DIVERT NS

2017
WASTE AUDIT REPORT

May 31, 2018

divert NS
Nothing Wasted

Divert NS is a registered business name of the Resource Recovery Fund Board, Inc.

divertNS.ca

Acknowledgements

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Appendices

List of Acronyms and Abbreviations

ASTM	American Society for Testing and Materials
CCME	Canadian Council of Ministers of the Environment
C&D	Construction and Demolition [waste]
Divert NS	Registered operating name of Resource Recovery Fund Board, Inc.
EIT	Engineer in Training [Engineers Nova Scotia designation]
HMJ	HMJ Consulting Limited, Halifax, Nova Scotia (contracted service provider for the Project)
ICI	Industrial, Commercial and Institutional [waste]
MHSW	Municipal Hazardous Solid Waste
NSE	Nova Scotia Environment [department of the Government of Nova Scotia]
SCW	Special Care Waste

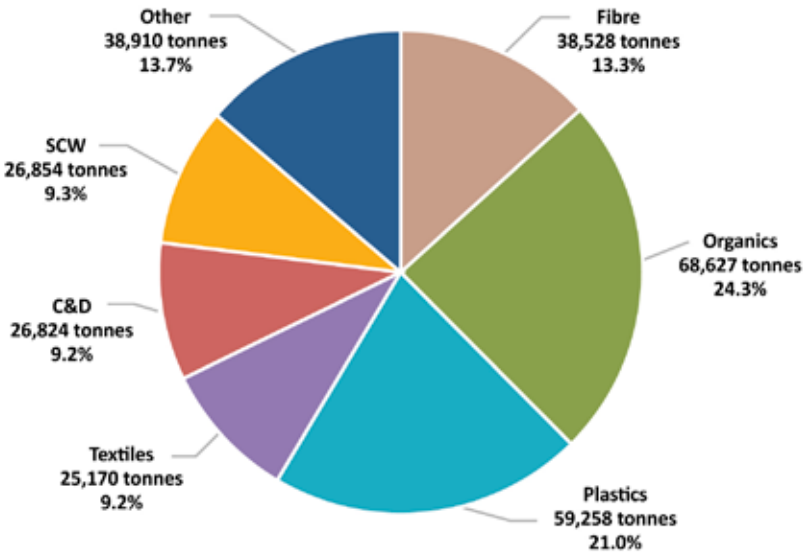
1. EXECUTIVE SUMMARY

Divert NS is the registered operating name of Resource Recovery Fund Board, Inc., a not-for-profit corporation created in 1996 under the Nova Scotia Solid Waste-Resource Management Regulations. Its mission is to work with Nova Scotians to improve the province's environment, economy and quality of life by reducing, reusing, recycling and recovering resources.

Two of Divert NS' important mandates are "to develop and implement industry stewardship programs" and "to fund municipal or regional diversion programs." Moving these directives forward and building on previous successes requires effective waste diversion strategies and strong partnerships. To this end, Divert NS conducted a 2017 waste audit to accurately identify and quantify the various materials that continue to enter our provincial landfills. A unique aspect of this project, compared to similar audits in 2011 and 2012, was the direct support of multiple funding partners. The link here rests in the legislation first referenced above – that certain materials are banned from disposal in Nova Scotia landfills. Thus, provincial agencies and industry stewardship associations operating diversion programs under these regulations all have a vested interest in the audit findings.

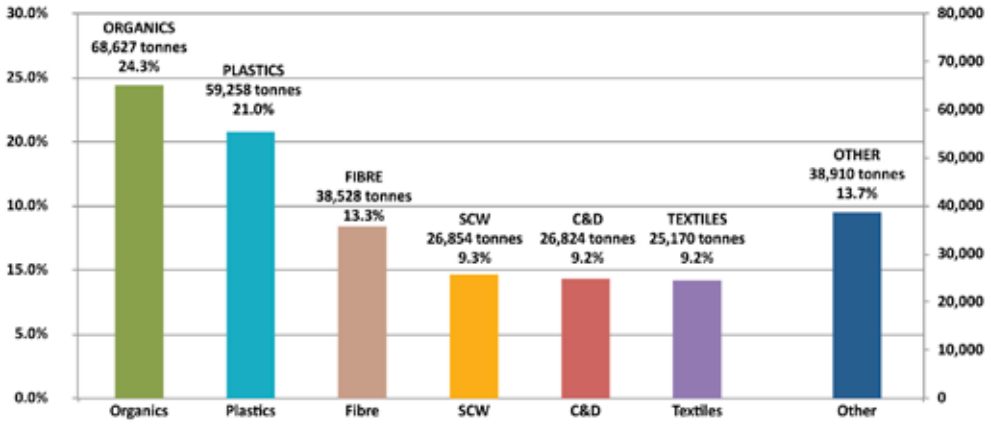
Overall findings of the fall 2017 audit are presented in the following two charts. Each provides the same information – illustrating the six dominant material categories, with a seventh (OTHER) representing the remaining 15 groupings of materials sorted. The six dominant material categories make up over 85% of landfill volume, by weight. They are (in order of prominence): Organics; Plastics; Fibre; Special Care Waste (SCW); Construction and Demolition (C&D); and Textiles.

Figure 1.1 Landfills Province-wide — Residential + ICI (2017)



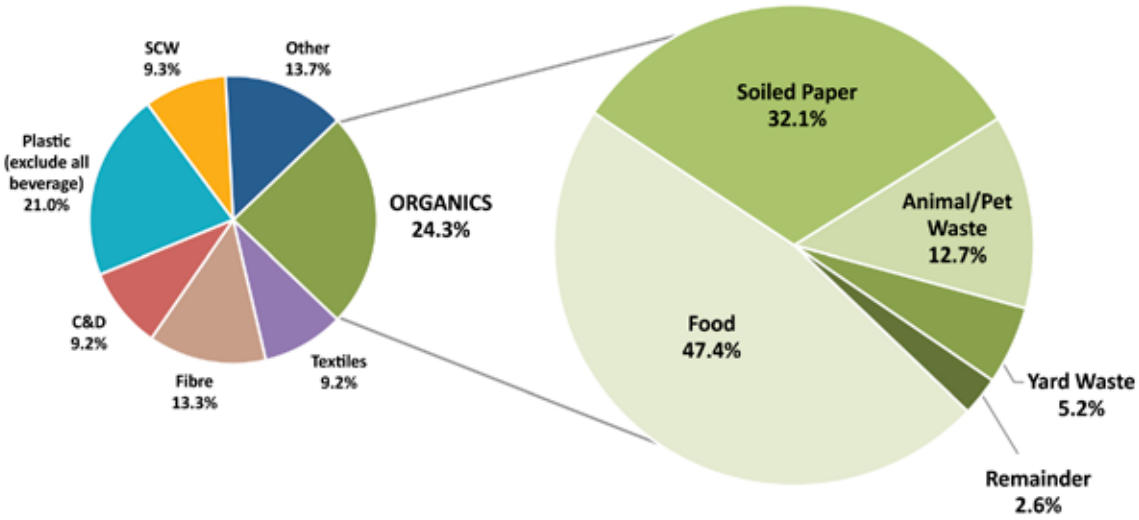
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 1.2 Landfills Province-wide – Residential & ICI (2017)



Waste audits typically reveal areas of opportunity for improving waste diversion efforts. These improvements can be achieved through either existing or new waste diversion programs. To better understand the complexity of the most prevalent materials in the waste stream, each of the six major material categories were broken into sub-categories. PLASTICS are always of interest as they represent high resource value if they can be recovered. FIBRE and ORGANICS also have significant potential for increased diversion.

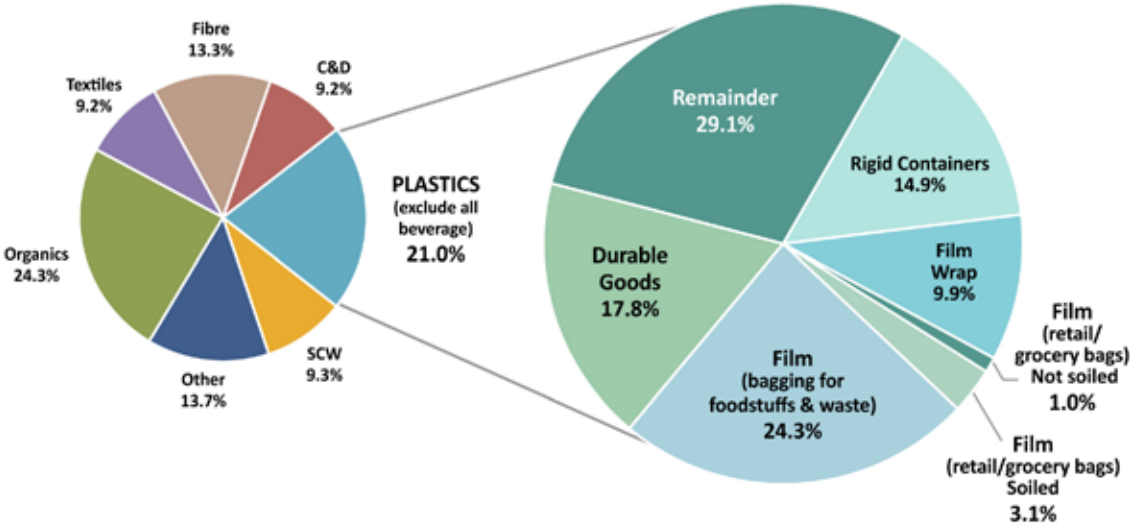
Figure 1.3 ORGANICS: Province-wide — Residential + ICI (2017)



NOTE: ORGANICS is comprised of line items 21 through 30 inclusive as detailed in Appendix E.

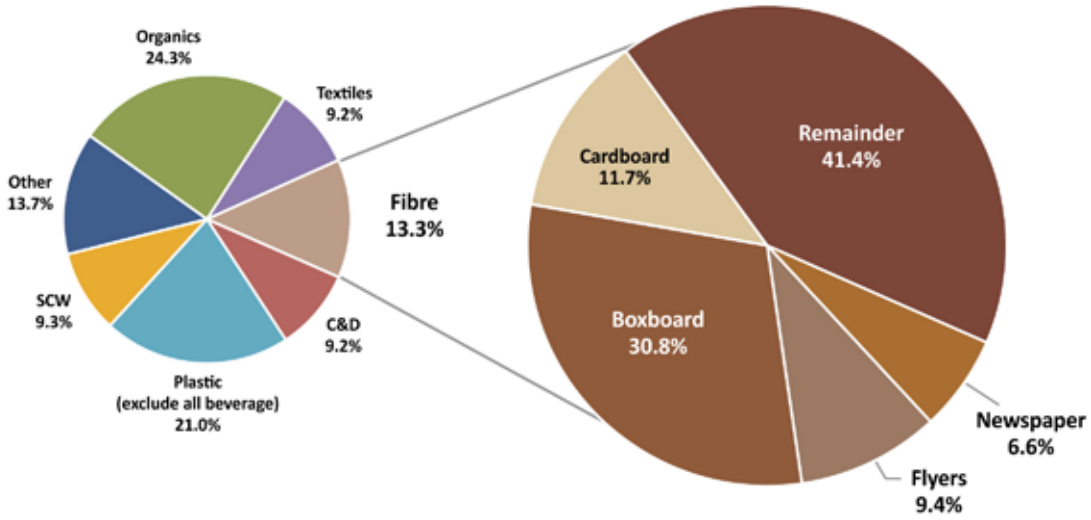
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 1.4 PLASTICS – Province-wide — Residential + ICI (2017)



NOTE: The "Remainder" category in the breakdown of PLASTICS is comprised of material line items 57, 60, 61, 63, 64, 65, 67, and 68 as detailed in Appendix E.

Figure 1.5 FIBRE: Province-wide — Residential + ICI (2017)

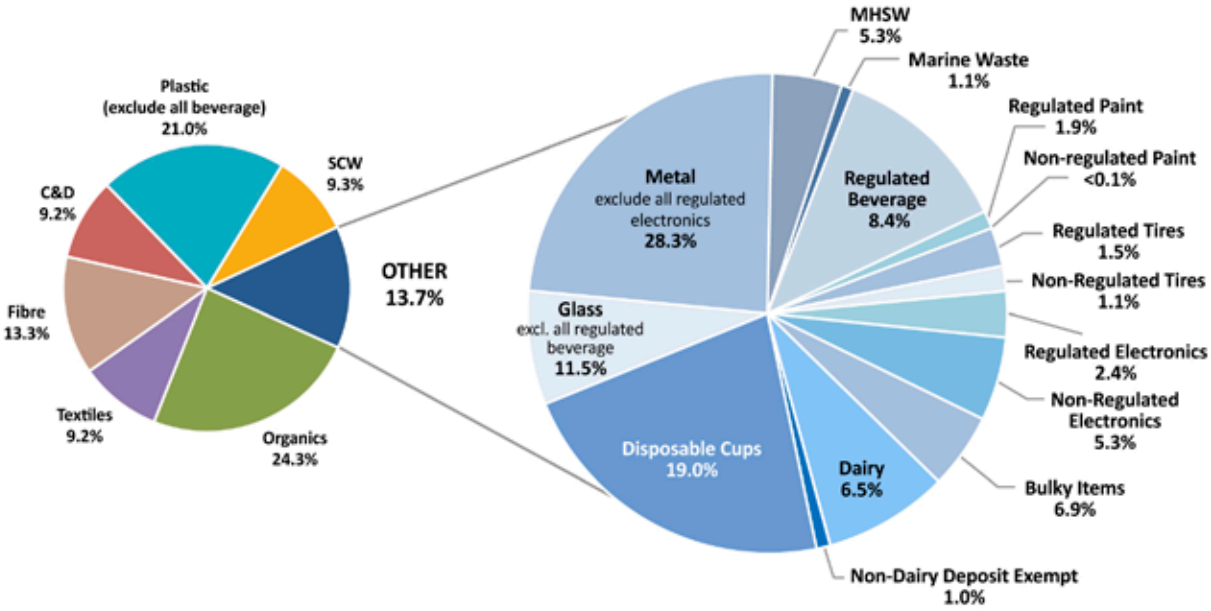


NOTE: FIBRE "Remainder" category is comprised of line items 5, 6, 8, 9, 10, 11, 15, 16, 17, 18, 19, and 20 as detailed in Appendix E.

Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

A closer look at the OTHER category is also important. The breakout pie below shows that none of the remaining 15 broad categories (which include many of the regulated material streams) is substantial from a tonnage perspective. The remaining 15 material categories combined represent less than 15% of the province-wide total waste stream by weight.

Figure 1.6 OTHER: Province-wide — Residential + ICI (2017)



NOTE: OTHER is comprised of 15 broad categories excluding the top 6 identified in the chart at left as presented Appendix E.

Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Comprehensive Sort Protocol – Category 55

HDPE (#2) and LDPE (#4) – grocery/retail carry out bags – not soiled

Samples were taken from the seven **landfills** approved by Nova Scotia Environment (NSE) to receive both residential and ICI waste streams. These samples were separated in adherence to a "**Comprehensive Sort Protocol**"—a very detailed breakdown of 21 broad categories into 192 individual material types. Using this protocol, audit sampling comprised eight Residential and nine ICI samples from each of the seven landfills.

NOTE: See Appendix E for the full listing of material types for the Comprehensive Sort Protocol

Table 1.1 Comprehensive Sort Protocol – 21 Broad Categories

Fibre	Metal (excluding all electronics)	Regulated Beverages
Organics	Municipal Hazardous Solid Waste	Regulated Paint
Dairy (all types)	Special Care Waste	Non-regulated Paint
Non-dairy (deposit exempt)	Textiles	Regulated Tires
Plastic (excluding all beverage)	C&D	Non-regulated Tires
Disposable Cups	Bulky Items	Regulated electronics
Glass (excluding all beverage)	Marine Waste	Non-regulated electronics

Samples taken from **transfer stations** were segregated according to a "**Simplified Sort Protocol**"—using just 21 key sorts categorized as either "banned" or "non-banned" from disposal at Nova Scotia landfills. These samples were an "added-value" component of the project that allowed Divert NS to capture data from all 22 identified municipal/regional "service areas" in the province. Audit sampling, using this protocol, targeted a single Residential and single ICI sample from each of the 15 transfer stations, plus an additional two Residential and three ICI samples from the Otter Lake landfill in Halifax.

Table 1.2 Simplified Sort Protocol – 21 Sort Categories

BANNED MATERIALS	NON-BANNED MATERIALS
Newsprint	Dry Fibre
Corrugated Cardboard	Organics Compatible
Compostable Organics	Polycoat Containers
Plastic – HDPE and LDPE	Aseptic Containers
Glass Food Containers	Plastic Packaging
Steel Food Containers	Plastic Foam
Regulated Beverage Containers	Metal
Regulated Electronics	Household Batteries
Regulated Paint	Textiles
Regulated Tires	C&D
	Other (all other materials)

A total of 153 samples were sorted for this audit (i.e. 119 Comprehensive and 34 Simplified sorts). As discovered during the audit, one of the transfer stations does not accept Residential waste, accounting for one less sample than anticipated.

This report includes numerous tabulations and displays of data, some of which are organized to allow comparison with results of the 2011 and 2012 Waste Audits. In assessing the detailed information contained in the sampling data, it is important to be aware of certain nuances within the broad categorizations. For example, PLASTICS does not include plastic materials in DAIRY or REGULATED BEVERAGES.

Whereas the fall 2017 Waste Audit was preceded by the two similar audits conducted by Divert NS in the spring of 2011 and summer of 2012, seasonality has been accounted for to the extent possible, and the duration of each audit, when combined with the others, accounts for almost a full calendar year. The logistics and sorting procedures in each audit year were essentially uniform. Some small changes from the two earlier audits were made regarding the categorization of wastes—such as adding a more detailed breakdown of ORGANICS, PLASTICS and REGULATED ELECTRONICS.

Before and during the sorting process

2. BACKGROUND

2.1 Divert NS

Divert NS is the registered operating name of Resource Recovery Fund Board, Inc., a not-for-profit corporation created in 1996 under the Nova Scotia Solid Waste-Resource Management Regulations. Its mission is to work with Nova Scotians to improve the province's environment, economy and quality of life by reducing, reusing, recycling and recovering resources.

Two of Divert NS' important mandates are "to develop and implement industry stewardship programs" and "to fund municipal or regional diversion programs." Key to assessing the status and determining future direction with respect to these mandates is the systematic use of waste audits to acquire detailed statistics concerning materials that continue to enter landfills in Nova Scotia.

2.2 Previous Waste Audits

Until 2011, no systematic province-wide waste audits had been conducted. Various municipalities and waste management regions carried out audits for their own purposes, but those audits lacked uniformity in method and categorization. Those interested in the evolution of the relevant scientific method of achieving statistically robust data concerning the composition of municipal solid waste are directed to Appendix A, where the foundations of the method, and its application in Nova Scotia, are briefly described.

The long-standing practice in most municipal solid waste audits has been to generate separate results to reflect the origins of the waste (i.e. from either the residential or the industrial-commercial-institutional (ICI) sectors). That separation relates to a common practice in many municipalities in which the municipality takes responsibility for collection of residential waste whereas numerous service providers in the private sector offer collection service to those who do not transport their own waste to disposal sites. Characteristics of the two streams vary significantly so it is beneficial to understand their respective compositions.

The separation of waste between residential and ICI streams is not surgically neat in practice. In some municipalities, collection does not include multiple-unit residential buildings. Or, the municipal collector may include minor amounts of ICI waste from small generators (such as convenience stores in remote rural locations). However, these represent minor effects and the overall statistics can be confidently used as reflective of the two streams.

As the 2017 waste audit took place from mid-September to mid-December (fall), the 2012 audit covered May through August (summer), and the 2011 audit covered March through June (spring), the three audits approximately cover a whole calendar year and may be reflective of some

seasonal differences in waste stream composition. For example, the winter/spring season (March to June 2011) would feature little gardening waste (except perhaps some in June), whereas the summer season (May to August, 2012) would contain relatively abundant yard waste from gardening and horticulture.

3. METHODOLOGY

Sample collection for the 2017 waste audit was achieved during a 14-week period from mid-September to mid-December, 2017. Samples were collected and processed in accordance with the revised (2017) Divert NS Waste Audit Manual. The sample collection locations, scheduling, selection method, as well as the number, type and categorization of samples were specified at the outset by Divert NS.

Samples taken from the seven landfills approved by Nova Scotia Environment to receive both residential and ICI waste streams were separated in adherence to a "Comprehensive Sort Protocol" — a very detailed breakdown of 21 broad categories into 192 individual material types. Audit sampling, using this protocol, comprised eight Residential and nine ICI samples from each of the seven landfills.

New for the 2017 audit was the introduction of a second sampling protocol — this was an "added value" component of the project and allowed for additional sampling beyond the required scope. Samples taken from the 15 transfer stations were segregated according to a "Simplified Sort Protocol" — just 21 key sorts categorized as either "banned" or "non-banned" from disposal in landfill.

These contrasting methodologies are described separately in Sections 3.1 and 3.2.

3.1 Comprehensive Sort Protocol

All municipal solid waste generated province-wide enters one of the seven landfills in Nova Scotia. The samples to be sorted and recorded under the Comprehensive Protocol were all taken from these landfills only.

3.1.1 Locations and Numbers of Samples

The scope of sampling for the Comprehensive Sort Protocol comprised eight Residential and nine ICI samples, taken from each of the seven landfills — for a total of 119 Comprehensive Protocol samples.

Samples were collected from each of the locations identified in Figure 3.1. (Note: The Region names and numbers shown are administrative divisions used by Nova Scotia Environment and Divert NS).

Figure 3.1 Solid Waste Management Regions and Landfill Locations

LANDFILLS:
A Otter Lake (HRM)
B Kaizer Meadow
C Queens
D West Hants
E Cumberland
F Colchester
G Guysborough

3.1.2 Sample Collection Scheduling and Logistics

Samples were picked up on a schedule in which collection dates/weeks were distributed as randomly and evenly as feasible across a normal (Monday through Friday) work week. An initial schedule was devised, then adjusted as needed during the 14-week term, to accommodate instances where required samples (i.e. Residential or ICI) were not available at a collection site at the pre-scheduled time or to work around vehicle mechanical breakdowns. The schedule as actually carried out is provided in Appendix B.

Three people made up the waste audit team, responsible for sample collection and sorting. One audit technician drove to collect all the samples and the other two were dedicated almost entirely to sorting Comprehensive Protocol samples.

Samples were collected by a team member using an enclosed truck (rented cube van with 16-foot bed), and transported to a central sorting facility at the Kaizer Meadow Waste Management Centre in the Municipality of the District of Chester. The building was outfitted with temporary storage bunkers, tables and scales, a variety of small tools and equipment as called for in the Waste Audit Manual, and personnel support features—all of which were removed following the audit.

Logistical arrangements closely followed the descriptions in the 2017 Waste Audit Manual, with only minor adjustments made to suit a few unusual circumstances encountered during the work. Some observations concerning the execution of the 2017 Waste Audit are found in Appendix C; these may be useful for the design and execution of future waste audits.

3.1.3 Sample Selection Method

Only materials destined for disposal at one of the seven provincial landfills were sampled. Materials such construction and demolition (C&D) waste and municipal hazardous solid waste (MHSW) received at the various privately owned disposal sites sanctioned by NSE fell outside the scope of this project.

At the landfills, collection of materials coming from transfer stations was avoided as much as possible as the transfer stations were being independently sampled. By following this protocol, the samples taken at landfills were very likely to represent their "parent" service areas rather than "outside" service areas.

The waste samples were classed as originating from "Residential" or "Industrial, Commercial and Institutional" (ICI) sources. This was achieved by audit personnel closely collaborating with operators at the landfills to ensure mixed loads were not included.

Samples were standardized as to weight: at least 100 kg for Residential and 135 kg for ICI samples. This was achieved by approximate weighing of samples at the collection sites, by using a spring balance. The detailed chain of custody procedures specified in the 2017 Waste Audit Manual were followed. The chain of custody form (Sample Movement Control Form) is shown in Appendix D.

Random selection of haulage vehicles from incoming traffic and random selection of materials from selected loads were conducted as per the Waste Audit Manual, in collaboration with site operators. In rare cases, where vehicle traffic was so sparse that waiting for vehicles to arrive was not practical, it was necessary to collect samples directly from generators while in the company of the source's hauler, or to have samples set aside a day or two in advance.

3.1.4 Sorting to Determine Composition

The detailed classification table specified by Divert NS is attached as Appendix E. Sorting procedures were followed as per the Waste Audit Manual.

In the Comprehensive Sort Protocol, 21 major groups or "categories" were involved, as follows:

Fibre	Metal (excluding all electronics)	Regulated Beverages
Organics	Municipal Hazardous Solid Waste	Regulated Paint
Dairy (all types)	Special Care Waste	Non-regulated Paint
Non-dairy (deposit exempt)	Textiles	Regulated Tires
Plastic (excluding all beverage)	C&D	Non-regulated Tires
Disposable Cups	Bulky Items	Regulated electronics
Glass (excluding all beverage)	Marine Waste	Non-regulated electronics

The 2011 and 2012 waste audit used a similar "Comprehensive" type of classification scheme, involving somewhat fewer (169) separate sorts. Some of the material types separated out in earlier audits were subdivided more finely for the 2017 waste audit. For example, REGULATED ELECTRONICS went from 11 to 13 sorts in the Comprehensive Protocol used in the 2017 Waste Audit. Consistency in the classification enables reliable audit to audit comparisons. The Comprehensive Protocol classification is the most detailed waste audit carried out by Divert NS to date.

3.2 Simplified Protocol

The rationale for including a "simplified" sorting protocol was to obtain data from more sites than was gathered in the earlier waste audits, while working within the project budget. As the name suggests, a simpler classification scheme was used for the targeted number of additional samples. The smaller number of sorts (21 versus 192) was expected to result in more rapid sorting per sample; this assumption was borne out.

3.2.1 Locations and Numbers of Samples

The scope of sampling comprised a pair of samples—one each of Residential and ICI—taken from each of the 15 transfer stations, plus an additional two Residential and three ICI samples from the Otter Lake landfill in Halifax. Since the Shelburne transfer station does not accept Residential waste, this made a total of 29 samples taken from transfer stations. Added to the five samples from Otter Lake, the total number of samples treated as Simplified Protocol sorts was 34.

Samples for the Simplified Protocol sorts were collected from each location identified in Appendix F.

3.2.2 Sample Collection Scheduling and Logistics

Samples were picked up in the same manner as described in Section 3.1.2. The schedule for the Simplified Protocol Sorts, as actually performed, is provided in Appendix B.

For this sampling protocol, assigned tasks of the three audit technicians differed slightly from the Comprehensive Protocol. When not on the road collecting samples, the driver was responsible for conducting the simplified sorts and on occasion the other two technicians assisted where and when their comprehensive sort workload permitted.

Samples were collected using the same cube van and arriving at the same building at the Kaizer Meadow Waste Management Centre.

3.2.3 Sample Selection Method

Only materials disposed of at the 15 designated transfer stations were sampled. Materials such construction and demolition (C&D) waste and municipal hazardous solid waste (MHSW) arriving at some of the transfer stations, but destined for disposal at privately owned sites elsewhere and sanctioned by Nova Scotia Environment to accept those certain materials, fell outside the scope of this project.

Each sample was classed as originating from a "Residential" or "Industrial, Commercial and Institutional" (ICI) source. This was achieved by audit personnel closely collaborating with operators at the transfer stations to ensure mixed loads were not included (The St. Mary's Transfer Station was excluded from this project as their incoming materials are not segregated.)

Samples for the Simplified Protocol were also standardized as to weight: at least 100 kg for Residential and 135 kg for ICI samples. All sample detail was recorded using the same chain of custody form for the Comprehensive Protocol and found in Appendix D.

Random selection of these sorts was achieved in the same manner as was used for the comprehensive sorts.

3.2.4 Sorting to Determine Composition

The detailed classification table was specified by Divert NS and is attached as Appendix G. Sorting procedures were followed as per the Manual.

In the Simplified Sort Protocol, 21 groupings of materials, identified as either "banned" or "non-banned" from disposal in Nova Scotia landfills, were used, as follows:

BANNED MATERIALS	NON-BANNED MATERIALS
Newsprint	Dry Fibre
Corrugated Cardboard	Organics Compatible
Compostable Organics	Polycoat Containers
Plastic – HDPE and LDPE	Aseptic Containers
Glass Food Containers	Plastic Packaging
Steel Food Containers	Plastic Foam
Regulated Beverage Containers	Metal
Regulated Electronics	Household Batteries
Regulated Paint	Textiles
Regulated Tires	C&D
	Other (all other materials)

4. DATA ANALYSIS AND ORGANIZATION

This section provides an explanation of the data organization, analysis and display of information.

Data derived from sorting and weighing waste sample constituents was recorded in complete detail in EXCEL spreadsheets. The data was segregated into ICI and Residential tables, and by source landfill site or transfer station, and further according to the two classification protocols described in Section 3 (i.e. Comprehensive Protocol and Simplified Protocol).

Sorted weights of constituent materials (as per each Protocol) were tallied, and each result was expressed as "constituent by percentage by weight." Further, the confidence limits around the means (arithmetic averages) of each category (and sub-category, and sub-category separation where applicable) percentage were calculated by the embedded EXCEL algorithm "CONFIDENCE," at confidence limits of 85% and 95%. That algorithm was used for the 2011 and 2012 audit data analysis, and therefore was used again for the 2017 results, to maintain continuity in statistical methods.

The data gathered for the Simplified Protocol sorts was analyzed to provide the percentages of materials by weight in each of the 21 groups (20 groups of named materials plus a residual or OTHER group). Where sampling of transfer stations was extremely limited (normally one Residential and one ICI sample from each), confidence limits could not be calculated for the resulting Simplified Protocol data as was done for the Comprehensive Protocol data.

Total annual receiving tonnage data for each landfill was provided by Nova Scotia Environment (NSE), as shown in Appendix H. These figures include contributing weights from any and all of their respective transfer stations.

Once the percentage composition and weights of the various materials was determined for samples taken from each landfill (individually and collectively and for both Residential and ICI), this data combined with NSE data was used to extract estimates of the tonnages for each of the 21 broad categories of material received at each landfill.

Section 5 in this report includes graphic displays of the key data for landfills and the province as a whole. It shows tonnages and the percentage make up of the six dominant categories (and the remaining 15 grouped as OTHER)for both province-wide and individual landfills; and for residential and ICI sources, separately and combined. See Appendix I for the percentages, means and confidence limits for each of the 21 categories in the Comprehensive Protocol classification scheme.

Additional data mining was carried out to extract province-wide data for selected sub-category separations of materials (i.e. the 192 sorts in the Comprehensive Protocol) sorted according to that Protocol, which at present are not banned from landfills but that could be feasibly diverted pending further consideration by NSE. That information is presented in Appendix J.

The waste audit sorting record includes both unit count and weight for regulated (i.e. stewarded) program materials and certain materials of concern respecting litter reduction. The unit count data is compiled on a province-wide basis and is tabulated in Appendix K.

5. KEY DATA DISPLAYS

A variety of graphs providing information of interest are provided in this section. (A number of more detailed displays are found in various appendices.) This section includes the following:

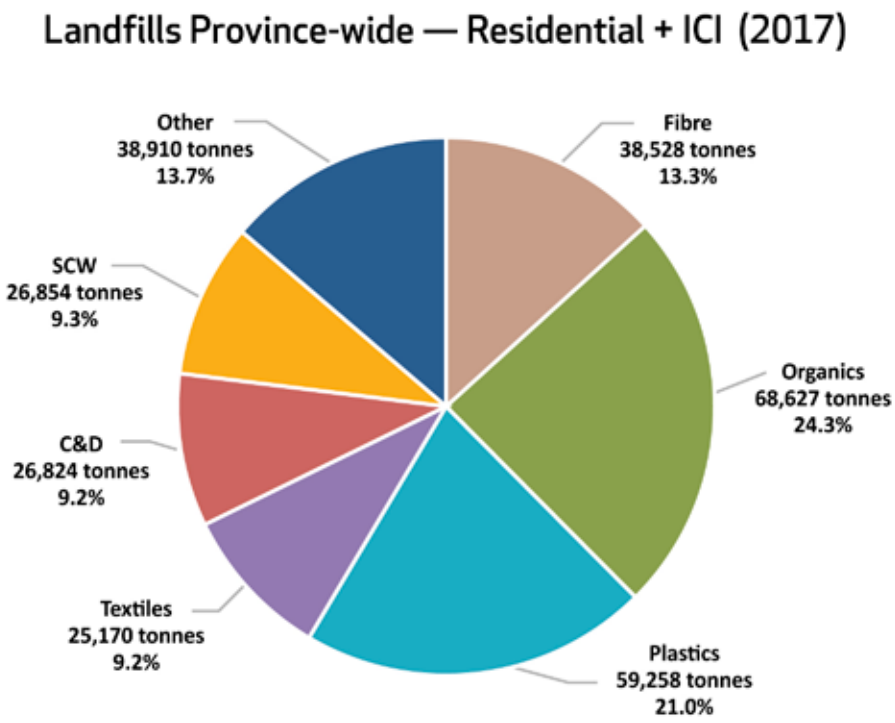
- **5.1 Landfill Overviews:** Results from samples sorted according to the Comprehensive Protocol for the major categories of materials. The graphs show the data on both a tonnage and percentage basis, province-wide data and for each landfill.
- **5.2 Major Waste Category Breakdowns:** Further to section 5.2, these graphs show selected breakdowns of certain categories of material, province-wide, for the total of Residential and ICI streams combined.
- **5.3 Landfill Year over Year Comparisons:** Further to section 5.2, these displays show province-wide data for the audit years of 2011, 2012 and 2017.
- **5.4 Simplified Protocol Data:** A display of province-wide data for the total of Residential and ICI streams combined, from samples sorted according to the Simplified Protocol.

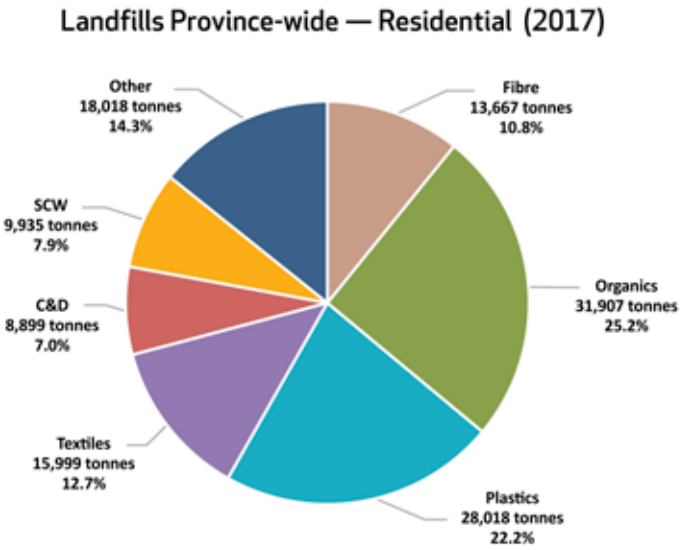
5.1 Landfill Overviews

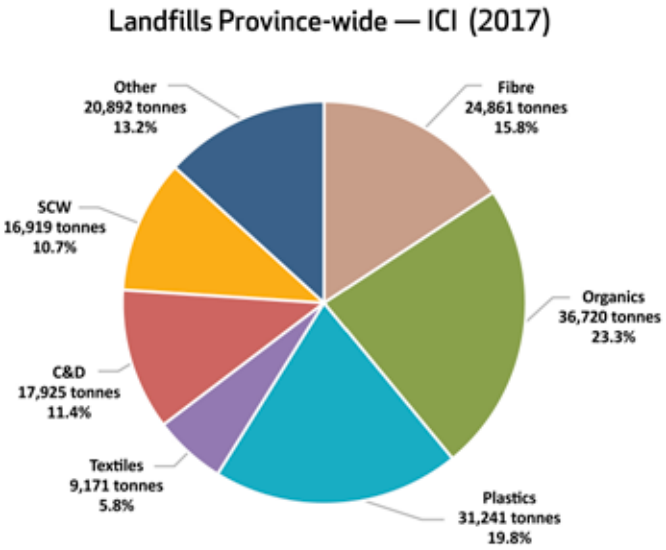
Displays for major categories of material were sorted according to the Comprehensive Protocol, showing the data on both a tonnage and percentage basis for the province as a whole and for each of the seven landfills, divided between the residential and ICI streams.

The top six categories found in the 2017 audit results are identical in both the Residential and ICI findings and facilitates easy comparison between the two waste streams.

