

MEMORANDUM

WMPSC-C 25-2017

Subject: Blue and Grey Box Cover/ Lid Options

Date: Monday, June 26, 2017

To: Waste Management Planning Steering Committee

From: Alexis Stupich, Waste Management Services Advisor

The purpose of this memorandum is to provide Waste Management Planning Steering Committee members with information on options to reduce wind-blown litter as a result of recyclables set out for collection in open top recycling boxes. The below information will also address the feasibility of using recycling boxes with lids, which was raised at the April 24, 2017 City of St. Catharines Council meeting.

History

Blue and Grey Box lids and/or covers have been suggested as a mitigation measure to reduce the potential for litter resulting from wind-blown recycling. Staff have previously investigated potential options to reduce wind-blown recyclables in past memorandums to members of the Waste Management Planning Steering Committee, and this memo serves to update members on the availability of suppliers and new studies and pilots completed by other municipalities since the last memo in 2014 (WMPSC-C 28-2014).

Options for Reducing Wind Blown Litter

The three municipalities in Ontario that currently provide recycling box covers to residents (sold at a cost in each case) include Oxford County, Simcoe County and City of Greater Sudbury (see Appendix A for more details). These municipalities have indicated that they have received complaints from some residents regarding drivers throwing the covers, and complaints from the collection contractors which include the covers not coming off.

Many municipalities including the City of Markham, the City of Kingston, Town of Richmond Hill, Halton Region and the Region of Peel have conducted pilot studies into the practicality of using covers on recycling boxes to contain recycling materials and have opted to not offer residents this option. A full list of the findings from these municipalities' studies can be found in Appendix B. In general, these studies found that properties using recycling box covers increased the amount of collection time at each stop by the contractor to remove lids and/or covers. Other findings from these studies included that residents would overfill their containers so that material would spill when the cover was removed, suppliers of the recycling box lids went out of business, and

contractors had issues removing 'frozen' covers from the recycling boxes during the winter.

Another option to reduce the opportunity for wind-blown litter is through cart based recycling collection programs. Some municipalities including the City of Guelph, Peel Region, and the City of Toronto have implemented cart-based recycling collection program, which reduces wind-blown litter as all carts are equipped with lids. However, there is a concern with increased rates of contamination in cart based recycling programs. According to the Continuous Improvement Fund's 2016 report (www.thecif.ca), Automated Cart Collection: a Study of Municipal Collection and Operations in Ontario, Ontario municipalities using an automated cart based recycling program have an average of 24% contamination in their recycling program, while municipalities using boxes have an average contamination rate of only 13% in their recycling stream. Seven cart based municipalities were included in this study, of which the majority had single stream recycling, and this may be another contributing factor. For reference, Niagara's two stream recycling box system had a 2015 contamination rate of 4.5%.

Recycling Box Cover Considerations

There are some lid options available on the market to use as a cover for recycling box contents, however they are not in widespread use, and are generally not available at retail outlets. Appendix C provides a list of various recycling box cover manufacturers.

Historically, Niagara Region has purchased recycling boxes through a competitive process from different manufacturers, which come in a variety of shapes. Not all covers available for purchase through local manufacturers may properly fit onto recycling boxes of different shapes.

Several local manufacturers of recycling box covers/lids are also no longer producing this product. A list of manufacturers that no longer offer recycling box covers is outlined in Appendix D.

Current Initiatives

1. Larger Capacity Boxes and Clear Bags to Minimize Overfilling and Reduce Wind-Blown Litter

Niagara Region has also been providing residents with Blue and Grey Boxes with a larger capacity of 83 litres (approximate increase of 30%) to minimize the overfilling of recyclables by residents and reduce the potential for wind-blown litter. In addition, residents are permitted to use clear plastic bags or a container with a lid that is clearly marked 'Recycling', as an alternative recycling container. As there are no

limits to the quantity of recyclables that residents are able to place curbside, residents are also advised to consider that they can hold their recycling boxes for set out to the following week when conditions may be more favourable.

2. Residents May Use Recycling Box Covers

Residents are also advised on the Regional website that they are able to purchase their own recycling box covers for use on their recycling boxes to prevent materials from blowing out.

3. Anti-Litter Campaigns to Encourage Proper Set-Out Practices

Niagara Region has ongoing anti-litter campaigns designed to encourage proper set-out practices for residents. The following social marketing and outreach initiatives are currently being used to encourage good recycling box set-out practices by residents:

- Articles on proper set outs were placed in Green Scene;
- Helpful hints are placed in the collection calendars and the Regional website;
- Waste Management By-Law staff issuing friendly reminder notices
- Letters are delivered to targeted neighbourhoods; and
- Information is made available to residents during special events and at public displays.

