

REPORT

Composition Audit of Recyclables Collected in the GMRSC & CRSC Regions

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Final version





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1. CONTEXT

1.1 PRIMARY OBJECTIVES OF THE STUDY

This study, conducted on behalf of the Greater Miramichi Regional Service Commission (GMRSC) and the Chaleur Regional Service Commission (CRSC), has the following objectives:

1. Determine the composition of recyclables entering the Red Pine Recycling Building by material type, based on weight and percentage. A suggested categorization is attached (see Appendix A), but the final list will be developed between GMRSC, CRSC and the consulting firm;
2. Determine the composition of reject recyclables entering the Red Pine Recycling Building by material type, based on weight and percentage;
3. Determine the composition of contaminated recyclables entering the Red Pine Recycling Building by material type, based on weight and percentage;
4. Determine the composition and quantity of Institutional Commercial and Industrial (ICI) waste mixed with the recyclables collected through Curbside Recycling;
5. Audit a sample selection of regular waste and determine by material, based on weight/percentage, recyclables being landfilled;
6. The results of the composition audit will indicate the effectiveness of the current waste diversion program;
7. Complete a detailed characterization of the various loads delivered to Red Pine Recycling Building for recycling specifically by Municipalities, First Nations and Local Service Districts.

It is important to note that characterization data are those that prevailed during the study, for the targeted samples. The composition of the materials is likely to vary over time.

The results of the study are presented in the following sections.

1.2 TERRITORY UNDER STUDY

Table 1 shows the municipalities, local service districts and First Nations covered by the study.

Table 1. Sectors Under Study

RSC	Region	Type
Miramichi	Doaktown	Municipality
Miramichi	Miramichi: Chatham, Chatham Parish, Loggieville	Municipality
Chaleur	Dunlop-Freegrant	Local Service District
Miramichi	Local Service District Newcastle	Local Service District
Miramichi	Local Service District Nelson	Local Service District
Miramichi	Local Service District Baie Ste-Anne, Escuminac	Local Service District
Miramichi	Local Service District Renous, South Esk, North Esk, Sunny Co	Local Service District
Chaleur	Allardville-Saint-Sauveur	Local Service District
Chaleur	Belledune	Municipality
Chaleur	Rough Waters	Local Service District
Miramichi	Local Service District Barryville/New Jersey, Burnt Church	Local Service District
Miramichi	Local Service District Oak Point - Bartibog	Local Service District
Chaleur	Beresford	Municipality
Miramichi	Blackville	Municipality
Miramichi	Miramichi: Nelson, Chatham Head, Douglasfield	Municipality
Miramichi	Eel Ground	First Nation
Chaleur	Nigadoo	Municipality
Chaleur	Pointe-Verte	Municipality
Chaleur	Salmon-Beach/Pokeshaw	Local Service District
Chaleur	Petit-Rocher	Municipality
Miramichi	Miramichi: Nordin, Douglstown, Ferry Road	Municipality
Miramichi	Local Service District Blackville	Local Service District
Miramichi	Metepenagiag	First Nation
Chaleur	Big River/Pabineau	Local Service District
Chaleur	Madran-Tremblay	Local Service District
Miramichi	Local Service District Blissfield	Local Service District
Miramichi	Local Service District Hardwicke	Local Service District
Chaleur	Dunlop-Freegrant	Local Service District
Miramichi	Local Service District Chatham	Local Service District
Miramichi	Local Service District St. Margarets	Local Service District
Chaleur	Allardville-Saint-Sauveur	Local Service District
Chaleur	Rough Waters	Local Service District
Miramichi	Local Service District Ferry Road - Russellville	Local Service District
Miramichi	Local Service District Black River and Little Branch	Local Service District
Miramichi	Miramichi: Newcastle Area	Municipality
Miramichi	Rural Community of Upper Miramichi	Municipality
Chaleur	Beresford	Municipality
Miramichi	Local Service District Alnwick	Local Service District
Miramichi	Local Service District Glenelg	Local Service District
Chaleur	Salmon-Beach/Pokeshaw	Local Service District
Chaleur	Petit-Rocher	Municipality
Chaleur	Nigadoo	Municipality
Chaleur	Pointe-Verte	Municipality
Miramichi	Local Service District Black River-Hardwicke	Local Service District
Miramichi	Esgenoopetitj	First Nation
Chaleur	Madran-Tremblay	Local Service District

