

Region of Durham Large Blue Box Container Study

Waste Audit and Trend Analysis Report

December 2011



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Prepared for

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&
Region of Durham

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EXECUTIVE SUMMARY

In order to help achieve its 70% waste diversion target, the Region of Durham (the Region) decided to increase the available capacity of recyclables to its residents by distributing a larger capacity Blue Box to each household receiving municipal waste collection in the Region. Since the Region operates under a two-stream (fibres and containers) recycling system, the new Blue Box was specifically designed for capturing recyclable containers.

In addition to providing partial funding for the purchase and distribution of the blue boxes, the Continuous Improvement Fund (CIF) funded a study to monitor the impact of the rollout of the new larger Blue Boxes. One series of monitoring waste audits was completed in 2010 and another was completed in 2011. The first monitoring audit was conducted in 2010 over a total of four weeks, one two week period prior to rolling out of the new Blue Boxes (pre-rollout), and one two week period after rolling out of the new Blue Boxes (post-rollout). The second series of monitoring audits consisted of a two week period in June of 2011 and another two week period in November of 2011.

During the study, AET staff surveyed a total of 1,000 households throughout the Region gathering data on set-out rates for the organics, garbage and both recycling streams (fibres and containers). The survey also looked at the amount of mixed recycling set-outs (containers and fibres in one Blue Box) as well as the number of households setting out alternative bins (laundry baskets, storage containers, large tubs, etc.) instead of the standard Blue Box style containers. A comparison of the data gathered during each of the four waste audits from June 2010 to November 2011 revealed the following:

- Participation in the garbage stream has remained relatively constant over time, while the number of garbage items and full container equivalents set out per household per week has decreased when compared to the June 2010 levels.
- Participation in the overall recycling stream (combined containers and fibres streams) has steadily increase over time, from its lowest during the June 2010 audit, at 77.32% to its highest during the most recent November 2011 audit, at 80.11%. In addition, the number of recycling containers set out per household per week has also increased from 1.57 items/hh/wk, to approximately 1.67 items/hh/wk during each subsequent audit.
- Participation in the organics stream has decreased over time, from 68.97% during the June 2010 audit, to 65.57% during the most recent 2011 audit; while the number of organics items and full container equivalents set out per household per week has remained constant over the course of the four waste audits.
- The amount of mixed recycling set-outs decreased significantly during the November 2010 audit directly after the Blue Box rollout, when mixed recycling set outs dropped by 30.92%. However, the percentage of households with mixed

- recycling set-outs increased during both the June 2011 and November 2011 audits.
- The percentage of households setting out alternative containers decreased directly after the rollout of the new Blue Box but increased during both of the 2011 audits. When compared to the pre-rollout audit in June 2010, the percentage of households setting out alternative containers is lower in each of the subsequent audits.
 - The average weight of material set out in the containers stream was higher in each of the audits after the Blue Box rollout. The largest increase in recyclable containers set out was notice directly after the rollout when the net weight of recyclable containers stream material set out increased from 1.76 kg per bin/Blue Box before the rollout, to 2.14 kg per bin/Blue Box after the rollout, an increase of 21.64%.
 - The average density of the containers stream set-out and the density of the containers stream material remained relatively constant over time, although the density of the average set-out and the density of the containers stream material did drop slightly during the 2011 audits.

In order to conduct the waste composition audit, AET staff collected garbage from 100 households, and recyclable containers from 250 households out of the 1,000 households surveyed. After analysing the data resulting from the audit of the collected material over the four waste audits, the following conclusions can be made:

- The amount of material being generated in the garbage stream has increased over time, from a low of 280.75 kg/hh/yr during the June 2010 audit, to a high of 361.36 kg/hh/yr during the June 2011 audit.
- The total amount of recyclable containers being set out has gradually increased over time, from 65.78 kg/hh/yr in June 2010, to a high of 79.01 kg/hh/yr in November 2010. In addition, each of the 2011 waste audits had containers stream generation at over 70 kg/hh/yr
- Contamination rate in the containers stream has increased over the course of the four waste audits from 9.14% during the June 2010 audit, to over 13% during both the 2011 audits.

The results of the Blue Box study indicate that more residents are participating in the recycling stream and that more material is being generated in the containers stream as a result of the new Blue Boxes being rolled out. However, contamination rates in the containers stream have also increased, indicating that ongoing promotion and education is still necessary to ensure the correct materials end up in the recycling stream. Overall diversion rates are not reported in this document due to the fact that a large percentage of the waste generated was unknown since the organic stream and recyclable fibres stream were not audited.

1.0 INTRODUCTION

1.1 Definitions

Capture Rate:	The capture rate is the percentage of a recyclable material collected, out of the total amount of that material generated. It is an excellent indicator of how well a recycling program is working for a particular material.
Contamination Rate:	The percentage of material in a recycling or organics bin that is not accepted in the program. A high contamination rate may lead to the hauler not accepting the material for the diversion program and redirecting the material for disposal.
Diversion Rate:	The diversion rate is the percentage of the total waste generated that is diverted from disposal into the curbside recycling/organics programs.
Garbage Stream:	Material that is collected for disposal rather than diversion. It will include divertible material where the diversion programs are not operating at 100% efficiency. This material is sometimes referred to as residual waste.
MHSW:	Municipal Hazardous or Special Waste is material that is potentially harmful to the environment and should be disposed of through special handlers.
Organics:	Refers to material that can be composted. The material accepted in an organics program is dependent on the type of composting facility accepting the material, how it is processed and what quality of processed material is desired.
Participation Rate:	Unless otherwise stated, the participation rate represents the proportion of households on any given collection day that have an item set out in a particular stream. This does not represent the proportion of households that participate in a particular stream at some point over a period of time (e.g. set out once every two weeks or once per month).
Recycling Stream:	Material that is placed in the Region's curbside Blue Box program.

1.2 Background

In 2008, Durham Regional Council set an aggressive waste diversion goal of 70%. In order to achieve this goal it was determined that an important step would be to increase the existing capture rate for recyclables in the blue box program. The Region of Durham's Blue Box program currently operates on a two stream system, with residents setting out recyclable fibres and recyclable containers in separate containers, on a weekly basis. A previous report by Golder Associates Limited identified that the capacity of the existing Blue Box was a barrier to increasing recyclable capture rates. In order to remove this barrier, the Region decided to provide residents with a larger (83L) Blue Box for the containers stream. Prior to this decision, residents had been provided with a single 53L Blue Box, and had to purchase another recycling bin/container in order to correctly participate in the Region's two stream recycling program.

In addition to providing partial funding for the purchase and distribution of the blue boxes, the Continuous Improvement Fund (CIF) funded a study to monitor the impact of the rollout of the new larger Blue Boxes. One series of monitoring waste audits was completed in 2010 and another was completed in 2011. The first monitoring audit was conducted in 2010 over a total of four weeks, one two week period prior to rolling out the new Blue Boxes (pre-rollout), and one two week period after rolling out the new Blue Boxes (post-rollout). The second series of monitoring audits consisted of a two week period in June of 2011 and another two week period in November of 2011. Each audit consisted of two main components: participation and volume density survey, and a detailed waste composition audit of the garbage and container recycling stream. The participation and volume density survey encompassed 1,000 selected households from across the Region while the waste composition audit component was conducted from a sample of 200 of those households. The study was conducted in 7 of the 8 municipalities across the Region, the municipality of Brock being excluded. Results gathered during the study period will be used to assess the effectiveness of the new Blue Boxes to increase capture rates as well as determine current participation rates, contamination rates, and diversion rates.

Durham Region and CIF retained AET Consultants to perform the waste composition and volume density study. The following report details the results of the 2011 waste audits conducted from June 13th to June 24th, 2011 and from November 14th to November 25th, 2011 as well as provides a final trend analysis comparing the results of the 2010 and 2011 waste audits.

1.3 Objectives

The Region of Durham Blue Box study was intended to accomplish the following objectives when considering the Region's current program:

- Collect accurate single family household waste generation and composition data from municipalities across the Region;
- Calculate various program performance measures such as generation, diversion, capture and contamination rates;
- Determine the effect of distributing larger blue boxes on the generation and capture rates for the recyclable containers stream

1.4 Scope

The scope of the study included a participation and volume density analysis of 1,000 single-family households located across Durham Region, looking at the organics, garbage and recycling streams, as well as a comprehensive waste composition audit of the garbage and recyclable containers stream for 100 of those households over a series of monitoring periods during 2010 and 2011.

2.0 METHODOLOGY

2.1 Participation and Volume Density Study

The sample areas for the study was provided by the Region of Durham and included 1,000 households which were surveyed over two, two week periods in 2010: once prior to rolling out the new Blue Boxes, and again after the new Blue Box rollout. This same format was followed during the monitoring audits conducted in 2011. Each day, 200 households were surveyed from two different municipalities within the Region. Over the course of the week a total of 10 different areas were surveyed and included households from Whitby, Oshawa, Brooklyn, Bowmanville, Courtice, Pickering, Scugog, Ajax and Uxbridge. The areas chosen represented various demographics and single-family housing types across the Region. In 2010 households were surveyed from June 14th to June 28th, 2010 (pre-rollout) and from November 15th to November 26th, 2010 (post rollout). Once again in 2011 the same households were sampled from June 13th to June 24th, 2011 and from November 14th to November 25th, 2011.

In each of these areas, the addresses of the homes were recorded, along with the number of cans/green bins, bags and the approximate amount of garbage, organics and recyclable material set out for each home measured in terms of full cans/bins/bag equivalents. Both the recyclable streams (fibres and containers) were also weighed at the curb to facilitate the volume density analysis.

In order to estimate the volume of recyclable material being set out, recycling containers were classified as small, medium, and large with respective volumes of 40L, 60L, and 83L. In classifying the various types of recycling containers this way, the volume of a set-out could be estimated by multiplying the observed fullness of the bin/container by the estimated capacity of that bin/container, whether small, medium or large. This method was devised to account for the numerous types of recycling containers observed during the study period (laundry baskets, storage containers, garbage bins, etc.) and estimate the associated volume of material in those containers. The households in the study area that set out mixed recycling (fibres and containers in one Blue Box) were also noted, along with the number of alternative bins (non Blue Box containers) being set out at each household. Refer to Figure 2.1 for photos illustrating sample collection and household surveying.



Figure 2.1 Collection and Surveying of Curbside Material

2.2 Waste Composition Audit

In addition to collecting curbside set-out data on the 1,000 households, the garbage and container recycling stream from 200 of the sampled households was collected for a detailed waste composition audit. For this component of the study, the garbage and container recycling stream was collected from 10 consecutive homes in each of the 10 areas over the course of the week. Collection was repeated again during the second week in order to observe a complete bi-weekly waste generation cycle. An additional subset of 15 households in each area had recyclable containers collected and audited. This additional data was used to reveal more accurate generation rates for the container Blue Box stream specifically. It should be noted that some material had been collected by the Region's waste contractor, prior to the time of the audit team's arrival, and as such, the number of households sampled had to be adjusted. AET made a minimum of two passes through each sample area on collection days, beginning no earlier than 7:30 a.m. All material collected by AET was taken to the storage facility located adjacent to the Region's Material Recovery Facility in the town of Whitby at 4590 Garrard Road, to be audited by AET Staff.

2.3 Material Sorting Process

All of the material collected during the sampling period was sorted and weighed. Garbage and recyclable containers were sorted and weighed separately for each sample day. Refer to Figure 2.2. At the conclusion of the waste audit, the daily results were combined to yield an accurate representation of garbage and containers stream recycling generation for the Region of Durham. Samples were sorted into 7 major waste groups: Paper, Plastic, Metal, Glass, Household Special Waste, Organics and Other Waste. Under these 7 waste groups were 94 sub-material categories. Waste categories were adapted from Stewardship Ontario's waste audit protocol. The full list of sort categories and descriptions of those categories can be found in Appendix E.

Separated waste was collected in Blue Boxes, based on the 94 material categories, and weighed individually. In order to weigh each material category accurately, the Blue Boxes were weighed empty and then tared to remove the weight of the container. Subsequent Blue Boxes weighed would then represent the net sample weight for each material category. This process was repeated for each sample area. The material weights were measured using a digital BLS Briefcase 40 scale measuring to the nearest 1/100th kilogram and then recorded. After being weighed, material from the garbage stream was dumped into a dumpster located inside the sorting facility. Material collected from the recycling stream was separated into two streams: fibres and containers, and placed into separate bins, which were also located inside the sorting facility. Audited material was handled by the Region's staff at the conclusion of each two week audit period.



Figure 2.2 Physical Sorting of Garbage and Recyclables

2.4 Calculations

Kilograms Per Household Per Year (kg/hh/yr):

$$\left(\frac{\text{Material weight (kg) all sample areas}}{\text{\# of households sampled}} \right) \times 365 (\text{\# days per year})$$

$$14 (\text{\# of days of material generation})$$

Recycling Contamination Rate:

$$\left(\frac{\text{Weight of Garbage Material in Recycling Stream (kg)}}{\text{Total Weight of Material in Recycling Stream (kg)}} \right) \times 100$$

Recyclable Capture Rate:

$$\left(\frac{\text{Weight Captured in Recycling Stream (kg)}}{\text{Weight in Recycling Stream} + \text{Weight in Garbage Stream (kg)}} \right) \times 100$$

Diversion Rate:

$$\left(\frac{\text{Weight of material diverted}}{\text{Total weight of material generated}} \right) \times 100\%$$

Density of Recycling Set Out:

$$\left(\frac{\text{Gross Weight of Set - Out (Kg)}}{\text{Estimated Total Capacity of Blue Box (L)}} \right) \times 100\%$$

Density of Recyclable Material Set Out:

$$\left(\frac{\text{Net Weight of Recyclable Material (Kg)}}{\text{Estimated Total Capacity of Blue Box (L)}} \right) \times 100\%$$

2.5 Assumptions

The assumptions used when assessing the waste audit results are as follows:

- That the single-family sample areas selected for auditing are representative of single-family households across the Region of Durham.
- That the Region of Durham single-family household recycling capture rates calculated during the audit period remain constant throughout the year.

3.0 RESULTS AND DISCUSSION

The following section provides a summary of the results from the curbside collection and surveying of single-family homes from the Region during the 2011 audits. Results from the June 2011 audit are presented first, followed by the November 2011 audit. Waste generation trends with respect to the 2010 audits will be discussed in more detail in section 3.6.

3.1 June 2011 Waste Audit Collection Results

A summary of set-out rates for the sampled households during the June 2011 audit is provided in Table 3.1. A total of 1,000 households were sampled over a two week period, from June 13th to June 24th, 2011.

It should be noted that the number of households sampled each week had to be adjusted to omit those households where material was picked up by the Region's collection contractor before AET's arrival. AET staff made every reasonable attempt to collect waste from each of the audited households by making no less than two passes at each location.

During the first week of the 2011 audit (June 13-17) a total of 2 of the 1,000 households scheduled to be sampled had the organics stream collected before AET's arrival, making the adjusted households sampled for organics 998. The same two houses also had the recycling stream collected before AET's arrival, making the adjusted households sampled for recycling 998. None of the garbage stream was collected during the first week so the total number of households sampled remained at 500 (1,000 households on a bi-weekly garbage cycle).

During the second week of the audit (June 20-24), the same 1,000 households were sampled. During this week a total of 64 of the 1,000 households scheduled to be sampled had the organics and garbage streams collected before AET's arrival, making the adjusted households sampled 936 for the organics stream, and 436 for the garbage stream. In addition, 63 of the 1000 households had the recycling stream collected making the adjusted households sampled for this waste stream 937. The averages calculated in the table represent all sampled households (including those with no set-out, but not those collected by the hauler) and do not represent the average for just the subset of households with set-outs.

Table 3.1 June 2011 Collection Results Summary

Total Two Week Period		Organics	Recycling	Garbage
Total number of households sampled ¹	Wk 1-	998	998	500
	Wk 2-	936	937	436
	Total	1934	1935	936
Total number of household set-outs	Wk 1-	590	765	436
	Wk 2-	573	765	391
	Total	1163	1530	827
Participation Rate ²		67.23%	79.07%	88.35%
Total number of items	Wk 1-	594	1624	1151
	Wk 2-	578	1615	1010
	Total	1172	3239	2161
Average number of items/hh/wk ³		0.61	1.67	1.15
Total number of full container equivalents	Wk 1-	258.75	1218.25	1090.25
	Wk 2-	248.50	1208.50	975.25
	Total	507.25	2426.75	2065.50
Average number of full container equivalents/hh/wk		0.26	1.25	1.10
Average number of full container equivalents/set-out		0.44	1.59	1.25

¹ Number of households sampled is adjusted to omit those households that were picked up by hauler prior to the audit

² Organics participation is the proportion of households that had a set out at least once over the two week period.

³ Averaged across all sampled households (including those with no set-outs, but not those collected by hauler). This does not represent the average per household with a set-out.

In combining the collection results over the two week sample period for all sampled municipalities in the Region, it was observed that residents set out an average of 1.15 garbage containers each week (2.30 items per two-week generation period) with an average full container equivalent of 1.10 (2.20 full container equivalents per two-week generation period) and an overall participation rate of 88.35% for that stream. Residents also set out an average of 1.67 recycling containers each week, with an average full container equivalent of 1.25 and an overall participation rate of 79.07% for that stream. Looking at the organics stream, residents set out an average of 0.61 green bins each week with an average full container equivalent of 0.26 and an overall participation rate of 67.23%.

3.1.1 Households that Set Out Recycling at Least Once Every Two Weeks

In order to account for households that only generate a small amount of recyclable material or tend to hold on to their recycling bins until they are full, the proportion of households that set out recycling at least once during the two week period was calculated, in a similar way to the organics participation rate calculation. As long as a household had at least one bin/Blue Box set out during the two week period, they would be counted in this percentage. Based on this criteria, the proportion of households that set out recycling at least once over the two weeks in June of 2011 was 90.18%.

3.1.2 June 2011 Mixed Recycling Set-Outs

In addition to noting the quantity and fullness of all waste streams set out at the curb, the number of residents with mixed recycling set-outs was also recorded. Currently, the Region's Blue Box program operates as a two-stream system with recyclable fibres and containers set out in separate Blue Boxes. Contrary to this program, a small percentage of residents set out recyclable fibres and containers together in one Blue Box. For the purposes of this study, recycling set-outs that had fibres and containers together in one Blue Box (or other type of bin) were classified as mixed recycling set-outs, and noted separately. Table 3.2 summarizes the mixed recycling set-outs observed during the June 2011 audit.

Table 3.2 June 2011 Summary of Mixed Recycling Set-Outs

	Week 1	Week 2	Two Week Period
Total Number of Recycling Set-Outs	765	765	1530
Number of households with Mixed Recycling Set-Outs	83	80	163
Percentage of households with Mixed Recycling Set-Outs	10.85%	10.46%	10.65%

During the first week of the study, 83 households had mixed recycling set-outs, out of a total of 765 recycling set-outs for the week. During the second week, 80 households had mixed recycling set-outs, out of a total of 765 recycling set-outs for the week. Over the two-week period, 163 households had mixed recycling set-outs out of a total of 1530 recycling set-outs. This means that approximately 10.65% of households with recycling set out mixed the two streams (fibres and containers) in one or more Blue Boxes/containers.

3.1.3 June 2011 Alternative Recycling Bins Set-Outs

During the course of the study it was observed that households used a variety of recycling containers to set out their recyclables. Prior to the rollout of the larger Blue Boxes, residents were provided with one Blue Box from the Region and were responsible for getting one additional bin/container to participate in the two stream Blue Box program. This resulted in a number of alternative recycling bins being set out at the curb ranging from laundry baskets to large garbage bins. During the survey portion of the study, the number of alternative bins set out at each household was noted. All non-Blue Box type containers were classified as alternative bins including laundry baskets, grocery bins, storage containers, garbage bins, large tubs, etc. A summary of this data can be found in Table 3.3.

Table 3.3 June 2011 Summary of Alternative Recycling Bin Set-Outs

	Week 1	Week 2	Two Week Period
Total Number of Recycling Containers Set-Out (All Types)	1624	1621	3245
Total Number of Alternative Bins Set-Out	121	120	241
Percentage of Alternative Bins Per Set-Out	7.45%	7.40%	7.43%
Number of Households That Set Out Alternative Bins	89	96	185
Percentage of Households That Set-Out Alternative Bins	11.63%	12.55%	12.09%

Over the two week period in June 2011, a total of 3,245 recycling containers were set out at the curb. Out of this amount, 241 were alternative bins, representing 7.43% of the total recycling containers set out. In addition, 185 households set out alternative recycling bins during the two week period. This means that 12.09% of households with recycling set-outs were using alternative recycling containers during the June 2011 audit period.

3.1.4 June 2011 Volume Density Analysis of Containers Stream

The following section pertains to the Blue Box containers stream only. As mentioned earlier, Blue Box containers set-outs were counted and weighed in each area during the study. All weight measurements represent the gross weight of the set-out, and include the weight of the bin/Blue Box itself, unless otherwise noted. Due to the large variety and styles of recycling containers observed during the study, it was not feasible to account for the tare weight of each individual bin while surveying. However, it was possible to calculate an average tare weight for a recycling receptacle during the June 2011 audit in order to estimate the average net weight of recyclable materials per set-out. Based on curbside set out weights and the corresponding waste audit results, the average tare weight of a recycling receptacle observed during the June 2011 audit period was approximately 1.91 kg.

The total capacity of the recycling container set out was also estimated by classifying the container as small (40L), medium (60L) or large (83L). The density of the set-out was then calculated by dividing the weight of a set-out by the total capacity of recycling containers set out for that stream. This density will represent the density of the set-out and does not represent the density of the material itself. The density of the recyclable material was also calculated by dividing the average net weight of recyclable material set out by the total capacity of recycling containers set out for that stream. Table 3.4 summarizes the results of the volume density analysis for the containers stream during the June 2011 audit.

Table 3.4 June 2011 Volume Density Analysis Summary

Containers Stream - Two Week Period	Monday (Whitby)	Monday (Oshawa)	Tuesday (Clarington)	Tuesday (Oshawa)	Wednesday (Whitby)	Wednesday (Courtice)	Thursday (Scugog)	Thursday (Pickering)	Friday (Ajax)	Friday (Uxbridge)	Total All Areas
Total Weight of Set-outs (Kg)	568.85	548.99	414.37	283.15	626.12	568.85	506.99	530.69	541.71	627.54	5217.26
Total Number of Households with a Bin/Blue Box Set Out	148	143	109	72	163	137	118	126	137	151	1304
Average Weight of Set Out, per Household (Kg/HH)	3.84	3.84	3.80	3.93	3.84	4.15	4.30	4.21	3.95	4.16	4.00
Total Number of Bins/Blue Boxes Set Out	158	151	117	75	172	146	132	134	139	152	1376
Average Weight of Set-out, per Bin/Blue Box (Kg) ¹	3.60	3.64	3.54	3.78	3.64	3.90	3.84	3.96	3.90	4.13	3.79
Average Weight of Material Set Out, Per Bin/Blue Box ²	1.69	1.73	1.63	1.87	1.73	1.99	1.93	2.05	1.99	2.22	1.88
Total Capacity of Containers Set Out (L)	11672	10783	8501	5349	12385	10931	9296	9901.6	10262	11124	100205
Average Capacity of Containers Set Out Per Household (L/HH)	78.86	75.41	77.99	74.29	75.98	79.79	78.78	78.58	74.91	73.67	76.84
Average Density of Set-Out per Household (Kg/L)	0.049	0.051	0.049	0.053	0.051	0.052	0.055	0.054	0.053	0.056	0.052
Average Density of Set-Out per Household (Kg/m ³)	49	51	49	53	51	52	55	54	53	56	52
Average Density of Containers Stream Material, per Household (Kg/L)	0.021	0.023	0.021	0.025	0.023	0.025	0.025	0.026	0.027	0.030	0.024
Average Density of Containers Stream Material, per Household (Kg/m ³)	21	23	21	25	23	25	25	26	27	30	24

¹ This represents the gross weight of the set out and includes the weight of the Blue Box as well as its contents.

² Average weight of material was calculated by subtracting the average tare weight of a Blue Box during the June 2011 audit (1.91 kg) from the average weight of the set-out, per Blue Box.

All figures in Table 3.4 represent data gathered over a two week period. Data is broken down by each of the 10 areas sampled during the week to illustrate the differences between the various demographics with regards to containers stream set-outs. Over the two week period, 1,304 households had container stream set-outs. Those set-outs had a combined weight of 5,217,26 kg, which yields an average weight of 4.00 kg per set-out.

In order to account for households that set out more than one bin/Blue Box containing recycling containers, the average weight of the set-out per bin/Blue Box was also calculated. With a total of 1,376 bins/Blue Boxes set out over the two week period, the average weight of the set-out per bin/Blue Box was slightly lower at 3.79 kg. The net weight of recyclable material was then calculated by subtracting an average tare weight of 1.91 kg from the average weight of the set out, to yield an average weight of material set out of 1.88 kg, per bin/Blue Box.

After estimating the volume of all recycling bins/containers set out for the containers stream, the total available volume over the two week period was approximately 100,205 L. This amounts to an average available volume of 76.84 L per Blue Box containers stream set-out. By dividing the average weight of a set-out per household (4.00 kg), by the average available volume per set-out (76.84L), the average density of the set-out was found to be 0.052 kg/L or 52 kg/m³. This density represents the density of the set-out itself and includes the weight of the bin/Blue Box. To determine the density of the recyclable material itself, the average weight of material set out per bin/Blue Box (1.88 kg) was divided by the average available volume per set-out (76.84L), to yield an average density of containers stream material of 0.024 kg/L or 24 kg/m³.

3.2 November 2011 Waste Audit Collection Results

A summary of set-out rates for the sampled households during the November 2011 audit is provided in Table 3.5. The same 1,000 households were sampled again over a two week period, from November 14th to November 25th, 2011.

