Norfolk County

Urban and Rural Waste Composition Audit

Summer 2024 Summary Report

Prepared for

Norfolk County

Prepared by

AET Group Inc.

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EXECUTIVE SUMMARY

Norfolk County contracted AET Group Inc. (AET) to conduct an urban and rural residential curbside waste composition audit, which included a one-week sampling period of 50 urban and 45 rural single-family households. The study included collecting and sorting garbage from 5 urban and 5 rural single family sample areas, each comprising of ten households. A summary of the key results are as follows:

- **Urban Single-Family Garbage Stream Composition**:
  - Total garbage material generated by an Urban single-family household is 10.64 kg/hh/wk or 553.40 kg/hh/yr
  - Potentially Accepted green bin material was the largest disposed component in the garbage stream at 44.97%, or 4.79 kg/hh/wk or 248.88 kg/hh/yr
  - Of the potentially accepted green bin material in the garbage stream, approximately 47.56% consisted of avoidable food waste and 42.59% of unavoidable food waste.
  - Recyclable containers comprised 3.01% of the garbage stream, at 0.32 kg/hh/wk or 16.68 kg/hh/yr
  - Recyclable Fibres comprised 5.77% of the garbage stream, at 0.61 kg/hh/wk or 31.94 kg /hh/yr
- **Rural Single-Family Garbage Stream Composition**:
  - Total garbage material generated by a Rural single-family household is 11.11 kg/hh/wk or 577.67 kg/hh/yr
  - Potentially Accepted green bin material was the largest disposed component in the garbage stream at 42.84%, or 4.76 kg/hh/wk or 247.45 kg/hh/yr
  - Of the potentially accepted green bin material in the garbage stream, approximately 54.18% consisted of avoidable food waste and 34.85% of unavoidable food waste.
  - Recyclable containers comprised 5.40% of the garbage stream, at 0.60 kg/hh/wk or 31.20 kg/hh/yr
  - Recyclable Fibres comprised 5.76% of the garbage stream, at 0.64 kg/hh/wk or 33.27 kg /hh/yr

1.0 INTRODUCTION

1.1 Background

AET Group Inc. conducted a summer seasonal urban and rural single family curbside residential waste audit for Norfolk County between August 12th and 16th, 2024. For the waste composition audits, the garbage was audited for 50 Urban and 45 Rural single-family households. This study assessed the quantity of waste generated and the composition of the garbage stream over the one-week study period. Curbside garbage was collected from each household on their designated set-out day, sorted, and weighed by street.

1.2 Objectives

The objective of the waste audit study was to:

- Compare Urban and Rural Waste Composition data

1.3 Audit Scope

The scope of this study involved a physical audit of curbside waste generated from 50 Urban and 45 Rural single-family households over a one-week sample collection period (August 12th to 16th, 2024). All curbside garbage material generated by the sample households were collected and subject to waste composition analysis by AET.

2.0 APPROACH AND METHODOLOGY

2.1 Waste Sampling Process

AET's audit team collected garbage from 95 single family residential households over a one week sampling period. All garbage material set out was collected at each of the selected households. Collected material was brought back to a centralized location where each stream and sample area was sorted separately.

2.2 Collection Logs

Collection logs were maintained during the single family residential curbside collection of each of the 95 households. Specific data including the number and size of garbage, recycling and fullness value of each item was recorded at the curbside.

2.3 Material Sorting Process

All waste material collected during the sampling period was sorted and weighed by AET at 340 Argyle Ave, Delhi, ON N4B 3C1.

Samples were sorted into 8 major waste groups, consisting of 44 individual categories.

Separated/sorted waste was placed in blue boxes and totes, based on the 44 categories, and weighed individually. A digital scale, with precision to 0.01 kg, was used to weigh the sorted waste material. Once all the waste material was classified and weighed, it was disposed into a roll off bin provided by the County.

2.4 Assumptions and Calculations

This audit assumes that the selected Urban and Rural households are representative of the composition of waste generated by all households in Norfolk County.

Since the audit was based on one one-week sampling period in the Summer of 2024, seasonal variations in waste generation and composition are not represented (i.e. results are a 'snapshot' in time).

