

# **City of Saskatoon 2025 Midtown Plaza Waste Characterization Study**



PRESENTED TO

# **City of Saskatoon**

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#### **ACRONYMS & ABBREVIATIONS**

Acronyms/Abbreviations	Definition
City	City of Saskatoon
HDPE	High-density Polyethylene
LDPE	Low-density Polyethylene
PET	Polyethylene Terephthalate
PP	Polypropylene
Tetra Tech	Tetra Tech Canada Inc.



#### LIMITATIONS OF REPORT

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#### 1.0 INTRODUCTION

Tetra Tech Canada Inc. (Tetra Tech) was retained by the City of Saskatoon (City) to conduct a waste characterization study at Midtown Plaza food court in February 2025. The purpose of this study was to determine the amount and composition of waste generated at the Midtown Plaza food court during the lunch period (10 a.m. to 1 p.m.) and identify opportunities to increase waste diversion. This study focuses on the post-consumer waste stream from public-facing bins and not from the pre-consumer waste which includes waste from the kitchen. At the time of this study, the Midtown Plaza food court has a three-stream disposable system (garbage, bottles, and organics) for their public facing operation.

#### 2.0 METHODOLOGY

The following section describes the methodology that was undertaken to conduct this study. Sampling and sorting were conducted in accordance with the sampling plan that was reviewed with the City. Appendix B includes photos that highlight some of the activities.

## 2.1 Sample Collection Methodology

Sample collection was conducted on February 3 and February 6, 2025. On collection days, the City and Midtown Plaza staff ensured that all food court waste bins (24 garbage, 8 bottles, and 8 organics bins) were emptied prior to the beginning of the lunch period (10 a.m.). Between 10 a.m. and 1 p.m., materials were generated and disposed of by the public. At 1 p.m., City and Midtown Plaza staff collected all the materials found in the bins, separated into bags, and labelled by waste stream. The materials were loaded into Tetra Tech's van and transported to the sorting area at the Saskatoon Regional Waste Management Centre. Materials were then unloaded, and the Tetra Tech sorting team organized the materials to make sure materials from each stream were not mixed or co-mingled prior to sorting.

# 2.2 Sample Sorting and Analysis

All materials were hand sorted. For all three waste streams, staff weighed each sample to determine the pre-weight. For all three streams, all materials collected were sorted. Each stream was then hand sorted into its respective material categories.

All materials were sorted as per the categories agreed upon with the City. Each categorized item was placed into respective bins. The contents of each bin were then weighed and recorded to determine the weight for each secondary category. Details of the sorting categories are included in Appendix C, along with their description, and preferred diversion/disposal method.

The waste streams were characterized into 13 primary categories which were then further divided into 67 secondary categories. Primary categories include the following:

- Paper.
- Metals.
- Food waste.
- Yard waste.
- Bulky waste.

- Paper packaging.
- Glass.
- Construction and demolition waste.
- Household hygiene.

- Plastics.
- Household hazardous waste.
- Waste electrical and electronic equipment.
- Other materials.



Note that the term "household hazardous waste" is an industry term that refers to household products that may be flammable, corrosive, or toxic under certain conditions, but are generally safe to handle under normal conditions. The "household hygiene" category includes materials such as diapers, sanitary products, and pet waste. The "other materials" primary category includes materials such as textiles, tires and other rubber, other waste, and wooden utensils.

## 2.3 Data Analysis

Data analysis was performed using Tetra Tech's spreadsheet analysis tool. Data was compiled into primary and secondary categories by weight. The composition for each stream was calculated as weighted averages. The types of data analysis undertaken by Tetra Tech include the following:

- Lunchtime generated waste from the Midtown Plaza food court; and
- Composition of materials by material type and weight.

#### 3.0 RESULTS

The following summarizes the waste composition results for the various streams investigated. Results are presented by primary category. Primary category percentages were calculated by aggregating all materials generated for each stream. An average percentage by weight was determined for each stream. Waste composition results for each stream by material categories are presented in Appendix D.

#### 3.1 Generation Rates

Table 3-1 summarizes the lunch period generation amount for each stream from the public-facing bins. Figure 3-1 and Figure 3-2 illustrate the material generated (kg) over a lunch period (10 a.m. to 1 p.m.) on February 3, 2025 and February 6, 2025.

Table 3-1: Summary of Waste Streams Generated During the Lunch Period (10am-1pm)

Date	Garbage (Kg)	<b>Bottles</b> (Kg)	<b>Organics</b> (Kg)
February 3, 2025	58.20	3.50	2.85
February 6, 2025	71.05	4.40	5.50
Average	64.63	3.95	4.18