Again the number of households sampled each week had to be adjusted to omit those households where material was picked up by the Region's collection contractor before AET's arrival. AET staff made every reasonable attempt to collect waste from each of the audited households by making no less than two passes at each location.

During the first week of the November 2011 audit (November 14-18) a total of three of the 1,000 households scheduled to be sampled had the organics stream collected before AET's arrival, making the adjusted households sampled for organics 997. In addition, two of the 1,000 households had their recycling stream and garbage stream collected before AET's arrival, making the adjusted households sampled for recycling 998 and the adjusted households sampled for garbage 498 (1000 households on a bi-weekly garbage cycle).

During the second week of the November 2011 audit (November 21-25), the same 1,000 households were sampled. During this week, just one of the 1,000 households scheduled to be sampled had had the organics stream collected before AET's arrival, making the adjusted households sampled for organics 999. In addition, 73 of the 1,000 households had their recycling stream collected before AET's arrival, making the adjusted households sampled for recycling 923. Garbage had been collected at one of the 500 households during the second week of the November audit so the adjusted number of households sampled was 499 for that stream. The averages calculated in the table represent all sampled households (including those with no set-out) and do not represent the average of just the subset of households with a set-out.

Table 3.5 November 2011 Collection Results Summary

Total Two Week Period		Organics	Recycling	Garbage
Total number of households sampled ¹	Wk 1-	997	998	498
	Wk 2-	999	923	499
	Total	1996	1921	997
Total number of household set-outs	Wk 1-	601	811	526
	Wk 2-	564	728	358
	Total	1165	1539	884
Participation Rate ²		65.57%	80.11%	88.67%
Total number of items	Wk 1-	604	1676	1314
	Wk 2-	569	1530	863
	Total	1173	3206	2177
Average number of items/hh/wk ³		0.59	1.67	1.09
Total number of full container equivalents	Wk 1-	272.75	1213.00	1249.25
	Wk 2-	250.75	1084.00	835.50
	Total	523.50	2297.00	2084.75
Average number of full container equivalents/hh/wk		0.26	1.20	1.05
Average number of full container equivalents/set-out		0.45	1.49	1.18

¹ Number of households sampled is adjusted to omit those households that were picked up by hauler prior to the audit

² Organics participation is the proportion of households that had a set out at least once over the two week period.

³ Averaged across all sampled households (including those with no set-outs, but not those collected by hauler). This does not represent the average per household with a set-out.

In combining the collection results during the two week November 2011 audit, it was observed that residents set out an average of 1.09 garbage containers each week (2.28 items per two-week generation period) with an average full container equivalent of 1.05 (2.10 full container equivalents per two-week generation period) and an overall participation rate of 88.67% for that stream. Residents also set out an average of 1.67 recycling containers each week, with an average full container equivalent of 1.20 and an overall participation rate of 80.11% for that stream.

Looking at the organics stream, residents set out an average of 0.59 green bins each week with an average full container equivalent of 0.26 and an overall participation rate of 65.57%. For the organics stream, households must set out their green bin at least once over the two week period to be counted as participating in the organics program.

3.2.1 Households that Set Out Recycling at Least Once Every Two Weeks

In order to account for households that only generate a small amount of recyclable material or tend to hold on to their recycling bins until they are full, the proportion of households that set out recycling at least once during the two week period was calculated, in a similar way to the organics participation rate calculation. As long as a household had at least one bin/Blue Box set out during the two week period, they would be counted in this percentage. Based on this criteria, the proportion of households that set out recycling at least once during the two week November 2011 audit was 90.18%.

3.2.2 November 2011 Mixed Recycling Set-Outs

During the November 2011 audit, the number of residents with mixed recycling set-outs was noted. Recycling set-outs that had fibres and containers together in one Blue Box (or other type of bin) were classified as mixed recycling set-outs, and recorded separately. Table 3.6 summarizes the mixed recycling set-outs observed during the November 2011 audit.

Table 3.6 November 2011 Summary of Mixed Recycling Set-Outs

	Week 1	Week 2	Two Week Period
Total Number of Recycling Set-Outs	811	728	1539
Number of households with Mixed Recycling Set-Outs	100	88	188
Percentage of households with Mixed Recycling Set-Outs	12.33%	12.09%	12.22%

During the first week of the November audit, 100 households had mixed recycling set-outs, out of a total of 811 recycling set-outs for the week. During the second week, 88 households had mixed recycling set-outs, out of a total of 728 recycling set-outs for the week. Over the two-week period, 188 households had mixed recycling set-outs out of a total of 1,539 recycling set-outs. This means that approximately 12.22% of households with recycling set out mixed the two streams (fibres and containers) in one or more Blue Boxes/containers.

3.2.3 November 2011 Alternative Recycling Bins Set-Outs

During the November audit the number of alternative recycling bins set out at each household was noted. All non-Blue Box type containers were classified as alternative including laundry baskets, grocery bins, storage containers, garbage bins, large tubs, etc. A summary of this data can be found in Table 3.7.

Table 3.7 November 2011 Summary of Alternative Recycling Bin Set-Outs

	Week 1	Week 2	Two Week Period
Total Number of Recycling Containers Set-Out (All Types)	1676	1530	3206
Total Number of Alternative Bins Set-Out	122	112	234
Percentage of Alternative Bins Per Set-Out	7.28%	7.32%	7.30%
Number of Households That Set Out Alternative Bins	99	86	185
Percentage of Households That Set-Out Alternative Bins	12.21%	11.81%	12.02%

Over the two week period in November of 2011, a total of 3,206 recycling containers were set out at the curb. Out of this amount, 234 were alternative bins, representing 7.30% of the total recycling containers set out. In addition, the number of households that set out alternative recycling bins during the two week period was 185. This means that 12.02% of households with recycling set-outs were using alternative recycling bins during the November 2011 audit.

3.2.4 November 2011 Volume Density Analysis of Containers Stream

The following section pertains to the Blue Box containers stream only. During the November 2011 audit, Blue Boxes containers set-outs were counted and weighed in each area during the study. All weight measurements represent the gross weight of the set-out, and include the weight of the Blue Box/container itself, unless otherwise noted. Due to the large variety and styles of recycling containers observed during the study, it was not feasible to account for the tare weight of each individual bin while surveying. However, it was possible to calculate an average tare weight for a recycling receptacle during the November audit period in order to estimate the average net weight of recyclable materials per set-out. Based on curbside set out weights and the corresponding waste audit results, the average tare weight of a recycling receptacle observed during the November 2011 audit was approximately 1.96 kg. Table 3.8 summarizes the results of the volume density analysis for the containers stream during the two week November 2011 audit.

Table 3.8 November 2011 Volume Density Analysis Summary

Containers Stream - Two Week Period	Monday (Whitby)	Monday (Oshawa)	Tuesday (Clarington)	Tuesday (Oshawa)	Wednesday (Whitby)	Wednesday (Courtice)	Thursday (Scugog)	Thursday (Pickering)	Friday (Ajax)	Friday (Uxbridge)	Total All Areas
Total Weight of Set-outs (Kg)	588.56	561.54	419.64	367.57	603.51	321.83	549.57	492.81	530.79	572.79	5008.61
Total Number of Households with a Bin/Blue Box Set Out	149	140	114	99	149	81	136	121	143	136	1268
Average Weight of Set Out, per Household (Kg/HH)	3.95	4.01	3.68	3.71	4.05	3.97	4.04	4.07	3.71	4.21	3.95
Total Number of Bins/Blue Boxes Set Out	153	147	118	101	156	82	145	127	144	140	1313
Average Weight of Set-out, per Bin/Blue Box (Kg) ¹	3.85	3.82	3.56	3.64	3.87	3.92	3.79	3.88	3.69	4.09	3.81
Average Weight of Material Set Out, Per Bin/Blue Box ²	1.89	1.86	1.60	1.68	1.91	1.96	1.83	1.92	1.73	2.13	1.85
Total Capacity of Containers Set Out (L)	11116	10836	8593	7386	11086	5829	10529	9437	10504	10209	95525
Average Capacity of Containers Set Out Per Household (L/HH)	74.60	77.40	75.38	74.61	74.40	71.96	77.42	77.99	73.45	75.07	75.34
Average Density of Set-Out per Household (Kg/L)	0.053	0.052	0.049	0.050	0.054	0.055	0.052	0.052	0.051	0.056	0.052
Average Density of Set-Out per Household (Kg/m ³)	53	52	49	50	54	55	52	52	51	56	52
Average Density of Containers Stream Material, per Household (Kg/L)	0.025	0.024	0.021	0.023	0.026	0.027	0.024	0.025	0.023	0.028	0.025
Average Density of Containers Stream Material, per Household (Kg/m ³)	25	24	21	23	26	27	24	25	23	28	25

¹ This represents the gross weight of the set out and includes the weight of the Blue Box as well as its contents.

² Average weight of material was calculated by subtracting the average tare weight of a Blue Box during the November 2011 audit (1.96 kg) from the average weight of the set-out, per Blue Box.

All figures in Table 3.8 represent data gathered over a two week period. Data is broken down by each of the 10 areas sampled during the week to illustrate the differences between the various demographics with regards to containers stream set-outs. Over the two week November 2011 audit, 1,268 households had a containers stream set-out. Those set-outs had a combined weight of 5,008.61 kg, which yields an average weight of 3.95 kg per set-out.

In order to account for households that set out more than one bin/Blue Box containing recycling containers, the average weight of the set-out per bin/Blue Box was also calculated. With a total of 1,313 bins/Blue Boxes set out over the two week period, the average weight of the set-out per bin/Blue Box was slightly lower at 3.81 kg. The net weight of recyclable material was then calculated by subtracting an average tare weight of 1.96 kg from the average weight of the set out, to yield an average weight of material set out of 1.85 kg, per bin/Blue Box.

After estimating the volume of all recycling bins/containers set out for the containers stream, the total available volume over the two week period was approximately 95,525 L. This amounts to an average available volume of 75.34 L per Blue Box containers stream set-out. By dividing the average weight of a set-out per household (3.95 kg), by the average available volume per set-out (75.34L), the average density of the set-out was found to be 0.052 kg/L or 52 kg/m³. This density represents the density of the set-out itself and includes the weight of the bin/Blue Box. To determine the density of the recyclable material itself, the average weight of material set out per bin/Blue Box (1.85 kg) was divided by the average available volume per set-out (75.34L), to yield an average density of containers stream material of 0.025 kg/L or 25 kg/m³.

3.3 Waste Composition Audit

The following section summarizes the results from the waste composition audit conducted on the garbage and container recycling stream for single-family homes in the Region. Audit results from the June 2011 audit are presented first, followed by the results from the November 2011 audit. It should be noted that the composition results in this section are based on the 200 sampled households where garbage and container stream material was audited over each two week audit period. Waste generation trends with respect to the 2010 audits will be discussed in more detail in section 3.6.

3.4 June 2011 Waste Composition Audit Results

Table 3.9 illustrates the overall breakdown of single family household curbside waste generated in the Region by weight, during the June 2011 audit. This figure is a representation of total waste and, therefore, includes contributions from the garbage, organics, and recycling streams. However, since the recyclable fibres stream was not

audited, the table only represents divertible material found in the recyclable containers stream. In addition, the organics stream was not audited or weighed at the curb, and as such, the amount of organic material being diverted remains unknown.

Table 3.9 June 2011 Waste Generation Profile

Material Category	Diverted Materials (kg/hh/yr)	Landfilled Divertible Materials (kg/hh/yr)	Landfilled Non-Divertible Materials (kg/hh/yr)	Total (kg/hh/yr)
Paper	3.84*	24.46	23.13	51.44
Plastic	19.18	4.72	69.59	93.49
Metal	11.05	1.25	7.82	20.11
Glass	21.22	1.56	2.83	25.62
Hazardous Materials	N/A	N/A	2.68	2.68
Organic Materials	N/A	105.63	43.92	149.55
Other Materials	N/A	N/A	82.19	82.19
Total (kg/hh/yr)	55.29	137.63	232.16	425.08

*This figure does not include the weight of material captured in the recyclable fibres stream due to the fact that the fibres stream was not audited.

The largest contribution to the waste stream during the June 2011 audit was organic materials, of which 149.55 kg are generated each year per household. Note that this figure is lower than the actual amount of organic material generated since an unknown amount of organic material is also generated in the organics stream (Green Bin program), but this stream was not audited. Plastic materials (mainly durable plastic products, PE packaging film and other rigid plastic packaging) were also a significant contributor to the overall waste generated with 93.49 kg being generated per household per year. Materials in Figure 3.9 have been grouped into 7 primary categories: Paper, Plastic, Metal, Glass, Hazardous Materials, Organic Materials and Other Materials. Please refer to Appendix A for the full list of sub-categories and detailed waste audit results from the June 2011 audit.

3.4.1 June 2011 Garbage Stream Results

Figure 3.1 illustrates the composition of the Region's single-family residential garbage stream by weight, during the June 2011 audit highlighting the materials that could have been captured in the current recycling program. This breakdown represents the combined composition of the garbage stream from the material collected over the two week sample period from June 13th to June 24th, 2011.

The average garbage generation rate was approximately 6.93 kilograms per household, per week (kg/hh/wk), of which 50.52% (3.50 kg/hh/wk) was composed of non-recyclable materials while 40.88% (2.83 kg/hh/wk) consisted of organic material. The remaining 8.60% (0.60 kg/hh/wk) consisted of recyclable materials that could have been captured under the Region's current program.

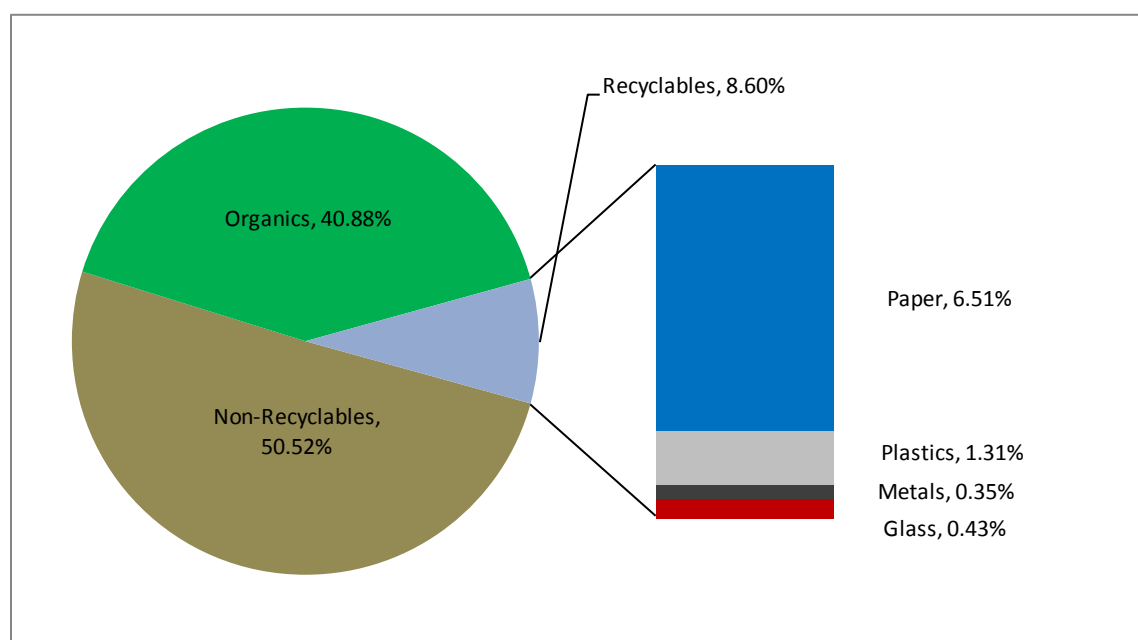


Figure 3.1 Breakdown of June 2011 Garbage Stream (by weight)

Looking closer at the recyclable material categories found in the garbage stream, indicated that recyclable paper was the largest component, at 6.51% of the total garbage stream. This paper component was largely made up of mixed fine paper and boxboard, which accounted for approximately 55.20% of the recyclable paper in the garbage stream. Recyclable plastics contributed 1.31% to the garbage stream and consisted primarily of PET bottles and jars, HDPE bottles and jugs and wide mouth tubs and lids. Smaller contributions to the garbage stream came from glass (0.43%) and metals at 0.35%. These percentages represent materials that are currently accepted under the Region's recycling program.

3.4.2 June 2011 Recyclable Containers Stream Results

Figure 3.2 illustrates the composition of the Region's single family household recyclable containers stream by weight, during the June 2011 audit, highlighting the proportion of materials that are not accepted in the current recycling program (contamination). The breakdown represents the composition of the recyclable containers stream alone, as the fibres stream was not audited during the study. The average weekly containers stream generation rate was approximately 1.22 kg/hh/wk, of which 86.77% (1.06 kg/hh/wk) was composed of recyclable material currently accepted in the Region's program. Within this recyclable material percentage is an estimated 2.20% of recyclable fibres that should have been placed in the fibres Blue Box according to the Region's two-stream recycling program. The remaining 13.23% (0.16 kg/hh/wk) consisted of non-recyclable materials representing contamination from garbage and organic stream material.

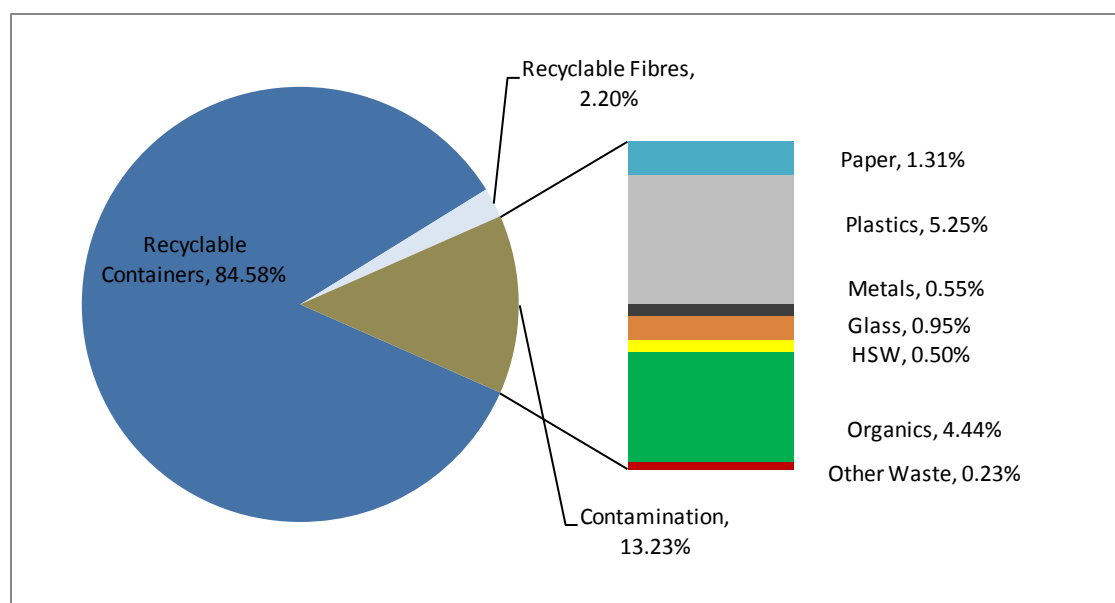


Figure 3.2 Breakdown of June 2011 Recyclable Containers Stream (by weight)

Looking specifically at the contamination found in the containers stream, non-recyclable plastics made up the largest component, at 5.25% of the total recyclable containers stream by weight. This was largely made up of PET packaging, durable products such as rigid toys and food storage containers, as well as a considerable amount of other rigid plastic packaging, such as #5 takeout trays, unmarked plastics and blister packaging. Organics was the next largest component of contamination, representing 4.44% of the total recyclable containers stream. The breakdown of the rest of the material categories representing contamination is illustrated in figure 3.2 above.

3.4.3 June 2011 Capture Rates in the Containers Stream

Figure 3.3 outlines the capture rates for recyclables in the containers stream that are currently accepted in the Region's recycling program. This data is based on information gathered from the garbage, and recyclable containers streams, over the two-week sample period during the June 2011 audit. Since the recyclable fibres stream was not audited, capture rates for paper categories cannot be reported on.

The overall capture rate for recyclables (excluding paper) in the containers stream during the audit period was 87.05%. The best capture rate was observed for glass at 93.15%. The capture rate for metals and polycoats were also quite high at 89.84% and 83.30%, respectively with plastics having the lowest capture rate in the Blue Box containers stream at 80.25%. Figure 3.3 looks at capture rates based on 4 broad material categories: polycoats, plastics, metals and glass. Capture rates for all the individual material categories for the June 2011 audit can be found in Appendix B.

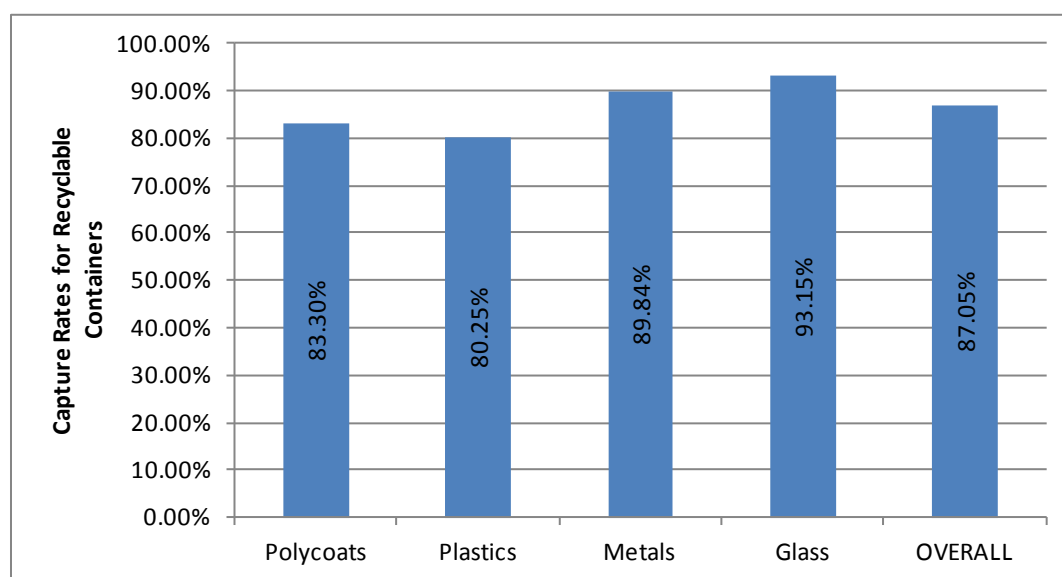


Figure 3.3 June 2011 Capture Rates for Recyclables in the Containers Stream

3.5 November 2011 Waste Composition Audit Results

Table 3.10 illustrates the overall breakdown of single-family household curbside waste generated in the Region by weight, during the November 2011 audit. This figure is a representation of total waste and, therefore, includes contributions from the garbage, organics, and recycling streams. However, since the recyclable fibres stream was not audited, the table only represents divertible material found in the recyclable containers stream. In addition, the organics stream was not audited or weighed at the curb, and as such, the amount of organic material being diverted remains unknown.

Table 3.10 November 2011 Waste Generation Profile

Material Category	Diverted Materials (kg/hh/yr)	Landfilled Divertible Materials (kg/hh/yr)	Landfilled Non-Divertible Materials (kg/hh/yr)	Total (kg/hh/yr)
Paper	3.39*	19.99	20.84	44.22
Plastic	19.06	3.99	55.99	79.03
Metal	13.12	1.52	8.22	22.86
Glass	35.43	2.00	5.63	43.05
Hazardous Materials	N/A	N/A	3.17	3.17
Organic Materials	N/A	87.14	34.04	121.19
Other Materials	N/A	N/A	97.93	97.93
Total (kg/hh/yr)	70.99	114.64	225.82	411.45

*This figure does not include the weight of material captured in the recyclable fibres stream due to the fact that the fibres stream was not audited.

The largest contributor to the waste stream during the November 2011 audit was organic materials, of which 121.19 kg are generated each year per household. An unknown amount of organic material is also diverted through the Region's Green Bin program. Other materials (mainly diapers, sanitary products and textiles) were also a significant contributor to the overall waste generated, with 97.93 kg being generated per household per year. Materials in figure 3.10 have been grouped into 7 primary categories: paper, plastic, metal, glass, hazardous materials, organic materials and other materials. Please refer to Appendix C for the full list of sub-categories and detailed waste audit results for the November 2011 audit.

3.5.1 November 2011 Garbage Stream Results

Figure 3.4 illustrates the composition of the Region's single-family residential garbage stream by weight, during the November 2011 audit highlighting the materials that could have been captured in the current recycling program. This breakdown represents the combined composition of the garbage stream from the material collected over the two-week sample period. The average garbage generation rate was approximately 6.31 kilograms per household per week (kg/hh/wk), of which 55.65% (3.51 kg/hh/wk) was composed of non-recyclable materials while 36.16% (2.28 kg/hh/wk) consisted of organic material. The remaining 8.19% (0.52 kg/hh/wk) consisted of recyclable materials that could have been captured through the Region's current blue box program.

