

# 2012/2013 Single Family Residential Curbside Audits: Set Out & Participation Rates

## Results Summary Report

Prepared for

Continuous Improvement Fund

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## 1.0 INTRODUCTION

### 1.1 Background

AET Consultants (AET) was contracted by the Continuous Improvement Fund (CIF) and Stewardship Ontario to conduct seasonal single-family residential curbside waste composition audits in seven (7) municipalities across Ontario in 2012/2013. This report summarizes the collection results from these audits, including set out and participation rates for the garbage and recycling streams for each municipality.

## 2.0 METHODOLOGY

### 2.1 Data Collection

Four seasonal 2-week audits were conducted in each municipality over the study period. The sample size was 100 households per municipality. The sampled households were pre-selected and remained the same throughout all four seasonal audits. Collection data gathered included the total number of household's sampled, total number of items set out per household and total number of full container equivalents set out per household (by stream).

The total number of items refers to the number of containers/bags set out regardless of size/capacity. The number of households sampled is adjusted to account for any hauler issues (e.g. material picked up by regular hauler before audit team arrival), resident refusals, or seasonal drop off locations. It must be noted that adjustments were made for municipalities that use automated cart collection systems for garbage or recycling. For the recycling stream, calculations were made to adjust the different cart sizes to standard 16 gallon blue box equivalents. This did not alter the number of items set out, but rather the full container equivalents (volume) set out. For the garbage stream, cart sizes were adjusted to the number of standard garbage bag equivalents.

Set out and participation rates are summarized for each 2-week seasonal audit (spring, summer, fall and winter). A 4-season average for each municipal group is also presented.

### 2.2 Calculations

The calculations used to analyze the set-out results are as follows:

#### Participation Rate:

$$\left( \frac{\text{Number of households with set - outs}}{\text{Number of households in sample group}} \right) \times 100\%$$

**Average number of items/hh/wk:**

$$\left( \frac{\text{Total number of items}}{\text{Number of households in sample group}} \right)$$

**Average number of items/set-out:**

$$\left( \frac{\text{Total number of items}}{\text{Number of household with a set - out}} \right)$$

**Average number of full container equivalents/hh/wk:**

$$\left( \frac{\text{Total number of full container equivalents}}{\text{Total number of households in sample group}} \right)$$

**Average number of full container equivalents/set-out:**

$$\left( \frac{\text{Total number of full container equivalents}}{\text{Number of household with a set - out}} \right)$$

## 3.0 RESULTS

### 3.1 Summary Tables

The following sections outline the results of the set out and participation rate calculations. The municipalities were classified into five (5) different municipal groups: large urban, medium urban, small urban, urban regional and rural regional.

#### 3.1.1 Large Urban A

Large Urban A: Spring Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	197	197	197	195
Total number of household set-outs	157	134	143	175
Total number of items	324	147	177	342
Total number of full container equivalents	262.75	106.00	156.75	294.00
Average number of items/hh/wk <sup>2</sup>	1.64	0.75	0.90	1.75
Average number of items/set out <sup>3</sup>	2.06	1.10	1.24	1.95
Average number of full container equivalents/hh/wk <sup>2</sup>	1.33	0.54	0.80	1.51
Average number of full container equivalents/set out <sup>3</sup>	1.67	0.79	1.10	1.68
Participation Rate	79.70%	68.02%	72.59%	89.74%

Large Urban A: Summer Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	197	197	197	196
Total number of household set-outs	146	122	136	159
Total number of items	308	139	169	292
Total number of full container equivalents	235.75	95.50	140.25	246.00
Average number of items/hh/wk <sup>2</sup>	1.56	0.71	0.86	1.49
Average number of items/set out <sup>3</sup>	2.11	1.14	1.24	1.84
Average number of full container equivalents/hh/wk <sup>2</sup>	1.20	0.48	0.71	1.26
Average number of full container equivalents/set out <sup>3</sup>	1.61	0.78	1.03	1.55
Participation Rate	74.11%	61.93%	69.04%	81.12%