Figure 5.1 Province-wide Landfills – Residential + ICI — Combined & Separate (2017)

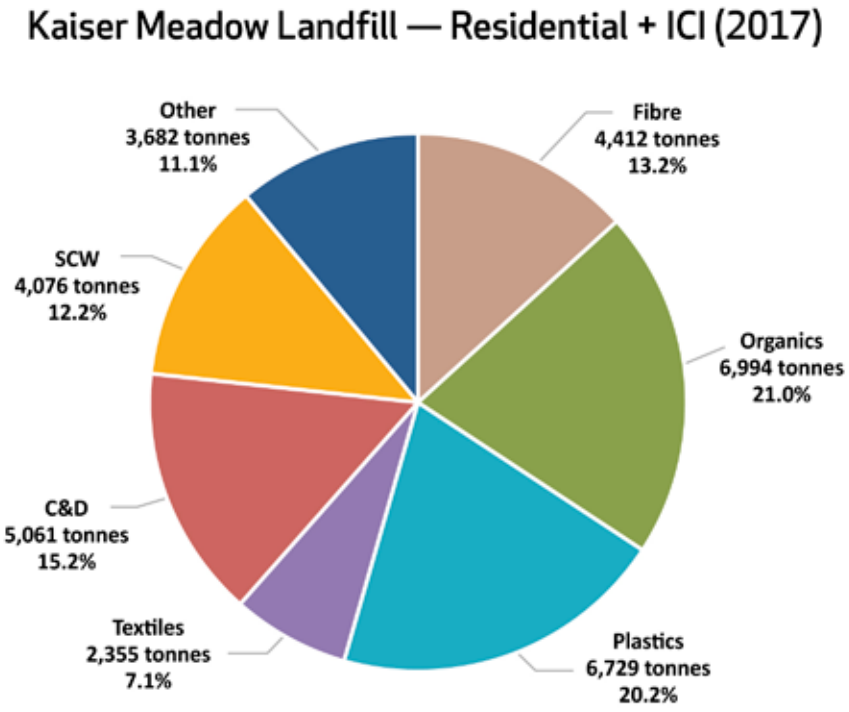


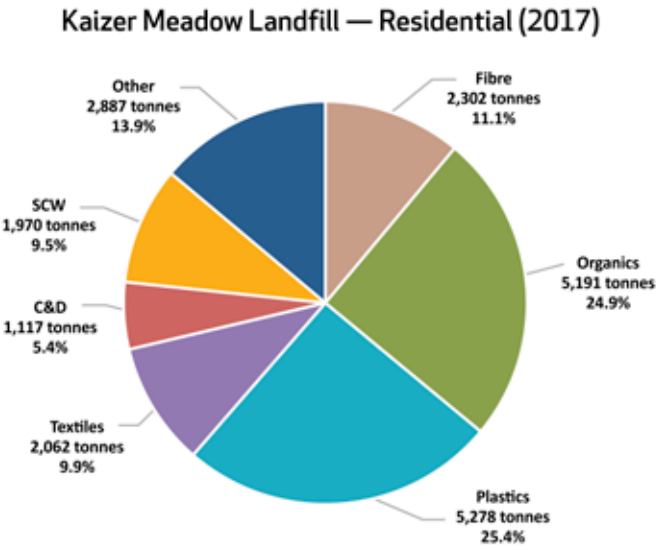


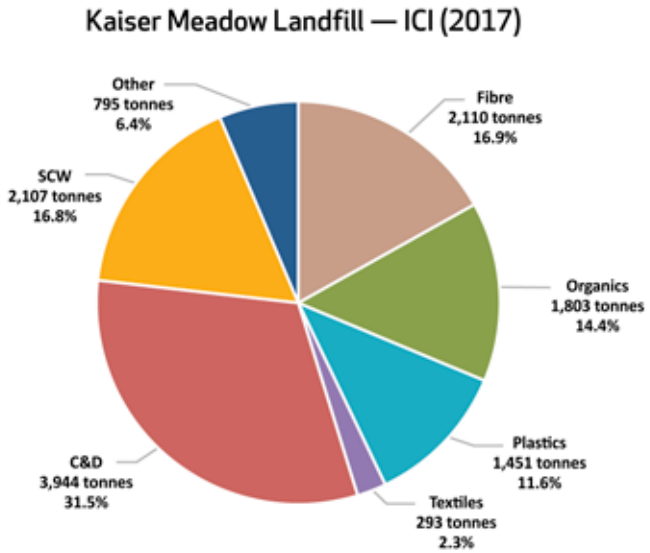


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.2 Kaizer Meadow Landfill – Residential + ICI – Combined & Individual (2017)

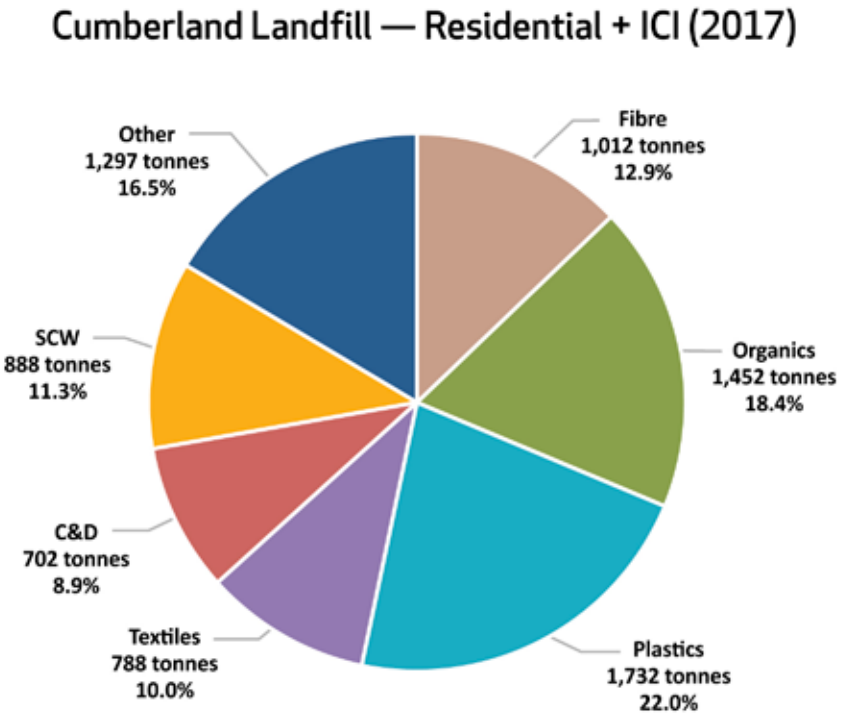


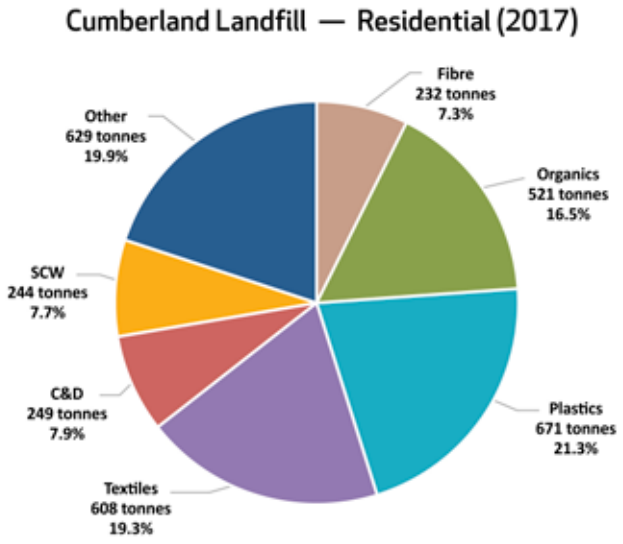


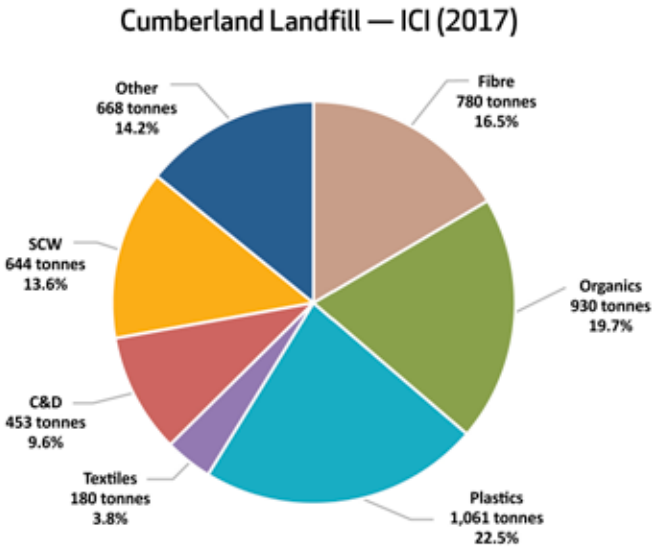


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.3 Cumberland Landfill – Residential + ICI – Combined & Individual (2017)

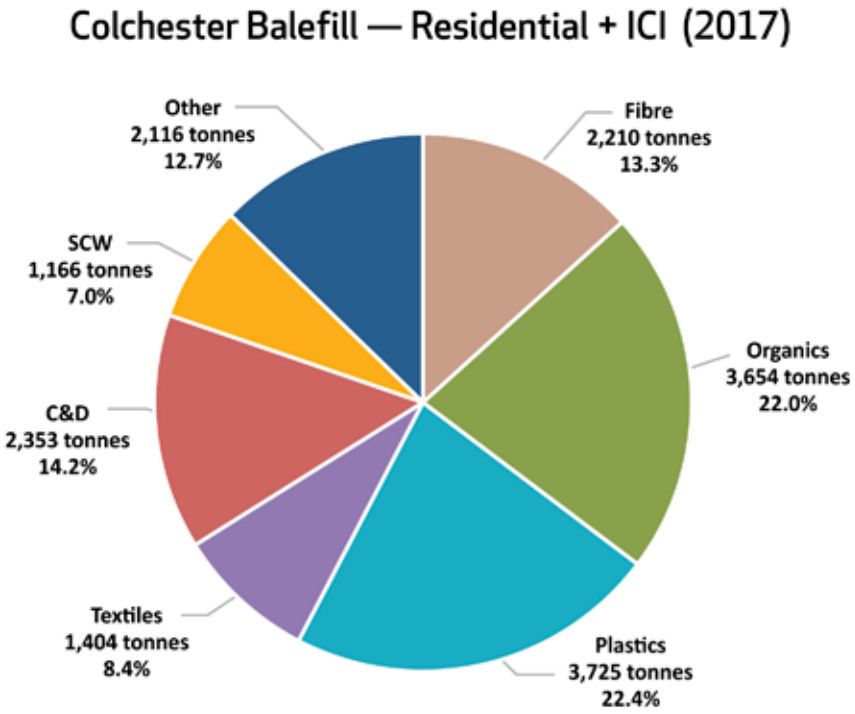


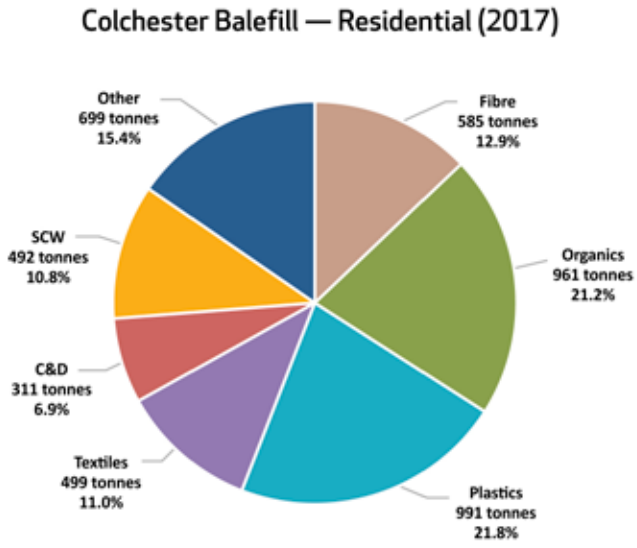


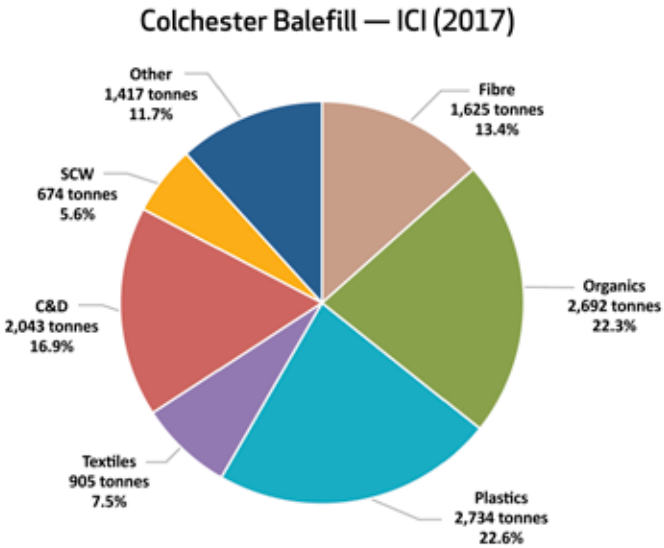


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.4 Colchester Balefill – Residential + ICI – Combined & Individual (2017)

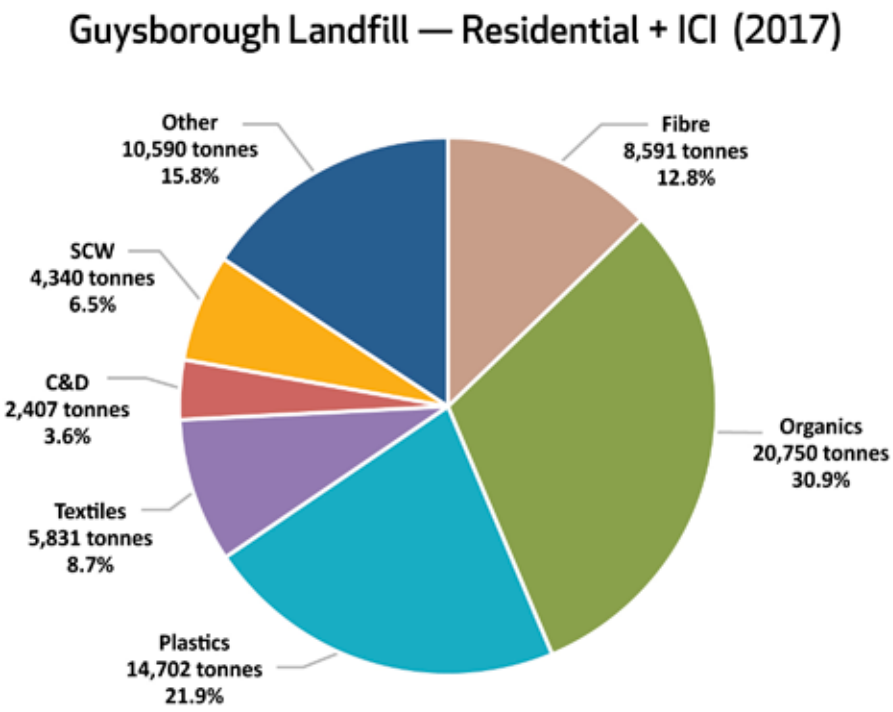


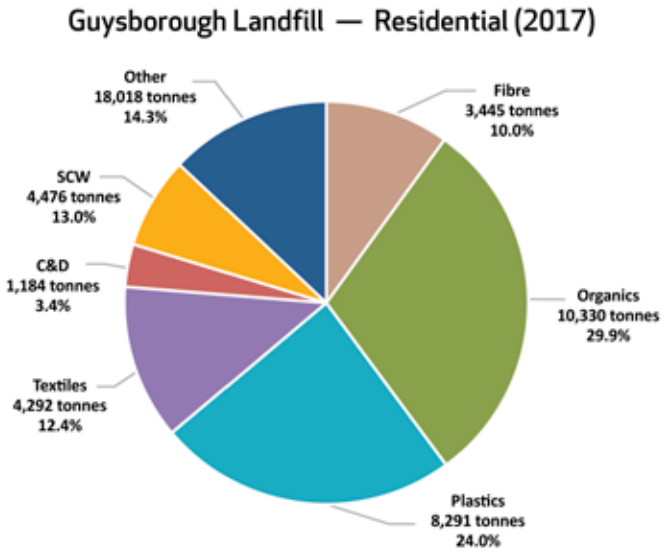


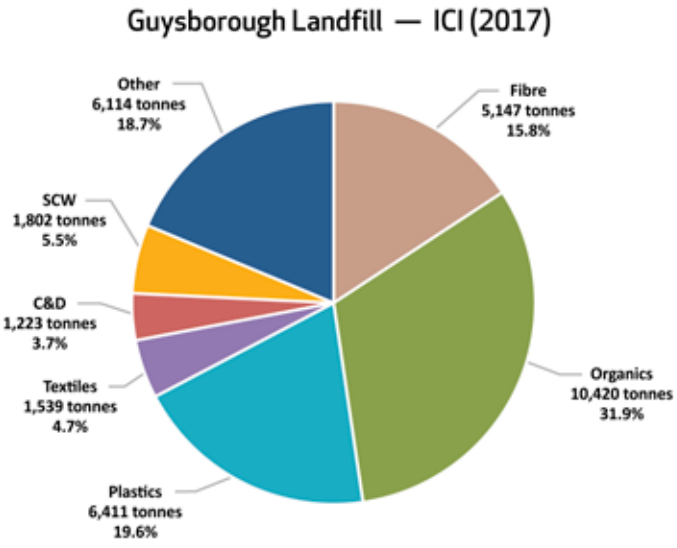


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.5 Guysborough Landfill – Residential + ICI – Combined & Individual (2017)

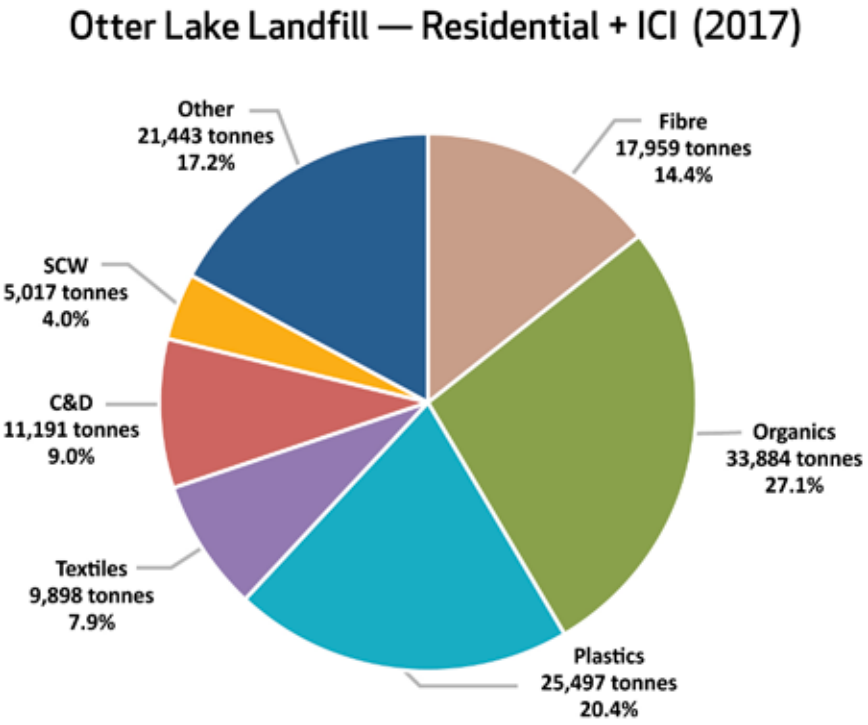


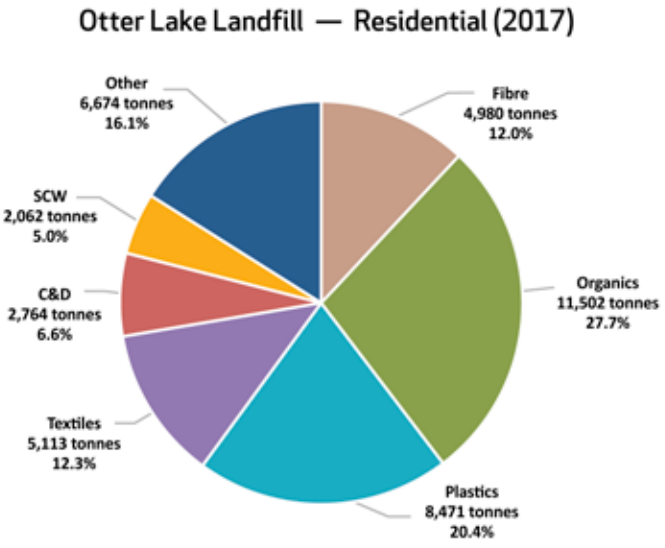


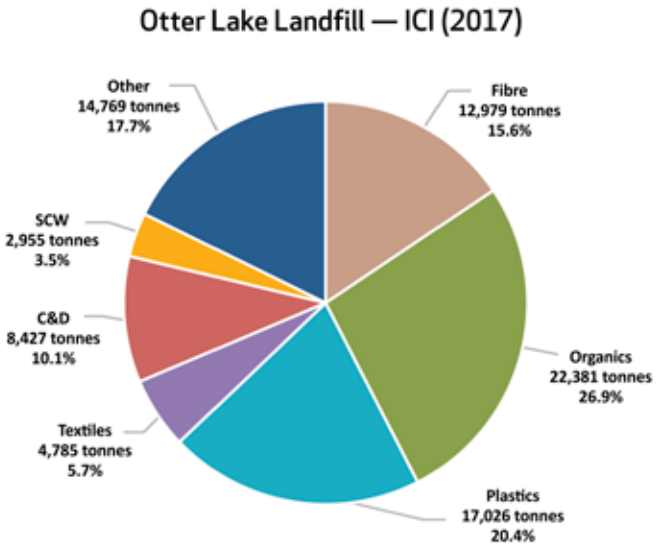


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.6 Otter Lake Landfill – Residential + ICI – Combined & Individual (2017)

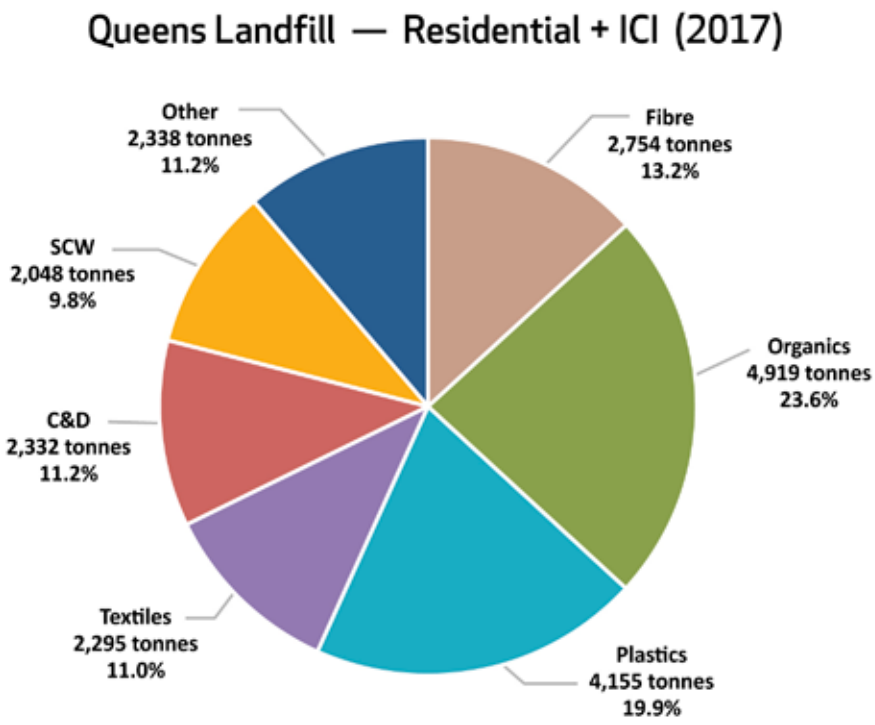


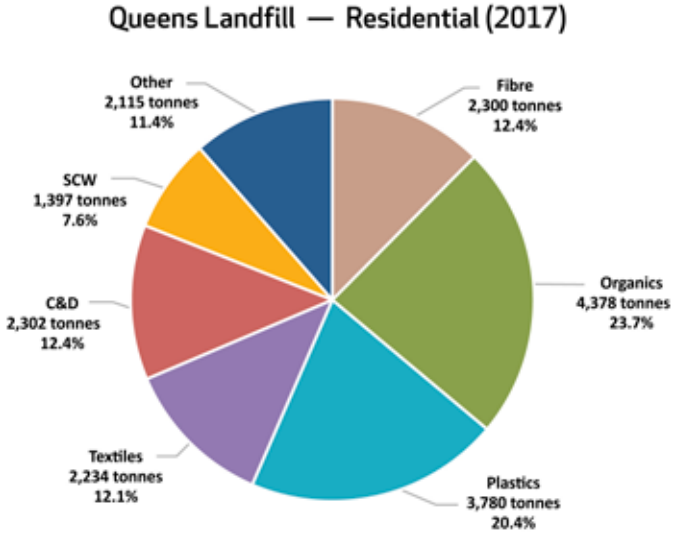


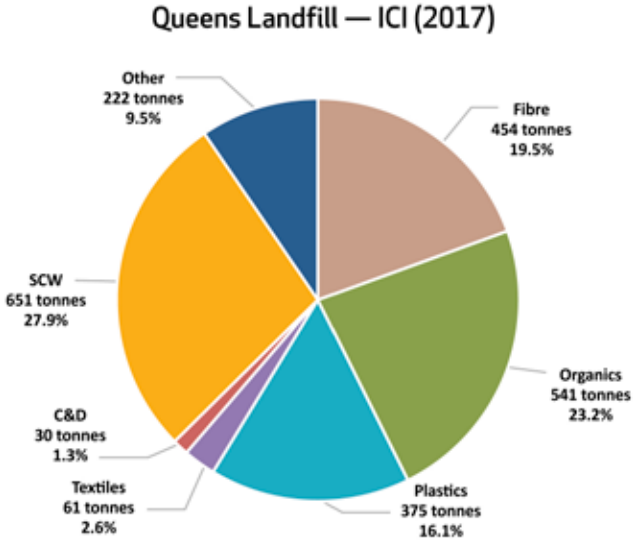


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.7 Queens Landfill – Residential + ICI – Combined & Individual (2017)

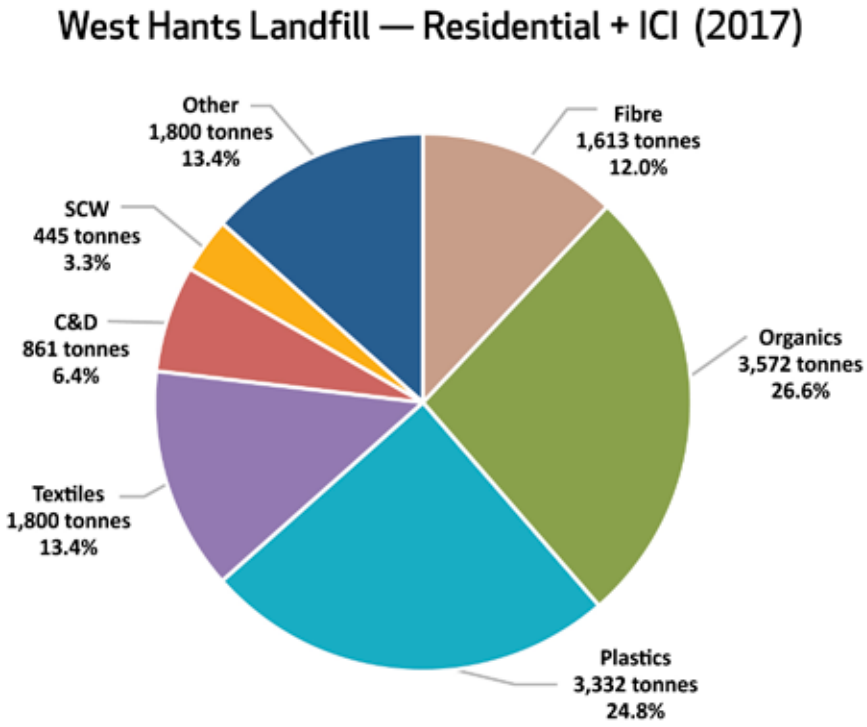


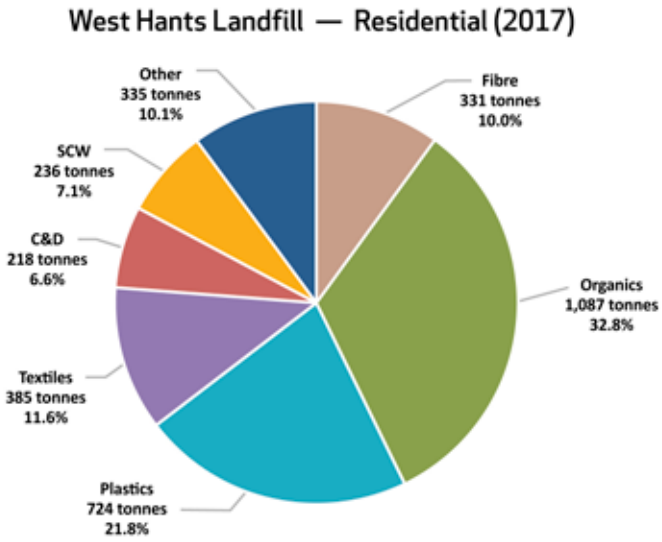


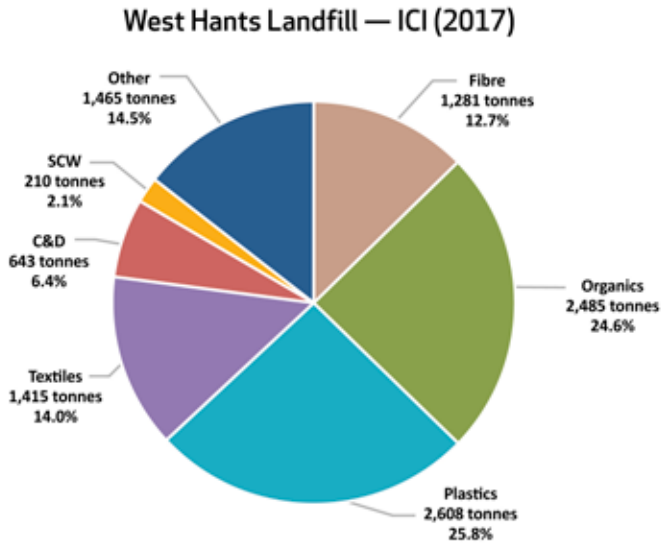


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.8 West Hants Landfill – Residential + ICI – Combined & Individual (2017)





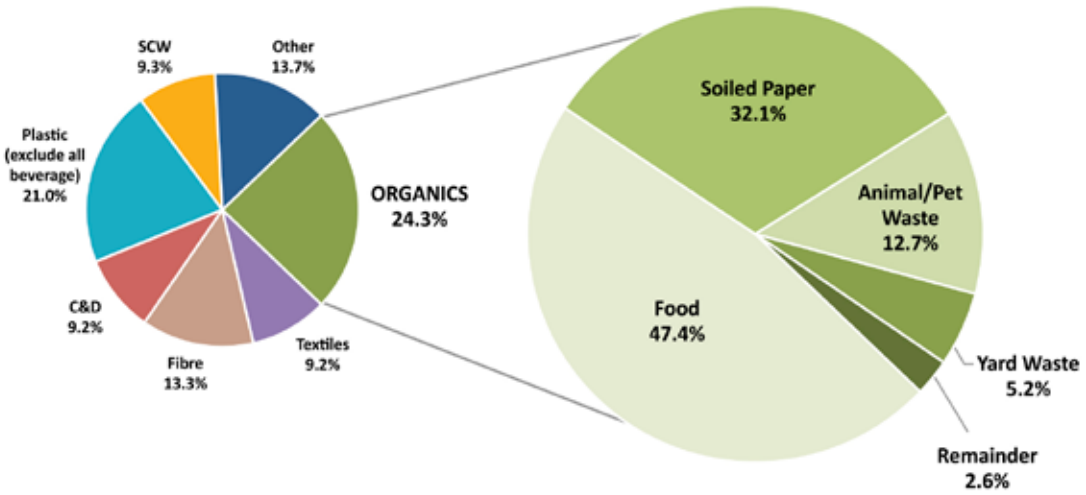


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

5.2 Major Waste Category Breakdowns

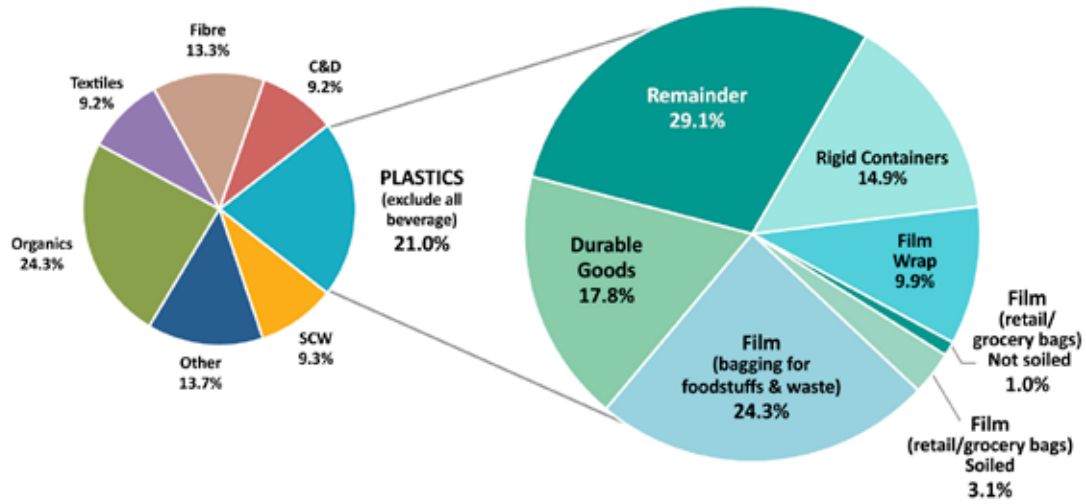
The following series of pie graphs show breakdowns of the six principal categories of materials, plus three graphs from the OTHER category. All graphs use the 2017 data for the total waste in Residential and ICI streams combined, province-wide.

Figure 5.9 ORGANICS: Province-wide — Residential + ICI (2017)



NOTE: the break out in the Organics display comprises the following material lines (21–30) as detailed in Appendix E.

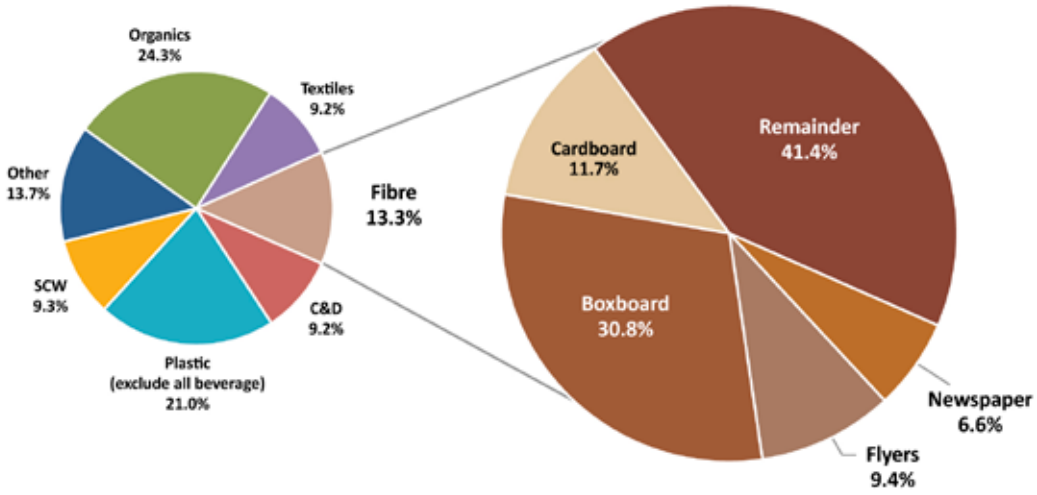
Figure 5.10 PLASTICS: Province-wide — Residential + ICI (2017)



Note: the "Remainder" in PLASTICS comprises material lines 57, 60, 61, 63–65, 68, as detailed in Appendix E.

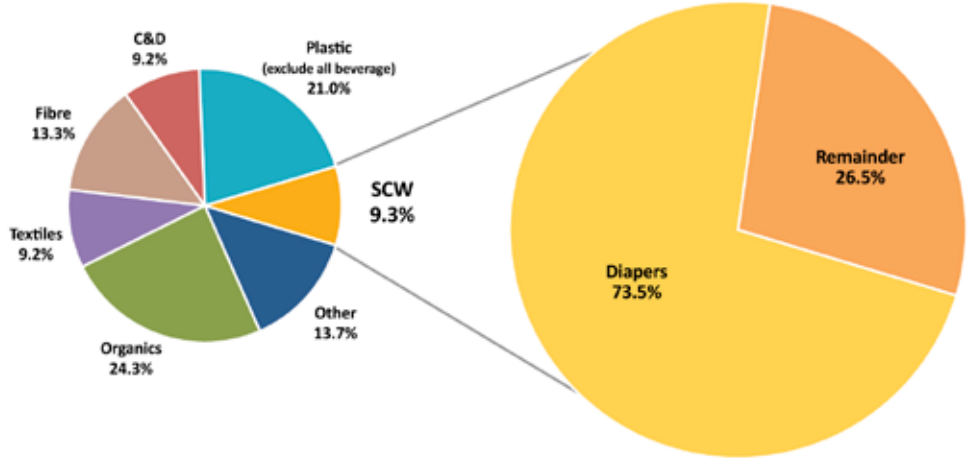
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.11 FIBRE: Province-wide — Residential + ICI (2017)



NOTE: "Remainder" in FIBRE comprises material lines 5, 6, 8–11, 15–20 as detailed in Appendix E.

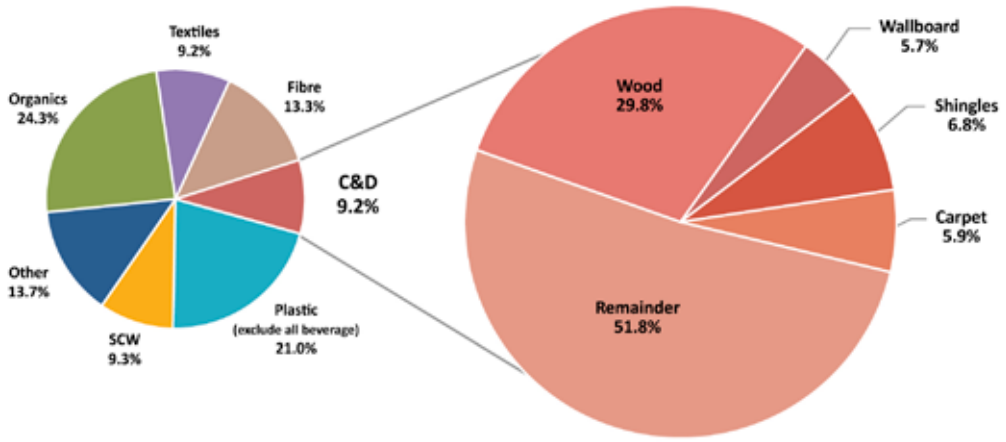
Figure 5.12 SPECIAL CARE WASTE (SCW): Province-wide — Residential + ICI (2017)



NOTE: SPECIAL CARE WASTE (SCW) comprises the material lines 105 and 106 detailed in Appendix E.