2. METHODOLOGY

2.1 PLANNING

The planning phase of the project followed these steps:

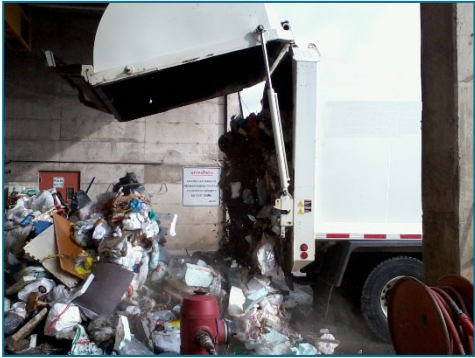
- Kick-off telephone meeting with the client to validate the methodology;
- Validation of the collection schedule to obtain representative sampling;
- Determination of trucks to be sampled during the two (2) weeks;
- Production of the planning document for the work (detailed planning of presence on the terrain).

2.2 PRESENCE ON SITE SAMPLING AND CHARACTERIZATION

Sampling was done continuously over a period of ten (10) working days to cover a complete collection cycle. Four (4) trucks, (one (1) garbage truck and three (3) recycling trucks) were sampled daily from November 19 to 30, 2018.

For sampling, the steps presented in Table 2 were followed:


Table 2. Sampling Steps

Step	Details
1- Inquiry and selection	<p>When the trucks arrived at the scales, a short interview was conducted with truck drivers from the targeted municipalities to specify</p> <ul style="list-style-type: none"> - Provenance: municipalities, First Nations, or local service districts - Proportion of residential/ICI - Weighing ticket (for verification/analysis)
2- Unloading the truck	<p>Drivers had to unload their trucks while advancing to form a strip;</p> <p>The provenance of every truck was verified, and front-loading trucks were discarded to retain only the targeted trucks</p> 

3- Sampling by the 16 parts method

After the dumping of the truck, the sampling was carried out according to the following method:

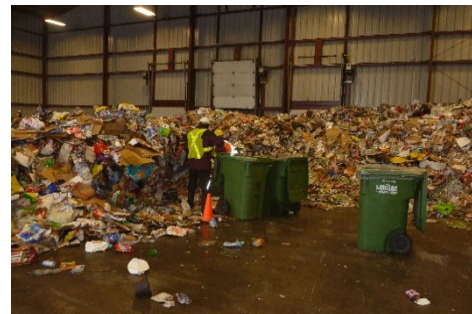
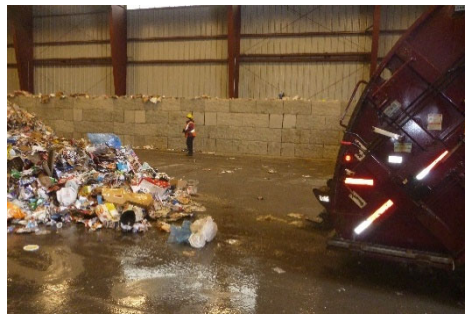
- 1- Random selection of a number from 1 to 16 (using cellular phone app)
- 2- Manual removal of the target part (about 1 to 1.5 tons) and taking of a 100 kg sample

1	2	3	4	5	6	7	8	
9	10	11	12	13	14	15	16	

- 3- -Return to the landfill of the unused 15 parts by the site operator (radio communication)

For garbage, approximately three (3) 360 L bins were required to hold the 100 kg sample and for recyclable materials, approximately five (5) bins were required.

As a result, approximately 4 tons of material were sampled in 2 weeks (40 samples of 100 kg).



3- Sorting of material

Each sample of 100 kg was weighed before being sorted by category of material into sorting bins (photo)

The planned 12 categories of materials were used and specific other materials (bulky, unusual materials) were noted separately. See **Appendix A** for a description of material categories.

