



**Curbside Recycling Contamination Bin
Inspections
City of Toronto Report 1012**

March 2019

City of Toronto, Curbside Recycling Bin Contamination
Inspections
CIF Project Number 1012



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Executive Summary

The City of Toronto has **as** multifaceted recycling promotion and education campaigns, but despite this contamination levels at the material recycling facility are on the rise. These increases in contamination levels in turn increase the processing costs to deal with the excessive contaminated material. The purpose of this pilot was to assess the **feasibility** of a more hands on approach to deal with recycling contamination. Recycling bins were inspected at the curb for excessive contamination and bins identified were tagged and left behind with instructions to the resident to correct this improper recycling behaviour.

The findings suggest that an inspection approach is an effective means to change improper recycling behaviour. Of the single family residents identified with excessive contamination from the first inspection, when visited again for a follow up recycling bin inspection, 83 percent of those residents had improved their recycling set-out practices. Long term lasting impacts have yet to be determined and further monitoring is required to determine if the behaviour changes are permanent or just a short term response.

The costs of the inspection program versus the associated savings at the MRF have yet to be realized. Further inspections are required to determine if the inspection costs can be offset from a reduction of contamination at the MRF and the associated savings related to processing less contaminants.

1.0 Introduction

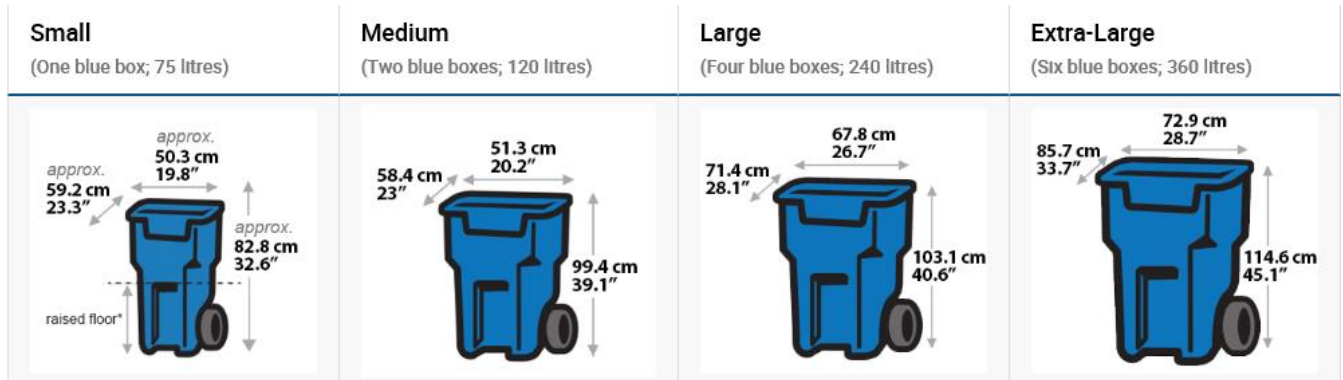
The City of Toronto has significant amounts of non-recyclable materials entering the Material Recycling Facilities (MRF). The current contamination rate at the MRF is estimated at approximately 27%-29%; costing the City and its residents millions of additional dollars to process this excess contamination. The City of Toronto collects approximately 180,000 tonnes of single stream recycling material annually, of which roughly 125,000 tonnes is generated by single family households, representing 69 percent of the total. Through the assistance of CIF, the City of Toronto has continued a pilot project that commenced in 2017 through to 2018, involving the inspection of recycling bins for contamination from curbside collected daytime residential customers. The following provides an update on the findings from those inspections.

2.0 Background

The City of Toronto collects single stream recycling in blue bins from daytime curbside customers which includes single family households, low-rise multi residential units, charities and various other customers. The City of Toronto services approximately 455,000 curbside customers. The contamination levels in the recycling stream has been increasing over the last few years in the City of Toronto. The contaminants at the MRF includes organic waste, contaminated recyclable paper from organic waste, black bags and miscellaneous household items; which in turn has led to processing cost increases. Over the last several years there has been an emphasis placed on promotion and education campaigns to deal with contamination. Various campaigns and strategies have been implemented to educate our customers on Toronto's recycling programs and acceptable items including radio, television, newspapers, social media and direct mail, see Appendix 1 – Recycling Promotion and Educational Campaigns, showcasing some of these initiatives. Despite all of these efforts contamination has continued to rise. Therefore, SWMS has decided to take an inspection/enforcement approach and has implemented a pilot project that involves Solid Waste staff inspecting recycling bins at the curbside on collection day for contamination.