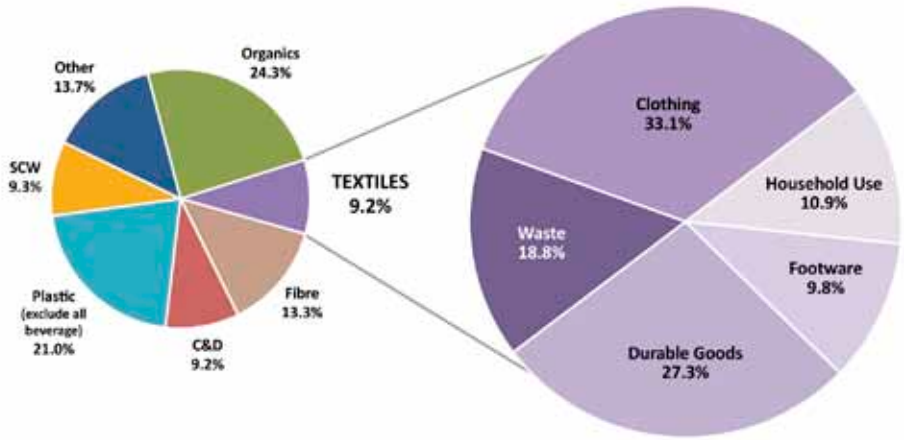
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.13 C&D: Province-wide Residential + ICI (2017)



NOTE: the break out in the C&D display comprises material lines 112–134 as detailed in Appendix E.

Figure 5.14 TEXTILES: Province-wide Residential + ICI (2017)



NOTE: TEXTILES comprises the material lines of 107 to 111 inclusive as detailed in Appendix E.

Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.15 OTHER: Province-wide Residential + ICI (2017)

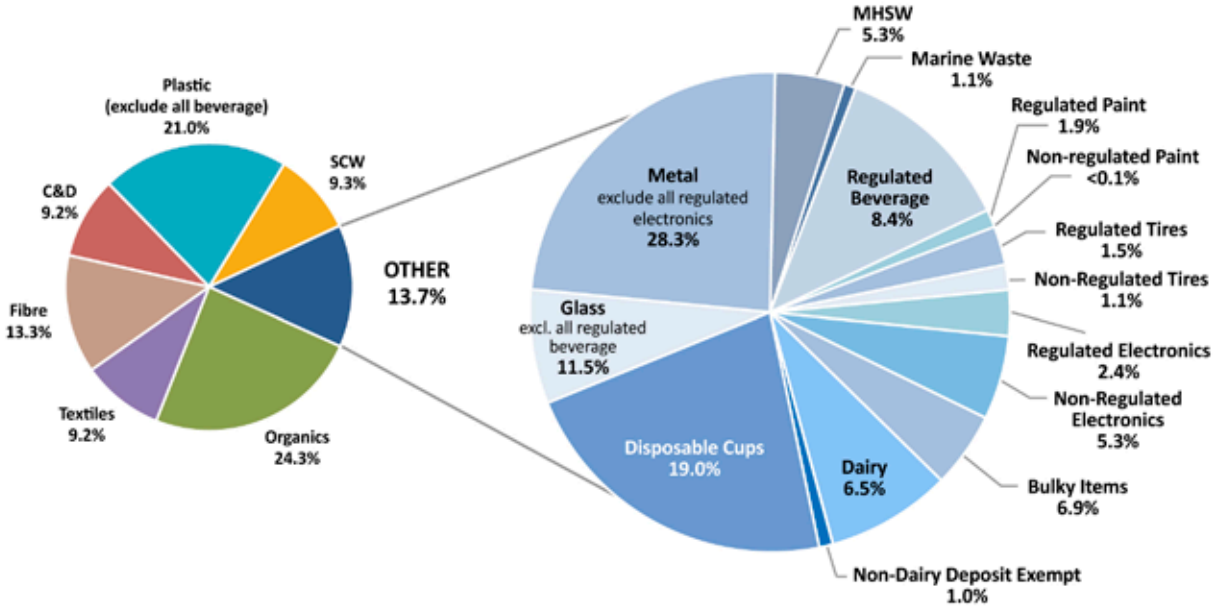
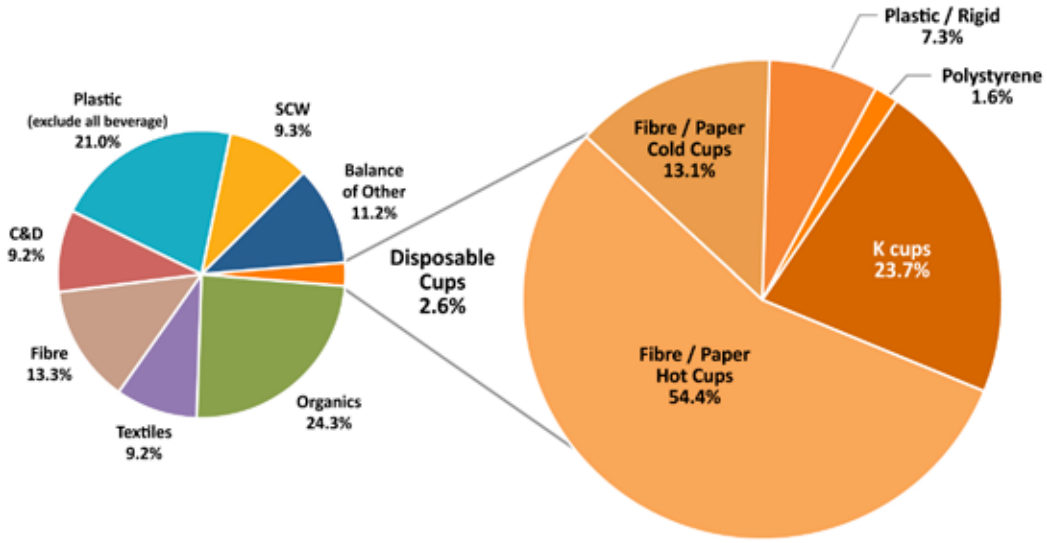


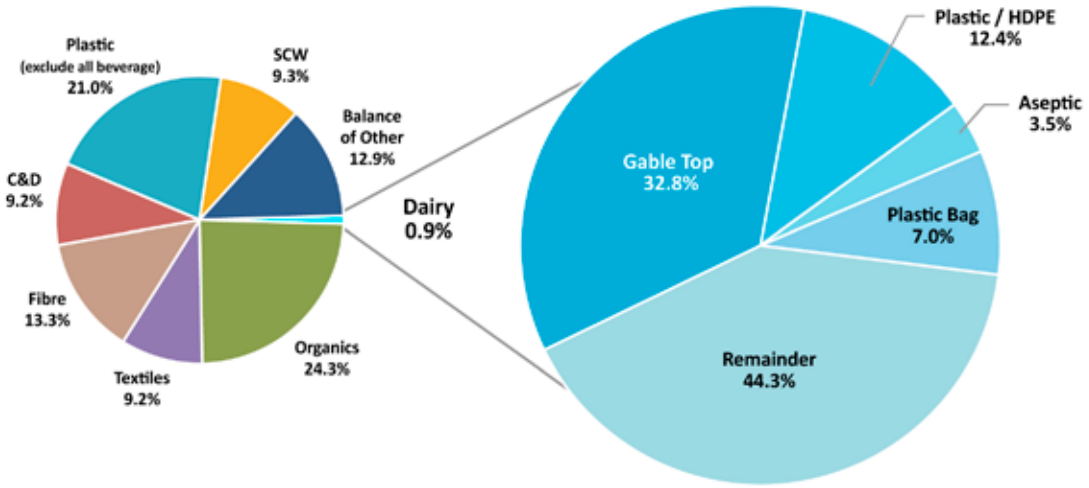
Figure 5.16 Disposable Cups (Separated from the OTHER Category) — Province-wide Residential + ICI (2017)



Note: "Disposable Cups" comprises the material lines 69 to 73 inclusive, as detailed in Appendix E.

Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.17 Dairy Containers & Bags (Separated from the OTHER Category) — Province-wide Residential + ICI (2017)



Note: "Dairy" comprises material lines 31 to 45 inclusive, as detailed in Appendix E.

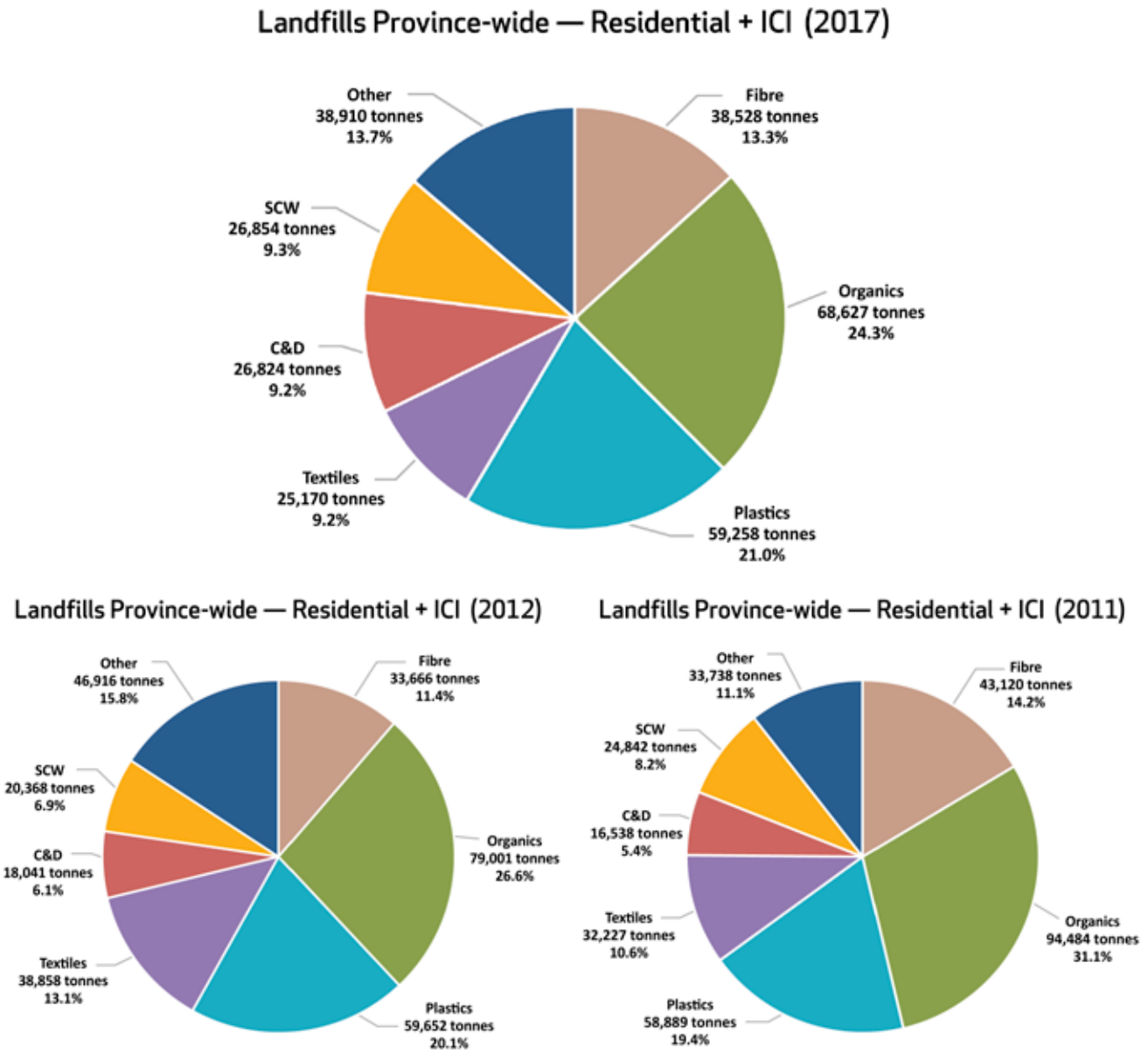
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Carrying out the Comprehensive Sort

5.3 Landfill Year over Year Comparisons

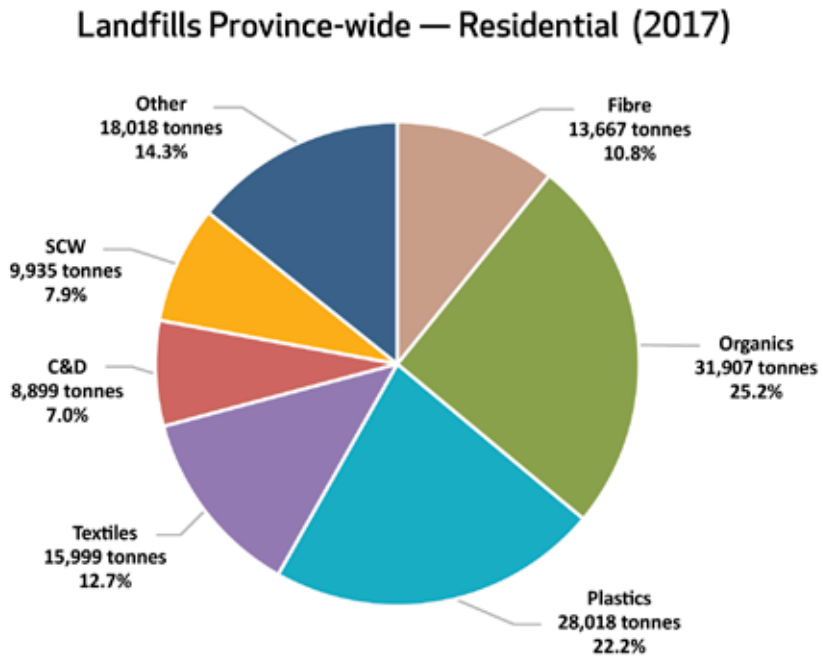
The top six dominant material categories (for Residential and ICI separately and combined) found in the 2017 audit results remain unchanged from the findings in 2011 and 2012. This facilitates an easy comparison between audit years as presented in the following graphs.

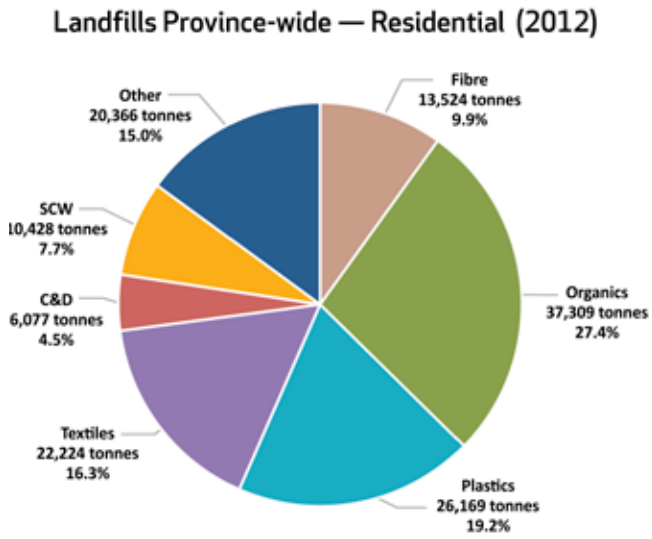
Figure 5.18 Year over Year — Province-wide Landfills — Residential + ICI (2011, 2012, 2017)

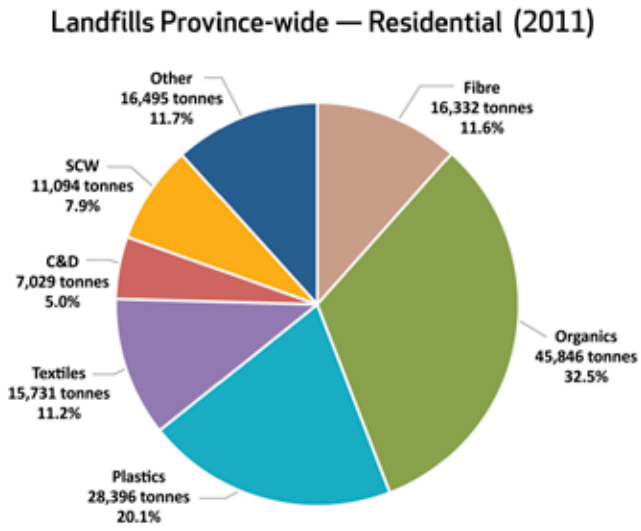


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.19 Year over Year — Province-wide Landfills — Residential only (2011, 2012, 2017)

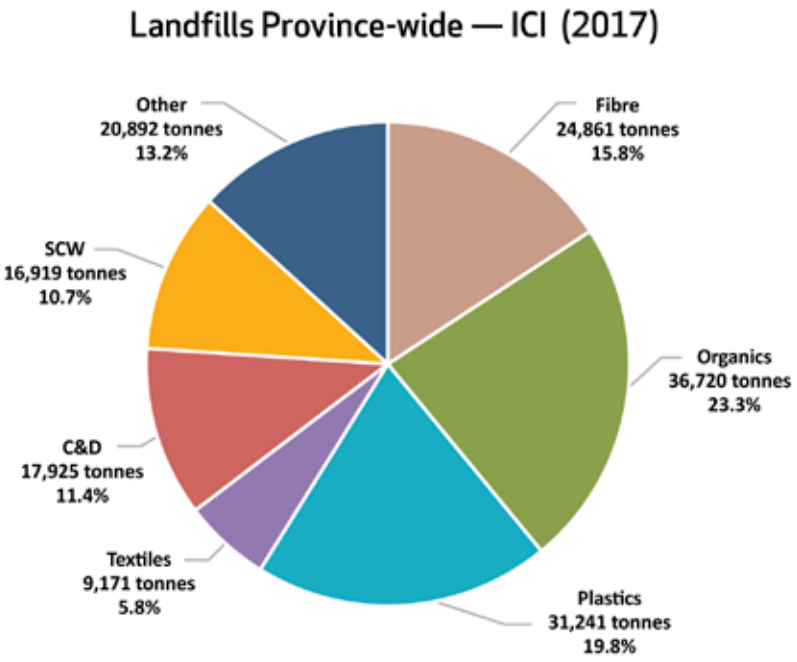


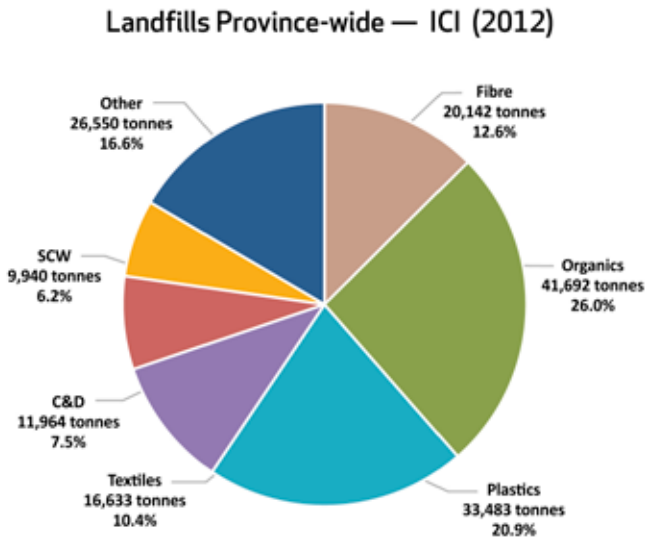


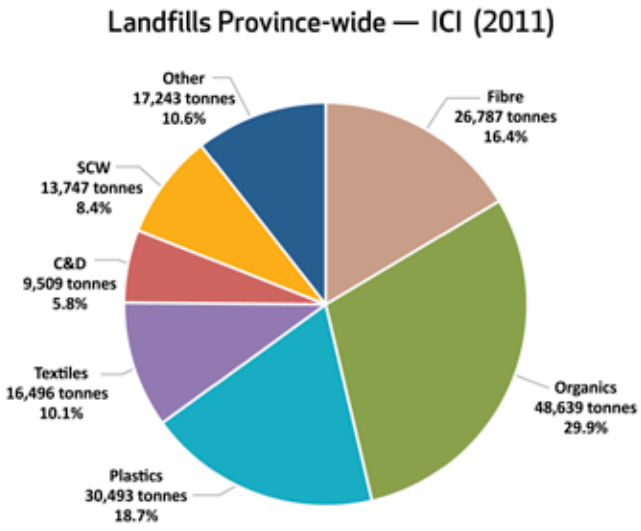


Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Figure 5.20 Year over Year — Province-wide Landfills — ICI only (2011, 2012, 2017)







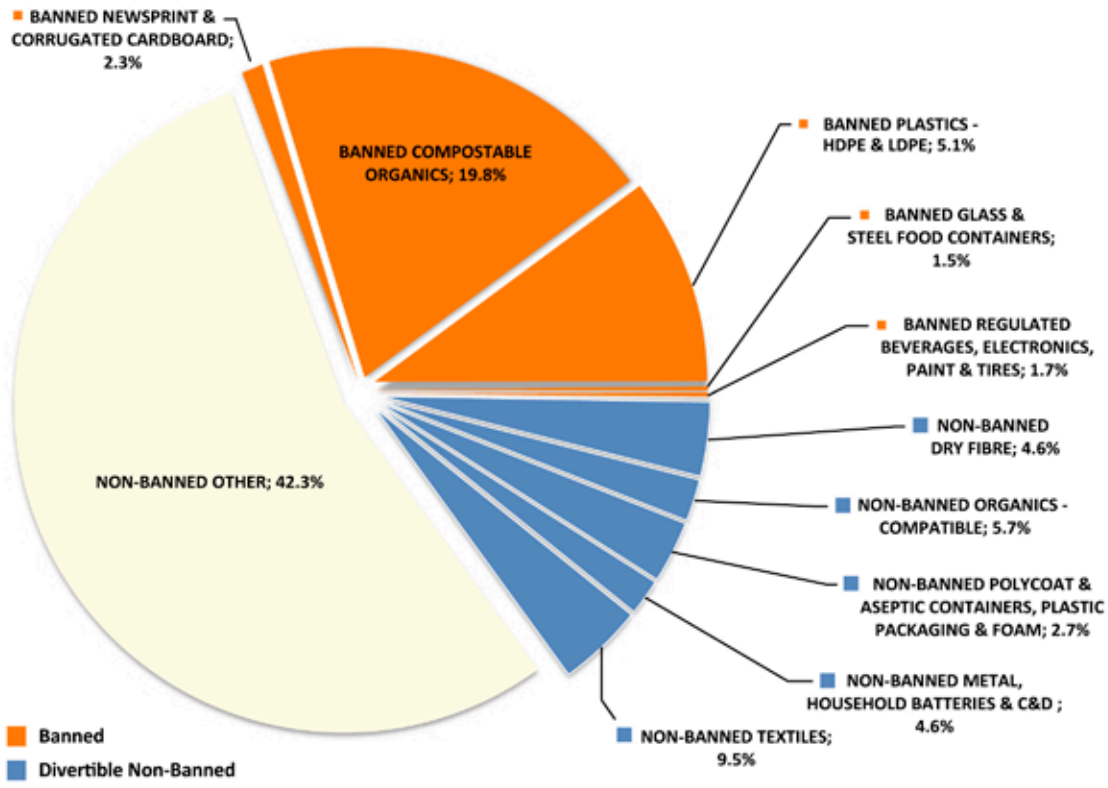
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

5.4 Simplified Protocol Data

The following chart shows the summary results from the 34 samples sorted according to the Simplified Protocol. Data shown indicates overall percentage of total sample weight for each of the 21 groupings, and also reveals the banned versus non-banned division of materials as per the Simplified Protocol. Banned items are defined as those materials identified in the Solid Waste-Resource Management Regulations as being banned from disposal in Nova Scotia landfills. Within the non-banned grouping is a sub-set of five material types that are considered readily divertible and are discussed in Section 6.

Appendix L provides similar displays for each of the 34 Simplified Protocol samples taken.

Figure 5.21 Banned & Non-Banned — Province-wide Residential + ICI — Simplified Protocol Classification (2017)



Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

6. Observations on 2017 Waste Audit Results

1. Recognizing the value of readily divertible and useful materials is important when considering policy or program initiatives that prevent their disposal in Nova Scotia landfills. For example, organic material can be sent to composting, metals and fibre to recycling, etc. The "landfill ban" regulations in this province are specific in their intent and definitions, affecting practices of landfill operators, waste collectors, and both households and ICI entities. The 2017 Waste Audit includes generation of statistics that are useful in monitoring and measuring the effect of existing landfill bans.

2. A prominent feature of province-wide data from the three waste audit years concerns the large proportion of organics found in the waste stream. Two points on this:

    a. Some may assume that the regulated ban on organics disposal in landfills applies to all of the organics still in the waste stream. However, a close look at the data shows that on a province-wide basis, only about half of the organics are actually food waste. Soiled papers account for just over a quarter, which together with food waste represent about 80% of the organics found. The other 20% include animal/pet waste (feces), yard waste and miscellaneous, which may or may not be acceptable for disposal, depending on where you reside in the province.

    b. Notwithstanding the persistence of significant amounts of organics in the waste stream, it is also apparent that the province-wide gross tonnage of organics has steadily fallen, comparing 2011 and 2012 figures to those of 2017. There are questions of whether the changes are statistically significant, and whether seasonal effects have an influence.

3. The occurrence of fibre and plastics is significant. However, it is not appropriate to say that large fractions of it would be readily divertible; that calls for detailed analysis. Some initial observations show that:

    a. About 60% of fibre is recyclable: cardboard, boxboard, flyers and newspapers.

    b. Metals account for about 4% of the total waste stream, and these are readily identifiable and have a market value.

    c. About 8% of the entire waste stream is comprised of plastic film materials by weight. That approximates the occurrence of special care waste, C&D, and textiles, each of which account for about 9% of the waste stream by weight. As a component of materials disposed in landfills, films will occupy more than 8% of cubic volume as their density is lower, so the effect on landfill lifetime is sharper.

4. The presence of other materials banned from disposal, such as beverage containers, certain plastic films, and electronics is not prominent and represents a small fraction of overall disposal tonnages. Their occurrence in the sampling conducted suggests regulated programs/ bans are effective.

5. Certain material categories are strikingly large compared to many of the minor ones, in particular textiles and special care waste. The former includes significant amounts of reusable clothing, but unfortunately much of it was observed to be quite badly soiled from being commingled with other waste in the collection vehicles. Special care waste is predominately diapers, both infant and adult. The ICI sector generates more diapers than the Residential, which is counterintuitive: However, the ICI sector includes adult care facilities such as nursing homes, as well as hospitals, and in some areas multiple unit-residential buildings where one might expect a higher proportion of young families.

6. The ICI sector disposes significantly more than the Residential sector in the categories of the fibre, organics, special care waste, C&D, and plastics. The Residential sector exceeds the ICI only in the amounts of textiles they dispose of, and the myriad of materials listed in OTHER.

7. Some of the small items, which may intuitively seem to be insignificant, may not be so. For example, single-serve K cups (line 73). The 2017 waste audit shows that province-wide this specific waste represents just under 1% of the Residential waste stream, which is somewhat over 1,000 tonnes per year (slightly over 200 tonnes in ICI, where it is not so prominent). Whether this is significant in light of overall landfill usage is debatable. However, other materials of keen public interest, such as dairy containers and regulated beverage containers, each show somewhat lower percentages by weight in the Residential waste stream.

8. The waste streams called Residential and ICI are not precisely separated in practice. There will be some Residential material in the ICI stream, and vice versa, resulting from the specific methods of collection. For example, many municipalities consider material collected from multiple-unit residential properties as ICI, even though the origin of the material is from households. The resulting statistics will be somewhat affected by this fact, but not so as to grossly skew the usefulness of the figures.

9. The construction of the classification tables results in some materials, such as plastics, being placed in categories reflecting the purpose of the material as well as its physical characteristics. For example, the broad category of PLASTICS does not include the plastic in redeemable plastic beverage containers. A comprehensive analysis to determine the entire presence of a particular grade of plastic, such as #2 HDPE, would see data drawn from several categories. To illustrate: #2 HDPE is used as a beverage packaging, construction material, in heavy duty boxes such as bait boxes in the marine waste category, etc.

10. Another caution concerns the evolution of the classification table: There has been some change since 2011, as greater numbers of item classes have been created (such as the electronics category becoming more finely divided). Detailed use of the statistics must be carefully done when dealing with the classifications of different years.

11. Finally, a point concerning statistical estimates: Their accuracy and precision must be understood for what they really are. A sampling exercise provides a "snapshot" of the makeup of each individual sample, and statistical science provides the tools to be able to use figures from a number of samples to estimate the presence of any selected material in the overall waste stream. The statistical tools enable estimating the range of the resulting figure, such that one can say that the presence of newsprint, for example, in the whole waste stream is 10% plus or minus 2%, at 95% confidence limits. That is to say, that the true percentage in the whole waste stream lies between 8% and 12% and is equally likely to be any figure in that range. Moreover, the "95% confidence" phrase means that there is a 5% chance that the true figure is indeed outside the range of 8–12%, suggesting the user maintain a constant mild skepticism about figures that seem counterintuitive.

    The user simply needs to use the results within their intended context. To extend the example for newsprint coming into a recycling plant on a tipping fee basis—the financial manager would be smart to use the lower percentage for calculating revenue, and the engineer designing the plant should use the high side for estimating storage room needed to accommodate incoming material. There are methods, such as sensitivity analysis, to determine the importance of any statistic when dealing with use of the data.

Appendix A

Notes on the 2017 Waste Audit Statistical Foundation

The challenge of producing suitably precise statistics to characterize municipal solid waste, a highly variable material, led to the development of an American Society for Testing and Materials (ASTM) International Standard, *Designation: D5231 – 92 Standard Test Method for Determination of the Composition of Unprocessed Municipal Solid Waste*. The 1992 Standard was reapproved in 2008. ASTM is a leading North American researcher in applied sciences, devoted to developing reliable methods to standardize many engineering processes for the characterization, testing and measurement of a very wide variety of materials.

In 1999, Canadian officials followed suit in producing a Canadian guideline for the identical purpose. That standard, *The Recommended Waste Characterization Methodology for Direct Waste Analysis Studies in Canada*, was prepared for the Canadian Council of the Ministers of the Environment (CCME), by a Canadian consulting firm, SENES Consultants Limited. It largely follows the ASTM standard with regard to the underlying statistical science and operational practice. Commonly referred as simply "the SENES manual," it is widely used in Canada as a proper guide to the task.

In 2011, Divert NS commissioned CBCL Limited and its sub-contractor HMJ Consulting Limited to carry out the first province-wide waste audit and concurrently to develop a "best practices" manual for conducting an audit, and suited to this province's unique circumstances regarding management of solid waste. The research work for the manual included a wide-ranging survey of similar manuals used across North America. The manual addressed audit design, methods of collection and sorting, logistics, safety, and communications. The resulting manual followed much of the basic statistical and procedural guidance of the ASTM and SENES manuals, adapting logistics and procedures to those relevant to Nova Scotia as well as could be done in the absence of experience in such surveys on a standardized, province-wide basis.

In the course of using the Divert NS Waste Audit Manual for subsequent audits in 2012 and 2017, a number of logistical and safety issues were identified to which the information from the very generalized ASTM and SENES manuals do not respond fully. This report includes observations in that context.

Appendix B

2017 Waste Audit – Schedule of Sample Collection

Comprehensive Protocol — Sort Schedule (Landfills)

Samples collected are both Residential & ICI in each case except where noted

Guysborough	Colchester	Cumberland	Otter Lake	West Hants		Kaiser Meadow		Queens	
				Residential	ICI	Residential	ICI	Residential	ICI
Week 4 Tuesday 3 Oct	Week 1 Friday 15 Sept	Week 1 Thursday 14 Sept	Week 1 Thursday 14 Sept	Week 5 Wed. 11 Oct	Week 5 Wed. 11 Oct	Week 2 Wed. 20 Sept	Week 3 Wed. 27 Sept	Week 3 Wed. 27 Sept	Week 3 Wed. 27 Sept
Week 5 Tuesday 10 Oct	Week 2 R only Monday 18 Sept (ICI taken in week 4)	Week 2 Monday 18 Sept	Week 2 Tuesday 19 Sept	Week 6 Thursday 19 Oct	Week 6 Wed. 18 Oct	Week 3 Wed. 27 Sept	Week 7 Thursday 26 Oct	Week 5 Thursday 12 Oct	Week 6 Tuesday 17 Oct
Week 6 Monday 16 Oct	Week 4 Monday 2 Oct	Week 4 Friday 6 Oct	Week 3 Monday 25 Sept	Week 7 Monday 23 Oct	Week 7 Wed. 25 Oct	Week 3 Friday 29 Sept	Week 9 Thursday 9 Nov	Week 6 Tuesday 17 Oct	Week 7 Wed. 25 Oct
Week 7 Friday 27 Oct	Week 5 Tuesday 10 Oct	Week 6 Wed. 18 Oct	Week 5 Wed. 11 Oct	Week 9 Wed. 8 Nov	Week 9 Wed. 8 Nov	Week 4 Wed. 4 Oct	Week 10 Tuesday 14 Nov	Week 7 Wed. 25 Oct	Week 8 Wed. 1 Nov
Week 8 Monday ICI only 30 Oct (R taken in week 12)	Week 6 Monday 16 Oct	Week 9 Tuesday 7 Nov	Week 6 Tuesday 17 Oct	Week 11 Thursday 23 Nov	Week 11 Thursday 23 Nov	Week 7 Tuesday 24 Oct	Week 10 Tuesday 14 Nov	Week 8 Wed. 1 Nov	Week 9 Wed. 8 Nov
Week 9 Thursday 9 Nov	Week 9 Tuesday 7 Nov	Week 11 Friday 24 Nov	Week 7 Tuesday 24 Oct	Week 12 Friday 1 Dec	Week 12 Friday 1 Dec	Week 8 Monday 30 Oct	Week 10 Tuesday 14 Nov	Week 10 Thursday 16 Nov	Week 10 Thursday 16 Nov
Week 11 Monday 20 Nov	Week 11 Friday 24 Nov	Week 12 Friday 1 Dec	Week 8 Friday 3 Nov	Week 13 Wed. 6 Dec	Week 13 Wed. 6 Dec	Week 10 Friday 17 Nov	Week 10 Friday 17 Nov	Week 12 Thursday 30 Nov	Week 12 Thursday 30 Nov
Week 15 Monday 18 Dec	Week 13 Tuesday 5 Dec	Week 13 Tuesday 5 Dec	Week 10 Thursday 16 Nov	Week 14 Tuesday 12 Dec	Week 14 Tuesday 12 Dec	Week 13 Monday 4 Dec	Week 14 Wed. 13 Dec	Week 14 Wed. 13 Dec	Week 14 Wed. 13 Dec
The row below shows the dates for the ninth "ICI only" sample from each landfill. Note that 5 simplified sort samples are taken in addition from Otter Lake—see next page for dates.									
Week 8 Monday 30 Oct	Week 4 Thursday 5 Oct	Week 15 Monday 18 Dec	Week 4 Thursday 5 Oct	Week 8 (the "single ICI") Wednesday 1 Nov		Week 14 (the "single ICI") Wednesday 13 Dec		Week 13 (the "single ICI") Wednesday 6 Dec	

Abbreviations: Residential (**R**) and Industrial Commercial institutional (**ICI**)

Simplified Protocol — Sort Schedule (Transfer Stations)

Samples are both Residential & ICI in each case except where noted

Region	Transfer Station	Week and Day of Week of Collection
1	CBRM	15 December Friday in week 14
1	Kenloch	15 December Friday in week 14
1	Baddeck	28 November Tuesday in week 12
1	Dingwall	29 November Wednesday in week 12
1	Richmond	27 October Friday in week 7
2A	Beech Hill	11 December Monday in week 14
2A	St. Mary's	Not included in this audit as incoming materials at this site are not segregated (i.e. mixed R and ICI)
2B	Pictou	11 December Monday in week 14
3	East Hants	23 October Monday in week 7
5	Valley Eastern	7 December Thursday in week 13
5	Valley Western	7 December Thursday in week 13
6	Lunenburg	13 October Friday in week 5
6	Shelburne (ICI only)	22 September Friday in week 2
7	Yarmouth	22 September Friday in week 2
7	Clare	20 October Friday in week 6
7	Digby	20 October Friday in week 6
4	Otter Lake (five taken)	31 October (Tuesday) Week 8, one R one ICI 22 November (Wednesday) Week 11, one R, one ICI 30 November (Thursday) Week 12, one ICI

Appendix C

2017 Waste Audit – Observations on Execution of the Project

Observations on Execution of the Project

Information in this Appendix concerns the factors that impact the execution of the 2017 Waste Audit (positively or negatively) and suggestions for improvement to audit protocols and materials categorization. The comments are written in the context of the 2017 Waste Audit Manual, so as to be useful for future audits.