Large Urban A: Fall Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	188	188	188	197
Total number of household set-outs	134	116	124	158
Total number of items	272	122	150	294
Total number of full container equivalents	215.45	86.20	129.25	240.70
Average number of items/hh/wk <sup>2</sup>	1.45	0.65	0.80	1.49
Average number of items/set out <sup>3</sup>	2.03	1.05	1.21	1.86
Average number of full container equivalents/hh/wk <sup>2</sup>	1.15	0.46	0.69	1.22
Average number of full container equivalents/set out <sup>3</sup>	1.61	0.74	1.04	1.52
Participation Rate	71.28%	61.70%	65.96%	80.20%

Large Urban A: Winter Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	190	190	190	199
Total number of household set-outs	140	118	133	166
Total number of items	287	124	163	293
Total number of full container equivalents	223.00	86.25	136.75	259.00
Average number of items/hh/wk <sup>2</sup>	1.51	0.65	0.86	1.47
Average number of items/set out <sup>3</sup>	2.05	1.05	1.23	1.77
Average number of full container equivalents/hh/wk <sup>2</sup>	1.17	0.45	0.72	1.30
Average number of full container equivalents/set out <sup>3</sup>	1.59	0.73	1.03	1.56
Participation Rate	73.68%	62.11%	70.00%	83.42%

Large Urban A: 4 Season Summary 2012/2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Average number of items/hh/wk <sup>2</sup>	1.54	0.69	0.85	1.55
Average number of items/set out <sup>3</sup>	2.06	1.09	1.23	1.85
Average number of full container equivalents/hh/wk <sup>2</sup>	1.21	0.48	0.73	1.32
Average number of full container equivalents/set out <sup>3</sup>	1.62	0.76	1.05	1.58
Participation Rate	74.69%	63.44%	69.40%	83.62%

<sup>1</sup> Number of households sampled over 2-week period adjusted to omit those households that were picked up by hauler prior to the audit team's arrival and adjust for any resident refusals.

<sup>2</sup> 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.

<sup>3</sup> Averaged across just the subset out households that had an item set out.

### 3.1.2 Large Urban B

Large Urban B has a fully automated cart waste and recycling collection system. The different size carts were converted to a 16 gallon blue box equivalent for recycling and a standard garbage bag equivalent for garbage. Large Urban B was the only municipal group that had single-stream recycling collection. Collection for recycling and garbage is on a biweekly schedule; therefore the number of households sampled is half the amount of the other municipalities (i.e. each of the 100 households only had one opportunity to set out garbage and recycling over each 2-week seasonal audit). Participation rates are affected by the 14-day collection schedule and are consistently higher than municipal groups with weekly collection schedules. Residents are more likely to participate in biweekly collection. Also, it should be noted that in the tables for this municipality, the average number of items set out per household is per 2-week period, while the average full container equivalents per household is normalized to a weekly equivalent (for comparison to other municipalities).

Large Urban B: Spring Audit 2013		
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Garbage
Total number of households sampled <sup>1</sup>	100	100
Total number of household set-outs	93	89
Total number of items	110	97
Total number of full container equivalents	363.51	147.25
Average number of items/hh/2wk <sup>2</sup>	1.10	0.97
Average number of items/set out <sup>3</sup>	1.18	1.09
Average number of full container equivalents/hh/wk <sup>2</sup>	1.82	0.74
Average number of full container equivalents/set out <sup>3</sup>	3.91	1.65
Participation Rate	93.00%	89.00%

Large Urban B: Summer Audit 2012		
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Garbage
Total number of households sampled <sup>1</sup>	100	100
Total number of household set-outs	90	89
Total number of items	92	99
Total number of full container equivalents	335.99	133.75
Average number of items/hh/2wk <sup>2</sup>	0.92	0.99
Average number of items/set out <sup>3</sup>	1.02	1.11
Average number of full container equivalents/hh/wk <sup>2</sup>	1.68	0.67
Average number of full container equivalents/set out <sup>3</sup>	3.73	1.50
Participation Rate	90.00%	89.00%