The following calculations were used to calculate the overall generation of waste.

Calculations:

Weekly Waste Generation (kg/hh/wk): $\frac{weight\ of\ 7\ day\ sample}{number\ of\ housholds\ sampled\ in\ period}$

Annual generation rate: $Weekly\ Generation\ Rate \times 52\ weeks$

3.0 RESULTS

3.1 Urban Single Family Garbage Composition Profile

The annual garbage composition profiles for the 50 sampled Norfolk County Urban family households are shown in Table 3.1. The average overall weekly garbage generated is 10.64 kg per household per week (kg/hh/wk), or 553.40 kg per household per year (kg/hh/yr). This just represents the sampled garbage. Displayed in the table is the overall amount of disposed recycled and potentially composted materials if residents had a green bin to use.

Table 3.1 Urban Single Family Garbage Generation Profile (kg/hh/wk)

Material	Disposed Recyclables	Disposed Organics	Disposed Non-Divertible	Total	Percentage Breakdown
	kg/hh/wk	kg/hh/wk	kg/hh/wk	kg/hh/wk	%
PAPER	0.61	0.45	0.16	1.22	11.44%
PLASTICS	0.14		0.75	0.90	8.44%
METALS	0.14		0.04	0.17	1.62%
GLASS	0.04		0.06	0.10	0.91%
ORGANICS		4.34	2.37	6.71	63.08%
LEAF AND YARD		0.46		0.46	4.28%
MHSW			0.01	0.01	0.05%
OTHER WASTE			1.08	1.08	10.17%
Total	0.94	5.24	4.47	10.64	100.00%

On average, Norfolk County Urban single-family households set out a total of 10.64 kg/hh/wk of garbage at the curb. Of this, approximately 4.79 kg/hh/wk or 44.97% could be diverted through a curbside green bin program, and 0.46 kg/hh/wk could have been placed in the Leaf and Yard program but residents put this material into their garbage. A total 0.94 kg/hh/wk of recyclable material or 8.79% is still being disposed of in the garbage, and the remaining 4.47 kg/hh/wk (41.96%) of generated waste material is non-divertible material.

As can be seen in Appendix B, Urban Waste Composition, approximately 58.04% (6.18 kg/hh/wk) of the total garbage generated could be divertible material that was disposed of in the garbage stream. It should be noted that Disposed potentially compostable material included Tissue/Toweling found in the garbage stream. Table 3.4 below summarizes the 2024 waste profile in kg/hh/yr, which is extrapolated from the kg/hh/wk values presented in Table 3.2. This assumes the waste profile would be consistent throughout the year.

Table 3.2 Urban Single Family Garbage Generation Profile (kg/hh/yr)

Material	Disposed Recyclables	Disposed Organics	Disposed Non-Divertible	Total	Percentage Breakdown
	kg/hh/yr	kg/hh/yr	kg/hh/yr	kg/hh/yr	%
PAPER	31.94	23.16	8.22	63.32	11.44%
PLASTICS	7.52		39.18	46.70	8.44%
METALS	7.09		1.85	8.95	1.62%
GLASS	2.07		2.96	5.03	0.91%
ORGANICS		225.72	123.38	349.09	63.08%
LEAF AND YARD		23.71		23.71	4.28%
MHSW			0.30	0.30	0.05%
OTHER WASTE			56.31	56.31	10.17%
Total	48.62	272.59	232.19	553.40	100.00%

See Figures 3.1 to 3.4 to show visual representations of the materials found during the Urban Garbage Sort.

Figure 3.1 Avoidable Food Waste in Urban Garbage

Figure 3.2 Unavoidable Food Waste in Urban Garbage

Figure 3.3 Other Accepted Organics in Urban Garbage

Figure 3.4 Tissue/Toweling in Urban Garbage

3.2

3.2 Rural Single Family Garbage Composition Profile

The annual garbage composition profiles for the 45 sampled Norfolk County Rural family households are shown in Table 3.3. The average overall weekly garbage generated is 11.11 kg per household per week (kg/hh/wk), or 577.67 kg per household per year (kg/hh/yr). This just represents the sampled garbage. Displayed in the table is the overall amount of disposed recycled and potentially composted materials if residents had a green bin to use.