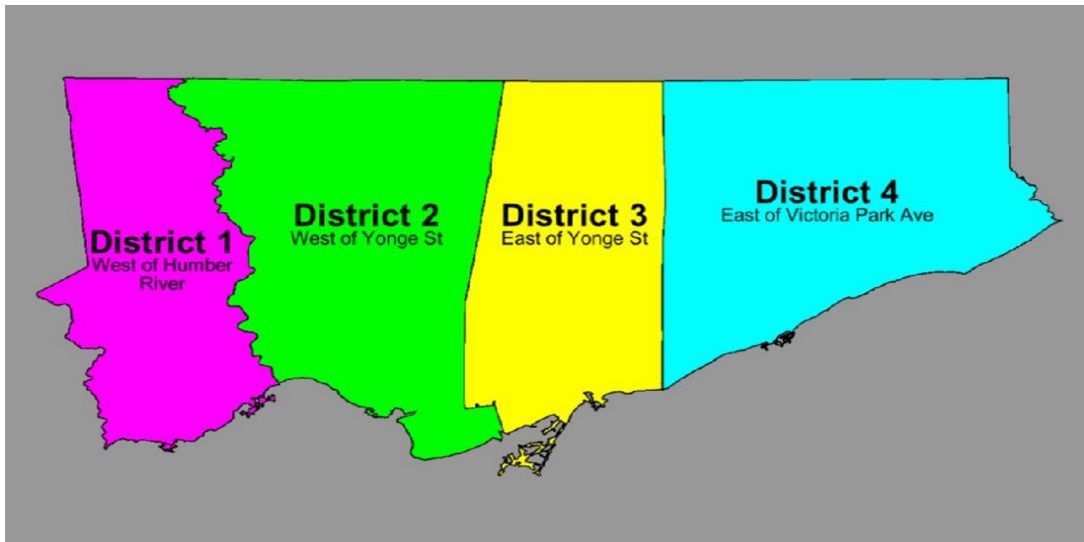
In the City of Toronto the frequency of recycling collection is bi-weekly, alternating with garbage collection; organics is collected weekly; and yard waste is bi-weekly from March to December. Residents have a choice of 4 different sizes of bins for garbage and recycling, for the bin specification see below Figure 1- Blue bin sizes. A user pay system was implemented for Solid Waste customers in 2008, based on the size of the garbage bin. For information on garbage bin rates and acceptable recycling items collected please refer to the City of Toronto website at www.Toronto.ca/recycle.

Figure 1 - Blue Bin Sizes



The collection of curbside material in the City of Toronto is divided into 4 Districts, Districts 1 and 2 is collected by private waste contractors and Districts 3 and 4 is collected by in-house staff, representing approximately a 50/50 service provider split. Refer below to Figure 2 - Collection Districts, for a map of the collection areas. The collection of recycling bins is automated, approximately seventy percent of single family households in Toronto are collected by fully automated trucks and thirty percent by semi-automated.

Figure 2 - Collection Districts



3.0 Approach

The recycling material collected by the various customers is taken to one of seven City of Toronto transfer stations and then is transported for processing to a single MRF owned and operated by Canada Fibers Ltd. The facility also accepts material from other municipalities which is combined with the City of Toronto material on the tipping floor prior to processing.

To determine if in fact there is a significant amount of contamination being generated from curbside customers, a recycling bin inspection pilot commenced in April 2017. Over an eight month period all residential curbside collection routes and all recycling bins placed at the curb were inspected for contamination prior to collection. To conduct the contamination inspections temporary staff were employed to do the recycling bin inspections. The key findings from the inspections in 2017, are reported in Section 4, to provide background and framework for the pilot inspections conducted in 2018.

3.1 Monitoring and Measurement Methodology

3.1.1 Recycling Contamination Inspections - Visual Monitoring on Top of Bin

The recycling contamination inspection program in 2017 and in 2018, involved staff visually checking the recycling bins on collection day to identify excessive contamination. The pilot's focus was not on identifying residents that mistakenly placed the wrong item in the bin such as a coffee cup, but rather concentrated on blatant contamination targeting the worst offenders. To identify contamination, inspectors opened the recycling bin lids and looked for obvious signs of contamination with a working definition of approximately $\geq 25\%$ contaminants (1/4) visible on the top of bin. When significant contamination was observed, the bin was left behind with a sticker on the bin indicating the presence of contaminated items. See Appendix 2 - Recycling Contamination Field Inspection Forms, for samples of the field templates used. A notice was also left in the resident's mailbox with more detailed information on the recycling bin contamination concerns along with a recycling flyer on proper recycling practices and acceptable materials. See Appendix 3 – Contamination Notices, illustrating the recycling contaminated bin promotion and education material used for the pilot. The notice instructed the residents to remove the contamination from the bin and place the bin out on their next scheduled collection day. A follow-up inspection was conducted on the next or thereabouts recycling collection day to determine if the resident had corrected their improper recycling behaviour. A service request code was created in our customer call in hotline system 311, in case residents were not clear on the contamination notice or wanted to discuss the issue further.