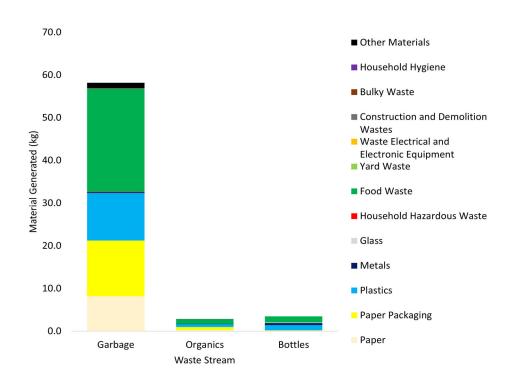


Figure 3-1: Material Generated During Lunch Period on February 3, 2025

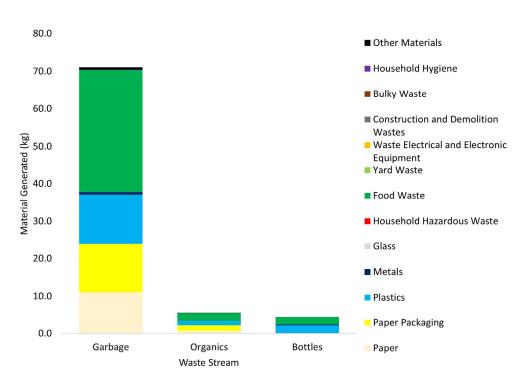


Figure 3-2: Material Generated During Lunch Period on February 6, 2025



## 3.2 Garbage Stream Composition Results

The following presents the results for the garbage stream found during this study. Figure 3-3 illustrates the average waste composition of the garbage stream in the Midtown Plaza food court over the two lunch period in February 2025. This is a snapshot of the types and relative quantities of materials that were discarded by the public at this time of the year.

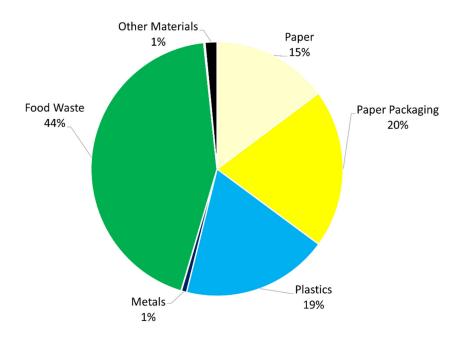


Figure 3-3: Overall Garbage Stream Composition

The overall waste stream was primarily composed of food waste (44%), paper packaging (20%), plastics (19%), and paper (15%). The remainder was comprised of other materials (1%) and metals (1%). The most prominent four primary categories represent 98% of the waste stream and are broken down as follows:

- Food waste, composed of avoidable food waste (43%), and unavoidable food waste (1%). Avoidable food waste included edible food (e.g., uneaten food and drinks) and unavoidable food waste included inedible food (e.g., bones).
- Paper packaging, primarily composed of boxboard/cores (6%), laminated paper packaging (6%), and polycoat beverage cups (5%). Laminated paper packaging included burger and wax-coated food wrappers.
- Plastics, including #5 polypropylene (PP) (10%), low-density polyethylene/high-density polyethylene (LDPE/HDPE) film products (non-packaging) (5%), durable plastic products (2%), and #1 polyethylene terephthalate (PET) thermoform (1%). #5 PP included food containers, cups, and lids.
- Paper, mainly composed of tissue/toweling (8%), and food soiled paper (5%). Food soiled paper included plates, straws, and paper utensils.

## 3.3 Bottles Stream Composition Results

The following presents the results for the bottles stream found during this study.

Figure 3-4 illustrates the average waste composition of the bottles stream in the Midtown Plaza food court in February 2025. This is a snapshot of the types and relative quantities of materials that were discarded by the public at this time of the year.

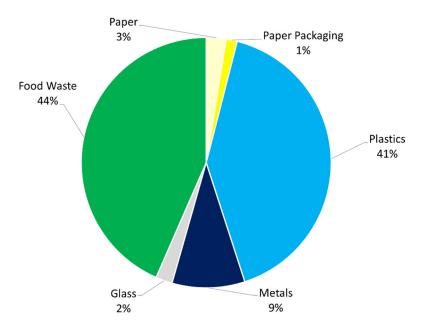


Figure 3-4: Overall Bottles Stream Composition

The bottles stream was primarily composed of food waste (44%), plastics (41%), and metals (9%). These three primary categories represent 93% of the bottles stream. The primary categories in the bottles stream are broken down as follows:

- Food waste, mainly including avoidable food waste (43%).
- Plastics, including #1 PET beverage bottles (19%), LDPE/HDPE film products (non-packaging) (13%),
   #5 PP (4%), plastic laminates and other film packaging (2%), and durable plastic products (2%).
- Paper, primarily composed of food soiled paper (2%), and mixed paper (0.7%).

## 3.4 Organics Stream Composition Results

The following represents the results for the organics stream found during this study. Figure 3-5 illustrates the average composition of the organics stream in the Midtown Plaza food court in February 2025. This is a snapshot of the types and relative quantities of materials that were discarded by the public at this time of the year.

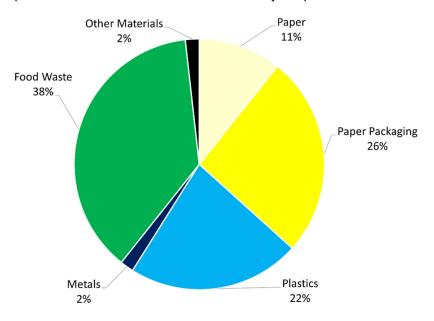


Figure 3-5: Overall Organics Stream Composition

The majority of the organics stream was composed of food waste (38%), paper packaging (26%), plastics (22%), and paper (11%). These four primary categories represent 96% of the organics stream. The top primary categories in organics may be broken down as follows:

- Food waste, composed of avoidable food waste (34%) and unavoidable food waste (4%).
- Paper packaging, including boxboard/cores (9%), laminated paper packaging (9%), ice cream containers and other bleached long polycoat fibre (4%), and polycoat beverage cups (2%).
- Plastics, primarily composed of #7 biodegradable/compostable plastics (13%), #5 PP (4%), plastic laminates and other film packaging (2%), and #1 PET bottles, jugs and jars – non beverage (2%).
- Paper, including tissue/toweling (5%), food soiled paper (4%), and mixed paper (2%).