Table 3.3 Rural Single Family Garbage Generation Profile (kg/hh/wk

Material	Disposed Recyclables	Disposed Organics	Disposed Non-Divertible	Total	Percentage Breakdown
	kg/hh/wk	kg/hh/wk	kg/hh/wk	kg/hh/wk	%
PAPER	0.64	0.48	0.13	1.25	11.23%
PLASTICS	0.39		1.06	1.45	13.08%
METALS	0.12		0.02	0.13	1.20%
GLASS	0.09		0.08	0.17	1.57%
ORGANICS		4.28	1.59	5.87	52.80%
LEAF AND YARD		0.03		0.03	0.23%
MHSW			0.03	0.03	0.28%
OTHER WASTE			2.18	2.18	19.61%
Total	1.24	4.78	5.09	11.11	100.00%

On average, Norfolk County Rural single-family households set out a total of 11.11 kg/hh/wk of garbage at the curb. Of this, approximately 4.76 kg/hh/wk or 42.84% could be diverted through a curbside green bin program, and 0.03 kg/hh/wk could have been placed in the Leaf and Yard program but residents put this material into their garbage. A total 1.24 kg/hh/wk of recyclable material or 11.16% is still being disposed of in the garbage, and the remaining 5.09 kg/hh/wk (45.77%) of generated waste material is non-divertible material.

As can be seen in Appendix B, Rural Waste Composition, approximately 54.23% (6.02 kg/hh/wk) of the total garbage generated could be divertible material that was disposed of in the garbage stream. It should be noted that Disposed potentially compostable material included Tissue/Toweling found in the garbage stream. Table 3.4 below summarizes the 2024 waste profile in kg/hh/yr, which is extrapolated from the kg/hh/wk values presented in Table 3.4. This assumes the waste profile would be consistent throughout the year.

Table 3.4 Urban Single Family Overall Waste Generation Profile (kg/hh/yr)

Material	Disposed Recyclables	Disposed Organics	Disposed Non-Divertible	Total	Percentage Breakdown
	kg/hh/yr	kg/hh/yr	kg/hh/yr	kg/hh/yr	%
PAPER	33.27	25.04	6.59	64.89	11.23%
PLASTICS	20.20		55.36	75.56	13.08%
METALS	6.07		0.84	6.91	1.20%
GLASS	4.93		4.16	9.09	1.57%
ORGANICS		222.41	82.59	305.00	52.80%
LEAF AND YARD		1.33		1.33	0.23%
MHSW			1.59	1.59	0.28%
OTHER WASTE			113.29	113.29	19.61%
Total	64.47	248.78	264.43	577.67	100.00%

See Figures 3.5 to 3.8 to show visual representations of the materials found during the Rural Garbage Sort.

Figure 3.5 Avoidable Food Waste in Rural Garbage

Figure 3.6 Unavoidable Food Waste in Rural Garbage

Figure 3.7 Other Accepted Organics in Rural Garbage

Figure 3.8 Tissue/Toweling in Rural Garbage

4.0 CONCLUSION

Norfolk County contracted AET Group Inc. (AET) to conduct an urban and rural residential curbside waste composition audit, which included a one-week sampling period of 50 urban and 45 rural single-family households. The study included collecting and sorting garbage from 5 urban and 5 rural single family sample areas, each comprising of ten households. A summary of the key results are as follows:

- **Urban Single-Family Garbage Stream Composition**:
  - Total garbage material generated by an Urban single-family household is 10.64 kg/hh/wk or 553.40 kg/hh/yr
  - Potentially Accepted green bin material was the largest disposed component in the garbage stream at 44.97%, or 4.79 kg/hh/wk or 248.88 kg/hh/yr
  - Of the potentially accepted green bin material in the garbage stream, approximately 47.56% consisted of avoidable food waste and 42.59% of unavoidable food waste.
  - Recyclable containers comprised 3.01% of the garbage stream, at 0.32 kg/hh/wk or 16.68 kg/hh/yr
  - Recyclable Fibres comprised 5.77% of the garbage stream, at 0.61 kg/hh/wk or 31.94 kg /hh/yr
- **Rural Single-Family Garbage Stream Composition**:
  - Total garbage material generated by a Rural single-family household is 11.11 kg/hh/wk or 577.67 kg/hh/yr
  - Potentially Accepted green bin material was the largest disposed component in the garbage stream at 42.84%, or 4.76 kg/hh/wk or 247.45 kg/hh/yr
  - Of the potentially accepted green bin material in the garbage stream, approximately 54.18% consisted of avoidable food waste and 34.85% of unavoidable food waste.
  - Recyclable containers comprised 5.40% of the garbage stream, at 0.60 kg/hh/wk or 31.20 kg/hh/yr
  - Recyclable Fibres comprised 5.76% of the garbage stream, at 0.64 kg/hh/wk or 33.27 kg /hh/yr