Observations and recommendations are so intertwined that they are reported concurrently as follows: (No order of priority is intended)

a. The overall level of detail in the 2017 Waste Audit Manual is appropriate, and few substantial changes are warranted. The details that deserve remedial attention are important as they affect estimating the cost and contingencies of logistics and also provisions for workers' safety.

b. The sample selection method specified in the "parent" 1992 ASTM Standard was that of sampling from amongst very frequent arrivals of haulage vehicles at sampling sites, where vehicles could be quickly picked at random from batches of several vehicles. The reality in Nova Scotia is that, except for HRM's Otter Lake site, vehicle arrivals at disposal sites are relatively infrequent. In a large number of 2017's sampling events, it was necessary for site operators to set aside samples a day or sometimes two before a scheduled pickup, so that the audit sample collector would not need to wait for hours, or even beyond the day, for a suitable vehicle to arrive. The Manual does not need to be revised, as this is already stated as acceptable, but it does speak to the need to recognize and emphasize very close communication and cooperation between the audit sample collector and site operators. Having said that, we can report that we enjoyed excellent communications and assistance from site operators in this regard.

c. The 2017 waste audit was conducted over a 14-week period—as were the previous two audits. The number of samples and locations of sites in the 2017 waste audit resulted in an extremely intense collection schedule. Collecting 153 samples in 2017 is close to the sample total for both the 2011 and 2012 audits combined (168 samples). The schedule in 2017 saw collections on 58 work days, compared to 31 and 39 in 2011 and 2012, respectively. The differences in both number of samples collected and number of work days shows significant improvement in productivity, specific to samples processed per work day.

d. The suggested production norms in the 2017 Waste Audit Manual for estimating time for sorting samples requires expansion and adjustment. The 2017 Waste Audit Manual reflects only a comprehensive categorization of material (as the Simplified Protocol categorization had not yet been devised). The number of sub-category separations for sorting Comprehensive Protocol samples rose from 169 in the earlier audits to 192 in 2017, so more time was needed for sorting per sample than the estimator of "one sample per 8 hours per sorter" suggests. A planning figure of 10 hours per sample per sorter is suggested for Comprehensive Protocol samples involving close to 200 sub-category separations.

e. As noted in the previous paragraph, 2017 was the first time the Simplified Protocol had been used by Divert NS. Our basis for calculation of the required task was 1 sorter sorting 3 Simplified Protocol samples in an 8-hour period. Our experience shows that a realistic figure is 5 hours per sample, per sorter, for Simplified Protocol samples. Reducing the number of sorts from 192 (or even 169) to 21 does not reduce the sorting time in a linear fashion, as it takes equal time to physically move the materials from bunkers to sorting tables to disposal of spent samples. Also, the actual sorting of the materials according to the Simplified Protocol, once on the sorting tables, was slower than originally thought.

f. The overall production rates used in our estimating of the labour requirement for the waste audit was also based on a prediction that sorters could switch, without losing productivity, from sorting Comprehensive Protocol samples to Simplified Protocol samples and back again frequently. Early experience showed that this was not practical. Memory is a big factor in being able to sort efficiently, and could not be relied on where some of the Simplified Protocol categories were of the form of "all organics except for …," for example. In this example, the Simplified Protocol classification chart resulted in the following situation in picking materials for the category of **COMPOSTABLE ORGANICS**:

> The **ORGANICS** category in the Comprehensive Protocol comprises 10 sub-category separations—numbers 21 to 30 inclusive (see Appendix E). The **COMPOSTABLE ORGANICS** category in the Simplified Protocol (see Appendix F) comprised only seven sub-category separations, but two of them were separations found in the **FIBRE** category in the Comprehensive Protocol. The sorter would not only be picking only five of the ten **ORGANICS** sub-category separations from the Comprehensive Protocol list, but also adding two from the **FIBRE** category in the Simplified Protocol list (i.e. wet boxboard and wet molded pulp). The same applies to materials under some other categories as well. The human mind cannot switch back and forth from one Protocol to the other in mid-stream while sorting successive samples, and maintain productivity.

This resulted in assigning sorting of Simplified Protocol samples to one of the workers, with the two others devoted solely to Comprehensive Protocol samples. That resulted in having

to use the truck body as a temporary sorting station space in which the Simplified Protocol samples were processed. The truck body was not an efficient sorting station option, as the tables, charts, buckets etc. needed to be taken down and reassembled each time the truck had to move to collection duties—costing considerable time. The sorting station layout also caused significant time to be used moving samples from storage bunkers to the truck for sorting.

The cumulative effect significantly slowed the completion of sorting samples within the initial estimates of labour time. The revised production norms described above reflect this experience.

g. The overall 2017 Waste Audit labour usage for collecting and sorting 153 samples was 3 individuals working over a 16-week term (14 weeks collecting and sorting, plus 2 weeks at the end sorting the remaining samples). That compares to 2 technicians in 2011 and 4 technicians in 2012, to collect and sort 84 samples over 14 weeks in each of those years. Overall, our experience was that the scope of the 2017 Waste Audit matched its actual time and labour usage to the limit at which this can be feasibly done in a 14-week term. Significantly increasing the numbers of samples and frequency of travel for sampling beyond the 2017 numbers can of course be done, but it would likely involve a second truck and driver, and definitely would require more labour time for sorting. That would be achievable only with a significantly higher budget.

h. There is little material in the 2017 Waste Audit Manual (or its predecessors) about training of the team member assigned to drive the collection truck. These vehicles are deemed in Nova Scotia to be commercial vehicles, and there are highway safety regulations for commercial trucking involving reporting at scales, keeping of two types of driver's time logs according to distance driven in the work day, and regulation of hours of driving and rest. Also, drivers must be trained and equipped to comply with collection sites' safety rules, a point already noted in the 2017 Waste Audit Manual. Those regulations and rules are important to the safety of drivers and others on the roads and collection sites, and team members assigned to drive must be trained to understand and observe them.

i. The sampling protocol should provide for making up any shortfalls in weights of samples discovered later. Short weights may be due to human or mechanical scale error in collecting samples at their sources, loss of material while handling, or other unforeseen reasons. In the 2017 waste audit, these shortfalls were addressed by collecting sufficient additional material of the type required (Residential and/or ICI) from the site of origin during the next scheduled visit.

j. Divert NS provided good material for staff to use in public communications as and when occasions arose. There was very little communication with the general public and it took the form of quick discussions, but there were of course frequent contacts with site operators.

Appendix D

2017 Waste Audit – Sample Movement Control Form

SAMPLE MOVEMENT CONTROL FORM WASTE AUDIT 2017

SAMPLE _____

Sample Number: ☐

Sample Origin if known: _____

Sample Stream (circle): **RES** **ICI**

Service Area: _____

Sample Weight ☐ **kg**

Note Any Large or Bulky Items:

Method used to select waste haul vehicle:

PART 1: COLLECTION AT SAMPLE ORIGIN

Sample Collected By: X _____

Time & Date Collected **Time:** _____ Date _____

Print Name: _____

Vehicle Compartment from front of truck (circle #) **1 2 3 4 5**

PART 2: RECEIVING AT SORTING SITE

Sample Received By: X _____

Time & Date Received **Time:** _____ Date _____

Print Name: _____

Sample placed in bunker # **Bunker**:_____ **circle Top or Bottom**

PART 3: DISCHARGE AFTER SORTING TO WHAT PLACE _____

If not at Kaizer Meadow

PART 4: SORTING DATA

Sample Sorted by (Print All Names) _____

_____

Time & Date Sorted

Date: _____

Time started: _____

Time finished: _____

Appendix E

2017 Waste Audit - Sort/Categorization Guide – Comprehensive Protocol

CATEGORY	SUB-CATEGORY	#	SUB-CATEGORY SEPARATIONS
FIBRE	Uncoated Paper - newsprint quality	1	Dailies/ Weeklies
		2	Magazines - uncoated
		3	Flyers/inserts - uncoated
		4	Telephone Books/Yellow Pages
	Coated Paper - catalogue quality	5	Magazines - glossy
		6	Catalogues/Calendars - glossy
		7	Flyers/inserts - glossy
	Books	8	Hard cover
		9	Soft cover
	Mixed - recyclable	10	Paper - fines/scrap
	Mixed - non-recyclable	11	Paper - special purpose
	Packaging - foodstuffs and other consumables/goods	12	Boxboard (wet - compatible with Organics)
		13	Corrugated cardboard
		14	Waxed corrugated cardboard
		15	Molded Pulp (wet - compatible with Organics)
		16	Kraft paper bags/wrap
		17	Multi-material - glazed
	Packaging - foodstuffs and other consumables/goods	18	Multi-material - composite
		19	Gable Top
		20	Aseptic
ORGANICS	Food Waste	21	Home/ICI - whole perishables
		22	Home/ICI - leftover scraps
		23	Home/ICI - containerized
	Paper Waste	24	Kitchen paper
		25	Other paper
	Yard Waste	26	Home/ICI
	Animal/Pet Waste	27	Litter/Feces
		28	Carcasses
	Other	29	Wax
		30	Small wooden items/packaging

DAIRY (all types – goat, sheep, etc.)	Beverage - Dairy milk only - includes flavoured	31	Gable Top - 1 litre and greater
		32	Gable Top - less than 1 litre
		33	Plastic (HDPE - Number 2) - 1 litre and greater
		34	Plastic (HDPE - Number 2) - less than 1 litre
		35	Aseptic - any size
		36	Plastic bag (LDPE film - Number 4)
	Other Fluid Dairy Product	37	Gable Top - any size
		38	Plastic (HDPE - Number 2) - any size
		39	Aseptic - any size
	Ice Cream/Frozen Yogurt	40	Plastic (HDPE - Number 2)
		41	Boxboard (with lining)
		42	Multi layer
	Non-fluid Dairy Product	43	Plastic (HDPE - #2, PP - #5, PS - #6)
		44	Plastic container (other than #2, #5 and #6)
		45	Plastic film

NON-DAIRY (deposit exempt products only)	Beverage - Dairy milk alternatives - NO DEPOSIT	46	Gable Top
		47	Aseptic
		48	Plastic (HDPE #2 - natural and coloured)

PLASTIC (exclude all beverage)	Packaging - foodstuffs and other consumables/goods	49	PET (#1) - rigid containers and jars - clear, coloured and black
		50	PET (#1) - thermoform - clear, coloured and black
		51	HDPE (#2) - rigid containers and jugs - natural, coloured and black
		52	HDPE (#2) - pails, buckets and drums > 5 litres
		53	PVC (#3) - film wrap and pliables
		54	HDPE (#2) and LDPE (#4) - film wrap
		55	HDPE (#2) and LDPE (#4) - grocery/retail carry out bags – not soiled
		56	HDPE (#2) and LDPE (#4) - grocery/retail carry out bags - soiled
		57	LDPE (#4) - squeezable bottles and containers
		58	PP (#5) - bottles, containers and caps - natural, coloured and black
		59	PP (#5) - pails, buckets > 5 litres
		60	PP (#5) - woven bags
		61	PS (#6) - expanded foam - white, coloured and black
		62	PS (#6) - extruded containers - clear and opaque
		63	Other (#7 and un-marked) - polycarbonates and mixed resins
		64	Multi-material - composite
		65	Laminates - film and bags (85% plastic plus other bonded materials)
	Non-packaging	66	HDPE (#2) and LDPE (#4) - film bagging for foodstuffs and waste
		67	Durable goods
	Agriculture	68	Silage Wrap

DISPOSABLE CUPS (unit count and weight required)	Fibre/Paper	69	Hot beverage
		70	Cold beverage
	Plastic	71	Rigid
		72	Polystyrene
	K-Cups	73	Single-serve

GLASS (exclude all beverage)	Packaging - foodstuffs and other consumables/goods	74	Clear
		75	Coloured
	Non-packaging consumables/goods	76	Glass goods
		77	Ceramic and porcelain
	Automotive	78	Clear and tinted

METAL (exclude all electronics)	Packaging - foodstuffs and other consumables/goods	79	Aluminum - food containers
		80	Aluminum - other
		81	Steel - food containers
		82	Steel - composite containers
		83	Steel - other
	Non-Regulated Pressurized Containers	84	Aluminum
		85	Steel
	Other	86	Durable goods

MUNICIPAL HAZARDOUS SOLID WASTE (MHSW)	Pressurized gas	87	Non-refillable containers
		88	Re-fillable containers
	Marine flares	89	by symbol or container type
	Mercury containing products	90	by symbol or container type
	Batteries	91	Non-rechargeable
		92	Rechargeable
		93	Lithium-ion
		94	Lead acid
	Pharmaceuticals	95	Sharps
		96	Medications
	Automotive	97	Fluid containers regulated and/or stewarded in other provinces
		98	Fluid containers not regulated and/or stewarded
		99	Filters - motor oil and hydraulic fluid
		100	Lubricants, solvents & acids
		101	Contaminated rags
	Lawn and Garden	102	Fertilizers and biocides
	Building and Renovation	103	Caulking
		104	Other

SPECIAL CARE WASTE (SCW)	Diapers	105	
	Other	106	

TEXTILES	Fabric	107	Clothing
		108	Household use
	Footwear	109	
	Durable goods	110	
	Waste	111	

C&D **(Construction and Demolition)**	Wood	112	Dimensional - clean
		113	Dimensional - painted/stained
		114	Engineered/composite - clean
		115	Engineered/composite - painted/stained
		116	Pressure-treated
		117	Plastic wood
	Wallboard	118	Drywall - clean
		119	Drywall - coated
	Shingles	120	Asphalt
		121	Other
	Flooring	122	Wood and Composite
		123	Tile
		124	Carpet
		125	Other
	Insulation	126	Fibreglass
		127	Foam (polystyrene)
		128	Other
	Glass	129	Window and Door
		130	Decorative
	Countertops	131	Laminate
		132	Slate/Marble/Granite
	Ceiling Tile	133	Fibreglass/Cork/Other
	Inerts	134	

Bulky Items (Include unit count / exclude metals)	Furniture	135	Mattresses
		136	Box Spring
		137	Seating - upholstered
		138	Solid Wood
		139	Engineered/Composite Wood
		140	Crafted Wood/Composite
	Shipping & Storage	141	Pallets

Marine Waste	Fisher Gear	142	Traps
		143	Rope
		144	Netting
		145	Bait Boxes

REGULATED BEVERAGE (unit count and weight required)	Redeemable Containers - DEPOSIT APPLICABLE	146	Sort 1 - Aluminum Cans
		147	Sort 2 - Glass - clear
		148	Sort 3 - PET - clear, green, blue and HDPE
		149	Sort 4 - Glass -coloured (green)
		150	Sort 6 - Other Plastic (#3, #5, #6 & #7)
		151	Sort 8 - Steel Cans
		152	Sort 9 - Gable Top
		153	Sort 10 - Aeseptic
		154	Sort 21 - Glass - clear (over 500 ml)
		155	Sort 22 - Glass - coloured (over 500 ml)
		156	Sort 23 - Liquor PET - clear and coloured (over 500 ml)
		157	Sort 24 - Liquor PET - clear and coloured 500 ml and less)
		158	Sort 25 - Liquor - other (500 ml and less)
		159	Sort 26 -Liquor other > 500 ml
		160	Sort 27 - Glass - brown (500 ml and less)
		161	Sort 28-Glass–brown >500 ml

REGULATED PAINT	Plastic	162	Empty
		163	Contents fluid
		164	Contents hardened
	Metal (any paint can with any steel part is classed as "steel")	165	Empty
		166	Contents fluid
		167	Contents hardened
	Aerosols	168	Empty
		169	Contents fluid
	Unlabeled	170	Plastic, Metal and Aerosols

NON-REGULATED PAINT	Items not captured under MHSW	171	Other coatings

REGULATED TIRES (unit count and weight required)	Passenger and Light Truck	172	All passenger car tires (even those over 17") and light truck to 17"
	Tractor Trailer	173	Up to 24.5" rim size
	Off-the-Road (OTR)	174	Small
		175	Large
	Recreational	176	Mobility and Utility
	Miscellaneous	177	Other durable rubber goods

REGULATED ELECTRONICS (unit count and weight required)	Computers	178	Desktop
		179	Portable
	Computer Peripherals	180	
	Desktop Printers	181	
	Display Devices	182	< 29" 30-45" > 46"
	Cellular telephones	183	
	Non-cellular telephones	184	
	Personal or Portable Audio/Video Systems	185	
	Home Audio/Video Systems	186	
	Home Theatre in a Box	187	
	Vehicle Audio/Video Systems	188	

NON-REGULATED ELECTRONICS (unit count and weight required)	Personal and Utility	189	Small
	Home/Commercial	190	Large
	Appliances	191	Small
		192	Large

Appendix F

Correlation of Landfills, Transfer Stations, and Regions

Region	Transfer Station/Service Location	Destination Landfill(s)
1	CBRM Transfer Station	Guysborough Waste Management Facility
1	Kenloch Transfer Station	Guysborough Waste Management Facility
1	Baddeck Transfer Station	Guysborough Waste Management Facility
1	Dingwall Transfer Station	Guysborough Waste Management Facility
1	Richmond Waste Management Facility	Guysborough Waste Management Facility
2A	Beech Hill Municipal Solid Waste Transfer Station	Guysborough Waste Management Facility
2A	St. Mary's Transfer Facility (not included in 2017 waste audit)	Guysborough Waste Management Facility
2B	Pictou County Transfer Station	Guysborough Waste Management Facility
3	East Hants Waste Management Centre	West Hants County Landfill at Cogmagun
4	Otter Lake — ICI from landfill only (See map of locations – Figure 3.1)	Otter Lake ICI also goes to West Hants and Kaizer Meadow
5	Eastern Management Centre Transfer Station (Valley East)	Kaizer Meadow Landfill, District of Chester
5	Western Management Centre Transfer Station (Valley West)	Kaizer Meadow Landfill, District of Chester
6	Lunenburg Regional Waste Transfer Station	Kaizer Meadow Landfill, District of Chester
6	Shelburne Regional Material Recovery Facility	C&D only — any residual to Queens Waste Management Facility
7	Yarmouth County Solid Waste Park	Queens County Landfill
7	Clare Transfer Station	Queens County Landfill
7	Digby Transfer Station	Queens County Landfill

Appendix G

2017 Waste Audit - Sort/Categorization Guide – Simplified Protocol

BANNED MATERIALS

BANNED MATERIALS (GROUPS)	SUB-CATEGORY	#	SUB-CATEGORY SEPARATIONS
Newsprint	Uncoated	1	Dailies/ Weeklies
		3	Flyers/inserts - uncoated
		4	Telephone Books/Yellow Pages
Corrugated Cardboard	Packaging — foodstuffs/ consumables/goods	13	Corrugated Cardboard
Compostable Organics	Packaging — foodstuffs	12	Boxboard **(if wet only)**
		15	Molded Pulp **(if wet only)**
	Food Waste	21	Home/ICI - whole perishables
		22	Home/ICI - leftover scraps
		23	Home/ICI - containerized
	Paper Waste	24	Kitchen Paper
	Leaf and Yard Waste	26	Home / ICI
Plastic – HDPE and LDPE	Rigid – to include DAIRY & NON-DAIRY	33	HDPE (#2) – 1 litre and greater – milk including flavoured
		34	HDPE (#2) – less than 1 litre – milk including flavoured
		38	HDPE (#2) – any size – other dairy beverage
		40	HDPE (#2) – non-beverage frozen
		43	HDPE (#2) – other non-beverage dairy
		48	HDPE (#2) – natural and coloured – non-dairy
		51	HDPE (#2) – rigid containers and jugs – natural, coloured and black
		52	HDPE (#2) – pails, buckets and drums > 5 litres
		57	LDPE (#4) – squeezable bottles and containers
	Film HDPE and LDPE – be certain to exclude PP #5	36	Plastic bag (LDPE film – # 4)
		54	HDPE (#2) and LDPE (#4) – film wrap
		55	HDPE (#2) and LDPE (#4) – grocery/retail carry out bags – unused
		56	HDPE (#2) and LDPE (#4) – grocery/retail carry out bags – used
		66	HDPE (#2) and LDPE (#4) – film bagging for foodstuffs and waste
Glass Food Containers	Packaging – Foodstuffs	74	Clear
		75	Coloured
Steel Food Containers	Packaging – Foodstuffs	81	Steel – food containers
		82	Steel – composite containers

Regulated Beverage (unit count and weight required)	Redeemable Containers – DEPOSIT APPLICABLE	146	Sort 1 – Aluminum Cans
		147	Sort 2 – Glass – clear
		148	Sort 3 – PET – clear, green, blue and HDPE
		149	Sort 4 – Glass -coloured (green)
		150	Sort 6 – Other Plastic (#3, #5, #6 & #7)
		151	Sort 8 – Steel Cans
		152	Sort 9 – Gable Top
		153	Sort 10 – Aeseptic
		154	Sort 21 – Glass – clear (over 500 ml)
		155	Sort 22 – Glass – coloured (over 500 ml)
		156	Sort 23 – Liquor PET – clear and coloured (over 500 ml)
		157	Sort 24 – Liquor PET – clear and coloured (500 ml and less)
		158	Sort 25 – Liquor – other (500 ml and less)
		159	Sort 26 – Liquor – other (over 500 ml)
		160	Sort 27 – Glass – brown (500 ml and less)
		161	Sort 28 – Glass – brown (over 500 ml)

Regulated Electronics (unit count and weight required)	Computers	178	Desktop
		179	Portable
	Computer Peripherals	180	Not Applicable
	Desktop Printers	181	Not Applicable
	Display Devices	182	< 29" / 30-45" / > 46"
	Cellular telephones	183	Not Applicable
	Non-cellular telephones	184	Not Applicable
	Personal or Portable Audio/Video Systems	185	Not Applicable
	Home Audio/Video Systems	186	Not Applicable
	Home Theatre in a Box	187	Not Applicable
	Vehicle Audio/Video Systems	188	Not Applicable

Regulated Paint (unit count and weight required)	Plastic	162	Empty
		163	Contents fluid
		164	Contents hardened
	Metal	165	Empty
		166	Contents fluid
		167	Contents hardened
	Aerosols	168	Empty
		169	Contents fluid
	Unlabeled	170	Plastic, Metal and Aerosols

Regulated Tires (unit count and weight required)	Passenger and Light Truck	172	All passenger car tires (even those over 17") and light truck to 17"
	Tractor Trailer	173	Up to 24.5" rim size

NON-BANNED MATERIALS

NON-BANNED MATERIALS (GROUPS)	SUB-CATEGORY	#	SUB-CATEGORY SEPARATIONS
Dry Fibre	Uncoated Paper	2	Magazines - uncoated
	Coated Paper - catalogue quality	5	Magazines - glossy
		6	Catalogues/Calendars - glossy
		7	Flyers/inserts - glossy
	Books	9	Soft cover
	Mixed - recyclable	10	Paper - fines/scrap
	Packaging - foodstuffs	12	Boxboard (if dry only)
		15	Molded Pulp (if dry only)
		16	Kraft paper bags/wrap
Organics Compatible	Packaging - foodstuffs	14	Waxed corrugated cardboard
	Paper Waste	25	Other paper
	Animal/Pet Waste	27	Litter/Feces
		28	Carcasses
	Other	29	Wax
		30	Small wooden items/packaging
Polycoat Containers	Foodstuffs	19	Gable Top
	Beverage – includes DAIRY and NON-DAIRY	31	Gable Top - 1 litre and greater
		32	Gable Top - less than 1 litre
		37	Gable Top - any size
		46	Gable Top
Asceptic Containers	Foodstuffs	20	Aseptic
	Beverage – includes DAIRY and NON-DAIRY	35	Aseptic - any size
		39	Aseptic - any size
		47	Aseptic
Plastic Packaging	Rigid (PET - #1, PP-#5 and PS - #6) only	43	PP (#5) and PS (#6) - be sure to exclude #2
	Foodstuffs and other consumables/ goods	49	PET (#1) - rigid containers and jars - clear, coloured and black
		50	PET (#1) - thermoform - clear, coloured and black
		58	PP (#5) - bottles, containers and caps - natural, coloured and black
	Utility	59	PP (#5) - pails, buckets > 5 litres
	Disposable Cups	71	Extruded PS
		72	Expanded PS
Plastic Foam	Non-Beverage	61	PS (#6) - expanded foam - white, coloured and black
		62	PS (#6) - extruded containers - clear and opaque

Metal	Packaging - foodstuffs and other consumables/goods	18	Multi-material - composite
		79	Aluminum - food containers
		80	Aluminum - other
	Utility	83	Steel - other
	Non-Regulated Pressurized Containers	84	Aluminum
		85	Steel
	Other	86	Durable goods

Household Batteries	Batteries	91	Non-rechargeable
		92	Rechargeable
		93	Lithium-ion
		94	Lead acid

Textiles	Fabric	107	Clothing
		108	Household use
	Footwear	109	Not Applicable
	Durable goods	110	Not Applicable

C&D (Construction and Demolition)	Wallboard	118	Drywall - clean
		119	Drywall - coated
	Wood	112	Dimensional - clean
		113	Dimensional - painted/stained
		114	Engineered/composite - clean
		138	Solid Wood
		139	Engineered/Composite Wood
		140	Crafted Wood/Composite
	Shipping & Storage	141	Pallets

Other All other Materials			

Appendix H

Tonnages received at Disposal Sites — 2011, 2012 and 2017 Waste Audits

Landfill Tonnages Summary - 2011, 2012 and 2017

	Fiscal 2011			Fiscal 2012			Fiscal 2017		
Landfill	**Residential**	**ICI**	**Combined**	**Residential**	**ICI**	**Combined**	**Residential**	**ICI**	**Combined**
Guysborough	31,701.54	33,693.16	65,394.70	29,569.53	34,289.57	63,859.10	34,554.99	32,656.03	67,211.02
Colchester	5,875.61	15,221.32	21,096.93	5,328.06	13,813.32	19,141.38	4,538.14	12,089.39	16,627.53
Cumberland	5,347.11	4,273.57	9,620.68	5,133.50	4,295.58	9,429.08	3,154.49	4,716.74	7,871.23
Halifax	61,339.00	81,329.00	142,668.00	58,694.00	77,803.00	136,497.00	41,567.00	83,323.00	124,890.00
West Hants	6,921.80	5,616.89	12,538.69	7,048.58	5,432.25	12,480.83	3,315.33	10,106.77	13,422.10
Kaiser Meadow	19,628.47	15,278.37	34,906.84	20,115.08	15,891.95	36,007.03	20,806.81	12,502.71	33,309.52
Queens	10,110.00	7,502.67	17,612.67	10,208.22	8,878.91	19,087.13	18,506.46	2,333.85	20,840.31
Totals	**140,923.53**	**162,914.98**	**303,838.51**	**136,096.97**	**160,404.58**	**296,501.55**	**126,443.22**	**157,728.49**	**284,171.71**

Notes:

F2011 and F2012 presents data received from NSE as at January 11, 2013

Some of these figures represent adjusted amounts to give greater accuracy versus earlier available data used for F2011 and F2012 Waste Audit Reports

Variances were not material enough to warrant changes to the reports

F2017 presents data received from NSE as at February 21, 2018

F2017 Halifax ICI tonnage shown comprises: 74,101 mt directed to West Hants and 9,222 mt directed to Kaiser Meadow

F2017 West Hants and Kaiser Meadow ICI tonnages shown are net of Halifax ICI tonnages received

Appendix I

2017 Waste Audit – Statistics – Comprehensive Protocol Categories

Province-wide Landfills Comprehensive ICI Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	15.59%	9	8.76%	22.43%	6.29%	24.90%
2	SUB-TOTAL ORGANICS:	23.29%	9	18.17%	28.40%	16.32%	30.25%
3	SUB-TOTAL DAIRY:	1.11%	9	0.71%	1.51%	0.57%	1.65%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.15%	9	0.02%	0.29%	0.00%	0.34%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	19.90%	9	16.19%	23.61%	14.84%	24.95%
6	SUB-TOTAL DISPOSABLE CUPS:	2.96%	9	2.04%	3.87%	1.72%	4.20%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	1.02%	9	0.47%	1.57%	0.27%	1.77%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	3.16%	9	1.87%	4.46%	1.40%	4.92%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.63%	9	0.00%	1.29%	0.00%	1.53%
10	SUB-TOTAL SPECIAL CARE WASTE:	10.76%	9	4.55%	16.97%	2.31%	19.21%
11	SUB-TOTAL TEXTILES:	5.80%	9	2.81%	8.80%	1.73%	9.88%
12	SUB-TOTAL C&D:	11.35%	9	2.54%	20.16%	0.00%	23.35%
13	SUB-TOTAL BULKY ITEMS:	0.68%	9	0.00%	2.05%	0.00%	2.54%
14	SUB-TOTAL MARINE WASTE:	0.10%	9	0.00%	0.38%	0.00%	0.48%
15	SUB-TOTAL REGULATED BEVERAGE:	1.62%	9	0.93%	2.30%	0.69%	2.55%
16	SUB-TOTAL REGULATED PAINT:	0.16%	9	0.00%	0.40%	0.00%	0.49%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.35%	9	0.00%	1.28%	0.00%	1.62%
19	SUB-TOTAL NON-REGULATED TIRES:	0.22%	9	0.00%	0.78%	0.00%	0.98%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.41%	9	0.00%	1.02%	0.00%	1.24%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.75%	9	0.00%	1.54%	0.00%	1.83%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Cumberland Landfill Comprehensive ICI Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	16.51%	9	8.51%	24.52%	5.62%	27.41%
2	SUB-TOTAL ORGANICS:	19.68%	9	14.81%	24.55%	13.05%	26.31%
3	SUB-TOTAL DAIRY:	0.75%	9	0.53%	0.97%	0.45%	1.05%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.08%	9	0.04%	0.13%	0.02%	0.15%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	22.44%	9	20.10%	24.78%	19.26%	25.63%
6	SUB-TOTAL DISPOSABLE CUPS:	3.28%	9	2.32%	4.24%	1.97%	4.59%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	1.10%	9	0.89%	1.30%	0.81%	1.38%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	2.63%	9	1.98%	3.29%	1.74%	3.53%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.85%	9	0.34%	1.36%	0.16%	1.54%
10	SUB-TOTAL SPECIAL CARE WASTE:	13.64%	9	8.27%	19.01%	6.33%	20.95%
11	SUB-TOTAL TEXTILES:	3.82%	9	1.32%	6.32%	0.41%	7.22%
12	SUB-TOTAL C&D:	9.55%	9	5.53%	13.57%	4.08%	15.02%
13	SUB-TOTAL BULKY ITEMS:	0.29%	9	0.00%	0.60%	0.00%	0.71%
14	SUB-TOTAL MARINE WASTE:	0.04%	9	0.00%	0.09%	0.00%	0.11%
15	SUB-TOTAL REGULATED BEVERAGE:	1.82%	9	1.38%	2.26%	1.22%	2.41%
16	SUB-TOTAL REGULATED PAINT:	0.08%	9	0.00%	0.17%	0.00%	0.21%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	1.41%	9	0.00%	3.44%	0.00%	4.17%
19	SUB-TOTAL NON-REGULATED TIRES:	0.17%	9	0.00%	0.42%	0.00%	0.51%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.82%	9	0.00%	1.86%	0.00%	2.23%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	1.03%	9	0.00%	2.18%	0.00%	2.60%
	TOTAL:	**100.00%**					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Otter Lake Landfill Comprehensive ICI Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	15.58%	9	12.93%	18.23%	11.97%	19.18%
2	SUB-TOTAL ORGANICS:	26.86%	9	23.81%	29.92%	22.70%	31.02%
3	SUB-TOTAL DAIRY:	0.84%	9	0.68%	1.01%	0.62%	1.07%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.08%	9	0.05%	0.10%	0.04%	0.11%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	20.43%	9	17.92%	22.94%	17.02%	23.85%
6	SUB-TOTAL DISPOSABLE CUPS:	3.79%	9	2.52%	5.06%	2.06%	5.52%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	0.51%	9	0.25%	0.77%	0.15%	0.87%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	4.51%	9	3.32%	5.69%	2.89%	6.12%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.81%	9	0.04%	1.59%	0.00%	1.87%
10	SUB-TOTAL SPECIAL CARE WASTE:	3.55%	9	2.32%	4.77%	1.88%	5.21%
11	SUB-TOTAL TEXTILES:	5.74%	9	4.30%	7.19%	3.77%	7.71%
12	SUB-TOTAL C&D:	10.11%	9	7.58%	12.65%	6.67%	13.56%
13	SUB-TOTAL BULKY ITEMS:	2.29%	9	0.00%	5.29%	0.00%	6.38%
14	SUB-TOTAL MARINE WASTE:	0.00%	9	0.00%	0.00%	0.00%	0.00%
15	SUB-TOTAL REGULATED BEVERAGE:	1.60%	9	1.13%	2.06%	0.96%	2.23%
16	SUB-TOTAL REGULATED PAINT:	0.08%	9	0.00%	0.16%	0.00%	0.19%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	1.40%	9	0.01%	2.78%	0.00%	3.28%
20	SUB-TOTAL REGULATED ELECTRONICS:	1.01%	9	0.46%	1.55%	0.27%	1.74%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.82%	9	0.32%	1.33%	0.14%	1.51%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Colchester Balefill Comprehensive ICI Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	13.45%	9	11.10%	15.79%	10.25%	16.64%
2	SUB-TOTAL ORGANICS:	22.27%	9	16.57%	27.97%	14.51%	30.03%
3	SUB-TOTAL DAIRY:	0.82%	9	0.62%	1.03%	0.55%	1.10%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.14%	9	0.05%	0.23%	0.01%	0.26%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	22.61%	9	18.21%	27.01%	16.62%	28.61%
6	SUB-TOTAL DISPOSABLE CUPS:	3.29%	9	2.25%	4.33%	1.88%	4.71%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	2.08%	9	0.95%	3.21%	0.54%	3.62%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	3.34%	9	1.96%	4.72%	1.46%	5.22%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.27%	9	0.19%	0.36%	0.16%	0.39%
10	SUB-TOTAL SPECIAL CARE WASTE:	5.57%	9	2.44%	8.71%	1.30%	9.85%
11	SUB-TOTAL TEXTILES:	7.48%	9	3.97%	11.00%	2.70%	12.27%
12	SUB-TOTAL C&D:	16.90%	9	12.45%	21.34%	10.85%	22.94%
13	SUB-TOTAL BULKY ITEMS:	0.02%	9	0.00%	0.05%	0.00%	0.06%
14	SUB-TOTAL MARINE WASTE:	0.06%	9	0.00%	0.15%	0.00%	0.18%
15	SUB-TOTAL REGULATED BEVERAGE:	0.98%	9	0.59%	1.37%	0.45%	1.52%
16	SUB-TOTAL REGULATED PAINT:	0.21%	9	0.04%	0.39%	0.00%	0.45%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.08%	9	0.02%	0.14%	0.00%	0.17%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.41%	9	0.03%	0.80%	0.00%	0.94%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Chester Landfill Comprehensive ICI Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	16.88%	9	5.21%	28.54%	0.99%	32.76%
2	SUB-TOTAL ORGANICS:	14.42%	9	8.15%	20.69%	5.88%	22.95%
3	SUB-TOTAL DAIRY:	0.95%	9	0.43%	1.46%	0.25%	1.64%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.13%	9	0.06%	0.21%	0.03%	0.24%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	11.61%	9	6.09%	17.13%	4.09%	19.12%
6	SUB-TOTAL DISPOSABLE CUPS:	1.88%	9	0.95%	2.81%	0.61%	3.15%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	0.33%	9	0.13%	0.53%	0.05%	0.61%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	0.83%	9	0.38%	1.27%	0.22%	1.43%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.05%	9	0.00%	0.10%	0.00%	0.11%
10	SUB-TOTAL SPECIAL CARE WASTE:	16.85%	9	7.88%	25.82%	4.64%	29.06%
11	SUB-TOTAL TEXTILES:	2.34%	9	1.15%	3.54%	0.71%	3.97%
12	SUB-TOTAL C&D:	31.55%	9	11.89%	51.21%	4.78%	58.32%
13	SUB-TOTAL BULKY ITEMS:	1.25%	9	0.00%	3.05%	0.00%	3.71%
14	SUB-TOTAL MARINE WASTE:	0.00%	9	0.00%	0.00%	0.00%	0.00%
15	SUB-TOTAL REGULATED BEVERAGE:	0.56%	9	0.15%	0.96%	0.00%	1.11%
16	SUB-TOTAL REGULATED PAINT:	0.36%	9	0.00%	0.88%	0.00%	1.07%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.00%	9	0.00%	0.00%	0.00%	0.00%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.02%	9	0.00%	0.06%	0.00%	0.07%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Guysborough Landfill Comprehensive ICI Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	15.76%	9	13.81%	17.71%	13.10%	18.42%
2	SUB-TOTAL ORGANICS:	31.91%	9	29.13%	34.69%	28.13%	35.69%
3	SUB-TOTAL DAIRY:	1.41%	9	1.10%	1.72%	0.99%	1.83%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.16%	9	0.04%	0.28%	0.00%	0.32%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	19.63%	9	18.74%	20.52%	18.42%	20.84%
6	SUB-TOTAL DISPOSABLE CUPS:	3.65%	9	2.99%	4.31%	2.75%	4.55%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	1.54%	9	1.17%	1.92%	1.04%	2.05%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	5.18%	9	3.33%	7.03%	2.67%	7.70%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	1.05%	9	0.00%	2.19%	0.00%	2.61%
10	SUB-TOTAL SPECIAL CARE WASTE:	5.52%	9	3.84%	7.19%	3.24%	7.80%
11	SUB-TOTAL TEXTILES:	4.71%	9	2.20%	7.23%	1.29%	8.14%
12	SUB-TOTAL C&D:	3.75%	9	1.92%	5.57%	1.26%	6.23%
13	SUB-TOTAL BULKY ITEMS:	0.74%	9	0.00%	1.76%	0.00%	2.13%
14	SUB-TOTAL MARINE WASTE:	0.58%	9	0.00%	1.31%	0.00%	1.58%
15	SUB-TOTAL REGULATED BEVERAGE:	3.36%	9	2.17%	4.56%	1.73%	4.99%
16	SUB-TOTAL REGULATED PAINT:	0.16%	9	0.00%	0.33%	0.00%	0.39%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.12%	9	0.00%	0.30%	0.00%	0.36%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.76%	9	0.00%	1.59%	0.00%	1.89%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Queens Landfill Comprehensive ICI Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	18.30%	9	6.67%	29.94%	2.46%	34.15%
2	SUB-TOTAL ORGANICS:	23.28%	9	18.77%	27.79%	17.14%	29.42%
3	SUB-TOTAL DAIRY:	1.86%	9	1.24%	2.48%	1.01%	2.70%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.47%	9	0.18%	0.75%	0.08%	0.86%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	16.74%	9	14.86%	18.62%	14.18%	19.30%
6	SUB-TOTAL DISPOSABLE CUPS:	1.72%	9	1.35%	2.09%	1.22%	2.23%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	1.03%	9	0.70%	1.35%	0.59%	1.46%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	2.72%	9	1.74%	3.70%	1.39%	4.05%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.12%	9	0.05%	0.20%	0.03%	0.22%
10	SUB-TOTAL SPECIAL CARE WASTE:	28.11%	9	21.97%	34.25%	19.75%	36.47%
11	SUB-TOTAL TEXTILES:	2.53%	9	1.78%	3.28%	1.51%	3.56%
12	SUB-TOTAL C&D:	1.24%	9	1.00%	1.49%	0.91%	1.57%
13	SUB-TOTAL BULKY ITEMS:	0.00%	9	0.00%	0.00%	0.00%	0.00%
14	SUB-TOTAL MARINE WASTE:	0.00%	9	0.00%	0.00%	0.00%	0.00%
15	SUB-TOTAL REGULATED BEVERAGE:	1.77%	9	1.42%	2.12%	1.29%	2.25%
16	SUB-TOTAL REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.00%	9	0.00%	0.00%	0.00%	0.00%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.11%	9	0.03%	0.18%	0.00%	0.21%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

