
Subject: Blue Box Lids and Covers

Report to: Waste Management Planning Steering Committee

Report date: Monday, June 28, 2021

Recommendations

1. That the Waste Management Planning Steering Committee **RECOMMEND** to the Public Works Committee the following:
 - a) That staff **BE DIRECTED** to continue promoting the availability of recycling box lids and covers through public retail and on-line outlets, using Regional communication avenues, in place of offering recycling box lids or covers.

Key Facts

- This report is a response to a request from Councillor Foster at the April 13, 2021 Public Works Committee meeting for staff to reinvestigate nets as covers for curbside recycling boxes to support the reduction of litter observed in Niagara region communities.
- Niagara Region permits the use of alternate containers, including lids and covers, within the criteria of the Waste Management By-Law, to contain recyclable materials.
- Municipal pilot programs that tested the use of lids and covers on recycling boxes saw: low usage rates; overfilling of containers causing spilled materials upon collection; slower collection rates and injury to collection staff; compatibility issues between boxes and covers of different sizes; and loose and lost covers resulting in requests for replacement.
- Niagara's own pilot project in 2019/2020 resulted in the same conclusions as other municipal pilots.
- On June 3, 2021, the Government of Ontario finalized the Blue Box Regulation under the Resource Recovery and Circular Economy Act, 2016 requiring producers to operate and fund the collection and processing of residential blue box materials. Under this new framework the residential Blue Box program could look very different from Niagara's current box-based recycling program. Niagara's residential Blue Box program will transition over to the new framework on January 1, 2024.

Financial Considerations

Based on the budget pressures and restrictions that will continue into 2022, and the uncertainties presented by COVID-19, Waste Management Services continues to deliver essential services to our residents, businesses and community partners. Although the few municipalities that offer recycling box covers do so at full cost recovery, the issue of box lid/cover loss (dumped into collection trucks or blown away) will initiate a demand for free replacements.

Analysis

Municipalities Using Recycling Box Covers

Appendix A provides a list of those municipalities that are currently offering recycling box covers or a container with a lid as an option to residents. These five municipalities are offering the sale of optional recycling box covers/lids to residents at full cost. While most have noted that the covers help keep material from escaping when the boxes are blown over, they have also stated that use of the covers slows down collection times; and allows residents to overfill the containers causing the material to spill out once the covers are removed. These municipalities also noted that there has been low uptake for lids and covers.

Another observation included the complications in offering one standard lid to residents due to new procurement processes/vendors resulting in new recycling box sizes every few years. In order to avoid this problem, one municipality offers an optional mesh net that can be used on different sized containers. However, they have also noted, similar to the municipalities offering lids, that the collection contractor has expressed concerns regarding the increased time needed for collection with nets, as well as the tendency for residents to overfill these covered containers causing the material to spill out during collection. This spillage can add to the litter problem.

Municipalities that Decided Against Using Recycling Box Covers

Municipalities that have considered a cover for recycling boxes have to contend with the light nature of these covers and how they can be easily lost, accidentally deposited into recycling trucks, or blown away by wind. Additionally, consideration has to be made regarding the negative impact on collection efficiency rates and the impact on collection staff (i.e. difficulty maneuvering lids/covers with gloves, injury when nets snap back).

Appendix B lists a number of municipalities that considered the use of covers, but ultimately did not proceed with them. A number of concerns are cited in the appendix, however the most significant issues are noted below:

- Overfilling/overloading by residents caused material to spill when the covers were removed leading to increased litter
- An increase in collection times up to five seconds per household in comparison to the standard recycling box
- Covers were the least favourite resident option, when compared to the 121 L round container with a lid and transparent plastic bags
- Hard covered lids can only be used together with a recycling box that was manufactured by the same manufacturer
- Loose and lost covers can become part of the overall litter problem
- Despite some nets being attached with screws to recycling boxes, the nets still have a tendency to come off of the box and wind up in the truck with the recycling material
- Nets were found to be inefficient and difficult to remove by collection staff in the winter when collection staff are wearing gloves. In the summer, nets tend to snap back at the collection staff causing injury

Niagara Region's waste management staff piloted the use of lids in 2019/2020. Three months after the pilot was completed, only 11% of households were using the lid. Of those pilot households not using the lid, 20% were using clear bags or stacking their boxes to prevent recyclables from blowing around.