# 4.0 OPPORTUNITIES TO INCREASE DIVERSION

The following are opportunities to increase diversion:

- Increase education and communication efforts, including updating signage, to reduce contamination in the bottles stream and organics stream. For example, the bottles stream was found to have 44% food waste and 13% plastic film, which are considered contaminants in the bottles stream.
- Conduct various waste composition studies and/or visual spot checks to understand and identify problematic contaminants, and diversion potential. For example, the garbage stream was comprised of 58% organic materials that could be diverted through a composting process.

- Consider updating and reconfiguring the zero waste stations, including but not limiting to the following:
  - Changing the term 'organic waste' to 'food waste' to be clearer to the general public;
  - Changing the opening of the 'bottles' bin to be a round (not square) opening to help remind the public what
    is acceptable in this bin; and
  - Changing the colour of the 'bottles' bin to something than waste (black) or organics/food (green) to visually help clarify this bin is for a different type of waste material.

#### 5.0 CLOSURE

We trust this document meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted, Tetra Tech Canada Inc.

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# APPENDIX A

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# LIMITATIONS ON USE OF THIS DOCUMENT

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In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by TETRA TECH in its reasonably exercised discretion.



# APPENDIX B

#### **SELECTED PHOTOGRAPHS**





Photo 1: Public-facing Bins in Midtown Plaza Food Court



**Photo 2: Example of Materials Generated from Bins** 



Photo 3: Tetra Tech Collection Vehicle at Midtown Plaza



**Photo 4: Tetra Tech Staff Sorting Collected Materials** 

# APPENDIX C

#### **MATERIAL CATEGORIES**



Table C-1: Material Category Descriptions – Garbage and Recycling Stream

	Category	Description and/or Examples	Diversion Potential
01	Paper		
1 Mixed Paper		<ul> <li>Fine household papers, writing paper, office paper, copy paper, bills and statements, ad mail, etc. Includes glossy flyers and advertising that are not distributed with newspapers. Includes gift wrap, construction paper, puzzle books, (e.g., sudoku or colouring books)</li> <li>Glossy magazines, catalogues, calendars, annual reports (must be bound, (i.e., stapled or glued)</li> <li>Telephone books and other directories such as the Yellow Pages</li> <li>Non Newspapers (e.g., television guides, Auto Trader, Real Estate News) plus inserts and flyers from newspapers made of newsprint</li> <li>Daily and weekly newspapers</li> </ul>	Recycling
2	Tissue/Toweling	Paper napkins, towels, and tissues	Organics
3	Food Soiled Paper	<ul> <li>Plates, cups, muffin wrappers, coffee filters, teabags, bags, and food packaging</li> </ul>	Organics
4	Shredded Paper	Paper that has been shredded mechanically into thin strips	Recycling
5	Other Paper – Non-Obligated	<ul> <li>Soft or hard covered literary books, academic journals, textbooks, and photographs</li> </ul>	Garbage
02	Paper Packaging		
6	Corrugated Cardboard	<ul> <li>Includes micro-flute corrugated containers, pizza boxes, waxed corrugated containers, electronic product boxes such as television and computer boxes, boxes used to direct mail for residential consumers</li> </ul>	Recycling
7	Boxboard/Cores	<ul> <li>Boxboard, paperboard, cereal box, shoe box, frozen food box, cores from toilet paper/toweling/gift wrap, etc. Includes wet-strength boxboard, fast food cartons such as fry/onion ring boxes and paper plates</li> </ul>	Recycling
8	Kraft Paper	<ul> <li>Kraft paper bags and wrap, grocery or retail bags, potato bags, some pet food bags, etc. Includes brown, white, and coloured kraft paper and bags. No bags with bonded plastic or foil liners/layers/coatings. Includes bags with a light grease coating</li> </ul>	Recycling
9	Molded Pulp	<ul> <li>Egg cartons, drink trays, other trays, molded pulp flower pots/trays, etc.</li> </ul>	Recycling
10	Polycoat Beverage Cups	<ul> <li>Hot beverage/food containers, with polycoat on inside only, including coffee cups, soup cups/bowls, chili cups, etc. Cold beverage/food containers with polycoat on both sides including fountain drinks, take-out ice cream cups</li> </ul>	Garbage
11	Ice Cream Containers and Other Bleached Long Polycoat Fibre		
12	Laminated Paper Packaging	<ul> <li>Paper based packaging (at least 85% paper) with foil or plastic liners/layers/coatings, pouches, cookie bags, microwave popcorn bags, fast food sandwich wraps, gift bags, paper based trays, etc.</li> </ul>	Garbage
13	Spiral Wound Containers	<ul> <li>Spiral wound cans with paper walls and plastic or metal tops or bottoms; frozen juice, Pringles, raisins, etc.</li> </ul>	Garbage