West Hants Landfill Comprehensive ICI Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	12.68%	9	10.69%	14.67%	9.97%	15.39%
2	SUB-TOTAL ORGANICS:	24.59%	9	19.80%	29.38%	18.07%	31.11%
3	SUB-TOTAL DAIRY:	1.13%	9	0.80%	1.46%	0.68%	1.58%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.02%	9	0.01%	0.03%	0.00%	0.03%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	25.80%	9	23.05%	28.56%	22.05%	29.56%
6	SUB-TOTAL DISPOSABLE CUPS:	3.08%	9	2.52%	3.64%	2.31%	3.84%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	0.53%	9	0.28%	0.79%	0.19%	0.88%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	2.94%	9	1.70%	4.18%	1.25%	4.63%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	1.25%	9	0.34%	2.17%	0.01%	2.50%
10	SUB-TOTAL SPECIAL CARE WASTE:	2.07%	9	1.35%	2.80%	1.08%	3.07%
11	SUB-TOTAL TEXTILES:	14.00%	9	10.10%	17.90%	8.70%	19.31%
12	SUB-TOTAL C&D:	6.36%	9	3.82%	8.90%	2.90%	9.82%
13	SUB-TOTAL BULKY ITEMS:	0.14%	9	0.00%	0.35%	0.00%	0.42%
14	SUB-TOTAL MARINE WASTE:	0.01%	9	0.00%	0.03%	0.00%	0.04%
15	SUB-TOTAL REGULATED BEVERAGE:	1.24%	9	0.92%	1.56%	0.81%	1.67%
16	SUB-TOTAL REGULATED PAINT:	0.22%	9	0.00%	0.51%	0.00%	0.61%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	9	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	1.02%	9	0.00%	2.48%	0.00%	3.01%
19	SUB-TOTAL NON-REGULATED TIRES:	0.00%	9	0.00%	0.00%	0.00%	0.00%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.84%	9	0.00%	1.92%	0.00%	2.31%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	2.08%	9	0.77%	3.39%	0.29%	3.86%
	TOTAL:	**100.00%**					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Province-wide Landfills Comprehensive Residential Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	10.81%	56	9.82%	11.80%	9.46%	12.16%
2	SUB-TOTAL ORGANICS:	25.24%	56	23.35%	27.13%	22.66%	27.81%
3	SUB-TOTAL DAIRY:	0.68%	56	0.58%	0.78%	0.54%	0.81%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.11%	56	0.07%	0.15%	0.06%	0.16%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	22.16%	56	21.11%	23.21%	20.74%	23.58%
6	SUB-TOTAL DISPOSABLE CUPS:	2.27%	56	2.02%	2.51%	1.93%	2.60%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	2.18%	56	1.90%	2.46%	1.80%	2.56%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	4.66%	56	4.16%	5.17%	3.98%	5.35%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.84%	56	0.67%	1.02%	0.61%	1.08%
10	SUB-TOTAL SPECIAL CARE WASTE:	7.86%	56	6.73%	8.99%	6.32%	9.40%
11	SUB-TOTAL TEXTILES:	12.65%	56	11.36%	13.95%	10.89%	14.42%
12	SUB-TOTAL C&D:	7.03%	56	5.08%	8.97%	4.38%	9.68%
13	SUB-TOTAL BULKY ITEMS:	1.24%	56	0.62%	1.87%	0.39%	2.09%
14	SUB-TOTAL MARINE WASTE:	0.21%	56	0.09%	0.32%	0.05%	0.36%
15	SUB-TOTAL REGULATED BEVERAGE:	0.65%	56	0.52%	0.78%	0.47%	0.83%
16	SUB-TOTAL REGULATED PAINT:	0.36%	56	0.23%	0.49%	0.18%	0.53%
17	SUB-TOTAL NON-REGULATED PAINT:	0.05%	56	0.00%	0.11%	0.00%	0.13%
18	SUB-TOTAL REGULATED TIRES:	0.00%	56	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.06%	56	0.03%	0.10%	0.02%	0.11%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.24%	56	0.17%	0.32%	0.14%	0.35%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.70%	56	0.40%	1.00%	0.29%	1.11%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Cumberland Landfill Comprehensive Residential Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	7.35%	8	5.65%	9.04%	5.04%	9.65%
2	SUB-TOTAL ORGANICS:	16.52%	8	13.41%	19.64%	12.28%	20.76%
3	SUB-TOTAL DAIRY:	0.29%	8	0.21%	0.37%	0.18%	0.40%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.03%	8	0.02%	0.04%	0.01%	0.04%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	21.28%	8	19.43%	23.13%	18.76%	23.80%
6	SUB-TOTAL DISPOSABLE CUPS:	2.47%	8	1.92%	3.01%	1.72%	3.21%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	3.32%	8	2.46%	4.18%	2.15%	4.49%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	7.82%	8	5.66%	9.98%	4.88%	10.76%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	1.00%	8	0.58%	1.41%	0.43%	1.57%
10	SUB-TOTAL SPECIAL CARE WASTE:	7.74%	8	5.38%	10.11%	4.52%	10.96%
11	SUB-TOTAL TEXTILES:	19.28%	8	15.19%	23.36%	13.71%	24.84%
12	SUB-TOTAL C&D:	7.89%	8	4.60%	11.18%	3.41%	12.37%
13	SUB-TOTAL BULKY ITEMS:	1.32%	8	0.00%	2.90%	0.00%	3.47%
14	SUB-TOTAL MARINE WASTE:	0.00%	8	0.00%	0.00%	0.00%	0.00%
15	SUB-TOTAL REGULATED BEVERAGE:	0.34%	8	0.24%	0.44%	0.20%	0.48%
16	SUB-TOTAL REGULATED PAINT:	0.72%	8	0.11%	1.34%	0.00%	1.56%
17	SUB-TOTAL NON-REGULATED PAINT:	0.34%	8	0.00%	0.73%	0.00%	0.87%
18	SUB-TOTAL REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.02%	8	0.00%	0.05%	0.00%	0.06%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.20%	8	0.01%	0.38%	0.00%	0.44%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	2.08%	8	0.80%	3.35%	0.34%	3.82%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Otter Lake Landfill Comprehensive Residential Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	11.98%	8	9.25%	14.71%	8.27%	15.69%
2	SUB-TOTAL ORGANICS:	27.67%	8	20.65%	34.69%	18.11%	37.23%
3	SUB-TOTAL DAIRY:	0.75%	8	0.45%	1.06%	0.34%	1.17%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.25%	8	0.06%	0.44%	0.00%	0.51%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	20.38%	8	18.44%	22.32%	17.74%	23.02%
6	SUB-TOTAL DISPOSABLE CUPS:	1.98%	8	1.49%	2.47%	1.31%	2.64%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	2.31%	8	1.84%	2.77%	1.68%	2.94%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	3.69%	8	3.03%	4.35%	2.79%	4.59%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.21%	8	0.16%	0.27%	0.14%	0.28%
10	SUB-TOTAL SPECIAL CARE WASTE:	4.96%	8	3.31%	6.61%	2.71%	7.21%
11	SUB-TOTAL TEXTILES:	12.30%	8	8.70%	15.90%	7.40%	17.21%
12	SUB-TOTAL C&D:	6.65%	8	4.93%	8.37%	4.30%	9.00%
13	SUB-TOTAL BULKY ITEMS:	4.35%	8	0.94%	7.76%	0.00%	9.00%
14	SUB-TOTAL MARINE WASTE:	0.00%	8	0.00%	0.00%	0.00%	0.00%
15	SUB-TOTAL REGULATED BEVERAGE:	0.72%	8	0.40%	1.05%	0.28%	1.16%
16	SUB-TOTAL REGULATED PAINT:	0.18%	8	0.00%	0.36%	0.00%	0.42%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	8	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.05%	8	0.00%	0.11%	0.00%	0.14%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.38%	8	0.14%	0.62%	0.06%	0.70%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	1.19%	8	0.16%	2.21%	0.00%	2.58%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Colchester Balefill Comprehensive Residential Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	12.89%	8	10.08%	15.70%	9.06%	16.72%
2	SUB-TOTAL ORGANICS:	21.18%	8	18.20%	24.16%	17.13%	25.24%
3	SUB-TOTAL DAIRY:	0.63%	8	0.47%	0.78%	0.42%	0.84%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.14%	8	0.01%	0.27%	0.00%	0.32%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	21.84%	8	19.75%	23.93%	18.99%	24.68%
6	SUB-TOTAL DISPOSABLE CUPS:	2.97%	8	2.20%	3.74%	1.92%	4.02%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	2.54%	8	1.88%	3.20%	1.65%	3.44%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	3.96%	8	3.31%	4.61%	3.08%	4.85%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.64%	8	0.23%	1.06%	0.08%	1.20%
10	SUB-TOTAL SPECIAL CARE WASTE:	10.84%	8	7.34%	14.34%	6.07%	15.61%
11	SUB-TOTAL TEXTILES:	11.00%	8	9.57%	12.42%	9.06%	12.94%
12	SUB-TOTAL C&D:	6.85%	8	3.48%	10.22%	2.26%	11.45%
13	SUB-TOTAL BULKY ITEMS:	2.16%	8	0.59%	3.73%	0.02%	4.30%
14	SUB-TOTAL MARINE WASTE:	0.00%	8	0.00%	0.00%	0.00%	0.00%
15	SUB-TOTAL REGULATED BEVERAGE:	0.96%	8	0.61%	1.30%	0.49%	1.42%
16	SUB-TOTAL REGULATED PAINT:	0.22%	8	0.00%	0.48%	0.00%	0.57%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	8	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.07%	8	0.00%	0.18%	0.00%	0.22%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.25%	8	0.06%	0.44%	0.00%	0.51%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.85%	8	0.00%	1.79%	0.00%	2.12%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Chester Landfill Comprehensive Residential Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	11.06%	8	9.77%	12.36%	9.30%	12.83%
2	SUB-TOTAL ORGANICS:	24.95%	8	20.65%	29.25%	19.09%	30.81%
3	SUB-TOTAL DAIRY:	0.91%	8	0.62%	1.19%	0.52%	1.30%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.14%	8	0.09%	0.18%	0.08%	0.19%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	25.37%	8	22.04%	28.70%	20.84%	29.90%
6	SUB-TOTAL DISPOSABLE CUPS:	2.02%	8	1.56%	2.47%	1.40%	2.64%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	2.21%	8	1.60%	2.83%	1.37%	3.05%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	5.20%	8	3.48%	6.92%	2.85%	7.55%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	1.09%	8	0.57%	1.61%	0.38%	1.79%
10	SUB-TOTAL SPECIAL CARE WASTE:	9.47%	8	6.08%	12.85%	4.86%	14.08%
11	SUB-TOTAL TEXTILES:	9.91%	8	6.70%	13.12%	5.54%	14.28%
12	SUB-TOTAL C&D:	5.37%	8	3.73%	7.00%	3.14%	7.60%
13	SUB-TOTAL BULKY ITEMS:	0.00%	8	0.00%	0.00%	0.00%	0.00%
14	SUB-TOTAL MARINE WASTE:	0.56%	8	0.00%	1.16%	0.00%	1.37%
15	SUB-TOTAL REGULATED BEVERAGE:	0.59%	8	0.19%	1.00%	0.04%	1.15%
16	SUB-TOTAL REGULATED PAINT:	0.68%	8	0.25%	1.11%	0.09%	1.27%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	8	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.29%	8	0.13%	0.45%	0.07%	0.51%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.13%	8	0.00%	0.32%	0.00%	0.38%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.06%	8	0.02%	0.10%	0.00%	0.12%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Queens Landfill Comprehensive Residential Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	12.43%	8	8.55%	16.31%	7.15%	17.71%
2	SUB-TOTAL ORGANICS:	23.66%	8	19.01%	28.31%	17.33%	29.99%
3	SUB-TOTAL DAIRY:	0.73%	8	0.42%	1.04%	0.31%	1.15%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.07%	8	0.04%	0.10%	0.03%	0.11%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	20.42%	8	16.10%	24.75%	14.53%	26.32%
6	SUB-TOTAL DISPOSABLE CUPS:	1.30%	8	0.81%	1.80%	0.63%	1.97%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	1.50%	8	1.07%	1.93%	0.91%	2.09%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	4.58%	8	3.94%	5.23%	3.70%	5.46%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	1.33%	8	0.78%	1.88%	0.58%	2.08%
10	SUB-TOTAL SPECIAL CARE WASTE:	7.55%	8	4.04%	11.06%	2.77%	12.34%
11	SUB-TOTAL TEXTILES:	12.07%	8	8.84%	15.30%	7.67%	16.47%
12	SUB-TOTAL C&D:	12.44%	8	0.00%	25.02%	0.00%	29.56%
13	SUB-TOTAL BULKY ITEMS:	0.25%	8	0.01%	0.49%	0.00%	0.58%
14	SUB-TOTAL MARINE WASTE:	0.35%	8	0.04%	0.66%	0.00%	0.77%
15	SUB-TOTAL REGULATED BEVERAGE:	0.52%	8	0.35%	0.69%	0.29%	0.75%
16	SUB-TOTAL REGULATED PAINT:	0.22%	8	0.06%	0.39%	0.00%	0.45%
17	SUB-TOTAL NON-REGULATED PAINT:	0.03%	8	0.00%	0.06%	0.00%	0.08%
18	SUB-TOTAL REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.34%	8	0.03%	0.65%	0.00%	0.76%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.21%	8	0.01%	0.40%	0.00%	0.47%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

Guysborough Landfill Comprehensive Residential Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	9.97%	8	7.98%	11.96%	7.26%	12.68%
2	SUB-TOTAL ORGANICS:	29.89%	8	25.76%	34.03%	24.26%	35.52%
3	SUB-TOTAL DAIRY:	0.86%	8	0.54%	1.17%	0.42%	1.29%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.12%	8	0.04%	0.19%	0.02%	0.22%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	23.99%	8	21.71%	26.28%	20.89%	27.10%
6	SUB-TOTAL DISPOSABLE CUPS:	2.78%	8	1.98%	3.58%	1.69%	3.87%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	2.34%	8	1.20%	3.47%	0.79%	3.88%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	3.62%	8	3.00%	4.25%	2.78%	4.47%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.81%	8	0.50%	1.13%	0.39%	1.24%
10	SUB-TOTAL SPECIAL CARE WASTE:	7.34%	8	3.55%	11.14%	2.17%	12.51%
11	SUB-TOTAL TEXTILES:	12.42%	8	8.88%	15.97%	7.59%	17.25%
12	SUB-TOTAL C&D:	3.43%	8	2.48%	4.38%	2.13%	4.72%
13	SUB-TOTAL BULKY ITEMS:	0.35%	8	0.00%	0.86%	0.00%	1.04%
14	SUB-TOTAL MARINE WASTE:	0.14%	8	0.01%	0.26%	0.00%	0.31%
15	SUB-TOTAL REGULATED BEVERAGE:	1.08%	8	0.47%	1.68%	0.25%	1.90%
16	SUB-TOTAL REGULATED PAINT:	0.19%	8	0.00%	0.42%	0.00%	0.51%
17	SUB-TOTAL NON-REGULATED PAINT:	0.02%	8	0.00%	0.04%	0.00%	0.05%
18	SUB-TOTAL REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.21%	8	0.02%	0.40%	0.00%	0.47%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.44%	8	0.00%	1.06%	0.00%	1.28%
	TOTAL:	100.00%					

2017 Waste Audit – Statistics – Comprehensive Protocol Categories (cont'd)

West Hants Landfill Comprehensive Residential Results							
	CATEGORY	MEAN PERCENTAGE (x)	SAMPLE SIZE (n)	CONFIDENCE INTERVAL @ 85%		CONFIDENCE INTERVAL @ 95%	
				LOWER LIMIT	UPPER LIMIT	LOWER LIMIT	UPPER LIMIT
1	SUB-TOTAL FIBRE:	10.00%	8	6.99%	13.00%	5.91%	14.08%
2	SUB-TOTAL ORGANICS:	32.78%	8	28.51%	37.05%	26.96%	38.59%
3	SUB-TOTAL DAIRY:	0.56%	8	0.30%	0.82%	0.20%	0.92%
4	SUB-TOTAL NON-DAIRY (EXCLUDING ALL BEVERAGE):	0.02%	8	0.01%	0.04%	0.00%	0.05%
5	SUB-TOTAL PLASTIC (EXCLUDING ALL BEVERAGE):	21.84%	8	19.13%	24.55%	18.15%	25.53%
6	SUB-TOTAL DISPOSABLE CUPS:	2.34%	8	1.63%	3.06%	1.37%	3.31%
7	SUB-TOTAL GLASS (EXCLUDING ALL BEVERAGE):	1.03%	8	0.74%	1.33%	0.63%	1.43%
8	SUB-TOTAL METAL (EXCLUDING ALL ELECTRONICS):	3.76%	8	2.99%	4.53%	2.72%	4.80%
9	SUB-TOTAL MUNICIPAL HAZARDOUS SOLID WASTE:	0.81%	8	0.17%	1.46%	0.00%	1.69%
10	SUB-TOTAL SPECIAL CARE WASTE:	7.11%	8	4.74%	9.47%	3.89%	10.33%
11	SUB-TOTAL TEXTILES:	11.60%	8	8.32%	14.89%	7.13%	16.08%
12	SUB-TOTAL C&D:	6.58%	8	3.85%	9.31%	2.87%	10.30%
13	SUB-TOTAL BULKY ITEMS:	0.28%	8	0.00%	0.68%	0.00%	0.83%
14	SUB-TOTAL MARINE WASTE:	0.39%	8	0.03%	0.76%	0.00%	0.89%
15	SUB-TOTAL REGULATED BEVERAGE:	0.33%	8	0.16%	0.50%	0.10%	0.56%
16	SUB-TOTAL REGULATED PAINT:	0.28%	8	0.00%	0.57%	0.00%	0.67%
17	SUB-TOTAL NON-REGULATED PAINT:	0.00%	8	0.00%	0.00%	0.00%	0.00%
18	SUB-TOTAL REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
19	SUB-TOTAL NON-REGULATED TIRES:	0.00%	8	0.00%	0.00%	0.00%	0.00%
20	SUB-TOTAL REGULATED ELECTRONICS:	0.19%	8	0.07%	0.31%	0.03%	0.35%
21	SUB-TOTAL NON-REGULATED ELECTRONICS:	0.09%	8	0.02%	0.17%	0.00%	0.20%
	TOTAL:	100.00%					

Appendix J

2017 Waste Audit Data – Selected Materials of Interest for Diversion

Province-wide Landfills : Residential

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	5,753.17	4.55%	102	10,090.12	7.16%	102	8,179.43	6.01%
	108	2,187.47	1.73%	103	1,719.27	1.22%	103	7,716.70	5.67%
	109	1,947.23	1.54%	104	1,592.44	1.13%	104	2,150.33	1.58%
	110	4,387.58	3.47%	105	2,325.24	1.65%	105	4,164.57	3.06%
Sub-Total:		**14,275.44**	**11.29%**		**15,727.07**	**11.16%**		**22,211.03**	**16.32%**
Wallboard (dry, clean)	118	**341.40**	**0.27%**	111	**1,056.93**	**0.75%**	111	**476.34**	**0.35%**
Clean dimensional and composite wood	112	1,656.41	1.31%	106	2,099.76	1.49%	106	748.53	0.55%
	114	151.73	0.12%	108	591.88	0.42%	108	54.44	0.04%
Sub-Total:		**1,808.14**	**1.43%**		**2,691.64**	**1.91%**		**802.97**	**0.59%**
Metals	79	101.15	0.08%	71	0.00	0.00%	71	40.83	0.03%
	80	859.81	0.68%	72	620.06	0.44%	72	707.70	0.52%
	81	771.30	0.61%	73	958.28	0.68%	73	680.48	0.50%
	82	101.15	0.08%	74	267.75	0.19%	74	244.97	0.18%
	83	1,504.67	1.19%	75	2,903.02	2.06%	75	1,810.09	1.33%
	84	88.51	0.07%	76	14.09	0.01%	76	68.05	0.05%
	85	480.48	0.38%	77	126.83	0.09%	77	381.07	0.28%
	86	1,972.51	1.56%	78	1,211.94	0.86%	78	1,551.51	1.14%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	122.49	0.09%
				81	0.00	0.00%	81	0.00	0.00%
				82	338.22	0.24%	82	1,524.29	1.12%
Sub-Total:		**5,879.61**	**4.65%**		**6,440.21**	**4.57%**		**7,131.48**	**5.24%**
Rigid plastic containers/ trays (#1, 5, 6)	49	657.50	0.52%	42	972.37	0.69%	42	857.41	0.63%
	50	594.28	0.47%	46	408.68	0.29%	46	408.29	0.30%
	58	1,150.63	0.91%	55	1,226.03	0.87%	55	122.49	0.09%
	59	37.93	0.03%						
	62	227.60	0.18%						
Sub-Total:		**2,667.95**	**2.11%**		**2,607.09**	**1.85%**		**1,388.19**	**1.02%**
Expanded polystyrene	61	1,871.36	1.48%	47	2,550.72	1.81%	47	2,150.33	1.58%
	72	50.58	0.04%						
Sub-Total:		**1,921.94**	**1.52%**		**2,550.72**	**1.81%**		**2,150.33**	**1.58%**
Household batteries	91	341.40	0.27%	87	239.57	0.17%	87	272.19	0.20%
	92	12.64	0.01%	88	0.00	0.00%	88	13.61	0.01%
	93	0.00	0.00%	89	0.00	0.00%	89	231.36	0.17%
	94	0.00	0.00%						
Sub-Total:		**354.04**	**0.28%**		**239.57**	**0.17%**		**517.17**	**0.38%**
Waxed cardboard	14	**113.80**	**0.09%**	15	**28.18**	**0.02%**	15	**81.66**	**0.06%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Kaizer Meadow Landfill : Residential

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	778.17	3.74%	102	1,024.61	5.22%	102	1,154.61	5.74%
	108	193.50	0.93%	103	143.29	0.73%	103	1,178.74	5.86%
	109	126.92	0.61%	104	115.81	0.59%	104	613.51	3.05%
	110	638.77	3.07%	105	402.38	2.05%	105	667.82	3.32%
Sub-Total:		**1,737.37**	**8.35%**		**1,686.09**	**8.59%**		**3,614.68**	**17.97%**
Wallboard (dry, clean)	118	**41.61**	**0.20%**	111	**11.78**	**0.06%**	111	**2.01**	**0.01%**
Clean dimensional and composite wood	112	0.00	0.00%	106	31.41	0.16%	106	249.43	1.24%
	114	0.00	0.00%	108	9.81	0.05%	108	16.09	0.08%
Sub-Total:		**0.00**	**0.00%**		**41.22**	**0.21%**		**265.52**	**1.32%**
Metals	79	35.37	0.17%	71	0.00	0.00%	71	8.05	0.04%
	80	116.52	0.56%	72	66.74	0.34%	72	88.51	0.44%
	81	122.76	0.59%	73	90.29	0.46%	73	62.36	0.31%
	82	33.29	0.16%	74	29.44	0.15%	74	38.22	0.19%
	83	430.70	2.07%	75	304.24	1.55%	75	287.65	1.43%
	84	14.56	0.07%	76	11.78	0.06%	76	4.02	0.02%
	85	43.69	0.21%	77	29.44	0.15%	77	42.24	0.21%
	86	285.05	1.37%	78	21.59	0.11%	78	0.00	0.00%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	32.18	0.16%
				81	0.00	0.00%	81	0.00	0.00%
				82	56.92	0.29%	82	172.99	0.86%
Sub-Total:		**1,081.95**	**5.20%**		**610.45**	**3.11%**		**736.21**	**3.66%**
Rigid plastic containers/ trays (#1, 5, 6)	49	91.55	0.44%	42	115.81	0.59%	42	114.66	0.57%
	50	183.10	0.88%	46	37.29	0.19%	46	98.56	0.49%
	58	160.21	0.77%	55	39.26	0.20%	55	0.00	0.00%
	59	0.00	0.00%						
	62	29.13	0.14%						
Sub-Total:		**463.99**	**2.23%**		**192.36**	**0.98%**		**213.22**	**1.06%**
Expanded polystyrene	61	597.16	2.87%	47	225.73	1.15%	47	331.90	1.65%
	72	8.32	0.04%						
Sub-Total:		**605.48**	**2.91%**		**225.73**	**1.15%**		**331.90**	**1.65%**
Household batteries	91	49.94	0.24%	87	39.26	0.20%	87	70.40	0.35%
	92	10.40	0.05%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**60.34**	**0.29%**		**39.26**	**0.20%**		**70.40**	**0.35%**
Waxed cardboard	14	**41.61**	**0.20%**	15	**0.00**	**0.00%**	15	**20.12**	**0.10%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Colchester Balefill : Residential

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	152.48	3.36%	102	569.35	9.69%	102	400.14	7.51%
	108	90.76	2.00%	103	15.28	0.26%	103	257.88	4.84%
	109	47.65	1.05%	104	87.55	1.49%	104	34.63	0.65%
	110	152.94	3.37%	105	97.54	1.66%	105	93.24	1.75%
Sub-Total:		**443.83**	**9.78%**		**769.70**	**13.10%**		**785.89**	**14.75%**
Wallboard (dry, clean)	118	**0.00**	**0.00%**	111	**31.73**	**0.54%**	111	**28.77**	**0.54%**
Clean dimensional and composite wood	112	29.50	0.65%	106	6.46	0.11%	106	9.06	0.17%
	114	9.08	0.20%	108	15.28	0.26%	108	0.00	0.00%
Sub-Total:		**38.57**	**0.85%**		**21.74**	**0.37%**		**9.06**	**0.17%**
Metals	79	2.27	0.05%	71	0.59	0.01%	71	5.33	0.10%
	80	34.04	0.75%	72	32.90	0.56%	72	34.10	0.64%
	81	28.59	0.63%	73	31.14	0.53%	73	26.64	0.50%
	82	3.18	0.07%	74	7.05	0.12%	74	11.72	0.22%
	83	44.47	0.98%	75	99.30	1.69%	75	59.67	1.12%
	84	4.08	0.09%	76	0.59	0.01%	76	9.06	0.17%
	85	14.52	0.32%	77	1.18	0.02%	77	15.45	0.29%
	86	48.10	1.06%	78	21.74	0.37%	78	5.33	0.10%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	0.00	0.00%
				81	0.00	0.00%	81	0.00	0.00%
				82	22.91	0.39%	82	10.66	0.20%
Sub-Total:		**179.26**	**3.95%**		**217.40**	**3.70%**		**177.96**	**3.34%**
Rigid plastic containers/ trays (#1, 5, 6)	49	27.23	0.60%	42	54.64	0.93%	42	48.49	0.91%
	50	16.79	0.37%	46	18.80	0.32%	46	18.65	0.35%
	58	55.37	1.22%	55	8.81	0.15%	55	13.32	0.25%
	59	2.72	0.06%						
	62	8.17	0.18%						
Sub-Total:		**110.28**	**2.43%**		**82.26**	**1.40%**		**80.45**	**1.51%**
Expanded polystyrene	61	38.57	0.85%	47	99.30	1.69%	47	170.50	3.20%
	72	1.36	0.03%						
Sub-Total:		**39.94**	**0.88%**		**99.30**	**1.69%**		**170.50**	**3.20%**
Household batteries	91	7.26	0.16%	87	15.28	0.26%	87	6.93	0.13%
	92	0.00	0.00%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**7.26**	**0.16%**		**15.28**	**0.26%**		**6.93**	**0.13%**
Waxed cardboard	14	**4.54**	**0.10%**	15	**0.00**	**0.00%**	15	**3.73**	**0.07%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Cumberland Landfill : Residential

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	208.51	6.61%	102	219.23	4.10%	102	389.63	7.59%
	108	50.47	1.60%	103	142.77	2.67%	103	299.28	5.83%
	109	101.26	3.21%	104	53.47	1.00%	104	59.55	1.16%
	110	210.72	6.68%	105	116.57	2.18%	105	151.95	2.96%
Sub-Total:		**570.96**	**18.10%**		**532.04**	**9.95%**		**900.42**	**17.54%**
Wallboard (dry, clean)	118	**12.93**	**0.41%**	111	**0.00**	**0.00%**	111	**0.00**	**0.00%**
Clean dimensional and composite wood	112	4.10	0.13%	106	12.30	0.23%	106	10.27	0.20%
	114	2.52	0.08%	108	18.71	0.35%	108	0.00	0.00%
Sub-Total:		**6.62**	**0.21%**		**31.01**	**0.58%**		**10.27**	**0.20%**
Metals	79	0.95	0.03%	71	1.07	0.02%	71	0.00	0.00%
	80	19.87	0.63%	72	10.69	0.20%	72	27.21	0.53%
	81	10.73	0.34%	73	42.78	0.80%	73	16.43	0.32%
	82	0.63	0.02%	74	19.25	0.36%	74	10.78	0.21%
	83	60.57	1.92%	75	194.63	3.64%	75	55.96	1.09%
	84	2.52	0.08%	76	0.00	0.00%	76	0.00	0.00%
	85	31.54	1.00%	77	2.14	0.04%	77	13.86	0.27%
	86	119.87	3.80%	78	0.00	0.00%	78	0.00	0.00%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	3.59	0.07%
				81	0.00	0.00%	81	0.00	0.00%
				82	0.00	0.00%	82	27.21	0.53%
Sub-Total:		**246.68**	**7.82%**		**270.56**	**5.06%**		**155.03**	**3.02%**
Rigid plastic containers/ trays (#1, 5, 6)	49	9.78	0.31%	42	36.36	0.68%	42	42.09	0.82%
	50	10.73	0.34%	46	13.37	0.25%	46	8.73	0.17%
	58	24.92	0.79%	55	28.87	0.54%	55	3.08	0.06%
	59	0.63	0.02%						
	62	5.05	0.16%						
Sub-Total:		**51.10**	**1.62%**		**78.60**	**1.47%**		**53.90**	**1.05%**
Expanded polystyrene	61	54.57	1.73%	47	82.88	1.55%	47	71.36	1.39%
	72	0.32	0.01%						
Sub-Total:		**54.89**	**1.74%**		**82.88**	**1.55%**		**71.36**	**1.39%**
Household batteries	91	9.46	0.30%	87	9.09	0.17%	87	6.67	0.13%
	92	0.32	0.01%	88	0.00	0.00%	88	0.51	0.01%
	93	0.00	0.00%	89	1.07	0.02%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**9.78**	**0.31%**		**10.16**	**0.19%**		**7.19**	**0.14%**
Waxed cardboard	14	**0.00**	**0.00%**	15	**0.00**	**0.00%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Guysborough Landfill : Residential

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	1,264.71	3.66%	102	2,349.08	7.41%	102	1,951.59	6.60%
	108	843.14	2.44%	103	500.88	1.58%	103	1,351.33	4.57%
	109	438.85	1.27%	104	234.59	0.74%	104	473.11	1.60%
	110	1,047.02	3.03%	105	405.78	1.28%	105	653.49	2.21%
Sub-Total:		**3,593.72**	**10.40%**		**3,490.34**	**11.01%**		**4,429.52**	**14.98%**
Wallboard (dry, clean)	118	**528.69**	**1.53%**	111	**225.08**	**0.71%**	111	**20.70**	**0.07%**
Clean dimensional and composite wood	112	0.00	0.00%	106	282.14	0.89%	106	1,173.91	3.97%
	114	0.00	0.00%	108	0.00	0.00%	108	2.96	0.01%
Sub-Total:		**0.00**	**0.00%**		**282.14**	**0.89%**		**1,176.87**	**3.98%**
Metals	79	41.47	0.12%	71	3.17	0.01%	71	2.96	0.01%
	80	293.72	0.85%	72	76.08	0.24%	72	73.92	0.25%
	81	183.14	0.53%	73	60.23	0.19%	73	133.06	0.45%
	82	10.37	0.03%	74	15.85	0.05%	74	32.53	0.11%
	83	217.70	0.63%	75	110.96	0.35%	75	517.47	1.75%
	84	17.28	0.05%	76	3.17	0.01%	76	8.87	0.03%
	85	141.68	0.41%	77	41.21	0.13%	77	41.40	0.14%
	86	349.01	1.01%	78	47.55	0.15%	78	493.81	1.67%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	23.66	0.08%
				81	0.00	0.00%	81	0.00	0.00%
				82	53.89	0.17%	82	224.73	0.76%
Sub-Total:		**1,254.35**	**3.63%**		**412.12**	**1.30%**		**1,552.40**	**5.25%**
Rigid plastic containers/ trays (#1, 5, 6)	49	331.73	0.96%	42	82.42	0.26%	42	183.33	0.62%
	50	162.41	0.47%	46	53.89	0.17%	46	79.84	0.27%
	58	328.27	0.95%	55	272.63	0.86%	55	127.15	0.43%
	59	44.92	0.13%						
	62	65.65	0.19%						
Sub-Total:		**932.98**	**2.70%**		**408.95**	**1.29%**		**390.32**	**1.32%**
Expanded polystyrene	61	400.84	1.16%	47	570.63	1.80%	47	150.80	0.51%
	72	34.55	0.10%						
Sub-Total:		**435.39**	**1.26%**		**570.63**	**1.80%**		**150.80**	**0.51%**
Household batteries	91	93.30	0.27%	87	6.34	0.02%	87	20.70	0.07%
	92	0.00	0.00%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**93.30**	**0.27%**		**6.34**	**0.02%**		**20.70**	**0.07%**
Waxed cardboard	14	**117.49**	**0.34%**	15	**0.00**	**0.00%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Otter Lake Landfill : Residential

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	1,729.19	4.16%	102	2,821.59	4.60%	102	2,829.05	4.82%
	108	735.74	1.77%	103	435.51	0.71%	103	1,396.92	2.38%
	109	423.98	1.02%	104	257.62	0.42%	104	311.08	0.53%
	110	1,970.28	4.74%	105	368.03	0.60%	105	2,283.20	3.89%
Sub-Total:		**4,859.18**	**11.69%**		**3,882.76**	**6.33%**		**6,820.24**	**11.62%**
Wallboard (dry, clean)	118	**0.00**	**0.00%**	111	**73.61**	**0.12%**	111	**751.28**	**1.28%**
Clean dimensional and composite wood	112	345.01	0.83%	106	3,484.06	5.68%	106	410.86	0.70%
	114	228.62	0.55%	108	889.42	1.45%	108	0.00	0.00%
Sub-Total:		**573.62**	**1.38%**		**4,373.47**	**7.13%**		**410.86**	**0.70%**
Metals	79	45.72	0.11%	71	0.00	0.00%	71	11.74	0.02%
	80	295.13	0.71%	72	404.84	0.66%	72	252.38	0.43%
	81	282.66	0.68%	73	509.11	0.83%	73	264.12	0.45%
	82	20.78	0.05%	74	220.82	0.36%	74	117.39	0.20%
	83	440.61	1.06%	75	883.28	1.44%	75	833.45	1.42%
	84	20.78	0.05%	76	0.00	0.00%	76	17.61	0.03%
	85	78.98	0.19%	77	67.47	0.11%	77	152.60	0.26%
	86	353.32	0.85%	78	815.81	1.33%	78	2,077.77	3.54%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	17.61	0.03%
				81	0.00	0.00%	81	0.00	0.00%
				82	98.14	0.16%	82	2,042.55	3.48%
Sub-Total:		**1,537.98**	**3.70%**		**2,999.48**	**4.89%**		**5,787.23**	**9.86%**
Rigid plastic containers/ trays (#1, 5, 6)	49	207.84	0.50%	42	502.98	0.82%	42	287.60	0.49%
	50	224.46	0.54%	46	318.96	0.52%	46	152.60	0.26%
	58	498.80	1.20%	55	1,196.11	1.95%	55	0.00	0.00%
	59	8.31	0.02%						
	62	70.66	0.17%						
Sub-Total:		**1,010.08**	**2.43%**		**2,018.05**	**3.29%**		**440.21**	**0.75%**
Expanded polystyrene	61	565.31	1.36%	47	1,490.54	2.43%	47	258.25	0.44%
	72	0.00	0.00%						
Sub-Total:		**565.31**	**1.36%**		**1,490.54**	**2.43%**		**258.25**	**0.44%**
Household batteries	91	54.04	0.13%	87	55.21	0.09%	87	135.00	0.23%
	92	4.16	0.01%	88	0.00	0.00%	88	17.61	0.03%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**58.19**	**0.14%**		**55.21**	**0.09%**		**152.60**	**0.26%**
Waxed cardboard	14	**0.00**	**0.00%**	15	**0.00**	**0.00%**	15	**352.16**	**0.60%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Queens Landfill : Residential