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Disclaimer

AET Group Inc. makes no warranty and assumes no liability for the information contained in this report outlining the waste audit study results. These results reflect measurements made over the 1 week in the Summer 2024 season as described in the methodology. As such, waste generation measurements should be considered snapshots and may not reflect accurately conditions across Norfolk County over time. The reported generation more accurately reflect the quantity of each material generated over the study period and have been extrapolated to calculate annual rates based on 365 days a year as outlined in the calculations.

APPENDIX A

WASTE AUDIT SORT RESULTS

Norfolk County - Waste Sort Results for Single-Family - Summer 2024

Urban

Municipality:		Norfolk County	Norfolk County	Norfolk County	Norfolk County	Norfolk County	TOTAL	TOTAL	TOTAL
Sample Area:		Port Dover	Courtland	Delhi	Simcoe	Waterford			
Waste Stream:		Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage
Date Collected (month/day/year):		2024-12-08	8/13/2024	8/14/2024	8/15/2024	8/16/2024			
Waste Generation Period (number of days):		7	7	7	7	7			
Sample Size (number of households):		10	10	10	10	10	50.00		
Audit Supervisor:		RS	RS	RS	RS	RS			
Notes:									
Material Category	**Stream**	**Weight (kg)**	**Weight (kg)**	**Weight (kg)**	**Weight (kg)**	**Weight (kg)**	**Weight (kg)**	**Weight (kg/hh/wk)**	**Weight (kg/hh/yr)**
PAPER									
Newsprint, Magazines, Catalogues, Telephone Books, & Directories	R	0.02	1.07	0.09	0.65	0.08	1.91	0.04	1.99
Mixed Fine Paper & Books	R	0.65	0.40	13.63	0.23	0.40	15.31	0.31	15.92
Other Paper	W	0.00	0.00	1.00	0.05	0.41	1.46	0.03	1.52
Total Paper		**0.67**	**1.47**	**14.72**	**0.93**	**0.89**	**18.68**	**0.37**	**19.43**
PAPER PACKAGING									
Gable Top, Asceptic, & Ice Cream Containers	R	0.00	0.19	0.22	0.37	0.39	1.17	0.02	1.22
Other Paper Laminate Categories & Cups	W	0.57	1.60	1.83	1.47	0.97	6.44	0.13	6.70
Corrugated Cardboard & Kraft Paper	R	0.00	2.05	0.52	0.63	0.70	3.90	0.08	4.06
Boxboard / Cores (Tubes) & Moulded Pulp Paper	R	2.15	2.18	1.17	1.44	1.18	8.12	0.16	8.44
Spiral Wound	R	0.00	0.10	0.04	0.10	0.06	0.30	0.01	0.31
Tissue/Toweling	O	4.40	6.05	5.00	3.04	3.78	22.27	0.45	23.16
Total Paper and Paper Packaging		**7.12**	**12.17**	**8.78**	**7.05**	**7.08**	**42.20**	**0.84**	**43.89**
PLASTICS									
#1 PET Bottles - Bottles and Jugs	R	0.10	0.54	0.54	0.22	0.14	1.54	0.03	1.60
#1 PET - thermoform packaging	R	0.13	0.53	0.28	0.09	0.01	1.04	0.02	1.08
#2 HDPE Bottles, Jugs and Trays	R	0.00	0.15	0.19	0.01	0.19	0.54	0.01	0.56
#5 PP - bottles, tubs and jugs	R	0.43	0.79	1.01	0.46	0.80	3.48	0.07	3.62
Other Accepted Recyclable Packaging	R	0.04	0.33	0.10	0.12	0.04	0.63	0.01	0.66
Polyethylene PE Plastic Bags & Film Non-Packaging and Laminated & Other Plastic Film Bags	W	4.35	5.19	7.14	4.86	4.67	26.21	0.52	27.26
Other Plastic Packaging	W	0.45	0.38	0.73	0.52	0.36	2.44	0.05	2.54
Other Plastics - Non-Packaging/Durable	W	1.59	2.57	2.85	1.30	0.71	9.02	0.18	9.38
Total Plastics		**7.09**	**10.48**	**12.84**	**7.58**	**6.92**	**44.90**	**0.90**	**46.70**
METALS									