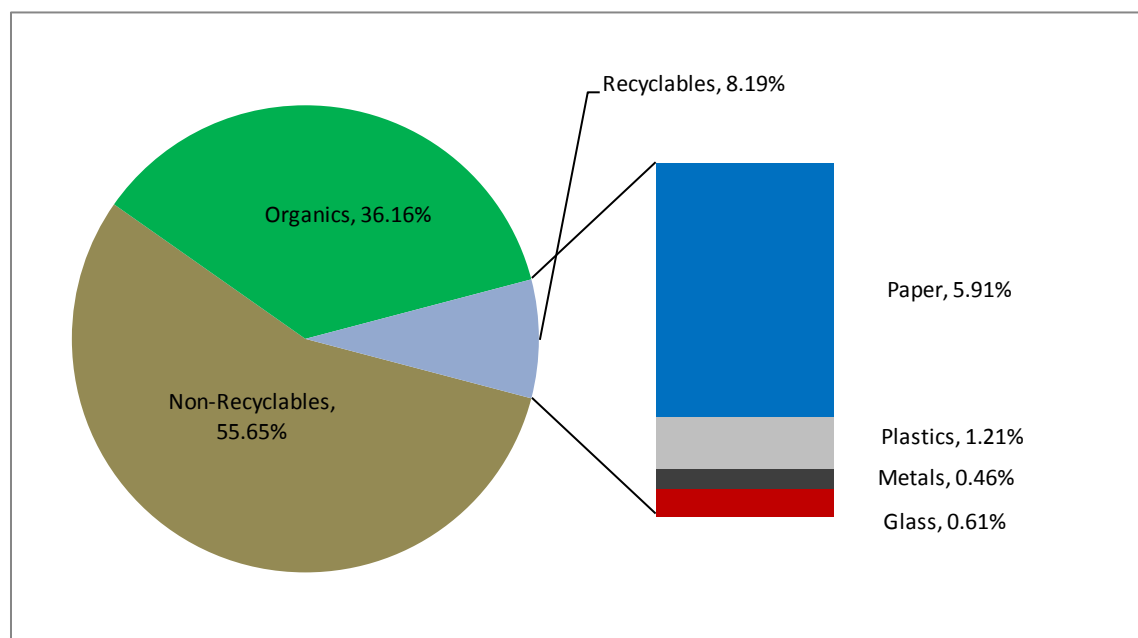


Figure 3.4 Breakdown of November 2011 Garbage Stream (by weight)

Looking at the recyclable material categories found in the garbage stream, recyclable paper was the largest component, at 5.91% of the total garbage stream. Again the paper component was largely made up of mixed fine paper and boxboard, which

accounted for approximately 57.69% of the recyclable paper in the garbage stream. Recyclable plastics contributed 1.21% to the garbage stream. Similar to the June 2011 garbage stream, the recyclable plastics consisted primarily of PET (#1) bottles and jars, HDPE (#2) bottles and jugs, and a large amount of wide mouth tubs and lids. Smaller contributions to the garbage stream came from glass (0.61%) and metals at 0.46%. These percentages represent materials that are currently accepted under the Region's recycling program.

3.5.2 November 2011 Recyclable Containers Stream Results

Figure 3.5 illustrates the composition of the Region's single-family household recyclable containers stream by weight, during the November 2011 audit highlighting the proportion of materials that are not accepted in the current recycling program (contamination). The breakdown represents the composition of the recyclable containers stream alone, as the fibres stream was not audited during the study. The average weekly containers stream generation rate was approximately 1.58 kg/hh/wk, of which 86.26% (1.36 kg/hh/wk) was composed of recyclable material currently accepted in the Region's recycling program. Within the recyclable material an estimated 1.29% of the material is recyclable fibres that should have been placed in the fibres Blue Box according to the Region's two-stream recycling program. The remaining 13.74% (0.22 kg/hh/wk) consisted of non-recyclable materials representing contamination from garbage and organic stream material.

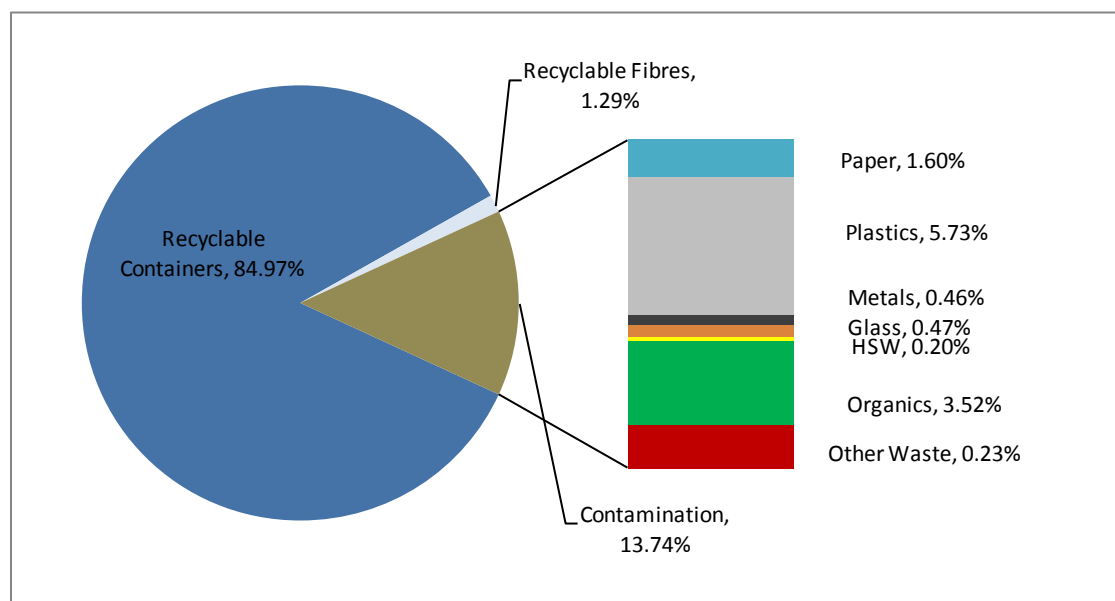


Figure 3.5 Breakdown of November 2011 Recyclable Containers Stream (by weight)

Looking specifically at the contamination found in the containers stream, non-recyclable plastics made up the largest component, at 5.73% of the total recyclable containers stream by weight. This was largely made up of PET packaging and durable plastic products such as rigid toys and food storage containers. Organics was the next largest

component of contamination, representing 3.52% of the total recyclable containers stream. The breakdown of the remaining material categories representing contamination is illustrated in Figure 3.5.

3.5.3 November 2011 Capture Rates in the Containers Stream

Figure 3.6 outlines the capture rates for recyclables in the containers stream that are currently accepted in the Region's recycling program. This data is based on information gathered from the garbage and recyclable containers streams, over the two-week sample period during the November 2011 audit. Since the recyclable fibres stream was not audited, capture rates for paper categories cannot be reported on. The overall capture rate for recyclable containers in the containers stream during the audit period was 89.42%. The best capture rate was observed for glass at 94.67%. The capture rate for metals was also quite high at 89.59%, with polycoats having the lowest capture rate in the Blue Box containers stream at 75.22%. Figure 3.6 looks at capture rates, based on 4 broad material categories: polycoats, plastics, metals and glass. Capture rates for all the individual material categories for the November 2011 audit can be found in Appendix D.

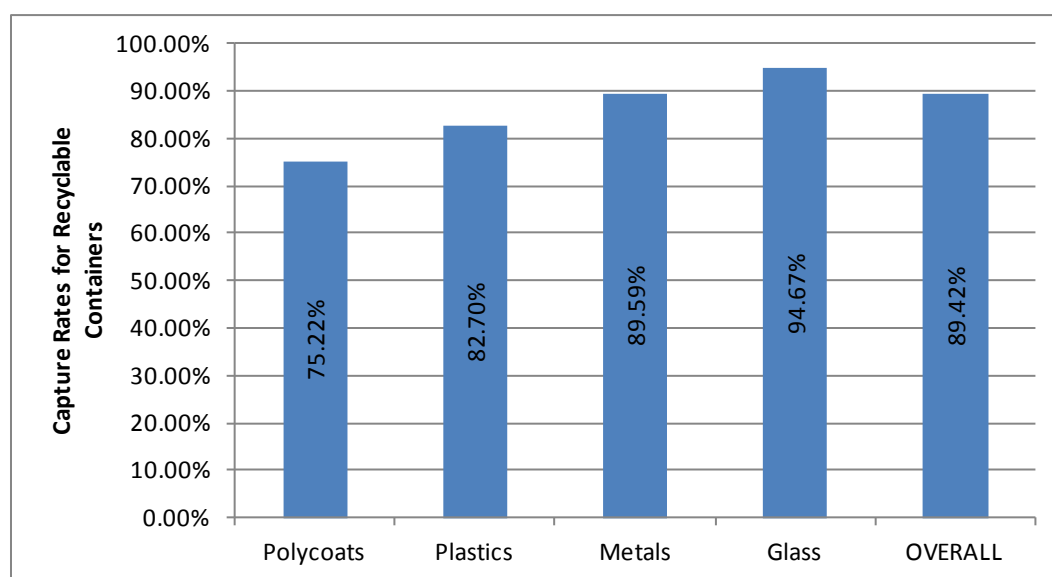


Figure 3.6 Capture Rates for Recyclables in the Containers Stream

3.6 Waste Generation Trends

A total of four waste audits have been conducted by AET for the purposes of determining the effectiveness of the large Blue Box roll-out. One audit was conducted before the roll-out in June of 2010 and three have been conducted after the rollout, in November 2010, June 2011 and November 2011. This section compares the waste audit results from each of these audits to identify trends in program performance over

time. With respect to the recyclable containers stream, the results in the following section represent the subset of 25 homes that were sampled in a given area during each audit, as opposed to the subset of 10 houses that correspond to households where garbage was also collected. By reporting on the larger subset of homes for the containers stream, the confidence level with respect to performance indicators and overall trends will be higher.

3.6.1 Garbage Stream Trends

Table 3.11 and Figure 3.7 summarize the total curbside garbage generation trend over time in kilograms/household/year. This represents only the weight of garbage stream material set at the curb by single-family residential households.

Table 3.11 Comparison of Garbage Stream Generation Over Time

Audit Period	Garbage Disposed (kg/hh/yr)
June 2010	280.75
November 2010	299.31
June 2011	361.36
November 2011	329.16
Average	317.65

In general, the amount of material being generated in the garbage stream appears to be increasing over time. The highest garbage stream generation was noticed in the June 2011 audit at a total of 361.36 kg/hh/yr. The lowest amount of material generated in the garbage stream was noticed during the first waste audit, prior to the Blue Box rollout in June 2010, when garbage generation was 280.75 kg/hh/yr. Based on the waste audit results it appears as though the main reason for the increase in garbage generation is an increase in organic material (including pet waste) in the garbage stream. During the pre-rollout audit (June 2010) the total organic material in the garbage stream was 102.18 kg/hh/yr. However in the June 2011 audit, the total organic material in the garbage stream was found to be 146.81 kg/hh/yr. This decrease in organics capture rate is supported by the fact that organics stream participation rate has declined over the course of the waste audits. This is discussed in more detail towards the end of section 3.6.4 and shown in Figure 3.16.

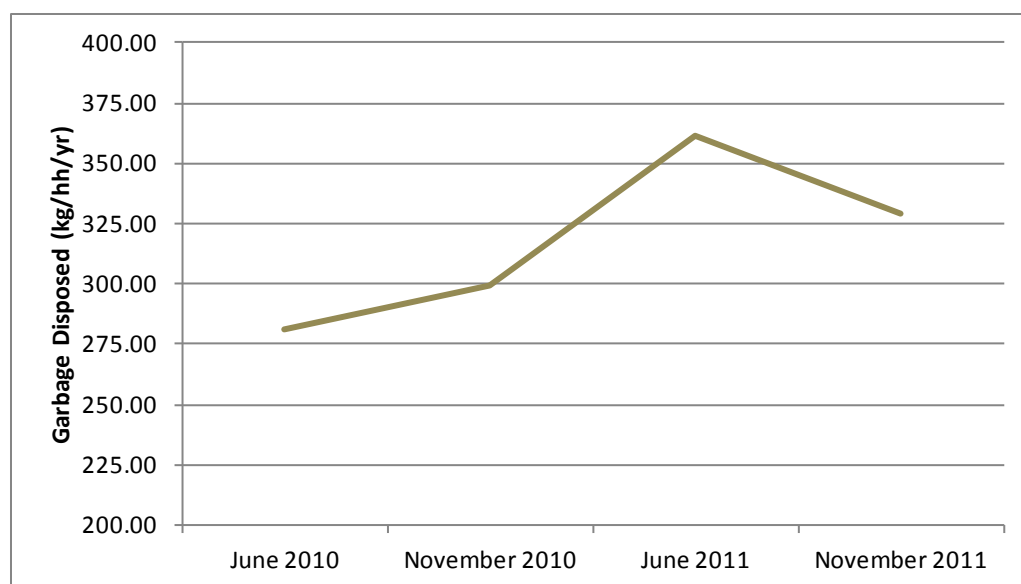


Figure 3.7 Garbage Stream Generation Rate Over Time

Looking more closely at the composition of the garbage stream over time Table 3.12 and Figure 3.8 show the amount of recyclable material, organic material and non-divertible material covering the June 2010 waste audit through to the most recent November 2011 waste audit. The amount of recyclable material in the garbage stream has increased over time from a low of 20.05 kg/hh/yr during the June 2010 audit to a high of 31.06 kg/hh/yr during the June 2011 audit. The total acceptable organic material in the garbage stream has stayed fairly constant over the course of the four audits at roughly 80 kg/hh/yr. The one exception to that would be during the June 2011 audit where over 100 kg/hh/yr of acceptable organic material was placed in the garbage stream. The main reason for the upward trend in overall garbage stream generation is that the amount of non-divertible material in the garbage stream has increased over time. Total non-divertible material in the garbage stream was at a low during the June 2010 audit at 178.14 kg/hh/yr, and peaked at 226.47 kg/hh/yr in June 2011, an increase of 27.13%. The main materials that have contributed to the increase in non-divertible material are pet waste, non-recyclable paper and non-recyclable plastics.

Table 3.12 Garbage Stream Composition Over Time

Material in Garbage Stream	June 2010	November 2010	June 2011	November 2011
Total Recyclable Material (kg/hh/yr)	20.05	25.97	31.06	26.96
Total Acceptable Organic Material (kg/hh/yr)	82.56	83.43	103.82	84.98
Total Non-Divertible Material (kg/hh/yr)	178.14	189.92	226.47	217.21
Total Material Generated (kg/hh/yr)	280.75	299.31	361.36	329.16

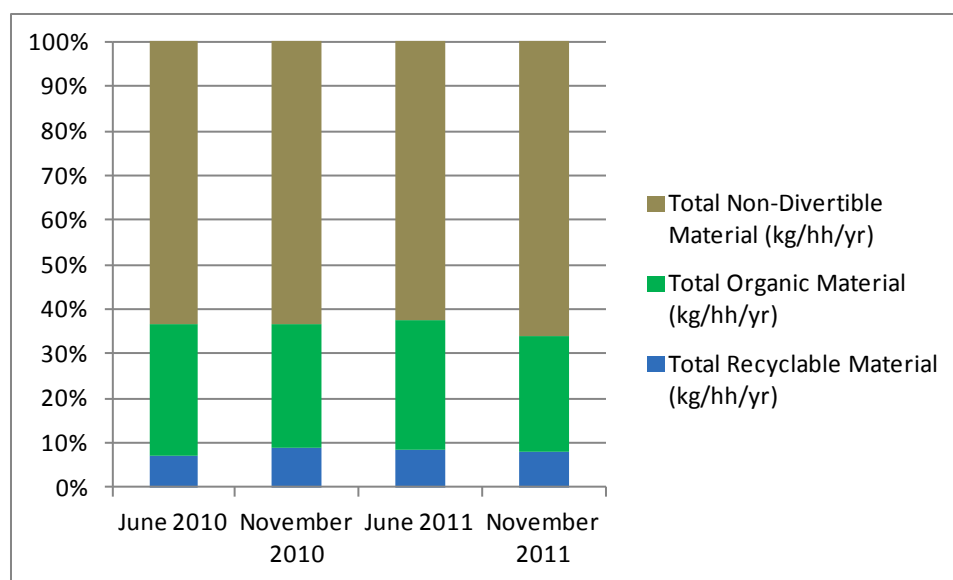


Figure 3.8 Garbage Stream Composition Over Time

3.6.2 Recyclable Containers Stream Trends

Table 3.13 and figure 3.9 summarize the total curbside recycling generation trend over time in kilograms/household/year. This represents the weight of recyclable material set out at the curb by single-family residential households in the containers stream only.

Table 3.13 Comparison of Containers Stream Generation Over Time

Audit Period	Total Quantity of Recyclable Containers Set Out (kg/hh/yr)
June 2010	65.78
November 2010	79.01
June 2011	70.38
November 2011	73.95

As shown in table 3.13, the total amount of recyclable containers being set out has gradually increased over time. When compared to the pre-rollout audit in June 2010, each subsequent audit after the Blue Box rollout showed an increase in the amount of recyclable containers set out. As expected, the lowest amount of recyclable containers stream material being set out in the Region was noticed during the June 2010 audit, at 65.78 kg/hh/yr. Whereas the highest amount of amount of recyclable containers stream material being set out was found in the November 2010 audit (shortly after the roll-out), at 79.01 kg/hh/yr. One possible reason for the increase in recyclable containers stream material is due to the increased capacity of the new Blue Boxes. Another possible reason for the increasing trend in recyclable material set out is the fact that in general the public is more environmentally conscious due to an increase in environmentally focused marketing and advertising as well as environmental issues having a larger role in the media and news. These factors surely have an influence on the public's desire to participate in recycling programs resulting in more recyclable material being set out at the curb.

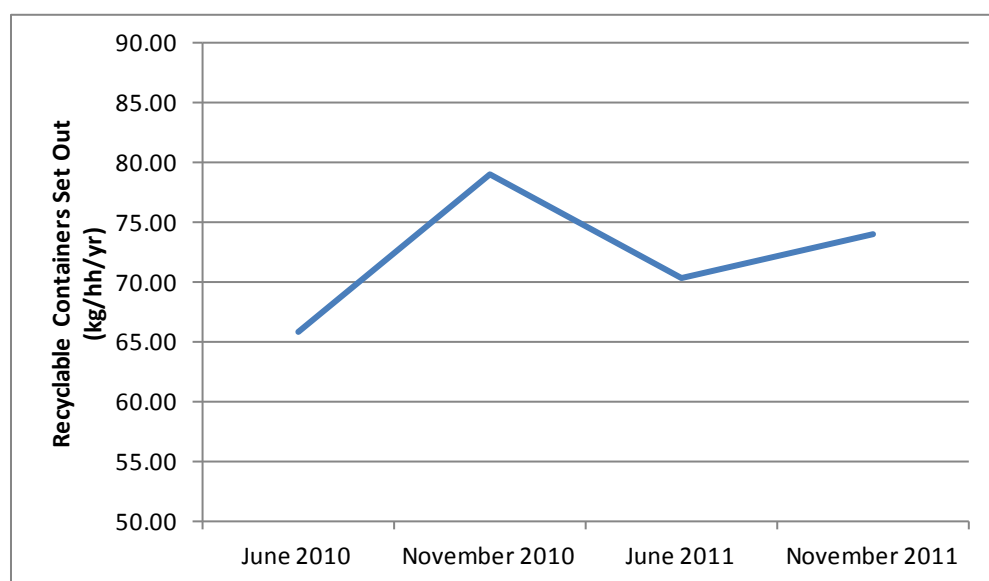


Figure 3.9 Containers Stream Generation Rate Over Time

Looking closer at the composition of the recyclable containers stream over time: Table 3.14 and Figure 3.10 show the percent of fibres, containers and other materials (contamination from organic material and non-recyclable material), over the period from the June 2010 audit to the most recent November 2011 waste audit. The percent composition of fibres in the containers stream has decreased significantly over time when compared to the pre-rollout audit where fibres represented 12.44% (8.18 kg/hh/yr) of the containers stream composition. Both of the 2011 audits found the fibres composition in the containers stream to be less than 2%. The percent composition of containers in the recyclable containers stream has increased over time from a low during the November 2010 audit at 73.81% (58.32 kg/hh/yr) to a high during the November 2011 audit where containers represented 84.88% (62.76 kg/hh/yr) of the total recyclable containers stream. Despite the increase in recyclable containers in the containers stream, the rate of contamination from non-recyclable material has also increased over time. Contamination in the containers stream was at a low during the June 2010 audit at 9.14% (6.02 kg/hh/yr) but had increased to 14.73% (10.37 kg/hh/wk) during the June 2011 audit. One reason for this increase in contamination is the fact that PET (thermoform) packaging in the containers doubled between the June 2010 audit and the June 2011 audit.

Trends in Blue Box composition over time can also be attributable to the nature of products and packaging in the market. For example, bottled water companies have reduced the weight of their bottles (PET plastic) by up to 50% over the last 8-10 years. This is an important trend to note, as more bottles would have to be recycled to obtain the same weight of recovered materials over time. Another general trend being observed in Blue Box material composition is the increased prevalence of thermoformed packaging (e.g. PET trays/clamshells). The grocery industry has been transitioning to more use of this type of packaging over time, particularly recently by coming together to develop standards to ensure recycling compatibility with processors. In the earlier audit periods, PET packaging encountered in the Blue Box may have been limited to items such as some egg cartons and berry boxes. Recent audits find this packaging used for

many other products, including ready-made salads, peach baskets, baked goods, etc. Thermoform packaging is relatively light, therefore may not show up as a significant component by weight of the recycling stream, however, they are high volume items which take up more space in the Blue Boxes. In contrast to the efforts for standardization in PET thermoform packaging, there appears to be increasing examples of mixed-resin or otherwise difficult to recycle packaging. Some examples of this include “bio-degradable” plastic bags and packaging, bottles nearly completely covered in a shrink wrapped film, and multiple recycling symbols on bottles.

Table 3.14 Containers Stream Composition Over Time

Audit Period	Fibres		Containers		Contamination	
	kg/hh/yr	% of Total	kg/hh/yr	% of Total	kg/hh/yr	% of Total
June 2010	8.18	12.44%	51.58	78.42%	6.02	9.14%
November 2010	12.25	15.50%	58.32	73.81%	8.45	10.69%
June 2011	1.18	1.67%	58.83	83.59%	10.37	14.73%
November 2011	1.30	1.76%	62.76	84.88%	9.88	13.37%

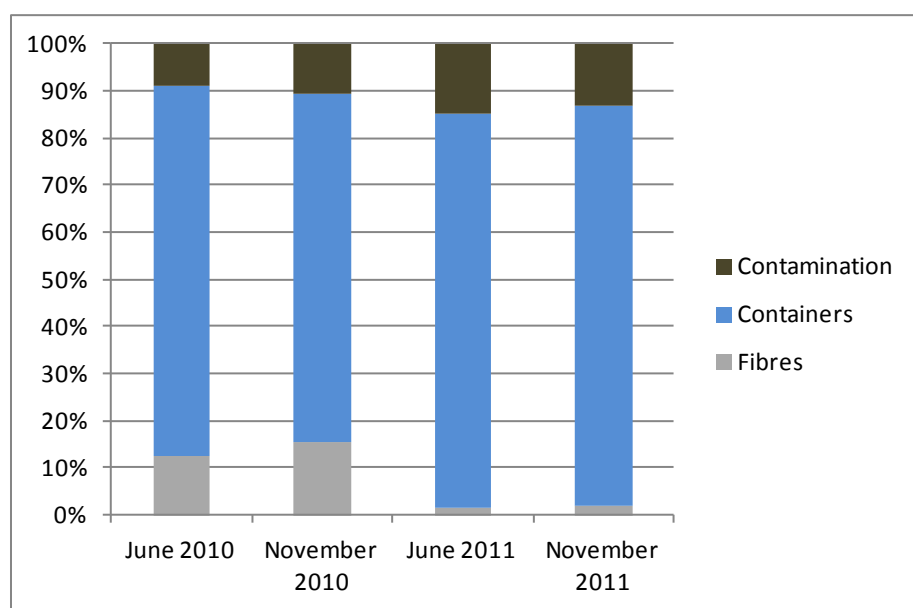


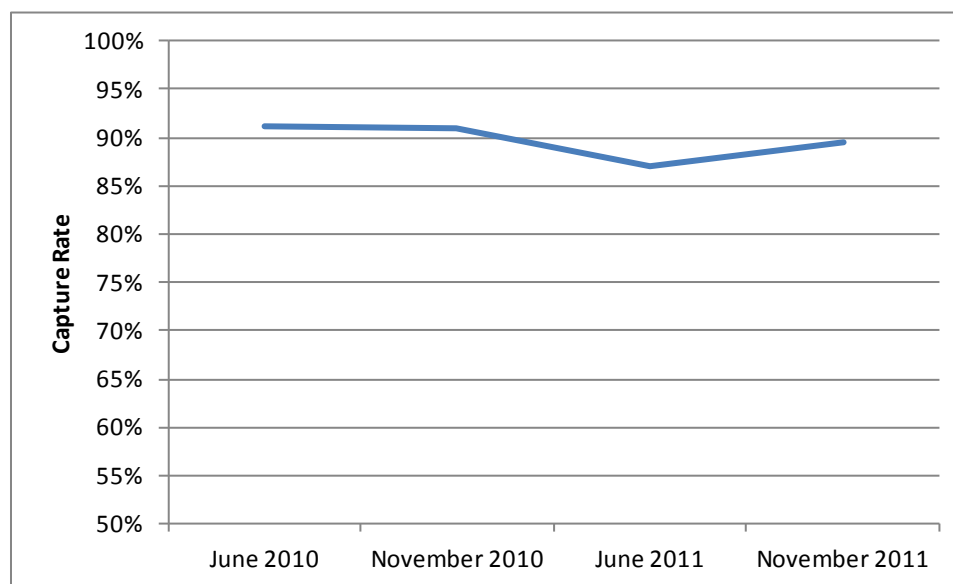
Figure 3.10 Containers Stream Composition Over Time

3.6.3 Capture Rate in Containers Stream

The following section summarizes the capture rate trend for the recyclable containers stream for the waste audits completed during the period spanning from the June 2010 to the November 2011 audit. Table 3.15 and Figure 3.11 summarize the capture rate trend over time for the containers recycling stream. The capture rates in this section refer only to recyclable material captured in the containers stream and do not include material captured in the recyclable fibres stream since this stream was not audited for the purposes of the Large Blue Box Study.