Summary

As previously presented to the Waste Management Planning and Steering Committee on July 7, 2014, municipal-wide provision of recycling box covers is not a recommended practice largely based on the research performed by other municipalities and associated challenges which were reported. However, as one part of the overall strategy to combat wind-blown litter from recycling boxes, Niagara does allow residents to purchase and use lids/covers.

Respectfully submitted and signed by



Alexis Stupich,
Waste Management Services Advisor

Appendix A- Municipalities Currently Offering Covers/Lids for Recycling Containers

Municipality	Manufacturer/ Cover Type	Completed Studies/Pilots	Method of Purchase	Additional Comments
Oxford County (population: 106,000)	<ul style="list-style-type: none"> - Peninsula Plastics - Hard plastic cover - Fits 16 and 22 gallon boxes 	Informal pilot – a report will not be completed	<ul style="list-style-type: none"> - The covers are sold at municipal offices only - Sold for \$1.50 each (price not subsidized) 	<ul style="list-style-type: none"> - Contractor has issues with covers not coming off - Some residents have complained about drivers throwing covers - Staff recommends that covers should be introduced at beginning of a new contract, as it will affect contract pricing and create operational issues, if introduced part way through an existing contract
Simcoe County (population: 284,000)	<ul style="list-style-type: none"> - Orbis Canada - Hard plastic cover - Fits 22 gallon box 	No studies or pilots were completed	<ul style="list-style-type: none"> - Resident can call their Customer Service line to purchase for \$5.00 	<ul style="list-style-type: none"> - Lids available for sale, but not many lids have been purchased by residents - Will provide them for free, if necessary, for escalated issues to help defuse a situation
City of Greater Sudbury (population: 160,000)	<ul style="list-style-type: none"> - Busch Systems - “Big Blue” round 32 gal. blue can with cover (single stream) 	Pilot study completed in 2008	<ul style="list-style-type: none"> - Can and cover are sold for \$10 at various City facilities 	<ul style="list-style-type: none"> - The lids can break in extremely cold temperatures - Standard Blue Boxes with no lids/covers are also available to residents at no cost

Appendix B- Municipalities Which Considered Using Recycling Box Covers

Municipality	Reasons for Not Pursuing Recycling Box Covers
Town of Markham (population: 332,000)	<p>The Town decided not to provide recycling box covers for the following reasons:</p> <ol style="list-style-type: none"> 1) The contractor found the blue box covers unsuitable, as residents tended to overfill them and material would spill when cover was removed; and 2) In winter, the covers became sticky from residue and material would stick to them, especially if snowing and freezing. <p>The Town of Markham does not allow residents to use blue bags for recycling, as the York Region MRF will not accept bags.</p>
Region of Peel (population: 1,300,000)	<p>The Region decided not to provide recycling box covers for the following reasons:</p> <ol style="list-style-type: none"> 1) The areas with the blue box covers had the highest collection time with an increase in up to 5 seconds per household, in comparison with a standard recycling box; 2) Improper use of netted recycling boxes including overloaded netted boxes; 3) Significant annual increase in collection costs for mesh nets and plastic bonnets (\$3.6 million); and 4) Covers were least favourite of three container type options (other two were 121 litre container and blue plastic bags) by collection staff. <p>The Region of Peel switched over to a cart-based collection system in 2016, and no longer accepts recycling boxes at the curb.</p>
City of Kingston (population: 125,000)	<p>The City tested three types of covers in a 2013 pilot of 100 households:</p> <ol style="list-style-type: none"> 1) Peninsula Plastics snap-on cover, which can only be used with Peninsula Plastic brand recycling boxes; 2) The EnviroWeb mesh net, which can be used on most standard curbside recycling boxes; and 3) The KITEE fabric cover, produced by a local resident, which can be used on most standard curbside recycling boxes. <p>Based on the results of this pilot, it was determined that it would not be feasible to introduce the covers due to the extra time that would be added to collection routes and the potential for increased costs for collection. The City would not consider allowing covers as part of their next contract.</p>
Region of Halton (population: 520,000)	<p>The Region considered doing a pilot project in 2010, but decided against it for the following reasons:</p> <ol style="list-style-type: none"> 1) The research the Region did on available covers at the time was not conclusive; and 2) The cost and time involved in doing a study was prohibitive.