Aluminum- Food & Beverage Cans, Foil, Trays and Aerosols	R	0.54	2.01	0.53	1.05	1.07	5.20	0.10	5.41
Other Aluminum - Non-Blue Box	W	0.00	0.03	0.00	0.02	0.05	0.10	0.00	0.11
Steel - Food &Beverage	R	0.08	0.10	0.21	0.25	0.18	0.82	0.02	0.85
Aerosol Cans	R	0.24	0.08	0.34	0.00	0.14	0.80	0.02	0.83
Steel - Paint Cans	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other steel - Non-Blue Box	W	0.00	0.09	1.55	0.01	0.03	1.68	0.03	1.75
Total Metals		**0.86**	**2.31**	**2.63**	**1.33**	**1.47**	**8.60**	**0.17**	**8.95**
GLASS									
Clear & Coloured Glass - food and beverage (excluding alcohol containers)	R	0.00	0.96	0.22	0.41	0.00	1.59	0.03	1.65
Clear & Coloured Glass - alcoholic beverage containers	R	0.00	0.00	0.40	0.00	0.00	0.40	0.01	0.42
Other Glass - non-Blue Box	W	0.00	0.82	1.11	0.26	0.66	2.85	0.06	2.96
Total Glass		**0.00**	**1.78**	**1.73**	**0.67**	**0.66**	**4.84**	**0.10**	**5.03**
MUNICIPAL HAZARDOUS AND SPECIAL WASTE									
Batteries	HHW	0.00	0.00	0.12	0.00	0.00	0.12	0.00	0.12
Paint & Stain	HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Motor Oil	HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other MHSW Liquids	HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other MHSW	HHW	0.00	0.12	0.02	0.00	0.03	0.17	0.00	0.18
Total Non-Blue Box Material		**0.00**	**0.12**	**0.14**	**0.00**	**0.03**	**0.29**	**0.01**	**0.30**
ORGANICS									
Avoidable Food Waste	O	19.15	30.84	29.32	15.28	19.31	113.90	2.28	118.46
Unavoidable Food Waste	O	17.38	27.43	22.92	19.75	14.52	102.01	2.04	106.09
Other Accepted Organics	O	0.26	0.20	0.39	0.13	0.15	1.13	0.02	1.17
Yard Waste	L&Y	8.90	1.79	6.65	2.57	2.89	22.80	0.46	23.71
Pet Waste	W	4.93	22.87	30.26	26.28	34.29	118.63	2.37	123.38
Total Organics		**50.62**	**83.13**	**89.55**	**64.01**	**71.16**	**358.47**	**7.17**	**372.80**
OTHER MATERIALS									
Diapers & Sanitary Products	W	0.96	5.61	6.87	0.42	6.75	20.61	0.41	21.43
Textiles	W	0.97	2.53	5.13	0.37	1.34	10.34	0.21	10.75
Carpeting	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Construction & Renovation	W	0.00	1.17	0.32	4.02	0.00	5.51	0.11	5.73
Electronics	W	0.09	0.00	1.43	0.00	0.02	1.54	0.03	1.60
Tires and Other Rubber	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ceramics	W	0.00	0.44	0.07	0.77	0.00	1.28	0.03	1.33
Furniture	W	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
Other Large Bulky Items	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Waste	W	2.07	5.18	5.70	1.24	0.67	14.86	0.30	15.45
Total Other Materials		**4.09**	**14.93**	**19.52**	**6.82**	**8.78**	**54.14**	**1.08**	**56.31**
Total Accepted Recycling		**4.38**	**11.48**	**19.49**	**6.03**	**5.38**	**46.75**	**0.94**	**48.62**
Total HHW Materials		**0.00**	**0.12**	**0.14**	**0.00**	**0.03**	**0.29**	**0.01**	**0.30**
Total Potential Green Bin Material		**41.19**	**64.52**	**57.64**	**38.20**	**37.76**	**239.31**	**4.79**	**248.88**
Total Leaf & Yard Waste		**8.90**	**1.79**	**6.65**	**2.57**	**2.89**	**22.80**	**0.46**	**23.71**
Total Non-Divertible Material		**15.98**	**48.48**	**65.99**	**41.59**	**50.93**	**222.97**	**4.46**	**231.89**
Grand Total		**70.44**	**126.39**	**149.91**	**88.39**	**96.99**	**532.12**	**10.64**	**553.40**