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	1,028.96	5.56%	102	640.97	6.34%	102	445.08	4.36%
	108	336.82	1.82%	103	98.07	0.97%	103	966.72	9.47%
	109	384.93	2.08%	104	138.51	1.37%	104	189.87	1.86%
	110	262.79	1.42%	105	319.48	3.16%	105	251.12	2.46%
Sub-Total:		**2,013.50**	**10.88%**		**1,197.02**	**11.84%**		**1,852.79**	**18.15%**
Wallboard (dry, clean)	118	**203.57**	**1.10%**	111	**28.31**	**0.28%**	111	**1.02**	**0.01%**
Clean dimensional and composite wood	112	1,397.24	7.55%	106	101.10	1.00%	106	7.15	0.07%
	114	5.55	0.03%	108	1.01	0.01%	108	0.00	0.00%
Sub-Total:		**1,402.79**	**7.58%**		**102.11**	**1.01%**		**7.15**	**0.07%**
Metals	79	11.10	0.06%	71	1.01	0.01%	71	4.08	0.04%
	80	99.93	0.54%	72	61.67	0.61%	72	49.00	0.48%
	81	196.17	1.06%	73	145.58	1.44%	73	31.65	0.31%
	82	14.81	0.08%	74	16.18	0.16%	74	11.23	0.11%
	83	181.36	0.98%	75	190.07	1.88%	75	118.42	1.16%
	84	14.81	0.08%	76	2.02	0.02%	76	6.12	0.06%
	85	62.92	0.34%	77	6.07	0.06%	77	17.35	0.17%
	86	268.34	1.45%	78	335.65	3.32%	78	20.42	0.20%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	0.00	0.00%
				81	0.00	0.00%	81	0.00	0.00%
				82	13.14	0.13%	82	61.25	0.60%
Sub-Total:		**849.45**	**4.59%**		**771.39**	**7.63%**		**319.52**	**3.13%**
Rigid plastic containers/ trays (#1, 5, 6)	49	92.53	0.50%	42	54.59	0.54%	42	67.37	0.66%
	50	72.18	0.39%	46	13.14	0.13%	46	22.46	0.22%
	58	149.90	0.81%	55	118.29	1.17%	55	18.37	0.18%
	59	0.00	0.00%						
	62	51.82	0.28%						
Sub-Total:		**366.43**	**1.98%**		**186.02**	**1.84%**		**108.21**	**1.06%**
Expanded polystyrene	61	188.77	1.02%	47	230.51	2.28%	47	196.00	1.92%
	72	3.70	0.02%						
Sub-Total:		**192.47**	**1.04%**		**230.51**	**2.28%**		**196.00**	**1.92%**
Household batteries	91	99.93	0.54%	87	26.29	0.26%	87	10.21	0.10%
	92	0.00	0.00%	88	0.00	0.00%	88	1.02	0.01%
	93	0.00	0.00%	89	0.00	0.00%	89	15.31	0.15%
	94	0.00	0.00%						
Sub-Total:		**99.93**	**0.54%**		**26.29**	**0.26%**		**26.54**	**0.26%**
Waxed cardboard	14	**0.00**	**0.00%**	15	**0.00**	**0.00%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

West Hants Landfill : Residential

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	156.82	4.73%	102	917.14	13.25%	102	380.62	5.40%
	108	52.38	1.58%	103	105.21	1.52%	103	446.88	6.34%
	109	51.72	1.56%	104	162.66	2.35%	104	128.28	1.82%
	110	65.98	1.99%	105	34.61	0.50%	105	343.97	4.88%
Sub-Total:		**326.89**	**9.86%**		**1,219.62**	**17.62%**		**1,299.76**	**18.44%**
Wallboard (dry, clean)	118	**2.65**	**0.08%**	111	**272.03**	**3.93%**	111	**40.18**	**0.57%**
Clean dimensional and composite wood	112	0.00	0.00%	106	132.21	1.91%	106	45.11	0.64%
	114	0.00	0.00%	108	59.53	0.86%	108	13.39	0.19%
Sub-Total:		**0.00**	**0.00%**		**191.73**	**2.77%**		**58.50**	**0.83%**
Metals	79	1.33	0.04%	71	0.00	0.00%	71	0.70	0.01%
	80	24.53	0.74%	72	33.92	0.49%	72	53.57	0.76%
	81	14.92	0.45%	73	13.84	0.20%	73	52.86	0.75%
	82	4.97	0.15%	74	6.23	0.09%	74	9.87	0.14%
	83	24.20	0.73%	75	98.98	1.43%	75	103.61	1.47%
	84	1.66	0.05%	76	0.00	0.00%	76	2.82	0.04%
	85	6.63	0.20%	77	11.07	0.16%	77	43.00	0.61%
	86	46.08	1.39%	78	69.22	1.00%	78	162.12	2.30%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	7.75	0.11%
				81	0.00	0.00%	81	0.00	0.00%
				82	15.23	0.22%	82	51.45	0.73%
Sub-Total:		**124.32**	**3.75%**		**248.49**	**3.59%**		**487.76**	**6.92%**
Rigid plastic containers/ trays (#1, 5, 6)	49	11.27	0.34%	42	60.91	0.88%	42	29.60	0.42%
	50	9.61	0.29%	46	35.30	0.51%	46	16.92	0.24%
	58	21.55	0.65%	55	79.60	1.15%	55	5.64	0.08%
	59	0.00	0.00%						
	62	3.98	0.12%						
Sub-Total:		**46.41**	**1.40%**		**175.81**	**2.54%**		**52.16**	**0.74%**
Expanded polystyrene	61	45.09	1.36%	47	132.21	1.91%	47	87.40	1.24%
	72	0.66	0.02%						
Sub-Total:		**45.75**	**1.38%**		**132.21**	**1.91%**		**87.40**	**1.24%**
Household batteries	91	8.62	0.26%	87	6.92	0.10%	87	14.10	0.20%
	92	0.00	0.00%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	72.60	1.03%
	94	0.00	0.00%						
Sub-Total:		**8.62**	**0.26%**		**6.92**	**0.10%**		**86.70**	**1.23%**
Waxed cardboard	14	**0.00**	**0.00%**	15	**9.69**	**0.14%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Province-wide Landfills : ICI

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	2,776.02	1.76%	102	11,061.93	6.79%	102	6,432.22	4.01%
	108	741.32	0.47%	103	1,792.06	1.10%	103	5,036.70	3.14%
	109	678.23	0.43%	104	1,042.66	0.64%	104	1,219.07	0.76%
	110	2,476.34	1.57%	105	2,606.64	1.60%	105	3,929.91	2.45%
Sub-Total:		**6,671.92**	**4.23%**		**16,503.29**	**10.13%**		**16,617.91**	**10.36%**
Wallboard (dry, clean)	118	**1,277.60**	**0.81%**	111	**2,199.35**	**1.35%**	111	**641.62**	**0.40%**
Clean dimensional and composite wood	112	2,886.43	1.83%	106	2,117.89	1.30%	106	3,159.97	1.97%
	114	362.78	0.23%	108	977.49	0.60%	108	32.08	0.02%
Sub-Total:		**3,249.21**	**2.06%**		**3,095.38**	**1.90%**		**3,192.05**	**1.99%**
Metals	79	47.32	0.03%	71	0.00	0.00%	71	48.12	0.03%
	80	788.64	0.50%	72	488.74	0.30%	72	368.93	0.23%
	81	930.60	0.59%	73	684.24	0.42%	73	769.94	0.48%
	82	94.64	0.06%	74	48.87	0.03%	74	208.53	0.13%
	83	804.42	0.51%	75	1,775.77	1.09%	75	1,764.45	1.10%
	84	47.32	0.03%	76	32.58	0.02%	76	32.08	0.02%
	85	173.50	0.11%	77	146.62	0.09%	77	160.40	0.10%
	86	2,097.79	1.33%	78	896.03	0.55%	78	2,277.75	1.42%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	32.08	0.02%
				81	0.00	0.00%	81	0.00	0.00%
				82	521.33	0.32%	82	2,486.27	1.55%
Sub-Total:		**4,984.22**	**3.16%**		**4,594.20**	**2.82%**		**8,148.55**	**5.08%**
Rigid plastic containers/ trays (#1, 5, 6)	49	536.28	0.34%	42	830.87	0.51%	42	978.47	0.61%
	50	1,025.24	0.65%	46	391.00	0.24%	46	769.94	0.48%
	58	1,261.83	0.80%	55	1,694.32	1.04%	55	834.10	0.52%
	59	331.23	0.21%						
	62	662.46	0.42%						
Sub-Total:		**3,817.03**	**2.42%**		**2,916.18**	**1.79%**		**2,582.51**	**1.61%**
Expanded polystyrene	61	1,182.96	0.75%	47	3,290.88	2.02%	47	2,213.58	1.38%
	72	78.86	0.05%						
Sub-Total:		**1,261.83**	**0.80%**		**3,290.88**	**2.02%**		**2,213.58**	**1.38%**
Household batteries	91	126.18	0.08%	87	179.21	0.11%	87	449.13	0.28%
	92	0.00	0.00%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	78.86	0.05%						
Sub-Total:		**205.05**	**0.13%**		**179.21**	**0.11%**		**449.13**	**0.28%**
Waxed cardboard	14	**47.32**	**0.03%**	15	**456.16**	**0.28%**	15	**304.77**	**0.19%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Kaizer Meadow Landfill : ICI

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	112.52	0.90%	102	663.08	4.34%	102	239.97	1.51%
	108	15.00	0.12%	103	114.59	0.75%	103	589.59	3.71%
	109	33.76	0.27%	104	55.00	0.36%	104	152.56	0.96%
	110	25.01	0.20%	105	233.76	1.53%	105	252.68	1.59%
Sub-Total:		**186.29**	**1.49%**		**1,066.43**	**6.98%**		**1,234.80**	**7.77%**
Wallboard (dry, clean)	118	**456.35**	**3.65%**	111	**788.36**	**5.16%**	111	**3.18**	**0.02%**
Clean dimensional and composite wood	112	206.29	1.65%	106	232.23	1.52%	106	41.32	0.26%
	114	0.00	0.00%	108	74.86	0.49%	108	0.00	0.00%
Sub-Total:		**206.29**	**1.65%**		**307.10**	**2.01%**		**41.32**	**0.26%**
Metals	79	1.25	0.01%	71	0.00	0.00%	71	9.54	0.06%
	80	16.25	0.13%	72	35.14	0.23%	72	44.50	0.28%
	81	31.26	0.25%	73	110.00	0.72%	73	69.92	0.44%
	82	1.25	0.01%	74	9.17	0.06%	74	27.02	0.17%
	83	11.25	0.09%	75	310.15	2.03%	75	60.39	0.38%
	84	1.25	0.01%	76	1.53	0.01%	76	1.59	0.01%
	85	6.25	0.05%	77	22.92	0.15%	77	19.07	0.12%
	86	35.01	0.28%	78	38.20	0.25%	78	25.43	0.16%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	0.00	0.00%
				81	0.00	0.00%	81	0.00	0.00%
				82	6.11	0.04%	82	31.78	0.20%
Sub-Total:		**103.77**	**0.83%**		**533.22**	**3.49%**		**289.23**	**1.82%**
Rigid plastic containers/ trays (#1, 5, 6)	49	12.50	0.10%	42	58.06	0.38%	42	190.70	1.20%
	50	67.51	0.54%	46	18.33	0.12%	46	227.25	1.43%
	58	98.77	0.79%	55	192.51	1.26%	55	38.14	0.24%
	59	0.00	0.00%						
	62	12.50	0.10%						
Sub-Total:		**191.29**	**1.53%**		**268.90**	**1.76%**		**456.10**	**2.87%**
Expanded polystyrene	61	95.02	0.76%	47	461.41	3.02%	47	309.89	1.95%
	72	2.50	0.02%						
Sub-Total:		**97.52**	**0.78%**		**461.41**	**3.02%**		**309.89**	**1.95%**
Household batteries	91	1.25	0.01%	87	71.81	0.47%	87	20.66	0.13%
	92	0.00	0.00%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**1.25**	**0.01%**		**71.81**	**0.47%**		**20.66**	**0.13%**
Waxed cardboard	14	**0.00**	**0.00%**	15	**0.00**	**0.00%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Colchester Balefill : ICI

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	307.07	2.54%	102	917.85	6.03%	102	306.66	2.22%
	108	78.58	0.65%	103	15.22	0.10%	103	204.44	1.48%
	109	67.70	0.56%	104	18.27	0.12%	104	78.74	0.57%
	110	209.15	1.73%	105	178.09	1.17%	105	204.44	1.48%
Sub-Total:		**662.50**	**5.48%**		**1,129.42**	**7.42%**		**794.27**	**5.75%**
Wallboard (dry, clean)	118	**0.00**	**0.00%**	111	**245.06**	**1.61%**	111	**128.46**	**0.93%**
Clean dimensional and composite wood	112	280.47	2.32%	106	581.45	3.82%	106	110.51	0.80%
	114	6.04	0.05%	108	196.36	1.29%	108	0.00	0.00%
Sub-Total:		**286.52**	**2.37%**		**777.81**	**5.11%**		**110.51**	**0.80%**
Metals	79	4.84	0.04%	71	0.00	0.00%	71	4.14	0.03%
	80	81.00	0.67%	72	18.27	0.12%	72	34.53	0.25%
	81	50.78	0.42%	73	45.66	0.30%	73	96.69	0.70%
	82	4.84	0.04%	74	1.52	0.01%	74	29.01	0.21%
	83	35.06	0.29%	75	48.71	0.32%	75	48.35	0.35%
	84	1.21	0.01%	76	10.65	0.07%	76	4.14	0.03%
	85	15.72	0.13%	77	6.09	0.04%	77	12.43	0.09%
	86	210.36	1.74%	78	7.61	0.05%	78	11.05	0.08%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	0.00	0.00%
				81	0.00	0.00%	81	0.00	0.00%
				82	129.38	0.85%	82	15.19	0.11%
Sub-Total:		**403.79**	**3.34%**		**267.90**	**1.76%**		**255.55**	**1.85%**
Rigid plastic containers/ trays (#1, 5, 6)	49	25.39	0.21%	42	48.71	0.32%	42	71.83	0.52%
	50	58.03	0.48%	46	21.31	0.14%	46	29.01	0.21%
	58	129.36	1.07%	55	28.92	0.19%	55	0.00	0.00%
	59	6.04	0.05%						
	62	36.27	0.30%						
Sub-Total:		**255.09**	**2.11%**		**98.94**	**0.65%**		**100.84**	**0.73%**
Expanded polystyrene	61	96.72	0.80%	47	173.52	1.14%	47	266.60	1.93%
	72	3.63	0.03%						
Sub-Total:		**100.34**	**0.83%**		**173.52**	**1.14%**		**266.60**	**1.93%**
Household batteries	91	9.67	0.08%	87	9.13	0.06%	87	16.58	0.12%
	92	0.00	0.00%	88	0.00	0.00%	88	1.38	0.01%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**9.67**	**0.08%**		**9.13**	**0.06%**		**17.96**	**0.13%**
Waxed cardboard	14	**6.04**	**0.05%**	15	**0.00**	**0.00%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Cumberland Landfill : ICI

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	93.39	1.98%	102	554.71	12.98%	102	159.37	3.71%
	108	25.94	0.55%	103	45.73	1.07%	103	121.56	2.83%
	109	25.94	0.55%	104	45.30	1.06%	104	37.80	0.88%
	110	12.74	0.27%	105	91.03	2.13%	105	189.01	4.40%
Sub-Total:		**158.01**	**3.35%**		**736.76**	**17.24%**		**507.74**	**11.82%**
Wallboard (dry, clean)	118	**2.36**	**0.05%**	111	**83.76**	**1.96%**	111	**0.00**	**0.00%**
Clean dimensional and composite wood	112	317.91	6.74%	106	45.30	1.06%	106	10.74	0.25%
	114	0.00	0.00%	108	66.67	1.56%	108	0.86	0.02%
Sub-Total:		**317.91**	**6.74%**		**111.97**	**2.62%**		**11.60**	**0.27%**
Metals	79	3.30	0.07%	71	0.00	0.00%	71	1.72	0.04%
	80	13.68	0.29%	72	9.40	0.22%	72	9.88	0.23%
	81	18.87	0.40%	73	0.00	0.00%	73	16.32	0.38%
	82	3.77	0.08%	74	0.85	0.02%	74	3.44	0.08%
	83	17.92	0.38%	75	101.71	2.38%	75	67.01	1.56%
	84	0.94	0.02%	76	2.14	0.05%	76	1.72	0.04%
	85	8.49	0.18%	77	8.12	0.19%	77	4.30	0.10%
	86	56.60	1.20%	78	5.56	0.13%	78	221.65	5.16%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	0.00	0.00%
				81	0.00	0.00%	81	0.00	0.00%
				82	30.77	0.72%	82	214.78	5.00%
Sub-Total:		**123.58**	**2.62%**		**158.55**	**3.71%**		**540.81**	**12.59%**
Rigid plastic containers/ trays (#1, 5, 6)	49	14.62	0.31%	42	35.47	0.83%	42	17.18	0.40%
	50	59.43	1.26%	46	9.83	0.23%	46	12.89	0.30%
	58	36.32	0.77%	55	73.51	1.72%	55	32.22	0.75%
	59	27.36	0.58%						
	62	17.92	0.38%						
Sub-Total:		**155.65**	**3.30%**		**118.81**	**2.78%**		**62.29**	**1.45%**
Expanded polystyrene	61	61.79	1.31%	47	122.22	2.86%	47	47.25	1.10%
	72	4.72	0.10%						
Sub-Total:		**66.51**	**1.41%**		**122.22**	**2.86%**		**47.25**	**1.10%**
Household batteries	91	2.83	0.06%	87	5.56	0.13%	87	5.58	0.13%
	92	0.47	0.01%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**3.30**	**0.07%**		**5.56**	**0.13%**		**5.58**	**0.13%**
Waxed cardboard	14	**0.00**	**0.00%**	15	**20.51**	**0.48%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Guysborough Landfill : ICI

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	571.48	1.75%	102	3,837.65	11.39%	102	2,263.11	6.60%
	108	150.22	0.46%	103	1,175.89	3.49%	103	1,567.03	4.57%
	109	88.17	0.27%	104	225.74	0.67%	104	548.63	1.60%
	110	535.56	1.64%	105	946.78	2.81%	105	757.80	2.21%
Sub-Total:		**1,345.43**	**4.12%**		**6,186.06**	**18.36%**		**5,136.58**	**14.98%**
Wallboard (dry, clean)	118	**499.64**	**1.53%**	111	**239.22**	**0.71%**	111	**24.00**	**0.07%**
Clean dimensional and composite wood	112	0.00	0.00%	106	299.87	0.89%	106	1,361.30	3.97%
	114	78.37	0.24%	108	0.00	0.00%	108	3.43	0.01%
Sub-Total:		**78.37**	**0.24%**		**299.87**	**0.89%**		**1,364.72**	**3.98%**
Metals	79	13.06	0.04%	71	3.37	0.01%	71	3.43	0.01%
	80	339.62	1.04%	72	80.86	0.24%	72	85.72	0.25%
	81	401.67	1.23%	73	64.02	0.19%	73	154.30	0.45%
	82	0.00	0.00%	74	16.85	0.05%	74	37.72	0.11%
	83	101.23	0.31%	75	117.93	0.35%	75	600.07	1.75%
	84	22.86	0.07%	76	3.37	0.01%	76	10.29	0.03%
	85	45.72	0.14%	77	43.80	0.13%	77	48.01	0.14%
	86	770.68	2.36%	78	50.54	0.15%	78	572.64	1.67%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	27.43	0.08%
				81	0.00	0.00%	81	0.00	0.00%
				82	57.28	0.17%	82	260.60	0.76%
Sub-Total:		**1,694.85**	**5.19%**		**438.01**	**1.30%**		**1,800.20**	**5.25%**
Rigid plastic containers/ trays (#1, 5, 6)	49	156.75	0.48%	42	87.60	0.26%	42	212.60	0.62%
	50	254.72	0.78%	46	57.28	0.17%	46	92.58	0.27%
	58	264.51	0.81%	55	289.76	0.86%	55	147.45	0.43%
	59	150.22	0.46%						
	62	156.75	0.48%						
Sub-Total:		**982.95**	**3.01%**		**434.64**	**1.29%**		**452.62**	**1.32%**
Expanded polystyrene	61	231.86	0.71%	47	606.48	1.80%	47	174.88	0.51%
	72	9.80	0.03%						
Sub-Total:		**241.65**	**0.74%**		**606.48**	**1.80%**		**174.88**	**0.51%**
Household batteries	91	22.86	0.07%	87	6.74	0.02%	87	24.00	0.07%
	92	0.00	0.00%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**22.86**	**0.07%**		**6.74**	**0.02%**		**24.00**	**0.07%**
Waxed cardboard	14	**0.00**	**0.00%**	15	**0.00**	**0.00%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Otter Lake Landfill : ICI

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	766.57	0.92%	102	2,862.78	3.52%	102	2,598.62	3.34%
	108	208.31	0.25%	103	512.37	0.63%	103	2,147.36	2.76%
	109	474.94	0.57%	104	1,228.07	1.51%	104	326.77	0.42%
	110	783.24	0.94%	105	1,333.80	1.64%	105	2,653.08	3.41%
Sub-Total:		**2,233.06**	**2.68%**		**5,937.02**	**7.30%**		**7,725.84**	**9.93%**
Wallboard (dry, clean)	118	**366.62**	**0.44%**	111	**0.00**	**0.00%**	111	**1,198.17**	**1.54%**
Clean dimensional and composite wood	112	808.23	0.97%	106	601.83	0.74%	106	1,657.20	2.13%
	114	324.96	0.39%	108	439.18	0.54%	108	70.02	0.09%
Sub-Total:		**1,133.19**	**1.36%**		**1,041.01**	**1.28%**		**1,727.23**	**2.22%**
Metals	79	41.66	0.05%	71	0.00	0.00%	71	15.56	0.02%
	80	399.95	0.48%	72	243.99	0.30%	72	163.39	0.21%
	81	316.63	0.38%	73	593.70	0.73%	73	451.26	0.58%
	82	116.65	0.14%	74	32.53	0.04%	74	77.80	0.10%
	83	1,366.50	1.64%	75	691.30	0.85%	75	692.45	0.89%
	84	8.33	0.01%	76	0.00	0.00%	76	15.56	0.02%
	85	58.33	0.07%	77	73.20	0.09%	77	54.46	0.07%
	86	1,449.82	1.74%	78	0.00	0.00%	78	1,408.23	1.81%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	7.78	0.01%
				81	0.00	0.00%	81	0.00	0.00%
				82	24.40	0.03%	82	2,061.78	2.65%
Sub-Total:		**3,757.87**	**4.51%**		**1,659.11**	**2.04%**		**4,948.27**	**6.36%**
Rigid plastic containers/ trays (#1, 5, 6)	49	299.96	0.36%	42	683.16	0.84%	42	567.96	0.73%
	50	599.93	0.72%	46	252.12	0.31%	46	171.17	0.22%
	58	649.92	0.78%	55	553.04	0.68%	55	630.20	0.81%
	59	258.30	0.31%						
	62	249.97	0.30%						
Sub-Total:		**2,058.08**	**2.47%**		**1,488.32**	**1.83%**		**1,369.33**	**1.76%**
Expanded polystyrene	61	549.93	0.66%	47	1,325.66	1.63%	47	941.42	1.21%
	72	33.33	0.04%						
Sub-Total:		**583.26**	**0.70%**		**1,325.66**	**1.63%**		**941.42**	**1.21%**
Household batteries	91	99.99	0.12%	87	16.27	0.02%	87	46.68	0.06%
	92	0.00	0.00%	88	0.00	0.00%	88	7.78	0.01%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	308.30	0.37%						
Sub-Total:		**408.28**	**0.49%**		**16.27**	**0.02%**		**54.46**	**0.07%**
Waxed cardboard	14	**0.00**	**0.00%**	15	**585.57**	**0.72%**	15	**879.17**	**1.13%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

Queens Landfill : ICI

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	8.87	0.38%	102	310.61	4.14%	102	586.01	6.60%
	108	6.07	0.26%	103	66.02	0.88%	103	216.65	2.44%
	109	2.57	0.11%	104	30.76	0.41%	104	80.80	0.91%
	110	14.24	0.61%	105	127.55	1.70%	105	302.77	3.41%
Sub-Total:		**31.74**	**1.36%**		**534.94**	**7.13%**		**1,186.22**	**13.36%**
Wallboard (dry, clean)	118	**0.00**	**0.00%**	111	**0.00**	**0.00%**	111	**7.10**	**0.08%**
Clean dimensional and composite wood	112	0.00	0.00%	106	64.52	0.86%	106	23.97	0.27%
	114	0.00	0.00%	108	17.26	0.23%	108	3.55	0.04%
Sub-Total:		**0.00**	**0.00%**		**81.78**	**1.09%**		**27.52**	**0.31%**
Metals	79	0.47	0.02%	71	0.00	0.00%	71	1.78	0.02%
	80	13.30	0.57%	72	27.76	0.37%	72	18.65	0.21%
	81	21.94	0.94%	73	37.51	0.50%	73	29.30	0.33%
	82	2.10	0.09%	74	3.75	0.05%	74	18.65	0.21%
	83	3.97	0.17%	75	88.53	1.18%	75	83.46	0.94%
	84	1.40	0.06%	76	1.50	0.02%	76	2.66	0.03%
	85	2.10	0.09%	77	1.50	0.02%	77	10.65	0.12%
	86	18.44	0.79%	78	81.03	1.08%	78	26.64	0.30%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	35.52	0.40%
				81	0.00	0.00%	81	0.00	0.00%
				82	30.01	0.40%	82	32.85	0.37%
Sub-Total:		**63.71**	**2.73%**		**271.60**	**3.62%**		**260.15**	**2.93%**
Rigid plastic containers/ trays (#1, 5, 6)	49	7.23	0.31%	42	21.76	0.29%	42	33.74	0.38%
	50	8.40	0.36%	46	16.51	0.22%	46	17.76	0.20%
	58	14.24	0.61%	55	35.26	0.47%	55	63.04	0.71%
	59	1.40	0.06%						
	62	17.50	0.75%						
Sub-Total:		**48.78**	**2.09%**		**73.53**	**0.98%**		**114.54**	**1.29%**
Expanded polystyrene	61	9.34	0.40%	47	137.30	1.83%	47	136.74	1.54%
	72	0.93	0.04%						
Sub-Total:		**10.27**	**0.44%**		**137.30**	**1.83%**		**136.74**	**1.54%**
Household batteries	91	1.87	0.08%	87	4.50	0.06%	87	5.33	0.06%
	92	0.00	0.00%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**1.87**	**0.08%**		**4.50**	**0.06%**		**5.33**	**0.06%**
Waxed cardboard	14	**2.33**	**0.10%**	15	**33.76**	**0.45%**	15	**0.00**	**0.00%**

2017 Waste Audit Data – Selected Materials of Interest for Diversion (cont'd)

West Hants Landfill : ICI

Materials	Sub-Category Separation References								
	2017 Audit	tonnes/yr	%	2011 Audit	tonnes/yr	%	2012 Audit	tonnes/yr	%
Textiles and footwear	107	388.10	3.84%	102	284.78	5.07%	102	218.92	4.03%
	108	104.10	1.03%	103	44.94	0.80%	103	222.18	4.09%
	109	70.75	0.70%	104	18.54	0.33%	104	4.35	0.08%
	110	565.98	5.60%	105	12.36	0.22%	105	26.62	0.49%
Sub-Total:		**1,128.93**	**11.17%**		**360.60**	**6.42%**		**472.06**	**8.69%**
Wallboard (dry, clean)	118	**0.00**	**0.00%**	111	**0.00**	**0.00%**	111	**0.00**	**0.00%**
Clean dimensional and composite wood	112	115.22	1.14%	106	12.36	0.22%	106	310.72	5.72%
	114	95.00	0.94%	108	3.93	0.07%	108	0.00	0.00%
Sub-Total:		**210.22**	**2.08%**		**16.29**	**0.29%**		**310.72**	**5.72%**
Metals	79	2.02	0.02%	71	0.00	0.00%	71	0.00	0.00%
	80	33.35	0.33%	72	36.51	0.65%	72	11.95	0.22%
	81	49.52	0.49%	73	25.28	0.45%	73	25.53	0.47%
	82	3.03	0.03%	74	0.00	0.00%	74	3.80	0.07%
	83	69.74	0.69%	75	26.40	0.47%	75	45.09	0.83%
	84	3.03	0.03%	76	0.00	0.00%	76	0.54	0.01%
	85	14.15	0.14%	77	0.00	0.00%	77	3.26	0.06%
	86	122.29	1.21%	78	121.89	2.17%	78	28.25	0.52%
				79	0.00	0.00%	79	0.00	0.00%
				80	0.00	0.00%	80	0.00	0.00%
				81	0.00	0.00%	81	0.00	0.00%
				82	2.25	0.04%	82	74.42	1.37%
Sub-Total:		**297.14**	**2.94%**		**212.32**	**3.78%**		**192.84**	**3.55%**
Rigid plastic containers/ trays (#1, 5, 6)	49	60.64	0.60%	42	38.76	0.69%	42	23.90	0.44%
	50	43.46	0.43%	46	28.65	0.51%	46	44.54	0.82%
	58	79.84	0.79%	55	117.39	2.09%	55	32.05	0.59%
	59	0.00	0.00%						
	62	66.70	0.66%						
Sub-Total:		**250.65**	**2.48%**		**184.80**	**3.29%**		**100.50**	**1.85%**
Expanded polystyrene	61	64.68	0.64%	47	105.60	1.88%	47	83.11	1.53%
	72	8.09	0.08%						
Sub-Total:		**72.77**	**0.72%**		**105.60**	**1.88%**		**83.11**	**1.53%**
Household batteries	91	14.15	0.14%	87	0.00	0.00%	87	76.05	1.40%
	92	0.00	0.00%	88	0.00	0.00%	88	0.00	0.00%
	93	0.00	0.00%	89	0.00	0.00%	89	0.00	0.00%
	94	0.00	0.00%						
Sub-Total:		**14.15**	**0.14%**		**0.00**	**0.00%**		**76.05**	**1.40%**
Waxed cardboard	14	**3.03**	**0.03%**	15	**16.85**	**0.30%**	15	**0.00**	**0.00%**

Appendix K

2017 Waste Audit Data – Unit Counts

COMPREHENSIVE PROTOCOL UNIT COUNTS
RESIDENTIAL (56 SAMPLES)

- Weights where required are reported in the weight-based tables.
- "Unit Count" is the total number of items counted in all the 56 samples sorted according to the Comprehensive Protocol.

CATEGORY	SUB-CATEGORY	#	SUB-CATEGORY SEPARATIONS	UNIT COUNT
Disposable Cups	Fibre/Paper	69	Hot beverage	2,641
		70	Cold beverage	645
	Plastic	71	Rigid	498
		72	Polystyrene	341
	K-Cups	73	Single-serve	1,983
Bulky Items (excludes metals)	Furniture	135	Mattresses	
		136	Box Spring	
		137	Seating - upholstered	
		138	Solid Wood	3
		139	Engineered/Composite Wood	1
		140	Crafted Wood/Composite	
	Shipping & Storage	141	Pallets	1
REGULATED BEVERAGE	Redeemable Containers - DEPOSIT APPLICABLE	146	Sort 1 - Aluminum Cans	389
		147	Sort 2 - Glass - clear	10
		148	Sort 3 - PET - clear, green, blue and HDPE	364
		149	Sort 4 - Glass -coloured (green)	47
		150	Sort 6 - Other Plastic (#3, #5, #6 & #7)	1
		151	Sort 8 - Steel Cans	
		152	Sort 9 - Gable Top	13
		153	Sort 10 - Aeseptic	208
		154	Sort 21 - Glass - clear (over 500 ml)	5
		155	Sort 22 - Glass - coloured (over 500 ml)	1
		156	Sort 23 - Liquor PET - clear and coloured (over 500 ml)	4
		157	Sort 24 - Liquor PET - clear and coloured 500 ml and less)	12
		158	Sort 25 - Liquor - other (500 ml and less)	2
		159	Sort 26 -Liquor other > 500 ml	4
		160	Sort 27 - Glass - brown (500 ml and less)	1
		161	Sort 28-Glass–brown >500 ml	1

2017 Waste Audit Data – Unit Counts (cont'd)

Regulated Paint	Plastic	162	Empty	8
		163	Contents fluid	
		164	Contents hardened	2
	Metal (any paint can with any steel part is classed as "steel")	165	Empty	21
		166	Contents fluid	
		167	Contents hardened	7
	Aerosols	168	Empty	19
		169	Contents fluid	1
	Unlabeled	170	Plastic, Metal and Aerosols	
Non-Regulated Paint	Items not captured under MHSW	171	Other coatings	17
Regulated Tires	Passenger and Light Truck	172	All passenger car tires (even those over 17") and light truck to 17"	
	Tractor Trailer	173	Up to 24.5" rim size	
	Off-the-Road (OTR)	174	Small	
		175	Large	
	Recreational	176	Mobility and Utility	2
	Miscellaneous	177	Other durable rubber goods	1
Regulated Electronics	Computers	178	Desktop	
		179	Portable	2
	Computer Peripherals	180		4
	Desktop Printers	181		1
	Display Devices	182	< 29" 30-45" > 46"	
	Cellular telephones	183		4
	Non-cellular telephones	184		1
	Personal or Portable Audio/Video Systems	185		7
	Home Audio/Video Systems	186		5
	Home Theatre in a Box	187		
	Vehicle Audio/Video Systems	188		1
Non-Regulated Electronics	Personal and Utility	189	Small	78
	Home/Commercial	190	Large	5
	Appliances	191	Small	10
		192	Large	

COMPREHENSIVE PROTOCOL UNIT COUNTS

ICI (63 SAMPLES)

- Weights where required are reported in the weight-based tables.
- "Unit Count" is the total number of items counted in all the 63 samples sorted according to the Comprehensive Protocol.

CATEGORY	SUB-CATEGORY	#	SUB-CATEGORY SEPARATIONS	UNIT COUNT
Disposable Cups	Fibre/Paper	69	Hot beverage	7,430
		70	Cold beverage	3,257
	Plastic	71	Rigid	1,586
		72	Polystyrene	960
	K-Cups	73	Single-serve	966
Bulky Items (excludes metals)	Furniture	135	Mattresses	
		136	Box Spring	
		137	Seating - upholstered	
		138	Solid Wood	
		139	Engineered/Composite Wood	
		140	Crafted Wood/Composite	
	Shipping & Storage	141	Pallets	
Regulated Beverage	Redeemable Containers - DEPOSIT APPLICABLE	146	Sort 1 - Aluminum Cans	1,601
		147	Sort 2 - Glass - clear	100
		148	Sort 3 - PET - clear, green, blue and HDPE	1,383
		149	Sort 4 - Glass -coloured (green)	55
		150	Sort 6 - Other Plastic (#3, #5, #6 & #7)	20
		151	Sort 8 - Steel Cans	12
		152	Sort 9 - Gable Top	23
		153	Sort 10 - Aeseptic	692
		154	Sort 21 - Glass - clear (over 500 ml)	7
		155	Sort 22 - Glass - coloured (over 500 ml)	4
		156	Sort 23 - Liquor PET - clear and coloured (over 500 ml)	18
		157	Sort 24 - Liquor PET - clear and coloured 500 ml and less)	1
		158	Sort 25 - Liquor - other (500 ml and less)	2
		159	Sort 26 -Liquor other > 500 ml	7
		160	Sort 27 - Glass - brown (500 ml and less)	9
		161	Sort 28-Glass–brown >500 ml	4

Regulated Paint	Plastic	162	Empty	3
		163	Contents fluid	
		164	Contents hardened	36
	Metal (any paint can with any steel part is classed as "steel")	165	Empty	7
		166	Contents fluid	1
		167	Contents hardened	1
	Aerosols	168	Empty	5
		169	Contents fluid	
	Unlabeled	170	Plastic, Metal and Aerosols	1
Non-Regulated Paint	Items not captured under MHSW	171	Other coatings	
Regulated Tires	Passenger and Light Truck	172	All passenger car tires (even those over 17") and light truck to 17"	1
	Tractor Trailer	173	Up to 24.5" rim size	1
	Off-the-Road (OTR)	174	Small	1
		175	Large	
	Recreational	176	Mobility and Utility	
	Miscellaneous	177	Other durable rubber goods	110
Regulated Electronics	Computers	178	Desktop	
		179	Portable	
	Computer Peripherals	180		2
	Desktop Printers	181		3
	Display Devices	182	< 29" 30-45" > 46"	3
	Cellular telephones	183		3
	Non-cellular telephones	184		1
	Personal or Portable Audio/Video Systems	185		5
	Home Audio/Video Systems	186		3
	Home Theatre in a Box	187		
	Vehicle Audio/Video Systems	188		
Non-Regulated Electronics	Personal and Utility	189	Small	40
	Home/Commercial	190	Large	2
	Appliances	191	Small	15
		192	Large	

SIMPLIFIED PROTOCOL UNIT COUNTS
RESIDENTIAL (16 SAMPLES)

- Weights where required are reported in the weight-based tables.
- "Unit Count" is the total number of items counted in all the 16 samples sorted according to the Simplified Protocol.