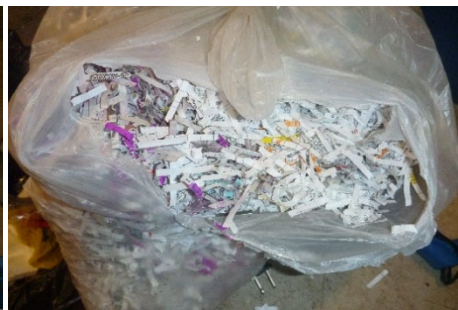
The weight of each category was evaluated using an accurate MGK 100k electronic scale at ± 0.005 kg and the data was compiled by truck and by sector for analysis.



Once characterized, the materials were set aside for weighing. The following photos show examples of characterized materials:



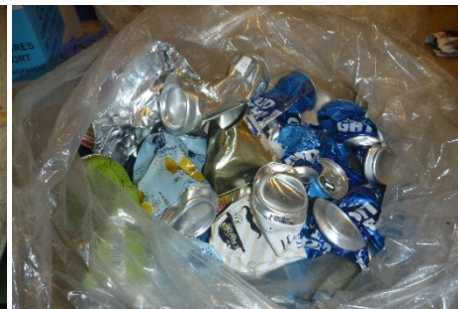
Non-accepted fibers



Recyclable fibers



Non-accepted metal



Recyclable metal

2.3 EXTRAPOLATION OF DATA

The final step was to extrapolate the data to estimate the recovered and landfilled proportions of each of the material categories on an annual basis. The extrapolation was done on the following bases:

- 1- Extrapolation of data for each category of material for all trucks:
 - Example: For a truckload weighing, for example, 8000 kg, and for which a 100 kg sample contained 5 kg of recyclable fiber, the result of the extrapolation was that the truck contained a total of 400 kg of recyclable fibers.
- 2- Extrapolation of data to one full year of generation:
 - Generation data for the full year of 2017 were used for extrapolation, (see **Table 3**)

Table 3. Landfilled and Recovered Quantities in 2017 (tons)

	GMRSC	CRSC
Total landfilled	11,428 t	9,544.69 t
Recyclables collected	1,621 t	1,892 t

3. RESULTS

3.1 WASTE COMPOSITION

The data including all the samples are presented in **Table 4** and **Table 5** below¹. The "Distribution" column shows the relative proportion of each category, and the "Extrapolated 2017" column represents the number of tons landfilled annually, based on 2017 data. The top three (3) categories are highlighted.

Table 4. Composition of Waste Landfilled in the GMRSC Region

Composition of Waste Landfilled	Distribution	Extrapolated 2017 (tons)
Recyclable fibers	8.3%	915.46
Recyclable metal	1.9%	212.22
Recyclable plastics	3.6%	392.18
Organics	42.5%	4698.21
Not accepted fibers	8.2%	900.20
Not accepted metal	4.3%	476.90
Not accepted plastics	8.6%	949.72
Glass	2.9%	317.91
HHW	0.9%	94.96
Electronic Waste	1.7%	189.39
Other waste	14.3%	1583.31
Bulky items	2.8%	313.41
TOTAL	100.0%	11043.87

Subtotals by category	%
Recyclables	13.8%
Non-recyclables	86.2%
Organics	42.5%
Other non-recyclables	43.7%
TOTAL	100.0%

Table 5. Composition of Waste Landfilled in the CRSC Region

Composition of Waste Landfilled	Distribution	Extrapolated 2017 (tons)
Recyclable fibers	9,0%	835,23
Recyclable metal	1,9%	181,60
Recyclable plastics	3,4%	315,35
Organics	38,1%	3550,05
Not accepted fibers	13,0%	1215,53
Not accepted metal	1,8%	171,67
Not accepted plastics	8,4%	781,86
Glass	3,4%	316,78
HHW	0,8%	72,70
Electronic Waste	0,3%	32,12
Other waste	18,1%	1691,02
Bulky items	1,7%	319,49
TOTAL	100,0%	9321,68

Subtotals by category	%
Recyclables	14,3%
Non recyclables	85,7%
Matières organiques	38,1%
Autres non-recyclables	47,6%
TOTAL	100,0%

¹ In this document, totals may not add to 100 percent due to rounding of cell data.

The detailed description of the material categories is presented in **Appendix A** and the raw data for all samples are presented in **Appendix B**.

To simplify the analysis, the material categories have been grouped together and are presented in **Figure 1** and **Figure 2** below. The "HHW" and "Electronic waste" categories of materials are compiled in the "non-recyclable" category since they are not accepted in the curbside recycling collection.