	Category	Description and/or Examples	Diversion Potential
14	Gable Top Containers – Beverage	<ul> <li>Polycoat containers with a gable shaped top, milk and milk substitutes like soy, almond, and rice milk, and juices</li> </ul>	Recycling
15	Gable-Top Containers – Non-Beverage	<ul> <li>Polycoat containers with a gable shaped top that previously contained some foods or other products, (e.g., sugar, molasses, etc.)</li> </ul>	Recycling
16	Aseptic Containers – Beverage	<ul> <li>Polycoat fibre and foil containers (e.g., Tetra Pak) for beverage, (e.g., soy, almond, and rice milk, juice boxes)</li> </ul>	Recycling
17	Aseptic Containers – Non-Beverage	<ul> <li>Polycoat fibre and foil containers (e.g., Tetra Pak) for soup, sauces, etc.</li> </ul>	Recycling
03	Plastics		
18	#1 Polyethylene Terephthalate Bottles – Beverage	Soft drink/water bottles	Recycling
19	#1 Polyethylene Terephthalate Bottles, Jugs and Jars – Non-Beverage	Salad dressing bottles, peanut butter jars	Recycling
20	#1 Polyethylene Terephthalate Thermoform	<ul> <li>#1 clamshells, #1 egg cartons, #1 trays, #1 blister packaging, #1 drink cups, etc.</li> </ul>	Recycling
21	#2 High-Density Polyethylene Beverage	Milk jugs, juice containers and drinakble yogurt bottles	Recycling
22	#2 High-Density Polyethylene Non-Beverage	<ul> <li>Laundry detergent, bleach, vinegar, personal care products such as shampoos, conditioners and body wash, windshield washing fluid containers, and cleaning supplies. Other #2 containers such as margarine and yogurt containers, and lids made from high- density polyethylene</li> </ul>	Recycling
23	#3 Polyvinyl Chloride	Tubs, condiment containers	Recycling
24	#5 Polypropylene	<ul> <li>#5 bottles and containers. plastic bottles includes nutritional supplement drinks, shampoos, etc.</li> <li>#5 containers such as margarine and yogurt containers, and other containers made from polypropylene, including tubs and lids with resin codes #5 polypropylene</li> </ul>	Recycling
25	#6 Polystyrene – Expanded	<ul> <li>Foam take-out containers such as drink cups, large white packaging foam, meat trays, and coloured foam insulation</li> </ul>	Depot
26	#6 Polystyrene – Non-Expanded	<ul> <li>Polystyrene clear clamshell containers such as berry and muffin containers, rigid polystyrene cups, plates, and bottles</li> </ul>	Recycling
27	#7 Biodegradable/Compostable Plastics	<ul> <li>Might not have #7 label; include Biodegradable Products Institute (BPI) certification</li> </ul>	Garbage
28	Plastic Film	<ul> <li>High-density polyethylene and low-density polyethylene film, dry cleaning bags, bread bags, milk bags, toilet paper and paper towel over-wrap, lawn seed bags</li> </ul>	Depot
29	Low-Density Polyethylene and High-Density Polyethylene Film – Products (Non-Recyclable)	<ul> <li>Non-packaging low-density polyethylene and high-density polyethylene film (e.g., kitchen catchers, squeeze tubes, 6-pack rings, paper lined plastic, etc.)</li> </ul>	Garbage
30	Plastic Laminates and Other Film Packaging	<ul> <li>Laminated plastic film and bags that are at least 85% plastic (by weight). Includes chip bags, vacuum sealed bags, cereal liners,</li> </ul>	Depot

	Category	Description and/or Examples	Diversion Potential
		candy wraps, pasta bags, boil in a bag, plastic based food pouches, etc.	
31	Other Rigid Plastic Packaging	<ul> <li>Other rigid containers (#4 and #7), non-polyethylene terephthalate blister packaging, unmarked/coded packaging, plant pots and trays, pails, etc.</li> </ul>	Garbage
32	Durable Plastic Products	<ul> <li>Non-packaging such as videocassette recorder tapes, compact discs, toys, games, tupperware, etc. Include multi-material items that are mainly plastic – (e.g., a plastic toy truck with metal axles)</li> </ul>	Garbage
04	Metals		
33	Aluminum Beverage Cans	Aluminum soft drinks, soda, juice, alcoholic beverages, beer cans	Recycling
34	Aluminum Non-Beverage	Food containers, aluminum foil wrap, pie plates, baking trays, etc.	Recycling
35	Aerosol Containers	<ul> <li>Mousse spray cans, air freshener spray cans, deodorant spray cans, hairspray cans, food spray cans for cheese or whipped cream, empty spray cans, cooking oil, etc.</li> </ul>	Garbage
36	Other Aluminum	Aluminum siding, baking trays, etc.	Garbage
37	Steel Beverage Cans	Steel apple juice, alcoholic beverages, beer cans, Sapporo, etc.	Recycling
38	Steel Food Cans	<ul><li>Soup, beans, peaches, etc.</li><li>No alcohol containers</li></ul>	Recycling
39	Other Metal	Wire, hardware, copper	Depot
05	Glass		
40	Glass Beverage Containers	Juice, beer, and wine bottles	Recycling
41	Glass Non-Beverage	Food containers	Recycling
42	Other Glass	<ul> <li>Window glass, plates, and glasses, light bulbs (fluorescent tubes and compact fluorescents go in Household Hazardous Waste)</li> </ul>	Garbage
06	Household Hazardous Waste		
43	Household Hazardous Waste	<ul> <li>Labelled CAUTION, WARNING, CORROSIVE, EXPLOSIVE, FLAMMABLE, POISONOUS or TOXIC</li> <li>Acid, adhesives, automotive, batteries, cleaners, cylinders, coorsives, fuels, light bulbs, mercury, oxidizing chemicals, paint, pesticides and fertilizers, pharmaceuticals, solvents</li> </ul>	Depot
07	Food Waste		
44	Avoidable Food Waste	<ul> <li>Whole fruits and vegetables, meat, bread, prepared meals, fruits and vegetables trimmings</li> </ul>	Organics
45	Unavoidable Food Waste	<ul> <li>Inedible food, such as peelings, bones, solidified fats, cooking oils, and food grease</li> </ul>	Organics
80	Yard Waste		
46	Yard and Garden Debris	rden Debris  Grass clippings, leaves, weeds, plant parts, pumpkins, topsoil, and sod	
47	Brush and Branches	<ul> <li>Small twigs and tree trimmings that are no more than 60 cm in length and 2 cm in diameter, conifer cones and needles, wood chips and bark mulch</li> </ul>	Organics