Table 3.15 Containers Stream Capture Rate Over Time

Audit Period	Containers Stream Capture Rate
June 2010	91.26%
November 2010	90.99%
June 2011	87.05%
November 2011	89.42%
Average	89.68%

**Figure 3.11 Containers Stream Capture Rate Over Time**

With regards to the containers recycling stream, the capture rate is shown to be relatively constant over the four audits. The highest capture rate was observed during the June 2010 audit, at 91.26%, while the lowest capture rate was noticed during the June 2011 audit, at 87.05%. It is difficult to draw any strong conclusions from this trend due to the fact that the fibres recycling stream was not audited and as such these capture rates only represent part of the recycling being done in the Region.

3.6.4 Overall Participation and Curbside Set-out Trends

The following section discusses the trend in participation rates with respect to the garbage, recycling (combined containers and fibres) and organics streams. Also discussed is the trend in set-out behaviour for each of these waste streams. Table 3.16 summarizes the participation rates for all waste streams over the time from the June 2010 audit to the November 2011 audit.

Table 3.16 Participation Rate Trend Over Time

Audit Period	Garbage Participation Rate (%)	Recycling Participation Rate (%)	Organics Participation Rate (%)
June 2010	89.00%	77.32%	68.97%
November 2010	89.62%	78.62%	66.67%
June 2011	88.35%	79.07%	67.23%
November 2011	88.67%	80.11%	65.57%
Average	88.91%	78.78%	67.11%

In general, the participation rate in the garbage and organics streams has decreased slightly over time, while the participation in the recycling stream has increased. Trends in participation in each of these streams will be discussed in more detail in the following sections.

Figure 3.12 shows the trend in garbage stream participation over time. The participation rate in the garbage stream overall has shown a slight decrease over time but in general has remained fairly constant over the course of the four waste audits. Participation in the garbage stream was at its highest during the November 2010 audit at 89.62% and at its lowest during the June 2011 audit at 88.35%.

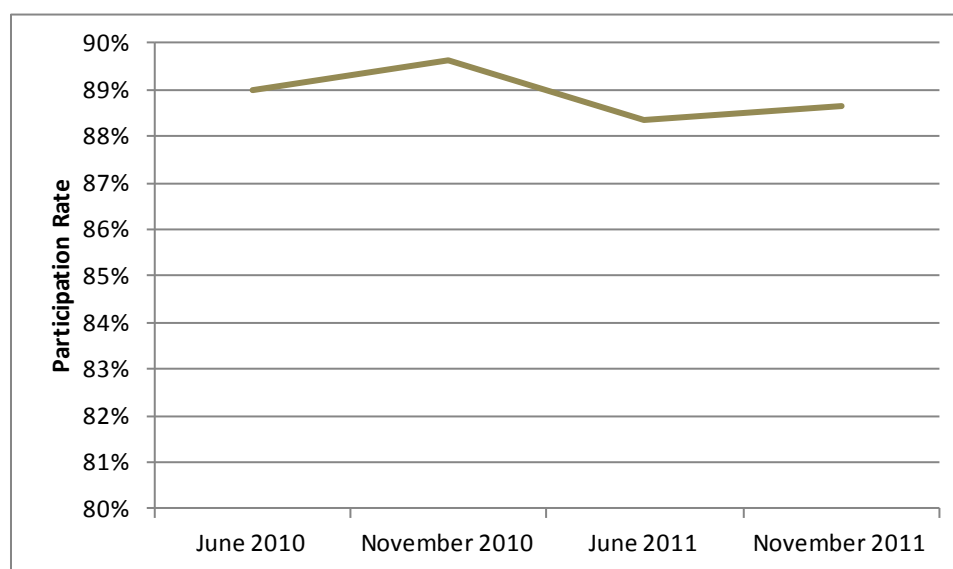
**Figure 3.12 Garbage Stream Participation Rate Trend**

Table 3.17 and Figure 3.13 summarize the trend in garbage stream set-outs over time. This is summarized in terms of number of items per household, per week (average across all sampled households) and also in number of full container equivalents per household, per week. Both the number of garbage items and number of full garbage container equivalents set out by single family households have seen an overall decrease from June 2010 audit levels. This indicates that households in general are setting out slightly fewer garbage items now as compared when the first audit was conducted in June 2010.

Table 3.17 Garbage Stream Set-Out Trend Over Time

Audit Period	No. of Containers Per Household Per Week	No. of Equivalent Full Containers Per Household Per Week
June 2010	1.13	1.07
November 2010	1.14	1.09
June 2011	1.15	1.10
November 2011	1.09	1.05

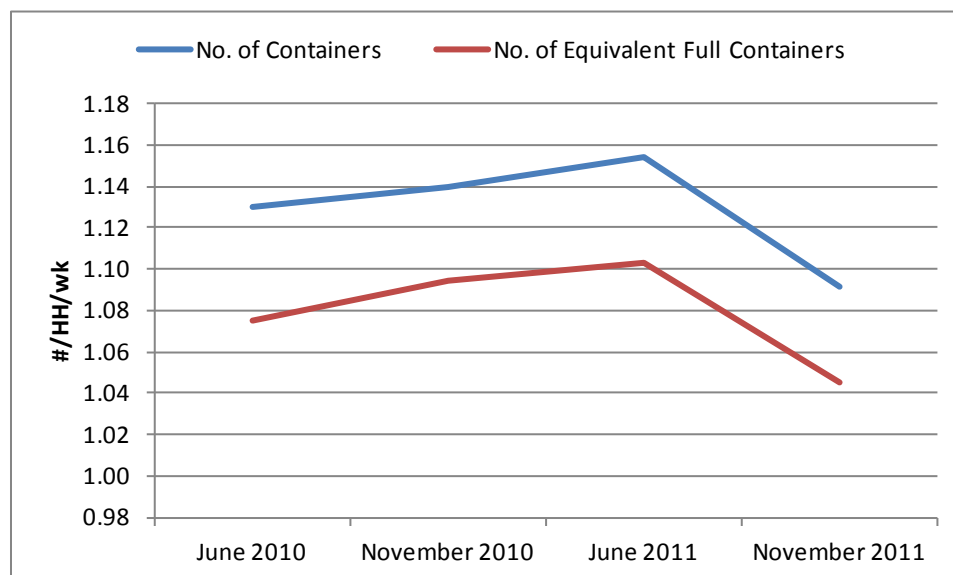
**Figure 3.13 Garbage Stream Set-Out Trend Over Time**

Figure 3.14 shows the trend in recycling stream participation over time. The participation rate in the recycling stream has seen a steady increase over time. Participation in the recycling program was at its lowest during the June 2010 audit, at 77.32% and at its highest during the most recent November 2011 audit, at 80.11%. The trend in increasing recycling participation rates could be attributable to a combination of societies' apparent increased environmental awareness (e.g. "green marketing") and the Region's roll-out of a larger blue box with increased capacity resulting in a greater tendency to set out recyclable material.

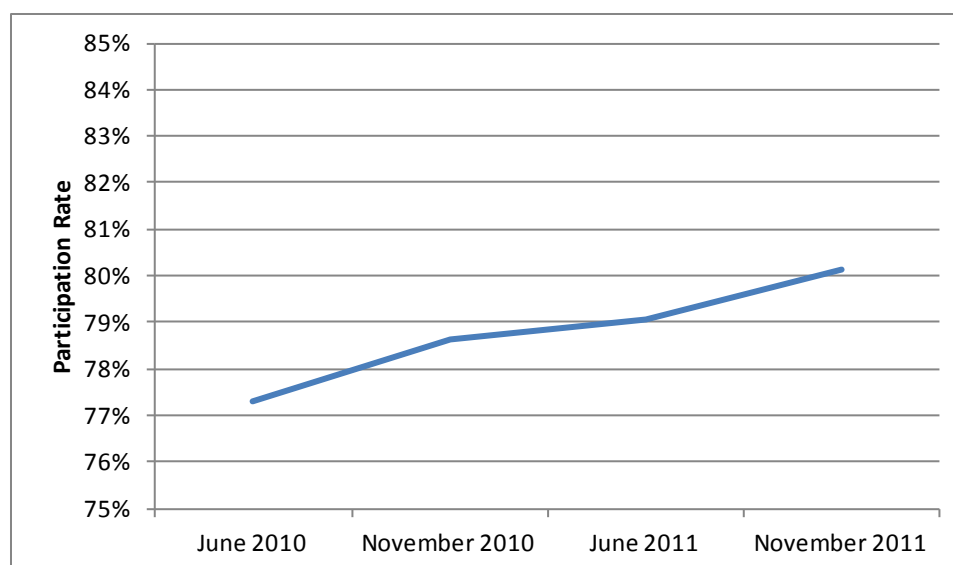


Figure 3.14 Recycling Stream Participation Rate Trend

Table 3.18 and Figure 3.15 summarize the trend in recycling stream set-outs over time. This is summarized in terms of number of items per household, per week, and also in number of full container equivalents per household, per week. The number of containers per household per week increased right after the Large Blue Box rollout, and then remained constant for the remaining three waste audits. This indicates that after the Blue Box rollout, households set out more recycling containers, possible as a result of the increased capacity and rollout of the new Blue Boxes.

Table 3.18 Recycling Stream Set-Out Trend Over Time

Audit Period	No. of Containers Per Household Per Week	No. of Equivalent Full Containers Per Household Per Week
June 2010	1.57	1.23
November 2010	1.66	1.25
June 2011	1.67	1.25
November 2011	1.67	1.20

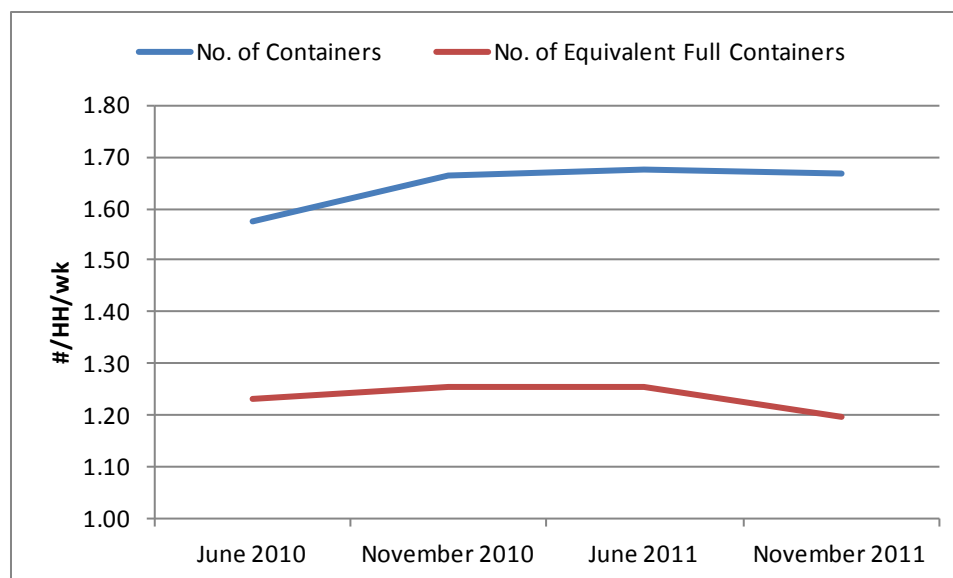


Figure 3.15 Recycling Stream Set-Out Trend Over Time

Figure 3.16 shows the trend in organics stream participation over time. In general, the participation rate in the organics stream has seen a slight decrease over time. In fact, each audit after the June 2010 waste audit showed a decrease in organics stream participation when compared to the pre-rollout audit. The highest organics stream capture rate was during the June 2010 audit when participation was at 68.97%, while the lowest capture rate was during the most recent November 2011 audit when participation was at 65.57%. Note that these participation rates are based on a household setting out a Green Bin at least once over a two week period.

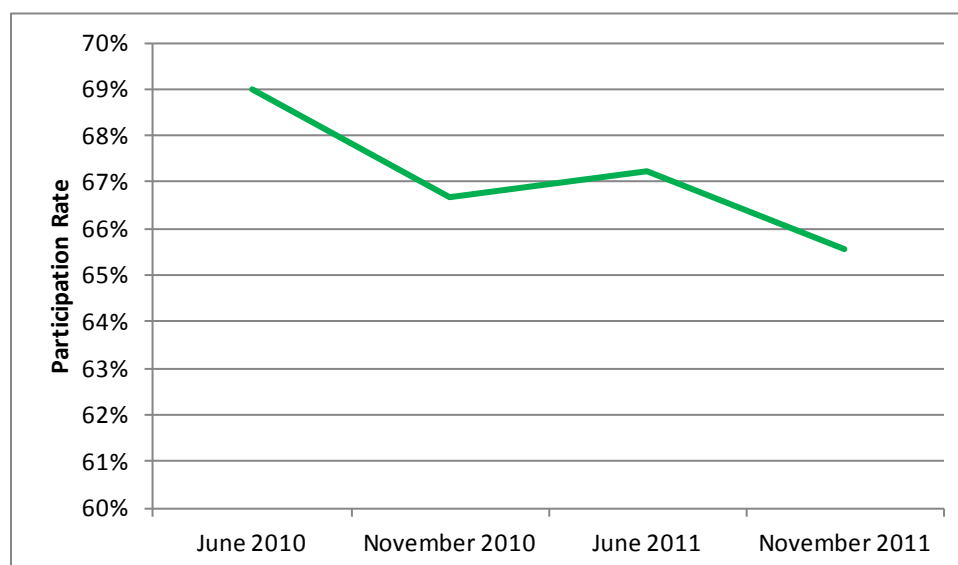


Figure 3.16 Organics Stream Participation Rate Trend

Table 3.19 and Figure 3.17 summarize the trend in organic stream set-outs over time. This is summarized in terms of number of items set out per household sampled per week, and also in number of full container equivalents set out, per household sampled per week. Both the number of organic stream items and number of full container equivalents set out by single family households stayed relatively constant over the period of time between the June 2010 audit and the November 2011 audit, with very little fluctuation. The number of organics stream items per household per week averaged out to 0.59 items over this period, with a standard deviation of only 0.01. The average number of full container equivalents over the same period was 0.27 items, with a standard deviation of 0.01.

Table 3.19 Organics Stream Set-Out Trend Over Time

Audit Period	No. of Containers Per Household Per Week	No. of Equivalent Full Containers Per Household Per Week
June 2010	0.58	0.28
November 2010	0.60	0.26
June 2011	0.61	0.26
November 2011	0.59	0.26

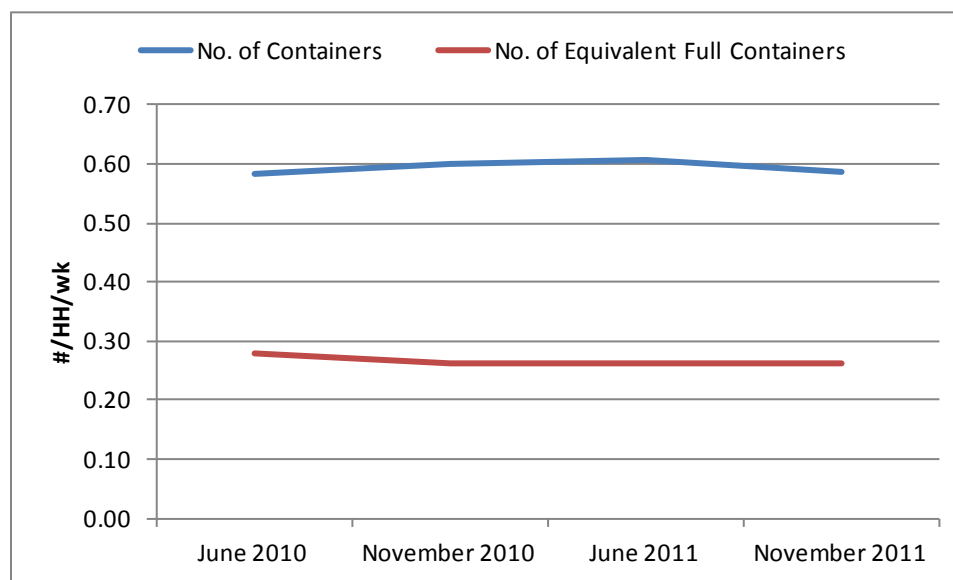


Figure 3.17 Organics Stream Set-Out Trend Over Time

3.6.5 Mixed Recyclable Set-out Trends

Households that mixed the two recycling streams together in one Blue Box were observed during each of the four waste audits from June 2010 to November 2011. There was a visible reduction in mixed recycling set-outs directly after the large Blue Box rollout. However, the percentage of households with mixed recycling set-outs increased during both the June 2011 and November 2011 audits. It was observed during the 2011 waste audits that more households seem to be using the larger blue boxes for fibres

instead of containers and at times combining both streams in the larger Blue Box. Some residents explained that they don't feel the need to set out two Blue Boxes if all of their recyclable material can fit in one Blue Box (usually newly rolled out large Blue Box). Residents also frequently used the large Blue Box for fibres instead of containers due to the fact that they generate more recyclable fibres than recyclable containers. These observations indicate that more promotion and education may be needed to explain the need to have separate recyclable fibres and containers Blue Boxes set out. A comparison of mixed recycling set-outs from the June 2010 audit to the November 2011 audit is presented in Table 3.20.

Table 3.20 Mixed Recyclable Set-Outs Over Time

Two Week Period	June 2010	November 2010	June 2011	November 2011
Total Number of Recycling Set-Outs	1469	1478	1530	1539
Number of households with mixed recycling	152	105	163	188
Percentage of households with mixed recycling*	10.35%	7.10%	10.65%	12.22%

*Only households with a recycling set out were counted to calculate this percentage. Does not represent the percentage of mixed recycling out of all sampled households

3.6.6 Alternative Containers Set-out Trends

Households that set out alternative recycling bins instead of standard Blue Box style bins were noted during each of the four waste audits from June 2010 to November 2011. The percentage of households setting out alternative containers saw a dramatic decrease directly after the rollout of the new Blue Box but increased during both of the 2011 audits. When compared to the pre-rollout audit in June 2010, the percentage of households setting out alternative containers is lower in each of the subsequent audits. The initial drop in alternative container use can be attributed to the Region providing households with an additional Blue Box during the rollout. Prior to the rollout residents had to provide one recycling bin on their own which increased the amount of alternative recycling containers being set out. However, it is unclear as to why the use of alternative containers has increased during the 2011 audits. Perhaps the initial promotion and education surrounding the Blue Box rollout had an immediate impact on the amount of alternative containers being used, but as time elapsed, residents went back to their habit of using alternative containers as opposed to those provided by the Region. A comparison of alternative recycling bin set-outs from the June 2010 audit to the November 2011 audit is presented in Table 3.21.

Table 3.21 Alternative Containers Set-Outs Over Time

Two Week Period	June 2010	November 2010	June 2011	November 2011
Total Number of Recycling Containers Set Out (All Types)	2991	3128	3239	3206
Total Number of Alternative Bins Set Out ¹	308	146	241	234
Percentage of Alternative Bins Per Recycling Set-Out ²	10.30%	4.67%	7.44%	7.30%
Number of Households that Set Out Alternative Bins	228	108	185	185
Percentage of Households that Set Out Alternative Bins ³	15.52%	7.31%	12.09%	12.02%

¹Alternate containers refer to non-Blue Box containers (e.g. laundry basket, garbage bin, storage container etc.)

²Only households with a recycling set out were counted in this percentage. The figure represents a percentage of alternate containers per household with a recycling set out

³Percentage of households with alternate containers set out per household with a recycling set out

3.6.7 Containers Stream Volume Density Trends

In comparing the volume density results from the four waste audits conducted from June 2010 to November 2011, it appears as though the large Blue Box rollout had a positive effect on the amount of recyclable containers being set out each week. Table 3.22 provides a comparison of the volume density results over the entire study period. The average weight of material set out in the containers stream was higher in each of the audits after the Blue Box rollout, indicating that residents are setting out more containers stream material after the rollout, than they were before the rollout. The largest increase in recyclable containers set out was notice directly after the rollout when the net weight of recyclable containers stream material set out increased from 1.76 kg per bin/Blue Box before the rollout, to 2.14 kg per bin/Blue Box after the rollout, an increase of 21.64%. As expected, the average capacity of a containers stream set out also increased after the Blue Box rollout, going from approximately 65L in June of 2010, to approximately 75L in each of the subsequent audits. This is a direct result of the larger capacity of the new Blue Box.

After comparing the density of the container stream set-outs over the course of the four waste audits, the results are fairly similar. The density of the average set-out and the density of the containers stream material did drop slightly during the 2011 audits indicating that the containers stream set outs are less compacted after the Blue Box rollout, but for the most part the results are very close in comparison. A more comprehensive comparison can be found in Figure Table 3.22.

Table 3.22 Volume Density of Containers Stream Set-Outs Over Time

Containers Stream - Two Week Period	June 2010	November 2010	June 2011	November 2011
Total Weight of Set-outs (Kg)	4348.77	5245.76	5217.26	5008.61
Total Number of Households with a Bin/Blue Box Set Out	1191	1266	1304	1268
Average Weight of Set Out, per Household (Kg/HH)	3.65	4.14	4.00	3.95
Total Number of Bins/Blue Boxes Set Out	1279	1321	1376	1313
Average Weight of Set-out, per Bin/Blue Box (Kg) ¹	3.40	3.97	3.79	3.81
Average Weight of Material Set Out, Per Bin/Blue Box ²	1.76	2.14	1.88	1.85
Total Capacity of Containers Set Out (L)	78016	95947	100205	95525
Average Capacity of Containers Set Out Per Household (L/HH)	65.50	75.79	76.84	75.34
Average Density of Set-Out per Household (Kg/L)	0.056	0.055	0.052	0.052
Average Density of Set-Out per Household (Kg/m ³)	56	55	52	52
Average Density of Containers Stream Material, per Household (Kg/L)	0.027	0.028	0.024	0.025
Average Density of Containers Stream Material, per Household (Kg/m ³)	27	28	24	25

² Average weight of material was calculated by subtracting the average tare weight of a Blue Box during each audit period from the average weight of the set-out, per Blue Box.

4.0 CONCLUSIONS

AET conducted a series of audits to determine the effectiveness of the rollout of a Large Blue Box in the Region of Durham, which was dedicated to capturing recyclable containers. During the study, AET staff surveyed a total of 1,000 households throughout Durham Region during four two-week periods from June 2010 to November 2011. The survey gathered data on set-out rates for the organics, garbage and both recycling streams. A comparison of the survey results over the course of the four audits revealed that participation in the garbage stream has remained relatively constant over time, while the number of garbage items and full container equivalents set out per household per week has decreased when compared to the June 2010 levels. Participation in the overall recycling stream (combined containers and fibres streams) has steadily increase over time, from its lowest during the June 2010 audit, at 77.32% to its highest during the most recent November 2011 audit, at 80.11%. In addition, the number of recycling containers set out per household per week has also increased from 1.57 items/hh/wk, to approximately 1.67 items/hh/wk during each subsequent audit. Participation in the organics stream has decreased over time, from 68.97% during the June 2010 audit, to 65.57% during the final November 2011 audit, while the number of organics items and full container equivalents set out per household per week has remained constant over the course of the four waste audits.

Part of the study looked at the amount of mixed recycling set-outs (containers and fibres in one Blue Box) as well as the number of households setting out alternative bins instead of the standard Blue Box style containers. The following trends were noticed:

- The amount of mixed recycling set-outs decreased significantly during the November 2010 audit directly after the Blue Box rollout, when mixed recycling set outs dropped by 30.92%. However, the percentage of households with mixed recycling set-outs increased during both the June 2011 and November 2011 audits.
- During the 2011 waste audits more households appeared to be using the larger blue boxes for fibres instead of containers and at times combining both streams in the larger Blue Box due to the fact that they generate more recyclable fibres than recyclable containers. These observations indicate that more promotion and education may be needed to explain the need to have separate recyclable fibres and containers Blue Boxes set out
- The percentage of households setting out alternative containers decreased directly after the rollout of the new Blue Box but increased during both of the 2011 audits.
- In comparison to the pre-rollout audit in June 2010, the percentage of households setting out alternative containers is lower in each of the subsequent audits.

The volume and density of the recyclable containers stream set-outs were also estimated during each of the waste audits to determine the effect of the Blue Box rollout and to identify any noticeable trends. This analysis yielded the following results:

- The average weight of material set out in the containers stream was higher in each of the audits after the Blue Box rollout. The largest increase in recyclable containers set out was notice directly after the rollout when the net weight of recyclable containers stream material set out increased from 1.76 kg per bin/Blue Box before the rollout, to 2.14 kg per bin/Blue Box after the rollout, an increase of 21.64%.
- The average density of the containers stream set-out and the density of the containers stream material remained relatively constant over time, although the density of the average set-out and the density of the containers stream material did drop slightly during the 2011 audits.

AET staff collected garbage from 100 households and recyclable containers from 250 households out of the 1,000 households surveyed in order to conduct a detailed waste composition audit. Although every reasonable effort was made by the audit team to make additional passes of the collection areas later in the mornings to collect late set-outs, it is possible that some households did not set out material until later in the day in anticipation of the arrival of the Region's collection contractor. After analysing the data resulting from each of the four waste audits the following conclusions can be made:

- The amount of material being generated in the garbage stream has increased over time, from a low of 280.75 kg/hh/yr during the June 2010 audit, to a high of 361.36 kg/hh/yr during the June 2011 audit. The main reasons for the increases in garbage stream generation are due to an increase in non-recyclable paper and plastics found in the garbage stream during later audits.
- The total amount of recyclable containers being set out has gradually increased over time, from 65.78 kg/hh/yr in June 2010, to a high of 79.01 kg/hh/yr in November 2010. In addition, each of the 2011 waste audits had containers stream generation at over 70 kg/hh/yr
- Contamination rate in the containers stream has increased over the course of the four waste audits from 9.14% during the June 2010 audit, to over 13% during both the 2011 audits. One contributing factor for this increase in contamination is an increase in the amount of PET packaging ending up in the containers recycling stream.