Norfolk County - Waste Sort Results for Single-Family - Summer 2024

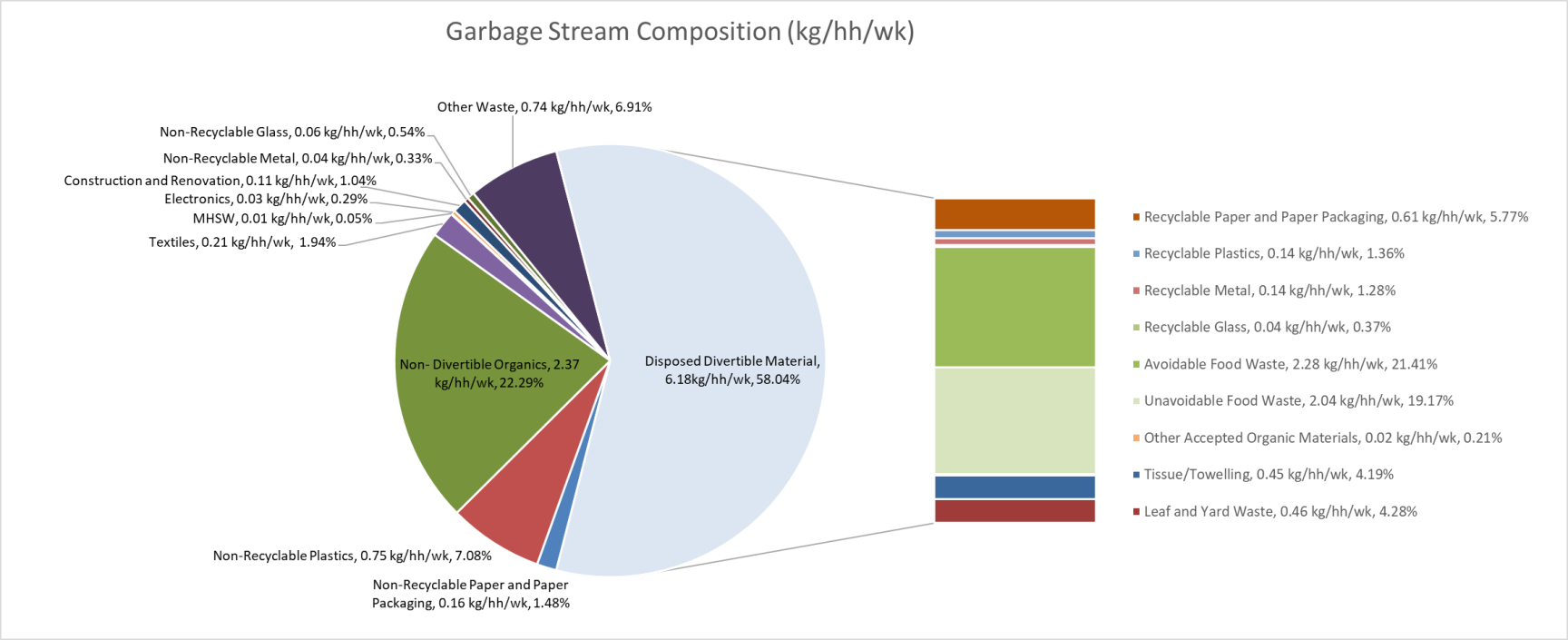
Rural

Municipality:		Norfolk County	Norfolk County	Norfolk County	Norfolk County	Norfolk County	TOTAL	TOTAL	TOTAL
Sample Area:		Vittoria	Little Lake	Cultus	Langton	Bloomsburg			
Waste Stream:		Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage	Garbage
Date Collected (month/day/year):		2024-12-08	8/13/2024	8/14/2024	8/15/2024	8/16/2024			
Waste Generation Period (number of days):		7	7	7	7	7			
Sample Size (number of households):		7	8	10	10	10	45.00		
Audit Supervisor:		RS	RS	RS	RS	RS			
Notes:									
Material Category	**Stream**	**Weight (kg)**	**Weight (kg)**	**Weight (kg)**	**Weight (kg)**	**Weight (kg)**	**Weight (kg)**	**Weight (kg/hh/wk)**	**Weight (kg/hh/yr)**
PAPER									
Newsprint, Magazines, Catalogues, Telephone Books, & Directories	R	0.02	0.07	1.06	0.26	0.33	1.74	0.04	2.01
Mixed Fine Paper & Books	R	0.44	0.99	0.69	1.47	0.45	4.04	0.09	4.67
Other Paper	W	0.54	0.10	0.07	0.00	0.22	0.93	0.02	1.07
Total Paper		**1.00**	**1.16**	**1.82**	**1.73**	**1.00**	**6.71**	**0.15**	**7.75**
PAPER PACKAGING									
Gable Top, Asceptic, & Ice Cream Containers	R	0.24	0.16	0.30	0.32	0.21	1.23	0.03	1.42
Other Paper Laminate Categories & Cups	W	0.79	0.66	0.77	1.52	1.03	4.77	0.11	5.51
Corrugated Cardboard & Kraft Paper	R	1.08	3.40	2.06	0.86	1.02	8.42	0.19	9.73
Boxboard / Cores (Tubes) & Moulded Pulp Paper	R	1.66	2.70	3.98	2.42	2.04	12.80	0.28	14.79
Spiral Wound	R	0.10	0.16	0.20	0.00	0.10	0.56	0.01	0.65
Tissue/Toweling	O	2.30	4.15	4.61	5.57	5.04	21.67	0.48	25.04
Total Paper and Paper Packaging		**6.17**	**11.23**	**11.92**	**10.69**	**9.44**	**49.45**	**1.10**	**57.14**
PLASTICS									
#1 PET Bottles - Bottles and Jugs	R	0.85	0.65	4.49	1.30	0.88	8.17	0.18	9.44
#1 PET - thermoform packaging	R	0.08	0.12	1.08	0.33	0.52	2.13	0.05	2.46
#2 HDPE Bottles, Jugs and Trays	R	0.10	0.58	1.04	1.29	0.55	3.56	0.08	4.11