	Category	Description and/or Examples	Diversion Potential
09	Waste Electrical and Electronic	Equipment	
48	Electronics	Laptop computers, notebooks, tablet PCs, TVs and computer monitors, printers, fax machines, photocopiers and scanners, personal, portable, or home DVD, Blu Ray, CD, MP3, record players; film or digital cameras/video recorders; digital picture frames; audio and video baby monitors; cable/satellite TV receivers; amps, receivers; speakers, headphones, microphones, coaxial, telephone, speaker wires, coffee makers, mixers, bread makers, toaster ovens, waffle, makers, crock pots, saw, drill, etc.	Depot
10	Construction And Demolition W	astes	
49	Dimensional Lumber – Untreated	Unpainted or unstained lumber and pallets	No program
50	Dimensional Lumber – Treated	Painted, stained, or treated lumber	No program
51	Composite Wood	<ul> <li>Plywood, oriented strand board, medium-density fibreboard, and particle board</li> </ul>	No program
52	Gysum Wallboard	Drywall	No program
53	Asphalt Roofing Shingles	Asphalt shingles and tarpaper	No program
54	Mixed Metals	Ferrous, non-ferrous, and aluminum	No program
55	Concrete, Bricks	Concrete, paving stones, and cement bricks	No program
56	Ceramics, Porcelain	Tiles, toilets, and sinks	No program
57	Carpeting	Carpeting, underlay, and mats	No program
58	Other Construction and Demolition Wastes	Vinyl siding, misc. conduits, ceiling tiles, plumbing pipes, insulation	No program
11	Bulky Waste		
59	Furniture or Fixtures	Chairs, sofas, cabinets, tables, garden furniture, etc.	No program
60	Other Large Bulky Items	Other large items not classified elsewhere	No program
12	Household Hygiene		
61	Diapers	Diapers	Garbage
62	Sanitary Products	Sanitary napkins, hygiene products, etc.	Garbage
63	Pet Waste	Animal feces, bedding, and kitty litter	Garbage
13	Other Materials		
64	Textiles	<ul> <li>Clothing, shoes, mats, drapes, sheets, etc. Plastic rice sacks go in Other Rigid Plastic Packaging</li> </ul>	Depot
65	Tires and Other Rubber	Rubber tires and tubes, other rubber items such as hoses	
66	Other Waste	<ul> <li>Materials not classified elsewhere, wooden fruit basket, vacuum bags, wax candles, furnace filters, etc.</li> </ul>	Garbage
67	Wood Utensils	Chopsticks, wooden forks, toothpicks, etc.	Organics

Table C-2: Material Category Descriptions – Organics Stream

	Category	Description and/or Examples	Diversion Potential
01	Paper		
1 Mixed Paper		<ul> <li>Fine household papers, writing paper, office paper, copy paper, bills and statements, ad mail, etc. Includes glossy flyers and advertising that are not distributed with newspapers. Includes gift wrap, construction paper, puzzle books, (e.g., sudoku or colouring books)</li> <li>Glossy magazines, catalogues, calendars, annual reports (must be bound, (i.e., stapled or glued)</li> <li>Telephone books and other directories such as the Yellow Pages</li> <li>Non Newspapers (e.g., television guides, Auto Trader, Real Estate News) plus inserts and flyers from newspapers made of newsprint</li> <li>Daily and weekly newspapers</li> </ul>	Organics
2	Tissue/Toweling	Paper napkins, towels, and tissues	Organics
3	Food Soiled Paper	<ul> <li>Plates, cups, muffin wrappers, coffee filters, teabags, bags, and food packaging</li> </ul>	Organics
4	Shredded Paper	Paper that has been shredded mechanically into thin strips	Recycling
5	Other Paper – Non-Obligated	<ul> <li>Soft or hard covered literary books, academic journals, textbooks, and photographs</li> </ul>	Garbage
02	Paper Packaging		
6	Corrugated Cardboard	<ul> <li>Includes micro-flute corrugated containers, pizza boxes, waxed corrugated containers, electronic product boxes such as television and computer boxes, boxes used to direct mail for residential consumers</li> </ul>	Organics
7	Boxboard/Cores	<ul> <li>Boxboard, paperboard, cereal box, shoe box, frozen food box, cores from toilet paper/toweling/gift wrap, etc. Includes wet-strength boxboard, fast food cartons such as fry/onion ring boxes and paper plates</li> </ul>	Recycling
8	Kraft Paper	<ul> <li>Kraft paper bags and wrap, grocery or retail bags, potato bags, some pet food bags, etc. Includes brown, white, and coloured kraft paper and bags. No bags with bonded plastic or foil liners/layers/coatings. Includes bags with a light grease coating</li> </ul>	Organics
9	Molded Pulp	<ul> <li>Egg cartons, drink trays, other trays, molded pulp flower pots/trays, etc.</li> </ul>	Organics
10	Polycoat Beverage Cups  • Hot beverage/food containers, with polycoat on inside only, including coffee cups, soup cups/bowls, chili cups, etc. Cold beverage/food containers with polycoat on both sides including fountain drinks, take-out ice cream cups		Garbage
11	Ice Cream Containers and Other Bleached Long Polycoat Fibre  Polycoated paper ice cream containers, typically with a lid, excluding boxboard folded ice cream boxes. Food containers with white fibre and a rolled or folded rim, includes Michelina's frozen food, and KFC tubs		Garbage
12	Laminated Paper Packaging	<ul> <li>Paper based packaging (at least 85% paper) with foil or plastic liners/layers/coatings, pouches, cookie bags, microwave popcorn bags, fast food sandwich wraps, gift bags, paper based trays, etc.</li> </ul>	
13	Spiral Wound Containers	<ul> <li>Spiral wound cans with paper walls and plastic or metal tops or bottoms; frozen juice, Pringles, raisins, etc.</li> </ul>	Garbage