In summary, the results of the Blue Box study indicate that a higher percentage of households are participating in the recycling program and that households are recycling more containers stream material with the new Blue Boxes. , less households are mixing recyclable fibres and containers in one Blue Box and less households are using alternative recycling bins to set out their recyclables at the curb. However, contamination rates in the containers stream have also increased, indicating that

ongoing promotion and education is still necessary to ensure the correct materials end up in the recycling stream. Diversion rates were not reported due to the fact that a large percentage of the waste generated was unknown since the organic stream and recyclable fibres stream were not audited.

A relatively high degree of confidence can be placed on the participation and volume density survey results and the waste audit composition results for the single-family household samples sorted during the study period, given the large area sampled. It would be beneficial to include the organics stream and recyclable fibres stream in future waste composition audits in order to get a better picture of capture rates and diversion rates in the Region. Additional studies will also help to increase confidence levels with respect to the data presented in this report, and to verify that the set-out (participation) rates and waste generation rates obtained during the 2010 and 2011 audits are representative of the Region's generation and diversion habits.

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Disclaimer

AET makes no warranty and assumes no liability for the information contained in this report outlining the Large Blue Box Study results. These results reflect measurements made over four two- week periods from June 2010 to November 2011 as described in the methodology. As such, waste generation measurements should be considered snapshots in time and may not reflect accurately conditions across the Region of Durham over time. Seasonal variability, holidays and weather, among other factors, can affect the amount and composition of waste and recyclables generated by households over time.

APPENDIX A

JUNE 2011 WASTE AUDIT RESULTS

Durham Region Waste Audit June 2011 - Waste and Recycling Study

Municipality:		Oshawa	Whitby(Brooklin)	Scugog (Greenbank)	Pickering	Uxbridge	Whitby	Clarington (Bowmanville)	Oshawa	Clarington (Courtice)	Ajax	Oshawa	Whitby	Clarington (Bowmanville)	Oshawa	Whitby (Brooklin)	Clarington (Courtice)	Scugog (Greenbank)	Pickering	Ajax	Uxbridge	Whitby	Oshawa	Clarington (Bowmanville)	Oshawa	Whitby (Brooklin)
Sample Area:		Elizabeth/ Waverly	Covington/ Corsham	Pearl/lanson	Cricket/Stonpath	Button/ Confederation	Bonneta/Muir	Trewin	Greirson/Mary	Wilkins	Tiller/Ryder	Elizabeth/ Waverly	Bonneta/Muir	Trewin	Greirson/Mary	Covington/ Corsham	Wilkins	Pearl/lanson	Cricket/ Stonepath	Tiller/Ryder	Button/ Confederation	Bonneta/Muir	Elizabeth/ Waverly	Trewin	Greirson/Mary	Covington/ Corsham
Date Collected (month/day/year):		13-Jun-11	15-Jun-11	16-Jun-11	16-Jun-11	17-Jun-11	20-Jun-11	21-Jun-11	21-Jun-11	22-Jun-11	24-Jun-11	13-Jun-11	13-Jun-11	14-Jun-11	14-Jun-11	15-Jun-11	15-Jun-11	16-Jun-11	16-Jun-11	17-Jun-11	17-Jun-11	20-Jun-11	20-Jun-11	21-Jun-11	21-Jun-11	22-Jun-11
Waste Stream:		Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers
Waste Generation Period (number of days):		14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	
Audit Supervisor:		Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	
Notes (# households):		Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W, Acceptable Organics=Q	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	All Garbage had been collected by haulers prior to our arrival	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	All Recycling had been collected by haulers prior to our arrival	Weight (kg)	
1. PAPER																										
Newspaper – Dailys and Weeklys	R	2.82	0.00	0.68	0.02	0.40	0.00	0.00	0.00	0.36	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Newspaper - Other	R	3.00	0.46	0.27	0.00	0.06	0.00	0.42	0.00	0.87	2.53	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	
Telephone Books / Directories	R	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Magazines & Catalogues	R	3.28	1.46	0.00	0.11	0.00	0.00	0.12	0.00	0.11	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	
Mixed Fine Paper	R	6.00	2.70	2.99	0.52	1.17	0.63	1.87	0.00	2.36	5.24	0.00	0.17	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.00	
Books	R	0.00	0.16	0.00	0.17	0.23	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Other Paper	W	1.55	0.61	4.68	0.00	0.69	1.61	0.88	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Corrugated Wine Bag in Box	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Other Corrugated	R	0.74	0.42	0.11	0.04	1.18	0.42	0.04	0.00	1.04	0.51	0.32	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	
Waxed Corrugated	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Kraft Paper	R	3.55	0.59	0.63	1.12	0.56	1.12	0.59	0.00	1.08	0.73	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Boxboard / Cores	R	3.39	2.45	1.80	0.93	1.99	2.33	2.25	0.00	3.31	2.92	0.23	0.19	0.00	0.03	0.01	0.09	0.10	0.07	0.04	0.00	0.20	0.94	0.24	0.00	
Molded Pulp	O	0.56	0.29	0.12	0.87	0.04	0.27	0.50	0.00	0.27	0.29	0.00	0.06	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.06	
Paper Cups and Paper Ice-Cream Containers	W	0.53	1.55	0.99	0.85	1.22	1.01	0.59	0.00	1.57	0.42	0.08	0.06	0.01	0.05	0.05	0.00	0.03	0.00	0.08	0.13	0.03	0.06	0.00	0.13	
Laminated Paper Packaging	W	0.70	0.67	1.21	1.57	1.21	0.39	0.60	0.00	1.15	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Composite Cans	W	0.17	0.15	0.09	0.17	0.21	0.14	0.22	0.00	0.81	0.13	0.00	0.32	0.03	0.05	0.08	0.07	0.02	0.00	0.37	0.14	0.06	0.04	0.02	0.11	
Gable Top Cartons	R	0.02	0.00	0.18	0.00	0.12	0.02	0.02	0.00	0.10	0.20	0.53	0.08	0.10	0.00	0.02	0.63	0.36	0.67	0.53	0.30	0.39	0.48	0.22	0.00	
Aseptic Alcohol	R	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Aseptic Other Containers	R	0.11	0.09	0.08	0.06	0.01	0.27	0.05	0.00	0.30	0.01	0.19	0.18	0.00	0.02	0.04	0.25	0.07	0.01	0.04	0.00	0.13	0.11	0.04	0.05	
Tissue/Towelng	W	10.07	6.87	3.46	1.21	5.08	4.94	5.30	0.00	5.15	4.39	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Recyclable Paper	TR	22.91	8.33	6.74	3.02	5.72	4.79	6.38	0.00	10.02	13.33	1.27	0.97	0.10	0.07	0.07	0.97	0.53	0.75	0.61	0.30	0.72	1.53	1.77	0.00	
Total Non-Recyclable Paper	TND	13.02	10.05	10.43	3.80	8.41	8.09	8.60	0.00	8.68	6.60	0.08	0.38	0.04	0.11	0.13	0.07	0.05	0.00	0.45	0.27	0.09	0.10	0.02	0.00	
Total Acceptable Organics	TAO	0.56	0.29	0.12	0.87	0.04	0.27	0.50	0.00	0.27	0.29	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.06	
Total Paper		36.49	18.67	17.30	7.68	14.17	13.15	14.47	0.00	18.97	20.22	1.35	1.41	0.14	0.18	0.20	1.04	0.58	0.75	1.06	0.57	0.91	1.68	1.79	0.00	
2. PLASTICS																										
PET Beer Bottles	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PET Other Alcohol Bottles over 100 ml	R	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.11	0.00	0.00	0.00	0.16	0.00	0.12	0.00	
PET Other Alcohol Bottles 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PET Water Beverage Bottles	R	0.25	0.28	0.20	0.03	0.12	0.20	0.09	0.00	0.30	0.07	0.68	0.76	0.20	0.06	0.33	1.16	0.66	0.86	0.50	0.36	2.07	0.27	0.23	0.46	
PET Other Beverage Bottles	R	0.13	0.06	0.10	0.00	0.00	0.23	0.12	0.00	0.32	0.08	0.47	1.80	0.75	0.45	0.63	1.39	1.37	1.30	0.78	1.56	1.06	0.63	1.51	1.12	
PET Other Bottles & Jars	R	0.17	0.74	0.23	0.00	0.13	0.43	0.12	0.00	0.09	0.50	0.27	0.00	0.18	0.53	0.35	0.61	0.37	0.11	0.60	0.47	0.59	0.16	0.61	0.41	
PET Other Packaging	W	1.22	0.46	0.67	1.24	2.22	0.77	0.95	0.00	1.64	1.58	0.03	0.27	0.21	0.37	0.02	0.04	0.40	0.15	0.07	0.05	0.53	0.17	0.59	0.06	
HDPE Beverage Bottles	R	0.02	0.00	0.07	0.04	0.00	0.02	0.03	0.00	0.02	0.02	0.00	0.19	0.00	0.03	0.05	0.00	0.08	0.07	0.08	0.09	0.28	0.00	0.34	0.16	
HDPE Other Bottles & Jugs	R	0.47	0.46	0.36	0.17	0.66	0.20	0.58	0.00	0.61	0.81	0.71	0.65	0.77	0.34	0.46	1.21	0.99	0.70	0.69	1.63	1.01	0.77	0.39	0.02	
PVC Bottles & Jars	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	
Other Plastic Alcohol Containers 100 ml and Under	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Other Bottles, Jars & Jugs	R	0.06	0.02	0.24	0.03	0.01	0.03	0.06	0.00	0.00	0.08	0.15	0.41	0.22	0.23	0.24	0.03	0.35	0.20	0.18	0.00	0.44	0.08	0.01	0.21	
Polystyrene Packaging - Packaging Foam	W	0.64	0.26	0.00	0.23	0.33	0.28	0.44	0.00	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Polystyrene Packaging - 'Peanuts' Foam	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Polystyrene Packaging - Food Service Foam	W	0.43	0.73	0.45	0.67	0.59	0.71	0.67	0.00	0.96	0.98	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	
Polystyrene Packaging - Rigid	W	0.59	1.08	0.69	0.83	0.59	0.52	0.37	0.00	0.88	0.21	0.06	0.08	0.00	0.01	0.10	0.22	0.06	0.02	0.06	0.02	0.19	0.08	0.00	0.16	
Polystyrene Non-Packaging - Rigid	W	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.43	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.01	0.00	0.00	0.02	
Wide Mouth Tubs & Lids - Coloured, Cloudy and Opaque	R	0.88	1.02	0.20	0.38	0.59	0.28	0.32	0.00	0.52	0.36	0.30	0.51	0.23	0.15	0.22	0.39	0.13	0.35	0.32	0.29	0.53	0.05	0.51	0.11	
Wide Mouth Tubs & Lids - Clear	R	0.21	0.21	0.11	0.05	0.26	0.13	0.10																		

Municipality: Sample Area: Date Collected (month/day/year): Waste Stream: Waste Generation Period (number of days): -Audit Supervisor: Notes (# households):		Municipality: Oshawa																									
		Oshawa	Whitby(Brooklin)	Scugog (Greenbank)	Pickering	Uxbridge	Whitby	Clarington (Bowmanville)	Oshawa	Clarington (Courtice)	Ajax	Oshawa	Whitby	Clarington (Bowmanville)	Oshawa	Whitby (Brooklin)	Clarington (Courtice)	Scugog (Greenbank)	Pickering	Ajax	Uxbridge	Whitby	Oshawa	Clarington (Bowmanville)	Oshawa	Whitby (Brooklin)	
		Elizabeth/ Waverly	Covington/ Corsham	Pearl/Ianson	Cricket/Stonepath	Button/ Confederation	Bonneta/Muir	Trewin	Greirson/Mary	Wilkins	Tiller/Ryder	Elizabeth/ Waverly	Bonneta/Muir	Trewin	Greirson/Mary	Covington/ Corsham	Wilkins	Pearl/Ianson	Cricket/ Stonepath	Tiller/Ryder	Button/ Confederation	Bonneta/Muir	Elizabeth/ Waverly	Trewin	Greirson/Mary	Covington/ Corsham	
		13-Jun-11	15-Jun-11	16-Jun-11	16-Jun-11	17-Jun-11	20-Jun-11	21-Jun-11	21-Jun-11	22-Jun-11	24-Jun-11	13-Jun-11	13-Jun-11	14-Jun-11	14-Jun-11	15-Jun-11	15-Jun-11	16-Jun-11	16-Jun-11	17-Jun-11	17-Jun-11	20-Jun-11	20-Jun-10	21-Jun-11	21-Jun-11	22-Jun-11	
		Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers
14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days		
Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Ben Dunbar	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest		
Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10		
Material Category	Acceptable: Recyclable=R, Non-Recyclable=W, Acceptable Organics=O	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	All Garbage had been collected by hauliers prior to our arrival	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	All Recycling had been collected by hauliers prior to our arrival	Weight (kg)	
4. GLASS																											
Clear Glass Beer	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Clear Glass Other Alcohol over 100 ml	R	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53	0.80	0.00	0.87	1.91	0.00	0.50	0.00	0.00	0.00	0.90	0.00		
Clear Glass Other Alcohol 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Coloured Glass Beer	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00		
Coloured Glass Other Alcohol Over 100 ml	R	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	3.68	0.00	0.00	0.59	0.53	0.61	0.00	0.00	0.40	0.00	1.02	0.00		
Coloured Glass Other Alcohol 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00		
Clear Glass Other Beverage and Food	R	1.16	0.66	0.28	0.00	0.41	0.00	0.66	0.00	0.24	0.64	2.59	2.98	1.34	1.26	1.74	2.45	3.05	1.13	0.00	0.64	3.17	0.86	1.76	0.00		
Coloured Glass Other Beverage and Food	R	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.45	0.74	6.51	0.00	0.00	0.00	0.00	0.00		
Other Glass	W	1.49	0.36	0.22	0.65	0.91	1.60	0.13	0.00	0.53	1.80	0.00	0.00	0.27	0.00	0.45	0.00	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.45		
Total Recyclable Glass	TR	1.16	0.66	0.49	0.00	0.41	0.00	1.28	0.00	0.75	0.64	2.59	7.24	2.87	2.06	1.74	4.50	5.94	2.48	7.01	0.64	3.89	0.86	3.68	0.00		
Total Non-Recyclable Glass	TND	1.49	0.36	0.22	0.65	0.91	1.60	0.13	0.00	0.53	1.80	0.00	0.00	0.27	0.00	0.45	0.00	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.45		
Total Glass		2.65	1.02	0.71	0.65	1.32	1.60	1.41	0.00	1.28	2.44	2.59	7.24	3.14	2.06	2.19	4.50	5.94	2.48	7.01	0.64	3.89	1.90	3.68	0.00		
5. HOUSEHOLD SPECIAL WASTE																											
Batteries	W	0.69	0.00	0.12	0.11	0.01	0.05	0.01	0.00	0.52	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Paint & Stain	W	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.47	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Motor Oil	W	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Other HSW liquids	W	0.37	0.76	0.00	0.11	0.05	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Other HSW	W	0.38	0.21	0.00	0.44	0.10	2.47	0.20	0.00	0.44	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00		
Total HSW	TND	1.44	0.97	0.12	0.22	0.16	2.97	0.21	0.00	1.57	0.49	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00		
6. ORGANICS																											
Food Waste	O	37.59	23.40	14.55	8.14	25.59	32.96	51.86	0.00	53.53	31.78	0.49	1.92	0.08	0.00	0.00	0.60	0.43	0.09	0.34	0.15	1.68	0.00	0.35	0.00		
Yard Waste	O	4.35	4.95	0.22	8.97	0.92	30.30	6.36	0.00	2.99	16.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Pet waste	W	9.26	40.10	12.66	8.42	24.36	12.14	16.42	0.00	28.15	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Total Acceptable Organics	TAO	41.94	28.35	14.77	17.11	26.51	63.26	58.22	0.00	56.52	48.52	0.49	1.92	0.08	0.00	0.00	0.60	0.43	0.09	0.34	0.15	1.68	0.00	0.35	0.00		
Total Non-Acceptable Organics	TND	9.26	40.10	12.66	8.42	24.36	12.14	16.42	0.00	28.15	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Total Organics		51.20	68.45	27.43	25.53	50.87	75.40	74.64	0.00	84.67	48.61	0.49	1.92	0.08	0.00	0.00	0.60	0.43	0.09	0.34	0.15	1.68	0.00	0.35	0.00		
7. OTHER MATERIALS																											
Diapers and Sanitary Products	W	11.30	16.52	12.49	2.44	2.04	7.94	10.38	0.00	2.24	30.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Textiles	W	15.01	11.80	5.48	8.41	4.17	1.53	0.00	0.00	17.08	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Carpeting	W	0.00	0.00	0.00	0.00	10.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Wood	W	2.76	2.49	0.06	0.08	2.62	2.17	0.07	0.00	0.12	0.26	0.00	0.00	0.00	0.05	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Construction & Renovation - Other	W	0.00	0.00	0.00	0.67	0.00	7.26	0.00	0.00	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Computer / IT Equipment	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Telecom Equipment	W	0.00	0.00	0.00	0.00	0.00	0.00	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
TV & Audio Equipment	W	0.34	0.00	0.00	0.00	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Small Kitchen Appliances	W	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Other Electronics	W	0.24	1.96	0.00	0.22	0.05	0.27	0.14	0.00	0.50	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Tires and Other Rubber	W	0.28	0.00	0.00	0.00	3.83	0.00	0.00	0.00	9.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Ceramics	W	0.00	0.00	0.65	0.83	0.45	2.84	0.00	0.00	1.26	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00		
Furniture - Padded	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Furniture - Plastic	W	0.00	6.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Furniture - Wood	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Furniture - Metal	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Furniture - Other	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Mattresses	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Other Large Bulky Items	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0													

Durham Region Waste Audit June 20

Municipality: Sample Area: Date Collected (month/day/year): Waste Stream: Waste Generation Period (number of days): Audit Supervisor: Notes (# households):		Clarington (Courice)	Scugog (Greenbank)	Pickering	Ajax	Uxbridge	Total 14-Day Disposed	Total Weekly Disposed	Total Annual Disposed	Disposed per Household per week	Disposed per Household per year	Total 14-Day Sample Period	Total Weekly	Total Annual	Total per Household per week	Total per Household per year											
		Wilkins	Pearl/Ianson	Cricket/Stonepath	Tiller/Ryder	Button/ Confederation																					
		22-Jun-11	23-Jun-11	23-Jun-11	24-Jun-11	24-Jun-11																					
		Containers	Containers	Containers	Containers	Containers																					
		7 days	7 days	7 days	7 days	7 days																					
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W, Acceptable Organics=O	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Garbage	Garbage	Garbage	Garbage	Garbage	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling											
		Sub 10	Sub 10	Sub 10	Sub 10	Sub 10																					
		Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight kg/14 days	Weight kg/wk	Weight kg/yr	Weight kg/hh/wk	Weight kg/hh/yr	Weight kg/14 days	Weight kg/wk	Weight kg/yr	Weight kg/hh/wk	Weight kg/hh/yr											
1. PAPER																											
Newspaper – Dailys and Weeklys	R	0.00	0.00	0.00	0.00	0.00	5.24	2.62	136.61	0.03	1.52	0.00	0.00	0.00	0.00	0.00											
Newspaper - Other	R	0.00	0.00	0.00	0.20	0.00	7.61	3.81	198.40	0.04	2.20	0.34	0.17	8.86	0.00	0.09											
Telephone Books / Directories	R	0.00	0.00	0.00	0.00	0.00	1.48	0.74	38.59	0.01	0.43	0.00	0.00	0.00	0.00	0.00											
Magazines & Catalogues	R	0.00	0.00	0.00	0.00	0.03	5.31	2.66	138.44	0.03	1.54	0.17	0.09	4.43	0.00	0.05											
Mixed Fine Paper	R	0.00	0.00	0.00	0.00	0.00	23.48	11.74	612.09	0.13	6.80	1.10	0.55	28.68	0.01	0.30											
Books	R	0.00	0.00	0.00	0.00	0.00	0.59	0.30	15.38	0.00	0.17	0.00	0.00	0.00	0.00	0.00											
Other Paper	W	0.00	0.00	0.00	0.00	0.00	11.27	5.64	293.83	0.06	3.26	0.00	0.00	0.00	0.00	0.00											
Corrugated Wine Bag in Box	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
Other Corrugated	R	0.00	0.00	0.00	0.00	0.00	4.50	2.25	117.32	0.03	1.30	0.73	0.37	19.03	0.00	0.20											
Waxed Corrugated	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
Kraft Paper	R	0.00	0.00	0.00	0.00	0.13	9.97	4.99	259.93	0.06	2.89	0.15	0.08	3.91	0.00	0.04											
Boxboard / Cores	R	0.09	0.00	0.01	0.23	0.14	21.37	10.69	557.15	0.12	6.19	2.61	1.31	68.05	0.01	0.72											
Molded Pulp	O	0.00	0.00	0.00	0.00	0.05	3.21	1.61	83.69	0.02	0.93	0.32	0.16	8.34	0.00	0.09											
Paper Cups and Paper Ice-Cream Containers	W	0.13	0.00	0.13	0.03	0.14	8.73	4.37	227.60	0.05	2.53	1.14	0.57	29.72	0.01	0.31											
Laminated Paper Packaging	W	0.00	0.00	0.00	0.00	0.00	8.11	4.05	211.31	0.05	2.35	0.00	0.00	0.00	0.00	0.00											
Composite Cans	W	0.00	0.01	0.05	0.44	0.07	2.09	1.05	54.49	0.01	0.61	1.88	0.94	49.01	0.01	0.52											
Gable Top Cartons	R	1.04	0.40	0.59	0.37	0.77	0.66	0.33	17.21	0.00	0.19	7.48	3.74	195.01	0.04	2.05											
Aseptic Alcohol	R	0.00	0.00	0.04	0.00	0.00	0.05	0.03	1.30	0.00	0.01	0.04	0.02	1.04	0.00	0.01											
Aseptic Other Containers	R	0.16	0.04	0.00	0.00	0.05	0.98	0.49	25.55	0.01	0.28	1.38	0.69	35.98	0.01	0.38											
Tissue/Towelng	W	0.00	0.00	0.01	0.00	0.00	46.47	23.24	1211.54	0.26	13.46	0.02	0.01	0.52	0.00	0.01											
Total Recyclable Paper	TR	1.29	0.44	0.64	0.80	1.12	81.24	40.62	2,117.98	0.45	23.53	14.00	7.00	365.00	0.07	3.84											
Total Non-Recyclable Paper	TND	0.13	0.01	0.19	0.47	0.21	76.67	38.33	1,998.77	0.43	22.21	3.04	1.52	79.26	0.02	0.83											
Total Acceptable Organics	TAO	0.00	0.00	0.00	0.00	0.05	3.21	1.61	83.69	0.02	0.93	0.32	0.16	8.34	0.00	0.09											
Total Paper		1.42	0.45	0.83	1.27	1.38	161.11	80.56	4200.43	0.90	46.67	17.36	8.68	452.60	0.09	4.76											
2. PLASTICS																											
PET Beer Bottles	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
PET Other Alcohol Bottles over 100 ml	R	0.00	0.00	0.00	0.00	0.00	0.04	0.02	1.04	0.00	0.01	0.55	0.28	14.34	0.00	0.15											
PET Other Alcohol Bottles 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
PET Water Beverage Bottles	R	1.32	0.78	0.52	0.67	0.61	1.54	0.77	40.15	0.01	0.45	12.50	6.25	325.89	0.07	3.43											
PET Other Beverage Bottles	R	2.12	0.86	0.97	1.07	0.77	1.04	0.52	27.11	0.01	0.30	20.61	10.31	537.33	0.11	5.66											
PET Other Bottles & Jars	R	1.01	0.79	0.74	0.32	0.64	2.41	1.21	62.83	0.01	0.70	8.76	4.38	228.39	0.05	2.40											
PET Other Packaging	W	0.26	0.22	0.10	0.20	0.21	10.75	5.38	280.27	0.06	3.11	3.95	1.98	102.98	0.02	1.08											
HDPE Beverage Bottles	R	0.76	0.05	0.11	0.10	0.01	0.22	0.11	5.74	0.00	0.06	2.40	1.20	62.57	0.01	0.66											
HDPE Other Bottles & Jugs	R	0.51	0.19	0.57	0.79	2.35	4.32	2.16	112.63	0.02	1.25	14.75	7.38	384.55	0.08	4.05											
PVC Bottles & Jars	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.12	6.00	0.00	0.06											
Other Plastic Alcohol Containers 100 ml and Under	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
Other Bottles, Jars & Jugs	R	0.26	0.13	0.03	0.28	0.08	0.53	0.27	13.82	0.00	0.15	3.53	1.77	92.03	0.02	0.97											
Polystyrene Packaging - Packaging Foam	W	0.00	0.00	0.00	0.00	0.00	2.43	1.22	63.35	0.01	0.70	0.00	0.00	0.00	0.00	0.00											
Polystyrene Packaging - 'Peanuts' Foam	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
Polystyrene Packaging - Food Service Foam	W	0.00	0.00	0.00	0.00	0.00	6.19	3.10	161.38	0.03	1.79	0.04	0.02	1.04	0.00	0.01											
Polystyrene Packaging - Rigid	W	0.02	0.16	0.04	0.06	0.05	5.76	2.88	150.17	0.03	1.67	1.33	0.67	34.68	0.01	0.37											
Polystyrene Non-Packaging - Rigid	W	0.04	0.00	0.00	0.02	0.00	0.86	0.43	22.42	0.00	0.25	0.16	0.08	4.17	0.00	0.04											
Wide Mouth Tubs & Lids - Coloured, Cloudy and Opaque	R	0.63	0.07	0.27	0.07	0.13	4.55	2.28	118.63	0.03	1.32	5.26	2.63	137.14	0.03	1.44											
Wide Mouth Tubs & Lids - Clear	R	0.16	0.08	0.18	0.01	0.04	1.64	0.82	42.76	0.01	0.48	1.53	0.77	39.89	0.01	0.42											
Large HDPE & PP Pails & Lids	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.72	37.54	0.01	0.40											
Polyethylene PE Plastic Bags & Film - Carry-Out Bags Packaging	W	0.00	0.00	0.00	0.00	0.00	11.43	5.72	298.00	0.06	3.31	0.04	0.02	1.04	0.00	0.01											
Polyethylene PE Plastic Bags & Film - Other Packaging	W	0.00	0.00	0.00	0.00	0.03	42.66	21.33	1112.21	0.24	12.36	0.10	0.05	2.61	0.00	0.03											
Polyethylene Plastic Bags & Film - Bags Non-Packaging	W	0.00	0.00	0.00	0.00	0.00	21.68	10.84	565.23	0.12	6.28	0.04	0.02	1.04	0.00	0.01											
Polyethylene Plastic Bags & Film - Other Non-Packaging	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
Laminated Pouches & Bag in Box Liners for Alcoholic Beverages	W	0.00	0.00	0.00	0.00	0.00	0.05	0.03	1.30	0.00	0.01	0.00	0.00	0.00	0.00	0.00											
Laminated/Other Plastic Film and Bags	W	0.00	0.00	0.00	0.00	0.00	26.68	13.34	695.59	0.15	7.73	0.02	0.01	0.52	0.00	0.01											
Other Rigid Plastic Packaging	W	0.15	0.00	0.03	0.02	0.25	37.80	18.90	985.57	0.21	10.95	2.44	1.22	63.61	0.01	0.67											
Durable Plastic Products	W	0.00	0.00	0.00	0.00	1.92	62.38	31.19	1626.34	0.35	18.07	2.40	1.20	62.57	0.01	0.66											
Total Recyclable Plastics	TR	6.77	2.95	3.39	3.31	4.63	16.29	8.15	424.70	0.09	4.72	69.89	34.95	1822.13	0.37	19.18											
Total Non-Recyclable Plastics	TND	0.47	0.38	0.17	0.30	2.46	228.67	114.34	5,961.82	1.27	66.24	12.19	6.10	317.81	0.06	3.35											
Total Plastics		7.24	3.33	3.56	3.61	7.09	244.96	122.48	6,386.52	1.36	70.96	82.08	41.04	2139.94	0.43	22.53											
3. METALS																											
Aluminum Alcoholic Beverage Cans	R	0.13	0.03	0.00	0.09	0.29	0.24	0.12	6.26	0.00	0.07	0.98	0.49	25.55	0.01	0.27											
Aluminum Food Cans & Other Beverages	R	0.96	0.68	0.65	0.46	0.92	0.71	0.36	18.51	0.00	0.																