3.1.2 Recycling Contamination Inspections - Rear Packer Truck Bin Dumping

To determine if there are more contaminated bins and or a higher percentage of contamination than apparent from visually inspecting the top of the bin, another inspections method was incorporate in this pilot involving dumping the bins in a rear packer to observe entire contents of the bin. The recycling bin contents was spread out with a Canadian made maple hockey stick, to determine if there was more contamination present in the recycling bin. Several routes in all collection Districts were inspected by this rear packer inspection approach.

The first step remained the same whereby bins were inspected using the lid opening methodology to determine first if the recycling bin had contamination ≥ 25 percent contamination. The bins were then dumped in the truck hopper to determine a more accurate estimate of the visual percentage of contamination in the entire bin for the bins identified with contaminants in the first step. Where no visual contaminants were observed in the first step the truck inspection approached determined if there was contamination hidden in the bin that was not visible from the top inspection. Visual contamination estimates were made based on the following four percentage ranges: =25%, 26%-50%, 51%-75% 76%-100%. The type of contamination was also recorded to determine material contamination trends. Documentation included photographs of the material for each contaminated bin along with a description of the type of contamination observed in each bin. Information was manually recorded in the field and was then uploaded into a database. The packer audit metrics will provide a more accurate visual estimate of the total percentage of contamination in recycling bins identified as having contamination from the visual lid opening inspections and the number of bins that contained contamination that was hidden in the bin.

4.0 Project Results and Analysis

4.1 2017 Pilot Findings

Over an eight month period in 2017, staff inspected all curbside collected single family collections routes and all recycling bins placed at the curb for collections. Findings from the pilot revealed that approximately 4% of residential curbside customers placed recycling bins out for collection with high levels of contamination. Of the 4% that were initially identified with excessive amounts of contamination, upon returning for the second inspection, 13% of those residents still contained high levels of contamination, while 87% had improved their recycling sorting behaviour. Thus, indicating the act of inspecting bins, tagging and not collecting contaminated bins, results in a high percentage of residents improving their recycling behavior. For context, the City collects roughly 230,000 residential recycling bins per week, so 4% represents approximately 9,000 bins per weeks with excess contamination. See below Table 1 - 2017 Single Family Inspections April-November 2017, for the data on the inspection findings.

Table 1 - 2017 Single Family Inspections April-November 2017

	1st Inspection Summary			2nd Inspection Summary		
	Bins Inspected	Contaminated Bins	% Contaminated	Bins Inspected	Contaminated Bins	% Contaminated
District 1	56,034	2,593	4.63%	1,910	230	12.04%
District 2	109,980	5,560	5.06%	3,333	478	14.34%
District 3	91,796	2,244	2.44%	1,503	162	10.78%
District 4	108,663	3,337	3.07%	2,458	347	14.12%
Totals or Average	366,473	13,734	3.75%	9,204	1217	13.22%

Additionally, in the summer of 2017, a more in-depth bin contamination analysis was conducted to determine if contamination was hidden within the recycling bins that was not visible to the inspectors from looking at the material on the top of the bins. A dedicated rear-packer truck was used to dump the bins in the truck where all the contents of the bin were easily viewed in the hopper. The hopper was

cycled for each bin collection so that only the contents of the bin being inspected was visible. The truck pilot consisted of eight collection routes, in total 4,059 bins were inspected of which 616 contaminated recycling bins were identified, representing 15% contamination. The findings from this small scale bin dumping inspections pilot indicate that approximately 10% of the recycling bins have excessive contamination ≥ 25 percent contamination not visible on the top of the bin. However, given the scale of this pilot, these findings are not definitive and further analysis was required.