Large Urban B: Fall Audit 2012		
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Garbage
Total number of households sampled <sup>1</sup>	100	100
Total number of household set-outs	94	89
Total number of items	100	90
Total number of full container equivalents	353.50	139.88
Average number of items/hh/2wk <sup>2</sup>	1.00	0.90
Average number of items/set out <sup>3</sup>	1.06	1.01
Average number of full container equivalents/hh/wk <sup>2</sup>	1.77	0.70
Average number of full container equivalents/set out <sup>3</sup>	3.76	1.57
Participation Rate	94.00%	89.00%

Large Urban B: Winter Audit 2013		
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Garbage
Total number of households sampled <sup>1</sup>	100	100
Total number of household set-outs	92	85
Total number of items	101	86
Total number of full container equivalents	359.76	135.88
Average number of items/hh/2wk <sup>2</sup>	1.01	0.86
Average number of items/set out <sup>3</sup>	1.10	1.01
Average number of full container equivalents/hh/wk <sup>2</sup>	1.80	0.68
Average number of full container equivalents/set out <sup>3</sup>	3.91	1.60
Participation Rate	92.00%	85.00%

Large Urban B: 4 Season Summary 2012/2013		
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Garbage
Average number of items/hh/2wk <sup>2</sup>	1.01	0.93
Average number of items/set out <sup>3</sup>	1.09	1.06
Average number of full container equivalents/hh/wk <sup>2</sup>	1.77	0.70
Average number of full container equivalents/set out <sup>3</sup>	3.83	1.58
Participation Rate	92.25%	88.00%

<sup>1</sup> Number of households sampled over 2-week period adjusted to omit those households that were picked up by hauler prior to the audit team's arrival and adjust for any resident refusals.

<sup>2</sup> 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.

<sup>3</sup> Averaged across just the subset out households that had an item set out.



### 3.1.3 Medium Urban

Medium Urban: Spring Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	200	200	200	199
Total number of household set-outs	169	153	148	165
Total number of items	378	193	185	204
Total number of full container equivalents	329.00	171.25	157.75	164.00
Average number of items/hh/wk <sup>2</sup>	1.89	0.97	0.93	1.02
Average number of items/set out <sup>3</sup>	2.24	1.26	1.25	1.23
Average number of full container equivalents/hh/wk <sup>2</sup>	1.65	0.86	0.79	0.82
Average number of full container equivalents/set out <sup>3</sup>	1.95	1.12	1.07	0.99
Participation Rate	84.50%	76.50%	74.00%	82.91%

Medium Urban: Summer Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	190	190	190	200
Total number of household set-outs	157	146	132	162
Total number of items	330	178	152	202
Total number of full container equivalents	281.25	150.00	131.25	155.00
Average number of items/hh/wk <sup>2</sup>	1.74	0.94	0.80	1.01
Average number of items/set out <sup>3</sup>	2.10	1.22	1.15	1.25
Average number of full container equivalents/hh/wk <sup>2</sup>	1.48	0.79	0.69	0.78
Average number of full container equivalents/set out <sup>3</sup>	1.79	1.03	0.99	0.96
Participation Rate	82.63%	76.84%	69.47%	81.00%

Medium Urban: Fall Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	199	199	199	199
Total number of household set-outs	163	146	142	161
Total number of items	342	160	182	199
Total number of full container equivalents	291.50	133.00	158.50	150.90
Average number of items/hh/wk <sup>2</sup>	1.72	0.80	0.91	1.00
Average number of items/set out <sup>3</sup>	2.10	1.10	1.28	1.24
Average number of full container equivalents/hh/wk <sup>2</sup>	1.46	0.67	0.80	0.76
Average number of full container equivalents/set out <sup>3</sup>	1.79	0.91	1.12	0.94
Participation Rate	81.91%	73.37%	71.36%	80.90%