Municipality: Sample Area: Date Collected (month/day/year): Waste Stream: Waste Generation Period (number of days): Audit Supervisor: Notes (# households):		Clarington (Courice)	Scugog (Greenbank)	Pickering	Ajax	Uxbridge	Total 14-Day Disposed	Total Weekly Disposed	Total Annual Disposed	Disposed per Household per week	Disposed per Household per year	Total 14-Day Sample Period	Total Weekly	Total Annual	Total per Household per week	Total per Household per year
		Wilkins	Pearl/lanson	Cricket/Stonepath	Tiller/Ryder	Buttn/ Confederation										
		22-Jun-11	23-Jun-11	23-Jun-11	24-Jun-11	24-Jun-11										
		Containers	Containers	Containers	Containers	Containers										
		7 days	7 days	7 days	7 days	7 days										
		Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest	Adam Forrest										
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W, Acceptable Organics=O	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight kg/14 days	Weight kg/wk	Weight kg/yr	Weight kg/hh/wk	Weight kg/hh/yr	Weight kg/14 days	Weight kg/wk	Weight kg/yr	Weight kg/hh/wk	Weight kg/hh/yr
4. GLASS																
Clear Glass Beer	R	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58	0.79	41.19	0.01	0.43
Clear Glass Other Alcohol over 100 ml	R	0.00	0.37	0.00	0.45	1.09	0.21	0.11	5.48	0.00	0.06	8.93	4.47	232.82	0.05	2.45
Clear Glass Other Alcohol 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coloured Glass Beer	R	7.63	0.00	0.52	0.00	0.00	0.51	0.26	13.30	0.00	0.15	8.41	4.21	219.26	0.04	2.31
Coloured Glass Other Alcohol Over 100 ml	R	0.00	0.00	0.41	0.61	0.00	0.52	0.26	13.56	0.00	0.15	7.85	3.93	204.66	0.04	2.15
Coloured Glass Other Alcohol 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.03	1.56	0.00	0.02
Clear Glass Other Beverage and Food	R	3.14	2.24	1.04	4.50	3.15	4.05	2.03	105.59	0.02	1.17	39.40	19.70	1027.21	0.21	10.81
Coloured Glass Other Beverage and Food	R	0.00	0.46	0.93	0.00	1.44	0.10	0.05	2.61	0.00	0.03	11.11	5.56	289.65	0.06	3.05
Other Glass	W	0.00	0.00	0.00	0.00	0.00	7.69	3.85	200.49	0.04	2.23	2.21	1.11	57.62	0.01	0.61
Total Recyclable Glass	TR	11.76	3.07	2.90	5.56	5.68	5.39	2.70	140.53	0.03	1.56	77.34	38.67	2016.36	0.41	21.22
Total Non-Recyclable Glass	TND	0.00	0.00	0.00	0.00	0.00	7.69	3.85	200.49	0.04	2.23	2.21	1.11	57.62	0.01	0.61
Total Glass		11.76	3.07	2.90	5.56	5.68	13.08	6.54	341.01	0.07	3.79	79.55	39.78	2073.98	0.42	21.83
5. HOUSEHOLD SPECIAL WASTE																
Batteries	W	0.00	0.00	0.00	0.00	0.00	1.97	0.99	51.36	0.01	0.57	0.00	0.00	0.00	0.00	0.00
Paint & Stain	W	0.00	0.00	0.00	0.00	0.00	0.60	0.30	15.64	0.00	0.17	0.12	0.06	3.13	0.00	0.03
Motor Oil	W	0.00	0.00	0.00	0.00	0.87	0.32	0.16	8.34	0.00	0.09	0.87	0.44	22.68	0.00	0.24
Other HSW liquids	W	0.00	0.00	0.00	0.00	0.00	1.43	0.72	37.28	0.01	0.41	0.00	0.00	0.00	0.00	0.00
Other HSW	W	0.00	0.00	0.00	0.00	0.00	3.83	1.92	99.85	0.02	1.11	0.18	0.09	4.69	0.00	0.05
Total HSW	TND	0.00	0.00	0.00	0.00	0.87	8.15	4.08	212.48	0.05	2.36	1.17	0.59	30.50	0.01	0.32
6. ORGANICS																
Food Waste	O	2.13	1.07	0.20	0.00	0.43	279.40	139.70	7284.29	1.55	80.94	9.98	4.99	260.19	0.05	2.74
Yard Waste	O	0.00	0.00	0.00	0.00	0.00	75.80	37.90	1976.21	0.42	21.96	0.00	0.00	0.00	0.00	0.00
Pet waste	W	0.00	0.00	0.00	0.00	0.00	151.60	75.80	3952.43	0.84	43.92	0.00	0.00	0.00	0.00	0.00
Total Acceptable Organics	TAO	2.13	1.07	0.20	0.00	0.43	355.20	177.60	9260.51	1.97	102.89	9.98	4.99	260.19	0.05	2.74
Total Non-Acceptable Organics	TND	0.00	0.00	0.00	0.00	0.00	151.60	75.80	3,952.43	0.84	43.92	0.00	0.00	0.00	0.00	0.00
Total Organics		2.13	1.07	0.20	0.00	0.43	506.80	253.40	13,212.93	2.82	146.81	9.98	4.99	260.19	0.05	2.74
7. OTHER MATERIALS																
Diapers and Sanitary Products	W	0.00	0.00	0.00	0.00	0.00	95.42	47.71	2487.74	0.53	27.64	0.00	0.00	0.00	0.00	0.00
Textiles	W	0.00	0.00	0.00	0.00	0.00	67.67	33.84	1764.25	0.38	19.60	0.00	0.00	0.00	0.00	0.00
Carpeting	W	0.00	0.00	0.00	0.00	0.00	10.67	5.34	278.18	0.06	3.09	0.00	0.00	0.00	0.00	0.00
Wood	W	0.00	0.00	0.00	0.00	0.00	10.63	5.32	277.14	0.06	3.08	0.09	0.05	2.35	0.00	0.02
Construction & Renovation - Other	W	0.00	0.00	0.00	0.00	0.00	10.16	5.08	264.89	0.06	2.94	0.00	0.00	0.00	0.00	0.00
Computer / IT Equipment	W	0.00	0.00	0.00	0.00	0.00	0.54	0.27	14.08	0.00	0.16	0.00	0.00	0.00	0.00	0.00
Telecom Equipment	W	0.00	0.00	0.00	0.00	0.00	2.76	1.38	71.96	0.02	0.80	0.00	0.00	0.00	0.00	0.00
TV & Audio Equipment	W	0.00	0.00	0.00	0.00	0.00	1.73	0.87	45.10	0.01	0.50	0.00	0.00	0.00	0.00	0.00
Small Kitchen Appliances	W	0.00	0.00	0.00	0.00	0.00	1.17	0.59	30.50	0.01	0.34	0.00	0.00	0.00	0.00	0.00
Other Electronics	W	0.00	0.00	0.00	0.00	0.00	3.70	1.85	96.46	0.02	1.07	0.00	0.00	0.00	0.00	0.00
Tires and Other Rubber	W	0.00	0.00	0.00	0.00	0.00	13.32	6.66	347.27	0.07	3.86	0.00	0.00	0.00	0.00	0.00
Ceramics	W	0.00	0.00	0.00	0.00	0.00	6.56	3.28	171.03	0.04	1.90	0.17	0.09	4.43	0.00	0.05
Furniture - Padded	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Furniture - Plastic	W	0.00	0.00	0.00	0.00	0.00	6.19	3.10	161.38	0.03	1.79	0.00	0.00	0.00	0.00	0.00
Furniture - Wood	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Furniture - Metal	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Furniture - Other	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mattresses	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Large Bulky Items	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Waste	W	0.00	0.00	0.07	0.00	0.00	52.72	26.36	1374.42	0.29	15.27	0.27	0.14	7.04	0.00	0.07
Total Acceptable Other Organics	TAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Recyclable Other Material	TR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-Divertable Other Material	TND	0.00	0.00	0.07	0.00	0.00	283.24	141.62	7,384.41	1.57	82.05	0.53	0.27	13.82	0.00	0.15
Total Other Materials		0.00	0.00	0.07	0.00	0.00	283.24	141.62	7,384.41	1.57	82.05	0.53	0.27	13.82	0.00	0.15
Total Recyclable Container Stream Material		22.46	7.39	8.28	11.33	14.37	27.68	13.84	721.66	0.15	8.02	196.38	98.19	5,119.91	1.03	53.89
Total Recyclable Fibre Stream Material		0.09	0.00	0.01	0.43	0.30	79.55	39.77	2,073.92	0.44	23.04	5.10	2.55	132.96	0.03	1.40
Total Organic Material		2.13	1.07	0.20	0.00	0.48	358.41	179.20	9,344.20	1.99	103.82	10.30	5.15	268.54	0.05	2.83
Total Other Material		1.06	0.39	0.49	0.77	3.76	781.80	390.90	20,382.51	4.34	226.47	20.41	10.21	532.12	0.11	5.60
Total All Materials		25.74	8.85	8.98	12.53	18.91	1,247.43	623.72	32,522.28	6.93	361.36	232.19	116.10	6,053.53	1.22	63.72

APPENDIX B

JUNE 2011 CAPTURE RATES SUMMARY

Region of Durham Curbside Waste Audit Composition Analysis								
Sample Type: Sample Area: Sample Size (# Households) Date Collected (month/day/year): Audit Supervisor: Waste Stream: Collection Frequency:		Curbside Residential Waste Audit						
		Region of Durham						
		100						
		06/13/2011 - 06/24/2011						
		Adam Forrest/ Ben Dunbar						
		Residual Waste			Containers			
		Weekly			Weekly			
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W	Net Weight (kg/wk)	%	kg/hh/wk	Net Weight (kg/wk)	%	kg/hh/wk	Recyclable Capture Rate
1. PAPER								
Newspaper – Dailys and Weeklys	R	2.62	0.42%	0.03	0.00	0.00%	0.00	-
Newspaper - Other	R	3.81	0.61%	0.04	0.17	0.15%	0.00	-
Telephone Books / Directories	R	0.74	0.12%	0.01	0.00	0.00%	0.00	-
Magazines & Catalogues	R	2.66	0.43%	0.03	0.09	0.07%	0.00	-
Mixed Fine Paper	R	11.74	1.88%	0.13	0.55	0.47%	0.01	-
Books	R	0.30	0.05%	0.00	0.00	0.00%	0.00	-
Other Paper	W	5.64	0.90%	0.06	0.00	0.00%	0.00	-
Corrugated Wine Bag in Box	R	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other Corrugated	R	2.25	0.36%	0.03	0.37	0.31%	0.00	-
Waxed Corrugated	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Kraft Paper	R	4.99	0.80%	0.06	0.08	0.06%	0.00	-
Boxboard / Cores	R	10.69	1.71%	0.12	1.31	1.12%	0.01	-
Molded Pulp	O	1.61	0.26%	0.02	0.16	0.14%	0.00	-
Paper Cups and Paper Ice-Cream Containers	W	4.37	0.70%	0.05	0.57	0.49%	0.01	-
Laminated Paper Packaging	W	4.05	0.65%	0.05	0.00	0.00%	0.00	-
Composite Cans	W	1.05	0.17%	0.01	0.94	0.81%	0.01	-
Gable Top Cartons	R	0.33	0.05%	0.00	3.74	3.22%	0.04	91.48%
Aseptic Alcohol	R	0.03	0.00%	0.00	0.02	0.02%	0.00	43.11%
Aseptic Other Containers	R	0.49	0.08%	0.01	0.69	0.59%	0.01	57.16%
Tissue/Toweling	W	23.24	3.73%	0.26	0.01	0.01%	0.00	-
Total Recyclable Paper	TR	40.62	6.51%	0.45	7.00	6.03%	0.07	-
Total Non Recyclable Paper	TND	38.33	6.15%	0.43	1.52	1.31%	0.02	-
Total Acceptable Organics	TAO	1.61	0.26%	0.02	0.16	0.14%	0.00	-
Total Paper		80.56	12.92%	0.90	8.68	7.48%	0.09	-
3. PLASTICS								
PET Beer Bottles	R	0.00	0.00%	0.00	0.00	0.00%	0.00	-
PET Other Alcohol Bottles over 100 ml	R	0.02	0.00%	0.00	0.28	0.24%	0.00	92.87%
PET Other Alcohol Bottles 100 ml and Under	R	0.00	0.00%	0.00	0.00	0.00%	0.00	-
PET Water Beverage Bottles	R	0.77	0.12%	0.01	6.25	5.38%	0.07	88.49%
PET Other Beverage Bottles	R	0.52	0.08%	0.01	10.31	8.88%	0.11	94.94%
PET Other Bottles & Jars	R	1.21	0.19%	0.01	4.38	3.77%	0.05	77.50%
PET Other Packaging	W	5.38	0.86%	0.06	1.98	1.70%	0.02	-
HDPE Beverage Bottles	R	0.11	0.02%	0.00	1.20	1.03%	0.01	91.18%
HDPE Other Bottles & Jugs	R	2.16	0.35%	0.02	7.38	6.35%	0.08	76.39%
PVC Bottles & Jars	W	0.00	0.00%	0.00	0.12	0.10%	0.00	-
Other Plastic Alcohol Containers 100 ml and Under	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other Bottles, Jars & Jugs	R	0.27	0.04%	0.00	1.77	1.52%	0.02	86.32%
Polystyrene Packaging - Packaging Foam	W	1.22	0.19%	0.01	0.00	0.00%	0.00	-
Polystyrene Packaging - 'Peanuts' Foam	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Polystyrene Packaging - Food Service Foam	W	3.10	0.50%	0.03	0.02	0.02%	0.00	-
Polystyrene Packaging - Rigid	W	2.88	0.46%	0.03	0.67	0.57%	0.01	-
Polystyrene Non-Packaging - Rigid	W	0.43	0.07%	0.00	0.08	0.07%	0.00	-
Wide Mouth Tubs & Lids - Coloured, Cloudy and Opaque	R	2.28	0.36%	0.03	2.63	2.27%	0.03	52.27%
Wide Mouth Tubs & Lids - Clear	R	0.82	0.13%	0.01	0.77	0.66%	0.01	46.92%
Large HDPE & PP Pails & Lids	W	0.00	0.00%	0.00	0.72	0.62%	0.01	-
Polyethylene PE Plastic Bags & Film - Carry-Out Bags Packaging	W	5.72	0.92%	0.06	0.02	0.02%	0.00	-
Polyethylene PE Plastic Bags & Film - Other Packaging	W	21.33	3.42%	0.24	0.05	0.04%	0.00	-
Polyethylene Plastic Bags & Film - Bags Non-Packaging	W	10.84	1.74%	0.12	0.02	0.02%	0.00	-
Polyethylene Plastic Bags & Film - Other Non-Packaging	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Laminated Pouches & Bag in Box Liners for Alcoholic Beverages	W	0.03	0.00%	0.00	0.00	0.00%	0.00	-
Laminated/Other Plastic Film and Bags	W	13.34	2.14%	0.15	0.01	0.01%	0.00	-
Other Rigid Plastic Packaging	W	18.90	3.03%	0.21	1.22	1.05%	0.01	-
Durable Plastic Products	W	31.19	5.00%	0.35	1.20	1.03%	0.01	-
Total Recyclable Plastics	TR	8.15	1.31%	0.09	34.95	30.10%	0.37	80.25%
Total Non Recyclable Plastics	TND	114.34	18.33%	1.27	6.10	5.25%	0.06	-
Total Plastics		122.48	19.64%	1.36	41.04	35.35%	0.43	-
4. METALS								
Aluminum Alcoholic Beverage Cans	R	0.12	0.02%	0.00	0.49	0.42%	0.01	79.46%
Aluminum Food Cans & Other Beverages	R	0.36	0.06%	0.00	8.79	7.57%	0.09	95.91%
Aluminum Foil & Foil Trays	W	2.54	0.41%	0.03	0.27	0.23%	0.00	-
Other Aluminum Containers	W	0.03	0.00%	0.00	0.17	0.15%	0.00	-
Steel Alcoholic Beverage Cans	R	0.00	0.00%	0.00	0.35	0.30%	0.00	-
Steel Food & Other Beverages	R	0.84	0.13%	0.01	9.57	8.24%	0.10	91.52%
Steel Aerosol Cans	R	0.40	0.06%	0.00	0.69	0.59%	0.01	62.33%
Steel Paint Cans	R	0.45	0.07%	0.00	0.25	0.21%	0.00	34.28%
Other Metal	W	10.33	1.66%	0.11	0.20	0.17%	0.00	-
Total Recyclable Metals	TR	2.16	0.35%	0.02	20.13	17.33%	0.21	89.84%
Total Non Recyclable Metals	TND	12.89	2.07%	0.14	0.64	0.55%	0.01	-
Total Metals		15.05	2.41%	0.17	20.76	17.88%	0.22	-

Region of Durham Curbside Waste Audit Composition Analysis								
Sample Type: Sample Area: Sample Size (# Households) Date Collected (month/day/year): Audit Supervisor: Waste Stream: Collection Frequency:	Curbside Residential Waste Audit							
	Region of Durham							
	100							
	06/13/2011 - 06/24/2011							
	Adam Forrest/ Ben Dunbar							
	Residual Waste				Containers			
	Weekly				Weekly			
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W	Net Weight (kg/wk)	%	kg/hh/wk	Net Weight (kg/wk)	%	kg/hh/wk	Recyclable Capture Rate
5. GLASS								
Clear Glass Beer	R	0.00	0.00%	0.00	0.79	0.68%	0.01	100.00%
Clear Glass Other Alcohol over 100 ml	R	0.11	0.02%	0.00	4.47	3.85%	0.05	97.58%
Clear Glass Other Alcohol 100 ml and Under	R	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Coloured Glass Beer	R	0.26	0.04%	0.00	4.21	3.62%	0.04	93.98%
Coloured Glass Other Alcohol Over 100 ml	R	0.26	0.04%	0.00	3.93	3.38%	0.04	93.46%
Coloured Glass Other Alcohol 100 ml and Under	R	0.00	0.00%	0.00	0.03	0.03%	0.00	100.00%
Clear Glass Other Beverage and Food	R	2.03	0.32%	0.02	19.70	16.97%	0.21	90.21%
Coloured Glass Other Beverage and Food	R	0.05	0.01%	0.00	5.56	4.78%	0.06	99.06%
Other Glass	W	3.85	0.62%	0.04	1.11	0.95%	0.01	-
Total Recyclable Glass	TR	2.70	0.43%	0.03	38.67	33.31%	0.41	93.15%
Total Non Recyclable Glass	TND	3.85	0.62%	0.04	1.11	0.95%	0.01	-
Total Glass		6.54	1.05%	0.07	39.78	34.26%	0.42	-
6. HOUSEHOLD SPECIAL WASTE								
Batteries	W	0.99	0.16%	0.01	0.00	0.00%	0.00	-
Paint & Stain	W	0.30	0.05%	0.00	0.06	0.05%	0.00	-
Motor Oil	W	0.16	0.03%	0.00	0.44	0.37%	0.00	-
Other HSW liquids	W	0.72	0.11%	0.01	0.00	0.00%	0.00	-
Other HSW	W	1.92	0.31%	0.02	0.09	0.08%	0.00	-
Total HSW	TND	4.08	0.65%	0.05	0.59	0.50%	0.01	-
7. ORGANICS								
Food Waste	O	139.70	22.40%	1.55	4.99	4.30%	0.05	-
Yard Waste	O	37.90	6.08%	0.42	0.00	0.00%	0.00	-
Pet waste	W	75.80	12.15%	0.84	0.00	0.00%	0.00	-
Total Organics	TAO	253.40	40.63%	2.82	4.99	4.30%	0.05	-
8. OTHER MATERIALS								
Diapers and Sanitary Products	W	47.71	7.65%	0.53	0.00	0.00%	0.00	-
Textiles	W	33.84	5.42%	0.38	0.00	0.00%	0.00	-
Carpeting	W	5.34	0.86%	0.06	0.00	0.00%	0.00	-
Wood	W	5.32	0.85%	0.06	0.05	0.04%	0.00	-
Construction & Renovation - Other	W	5.08	0.81%	0.06	0.00	0.00%	0.00	-
Computer / IT Equipment	W	0.27	0.04%	0.00	0.00	0.00%	0.00	-
Telecom Equipment	W	1.38	0.22%	0.02	0.00	0.00%	0.00	-
TV & Audio Equipment	W	0.87	0.14%	0.01	0.00	0.00%	0.00	-
Small Kitchen Appliances	W	0.59	0.09%	0.01	0.00	0.00%	0.00	-
Other Electronics	W	1.85	0.30%	0.02	0.00	0.00%	0.00	-
Tires and Other Rubber	W	6.66	1.07%	0.07	0.00	0.00%	0.00	-
Ceramics	W	3.28	0.53%	0.04	0.09	0.07%	0.00	-
Furniture - Padded	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Furniture - Plastic	W	3.10	0.50%	0.03	0.00	0.00%	0.00	-
Furniture - Wood	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Furniture - Metal	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Furniture - Other	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Mattresses	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other Large Bulky Items	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other Waste	W	26.36	4.23%	0.29	0.14	0.12%	0.00	-
Total Other Waste	TND	141.62	22.71%	1.57	0.27	0.23%	0.00	-
Total Recyclable Containers		13.84	2.22%	0.15	98.19	84.58%	1.03	87.05%
Total Recyclable Fibres		39.77	6.38%	0.44	2.55	2.20%	0.03	-
Total Organic Material		255.00	40.88%	2.83	5.15	4.44%	0.05	-
Total Non Divertible Materials		315.10	50.52%	3.50	10.21	8.79%	0.11	-
Total All Materials		623.72	100.00%	6.93	116.10	100.00%	1.22	-
Percent Contamination in Garbage Stream		49.48%			13.23%			
Percent Contamination in Container Stream								