BANNED MATERIALS (GROUPS)	SUB-CATEGORY	#	SUB-CATEGORY SEPARATIONS	UNIT COUNT
Regulated Beverage	Redeemable Containers – DEPOSIT APPLICABLE	146	Sort 1 – Aluminum Cans	
		147	Sort 2 – Glass – clear	
		148	Sort 3 – PET – clear, green, blue and HDPE	
		149	Sort 4 – Glass -coloured (green)	
		150	Sort 6 – Other Plastic (#3, #5, #6 & #7)	
		151	Sort 8 – Steel Cans	
		152	Sort 9 – Gable Top	
		153	Sort 10 – Aeseptic	
		154	Sort 21 – Glass – clear (over 500 ml)	
		155	Sort 22 – Glass – coloured (over 500 ml)	
		156	Sort 23 – Liquor PET – clear and coloured (over 500 ml)	
		157	Sort 24 – Liquor PET – clear and coloured (500 ml and less)	
		158	Sort 25 – Liquor – other (500 ml and less)	
		159	Sort 26 – Liquor – other (over 500 ml)	
		160	Sort 27 – Glass – brown (500 ml and less)	
		161	Sort 28 – Glass – brown (over 500 ml)	
			Total of all the above items	**423**

Regulated Electronics	Computers	178	Desktop	
		179	Portable	
	Computer Peripherals	180	Not Applicable	
	Desktop Printers	181	Not Applicable	
	Display Devices	182	< 29" / 30-45" / > 46"	
	Cellular telephones	183	Not Applicable	
	Non-cellular telephones	184	Not Applicable	
	Personal or Portable Audio/Video Systems	185	Not Applicable	
	Home Audio/Video Systems	186	Not Applicable	
	Home Theatre in a Box	187	Not Applicable	
	Vehicle Audio/Video Systems	188	Not Applicable	
			Total of all the above items	**4**

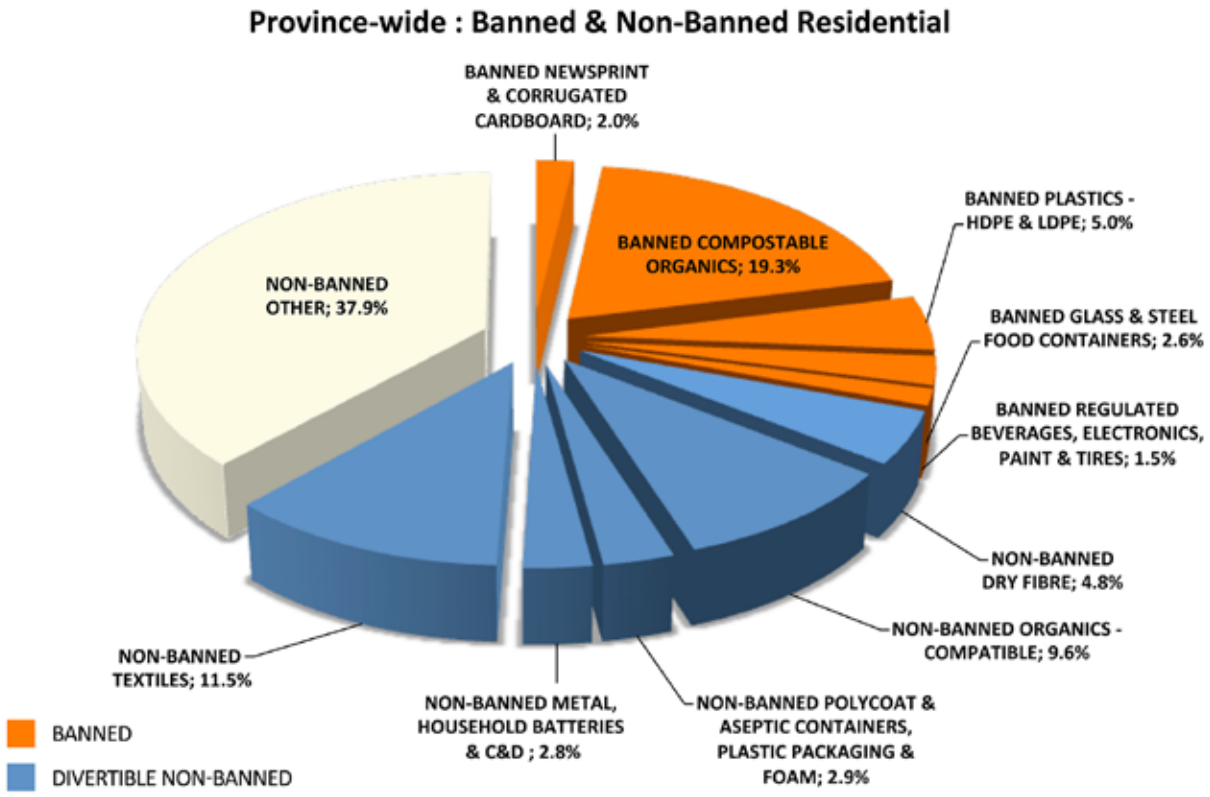
2017 Audit Waste Audit – Data – Unit Counts (cont'd)

Regulated Paint (unit count and weight required)	Plastic	162	Empty	
		163	Contents fluid	
		164	Contents hardened	
	Metal	165	Empty	
		166	Contents fluid	
		167	Contents hardened	
	Aerosols	168	Empty	
		169	Contents fluid	
	Unlabeled	170	Plastic, Metal and Aerosols	
			Total of all the above items	**4**

Regulated Tires (unit count and weight required)	Passenger and Light Truck	172	All passenger car tires (even those over 17") and light truck to 17"	
	Tractor Trailer	173	Up to 24.5" rim size	
			Total of all the above items	**0**

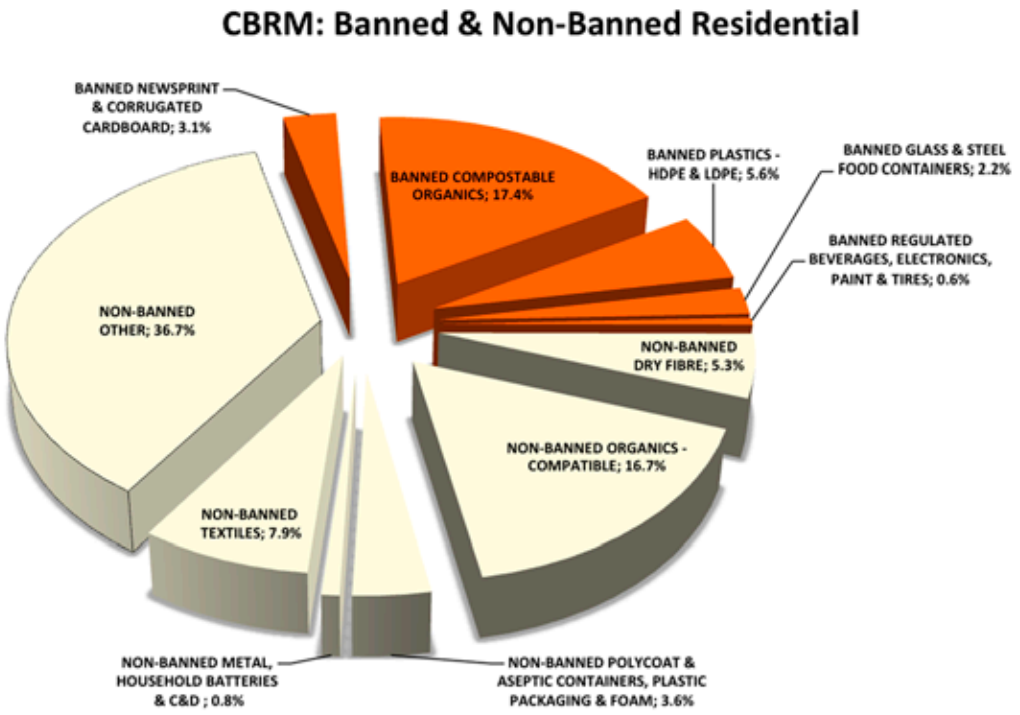
Appendix L

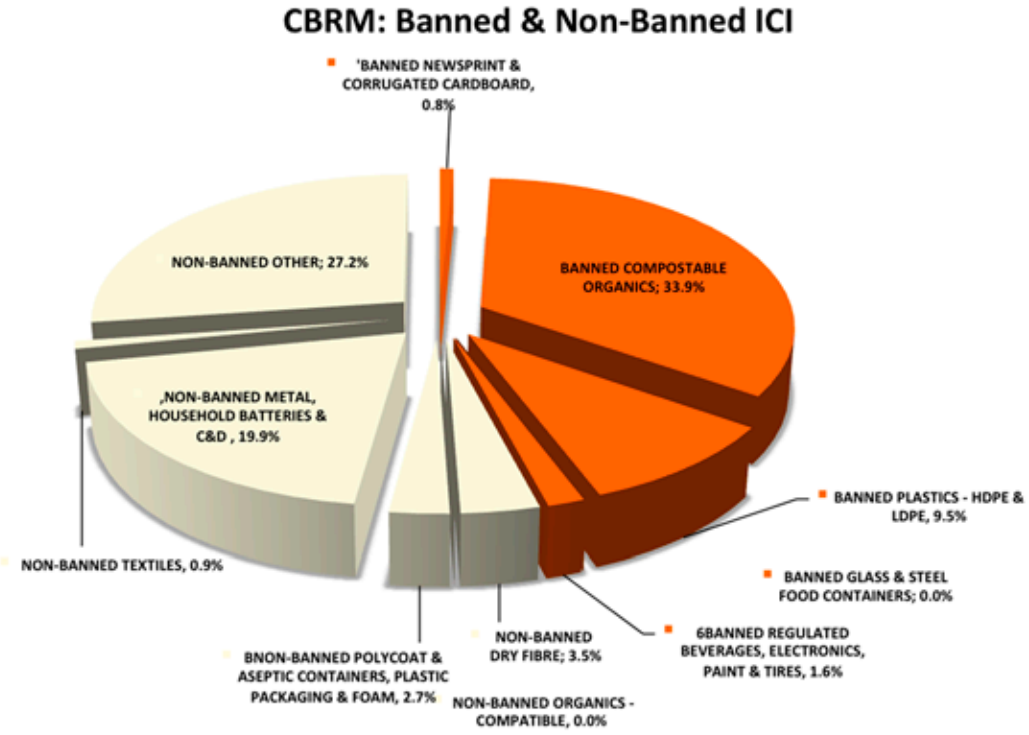
Simplified Protocol Samples – by Transfer Station



Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

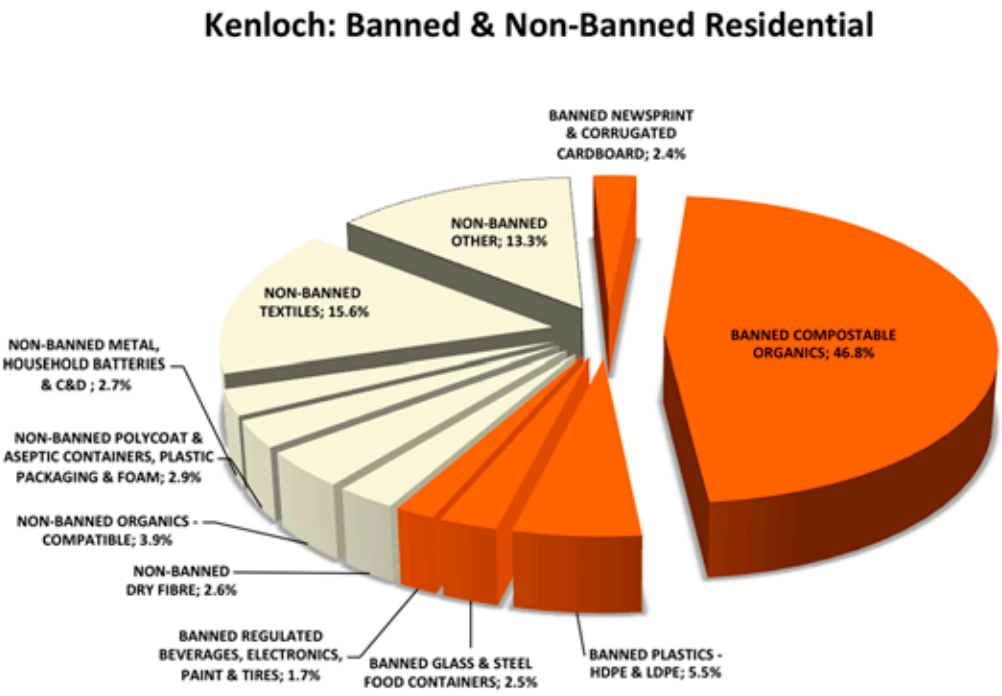
Simplified Protocol Samples – by Transfer Station (cont'd)

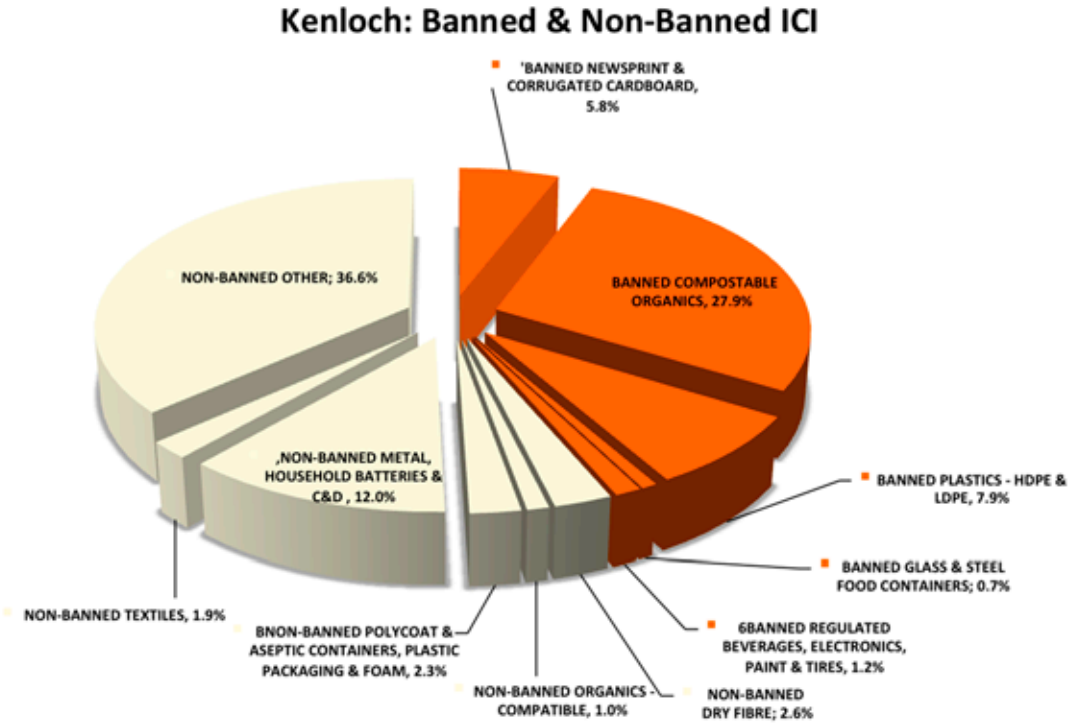




Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

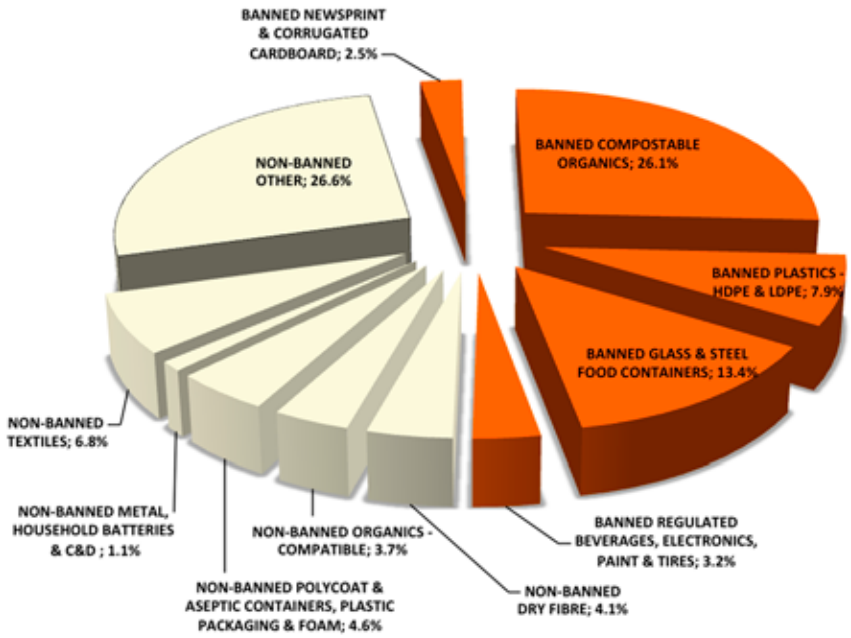




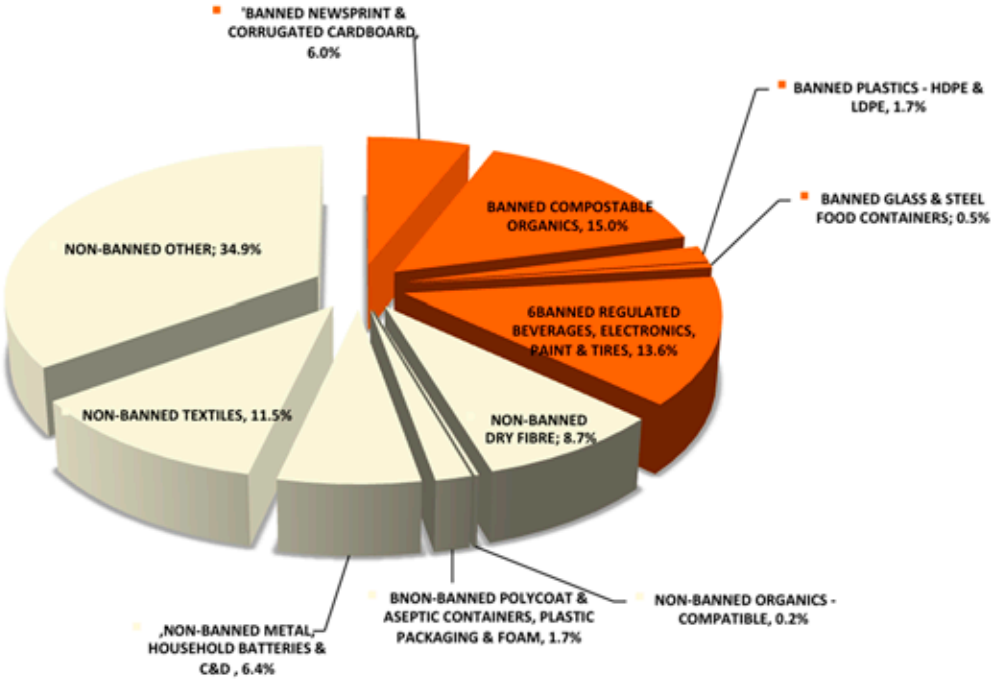
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Baddeck: Banned & Non-Banned Residential



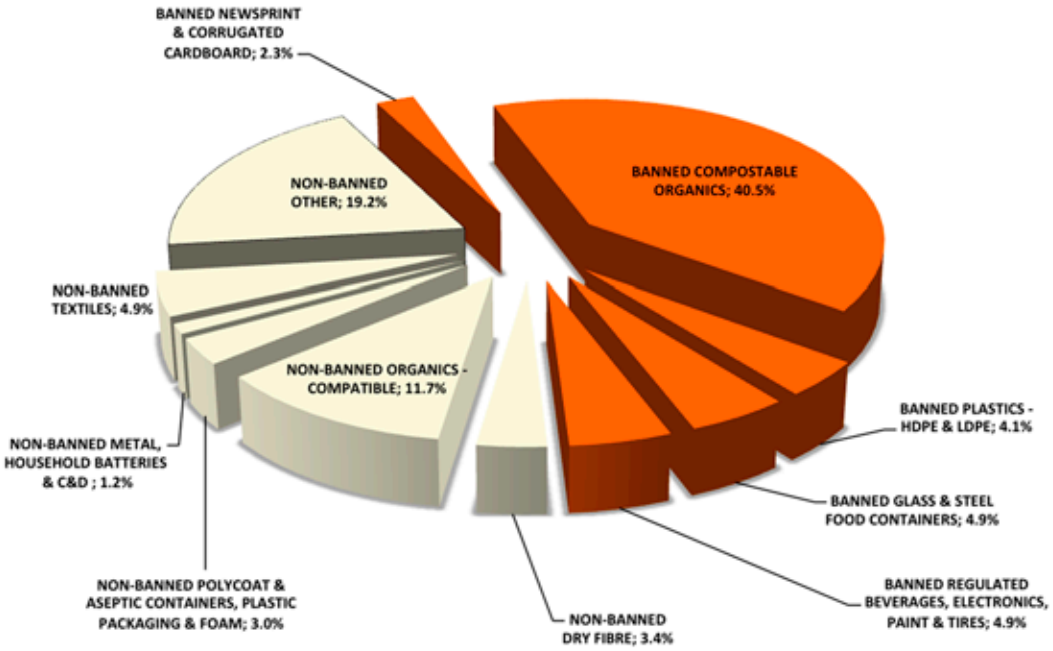
Baddeck: Banned & Non-Banned ICI



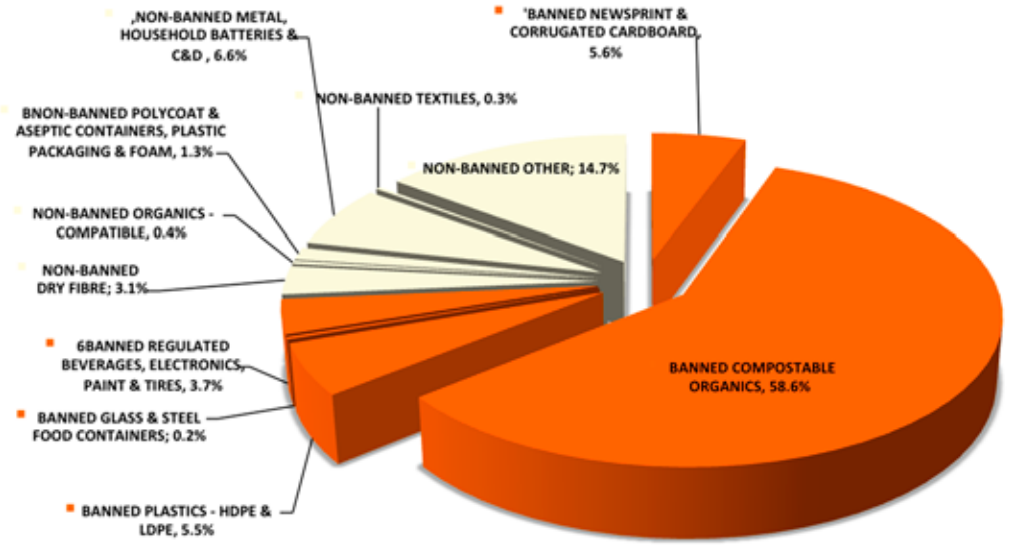
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Dingwall: Banned & Non-Banned Residential

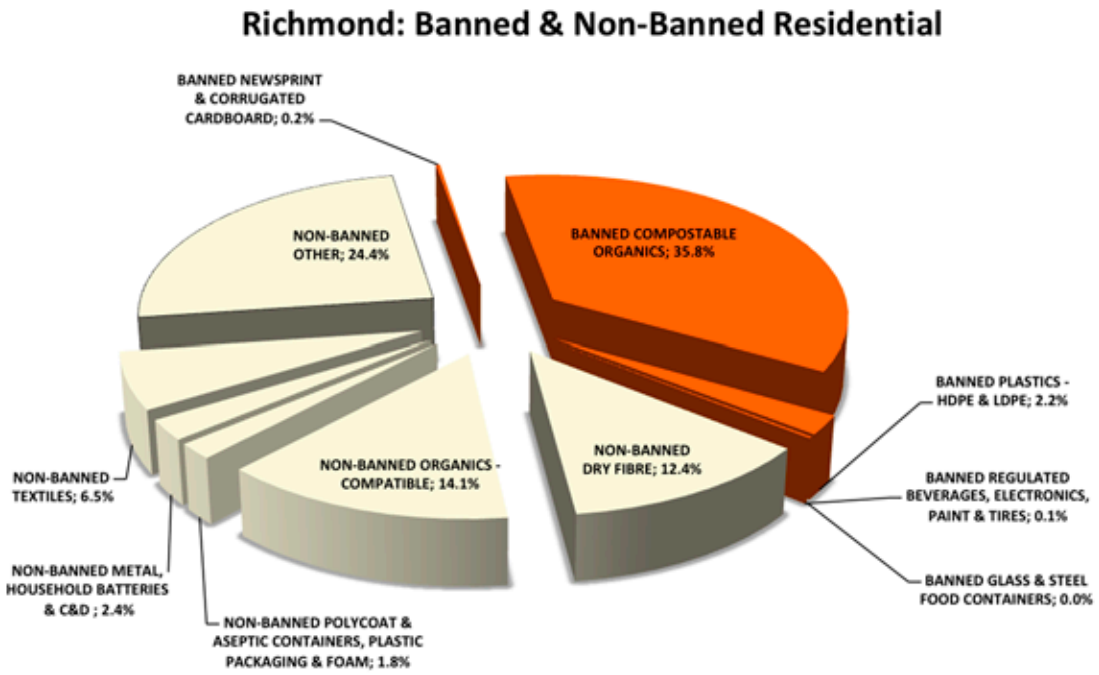


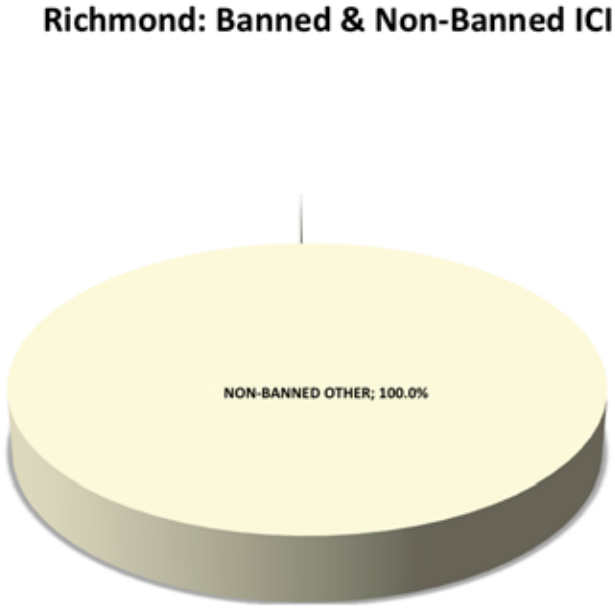
Dingwall: Banned & Non-Banned ICI



Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

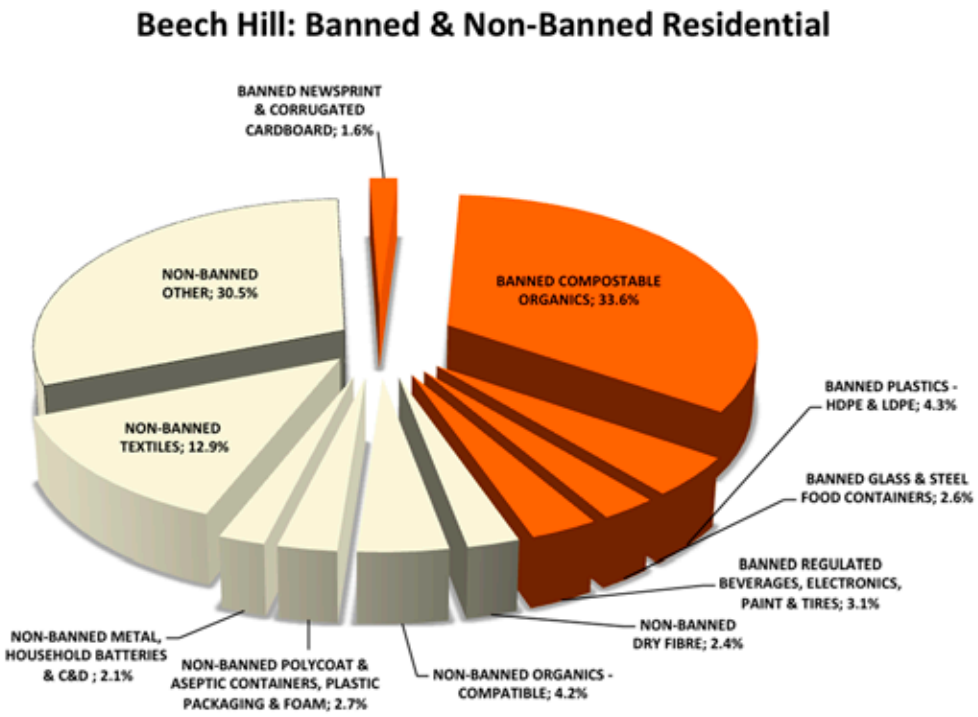
Simplified Protocol Samples – by Transfer Station (cont'd)

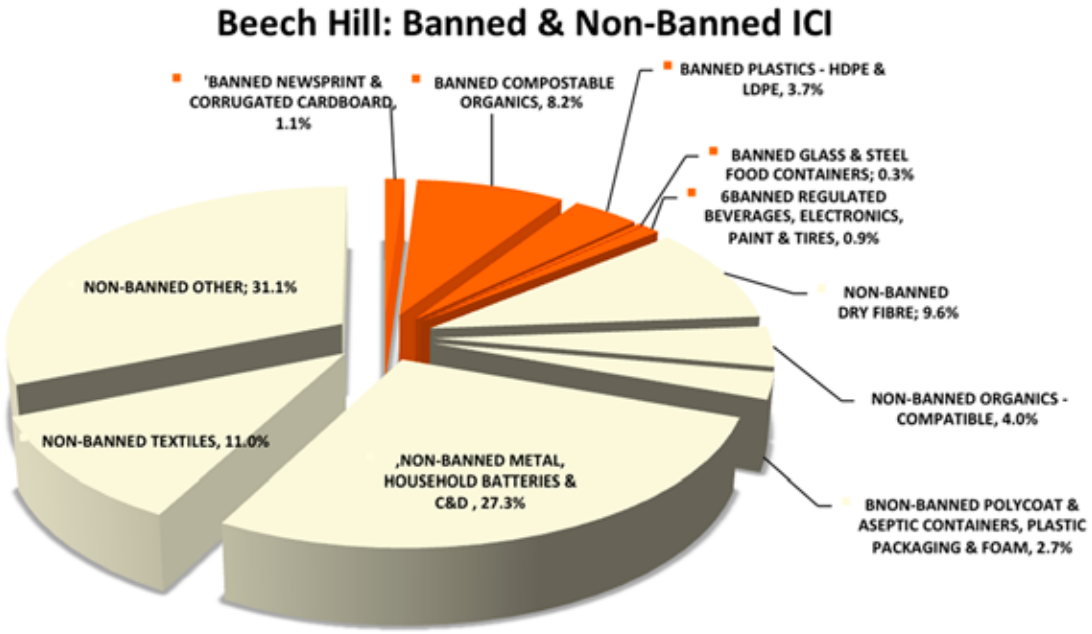




Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

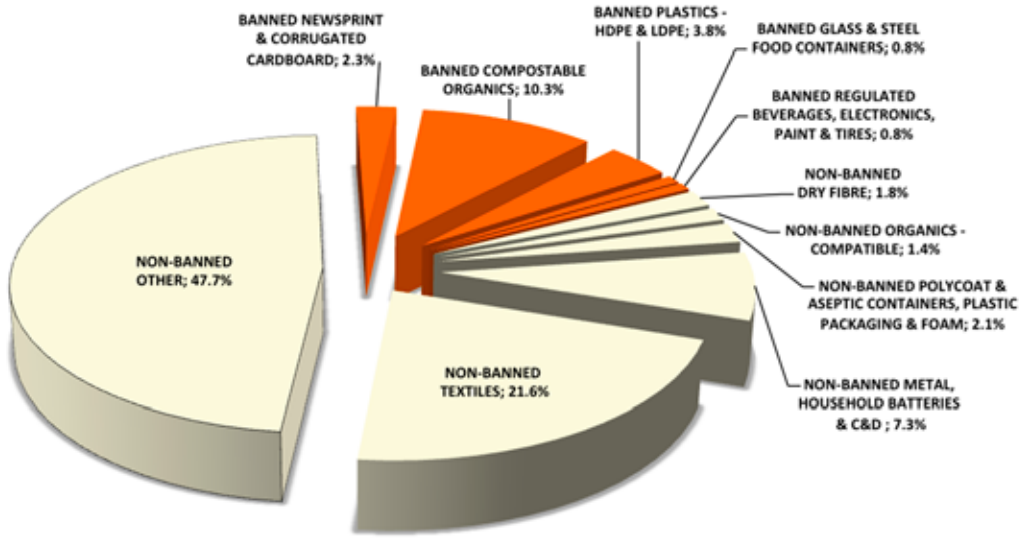




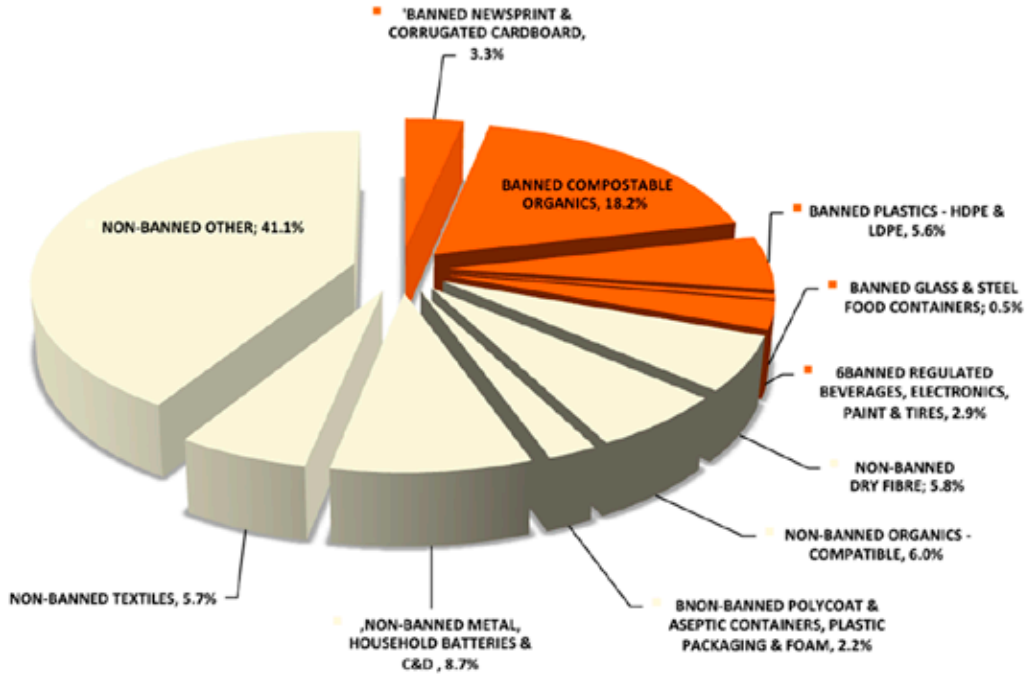
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Pictou: Banned & Non-Banned Residential

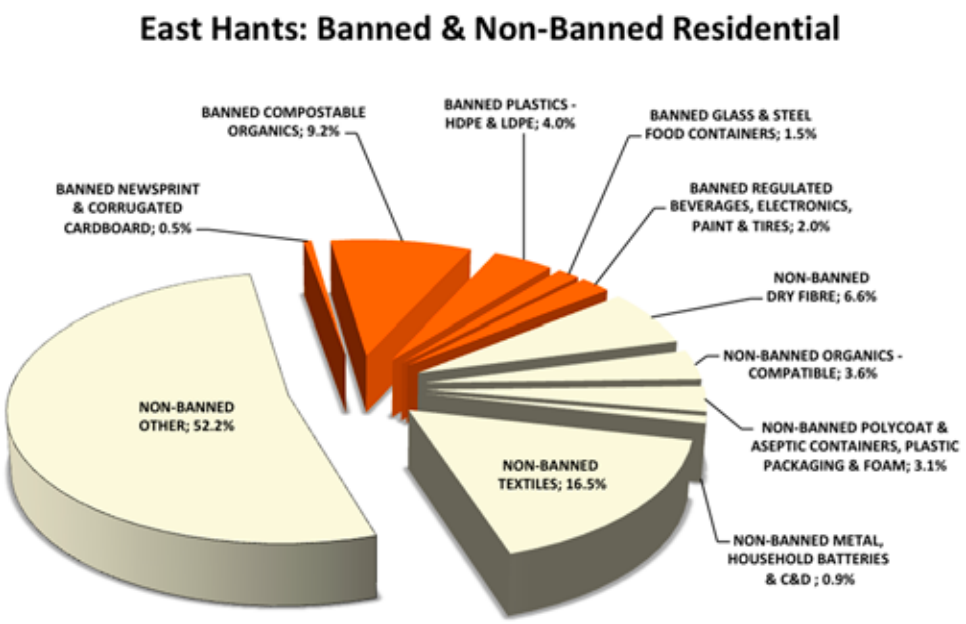


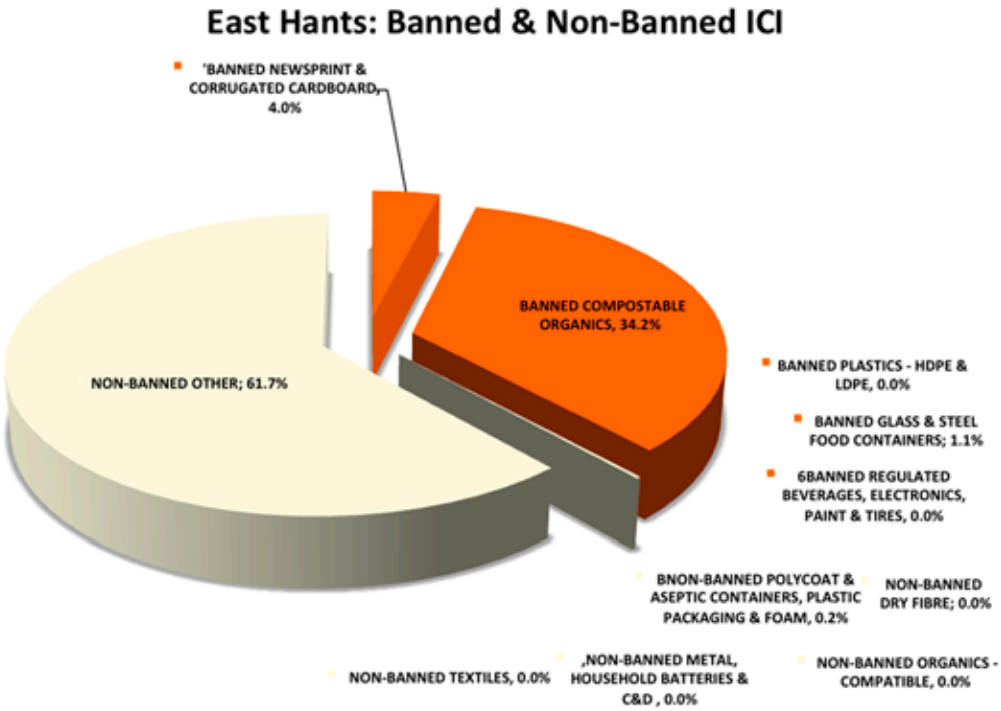
Pictou: Banned & Non-Banned ICI



Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

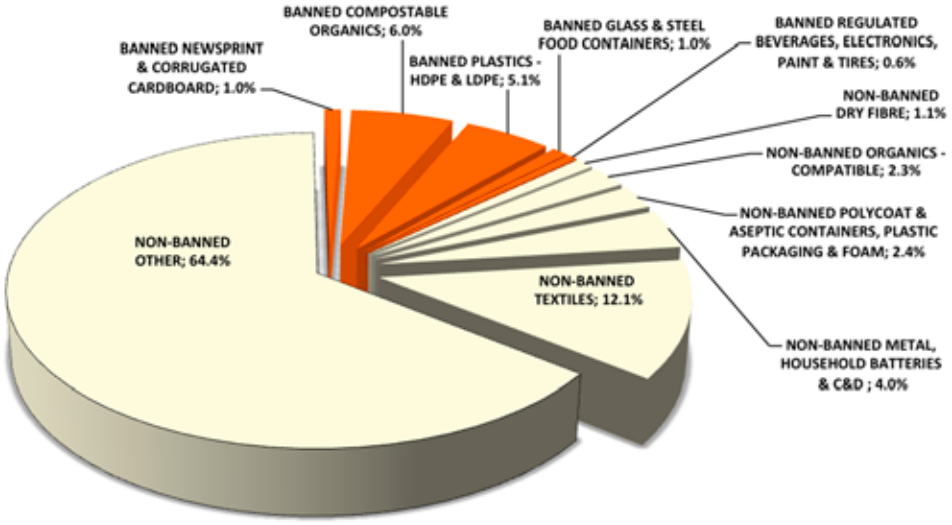




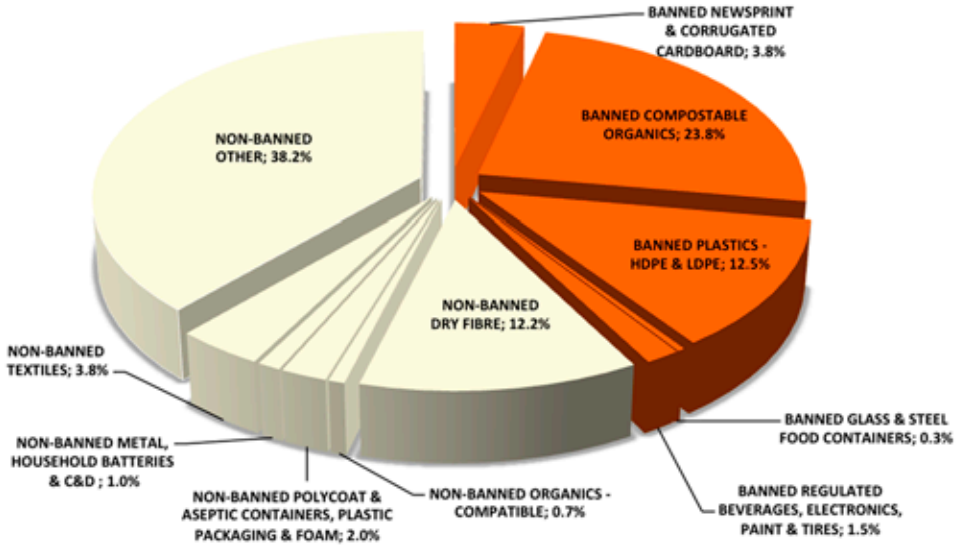
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Otter Lake1: Banned & Non-Banned Residential