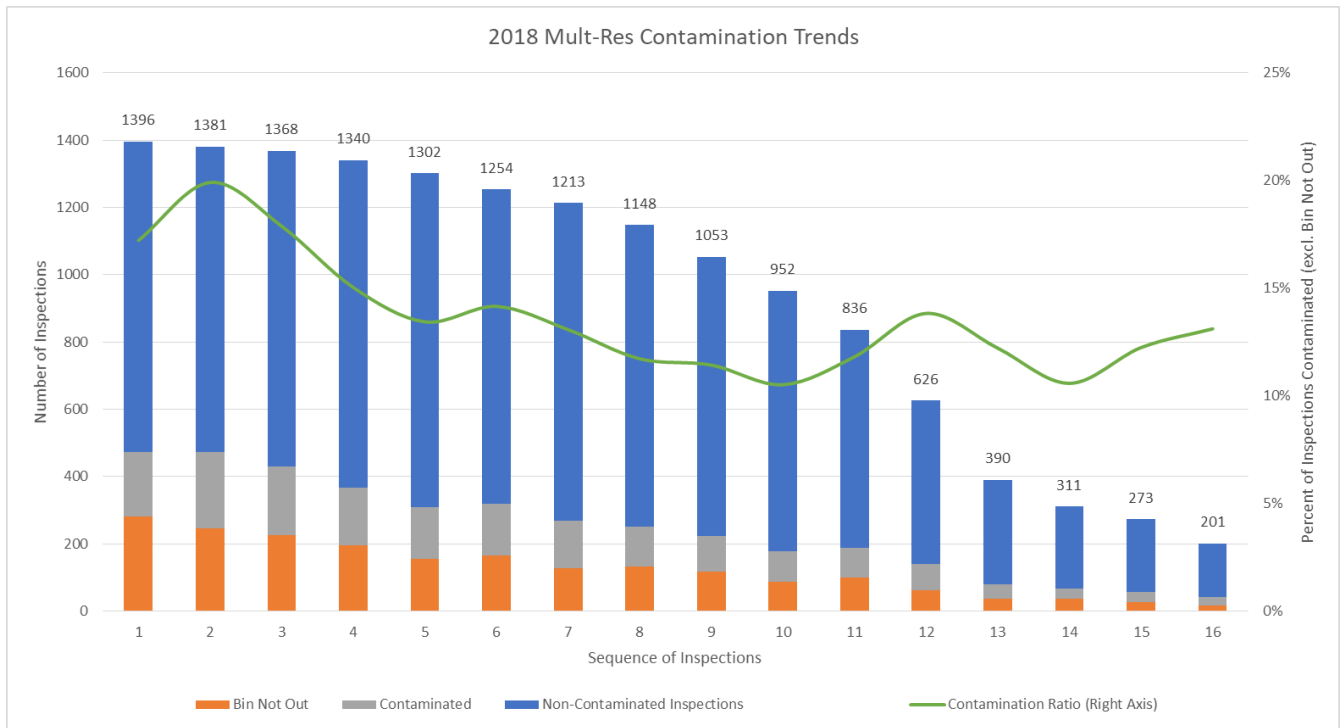
4.2 2018 Pilot Findings

In 2018, recycling bin inspections occurred from May-November over a six month period. Inspections initially focused on multi-residential curbside buildings (typically 8 units or less) comprising of approximately 44,000 units in total. This curbside customer base was not inspected in 2017, and staff felt that this customer base could be contributing to significant levels of recycling contamination ending up at the MRF. Then for the remainder of 2018, inspections focused on single family residential customers.

4.2.1 Multi-Residential Curbside Customers-Inspections Visual Monitoring on Top of Bin

In total there were 15,122 multi-residential curbside collected recycling bins initially inspected in 2018, of which 1,862 bins were tagged and not collected due to excessive amounts of contamination, representing 12.3% of the total bins inspected. Tracking the data for follow up bin inspections based on the bin serial number similar to the single family locations was not feasible due the fact that there are often several buildings in a complex that use the same bins and not all bins are placed out each time for collection. Therefore, due to these challenges the tracking approach taken for the follow up visits and data analysis on recycling contamination was based on the property location/customer to determine if behaviour was corrected after the initially recycling contamination inspection notice was left. Since the number of multi-residential locations are on a much smaller scale compared to the number of single family customers, we were able to conduct follow up inspections more frequently at locations observed with contaminated recycling bins. Some multi-residential locations were visited up to 15 times if contamination remained present from the previous inspection. The findings indicate that some properties did change their behaviour once initially inspected, while others took more persistence to correct their recycling habits and some locations did not significantly improve their poor recycling practices. Reasons for those that did not improve improper recycling behaviour are probably similar to the issues that surround recycling contamination in larger multi-residential buildings such as property management inactions, bin storage locations, etc. Figure 3 - Recycling Contamination Present in Follow up Inspections, below illustrates the follow up behaviour recycling improvement trend based on the ratio of inspection visits.

Figure 3 – Recycling Contamination Present in Follow up Inspections



4.3. Single Family Recycling Inspections-Visual Monitoring on Top of Bin

In total 115,762 single family recycling bins were inspected initially in 2018, of which 6,238 were identified as having excessive contamination, representing 5.4% of the bins inspected. Follow up inspections occurred on 1,355 contaminated recycling bins of which 1,129 bins were no longer contaminated and 226 bins still contained contamination. Therefore, 83 percent of the residents that had contamination in the first inspection improved their recycling practices and 17% of the residents still did not.

4.3.1 Recycling Bin Size Analysis

There are four different sizes of recycling bins that residents can choose from and one theory was that residents with a larger recycling bin capacity in a user pay system, may be more apt to have contamination than residents with smaller recycling bins. To determine if there is a contamination trend associated with the bin size, the total number of contaminated bins identified from the single family initial inspections for each bin size was compared to the actual percentages of bin sizes in circulation. Comparing the percentage of the recycling bin sizes in circulation for single family customers to the percentage of contaminated bin sizes, the results do not show any substantial relationship between the size of the recycling bin and the probability of contamination. See table 2 - Single Family Recycling Bin Size Comparison, for the comparison of contaminated bins by size to the bin sizes in circulation.