Figure 1. Composition of Waste Landfilled in the GMRSC Region

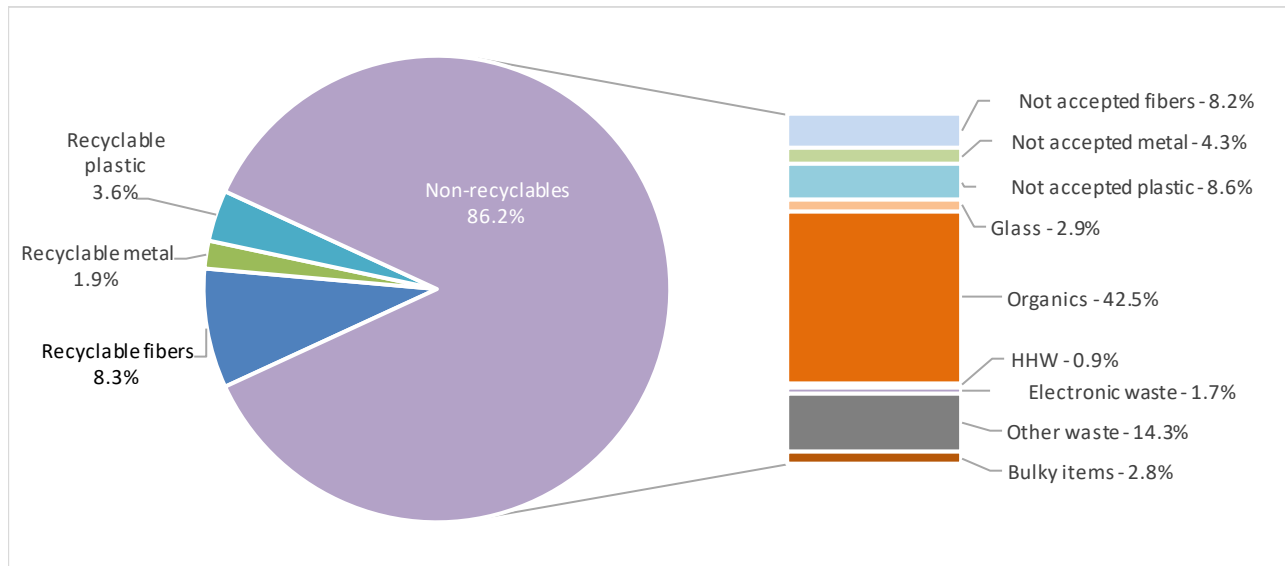
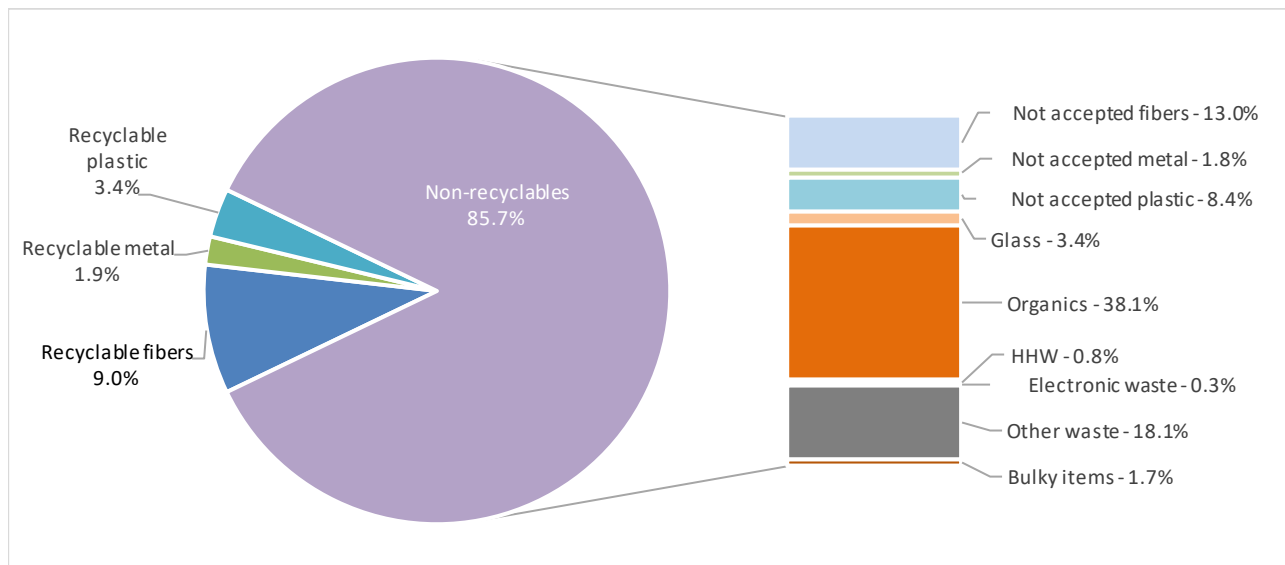