	Category	Description and/or Examples	Diversion Potential
14	Gable Top Containers – Beverage	<ul> <li>Polycoat containers with a gable shaped top, milk and milk substitutes like soy, almond, and rice milk, and juices</li> </ul>	Recycling
15	Gable-Top Containers – Non-Beverage	<ul> <li>Polycoat containers with a gable shaped top that previously contained some foods or other products, (e.g., sugar, molasses, etc.)</li> </ul>	Recycling
16	Aseptic Containers – Beverage	<ul> <li>Polycoat fibre and foil containers (e.g., Tetra Pak) for beverage (e.g., soy, almond, and rice milk, juice boxes)</li> </ul>	Recycling
17	Aseptic Containers – Non-Beverage	<ul> <li>Polycoat fibre and foil containers (e.g., Tetra Pak) for soup, sauces, etc.</li> </ul>	Recycling
03	Plastics		
18	#1 Polyethylene Terephthalate Bottles – Beverage	Soft drink/water bottles	Recycling
19	#1 Polyethylene Terephthalate Bottles, Jugs and Jars – Non-Beverage	Salad dressing bottles, peanut butter jars	Recycling
20	#1 Polyethylene Terephthalate Thermoform	<ul> <li>#1 clamshells, #1 egg cartons, #1 trays, #1 blister packaging, #1 drink cups, etc.</li> </ul>	Recycling
21	#2 High-Density Polyethylene Beverage	Milk jugs, juice containers and drinakble yogurt bottles	Recycling
22	#2 High-Density Polyethylene Non-Beverage	<ul> <li>Laundry detergent, bleach, vinegar, personal care products such as shampoos, conditioners, and body wash, winshield washing fluid containers, cleaning supplies. Other #2 containers such as margarine and yogurt containers and lids made from high-density polyethylene</li> </ul>	
23	#3 Polyvinyl Chloride	Tubs, condiment containers	Recycling
24	#5 Polypropylene	<ul> <li>#5 bottles and containers. plastic bottles includes nutritional supplement drinks, shampoos, etc.</li> <li>#5 containers such as margarine and yogurt containers and other containers made from polypropylene, including tubs and lids with resin codes #5 polypropylene</li> </ul>	Recycling
25	#6 Polystyrene – Expanded	<ul> <li>Foam take-out containers such as drink cups, large, white packaging foam, meat trays, coloured foam insulation</li> </ul>	Depot
26	#6 Polystyrene – Non-Expanded	Polystyrene clear clamshell containers such as berry and muffin containers, rigid polystyrene cups, plates, and bottles	Recycling
27	#7 Biodegradable/Compostable Plastics	<ul> <li>Might not have #7 label; include Biodegradable Products Institute (BPI) certification</li> </ul>	Garbage
28	Plastic Film	<ul> <li>High-density polyethylene and low-density polyethylene film, dry cleaning bags, bread bags, milk bags, toilet paper and paper towel over-wrap, lawn seed bags</li> </ul>	Depot
29	Low-Density Polyethylene and High-Density Polyethylene Film – Products (Non-Recyclable)	<ul> <li>Non-packaging low-density polyethylene and high-density polyethylene film (e.g., kitchen catchers, squeeze tubes, 6-pack rings, paper lined plastic, etc.)</li> </ul>	Garbage
30	Plastic Laminates and Other Film Packaging	<ul> <li>Laminated plastic film and bags that are at least 85% plastic (by weight). Includes chip bags, vacuum sealed bags, cereal liners,</li> </ul>	Depot