Table 2 – Single Family Recycling Bin Size Comparison

Single Family Initial Inspection Contamination Findings - Bin Size Comparison				
	Recycling Bin X-Large- 95 Gal	Recycling Bin Large - 65 Gal	Recycling Bin Medium -35 Gal	Recycling Bin Small - 18 Gal
Quantity of Contaminated Recycling Bins	2,313	3,298	528	21
Percentage of Contaminated Recycling Bins - Initial Inspection	37.5%	53.5%	8.6%	0.3%
Percentage of Recycling Bins in Circulation	29.7%	54.0%	15.4%	0.8%

The City of Toronto Solid Waste Management system is a user pay model and the fees for curbside collected customers are based on the size of the garbage bin. There are four sizes of garbage bins that residents can choose (Same sizes as depicted in Figure 1) from with higher fees associate with each increase in bin size, refer to the City of Toronto website at www.Toronto.ca/recycle for information on bin sizes and fees. Another hypothesis was perhaps residents with the smallest garbage bin were more inclined to contaminate due to garbage capacity issues than residents with larger size bins. Based on the 2018, single family curbside inspections there were 1,864 customers that received the first recycling contamination notice that had the small size garbage bin, representing 30%. Comparing this small garbage bin contamination percentage to the total number of small garbage bins in circulation the percentages are similar, which suggests that residents that have the smallest garbage bin are not more likely to contaminate than those with larger bins.

4.3.2 Residential Customer Feedback

To determine if residents understood the contamination notice material provided to residents with contaminated bins or if they questioned the validity of our inspections, residents that called our 311 customer service center upon receiving a contamination notice was tracked. A specific service request was created for each resident that called 311 regarding concerns with receiving a contamination notices which was directed to Solid Waste for follow up. Out of the 10,191 contamination notices that were issued in 2018, we received 60 inquiries, representing 0.05%. Thus indicating that the recycling contamination notice issued at the time of the infraction was clear to most residents and that they accepted the City's findings. Refer to Table 3 - 311 Contamination Notice Customer Inquiry Summary for the listing of the top reasons residents contacted us upon receiving the recycling contamination notice.

Table 3 - 311 Contamination Notice Customer Inquiry Summary

311 Contamination Notice Customer Inquiry Summary		
Category of 311 description	# of Occurrences	Percent of Occurrences
Residents disputes notice	24	40%
Resident removed contamination	7	12%
Resident claimed someone else contaminated their bin	17	28%
Resident wants more information for receiving notice	6	10%
Resident has contaminated bins but wants non-contaminated bins picked up	2	3%
Other issues	4	7%
TOTAL SR's	60	

4.4 Contamination Inspections - Rear Packer Bin Dumping Inspections

In total 10,050 recycling bins were inspected for excessive contamination using the rear packer dumping method in all four collection districts. The first step was to conduct the visual open top inspection on the each recycling bin to determine if contamination was present, in total 1,136 contaminated bins were identified, representing 11.3%. The bins were then dumped in the truck to determine if there was contaminated material that was not visible from the top layer inspections. In total 361 bins were identified as having excess contamination that was not identifiable on the top of the bin, representing 3.6% of the total bins inspected. These finding suggest that the visual lid opening method works to identify contamination and that there is not an abundance of contaminated material that is hidden in the bins. The packer inspections findings indicate a higher overall percentage of contaminated bins at 14.9% compared to the single family curbside inspections at 5.4%. However, most of the routes selected for the packer inspections were in areas where high levels of contamination was previously identified and this accounts for some of the discrepancy. The truck used for each inspection were taken to a transfer station at the end of the day and the weights were recorded. In total 113.78 tonnes of material was collected during the packer inspections equaling a recycling bin average set out weight of 11.32 kg.

Additionally, the bins recycling material was dumped and the contents was spread out in the truck hopper to allow for a more accurate visual assessment on the percentage of contamination in the recycling bins. The findings suggest that visually inspecting the top layer of a bin is a viable method for estimating the bins true amount of contamination. For details on the contamination composition see below Figure 4 – Overall Contamination Visible on Bin Top Layer and Figure 5 - Overall Contamination Not Visible on Bin Top Layer.