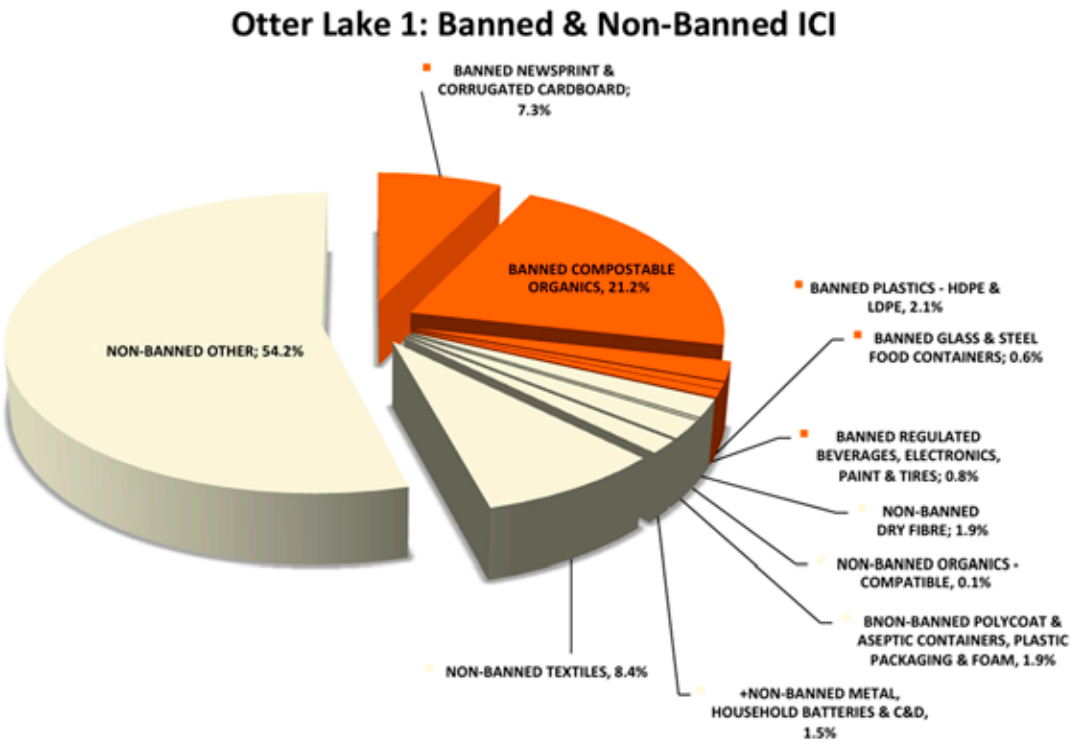


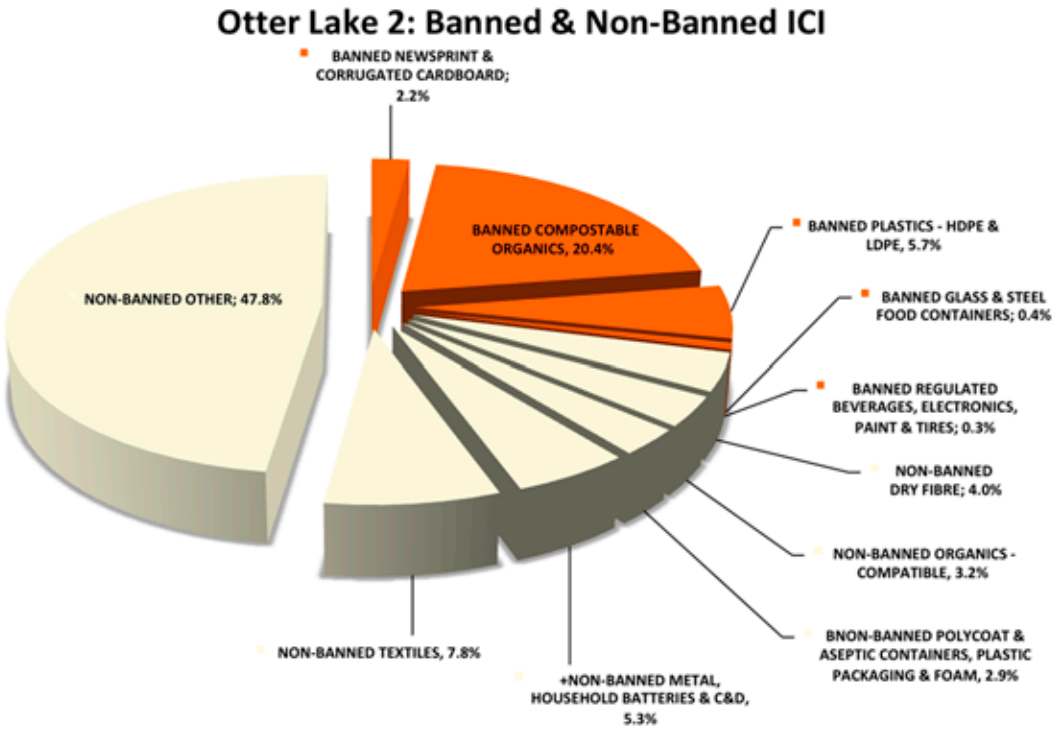
Otter Lake2: Banned & Non-Banned Residential



Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

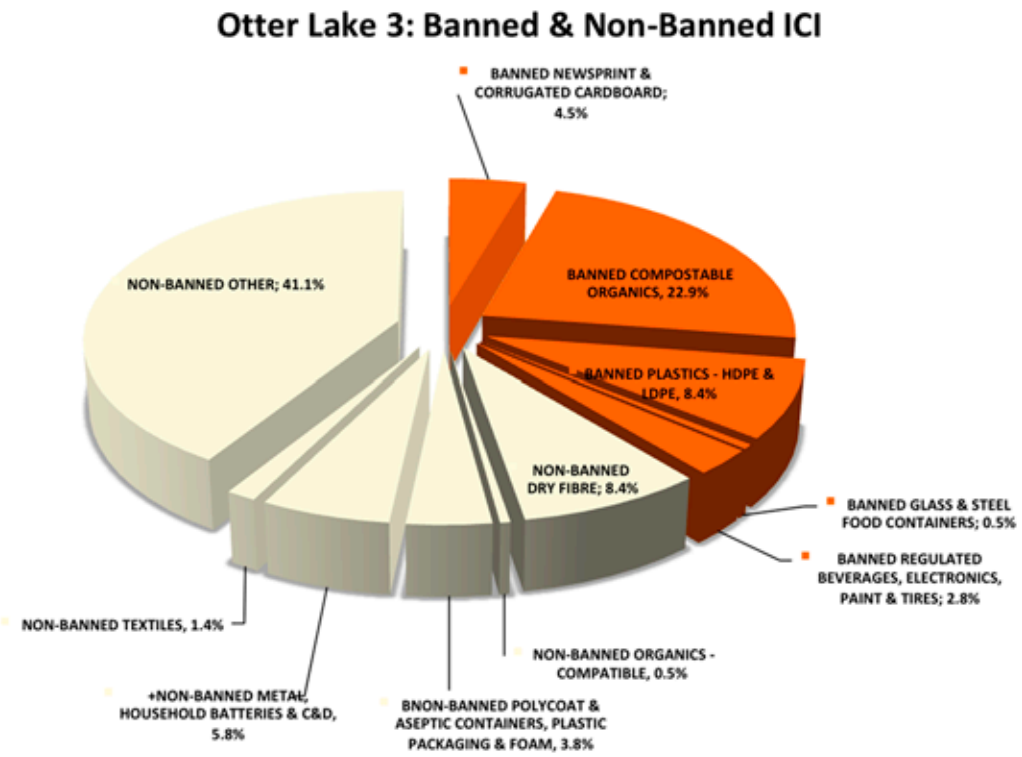
Simplified Protocol Samples – by Transfer Station (cont'd)





Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

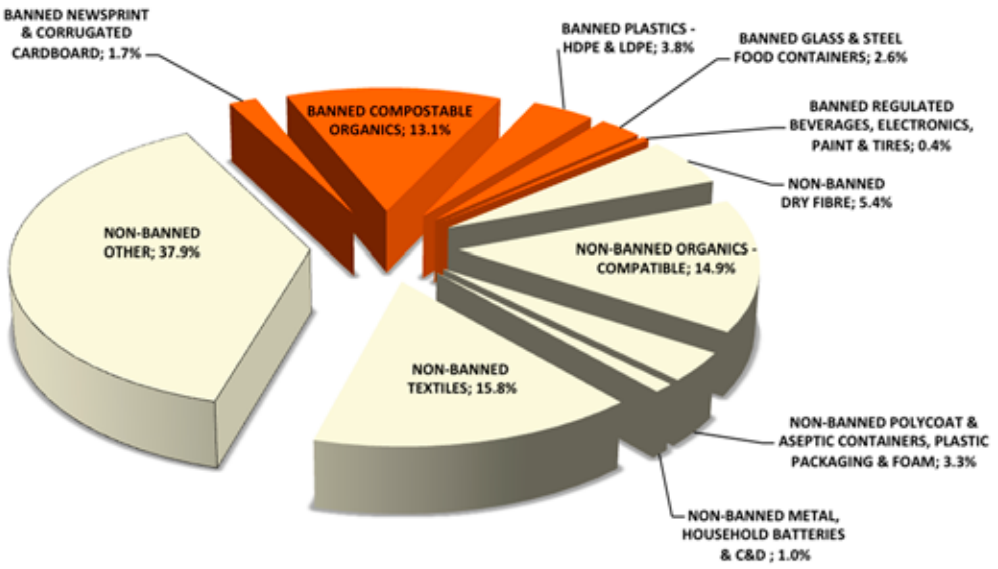
Simplified Protocol Samples – by Transfer Station (cont'd)



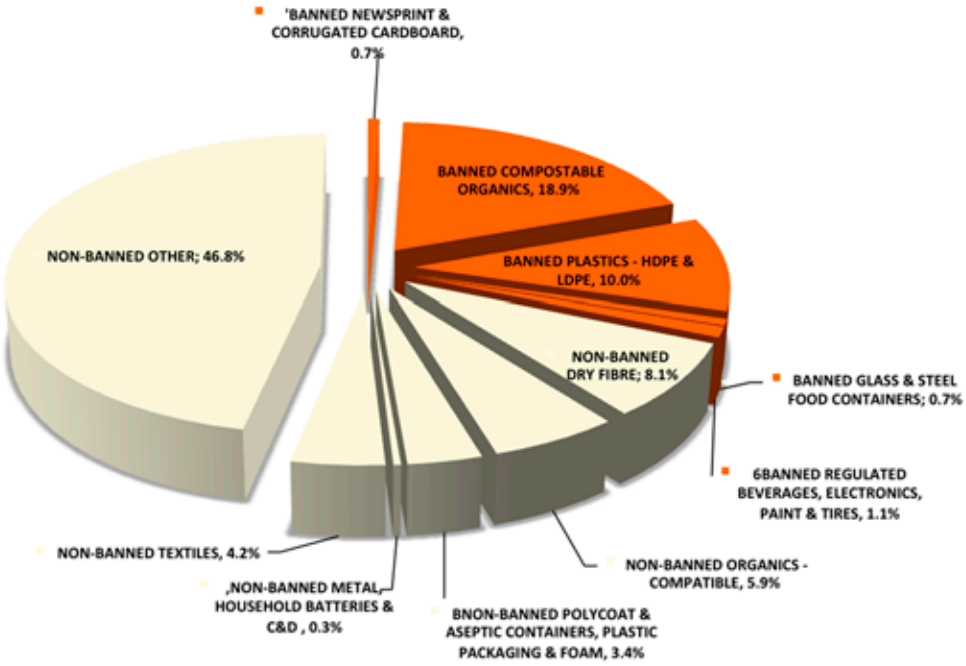
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Valley East: Banned & Non-Banned Residential



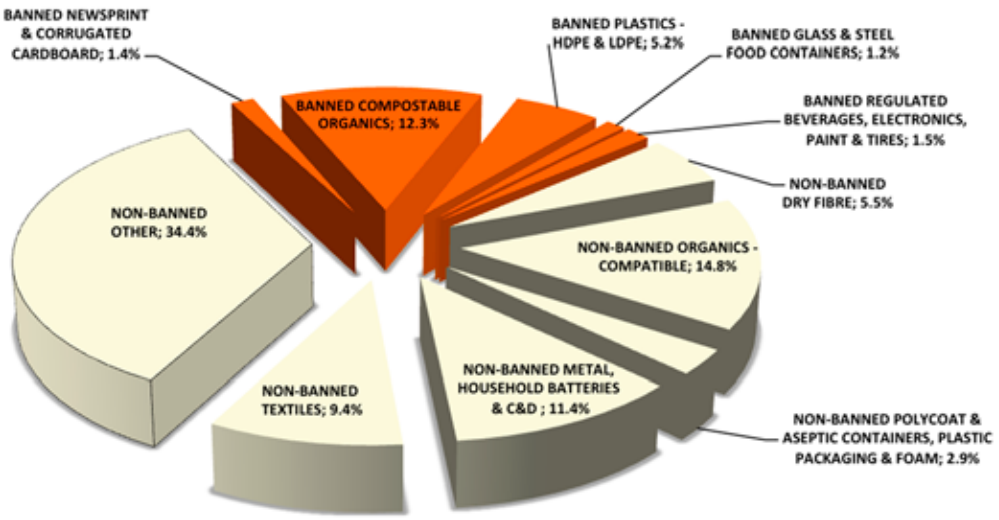
Valley East: Banned & Non-Banned ICI



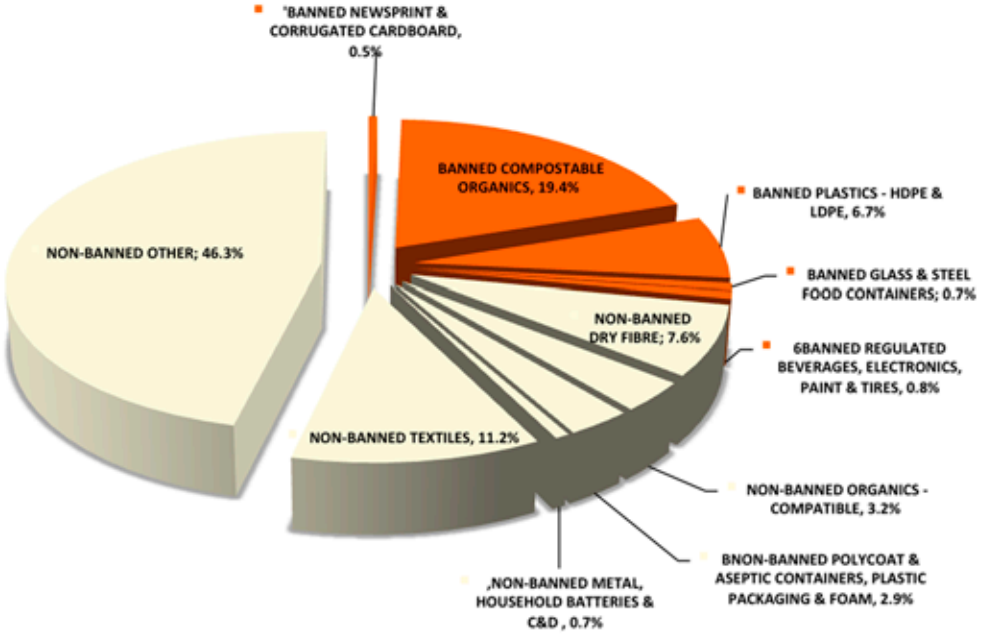
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Valley West: Banned & Non-Banned Residential



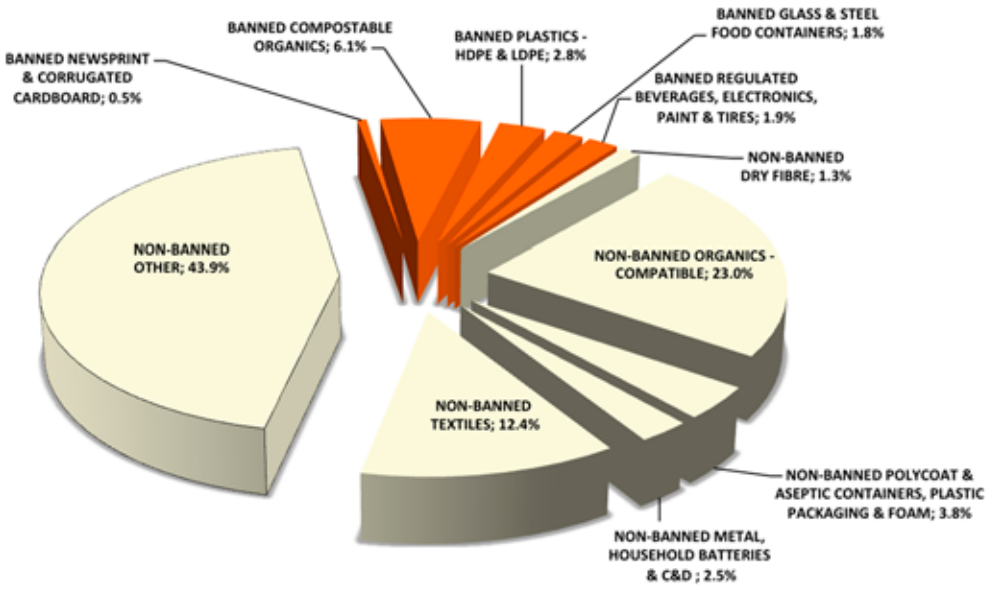
Valley West: Banned & Non-Banned ICI



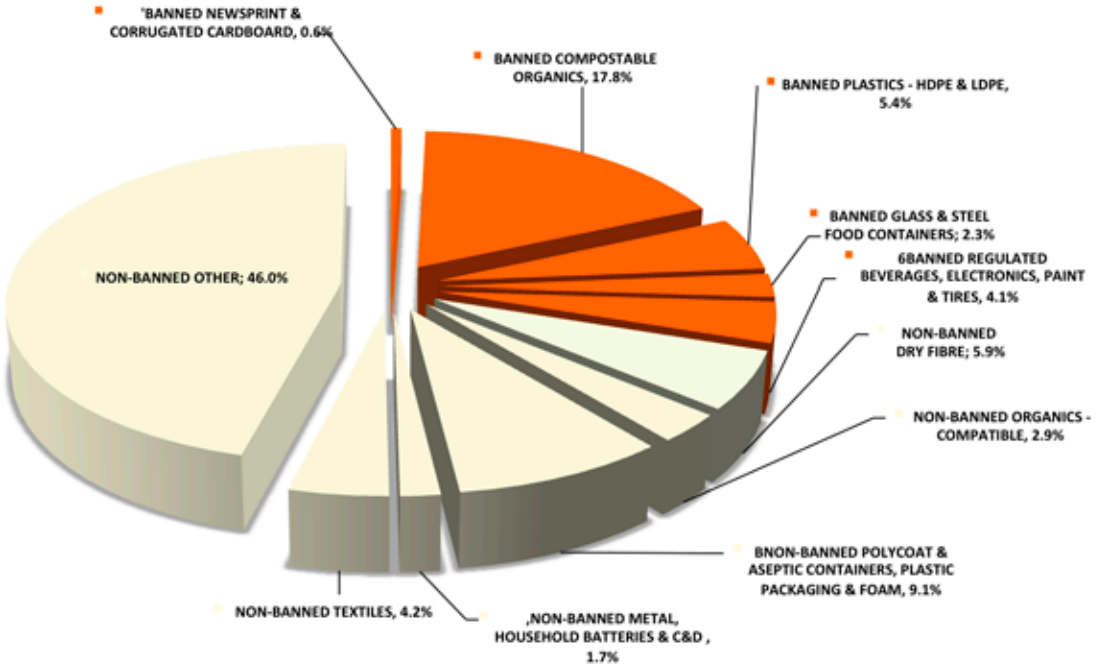
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Lunenburg: Banned & Non-Banned Residential

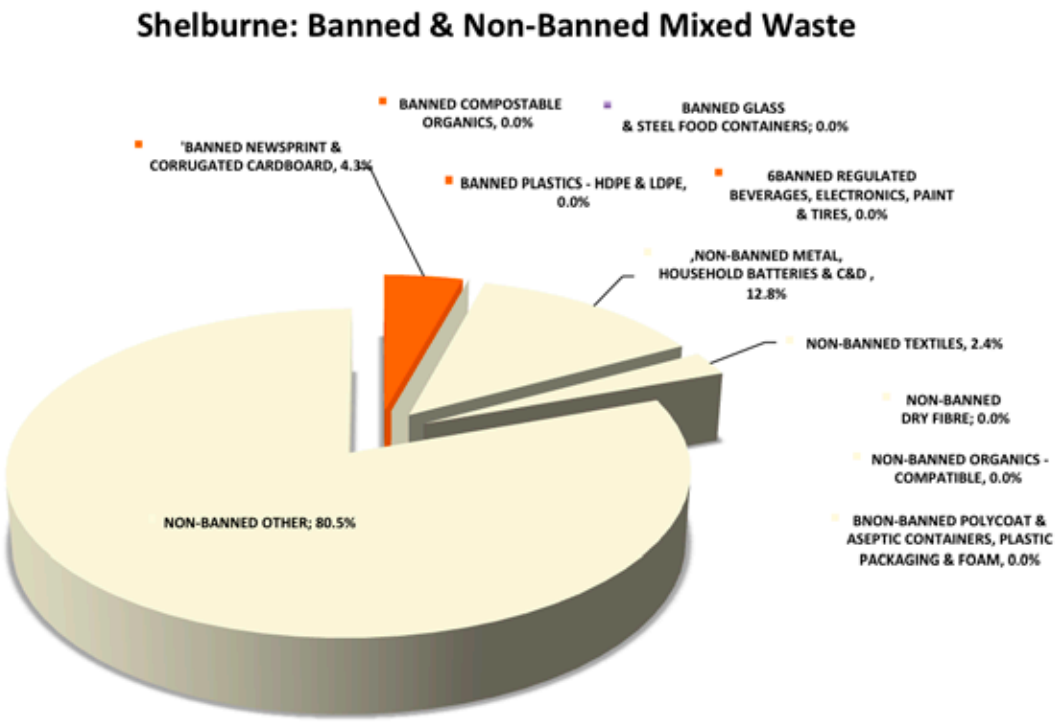


Lunenburg: Banned & Non-Banned ICI



Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

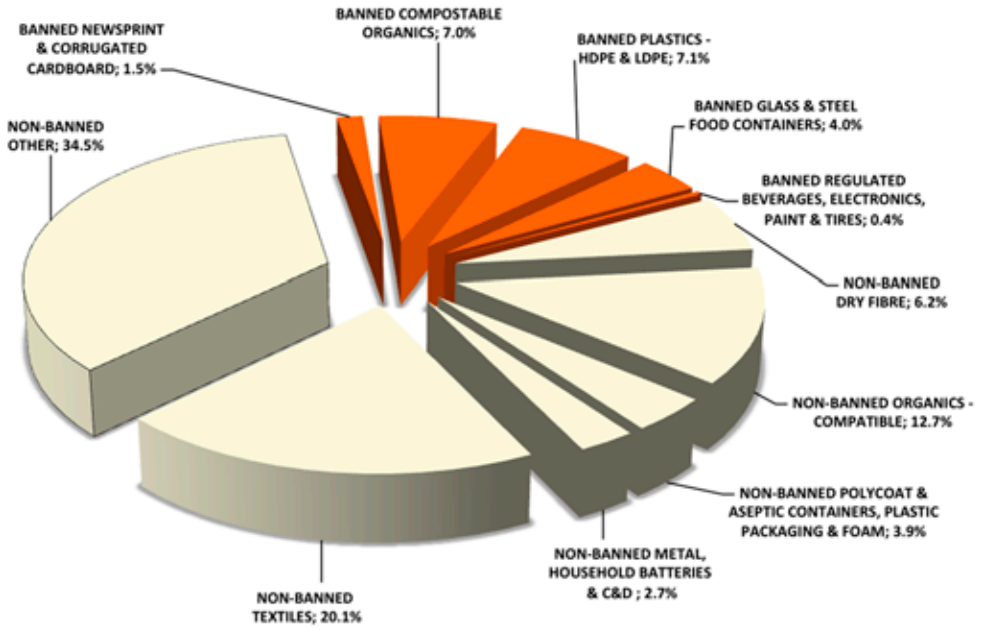
Simplified Protocol Samples – by Transfer Station (cont'd)



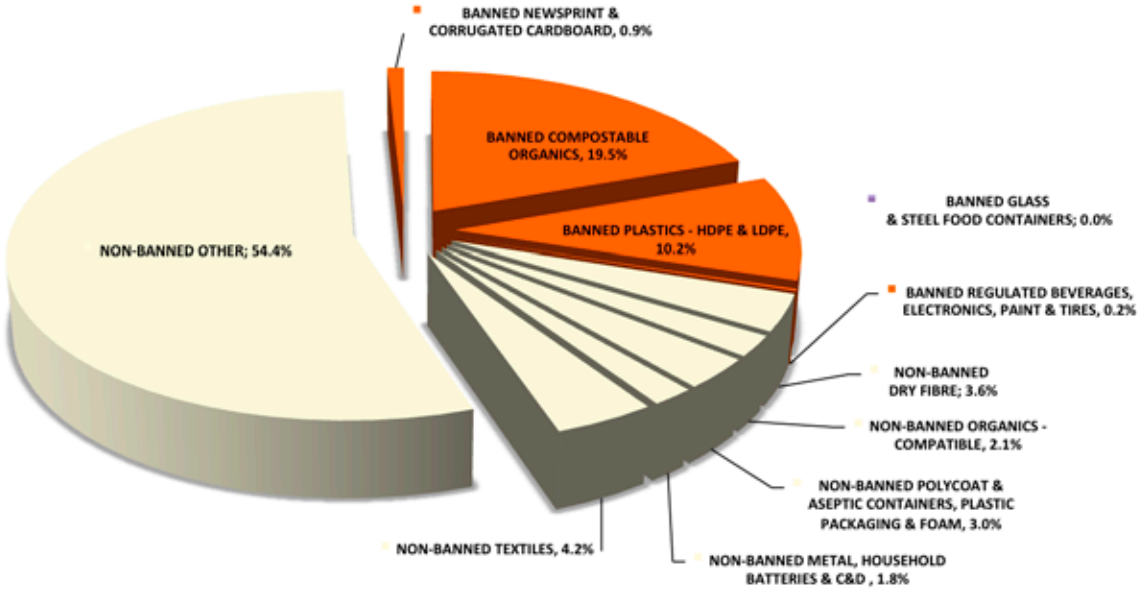
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Yarmouth: Banned & Non-Banned Residential



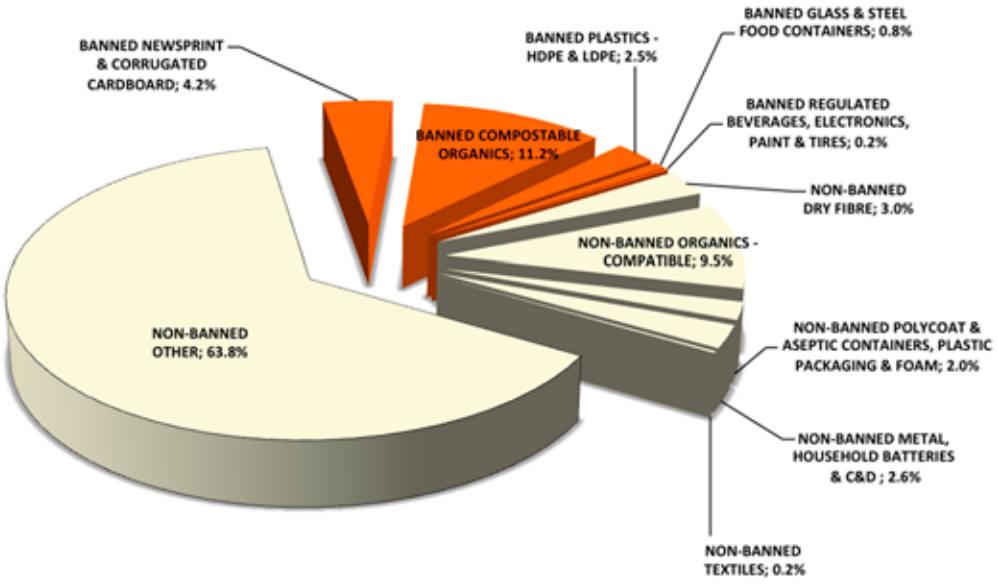
Yarmouth: Banned & Non-Banned ICI



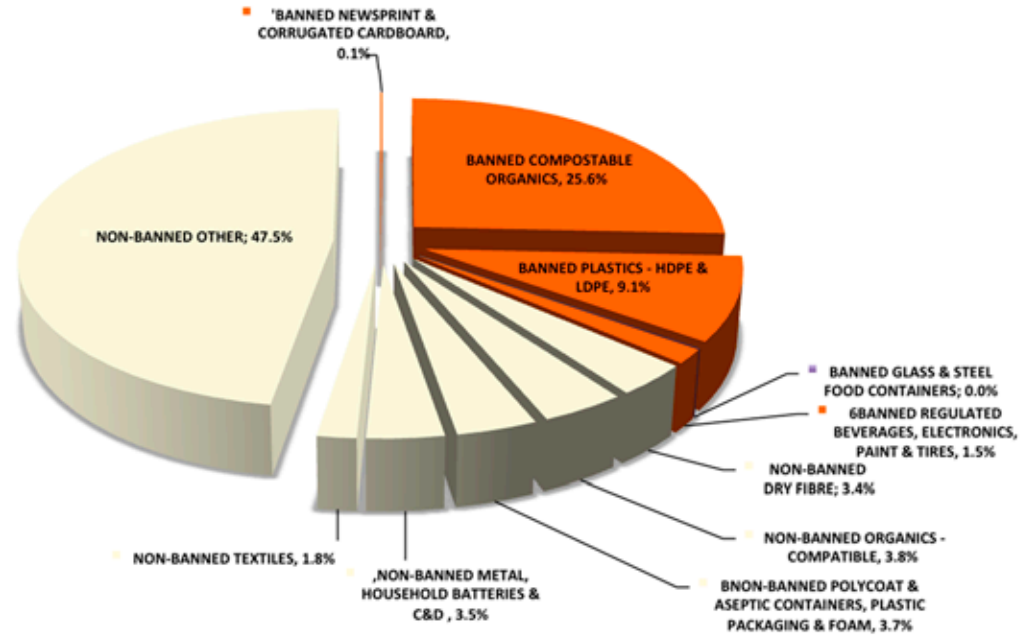
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Clare: Banned & Non-Banned Residential



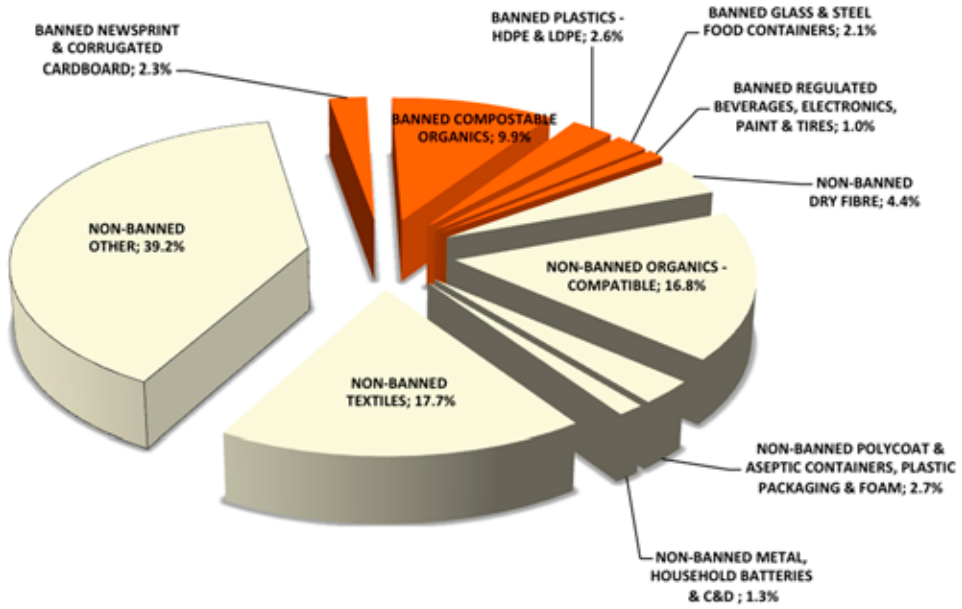
Clare: Banned & Non-Banned ICI



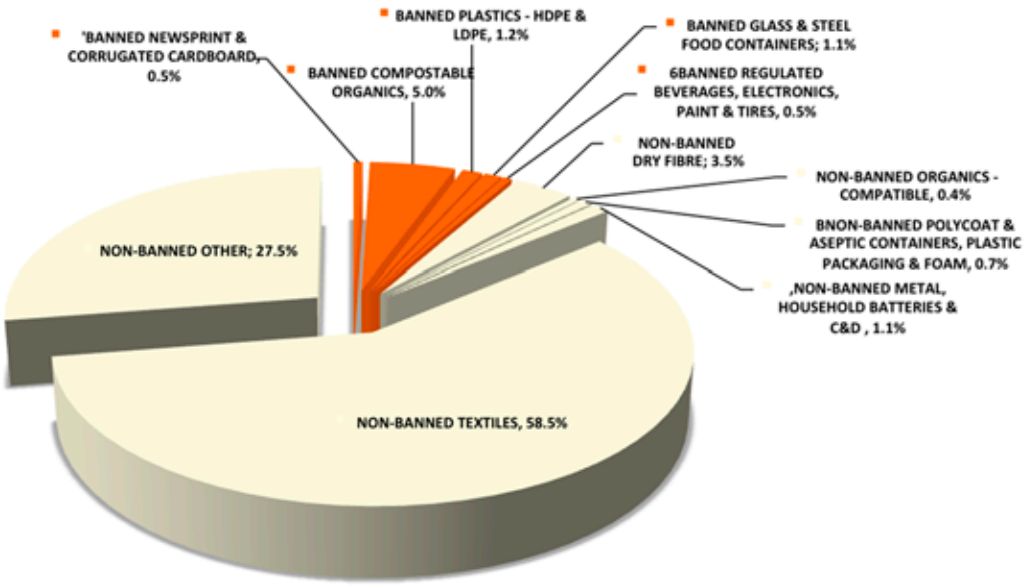
Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Simplified Protocol Samples – by Transfer Station (cont'd)

Digby: Banned & Non-Banned Residential



Digby: Banned & Non-Banned ICI



Abbreviations: C&D – Construction and Demolition waste; ICI – Industrial, Commercial and Institutional waste; SCW – Special Care Waste
Due to rounding, percentages may not add up to exactly 100.0%

Notes