Municipality	Reasons for Not Pursuing Recycling Box Covers
	Instead, the Region decided to focus on P&E measures to educate residents on how to avoid litter issues.
Richmond Hill (population: 190,000)	<p>Completed pilot in 2014 using Busch 32 Gallon Recycling cans, and PenPlast vented covers. Opted not to offer this service to residents due to the following reasons:</p> <ul style="list-style-type: none"> 1) The lids were problematic as they blew away from the containers and often went missing; and 2) The collection contractor had issues with the Busch round containers as they did not work well with their side-loading vehicles. <p>•</p>
City of Kawartha Lakes (population: 75,000)	The City of Kawartha Lakes used to offer hard metal recycling box covers to residents for purchase for \$5. The City stopped offering this service as their supplier (Green Marketing Co.) for the hard metal covers stopped producing this product. The City of Kawartha Lakes noted that there was minimal interest from residents in purchasing these lids.

Appendix C- Current Recycling Box Cover/Lid Manufacturers

Product	Manu- facturer	Where	Cost/ Unit	Cover Description	Distribution e.g. On-line or Retail	Warranty
Orbis Recycling Box Cover (NPL 254)	Orbis Corporation	Rexdale	\$2.55 plus freight and taxes (wholesale)	- Fits 12, 16, and 22 gal. Orbis boxes only	- Not available retail, only by order - Packaged 25 per box	5 Year
Orbis Recycling Box Cover (NPL 266)	Orbis Corporation	Rexdale	\$3.60 plus freight and taxes (wholesale)	- Fits 18 gal. Orbis box only	- Not available retail, only by order - Packaged 20 per box	5 Year
Busch Recycling Box Cover	Busch Systems	Barrie	\$4.99/lid when ordered by the skid \$6.00/lid individually	- Will only fit Busch 18 gallon bins	Not available retail, only by order	1 year
PenPlast Recycling Box Cover (Vented)	Peninsula Plastics Ltd.	Fort Erie	\$1.90/lid (wholesale)	- Fits PenPlast 16/22 gallon bins Vented lid with opening on top so material can be placed in bin with lid on.	Wholesale and retail (sold at Home Hardware and soon Home Depot) Packaged in boxes containing 10 lids/box or 300 lids/pallet	Dependent on contract (must purchase PenPlast recycling bins)
PenPlast Recycling Box Cover (Solid)	Peninsula Plastics Ltd.	Fort Erie	\$2.30/lid (Wholesale)	Fits PenPlast 16/22 gallon bins Solid lid, snaps on and off	Wholesale Packaged in boxes containing 10 lids/box or 300 lids/pallet	Dependent on contract (must purchase PenPlast recycling bins)

*Lids and covers available for purchase may not fit all recycling boxes distributed through Niagara Region

Appendix D- Manufacturers no Longer Supplying Recycling Box Covers

Product	Manufacturer	Where	Cover Description	Extent of Use
Recycle Bin Bungee Cord & Cover	Orbis Corporation	Rexdale	<ul style="list-style-type: none"> - Bungee cord was made up of several components, which are made off shore and assembled into kits for ORBIS - Cover snaps onto recycling bin 	Not used extensively due to potential for injury when removing bungee cord
Blue Box Bonnet	Lowry Textile	Essex	<ul style="list-style-type: none"> - Light weight UV coated plastic cover with elastic band and plastic handle - No assembly required 	<ul style="list-style-type: none"> - Pilot in Town of Okotoks, Alberta - Used in Peel pilot, but Region did not go with them
Mack Cap	Lowry Textile	Essex	<ul style="list-style-type: none"> - Polyethylene plastic cover called 'blue box bonnet', 1.5ml thick, UV inhibitors, construction grade, - No assembly required: A grommet is placed over hole and then tied with a cord 	Used in Peel pilot, but Region did not go with them
Ranger Metal	Green Marketing Co.	Guelph	<ul style="list-style-type: none"> - Metal with a plastic coating - No assembly required – cover is placed over blue box and stays secure 	Used to be distributed in City of Kawartha Lakes
Green Net	Finalli	Alberta and Ontario	<ul style="list-style-type: none"> - Knitted polyester mesh cover with metal snap - Assembly required: The resident must drill a hole through the recycling box then affix the snap. The cover is then attached to the recycling box by securing the snap 	Not used in pilots
Recycle Net	NUCOVE	Nova Scotia and Ontario	<ul style="list-style-type: none"> - Stretchable polypropylene mesh cover with rigid plastic end pieces - Assembly required: One end piece is clamped on to one end of the recycling box with two clamps and screws. The other end piece is hooked under the lip at the other end of recycling box 	Used in Town of Markham pilot and distributed to rural residents, at no charge
VIP	YY	China	Nylon mesh	Used in Peel Region

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Product	Manufacturer	Where	Cover Description	Extent of Use
Distribution 2000 Inc. - Enviro Web	Everblooming International			pilot, but Region did not go with them
Scepter Recycling Box Cover	Scepter	Scarbor-ough	Fits Scepter box only - Product not normally stocked by company	None