APPENDIX C

NOVEMBER 2011 WASTE AUDIT RESULTS

Durham Region Waste Audit November 2011 - Waste and Recycling Study

Municipality: Sample Area: Date Collected (month/day/year): Waste Stream: Waste Generation Period (number of days): Audit Supervisor: Notes (# households):		Oshawa	Whitby(Brooklin)	Scugog (Greenbank)	Pickering	Uxbridge	Whitby	Clarington (Bowmanville)	Oshawa	Clarington (Courtice)	Ajax	Oshawa	Whitby	Clarington (Bowmanville)	Oshawa	Whitby (Brooklin)	Clarington (Courtice)	Scugog (Greenbank)	Pickering	Ajax	Uxbridge	Whitby	Oshawa	Clarington (Bowmanville)	Oshawa	Whitby (Brooklin)
		Elizabeth/ Waverly	Covington/ Corsham	Pearl/lanson	Crocket/Stonepath	Button/ Confederation	Bonneta/Muir	Trewin	Greirson/Mary	Wilkins	Tiller/Ryder	Elizabeth/ Waverly	Bonneta/Muir	Trewin	Greirson/Mary	Covington/ Corsham	Wilkins	Paarl/lanson	Crocket/ Stonepath	Tiller/Ryder	Button/ Confederation	Bonneta/Muir	Elizabeth/ Waverly	Trewin	Greirson/Mary	Covington/ Corsham
		14-Nov-11	16-Nov-11	17-Nov-11	17-Nov-11	18-Nov-11	14-Nov-11	22-Nov-11	22-Nov-11	23-Nov-11	25-Nov-11	14-Nov-11	14-Nov-11	15-Nov-11	15-Nov-11	16-Nov-11	16-Nov-11	17-Nov-11	17-Nov-11	18-Nov-11	18-Nov-11	21-Nov-11	21-Nov-11	22-Nov-11	22-Nov-11	23-Nov-11
		Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers	Containers
		14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	14 Days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	
		Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	
		Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	Sub 10	
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W, Acceptable Organics=Q	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	
1. PAPER																										
Newspaper – Dailys and Weeklys	R	0.78	0.28	0.09	0.14	0.50	0.00	0.00	0.17	0.09	0.13	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Newspaper - Other	R	0.00	0.00	0.00	0.00	0.85	0.12	1.38	0.00	0.11	0.41	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Telephone Books / Directories	R	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Magazines & Catalogues	R	2.11	2.21	0.06	0.12	0.00	0.91	0.78	0.27	0.40	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Mixed Fine Paper	R	3.91	3.12	0.93	0.41	1.93	1.63	1.72	0.42	1.05	3.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.00	0.00	0.00	0.16	
Books	R	0.19	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Other Paper	W	0.80	1.50	1.46	0.11	3.79	0.03	0.07	0.09	0.68	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.02	0.00	
Corrugated Wine Bag in Box	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Other Corrugated	R	0.41	0.01	0.43	0.02	0.63	0.01	0.14	1.46	0.44	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.04	0.00	0.00	0.00	
Waxed Corrugated	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Kraft Paper	R	1.07	0.79	0.48	0.40	0.81	0.89	0.57	0.53	0.64	0.99	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Boxboard / Cores	R	2.45	4.10	1.71	1.05	2.61	2.15	1.65	1.21	2.24	3.33	0.43	0.84	0.00	0.00	0.04	0.05	0.00	0.01	0.31	0.23	0.01	0.40	0.10	0.05	
Molded Pulp	O	0.28	0.15	0.02	0.00	0.21	0.34	0.32	0.02	0.34	0.30	0.14	0.20	0.00	0.00	0.30	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.20	
Paper Cups and Paper Ice-Cream Containers	W	0.36	1.03	0.96	0.30	0.80	1.04	0.34	0.32	1.15	0.34	0.09	0.05	0.11	0.00	0.01	0.06	0.01	0.00	0.00	0.16	0.07	0.13	0.20	0.30	
Laminated Paper Packaging	W	1.03	0.92	1.69	0.79	0.81	1.07	0.61	0.97	0.93	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Composite Cans	W	0.00	0.00	0.33	0.17	0.24	0.07	0.17	0.25	0.34	0.21	0.00	0.00	0.04	0.00	0.13	0.21	0.18	0.05	0.18	0.21	0.51	0.00	0.03	0.19	
Gable Top Cartons	R	0.13	0.01	0.07	0.05	0.11	0.10	0.08	0.02	0.06	0.28	0.50	0.04	0.30	0.28	0.37	0.25	0.52	0.39	0.13	0.70	0.24	0.22	0.14	0.44	
Aseptic Alcohol	R	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	
Aseptic Other Containers	R	0.06	0.07	0.18	0.03	0.41	0.17	0.25	0.01	0.04	0.64	0.33	0.00	0.01	0.00	0.00	0.08	0.02	0.11	0.02	0.14	0.07	0.03	0.10	0.00	
Tissue/Toweling	W	5.69	6.15	3.63	1.07	5.31	4.61	3.15	2.58	5.06	4.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	
Total Recyclable Paper	TR	11.11	11.64	3.95	2.22	9.07	5.98	6.57	4.09	5.07	11.94	1.26	0.88	0.35	0.28	0.41	0.46	0.54	0.51	0.55	1.13	0.36	0.65	0.48	0.95	
Total Non-Recyclable Paper	TND	7.88	9.60	8.07	2.44	10.95	6.82	4.34	4.21	8.16	8.69	0.09	0.05	0.15	0.00	0.14	0.27	0.19	0.05	0.24	0.38	0.58	0.13	0.25	0.49	
Total Acceptable Organics	TAO	0.28	0.15	0.02	0.00	0.21	0.34	0.32	0.02	0.34	0.30	0.14	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.20	
Total Paper		19.27	21.39	12.04	4.66	20.23	13.14	11.23	8.32	13.57	20.93	1.49	1.13	0.50	0.28	0.55	0.73	0.73	0.56	0.79	1.53	0.94	0.78	0.73	1.64	
2. PLASTICS																										
PET Beer Bottles	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PET Other Alcohol Bottles over 100 ml	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.06	0.00	0.06	0.00	
PET Other Alcohol Bottles 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	
PET Water Beverage Bottles	R	0.15	0.11	0.02	0.00	0.03	0.29	0.03	0.06	0.07	0.08	0.85	0.79	0.31	0.00	0.45	0.70	1.09	0.69	0.53	0.30	0.51	0.85	0.30	0.43	
PET Other Beverage Bottles	R	0.00	0.25	0.02	0.00	0.09	0.00	0.00	0.48	0.15	0.14	0.64	0.42	0.62	0.21	0.84	0.60	1.66	0.87	0.49	0.46	0.35	0.70	0.29	0.93	
PET Other Bottles & Jars	R	0.60	1.01	0.25	0.01	0.50	0.00	0.12	0.08	0.64	0.32	0.55	0.38	0.29	0.29	0.33	0.29	0.84	0.23	0.19	0.23	0.77	0.59	0.41	0.76	
PET Other Packaging	W	0.72	1.32	0.57	0.54	1.23	1.06	0.49	0.19	0.92	1.27	0.68	0.25	0.13	0.03	0.22	0.07	0.81	0.03	0.12	0.16	0.36	0.29	0.32	0.19	
HDPE Beverage Bottles	R	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.06	0.11	0.40	0.05	0.20	0.00	0.05	0.25	0.63	0.02	0.00	0.14	0.00	0.04	0.19	
HDPE Other Bottles & Jugs	R	0.10	0.75	0.37	0.25	0.01	0.77	0.16	0.08	0.58	1.07	0.77	0.64	1.03	0.01	2.27	0.86	0.65	0.26	0.53	1.26	1.11	1.15	0.44	1.41	
PVC Bottles & Jars	W	0.01	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.06	0.10	0.00	0.04	0.00	0.00	0.03	0.00	0.19	0.08	
Other Plastic Alcohol Containers 100 ml and Under	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Other Bottles, Jars & Jugs	R	0.31	0.26	0.09	0.01	0.24	0.05	0.05	0.00	0.03	0.00	0.66	0.19	0.16	0.01	0.10	0.31	0.32	0.14	0.35	0.24	0.45	0.57	0.43	1.20	
Polystyrene Packaging - Packaging Foam	W	0.00	0.63	0.42	0.35	1.85	0.11	0.28	0.16	0.66	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Polystyrene Packaging - 'Peanuts' Foam	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Polystyrene Packaging - Food Service Foam	W	0.55	0.86	0.40	0.40	0.64	0.29	0.28	0.00	0.24	0.70	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	
Polystyrene Packaging - Rigid	W	0.49	0.67	0.41	0.36	0.18	0.51	0.29	0.21	0.64	0.41	0.20	0.30	0.02	0.00	0.01	0.10	0.05	0.00	0.02	0.10	0.08	0.16	0.04	0.10	
Polystyrene Non-Packaging - Rigid	W	0.00	0.02	0.00	0.01	0.03	0.08	0.00	0.19	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	
Wide Mouth Tubs & Lids - Coloured, Cloudy and Opaque	R	0.04	0.69	0.05	0.17	0.44	0.28	0.19	0.18	0.25	0.55	0.28	0.60	0.30	0.15	0.34	0.25	1.10	0.32	0.26	0.61	0.49	0.32	0.20	0.39	
Wide Mouth Tubs & Lids - Clear	R	0.06	0.07	0.06	0.00	0.22	0.08	0.08	0.03	0.07	0.36															

Durham Region Waste Audit Novem

Municipality: Sample Area: Date Collected (month/day/year): Waste Stream: Waste Generation Period (number of days): Audit Supervisor: Notes (# households):		Clarington (Courice)	Scugog (Greenbank)	Pickering	Ajax	Uxbridge	Total 14-Day Disposed	Total Weekly Disposed	Total Annual Disposed	Disposed per Household per week	Disposed per Household per year	Total 14-Day Sample Period	Total Weekly	Total Annual	Total per Household per week	Total per Household per year
		Wilkins	Pearl/Ianson	Cricket/Stonepath	Tiller/Ryder	Button/ Confederation										
		23-Nov-11	24-Nov-11	24-Nov-11	25-Nov-11	25-Nov-11										
		Containers	Containers	Containers	Containers	Containers										
		7 days	7 days	7 days	7 days	7 days										
		Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Garbage	Garbage	Garbage	Garbage	Garbage	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling
		Sub 10	Sub 10	Sub 10	Sub 10	Sub 10										
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W, Acceptable Organics=O	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight kg/14 days	Weight kg/wk	Weight kg/yr	Weight kg/hh/wk	Weight kg/hh/yr	Weight kg/14 days	Weight kg/wk	Weight kg/yr	Weight kg/hh/wk	Weight kg/hh/yr
1. PAPER																
Newspaper – Dailys and Weeklys	R	0.00	0.00	0.00	0.00	0.00	2.18	1.09	56.84	0.01	0.59	0.08	0.04	2.09	0.00	0.02
Newspaper - Other	R	0.00	0.00	0.06	0.00	0.00	2.87	1.44	74.83	0.01	0.78	0.09	0.05	2.35	0.00	0.02
Telephone Books / Directories	R	0.00	0.00	0.00	0.00	0.00	1.05	0.53	27.38	0.01	0.29	0.00	0.00	0.00	0.00	0.00
Magazines & Catalogues	R	0.00	0.00	0.04	0.00	0.00	8.64	4.32	225.26	0.05	2.35	0.04	0.02	1.04	0.00	0.01
Mixed Fine Paper	R	0.00	0.00	0.00	0.00	0.00	18.83	9.42	490.93	0.10	5.11	0.25	0.13	6.52	0.00	0.07
Books	R	0.00	0.00	0.00	0.00	0.00	1.36	0.68	35.46	0.01	0.37	0.00	0.00	0.00	0.00	0.00
Other Paper	W	0.00	0.00	0.00	0.00	0.00	10.98	5.49	286.26	0.06	2.98	0.06	0.03	1.56	0.00	0.02
Corrugated Wine Bag in Box	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Corrugated	R	0.00	0.00	0.15	0.00	0.00	4.22	2.11	110.02	0.02	1.15	0.25	0.13	6.52	0.00	0.07
Waxed Corrugated	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kraft Paper	R	0.00	0.00	0.00	0.00	0.00	7.17	3.59	186.93	0.04	1.95	0.01	0.01	0.26	0.00	0.00
Boxboard / Cores	R	0.00	0.00	0.54	0.02	0.07	22.50	11.25	586.61	0.12	6.11	3.27	1.64	85.25	0.02	0.87
Molded Pulp	O	0.00	0.00	0.18	0.00	0.00	1.98	0.99	51.62	0.01	0.54	0.74	0.37	19.29	0.00	0.20
Paper Cups and Paper Ice-Cream Containers	W	0.00	0.02	0.09	0.14	0.17	6.64	3.32	173.11	0.03	1.80	1.64	0.82	42.76	0.01	0.44
Laminated Paper Packaging	W	0.00	0.00	0.00	0.00	0.00	9.60	4.80	250.29	0.05	2.61	0.00	0.00	0.00	0.00	0.00
Composite Cans	W	0.06	0.00	0.40	0.50	0.19	1.78	0.89	46.41	0.01	0.48	3.18	1.59	82.91	0.02	0.85
Gable Top Cartons	R	0.49	0.22	0.40	0.40	0.84	0.91	0.46	23.73	0.00	0.25	7.00	3.50	182.50	0.04	1.86
Aseptic Alcohol	R	0.00	0.00	0.00	0.00	0.00	0.05	0.03	1.30	0.00	0.01	0.14	0.07	3.65	0.00	0.04
Aseptic Other Containers	R	0.03	0.13	0.14	0.16	0.05	1.86	0.93	48.49	0.01	0.51	1.60	0.80	41.71	0.01	0.43
Tissue/Towelng	W	0.00	0.00	0.00	0.00	0.03	42.16	21.08	1099.17	0.22	11.45	0.06	0.03	1.56	0.00	0.02
Total Recyclable Paper	TR	0.52	0.35	1.33	0.58	0.96	71.64	35.82	1,867.76	0.37	19.46	12.73	6.37	331.89	0.06	3.39
Total Non-Recyclable Paper	TND	0.06	0.02	0.49	0.64	0.39	71.16	35.58	1,855.24	0.37	19.33	4.94	2.47	128.79	0.03	1.31
Total Acceptable Organics	TAO	0.00	0.00	0.18	0.00	0.00	1.98	0.99	51.62	0.01	0.54	0.74	0.37	19.29	0.00	0.20
Total Paper		0.58	0.37	2.00	1.22	1.35	144.78	72.39	3774.62	0.75	39.32	18.41	9.21	479.98	0.09	4.90
2. PLASTICS																
PET Beer Bottles	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PET Other Alcohol Bottles over 100 ml	R	0.14	0.00	0.00	0.00	0.00	0.04	0.02	1.04	0.00	0.01	0.40	0.20	10.43	0.00	0.11
PET Other Alcohol Bottles 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.52	0.00	0.01
PET Water Beverage Bottles	R	0.22	0.51	0.40	0.70	0.64	0.84	0.42	21.90	0.00	0.23	10.40	5.20	271.14	0.05	2.77
PET Other Beverage Bottles	R	0.71	0.98	0.99	1.02	0.64	1.13	0.57	29.46	0.01	0.31	15.37	7.69	400.72	0.08	4.09
PET Other Bottles & Jars	R	0.64	0.51	0.90	0.45	0.43	3.53	1.77	92.03	0.02	0.96	9.88	4.94	257.59	0.05	2.63
PET Other Packaging	W	0.03	0.16	0.35	0.27	0.10	8.31	4.16	216.65	0.04	2.26	4.85	2.43	126.45	0.02	1.29
HDPE Beverage Bottles	R	0.08	0.15	0.00	0.06	0.26	0.09	0.05	2.35	0.00	0.02	2.93	1.47	76.39	0.01	0.78
HDPE Other Bottles & Jugs	R	0.20	0.72	1.49	2.15	0.80	4.14	2.07	107.94	0.02	1.12	18.03	9.02	470.07	0.09	4.80
PVC Bottles & Jars	W	0.00	0.00	0.00	0.00	0.10	0.21	0.11	5.48	0.00	0.06	0.60	0.30	15.64	0.00	0.16
Other Plastic Alcohol Containers 100 ml and Under	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Bottles, Jars & Jugs	R	0.00	0.13	0.31	0.24	0.00	1.04	0.52	27.11	0.01	0.28	5.93	2.97	154.60	0.03	1.58
Polystyrene Packaging - Packaging Foam	W	0.00	0.00	0.00	0.00	0.00	5.98	2.99	155.91	0.03	1.62	0.00	0.00	0.00	0.00	0.00
Polystyrene Packaging - 'Peanuts' Foam	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polystyrene Packaging - Food Service Foam	W	0.00	0.00	0.02	0.00	0.00	4.36	2.18	113.67	0.02	1.18	0.29	0.15	7.56	0.00	0.08
Polystyrene Packaging - Rigid	W	0.03	0.00	0.07	0.01	0.23	4.17	2.09	108.72	0.02	1.13	1.66	0.83	43.28	0.01	0.44
Polystyrene Non-Packaging - Rigid	W	0.00	0.04	0.00	0.00	0.00	0.40	0.20	10.43	0.00	0.11	0.12	0.06	3.13	0.00	0.03
Wide Mouth Tubs & Lids - Coloured, Cloudy and Opaque	R	0.28	0.31	0.30	0.21	0.56	2.84	1.42	74.04	0.01	0.77	7.40	3.70	192.93	0.04	1.97
Wide Mouth Tubs & Lids - Clear	R	0.08	0.10	0.00	0.18	0.11	1.03	0.52	26.85	0.01	0.28	1.27	0.64	33.11	0.01	0.34
Large HDPE & PP Pails & Lids	W	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	1.02	53.19	0.01	0.54
Polyethylene PE Plastic Bags & Film - Carry-Out Bags Packaging	W	0.00	0.00	0.01	0.01	0.00	11.02	5.51	287.31	0.06	2.99	0.03	0.02	0.78	0.00	0.01
Polyethylene PE Plastic Bags & Film - Other Packaging	W	0.00	0.00	0.00	0.03	0.00	23.44	11.72	611.11	0.12	6.37	0.07	0.04	1.83	0.00	0.02
Polyethylene Plastic Bags & Film - Bags Non-Packaging	W	0.00	0.00	0.00	0.00	0.15	19.35	9.68	504.48	0.10	5.26	0.18	0.09	4.69	0.00	0.05
Polyethylene Plastic Bags & Film - Other Non-Packaging	W	0.00	0.00	0.00	0.00	0.00	8.27	4.14	215.61	0.04	2.25	0.00	0.00	0.00	0.00	0.00
Laminated Pouches & Bag in Box Liners for Alcoholic Beverages	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Laminated/Other Plastic Film and Bags	W	0.00	0.00	0.03	0.05	0.01	30.41	15.21	792.83	0.16	8.26	0.16	0.08	4.17	0.00	0.04
Other Rigid Plastic Packaging	W	0.03	0.12	0.13	0.18	0.20	23.40	11.70	610.07	0.12	6.35	3.05	1.53	79.52	0.02	0.81
Durable Plastic Products	W	0.00	0.06	0.13	0.00	0.21	49.50	24.75	1290.54	0.26	13.44	4.66	2.33	121.49	0.02	1.24
Total Recyclable Plastics	TR	2.35	3.41	4.39	5.01	3.44	14.68	7.34	382.73	0.08	3.99	71.63	35.82	1867.50	0.37	19.06
Total Non-Recyclable Plastics	TND	0.95	0.38	0.74	0.55	1.00	188.82	94.41	4,922.81	0.98	51.28	17.71	8			

Municipality: Sample Area: Date Collected (month/day/year): Waste Stream: Waste Generation Period (number of days): Audit Supervisor: Notes (# households):		Clairington (Courtice)	Sougog (Greenbank)	Pickering	Ajax	Uxbridge	Total 14-Day Disposed	Total Weekly Disposed	Total Annual Disposed	Disposed per Household per week	Disposed per Household per year	Total 14-Day Sample Period	Total Weekly	Total Annual	Total per Household per week	Total per Household per year
		Wilkins	Pearl/lanson	Crocket/Stonepath	Tiller/Ryder	Button/ Confederation	Garbage	Garbage	Garbage	Garbage	Garbage	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling	Container Stream Recycling
		23-Nov-11	24-Nov-11	24-Nov-11	25-Nov-11	25-Nov-11										
		Containers	Containers	Containers	Containers	Containers										
		7 days	7 days	7 days	7 days	7 days										
		Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle	Jack Maracle										
		Sub 10	Sub 10	Sub 10	Sub 10	Sub 10										
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W, Acceptable Organics=O	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight kg/14 days	Weight kg/wk	Weight kg/yr	Weight kg/hh/wk	Weight kg/hh/yr	Weight kg/14 days	Weight kg/wk	Weight kg/yr	Weight kg/hh/wk	Weight kg/hh/yr
4. GLASS																
Clear Glass Beer	R	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.67	3.34	173.90	0.03	1.77
Clear Glass Other Alcohol over 100 ml	R	1.02	1.78	0.78	0.51	1.02	0.20	0.10	5.21	0.00	0.05	15.84	7.92	412.97	0.08	4.21
Clear Glass Other Alcohol 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.21	0.11	5.48	0.00	0.06	0.00	0.00	0.00	0.00	0.00
Coloured Glass Beer	R	0.27	0.00	0.00	0.22	0.00	0.51	0.26	13.30	0.00	0.14	4.36	2.18	113.67	0.02	1.16
Coloured Glass Other Alcohol Over 100 ml	R	0.00	0.20	0.00	0.00	0.42	0.49	0.25	12.78	0.00	0.13	24.99	12.50	651.53	0.13	6.65
Coloured Glass Other Alcohol 100 ml and Under	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.06	3.13	0.00	0.03
Clear Glass Other Beverage and Food	R	2.17	2.81	2.52	6.44	6.64	5.94	2.97	154.86	0.03	1.61	72.66	36.33	1894.35	0.37	19.33
Coloured Glass Other Beverage and Food	R	0.00	0.00	0.00	0.00	1.87	0.00	0.00	0.00	0.00	0.00	8.52	4.26	222.13	0.04	2.27
Other Glass	W	0.00	0.00	0.00	0.13	0.26	19.31	9.66	503.44	0.10	5.24	1.46	0.73	38.06	0.01	0.39
Total Recyclable Glass	TR	4.04	4.79	3.30	7.17	9.95	7.35	3.68	191.63	0.04	2.00	133.16	66.58	3471.67	0.68	35.43
Total Non-Recyclable Glass	TND	0.00	0.00	0.00	0.13	0.26	19.31	9.66	503.44	0.10	5.24	1.46	0.73	38.06	0.01	0.39
Total Glass		4.04	4.79	3.30	7.30	10.21	26.66	13.33	695.06	0.14	7.24	134.62	67.31	3509.74	0.69	35.81
5. HOUSEHOLD SPECIAL WASTE																
Batteries	W	0.00	0.00	0.00	0.00	0.00	2.73	1.37	71.18	0.01	0.74	0.00	0.00	0.00	0.00	0.00
Paint & Stain	W	0.00	0.00	0.00	0.00	0.00	5.92	2.96	154.34	0.03	1.61	0.63	0.32	16.43	0.00	0.17
Motor Oil	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other HSW liquids	W	0.00	0.00	0.00	0.00	0.00	1.31	0.66	34.15	0.01	0.36	0.00	0.00	0.00	0.00	0.00
Other HSW	W	0.00	0.00	0.00	0.00	0.00	1.09	0.55	28.42	0.01	0.30	0.00	0.00	0.00	0.00	0.00
Total HSW	TND	0.00	0.00	0.00	0.00	0.00	11.05	5.53	288.09	0.06	3.00	0.63	0.32	16.43	0.00	0.17
6. ORGANICS																
Food Waste	O	0.00	0.20	0.20	0.51	0.16	287.40	143.70	7492.93	1.50	78.05	10.14	5.07	264.36	0.05	2.70
Yard Waste	O	0.00	0.00	0.00	0.00	0.00	23.54	11.77	613.72	0.12	6.39	0.00	0.00	0.00	0.00	0.00
Pet waste	W	0.00	0.01	0.00	0.00	0.00	125.35	62.68	3268.05	0.65	34.04	0.01	0.01	0.26	0.00	0.00
Total Acceptable Organics	TAO	0.00	0.20	0.20	0.51	0.16	310.94	155.47	8106.65	1.62	84.44	10.14	5.07	264.36	0.05	2.70
Total Non-Acceptable Organics	TND	0.00	0.01	0.00	0.00	0.00	125.35	62.68	3,268.05	0.65	34.04	0.01	0.01	0.26	0.00	0.00
Total Organics		0.00	0.21	0.20	0.51	0.16	436.29	218.15	11,374.70	2.27	118.49	10.15	5.08	264.63	0.05	2.70
7. OTHER MATERIALS																
Diapers and Sanitary Products	W	0.00	0.00	0.00	0.00	0.00	119.65	59.83	3119.45	0.62	32.49	0.05	0.03	1.30	0.00	0.01
Textiles	W	0.00	0.00	0.00	0.00	0.00	74.47	37.24	1941.54	0.39	20.22	0.01	0.01	0.26	0.00	0.00
Carpeting	W	0.00	0.00	0.00	0.00	0.00	2.10	1.05	54.75	0.01	0.57	0.00	0.00	0.00	0.00	0.00
Wood	W	0.00	0.01	0.00	0.00	0.00	8.77	4.39	228.65	0.05	2.38	0.03	0.02	0.78	0.00	0.01
Construction & Renovation - Other	W	0.00	0.00	0.00	0.00	0.00	22.03	11.02	574.35	0.11	5.98	0.00	0.00	0.00	0.00	0.00
Computer / IT Equipment	W	0.00	0.00	0.00	0.00	0.00	2.23	1.12	58.14	0.01	0.61	0.00	0.00	0.00	0.00	0.00
Telecom Equipment	W	0.00	0.00	0.00	0.00	0.00	0.63	0.32	16.43	0.00	0.17	0.13	0.07	3.39	0.00	0.03
TV & Audio Equipment	W	0.00	0.00	0.00	0.00	0.00	0.22	0.11	5.74	0.00	0.06	0.00	0.00	0.00	0.00	0.00
Small Kitchen Appliances	W	0.00	0.00	0.00	0.00	0.00	8.61	4.31	224.48	0.04	2.34	0.00	0.00	0.00	0.00	0.00
Other Electronics	W	0.00	0.00	0.00	0.00	0.00	25.66	12.83	668.99	0.13	6.97	0.00	0.00	0.00	0.00	0.00
Tires and Other Rubber	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ceramics	W	0.00	0.00	0.00	0.00	0.00	21.58	10.79	562.62	0.11	5.86	4.29	2.15	111.85	0.02	1.14
Furniture - Padded	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Furniture - Plastic	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Furniture - Wood	W	0.00	0.00	0.00	0.00	0.00	2.73	1.37	71.18	0.01	0.74	0.00	0.00	0.00	0.00	0.00
Furniture - Metal	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Furniture - Other	W	0.00	0.00	0.00	0.00	0.00	0.41	0.21	10.69	0.00	0.11	0.00	0.00	0.00	0.00	0.00
Mattresses	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Large Bulky Items	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Waste	W	0.00	0.00	0.05	0.00	0.00	66.17	33.09	1725.15	0.34	17.97	0.94	0.47	24.51	0.00	0.25
Total Acceptable Other Organics	TAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Recyclable Other Material	TR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-Divertable Other Material	TND	0.00	0.01	0.05	0.00	0.00	355.26	177.63	9,262.14	1.85	96.48	5.45	2.73	142.09	0.03	1.45
Total Other Materials		0.00	0.01	0.05	0.00	0.00	355.26	177.63	9,262.14	1.85	96.48	5.45	2.73	142.09	0.03	1.45
Total Recyclable Container Stream Material		9.19	10.64	11.84	15.09	16.97	30.46	15.23	794.14	0.16	8.27	262.84	131.42	6,852.61	1.34	69.92
Total Recyclable Fibre Stream Material		0.00	0.00	0.79	0.02	0.07	68.82	34.41	1,794.24	0.36	18.69	3.99	2.00	104.03	0.02	1.06
Total Organic Material		0.00	0.20	0.38	0.51	0.16	312.92	156.46	8,158.27	1.63	84.98	10.88	5.44	283.66	0.06	2.89
Total Other Material		1.01	0.43	1.32	1.32	1.65	799.82	399.91	20,852.45	4.17	217.21	31.61	15.81	824.12	0.16	8.41
Total All Materials		10.20	11.27	14.33	16.94	18.85	1,212.02	606.01	31,599.09	6.31	329.16	309.32	154.66	8,064.41	1.58	82.29