Medium Urban: Winter Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	191	191	191	197
Total number of household set-outs	152	127	140	157
Total number of items	330	150	180	207
Total number of full container equivalents	293.00	131.75	161.25	161.50
Average number of items/hh/wk <sup>2</sup>	1.73	0.79	0.94	1.05
Average number of items/set out <sup>3</sup>	2.17	1.18	1.29	1.32
Average number of full container equivalents/hh/wk <sup>2</sup>	1.53	0.69	0.84	0.82
Average number of full container equivalents/set out <sup>3</sup>	1.93	1.04	1.15	1.03
Participation Rate	79.58%	66.49%	73.30%	79.70%

Medium Urban: 4 Season Summary 2012/2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Average number of items/hh/wk <sup>2</sup>	1.77	0.87	0.90	1.02
Average number of items/set out <sup>3</sup>	2.15	1.19	1.24	1.26
Average number of full container equivalents/hh/wk <sup>2</sup>	1.53	0.75	0.78	0.79
Average number of full container equivalents/set out <sup>3</sup>	1.86	1.02	1.08	0.98
Participation Rate	82.16%	73.30%	72.03%	81.13%

<sup>1</sup> Number of households sampled over 2-week period adjusted to omit those households that were picked up by hauler prior to the audit team's arrival and adjust for any resident refusals.

<sup>2</sup> 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.

<sup>3</sup> Averaged across just the subset out households that had an item set out.

### 3.1.4 Small Urban

Small Urban: Spring Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	199	199	199	199
Total number of household set-outs	142	125	108	101
Total number of items	282	153	129	126
Total number of full container equivalents	263.75	148.00	115.75	113.75
Average number of items/hh/wk <sup>2</sup>	1.42	0.77	0.65	0.63
Average number of items/set out <sup>3</sup>	1.99	1.23	1.19	1.25
Average number of full container equivalents/hh/wk <sup>2</sup>	1.33	0.74	0.58	0.57
Average number of full container equivalents/set out <sup>3</sup>	1.86	1.18	1.07	1.13
Participation Rate	71.36%	62.81%	54.27%	50.75%

Small Urban: Summer Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	198	198	198	198
Total number of household set-outs	144	123	117	107
Total number of items	267	139	128	122
Total number of full container equivalents	227.00	118.25	108.75	101.25
Average number of items/hh/wk <sup>2</sup>	1.35	0.70	0.65	0.62
Average number of items/set out <sup>3</sup>	1.85	1.13	1.09	1.14
Average number of full container equivalents/hh/wk <sup>2</sup>	1.15	0.60	0.55	0.51
Average number of full container equivalents/set out <sup>3</sup>	1.58	0.96	0.93	0.95
Participation Rate	72.73%	62.12%	59.09%	54.04%

Small Urban: Fall Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	199	199	199	200
Total number of household set-outs	146	115	123	100
Total number of items	287	135	152	122
Total number of full container equivalents	281.75	129.00	152.75	111.50
Average number of items/hh/wk <sup>2</sup>	1.44	0.68	0.76	0.61
Average number of items/set out <sup>3</sup>	1.97	1.17	1.24	1.22
Average number of full container equivalents/hh/wk <sup>2</sup>	1.42	0.65	0.77	0.56
Average number of full container equivalents/set out <sup>3</sup>	1.93	1.12	1.24	1.12
Participation Rate	73.37%	57.79%	61.81%	50.00%

Small Urban: Winter Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	197	197	197	199
Total number of household set-outs	129	106	105	80
Total number of items	257	123	134	100
Total number of full container equivalents	234.00	108.25	125.75	89.75
Average number of items/hh/wk <sup>2</sup>	1.30	0.62	0.68	0.50
Average number of items/set out <sup>3</sup>	1.99	1.16	1.28	1.25
Average number of full container equivalents/hh/wk <sup>2</sup>	1.19	0.55	0.64	0.45
Average number of full container equivalents/set out <sup>3</sup>	1.81	1.02	1.20	1.12
Participation Rate	65.48%	53.81%	53.30%	40.20%

