

Town of Erin Final Report

October 3, 2018

Introduction

The new waste and recycling infrastructure arrived in the Town of Erin in June with the new bins placed throughout the town and surrounding areas in August 2018. Infrastructure has been placed in key areas such as Main Street (Town of Erin & Town of Hillsburgh), Centre 2000, Lions Park, Riverside Park, Victoria Park, and Barbour Park as agreed to with Town staff. The new bins have had a positive impact by overall increasing beverage container recycling and decreasing contamination rates.

Waste audits

The Town of Erin pilot project post-waste audits took place at 4 different locations throughout Erin including; Main Street Streetscape dual bins, McMillan Park dual bins, Centre 2000, and the Community Resource Centre (within the Centre 2000). In order to assess a typical week of material generation including weekday and weekends, the audit took place from September 12th to September 16th. All material from both waste streams was collected and sorted daily at the Centre 2000. Material covering this period from Main Street, McMillan Park, and the Centre 2000 was picked up and sorted over the 5 day period.

Custodial staff at the Centre were helpful in ensuring all material was being captured for both the recycling and garbage streams. Materials audited came from various areas of the Centre including the arena, common areas, lobby, main entrances, and the skate park and baseball diamonds. All participating locations did not have a green bin program to divert organic waste.

Below is a summary of the results for each of the locations audited including the material breakdown, beverage container recovery, and contamination rates. Following the results is a summary of recommendations based on the site assessments, observations, and audit results.

Downtown Erin Main Street – Streetscape Dual Stream (Waste & Recycling)

GARBAGE				
	Pre Audit		Post Audit	
MATERIAL	%	Weight (kg)	%	Weight (kg)
BEVERAGE CONTAINERS	2%	1.97	1%	0.74
OTHER RECYCLING	22%	16.69	13%	11.79
GARBAGE	76%	67.36	86%	69.08
TOTAL	100%	86.02	100%	81.62

RECYCLING				
	Pre Audit		Post Audit	
MATERIAL	%	Weight (kg)	%	Weight (kg)
BEVERAGE CONTAINERS	20%	5.74	36%	5.12
OTHER RECYCLING	23%	5.74	24%	3.52
GARBAGE	57%	14.34	41%	5.75
TOTAL	100%	25.81	100%	14.38



Over the 5 day period, the Main Street Streetscape bins generated over 95 kg of waste, with 22% of the waste generated recyclable (6% beverage containers, 16% other recycling). The majority of the garbage found included pet waste, organic materials (including liquid), and household products e.g. textiles, bathroom waste, diapers, film, and food packaging.

The beverage container recovery rate was 87% in comparison to 74% in the pre audit with plastic, metal, and glass being the majority of the material types found; gable top and aseptic containers had the lowest recovery. The other recycling materials found included PET, PP, and HDPE food packaging, newspapers and flyers from local businesses.

BEVERAGE CONTAINER RECOVERY BY TYPE		
	Pre Audit	Post Audit
MATERIAL TYPE	%	%
GABLE TOP	12%	24%
ASEPTIC	17%	-
PLASTIC	80%	88%
METAL	75%	89%
GLASS	77%	90%
OVERALL	74%	87%

The Streetscape bins saw a reduction in contamination from 57% to 41% with the main sources of contamination being organic materials and other waste such as polystyrene packaging, dog waste, and product wrappers. Hot drink (polycoat cups) made up 5% of the material found in the recycling and can be attributed to a significant portion of the organic liquid contamination.

Assessment results – Main Street Streetscapes

- Increase in beverage container recovery from 74% in the pre audits to 87% in the post audits
- Reduction in contamination from 57% to 40%
- Ensure all “no coffee cup” decals are placed on bins to further reduce coffee cups entering the recycling stream as contamination
- Ensure contractor is using correct bags when servicing Main Street bins
- Some streetscape bins along Main Street are being used by tenants that live on the second story above the businesses for household waste, using locks on these specific bins may help deter household waste from entering the streams.



