

Proposed Actions to Achieve 60% Residential Waste Diversion New (or Expanded) Recycling Programs and Initiatives – Mattresses

8. Mattresses

Summary:

- Wait to see if the Province develops a provincial program for mattresses under the *Waste Free Ontario Act* as there are limited markets for recycling mattresses in the province
- If no provincial program exists by 2021, implement a pilot project

It is estimated approximately 1,000 to 1,200 tonnes of mattresses and box springs are discarded by homeowners annually or about 50,000 to 60,000 units. About 60% of these are placed at the curb for garbage collection.

The City could ban the collection of mattresses and box springs at the curb coupled with accepting them at the EnviroDepots.

Providing occasional (e.g., semi-annual) or on-request collection at the curb is not considered practical at this time due the cost of providing such a service.

It is estimated that a depot service would capture at least 600 to 800 tonnes per year if collection of mattresses and box springs at the curb was banned and accepted at no cost at the EnviroDepots. The cost of the program would be approximately \$600,000 to \$700,000 per year (excluding initial capital costs).

It is expected that a depot system would only collect 200 to 300 tonnes per year if a fee was charged to recover the cost of the program as some of the mattresses would be taken to cheaper disposal locations within and outside of the City.

It is recommended that the City:

- Wait to see if the Province develops a provincial program for mattresses under the *Waste-Free Ontario Act* as there are limited markets for recycling mattresses in the province.
- If no provincial program exists by 2021, implement a pilot project for voluntary recycling of mattresses and box springs at the City EnviroDepots at no cost while continuing to collect mattresses and box springs at the curb.

Mattress Recycling

- There are two mattress recycling facilities in Ontario (located in Barrie and Toronto).
- Over 90% of the material in mattresses and box springs can be recycled.
- The largest municipality with a recycling program is the City of North Bay. Residents must take mattress to a drop-off depot and are charged \$20 to cover costs.



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Data from the pilot project would be used to confirm the costs, operational needs and logistics of moving to a ban of mattress collection at the curb and whether to offer the program for free, on a partial recovery basis or on a full cost recovery basis. The cost of a one year pilot project is estimated to cost \$150,000 to \$250,000.

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Consideration			Mattresses	
			Collection at EnviroDepots (on a cost recovery basis)	Curbside and EnviroDepot Collection (banned for curbside collection)
Environmental	Change in Diversion	Annual Tonnes Diverted	200 to 300	600 to 800
		Annual Units Diverted	10,000 to 15,000	30,000 to 40,000
		Contribution to 60% Target	0.12% to 0.18%	0.35% to 0.50%
	GHG Benefits	Reduction per Tonne Diverted	2.6 tonnes	
		Annual Reduction (tonnes)	520 to 780 (130 to 195 cars removed from the road ^a)	1,550 to 2,100 (390 to 520 cars removed from the road ^a)
Social	Public Support		Strong Support	Strong Support
	Resident Benefits/ Issues		<ul style="list-style-type: none"> Inconvenience of transporting to Envirodepot 	<ul style="list-style-type: none"> Convenience of curbside pick up
Financial	Cost ^b	Collection	\$40,000 to \$60,000	\$192,000 to \$232,000
		Processing	\$160,000 to \$240,000	\$480,000 to \$640,000
		Other	\$0	\$0
		Total	\$200,000 to \$300,000	\$600,000 to \$870,000
	Cost per Household		\$1.1 to \$1.7	\$3.7 to \$4.8
	Market/Revenue		No revenue	No revenue
Technical	Collection Issues		Not applicable	Incorporated with current pickup schedule
	Processing Issues		Private processor	Private processor
	Other		Not applicable	Not applicable
Notes				
<p>(a) The diversion of these materials has avoided the Greenhouse Gas (GHG) emissions equivalent to removing the identified number of vehicles per year.</p> <p>(b) Based on industry estimates, literature review and data from other municipalities.</p>				