Small Urban: 4 Season Summary 2012/2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Average number of items/hh/wk <sup>2</sup>	1.38	0.69	0.68	0.59
Average number of items/set out <sup>3</sup>	1.95	1.17	1.20	1.21
Average number of full container equivalents/hh/wk <sup>2</sup>	1.27	0.63	0.63	0.52
Average number of full container equivalents/set out <sup>3</sup>	1.79	1.07	1.11	1.08
Participation Rate	70.73%	59.13%	57.12%	48.75%

<sup>1</sup> Number of households sampled over 2-week period adjusted to omit those households that were picked up by hauler prior to the audit team's arrival and adjust for any resident refusals.

<sup>2</sup> 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.

<sup>3</sup> Averaged across just the subset out households that had an item set out.

### 3.1.5 Urban Regional

Urban Regional: Spring Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	188	188	188	179
Total number of household set-outs	126	119	101	134
Total number of items	238	127	111	165
Total number of full container equivalents	186.50	101.50	85.00	139.00
Average number of items/hh/wk <sup>2</sup>	1.27	0.68	0.59	0.92
Average number of items/set out <sup>3</sup>	1.89	1.07	1.10	1.23
Average number of full container equivalents/hh/wk <sup>2</sup>	0.99	0.54	0.45	0.78
Average number of full container equivalents/set out <sup>3</sup>	1.48	0.85	0.84	1.04
Participation Rate	67.02%	63.30%	53.72%	74.86%

Urban Regional: Summer Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	189	189	189	198
Total number of household set-outs	135	114	118	146
Total number of items	263	123	140	166
Total number of full container equivalents	207.00	90.25	116.75	136.75
Average number of items/hh/wk <sup>2</sup>	1.39	0.65	0.74	0.84
Average number of items/set out <sup>3</sup>	1.95	1.08	1.19	1.14
Average number of full container equivalents/hh/wk <sup>2</sup>	1.10	0.48	0.62	0.69
Average number of full container equivalents/set out <sup>3</sup>	1.53	0.79	0.99	0.94
Participation Rate	71.43%	60.32%	62.43%	73.74%

Urban Regional: Fall Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	188	188	188	198
Total number of household set-outs	126	107	109	141
Total number of items	252	127	125	166
Total number of full container equivalents	203.25	93.25	110.00	140.75
Average number of items/hh/wk <sup>2</sup>	1.34	0.68	0.66	0.84
Average number of items/set out <sup>3</sup>	2.00	1.19	1.15	1.18
Average number of full container equivalents/hh/wk <sup>2</sup>	1.08	0.50	0.59	0.71
Average number of full container equivalents/set out <sup>3</sup>	1.61	0.87	1.01	1.00
Participation Rate	67.02%	56.91%	57.98%	71.21%

Urban Regional: Winter Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	197	197	197	197
Total number of household set-outs	132	113	110	146
Total number of items	252	128	124	173
Total number of full container equivalents	210.75	103.25	107.50	144.05
Average number of items/hh/wk <sup>2</sup>	1.28	0.65	0.63	0.88
Average number of items/set out <sup>3</sup>	1.91	1.13	1.13	1.18
Average number of full container equivalents/hh/wk <sup>2</sup>	1.07	0.52	0.55	0.73
Average number of full container equivalents/set out <sup>3</sup>	1.60	0.91	0.98	0.99
Participation Rate	67.01%	57.36%	55.84%	74.11%

Urban Regional: 4 Season Summary 2012/2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Average number of items/hh/wk <sup>2</sup>	1.32	0.66	0.66	0.87
Average number of items/set out <sup>3</sup>	1.94	1.12	1.14	1.18
Average number of full container equivalents/hh/wk <sup>2</sup>	1.06	0.51	0.55	0.73
Average number of full container equivalents/set out <sup>3</sup>	1.56	0.86	0.95	0.99
Participation Rate	68.12%	59.47%	57.49%	73.48%

<sup>1</sup> Number of households sampled over 2-week period adjusted to omit those households that were picked up by hauler prior to the audit team's arrival and adjust for any resident refusals.