McMillan Park – Dual Stream (Waste & Recycling)

The two dual stream waste and recycling bins within McMillan Park generated approximately 5 kg of material with 41% recyclable material (17% beverage containers and 24% other recycling). The majority of the waste found included film, wrappers, liquid, and organic material.

GARBAGE				
	Pre Audit		Post Audit	
MATERIAL	%	Weight (kg)	%	Weight (kg)
BEVERAGE CONTAINERS	1%	0.08	0%	0.00
OTHER RECYCLING	9%	1.01	27%	0.98
GARBAGE	91%	11.94	73%	2.13
TOTAL	100%	13.02	100%	3.11

RECYCLING				
	Pre Audit		Post Audit	
MATERIAL	%	Weight (kg)	%	Weight (kg)
BEVERAGE CONTAINERS	4%	0.28	42%	0.81
OTHER RECYCLING	29%	2.11	13%	0.20
GARBAGE	67%	4.27	45%	0.75
TOTAL	100%	6.66	100%	1.76



While not a large amount of material was generated at McMillan Park, the beverage container recovery rate found at the park was 100% with the majority of the recyclable material being beverage containers.

BEVERAGE CONTAINER RECOVERY BY TYPE		
	Pre Audit	Post Audit
MATERIAL TYPE	%	%
GABLE TOP	100%	-
ASEPTIC	49%	-
PLASTIC	100%	100%
METAL	90%	100%
GLASS	-	100%
OVERALL	78%	100%



The contamination rate within McMillan Park also saw a decrease from 67% to 45% with the majority of the contamination polystyrene packaging and organic materials (liquid). No coffee cups were found in the recycling.

Assessment results – McMillan Park (parks and trails)

- Increase in beverage container recovery from 78% in the pre audits to 100% in the post audits
- Reduction in contamination from 67% to 45%
- Ensure all “no coffee cup” decals are placed on bins to further reduce coffee cups entering the recycling stream as contamination.
- Ensure contractor is using correct bags when servicing McMillan Park bins.



Centre 2000

The material collected from the Centre 2000 included the indoor ice rink (dressing rooms and stands), hallways, front entrance, lobby, outdoor skate-park, and baseball diamonds. Approximately 78 kg of material was generated over the 5 day period with 28% of the material generated recyclable (10% beverage containers 18% other recycling). A significant amount of organic material (34%) was found in the garbage stream that included multi trays of uneaten sandwiches and other food products. The Centre 2000 may benefit from an organics program or look to donate leftover food to local organizations.

GARBAGE				
MATERIAL	Pre Audit		Post Audit	
	%	Weight (kg)	%	Weight (kg)
BEVERAGE CONTAINERS	6%	4.35	2%	0.96
OTHER RECYCLING	20%	13.65	13%	7.68
GARBAGE	74%	53.36	86%	48.02
TOTAL	100%	71.36	100%	56.66



RECYCLING				
	Pre Audit		Post Audit	
MATERIAL	%	Weight (kg)	%	Weight (kg)
BEVERAGE CONTAINERS	26%	1.60	31%	7.11
OTHER RECYCLING	21%	2.36	43%	6.38
GARBAGE	53%	3.96	27%	7.41
TOTAL	100%	7.92	100%	20.90

The contamination rate in the Centre 2000 decreased from 53% to 27% with the majority of the contamination caused by liquids and polystyrene packaging such as wrappers and film. The no coffee cup decals have greatly impacted contamination in a positive way, the volume of coffee cups found in the recycling was substantially less at 3% compared to 11% found in the pre audits. The replacement of infrastructure in to the indoor dual garbage and recycling bins has also positively impacted contamination and recovery rates with all of the bins now paired throughout the Centre 2000. The overall beverage container recovery rate increased very significantly from 27% to 88%.



