Materials. More importantly, given the limitations found in the *City of Toronto Act*, the City could not impose a fee on people purchasing coffee cups or plastic bags. As a result, Solid Waste Management Services did not explore the fees option any further.

Adding a tax or fee to the Target Materials

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>◆ A direct charge on consumers has been shown to be the most effective way of driving source reduction of the Target Materials.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Not currently permissible or feasible under the authority of the City of Toronto Act.</li> </ul>
<ul style="list-style-type: none"> <li>◆ A financial tool, such as a discount, can be a positive incentive to choose less packaging.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Additional administration and enforcement costs for the City of Toronto.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ A tax may require financial auditing, reporting and administration in conjunction with Canada Revenue.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ An additional tax or fee within the City of Toronto on the Target Materials would create a competitive disadvantage for Toronto retailers.</li> </ul>