<sup>2</sup> 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.

<sup>3</sup> Averaged across just the subset out households that had an item set out.

### 3.1.6 Rural Regional A

Rural Regional A: Spring Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	200	200	200	200
Total number of household set-outs	108	91	81	112
Total number of items	195	100	95	153
Total number of full container equivalents	170.50	86.50	84.00	135.00
Average number of items/hh/wk <sup>2</sup>	0.98	0.50	0.48	0.77
Average number of items/set out <sup>3</sup>	1.81	1.10	1.17	1.37
Average number of full container equivalents/hh/wk <sup>2</sup>	0.85	0.43	0.42	0.68
Average number of full container equivalents/set out <sup>3</sup>	1.58	0.95	1.04	1.21
Participation Rate	54.00%	45.50%	40.50%	56.00%

Rural Regional A: Summer Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	200	200	200	200
Total number of household set-outs	137	122	102	132
Total number of items	274	147	127	183
Total number of full container equivalents	221.00	124.25	96.75	149.00
Average number of items/hh/wk <sup>2</sup>	1.37	0.74	0.64	0.92
Average number of items/set out <sup>3</sup>	2.00	1.20	1.25	1.39
Average number of full container equivalents/hh/wk <sup>2</sup>	1.11	0.62	0.48	0.75
Average number of full container equivalents/set out <sup>3</sup>	1.61	1.02	0.95	1.13
Participation Rate	68.50%	61.00%	51.00%	66.00%

Rural Regional A: Fall Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	200	200	200	199
Total number of household set-outs	105	96	81	100
Total number of items	206	108	98	132
Total number of full container equivalents	165.25	87.00	78.25	98.75
Average number of items/hh/wk <sup>2</sup>	1.03	0.54	0.49	0.66
Average number of items/set out <sup>3</sup>	1.96	1.12	1.21	1.32
Average number of full container equivalents/hh/wk <sup>2</sup>	0.83	0.44	0.39	0.50
Average number of full container equivalents/set out <sup>3</sup>	1.57	0.91	0.97	0.99
Participation Rate	52.50%	48.00%	40.50%	50.25%

Rural Regional A: Winter Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	198	198	198	200
Total number of household set-outs	90	77	61	92
Total number of items	156	86	70	126
Total number of full container equivalents	130.25	74.75	55.50	100.00
Average number of items/hh/wk <sup>2</sup>	0.79	0.43	0.35	0.63
Average number of items/set out <sup>3</sup>	1.73	1.12	1.15	1.37
Average number of full container equivalents/hh/wk <sup>2</sup>	0.66	0.38	0.28	0.50
Average number of full container equivalents/set out <sup>3</sup>	1.45	0.97	0.91	1.09
Participation Rate	45.45%	38.89%	30.81%	46.00%

Rural Regional A: 4 Season Summary 2012/2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Average number of items/hh/wk <sup>2</sup>	1.04	0.55	0.49	0.74
Average number of items/set out <sup>3</sup>	1.87	1.14	1.19	1.36
Average number of full container equivalents/hh/wk <sup>2</sup>	0.86	0.47	0.39	0.60
Average number of full container equivalents/set out <sup>3</sup>	1.55	0.96	0.97	1.10
Participation Rate	55.11%	48.35%	40.70%	54.56%

<sup>1</sup> Number of households sampled over 2-week period adjusted to omit those households that were picked up by hauler prior to the audit team's arrival and adjust for any resident refusals.

<sup>2</sup> 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.

<sup>3</sup> Averaged across just the subset out households that had an item set out.