Figure 4 - Overall Contamination Visible on Bin Top Layer

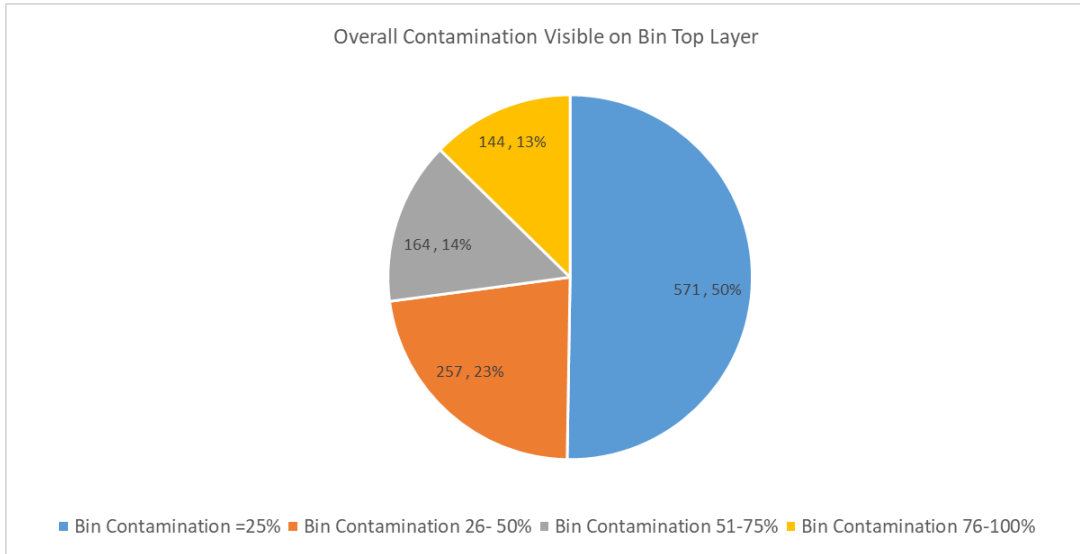
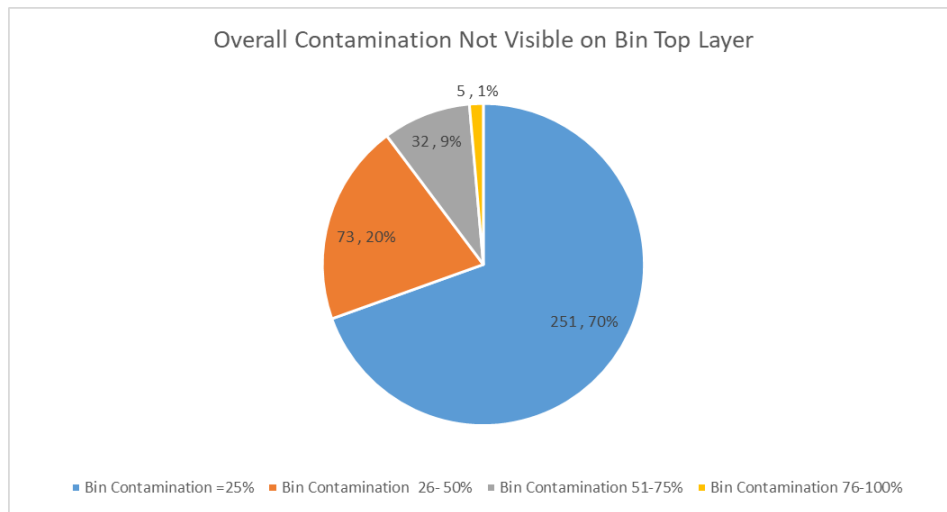
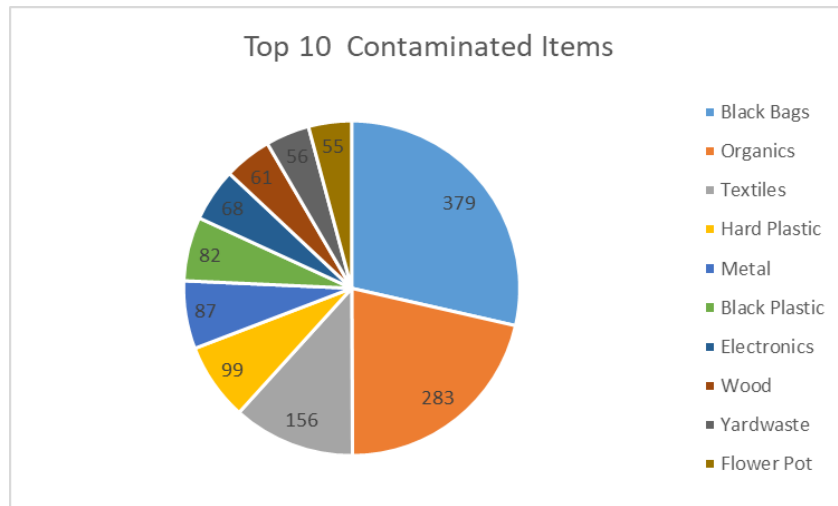


Figure 5 – Overall Contamination Not Visible on Bin Top Layer



The packer truck inspections also recorder the type of contaminants found in each contaminated bin to determine if there were material contamination trends. In total there were 1,637 contaminated items identified of which the top 10 items represented 81% of the total, see below Figure 6 – Top 10 Contaminate Items.

Figure 6 – Top 10 Contaminate Items



4.5 2017-2018 Comparison - Single Family Contamination Initial Inspections Findings

To determine if there has been a lasting recycling set out behaviour improvement trend, further analysis was conducted on the 6,238 single family curbside residents that were identified in 2018, with having excessive contamination to the 2017 inspection data. There were 121,238 bins that that were inspected in 2017 that were inspected again in 2018, of which there were 2,443 bins that were found with contamination in both years, representing a 2% recurrence rate. Therefore, based on the 2017-2018 inspection data comparison there seems to be a corrective behaviour lasting trend and the majority - 98% of residents have maintained their improved recycling practices from the previous year.