#5 PP - bottles, tubs and jugs	R	0.35	0.69	0.73	0.98	0.31	3.06	0.07	3.54
Other Accepted Recyclable Packaging	R	0.02	0.26	0.08	0.03	0.17	0.56	0.01	0.65
Polyethylene PE Plastic Bags & Film Non-Packaging and Laminated & Other Plastic Film Bags	W	2.89	7.49	10.29	6.62	5.87	33.16	0.74	38.32
Other Plastic Packaging	W	0.16	0.51	0.96	0.46	3.09	5.18	0.12	5.99
Other Plastics - Non-Packaging/Durable	W	2.48	4.05	1.25	1.01	0.78	9.57	0.21	11.06
Total Plastics		**6.93**	**14.35**	**19.92**	**12.02**	**12.17**	**65.39**	**1.45**	**75.56**
METALS									
Aluminum- Food & Beverage Cans, Foil, Trays and Aerosols	R	0.75	0.22	1.76	0.44	0.47	3.64	0.08	4.21
Other Aluminum - Non-Blue Box	W	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.02
Steel - Food &Beverage	R	0.32	0.38	0.25	0.03	0.36	1.34	0.03	1.55
Aerosol Cans	R	0.00	0.00	0.18	0.00	0.09	0.27	0.01	0.31
Steel - Paint Cans	R	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other steel - Non-Blue Box	W	0.09	0.00	0.43	0.19	0.00	0.71	0.02	0.82
Total Metals		**1.16**	**0.61**	**2.62**	**0.66**	**0.93**	**5.98**	**0.13**	**6.91**
GLASS									
Clear & Coloured Glass - food and beverage (excluding alcohol containers)	R	0.22	0.00	1.12	0.00	0.66	2.00	0.04	2.31
Clear & Coloured Glass - alcoholic beverage containers	R	0.83	0.20	1.24	0.00	0.00	2.27	0.05	2.62
Other Glass - non-Blue Box	W	0.00	0.33	2.35	0.01	0.91	3.60	0.08	4.16
Total Glass		**1.05**	**0.53**	**4.71**	**0.01**	**1.57**	**7.87**	**0.17**	**9.09**
MUNICIPAL HAZARDOUS AND SPECIAL WASTE									
Batteries	HHW	0.00	0.36	0.11	0.42	0.02	0.91	0.02	1.05
Paint & Stain	HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Motor Oil	HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other MHSW Liquids	HHW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other MHSW	HHW	0.11	0.15	0.00	0.21	0.00	0.47	0.01	0.54
Total Non-Blue Box Material		**0.11**	**0.51**	**0.11**	**0.63**	**0.02**	**1.38**	**0.03**	**1.59**