	Category	Description and/or Examples	Diversion Potential
		candy wraps, pasta bags, boil in a bag, plastic based food pouches, etc.	
31	Other Rigid Plastic Packaging	<ul> <li>Other rigid containers (#4 and #7), non-polyethylene terephthalate blister packaging, unmarked/coded packaging, plant pots and trays, pails, etc.</li> </ul>	Garbage
32	Durable Plastic Products	<ul> <li>Non-packaging such as videocassette recorder tapes, compact discs, toys, games, tupperware, etc. Include multi-material items that are mainly plastic – (e.g., a plastic toy truck with metal axles)</li> </ul>	Garbage
04	Metals		
33	Aluminum Beverage Cans	Aluminum soft drinks, soda, juice, alcoholic beverages, beer cans	Recycling
34	Aluminum Non-Beverage	Food containers, aluminum foil wrap, pie plates, baking trays, etc.	Recycling
35	Aerosol Containers	<ul> <li>Mousse spray cans, air freshener spray cans, deodorant spray cans, hairspray cans, food spray cans for cheese or whipped cream, empty spray cans, cooking oil, etc.</li> </ul>	Garbage
36	Other Aluminum	Aluminum siding, baking trays, etc.	Garbage
37	Steel Beverage Cans	Steel apple juice, alcoholic beverages, beer cans, Sapporo, etc.	Recycling
38	Steel Food Cans	<ul><li>Soup, beans, peaches, etc.</li><li>No alcohol containers</li></ul>	Recycling
39	Other Metal	Wire, hardware, copper	Depot
05	Glass		
40	Glass Beverage Containers	Juice, beer, and wine bottles	Recycling
41	Glass Non-Beverage	Food containers	Recycling
42	Other Glass	<ul> <li>Window glass, plates, and glasses, light bulbs (fluorescent tubes and compact fluorescents go in Household Hazardous Waste)</li> </ul>	Garbage
06	Household Hazardous Waste		
43	Household Hazardous Waste	<ul> <li>Labelled CAUTION, WARNING, CORROSIVE, EXPLOSIVE, FLAMMABLE, POISONOUS, or TOXIC</li> <li>Acid, adhesives, automotive, batteries, cleaners, cylinders,</li> </ul>	Depot
		corrosives, fuels, light bulbs, mercury, oxidizing chemicals, paint, pesticides and fertilizers, pharmaceuticals, and solvents	
07	Food Waste		
44	Avoidable Food Waste	<ul> <li>Whole fruits and vegetables, meat, bread, prepared meals, fruits and vegetables trimmings</li> </ul>	Organics
45	Unavoidable Food Waste	<ul> <li>Inedible food, such as peelings, bones, solidified fats, cooking oils, and food grease</li> </ul>	Organics
80	Yard Waste		
46	Yard and Garden Debris	<ul> <li>Grass clippings, leaves, weeds, plant parts, pumpkins, topsoil, and sod</li> </ul>	Organics
47	Brush and Branches	<ul> <li>Small twigs and tree trimmings that are no more than 60 cm in length and 2 cm in diameter, conifer cones and needles, wood chips and bark mulch</li> </ul>	Organics

	Category	Description and/or Examples	Diversion Potential
09	Waste Electrical and Electronic	Equipment	
48	Electronics	Laptop computers, notebooks, tablet PCs, TVs and computer monitors, printers, fax machines, photocopiers and scanners, personal, portable, or home DVD, Blu Ray, CD, MP3, record players; film or digital cameras/video recorders; digital picture frames; audio and video baby monitors; cable/satellite TV receivers; amps, receivers; speakers, headphones, microphones, coaxial, telephone, speaker wires, coffee makers, mixers, bread makers, toaster ovens, waffle, makers, crock pots, saw, drill, etc.	Depot
10	Construction And Demolition W	astes	
49	Dimensional Lumber – Untreated	Unpainted or unstained lumber and pallets	No program
50	Dimensional Lumber – Treated	Painted, stained, or treated lumber	No program
51	Composite Wood	<ul> <li>Plywood, oriented strand board, medium-density fibreboard, and particle board</li> </ul>	No program
52	Gysum Wallboard	Drywall	No program
53	Asphalt Roofing Shingles	Asphalt shingles and tarpaper	No program
54	Mixed Metals	Ferrous, non-ferrous, and aluminum	No program
55	Concrete, Bricks	Concrete, paving stones, and cement bricks	No program
56	Ceramics, Porcelain	Tiles, toilets, and sinks	No program
57	Carpeting	Carpeting, underlay, and mats	No program
58	Other Construction and Demolition Wastes	<ul> <li>Vinyl siding, misc. conduits, ceiling tiles, plumbing pipes, and insulation</li> </ul>	No program
11	Bulky Waste		
59	Furniture or Fixtures	Chairs, sofas, cabinets, tables, garden furniture, etc.	No program
60	Other Large Bulky Items	Other large items not classified elsewhere	No program
12	Household Hygiene		
61	Diapers	Diapers	Garbage
62	Sanitary Products	Sanitary napkins, hygiene products, etc.	Garbage
63	Pet Waste	Animal feces, bedding, and kitty litter	Garbage
13	Other Materials		
64	Textiles	<ul> <li>Clothing, shoes, mats, drapes, sheets, etc. Plastic rice sacks go in Other Rigid Plastic Packaging</li> </ul>	Depot
65	Tires and Other Rubber	Rubber tires and tubes, other rubber items such as hoses	Garbage
66	Other Waste	<ul> <li>Materials not classified elsewhere, wooden fruit basket, vacuum bags, wax candles, furnace filters, etc.</li> </ul>	Garbage
67	Wood Utensils	Chopsticks, wooden forks, toothpicks, etc.	Organics
66	Other Waste	<ul> <li>Materials not classified elsewhere, wooden fruit basket, vacuum bags, wax candles, furnace filters, etc.</li> </ul>	Garba