5.0 Project Costing Financial Impact

The contamination, inspections occurred over 104 business days (six months) from May-November in 2018. There were a total of 17 field inspections staff, 1 supervisor, 1 Project Lead and 2 Administration staff working 35 hours per week that participated in this pilot. The equipment included, 7 vehicle rentals, 19 cellular phones plus the cost of the contamination stickers and notices. The costs of the curbside inspections was \$727k and the costs of the packer audits was \$54k, with a total project cost of \$781k. To provide context the cost to conduct the 147,426 curbside recycling bin inspections in 2018, equates to \$4.93 per bin.

The initial budget provided to CIF was based on the 2017 pilot program. Variances to the proposed budget were based on adjustments made to enhance the 2018 program delivery (i.e. more inspectors and thus more required resources). See below Table 4 – Original Project Cost Estimates & CIF Funding Contribution for details on the original project estimates.

Table 4 – Original Project Cost Estimates & CIF Funding Contribution

Item	Proposed Budget	CIF Funding (46%)	Total Cost
Staffing	\$350,000	\$161,000	\$669,290.70
Outside Contractor Collection	\$150,000	\$69,000	-
Pre & Post Audit	\$50,000	\$23,000	\$54,036.00
Resources (Phones, Cars, P&E)	\$36,000	\$16,500	\$57,644.92
TOTAL	\$586,000	\$274,304	\$780,971.62

The amount of residue reported by the MRF based on inbound material composition audits has continue to rise in 2018. Therefore, through our efforts both with the curbside residential inspections pilots and also through our efforts with another inspection pilot where recycling bins from multi-residential large buildings that receive front end container collection (Refer to CIF Project 1011 for information) are inspected continue to rise.

6.0 Conclusions

The curbside inspection pilot has demonstrated that identifying bins with contamination and leaving them behind has a positive impact on correcting improper recycling set out practices as indicated by the high percentage of customers that improved the recycling habits from the follow up inspections. Long term lasting impacts have yet to be determined and further monitoring is required to determine if the behaviour changes are permanent or just a short term response.

The costs of the inspection program versus the associated savings at the MRF have yet to be realized. Further inspections are required to determine if the inspection costs can be offset from a reduction of contamination at the MRF and the associated savings related to processing less contaminants.

Appendix 1

Recycling Promotion and Educational Campaigns



Contamination campaign launched in 2017 and re-ran in 2018 (with new creative – see below)





Direct mail delivered to all SF homes in fall 2017



3 videos for contamination campaign 2017/2018

NOT WANTED IN YOUR BLUE BIN



CULPRIT: FOOD WASTE

DESCRIPTION: Rotten food and scraps. Coffee grounds.

CRIME: Ruining loads of paper and sending it to landfill.

SENTENCE: Confined to the Green Bin.

Learn what goes in your Blue Bin and what doesn't at toronto.ca/recycleright



Call 311



NOT WANTED IN YOUR BLUE BIN



CULPRIT: COFFEE CUP

DESCRIPTION: Paper cups lined with plastic or wax.

CRIME: Identity theft; posing as an item that can be recycled.

SENTENCE: Confined to the Garbage Bin.

Learn what goes in your Blue Bin and what doesn't at toronto.ca/recycleright



Call 311



NOT WANTED IN YOUR BLUE BIN



CULPRIT: DIRTY CONTAINER

DESCRIPTION: Plastic or glass containers with food left inside.

CRIME: Ruining loads of paper and sending it to landfill.

SENTENCE: Subjected to emptying and cleaning.

Learn what goes in your Blue Bin and what doesn't at toronto.ca/recycleright



Call 311



NOT WANTED IN YOUR BLUE BIN



CULPRIT: TEXTILES

DESCRIPTION: Clothes. Shoes. Bed sheets. Curtains.

CRIME: Damaging sorting equipment.

SENTENCE: Community service through donation or confined to the Garbage Bin.

Learn what goes in your Blue Bin and what doesn't at toronto.ca/recycleright



Call 311



New creative added to contamination campaign in 2018



Poster used for CIF project 979 in multi-res buildings



Poster produced for MR buildings



Waste Wizard campaign 2017 / 2018



Jack Armstrong campaign - 4 videos produced. Re-run in fall 2018 included radio spots and CP24 in media plan.