ORGANICS									
Avoidable Food Waste	O	22.76	24.42	31.27	15.14	22.42	116.01	2.58	134.06
Unavoidable Food Waste	O	11.82	10.00	22.52	19.25	11.03	74.62	1.66	86.23
Other Accepted Organics	O	0.53	0.44	0.25	0.25	0.37	1.84	0.04	2.12
Yard Waste	L&Y	0.01	0.21	0.39	0.11	0.43	1.15	0.03	1.33
Pet Waste	W	24.95	17.57	11.04	16.37	1.54	71.47	1.59	82.59
Total Organics		**60.07**	**52.64**	**65.47**	**51.12**	**35.79**	**265.09**	**5.89**	**306.32**
OTHER MATERIALS									
Diapers & Sanitary Products	W	3.18	12.78	10.00	14.68	30.97	71.61	1.59	82.75
Textiles	W	2.20	0.70	2.98	3.39	1.33	10.60	0.24	12.25
Carpeting	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Construction & Renovation	W	0.00	0.00	0.00	1.20	0.37	1.57	0.03	1.81
Electronics	W	0.00	0.00	0.06	0.82	0.22	1.10	0.02	1.27
Tires and Other Rubber	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ceramics	W	0.00	0.00	2.00	0.06	0.46	2.52	0.06	2.91
Furniture	W	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
Other Large Bulky Items	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Waste	W	3.14	2.00	1.59	2.83	1.08	10.64	0.24	12.30
Total Other Materials		**8.52**	**15.48**	**16.63**	**22.98**	**34.43**	**98.04**	**2.18**	**113.29**
Total Accepted Recycling		**7.06**	**10.58**	**20.26**	**9.73**	**8.16**	**55.79**	**1.24**	**64.47**
Total HHW Materials		**0.11**	**0.51**	**0.11**	**0.63**	**0.02**	**1.38**	**0.03**	**1.59**
Total Potential Green Bin Material		**37.41**	**39.01**	**58.65**	**40.21**	**38.86**	**214.14**	**4.76**	**247.45**
Total Leaf & Yard Waste		**0.01**	**0.21**	**0.39**	**0.11**	**0.43**	**1.15**	**0.03**	**1.33**
Total Non-Divertible Material		**40.42**	**46.20**	**43.79**	**49.16**	**47.88**	**227.45**	**5.05**	**262.83**
Grand Total		**85.01**	**96.51**	**123.20**	**99.84**	**95.35**	**499.91**	**11.11**	**577.67**

APPENDIX B

URBAN AND RURAL WASTE COMPOSITION

Urban Waste Composition 2024



Rural Waste Composition 2024