

Item 7.1  
Public Works Committee  
April 30, 2018



Hamilton

# Recycling Market Impacts on Hamilton's Blue Box Program

Public Works Committee – April 30, 2018

A Volvo front loader is shown in a recycling facility, positioned over a large pile of plastic waste. The loader's arm is extended towards the waste. The background shows the industrial structure of the facility with overhead lights.

# PRESENTATION OVERVIEW

- Evolving Tonne
- Recycling Quality Standards
- Blue Box Contamination
- Top Contaminants
- “Wish Cycling”
- Recycling Markets & Revenues
- Promotion
- Blue Box Education
- Waste Free Ontario Act

# EVOLVING TONNE

- Mid 1990's – Ontario's Blue Box programs mainly collected newsprint, cardboard, aluminum/steel cans, glass bottles, and PET plastic
- Many packaging materials have been replaced with lightweight plastics, which are typically more difficult to process and produce less revenue when sold
- 2018 – Higher value commodities (e.g. aluminum) make up a shrinking proportion of today's Blue Box materials



# RECYCLING QUALITY STANDARDS

- Mid 2017 – China National Sword policy - significant change to recycling quality standards, impacting global recycling markets:
  - Pre 2017: 3% to 5% contamination rate
  - Post 2017: 0.5% - 1.5% contamination rate
- Results:
  - “Evolving Tonne” challenge to process a large variety of materials which are difficult and costly to sort
  - Recycling end-markets require “cleaner”, higher quality materials



# BLUE BOX CONTAMINATION

YEAR	HAMILTON'S BLUE BOX PROGRAM AVERAGE % OF INBOUND CONTAMINATION
2013	6.91
2014	7.98
2015	9.43
2016	13.26
2017	14.84
	5 Year Average = 10.48%

# "TOP" CONTAMINANTS



Black plastics\*



Coffee cups lids\*



Beverage cups



Multi-laminate packaging



Coffee pods



Bread tabs



Bottle caps



Non-recyclable film plastic



Polystyrene\*



Partially full containers

\*Previously recyclable

# “WISH CYCLING”

“The practice of putting questionable items in the Blue Box, thinking they will be recycled.”

- Unsorted materials
- Partially full containers
- Food waste
- Hazardous waste, sharps
- Extension cords, rope, tarps
- Oversized items



# RECYCLING MARKETS & REVENUES

## 2017

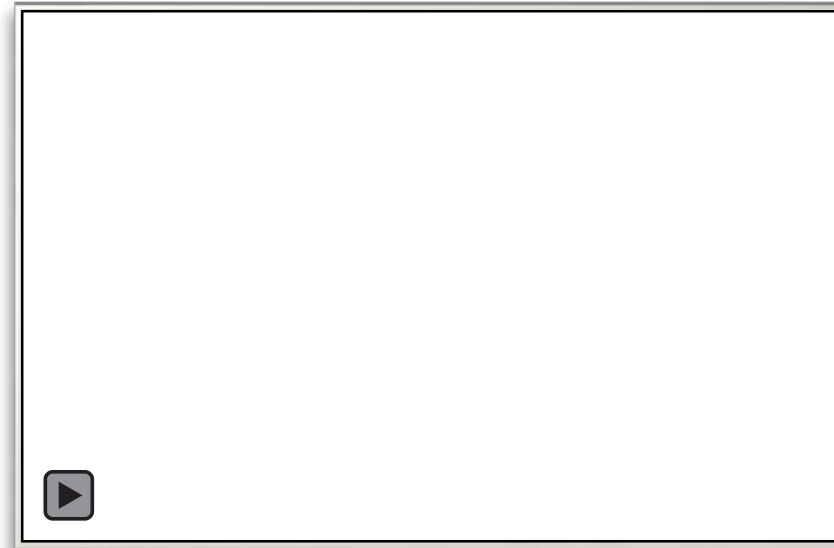
- Budgeted Revenue = \$4.2M → Year End = \$5.7M
- Driven by pricing for paper materials, aluminum, PET plastic
- 4<sup>th</sup> Quarter – 36% decrease in paper pricing

## 2018

- Budgeted Revenue = \$4.17M
- Paper materials - slower movement to end markets
- Paper revenue - 58% decrease Q1-2018 vs. Q1-2017
- Container materials – moving to end markets, pricing stable
- Container revenue – increasing quality requirements

# PROMOTION

- Constant education is necessary
- Promotion & education initiatives
  - Living in Hamilton ad campaign
  - Recycling & garbage guide
  - Waste App
  - The Spectator billboard
  - Weather Network digital ads
  - Twitter
  - City website
  - YouTube videos



# BLUE BOX EDUCATION

- Educate and change behaviours
- Avoid “wish-cycling”
- Curbside education & enforcement
- Council approved process:  
Oops stickers, courtesy notices, customer service  
follow-up, By-law enforcement



# WASTE-FREE ONTARIO ACT

- Stewardship Ontario did not meet Feb 18, 2018 deadline of submitting amended Blue Box Plan to the MOECC
- Municipal groups working on options with Stewardship Ontario & Resource Productivity and Recovery Authority
- Currently in a 'holding' pattern until after the Ontario provincial election

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Hamilton

# Thank You

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