Staff recently looked at the recycling box net manufactured in England (recycleboxes.co.uk). This is a string net that stretches over the recycling box made of nylon with an elasticized fabric band to hold it around the box and 'grab and pull' release ribbons. Based on the experience of other municipal pilots, despite the style of the net, the same repeat issues are recognized (extra time to collect; residents overfilling boxes adding to litter problem upon collection; lost nets; replacement costs/concerns).

Collection Contracts

With respect to the use of recycling box covers/lids, Niagara Region's current collection contract states: *"Property Owners may use covers, such as lids or netting, for their Blue/Grey Boxes to prevent materials from blowing out. At present, a minority of property Owners use covers. The Successful Proponent must remove covers with care, so not to cause damage to them. If covers are completely removed by the Successful*

Proponent, the covers must be placed inside the empty Blue/Grey box and returned to the original set-out location.”

Collection staff from both of the Region’s current contractors have indicated a preference for clear bags over recycling box lids/covers to control the potential for litter. While clear bags can support containment of recycling material placed at the curb and reduce litter, clear bags also contribute to higher levels of contamination in the recycling stream as residents may combine both grey box and blue box materials inside of one bag. Clear bags also reduces the efficiency and productivity of the process. As such, recyclable items placed loose in curbside boxes is preferred as it supports a reduction in residue and a reduction in processing costs.

Both Niagara’s current collection contractors have been involved in pilots in other municipalities, and each contractor noted experiences with lids and covers that became warped/damaged or had been blown away by wind. Also noted was a rise in complaints from residents wanting replacements for the lost or damaged recycling box lids/covers. One Region contractor had concerns about a possible decrease in productivity should the prevalence of covers or lids increase; while the other Region contractor highlighted possible health and safety concerns as a result of the repetitive motion involved with routinely removing the recycling box lids/covers if the use of these lids became more wide-spread.

Both Niagara Region’s current collection contractors are performing well. Staff are concerned that the introduction of widespread recycling box covers may negatively impede their performance.

Extended Producer Responsibility

The Government of Ontario has finalized the Blue Box Regulation under the Resource Recovery and Circular Economy Act, 2016, on June 3, 2021 requiring producers to establish, operate and fund residential Blue Box collection and processing systems. The new responsibility framework and collection model in Niagara will be determined over the next two years and will be initiated on January 1, 2024.

The new framework operated by Producers could look very different from Niagara’s current box-based recycling program. Producers may not want recycling box covers due to the potential to slow down curbside collection and the probable need to continually replace covers for residents.

Current Approach

The current educational and promotional approach to dealing with wind-blown litter from curbside recycling boxes includes the following:

- Providing recycling boxes with a larger capacity of 83 litres to minimize the overfilling of recyclables
- Allowing alternate containers with a lid that is clearly marked 'Recycling' as an alternative recycling container, similar to the 121 L containers that are permitted in Richmond Hill, the City of Greater Sudbury and in Ottawa Valley
- Using clear bags - however clear bags are not preferred due to the negative impact on the Recycling Centre operations
- Advising residents that they are able to purchase and use their own recycling box covers and that these can be purchased at local department stores or through on-line vendors, for minimal cost
- Reminding residents that there are no limits to the quantity of recyclables that they are allowed to place at the curbside; and if conditions are windy, advising them to consider holding on to their recycling for set out the following week
- Reminding residents through promotional and educational outlets not to place containers or bags on top of, or behind snowbanks and instead shovel out a space for their waste and recycling material at the curb
- Using social marketing and outreach initiatives to encourage good recycling box set-out practices (i.e. placing heavier materials on top of lighter materials), and the promotion anti-litter campaigns
- Allowing for other containers as permitted in the Regional Waste Management By-Law, providing that they meet the following criteria:
 - Height: 3 feet (91 cm) or less
 - Diameter: 2 feet (61 cm) or less
 - Weight: 22.7 kg (50 lbs.) or less when full
 - Handles: Must have handles to pick up container

An information page has been developed and posted on Niagara Region's website to communicate the above tips to combat litter from curbside waste and recycling placement. The web page reminds residents that they are able to purchase and use their own recycling box covers/lids and that these can be purchased at local department stores such as Canadian Tire and Home Depot for a minimal cost.

Review

Based on the following Niagara Region recommends continuing with the current educational and promotional approach and not distribute covers/lids for curbside recycling boxes.