APPENDIX D

NOVEMBER 2011 CAPTURE RATES SUMMARY

Region of Durham Curbside Waste Audit Composition Analysis								
Sample Type: Sample Area: Sample Size (# Households) Date Collected (month/day/year): Audit Supervisor: Waste Stream: Collection Frequency:		Curbside Residential Waste Audit						
		Region of Durham						
		100						
		11/14/2011 - 11/25/2011						
		Jack Maracle						
		Residual Waste			Containers			
		Weekly			Weekly			
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W	Net Weight (kg/wk)	%	kg/hh/wk	Net Weight (kg/wk)	%	kg/hh/wk	Recyclable Capture Rate
1. PAPER								
Newspaper – Dailys and Weeklys	R	1.09	0.18%	0.01	0.04	0.03%	0.00	-
Newspaper - Other	R	1.44	0.24%	0.01	0.05	0.03%	0.00	-
Telephone Books / Directories	R	0.53	0.09%	0.01	0.00	0.00%	0.00	-
Magazines & Catalogues	R	4.32	0.71%	0.05	0.02	0.01%	0.00	-
Mixed Fine Paper	R	9.42	1.55%	0.10	0.13	0.08%	0.00	-
Books	R	0.68	0.11%	0.01	0.00	0.00%	0.00	-
Other Paper	W	5.49	0.91%	0.06	0.03	0.02%	0.00	-
Corrugated Wine Bag in Box	R	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other Corrugated	R	2.11	0.35%	0.02	0.13	0.08%	0.00	-
Waxed Corrugated	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Kraft Paper	R	3.59	0.59%	0.04	0.01	0.00%	0.00	-
Boxboard / Cores	R	11.25	1.86%	0.12	1.64	1.06%	0.02	-
Molded Pulp	O	0.99	0.16%	0.01	0.37	0.24%	0.00	-
Paper Cups and Paper Ice-Cream Containers	W	3.32	0.55%	0.03	0.82	0.53%	0.01	-
Laminated Paper Packaging	W	4.80	0.79%	0.05	0.00	0.00%	0.00	-
Composite Cans	W	0.89	0.15%	0.01	1.59	1.03%	0.02	-
Gable Top Cartons	R	0.46	0.08%	0.00	3.50	2.26%	0.04	88.28%
Aseptic Alcohol	R	0.03	0.00%	0.00	0.07	0.05%	0.00	73.28%
Aseptic Other Containers	R	0.93	0.15%	0.01	0.80	0.52%	0.01	45.73%
Tissue/Toweling	W	21.08	3.48%	0.22	0.03	0.02%	0.00	-
Total Recyclable Paper	TR	35.82	5.91%	0.37	6.37	4.12%	0.06	-
Total Non Recyclable Paper	TND	35.58	5.87%	0.37	2.47	1.60%	0.03	-
Total Acceptable Organics	TAO	0.99	0.16%	0.01	0.37	0.24%	0.00	-
Total Paper		72.39	11.95%	0.75	9.21	5.95%	0.09	-
3. PLASTICS								
PET Beer Bottles	R	0.00	0.00%	0.00	0.00	0.00%	0.00	-
PET Other Alcohol Bottles over 100 ml	R	0.02	0.00%	0.00	0.20	0.13%	0.00	90.74%
PET Other Alcohol Bottles 100 ml and Under	R	0.00	0.00%	0.00	0.01	0.01%	0.00	-
PET Water Beverage Bottles	R	0.42	0.07%	0.00	5.20	3.36%	0.05	92.38%
PET Other Beverage Bottles	R	0.57	0.09%	0.01	7.69	4.97%	0.08	93.02%
PET Other Bottles & Jars	R	1.77	0.29%	0.02	4.94	3.19%	0.05	73.27%
PET Other Packaging	W	4.16	0.69%	0.04	2.43	1.57%	0.02	-
HDPE Beverage Bottles	R	0.05	0.01%	0.00	1.47	0.95%	0.01	96.96%
HDPE Other Bottles & Jugs	R	2.07	0.34%	0.02	9.02	5.83%	0.09	81.01%
PVC Bottles & Jars	W	0.11	0.02%	0.00	0.30	0.19%	0.00	-
Other Plastic Alcohol Containers 100 ml and Under	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other Bottles, Jars & Jugs	R	0.52	0.09%	0.01	2.97	1.92%	0.03	84.82%
Polystyrene Packaging - Packaging Foam	W	2.99	0.49%	0.03	0.00	0.00%	0.00	-
Polystyrene Packaging - 'Peanuts' Foam	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Polystyrene Packaging - Food Service Foam	W	2.18	0.36%	0.02	0.15	0.09%	0.00	-
Polystyrene Packaging - Rigid	W	2.09	0.34%	0.02	0.83	0.54%	0.01	-
Polystyrene Non-Packaging - Rigid	W	0.20	0.03%	0.00	0.06	0.04%	0.00	-
Wide Mouth Tubs & Lids - Coloured, Cloudy and Opaque	R	1.42	0.23%	0.01	3.70	2.39%	0.04	71.85%
Wide Mouth Tubs & Lids - Clear	R	0.52	0.08%	0.01	0.64	0.41%	0.01	54.71%
Large HDPE & PP Pails & Lids	W	0.00	0.00%	0.00	1.02	0.66%	0.01	-
Polyethylene PE Plastic Bags & Film - Carry-Out Bags Packaging	W	5.51	0.91%	0.06	0.02	0.01%	0.00	-
Polyethylene PE Plastic Bags & Film - Other Packaging	W	11.72	1.93%	0.12	0.04	0.02%	0.00	-
Polyethylene Plastic Bags & Film - Bags Non-Packaging	W	9.68	1.60%	0.10	0.09	0.06%	0.00	-
Polyethylene Plastic Bags & Film - Other Non-Packaging	W	4.14	0.68%	0.04	0.00	0.00%	0.00	-
Laminated Pouches & Bag in Box Liners for Alcoholic Beverages	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Laminated/Other Plastic Film and Bags	W	15.21	2.51%	0.16	0.08	0.05%	0.00	-
Other Rigid Plastic Packaging	W	11.70	1.93%	0.12	1.53	0.99%	0.02	-
Durable Plastic Products	W	24.75	4.08%	0.26	2.33	1.51%	0.02	-
Total Recyclable Plastics	TR	7.34	1.21%	0.08	35.82	23.16%	0.37	82.70%
Total Non Recyclable Plastics	TND	94.41	15.58%	0.98	8.86	5.73%	0.09	-
Total Plastics		101.75	16.79%	1.06	44.67	28.88%	0.46	-
4. METALS								
Aluminum Alcoholic Beverage Cans	R	0.03	0.00%	0.00	1.21	0.78%	0.01	97.53%
Aluminum Food Cans & Other Beverages	R	0.73	0.12%	0.01	7.13	4.61%	0.07	90.53%
Aluminum Foil & Foil Trays	W	2.45	0.40%	0.03	0.40	0.26%	0.00	-
Other Aluminum Containers	W	0.28	0.05%	0.00	0.07	0.04%	0.00	-
Steel Alcoholic Beverage Cans	R	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Steel Food & Other Beverages	R	1.20	0.20%	0.01	15.49	10.02%	0.16	92.70%
Steel Aerosol Cans	R	0.85	0.14%	0.01	0.66	0.42%	0.01	43.02%
Steel Paint Cans	R	0.00	0.00%	0.00	0.18	0.11%	0.00	100.00%
Other Metal	W	11.71	1.93%	0.12	0.25	0.16%	0.00	-
Total Recyclable Metals	TR	2.81	0.46%	0.03	24.66	15.94%	0.25	89.59%
Total Non Recyclable Metals	TND	14.44	2.38%	0.15	0.71	0.46%	0.01	-
Total Metals		17.24	2.84%	0.18	25.36	16.40%	0.26	-

Region of Durham Curbside Waste Audit Composition Analysis								
Sample Type: Sample Area: Sample Size (# Households) Date Collected (month/day/year): Audit Supervisor: Waste Stream: Collection Frequency:	Curbside Residential Waste Audit							
	Region of Durham							
	100							
	11/14/2011 - 11/25/2011							
	Jack Maracle							
	Residual Waste				Containers			
		Weekly			Weekly			
Material Category	Acceptable: Recyclable=R, Non- Recyclable=W	Net Weight (kg/wk)	%	kg/hh/wk	Net Weight (kg/wk)	%	kg/hh/wk	Recyclable Capture Rate
5. GLASS								
Clear Glass Beer	R	0.00	0.00%	0.00	3.34	2.16%	0.03	100.00%
Clear Glass Other Alcohol over 100 ml	R	0.10	0.02%	0.00	7.92	5.12%	0.08	98.73%
Clear Glass Other Alcohol 100 ml and Under	R	0.11	0.02%	0.00	0.00	0.00%	0.00	-
Coloured Glass Beer	R	0.26	0.04%	0.00	2.18	1.41%	0.02	89.33%
Coloured Glass Other Alcohol Over 100 ml	R	0.25	0.04%	0.00	12.50	8.08%	0.13	98.04%
Coloured Glass Other Alcohol 100 ml and Under	R	0.00	0.00%	0.00	0.06	0.04%	0.00	100.00%
Clear Glass Other Beverage and Food	R	2.97	0.49%	0.03	36.33	23.49%	0.37	92.30%
Coloured Glass Other Beverage and Food	R	0.00	0.00%	0.00	4.26	2.75%	0.04	100.00%
Other Glass	W	9.66	1.59%	0.10	0.73	0.47%	0.01	-
Total Recyclable Glass	TR	3.68	0.61%	0.04	66.58	43.05%	0.68	94.67%
Total Non Recyclable Glass	TND	9.66	1.59%	0.10	0.73	0.47%	0.01	-
Total Glass		13.33	2.20%	0.14	67.31	43.52%	0.69	-
6. HOUSEHOLD SPECIAL WASTE								
Batteries	W	1.37	0.23%	0.01	0.00	0.00%	0.00	-
Paint & Stain	W	2.96	0.49%	0.03	0.32	0.20%	0.00	-
Motor Oil	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other HSW liquids	W	0.66	0.11%	0.01	0.00	0.00%	0.00	-
Other HSW	W	0.55	0.09%	0.01	0.00	0.00%	0.00	-
Total HSW	TND	5.53	0.91%	0.06	0.32	0.20%	0.00	-
7. ORGANICS								
Food Waste	O	143.70	23.71%	1.50	5.07	3.28%	0.05	-
Yard Waste	O	11.77	1.94%	0.12	0.00	0.00%	0.00	-
Pet waste	W	62.68	10.34%	0.65	0.01	0.00%	0.00	-
Total Organics	TAO	218.15	36.00%	2.27	5.08	3.28%	0.05	-
8. OTHER MATERIALS								
Diapers and Sanitary Products	W	59.83	9.87%	0.62	0.03	0.02%	0.00	-
Textiles	W	37.24	6.14%	0.39	0.01	0.00%	0.00	-
Carpeting	W	1.05	0.17%	0.01	0.00	0.00%	0.00	-
Wood	W	4.39	0.72%	0.05	0.02	0.01%	0.00	-
Construction & Renovation - Other	W	11.02	1.82%	0.11	0.00	0.00%	0.00	-
Computer / IT Equipment	W	1.12	0.18%	0.01	0.00	0.00%	0.00	-
Telecom Equipment	W	0.32	0.05%	0.00	0.07	0.04%	0.00	-
TV & Audio Equipment	W	0.11	0.02%	0.00	0.00	0.00%	0.00	-
Small Kitchen Appliances	W	4.31	0.71%	0.04	0.00	0.00%	0.00	-
Other Electronics	W	12.83	2.12%	0.13	0.00	0.00%	0.00	-
Tires and Other Rubber	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Ceramics	W	10.79	1.78%	0.11	2.15	1.39%	0.02	-
Furniture - Padded	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Furniture - Plastic	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Furniture - Wood	W	1.37	0.23%	0.01	0.00	0.00%	0.00	-
Furniture - Metal	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Furniture - Other	W	0.21	0.03%	0.00	0.00	0.00%	0.00	-
Mattresses	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other Large Bulky Items	W	0.00	0.00%	0.00	0.00	0.00%	0.00	-
Other Waste	W	33.09	5.46%	0.34	0.47	0.30%	0.00	-
Total Other Waste	TND	177.63	29.31%	1.85	2.73	1.76%	0.03	-
Total Recyclable Containers		15.23	2.51%	0.16	131.42	84.97%	1.34	89.42%
Total Recyclable Fibres		34.41	5.68%	0.36	2.00	1.29%	0.02	-
Total Organic Material		219.14	36.16%	2.28	5.45	3.52%	0.06	-
Total Non Divertible Materials		337.24	55.65%	3.51	15.80	10.22%	0.16	-
Total All Materials		606.01	100.00%	6.31	154.66	100.00%	1.58	-
Percent Contamination in Garbage Stream		44.35%						
Percent Contamination in Container Stream					13.74%			

APPENDIX E

DETAILED LIST OF SORT CATEGORIES AND DESCRIPTIONS

Waste Audit – Material Categories		Page 1 of 3
Material Category	Description / Examples	
PAPER		
Newspaper – Dailys and Weeklys	Daily and weekly newspapers published by the Canadian Newspaper Association (CNA) and the Ontario Community Newspapers Association (OCNA); Globe and Mail, Toronto Star, Hamilton Spectator, community newspapers. Consult Stewardship Ontario's list of OCNA/C	
Newspaper - Other	Non OCNA/CNA publications (e.g. TV guides, Auto Trader, Real Estate News) plus inserts and flyers from OCNA/CNA newspapers. Consult Stewardship Ontario's list of OCNA/CNA publications. Includes glossy flyers and advertising distributed with newspapers.	
Telephone Books / Directories	Telephone books and other directories such as the Yellow Pages	
Magazines & Catalogues	Glossy magazines, catalogues, calendars, annual reports (must be bound, i.e. stapled or glued).	
Mixed Fine Paper	Fine household papers, writing paper, office paper, copy paper, bills and statements, ad mail, etc. Includes glossy flyers and advertising that are not distributed with newspapers.	
Books	Hard and soft covered books	
Other Paper	Gift wrap, construction paper, photographs, etc. This is a default paper category and as such should not contain a large amount material.	
Corrugated Wine Bag in Box	Corrugated box from bag in box wine containers. No plastic liners.	
Other Corrugated	Includes micro-flute corrugated containers, pizza boxes etc.	
Waxed Corrugated	Waxed corrugated containers	
Kraft Paper	Kraft paper bags and wrap, grocery or retail bags, potato bags, some pet food bags, etc. Includes brown, white, and coloured kraft paper and bags. No bags with bonded plastic or foil liners/layers/coatings. Includes bags with a light grease coating.	
Boxboard / Cores	Boxboard, paperboard, cereal box, shoe box, frozen food box, cores from toilet paper/ toweling/gift wrap, etc. Includes wet-strength boxboard, fast food cartons such as fry/onion ring boxes and paper plates	
Molded Pulp	Egg cartons, drink trays, other trays, molded pulp flower pots/trays, etc.	
Paper Cups and Paper Ice-Cream Containers	Includes paper based cups with a plastic lining/layer such as coffee cups, soup cups, french-fry cups. Does not include containers that are plastic or plastic based.	
Laminated Paper Packaging	Paper based packaging (at least 85% paper) with foil or plastic liners/layers/coatings, pouches, cookie bags, microwave popcorn bags, fast food sandwich wraps, gift bags, paper based trays, etc.	
Composite Cans	Spiral wound cans with paper walls and plastic or metal tops or bottoms; frozen juice, Pringles, raisins, etc.	
Gable Top Cartons	Polycoat containers with a gable shaped top; milk, juice, some foods, etc.	
Aseptic Alcohol	Tetra pak type polycoat packaging for alcoholic beverages.	
Aseptic Other Containers	Tetra pak type polycoat packaging, juice boxes, soup, etc.	
Tissue/Toweling	Tissues, napkins, paper towels (includes wet/damp items)	
PLASTICS		
PET Beer Bottles	#1 clear and coloured beer bottles.	
PET Other Alcohol Bottles over 100 ml	#1 clear and coloured wine and liquor bottles over 100 ml.	
PET Other Alcohol Bottles 100 ml and Under	#1 clear and coloured wine and liquor bottles 100 ml or less.	
PET Water Beverage Bottles	#1 water	
PET Other Beverage Bottles	#1 soft drink, juice, etc.	
PET Other Bottles & Jars	#1 food and non-beverage bottles and jars, cooking oil, peanut butter, dish soap, etc.	
PET Other Packaging	#1, bakery, clamshells, trays, ovenable/microwaveable trays, egg cartons. No bottles and jars	
HDPE Beverage Bottles	#2 beverage bottles and jugs, juice, milk, etc.	
HDPE Other Bottles & Jugs	#2, laundry soap, shampoo, windshield washer fluid, etc.	
PVC Bottles & Jars	#3 bottles and jars only, lotions, soaps, bug repellants, shampoos, etc (PVC blister/bubble packs go into "Other Rigid Plastic Packaging")	
Other Plastic Alcohol Containers 100 ml and Under	Other plastic alcoholic containers 100 ml or less.	
Other Bottles, Jars & Jugs	#4 LDPE, #5 PP, & #7 mixed resin, mustard, ketchup, some juices	

Waste Audit – Material Categories		Page 2 of 3
Material Category	Description / Examples	
Polystyrene Packaging - Packaging Foam	#6 PS used to protect boxed product or foam insulation sheets	
Polystyrene Packaging - 'Peanuts' Foam	#6 PS 'peanuts'	
Polystyrene Packaging - Food Service Foam	#6 PS, trays, clamshells, egg cartons and cups	
Polystyrene Packaging - Rigid	#6 PS, trays, clamshells, egg cartons, cups & lids, pill and vitamin bottles, seedling trays etc.	
Polystyrene Non-Packaging - Rigid	Non-packaging PS e.g. plastic cutlery, cd cases, coat hangers	
Wide Mouth Tubs & Lids - Coloured, Cloudy and Opaque	#2 HDPE, #4 LDPE & #5 PP tubs and lids, dairy products etc. that are coloured, cloudy or clear.	
Wide Mouth Tubs & Lids - Clear	#2 HDPE, #4 LDPE & #5 PP tubs and lids, dairy products etc. that are clear.	
Large HDPE & PP Pails & Lids	>4litres and < 25 litres HDPE & PP pails, lawn, garden, pool supplies, kitty litter, paint, etc.	
Polyethylene PE Plastic Bags & Film - Carry-Out Bags Packaging	HDPE & LDPE retail carry-out bags/sacks	
Polyethylene PE Plastic Bags & Film - Other Packaging	HDPE & LDPE dry cleaning bags, bread bags, frozen food bags, milk bags, toilet paper and toweling, over-wrap, lawn seed, soil, peat moss, etc.	
Polyethylene Plastic Bags & Film - Bags Non-Packaging	HDPE & LDPE garbage bags, kitchen catchers, blue or clear bags for recyclables, sandwich and freezer bags, etc.	
Polyethylene Plastic Bags & Film - Other Non-Packaging	HDPE & LDPE sandwich and freezer bags	
Laminated Pouches & Bag in Box Liners for Alcoholic Beverages	Laminated plastic pouches and plastic bag-in-box liners for wine and other alcoholic beverages.	
Laminated/Other Plastic Film and Bags	Plastic film and bags that are at least 85% (by weight) plastic with up to 15% (by weight) other closely bonded or impregnated materials. This includes meat, poultry and fish wrap; vacuum sealed bacon bag; luncheon meat and cheese wrap; cereal liners; etc.	
Other Rigid Plastic Packaging	Blister packaging, tubes for pharmaceutical & health care/cosmetic products, plant pots, unmarked/coded packaging, etc.	
Durable Plastic Products	Non-packaging such as VCR tapes, CDs, toys, games, tupperware, etc. Include multi-material items that are mainly plastic – e.g. a plastic toy truck with metal axles. Plastic shoes, gloves, clothing go in Textiles.	
METALS		
Aluminum Alcoholic Beverage Cans	Aluminum alcoholic beverages, beer cans.	
Aluminum Food Cans & Other Beverages	Soft drinks, soda, juice, certain brands of sardines and cat food	
Aluminum Foil & Foil Trays	Aluminum foil wrap, pie plates, baking trays, etc.	
Other Aluminum Containers	Aluminum aerosol containers, hair products, tubes, etc.	
Steel Alcoholic Beverage Cans	Steel alcoholic beverages, beer cans, Sapporo, etc.	
Steel Food & Other Beverages	Apple juice, soup, beans, peaches, etc. No alcohol containers.	
Steel Aerosol Cans	Empty spray paint cans, cooking oil, whipped cream, etc.	
Steel Paint Cans	Empty paint cans. No steel aerosol paint cans.	
Other Metal	Scrap metal, copper pipe, hardware, etc. Includes multi-material items that are mainly metal. Includes empty propane tanks.	
GLASS		
Clear Glass Beer	Clear glass beer bottles.	
Clear Glass Other Alcohol over 100 ml	Clear glass wine and liquor bottles over 100 ml.	
Clear Glass Other Alcohol 100 ml and Under	Clear glass wine and liquor bottles 100 ml or less.	
Coloured Glass Beer	Coloured glass beer bottles.	
Coloured Glass Other Alcohol Over 100 ml	Coloured glass wine and liquor bottles over 100 ml.	
Coloured Glass Other Alcohol 100 ml and Under	Coloured glass wine and liquor bottles 100 ml or less.	
Clear Glass Other Beverage and Food	Coloured glass food and other beverage containers, all sizes	
Coloured Glass Other Beverage and Food	Coloured glass food and other beverage containers, all sizes	
Other Glass	Window glass, plates and glasses, light bulbs (fluorescent tubes and compact fluorescents go in Other HSW)	

Waste Audit – Material Categories		Page 3 of 3
Material Category	Description / Examples	
HOUSEHOLD SPECIAL WASTE		
Batteries	All types	
Paint & Stain	Cans / tubs still containing product, oil and latex paint, wood stain, varnish, etc.	
Motor Oil	Oil filters and jugs or cans still containing oil	
Other HSW liquids	Solvents, antifreeze, acids, pool chemicals, weed killer, gasoline, brake fluid, glues, adhesives, cleaners, nail polish remover, etc. Look for signal words such as "Poison", "Danger", "Warning", "Caution", and "Precautionary Statements".	
Other HSW	Sharps, drug products, medicine, medical waste, fluorescent tubes, ionized smoke detectors, etc. Look for signal words such as "Poison", "Danger", "Warning", "Caution", and "Precautionary Statements".	
ORGANICS		
Food Waste	Vegetable and fruit peelings, meats, fish, fats, oils, bones, etc	
Yard Waste	Brush, branches, wood chips, grass, leaves, soil, plant material, ashes	
Pet waste	Animal feces, bedding, kitty litter	
OTHER MATERIALS		
Diapers and Sanitary Products	Diapers, sanitary napkins, hygiene products, etc.	
Textiles	Clothing, shoes, mats, drapes, sheets, etc. Plastic rice sacks go in Other Rigid Plastic Packaging	
Carpeting	Carpeting, underlay, mats	
Wood	bundled wood, lumber, wood cut off, pallets, crates, all wood types (i.e. clean, treated or composites)	
Construction & Renovation - Other	drywall, ceramic tiles, plaster, etc.	
Computer / IT Equipment	PCs, notebooks, CRT and LCD monitors, scanners, printers, mouse, cables	
Telecom Equipment	Phones, pagers, Blackberry, mobile phones, etc.	
TV & Audio Equipment	Televisions, DVD, radio, VCR, etc	
Small Kitchen Appliances	Blenders, coffee machine, etc.	
Other Electronics	Electronic games, clocks, gadgets, anything with a plug or battery	
Tires and Other Rubber	Rubber tires and tubes, other rubber items such as hoses	
Ceramics	Ceramic plates, cups, plant pots, etc.	
Furniture - Padded	padded couches and chairs and other furniture that consists of multiple material types	
Furniture - Plastic	shelves, outdoor, furniture, car seats, highchairs, toys and sporting equipment	
Furniture - Wood	chairs, tables, shelves, desks, bed frames etc.	
Furniture - Metal	shelves, chairs, bed frames and sporting equipment	
Furniture - Other	All other furniture not classified elsewhere	
Mattresses	Mattresses and box springs, futons, foam mattresses	
Other Large Bulky Items	Other large items not classified elsewhere	
Other Waste	Materials not classified elsewhere, wooden fruit basket, vacuum bags, wax candles, furnace filters, etc.	

* Waste Audit Material Categories are modified from Stewardship Ontario's 2007 Waste Audit Material Categories