BEVERAGE CONTAINER RECOVERY BY TYPE		
	Pre Audit	Post Audit
MATERIAL TYPE	%	%
GABLE TOP	6%	53%
ASEPTIC	0%	55%
PLASTIC	33%	95%
METAL	28%	74%
GLASS	0%	100%
OVERALL	27%	88%



Assessment results – Centre 2000 (Indoor & Outdoor spaces)

- Increase in beverage container recovery from 27% in the pre audits to 88% in the post audits
- Reduction in contamination from 53% to 27%
- Ensure all “no coffee cup” decals are placed on bins to further reduce coffee cups entering the recycling stream as contamination.
- Ensure correct bags are used when servicing Centre 2000 bins
- Place remaining recycling bins outside remaining areas surrounding Centre 2000 (library entrance, tennis courts, gardens, soccer fields.)



Centre 2000 – Community Resources Room

The community resources room within the Centre 2000 did not produce a lot of material over the 5 day period, only 12 kg of material was produced with a small number of beverage containers found in either waste stream.

GARBAGE				
	Pre Audit		Post Audit	
MATERIAL	%	Weight (kg)	%	Weight (kg)
BEVERAGE CONTAINERS	1%	0.21	0.3%	0.02
OTHER RECYCLING	19%	2.87	3%	0.26
GARBAGE	80%	8.23	96%	7.79
TOTAL	100%	11.31	100%	8.07

RECYCLING				
	Pre Audit		Post Audit	
MATERIAL	%	Weight (kg)	%	Weight (kg)
BEVERAGE CONTAINERS	12%	0.08	6%	0.25
OTHER RECYCLING	88%	0.59	91%	3.60
GARBAGE	0%	-	3%	0.11
TOTAL	100%	0.67	100%	3.96

The majority of the garbage stream consisted of other waste including, organics, film, polystyrene packaging, and product wrappers. A small amount of garbage was found in the recycling with the majority of the recyclable material made up of paper, paper products, and aluminum. The beverage container recovery rate increased from 22% to 92% and the contamination rate rose slightly from 0% to 3%.



Assessment results – Centre 2000 Community Resources Room

- Increase in beverage container recovery from 22% in the pre audits to 92% in the post audits.
- Slight increase in contamination from 0% to 3%
- Ensure correct bags are used when servicing Centre 2000 bins.

BEVERAGE CONTAINER RECOVERY BY TYPE		
	Pre Audit	Post Audit
MATERIAL TYPE	%	%
GABLE TOP	0%	100%
ASEPTIC	0%	-
PLASTIC	100%	48%
METAL	23%	93%
GLASS	-	-
OVERALL	22%	92%

General observations

- Use of black bags – in some cases black bags still being used in recycling infrastructure. Should be clear bags or no bags.
- Beverage container recovery has increased in each of the locations, and contamination rates have decreased this can be attributed to correct pairing of bins, clear colours on bins (blue for recycling), clear decals, and signage.
- Reduction in coffee cup decal contamination, ensure all remaining bins have no coffee cup decals.
- Recommend using “recyclable containers” decals on all outdoor dual stream bins to avoid confusion from public as servicing contracts differ throughout town.
- Ensure contractor is using correct bags for Main Street and McMillan Park to ensure all recyclable material is making it to the material recovery facilities.

Summary

BEVERAGE CONTAINER RECOVERY & CONTAMINATION RATE COMPARISONS		
	Pre Audits	Post Audits
MAIN STREET		
BEVERAGE CONTAINER RECOVERY RATE	74%	87%
CONTAMINATION RATE	57%	40%
TOTAL MATERIAL (WEIGHT KG)	110kg	96kg
MCMILLAN PARK		
BEVERAGE CONTAINER RECOVERY RATE	78%	100%
CONTAMINATION RATE	67%	45%
TOTAL MATERIAL (WEIGHT KG)	20kg	5kg
CENTRE 2000		
BEVERAGE CONTAINER RECOVERY RATE	27%	88%
CONTAMINATION RATE	53%	27%
TOTAL MATERIAL (WEIGHT KG)	79kg	77kg
CENTRE 2000 COMMUNITY RESOURCES		
BEVERAGE CONTAINER RECOVERY RATE	22%	92%
CONTAMINATION RATE	0%	3%
TOTAL MATERIAL (WEIGHT KG)	12kg	12kg

Overall the recycling rate for beverage containers has increased significantly and the contamination rate has decreased greatly, both excellent results.