- results of the municipal blue box lid trials (including Niagara's);
- the potential impact to the safety and efficiency of collection staff;
- the availability of recycling box lids and covers in popular department stores/on-line at reasonable prices, and
- the uncertainty of the collection processes after the Residential Blue Box program transition to the Extended Producer Responsibility framework.

Alternatives Reviewed

Staff researched other municipal programs to determine use and effectiveness of lids and covers. Niagara Region also undertook a pilot to trial covers and lids in 2019 and 2020. Based on the content of this report, including the results of a Niagara Region pilot project, Staff are not recommending that Niagara Region distribute covers or lids for curbside recycling boxes.

Relationship to Council Strategic Priorities

The Region's recommendation to not use curbside recycling box lids/covers supports Council's strategic priority of Responsible Growth and Infrastructure Planning. Promotion of anti-litter strategies, as well as the use of alternate containers, and the availability of recycling box lids and covers at common retail outlets will encourage those that are interested in these tools to use them as we wait on large scale transition plans of the Blue Box program to full producer responsibility beginning in Niagara on January 1, 2024.

Other Pertinent Reports

Previous updates on recycling container covers and options to reduce windblown litter were presented to the Waste Management Planning Steering Committee on:

- July 7, 2014: WMPSC-C 28-2014;
- June 26, 2017: WMPSC-C 25-2017;
- February 25, 2019: WMPSC-C 11-2019;
- October 28, 2019: WMPSC-C 37-2019; and

- February 22, 2021: WMPSC-C 11-2021

These memos outline the Region's consideration of recycling container cover options; the pros and cons related to these options; and the evaluation regarding recycling carts with lids. The memos also summarize the progression and development of how Niagara Region has addressed the issue of litter; Niagara's blue box lid pilot; and the results of recycling box cover pilots in other municipalities.

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Appendices

Appendix A	Municipalities Currently Using Recycling Blue Box Covers
Appendix B	Municipalities Which Considered Using Recycling Box Covers

Municipalities Currently Using Recycling Box Covers

Municipality	Manufacturer/ Cover Type	Method of Purchase	Additional Comments
Oxford County (population: 110,900) 2016	<ul style="list-style-type: none"> - Peninsula Plastics - Hard plastic cover - Fits 16 and 22 gallon boxes 	<ul style="list-style-type: none"> - The covers are sold at municipal offices only - Sold for \$2.70 each (price not subsidized) 	<ul style="list-style-type: none"> - Lids used more by residents in rural areas - Estimate participation rate to be about 25% - Encourage residents to secure material by placing heavier items on top and avoiding setting out on windy days.
Richmond Hill (population: 235,025) 2020	<ul style="list-style-type: none"> - Busch Systems - 32 gal. round container with lid 	<ul style="list-style-type: none"> - Round container with lid available for \$42.04 inclusive of HST 	<ul style="list-style-type: none"> - Large round container with lid was preferred by residents over standard blue box with lid - Do not provide separate lids. Lids only sold together with container - Small uptake, likely due to higher price point - City allows residents to buy different 121 litre round containers with lids from retailers, as long as they are blue - Noted that collection contractor reserves right to charge an additional fee for collection if these containers become common
Simcoe County (population: 307,100) 2016	<ul style="list-style-type: none"> - Various lids as the lid must change based on the changes in blue box vendors. 	<ul style="list-style-type: none"> - Lids available upon request and sold through customer service department - Can be purchased for \$5 - No subsidy 	<ul style="list-style-type: none"> - Each blue box vendor sells a corresponding lid. With each new box contract, lids must change which is problematic. - Lid is generally purchases subsequent to the boxes - Only sell about 1 to 2 lids each year, but that is likely a result of the lack of promotion. - Not making them widely available because it slows down collection.