# APPENDIX D

#### **WASTE COMPOSITION RESULTS**



Table D-1: Waste Composition Results - by Stream

Category	Garbage	Bottles	Organics
01 Paper	14.9%	2.6%	10.7%
01. Mixed Paper	1.2%	0.7%	1.8%
02. Tissue/Toweling	8.4%	0.0%	5.4%
03. Food Soiled Paper	5.3%	1.9%	3.6%
04. Shredded Paper	0.0%	0.0%	0.0%
05. Other Paper – Non-Obligated	0.0%	0.0%	0.0%
02 Paper Packaging	20.2%	1.4%	25.9%
06. Corrugated Cardboard	0.5%	0.0%	0.9%
07. Boxboard/Cores	5.9%	0.7%	8.9%
08. Kraft Paper	0.7%	0.0%	0.9%
09. Molded Pulp	0.0%	0.0%	0.0%
10. Polycoat Beverage Cups	4.9%	0.7%	1.8%
11. Ice Cream Containers and Other Bleached Long Polycoat Fiber	2.7%	0.0%	3.6%
12. Laminated Paper Packaging	5.5%	0.0%	8.9%
13. Spiral Wound Containers	0.0%	0.0%	0.0%
14. Gable Top Containers – Beverage	0.0%	0.0%	0.0%
15. Gable Top Containers – Non-Beverage	0.0%	0.0%	0.0%
16. Aseptic Containers – Beverage	0.0%	0.0%	0.9%
17. Aseptic Containers – Non-Beverage	0.0%	0.0%	0.0%
03 Plastics	18.8%	41.0%	22.3%
18. #1 Polyethylene Terephthalate Bottles – Beverage	0.5%	18.8%	0.0%
19. #1 Polyethylene Terephthalate Bottles, Jugs, and Jars – Non-Beverage	0.0%	0.0%	1.8%
20. #1 Polyethylene Terephthalate Thermoform	0.9%	0.7%	0.0%
21. #2 High-Density Polyethylene Beverage	0.0%	0.0%	0.0%
22. #2 High-Density Polyethylene Non-Beverage	0.0%	0.0%	0.0%
23. #3 Polyvinyl Chloride	0.0%	0.0%	0.0%
24. #5 Polypropylene	9.7%	4.4%	4.4%
25. #6 Polystyrene – Expanded	0.0%	0.0%	0.9%
26. #6 Polystyrene – Non-Expanded	0.4%	0.0%	0.0%
27. #7 Biodegradable/Compostable Plastics	0.0%	0.0%	12.5%
28. Plastic Film	0.0%	0.0%	0.0%
29. Low-Density Polyethylene and High-Density Polyethylene Film – Products (Non-Packaging)	4.7%	12.7%	0.0%
30. Plastic Laminates and Other Film Packaging	0.7%	1.9%	1.8%
31. Other Rigid Plastic Packaging	0.2%	0.7%	0.0%

Category	Garbage	Bottles	Organics
32. Durable Plastic Products	1.6%	1.9%	0.9%
04 Metals	0.7%	9.4%	1.8%
33. Aluminum Beverage Cans	0.4%	9.4%	0.0%
34. Aluminum Non-Beverage	0.2%	0.0%	0.9%
35. Aerosol Containers	0.0%	0.0%	0.0%
36. Other Aluminum	0.0%	0.0%	0.0%
37. Steel Beverage Cans	0.0%	0.0%	0.0%
38. Steel Food Cans	0.0%	0.0%	0.0%
39. Other Metal	0.0%	0.0%	0.9%
05 Glass	0.0%	2.1%	0.0%
40. Glass Beverage Containers	0.0%	2.1%	0.0%
41. Glass Non-Beverage	0.0%	0.0%	0.0%
42. Other Glass	0.0%	0.0%	0.0%
06 Household Hazardous Waste	0.0%	0.0%	0.0%
43. Household Hazardous Waste	0.0%	0.0%	0.0%
07 Food Waste	43.7%	43.4%	37.5%
44. Avoidable Food Waste	42.9%	43.4%	33.9%
45. Unavoidable Food Waste	0.8%	0.0%	3.6%
08 Yard Waste	0.0%	0.0%	0.0%
46. Yard and Garden Debris	0.0%	0.0%	0.0%
47. Brush and Branches	0.0%	0.0%	0.0%
09 Waste Electrical and Electronic Equipment	0.0%	0.0%	0.0%
48. Electronics	0.0%	0.0%	0.0%
10 Construction and Demolition Wastes	0.0%	0.0%	0.0%
49. Dimensional Lumber – Untreated	0.0%	0.0%	0.0%
50. Dimensional Lumber – Treated	0.0%	0.0%	0.0%
51. Composite Wood	0.0%	0.0%	0.0%
52. Gypsum Wallboard	0.0%	0.0%	0.0%
53. Asphalt Roofing Shingles	0.0%	0.0%	0.0%
54. Mixed Metals	0.0%	0.0%	0.0%
55. Concrete, Bricks	0.0%	0.0%	0.0%
56. Ceramics, Porcelain	0.0%	0.0%	0.0%
57. Carpeting	0.0%	0.0%	0.0%
58. Other Construction and Demolition Wastes	0.0%	0.0%	0.0%
11 Bulky Waste	0.0%	0.0%	0.0%
59. Furniture or Fixtures	0.0%	0.0%	0.0%

Category	Garbage	Bottles	Organics
60. Other Large Bulky Items	0.0%	0.0%	0.0%
12 Household Hygiene	0.1%	0.0%	0.0%
61. Diapers	0.0%	0.0%	0.0%
62. Sanitary Products	0.1%	0.0%	0.0%
63. Pet Waste	0.0%	0.0%	0.0%
13 Other Materials	1.5%	0.0%	1.8%
64. Textiles	0.7%	0.0%	0.0%
65. Tires and Other Rubber	0.0%	0.0%	0.0%
66. Other Waste	0.1%	0.0%	0.0%
67. Wood Utensils	0.7%	0.0%	1.8%
Total	100.0%	100.0%	100.0%