Appendix 2

Recycling Contamination Field Inspection Forms

Curbside Recycling Bin Visual Inspection Form

Curbside SF Recycling Bin Audit Route									
Route: <u>D4 FRI1 Route 1</u>				Inspector: _____					
Date/Time of Arrival: _____				Date/Time of Completion: _____					
Address	Contaminated		Bin Not Out	Name	Address	Contaminated		Bin Not Out	Name
	Yes/No	Hanger				Yes/No	Hanger		

Rear Packer Truck Inspection Form

Curbside SF Recycling Bin Packer Inspection Route

Route: D4 FRI1 Route 1 Inspector: _____

Date/Time of Arrival: _____ Date/Time of Completion: _____

Address	Step 1: Top Layer Review	Items found	Step 2: Contamination Review in Hopper				Bin Not Out	Name
	Yes/No		Contamination =25%	Contamination 26- 50%	Contamination 51-75%	Contamination 76-100%		

Appendix 3
Recycling Contamination Notices

Mailbox Notice

RECYCLING NOTICE OF NON-COMPLIANCE

Address: _____

Date: _____

Attention: Residential Owner(s) or Occupant(s)

Please be advised that you are receiving this notice because non-recyclable items were observed in your recycling today, and for this reason, it was not collected. Please do not call 311 to report a missed collection.

You are instructed to remove the non-recyclable items from your Blue Bin and place the bin back out on your next recycling collection day. Be sure to remove the notice sticker from your bin before placing it back out.

Examples of items that do not belong in the Blue Bin are:

- Black garbage bags, black plastic packaging and other non-recyclable plastics, such as toys
- Clothing and other textiles
- Food waste, yard waste and construction debris
- Small appliances, pots and pans and garden hoses
- Home health care waste










To help you identify what can and can't go in the Blue Bin, we have provided you with a City of Toronto Recycling Guide. To find out what goes where, you can also consult the online search tool "Waste Wizard" at toronto.ca/wastewizard.

Contaminated recycling is costing the City millions of dollars a year to process. Please ensure that no further contamination occurs in your Blue Bin recycling. City staff will periodically inspect your recycling bin, and each time contamination is found, the recycling bin will not be collected.

If you require translation of this information or have any questions regarding the inspections and/or this notice, please contact 311.




Recycling Flyer

STOP! 	
These items DO NOT go in the Blue Bin (recycling)	Where they go
Black plastic <ul style="list-style-type: none"> Garbage bags Takeout food containers Black plant pots 	Garbage
Various plastic items <ul style="list-style-type: none"> Compostable plastic items (containers, cutlery, etc.) Bubble wrap Squeeze tubes for home and personal products (hair, body, etc.) Toys (consider donation if they are in good condition) 	Garbage
Some food packaging <ul style="list-style-type: none"> Food wrap (plastic or foil) Chip bags and candy wrappers Stand-up pouches Hot and cold beverage cups 	Garbage
Household items <ul style="list-style-type: none"> Drinking glasses, cups, dishes Pots and pans Window glass and mirrors Cassettes, CDs, DVDs Cables, cords, hoses, ropes Metal and plastic hangers Small appliances (e.g. blender, kettle, hair dryer) 	Donate if in good condition, otherwise these are garbage.
Clothing and other textiles <ul style="list-style-type: none"> Shoes Carpets and curtains Bedding 	Donate if in good condition, otherwise these are garbage.
Organic waste <ul style="list-style-type: none"> Food scraps Tissues, paper towels and napkins Diapers and sanitary products Pet waste 	Green Bin (organics)
Household Hazardous Waste <ul style="list-style-type: none"> Pressurized tanks and cylinders (propane, cylinders, helium, freon, etc.) Batteries Compact fluorescent light bulbs (CFLs) Paint Cleaners and chemicals Syringes and needles 	Drop-Off Depot, Community Environment Day or Toxic Taxi
Construction debris and metal items <ul style="list-style-type: none"> Tools Scrap metal Doors Countertops and cabinets Drywall 	Drop-Off Depot (not all items may be accepted at all Depots, check before you go)

Know before you throw!

Use this guide to help you understand what waste items go where in the City of Toronto.

Follow these simple tips:

- Just because an item has a  (Mobius loop symbol) does not mean it's accepted in Toronto's Blue Bin recycling program. Check inside this guide, download the TOwaste app, or visit Waste Wizard online to learn where it goes.
- Some items are made of multiple materials. To check if paper is lined with plastic, do the rip test. If you see a plastic lining, the item goes in the Garbage Bin.
- Some items are considered household hazardous waste (e.g. flammable, corrosive, explosive and poisonous items) and should never go in the Blue Bin (recycling) or Garbage Bin. These items should be taken to a Drop-Off Depot or a Community Environment Day for proper disposal.
- Electronic waste is collected separately at curbside and at apartment and condominium buildings.
- Think reduce and reuse! The less waste you produce, the less there is to manage.

Unsure where a waste item goes?

Visit the Waste Wizard online at toronto.ca/wastewizard or download the **TOwaste app**








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©2018 Waste Wizard

Bin Sticker

CONTAMINATION IN RECYCLING NOTICE OF NON-COMPLIANCE

Significant contamination was observed in your recycling, and as a result, it will not be collected.

Please remove the non-recyclable items and place the bin out on your next scheduled recycling collection day.

For additional information, refer to the notice and Recycling Guide left at your door.

Do not call 311 to report a missed collection.