Municipality	Manufacturer/ Cover Type	Method of Purchase	Additional Comments
			<ul style="list-style-type: none"> - Promotion of stacking recycling boxes with lighter material in the bottom box.
City of Greater Sudbury (population: 161,531) 2016	<ul style="list-style-type: none"> - Busch Systems - “Big Blue” round 121 litre blue can with cover (single stream) 	<ul style="list-style-type: none"> - Big Blue with lid is sold for \$10 from the Recycling Centre and from Citizen Service Centres - City subsidy on Big Blue container of \$22 per unit until 2026 - Replacement lids sell for \$12 each - no subsidy - Recycling boxes with no cover are still available for use – no charge 	<ul style="list-style-type: none"> - Typical box lids are not interchangeable with different sized recycling boxes. - The City did not want to give away a free lid with every recycling box due to cost. - Tried nets, but they injured collection staff when they snapped open - Residents needed to install nets on boxes with screws. In cold weather, boxes would crack and break more easily at the installation point. - Nets are more expensive than the recycling boxes - Limited interest in Big Blue containers with lids, despite hefty subsidy. Between 1,000 to 1,500 are sold each year. - City suggest that residents write address on lid and container in case they blow away. - Residents are dismayed at the \$12 Big Blue lid replacement cost
Ottawa Valley Town of Petawawa:	<ul style="list-style-type: none"> - VIP Group Enviroweb Mesh Nets 	<ul style="list-style-type: none"> - Available for sale at Ottawa Valley Waste Recovery Centre and through the 	<ul style="list-style-type: none"> - Nets can be used on recycling boxes and on 121 litre yellow containers - While the nets work when the containers blow over to keep material in, residents can overfill

Municipality	Manufacturer/ Cover Type	Method of Purchase	Additional Comments
<p>population 17,187) 2016</p> <p>Township of Laurentian Valley: population 9,387) 2016</p> <p>Pembroke: population 13,882) 2016</p>		<p>municipalities for \$6.00</p>	<p>the containers and when the nets are removed, the material spills out.</p>

Municipalities Which Considered Using Recycling Box Covers

Municipality	Reasons for Not Pursuing Recycling Box Covers
Town of Markham (population: 328,966)	<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 will also not be allowing residents to use blue bags for recycling, as the York Region Material Recovery Facility will not accept bags.</p>
Region of Peel (population: 1,382,000)	<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 to a bi-weekly recycling cart-based collection system as part of its new collection contract, which commenced in 2016. Organic carts are collected on the alternate weeks as recycling carts.</p>
City of Kingston (population: 129,653)	<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</p>

Municipality	Reasons for Not Pursuing Recycling Box Covers
	to collection routes and the potential for increased costs for collection. The City would not consider allowing covers as part of their next contract.
Region of Halton (population: 548,435)	<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. <p>Instead, the Region decided to focus on promotion and education measures to educate residents on how to avoid litter issues.</p>
City of Kawartha Lakes (population: 190,000)	<p>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.</p>
County of Essex (population: 181,53)	<p>The County of Essex conducted a 3 month pilot project on 200 houses in the County and City. The pilot tested using the plastic, elasticized Bonnet to cover the Blue Box. The project was completed in 2008. At the time the product was not available by retail and cost approximately \$4.50 for a package of three. The County of Essex does not currently offer Blue Box covers or lids.</p>
Region of Durham (population: 645,862)	<p>In June of 2018, Region staff recommended a pilot project to reduce Blue Box related litter through a combination of education and the provision of additional bins to residents. Staff recommended against Blue Box lids for the following reasons:</p> <ol style="list-style-type: none"> 1) Blue box lids have not worked in the past as the lids come off and become part of the litter problem. 2) Attached lids present a pinch point hazard to recycling collectors 3) Mesh covers encourage residents to overfill boxes, leading to increased litter when the cover is removed by the collector and the compacted recycling falls out of the container. <p>In 2019, recycling box lids were distributed to 400 homes. In the fall of 2020, a litter audit was completed and it was found that only 24 households (6%) were using the provided lids. The low participation made it difficult to</p>

Municipality	Reasons for Not Pursuing Recycling Box Covers
	<p>evaluate the relationship between the litter generated and the presence of lids. Additional lids have been distributed to 600 additional homes and a follow up audit was completed in the Spring of 2021. Durham will determine how they proceed once the results of the follow up audits have been tabulated.</p>
<p>Niagara Region (population: 447,888)</p>	<p>In November 2019 one blue box and rigid lid was distributed to 349 homes with a promotional card and survey to educate on the use of the provided tools to reduce litter caused by recycling set outs. Three months after distribution in February 2020, only 72 households (21%) were observed to be using the lids in week one, and that shrunk to only 39 households (11%) using the lids in week 2. Of those pilot households that were observed <u>not</u> to use the provided box and lid, other litter reducing tactics were found to be practiced by 20% of the pilot households (i.e. stacking boxes and clear bags).</p> <p>Based on the uncertainty of the collection processes after the transition to the EPR framework, the poor results of the municipal blue box lid trials; the potential impact to the safety and efficiency of collection staff; and the availability of recycling box lids and covers in popular department stores at reasonable prices, Niagara Region did not recommend the use of recycling box covers.</p>