

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

### 3. Carpets

#### Summary:

- Wait to see if Province develops a provincial program for carpets under the Waste Free Ontario Act as there are limited markets for recycling carpets in the province
- If not provincial program exists by 2021, implement a pilot project

It is estimated that approximately 600 to 800 tonnes of carpet are discarded by homeowners and collected curbside annually as garbage.

The City could ban the collection of carpet at the curb coupled with accepting carpet discards at the EnviroDepots. Occasional (e.g., semi-annual) collection at the curb is not recommended because of the added cost (cannot be collected with existing garbage collection vehicles) and the reduced recyclability of the carpet if it is left at the curb for an extended period prior to collection.

It is estimated that a depot service would capture at least 600 to 800 tonnes per year if collection of carpets at the curb was banned and accepted at no cost at the EnviroDepots. The cost of the program would be approximately \$220,000 to \$290,000 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 carpets 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 carpets under the *Waste-Free Ontario Act* as there are limited markets for recycling carpets in the province.
- If no provincial program exists by 2021, implement a pilot project for voluntary recycling of carpets discards at the City EnviroDepots at no cost while continuing to collect carpets at the curb.

#### Carpet Recycling

- There is one carpet recycling facility in Ontario located in Toronto.
- There are no municipal programs for recycling carpets in Ontario.
- California has the most extensive carpet recycling program in North America:
  - Captures 11% of discards
  - 80% of captured material is diverted from landfill (equal amounts sent to reuse/recycling facilities and energy production through energy-from-waste facilities).



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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 carpet 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 \$80,000 to \$100,000.

Consideration			Carpet	
			Collection at EnviroDepots (on a cost recovery basis)	Curbside and EnviroDepot Collection (no user fee)
Environmental	Change in Diversion	Annual Tonnes Diverted	200 to 300	600 to 800
		Contribution to 60% Target	0.12% to 0.18%	0.35% to 0.45%
	GHG Benefits	Reduction per Tonne Diverted	2.6 tonnes	
		Annual Reduction (tonnes)	520 to 780 (130 to 195 cars removed from the road <sup>a</sup> )	1,550 to 2,100 (390 to 520 cars removed from the road <sup>a</sup> )
Social	Public Support		Strong Support	Strong Support
	Resident Benefits/ Issues		• Inconvenience of transporting to EnviroDepot	• Convenience of curb side pick up
Financial	Cost <sup>b</sup>	Collection	\$8,000 to \$15,000	\$96,000 to \$112,000
		Processing	\$60,000 to \$93,000	\$180,000 to \$248,100
		Other	\$0	\$0
		Total	\$68,000 to \$108,000	\$276,000 to \$360,000
	Cost per Household		\$0.38 to \$0.60	\$1.5 to \$2.0
Market/Revenue		Outside processor at cost to City	Outside processor at cost to City	
Technical	Collection Issues		Not applicable	Not applicable
	Processing Issues		Currently only one option in province	
	Other		Not applicable	Not applicable
Notes				
(a) The diversion of these materials has avoided the Greenhouse Gas (GHG) emissions equivalent to removing the identified number of vehicles per year.				
(b) Based on industry estimates, literature review and data from other municipalities.				