### 3.1.7 Rural Regional B

Rural Regional B had seasonal communal drop-off zones in the spring and winter seasons. This resulted in a higher number of households sampled for those two seasons. The spring and winter seasons had biweekly garbage collection. For these seasons, the average number of items set out per household and the average full container equivalents per household is normalized to a weekly equivalent (for comparison to other seasons and municipalities).

Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	288	288	288	140
Total number of household set-outs	74	63	64	39
Total number of items	144	73	71	75
Total number of full container equivalents	124.75	58.25	66.50	54.00
Average number of items/hh/wk <sup>2</sup>	0.50	0.25	0.25	0.27
Average number of items/set out <sup>3</sup>	1.95	1.16	1.11	1.92
Average number of full container equivalents/hh/wk <sup>2</sup>	0.43	0.20	0.23	0.19
Average number of full container equivalents/set out <sup>3</sup>	1.69	0.92	1.04	1.38
Participation Rate	25.69%	21.88%	22.22%	27.86%

Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	199	199	199	199
Total number of household set-outs	112	100	83	102
Total number of items	218	123	95	144
Total number of full container equivalents	190.75	109.00	81.75	111.00
Average number of items/hh/wk <sup>2</sup>	1.10	0.62	0.48	0.72
Average number of items/set out <sup>3</sup>	1.95	1.23	1.14	1.41
Average number of full container equivalents/hh/wk <sup>2</sup>	0.96	0.55	0.41	0.56
Average number of full container equivalents/set out <sup>3</sup>	1.70	1.09	0.98	1.09
Participation Rate	56.28%	50.25%	41.71%	51.26%

Rural Regional B: Fall Audit 2012				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	200	200	200	200
Total number of household set-outs	91	85	70	83
Total number of items	164	93	71	102
Total number of full container equivalents	134.50	73.75	60.75	77.00
Average number of items/hh/wk <sup>2</sup>	0.82	0.47	0.36	0.51
Average number of items/set out <sup>3</sup>	1.80	1.09	1.01	1.23
Average number of full container equivalents/hh/wk <sup>2</sup>	0.67	0.37	0.30	0.39
Average number of full container equivalents/set out <sup>3</sup>	1.48	0.87	0.87	0.93
Participation Rate	45.50%	42.50%	35.00%	41.50%

Rural Regional B: Winter Audit 2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Total number of households sampled <sup>1</sup>	287	287	287	144
Total number of household set-outs	69	59	55	41
Total number of items	127	67	60	75
Total number of full container equivalents	117.75	60.00	57.75	65.00
Average number of items/hh/wk <sup>2</sup>	0.44	0.23	0.21	0.26
Average number of items/set out <sup>3</sup>	1.84	1.14	1.09	1.83
Average number of full container equivalents/hh/wk <sup>2</sup>	0.41	0.21	0.20	0.23
Average number of full container equivalents/set out <sup>3</sup>	1.71	1.02	1.05	1.59
Participation Rate	24.04%	20.56%	19.16%	28.47%

Rural Regional B: 4 Season Summary 2012/2013				
Total (Two Week Period)	Recycling Total (Containers and/or Fibres)	Containers Recycling	Fibres Recycling	Garbage
Average number of items/hh/wk <sup>2</sup>	0.71	0.39	0.32	0.44
Average number of items/set out <sup>3</sup>	1.88	1.15	1.09	1.60
Average number of full container equivalents/hh/wk <sup>2</sup>	0.62	0.33	0.29	0.34
Average number of full container equivalents/set out <sup>3</sup>	1.64	0.97	0.99	1.25
Participation Rate	37.88%	33.80%	29.52%	37.27%

<sup>1</sup> Number of households sampled over 2-week period adjusted to omit those households that were picked up by hauler prior to the audit team's arrival, adjust for any resident refusals and adjust for seasonal drop-off zones.

<sup>2</sup> 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.

<sup>3</sup> Averaged across just the subset out households that had an item set out.

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