Figure 2. Composition of Waste Landfilled in the CRSC Region



The following observations can be made from the tables and figures above:

- A large amount of non-recyclable materials is present in the waste collected. In both territories, the proportions are similar: 86.2% in the GMRSC territory and 85.7% in the CRSC territory;
- The most common materials are "Organics" in the two regions, i.e. 42.5% for the GMRSC and 38.1% for the CRSC;
- The second most common material is, in both territories, "Other Waste", with 14.3% and 18.1% respectively for the GMRSC and the CRSC;
- There is a relatively large proportion of recyclable materials in the waste:
 - GMRSC: 13.8 %
 - CRSC: 14.3 %

Data from both territories are very similar. In both cases, "Organics" would be a priority in order to reduce the amount of waste landfilled. The complete removal of these materials from the GMRSC and CRSC waste stream would reduce the amount of material landfilled annually at the Red Pine site by 8,000 t.

The complete removal of **organics** from the GMRSC and CRSC waste streams would **reduce the amount of material landfilled at the Red Pine site by 8,000 t per year.**

3.2 COMPOSITION OF RECYCLABLES

The data for all the samples is presented in **Table 6** and **Table 7** below. The "Distribution" column shows the relative proportion of each category, and the "Extrapolated 2017" column represents the number of tonnes recovered annually, based on 2017 data. The top three (3) categories are highlighted. A detailed description of the material categories is presented in **Appendix A** and the raw data for all samples are presented in **Appendix B**.

Table 6. Composition of recyclables collected in the GMRSC Region

Composition of recyclables	Distribution	Extrapolated 2017 (tons)
Recyclable fibers	79.6%	1425.28
Recyclable metal	3.6%	64.00
Recyclable plastics	7.4%	131.72
Organics	0.9%	16.29
Not accepted fibers	1.0%	17.99
Not accepted metal	0.4%	7.13
Not accepted plastics	2.9%	51.71
Glass	1.4%	25.31
HHW	0.1%	1.14
Electronic Waste	0.1%	2.61
Other waste	2.5%	45.56
Bulky items	0.1%	2.37
TOTAL	100.0%	1791.13

Subtotals by category	%
Recyclables	90.5%
Non-recyclables	9.5%
Organics	0.9%
Other non-recyclables	8.6%
TOTAL	100.0%

Table 7. Composition of recyclables collected in the CRSC Region

Composition of recyclables	Distribution	Extrapolated 2017 (tons)
Recyclable fibers	72.3%	1529.94
Recyclable metal	3.8%	81.19
Recyclable plastics	10.3%	217.87
Organics	1.9%	40.57
Not accepted fibers	2.4%	50.69
Not accepted metal	0.7%	14.05
Not accepted plastics	3.6%	76.62
Glass	1.8%	37.54
HHW	0.2%	3.23
Electronic Waste	0.1%	2.44
Other waste	2.8%	58.68
Bulky items	0.1%	2.20
TOTAL	100.0%	2115.01

Subtotals by category	%
Recyclables	86.5%
Non-recyclables	13.5%
Organics	1.9%
Other non-recyclables	11.6%
TOTAL	100.0%

To simplify the analysis, the material categories have been grouped together and are presented in **Figure 3** and **Figure 4**. As with waste, the categories of "HHW" and "Electronic waste " are compiled in the "non-recyclable" category since they are not accepted in the curbside recycling collection.

Figure 3. Composition of recyclables collected in the GMRSC Region

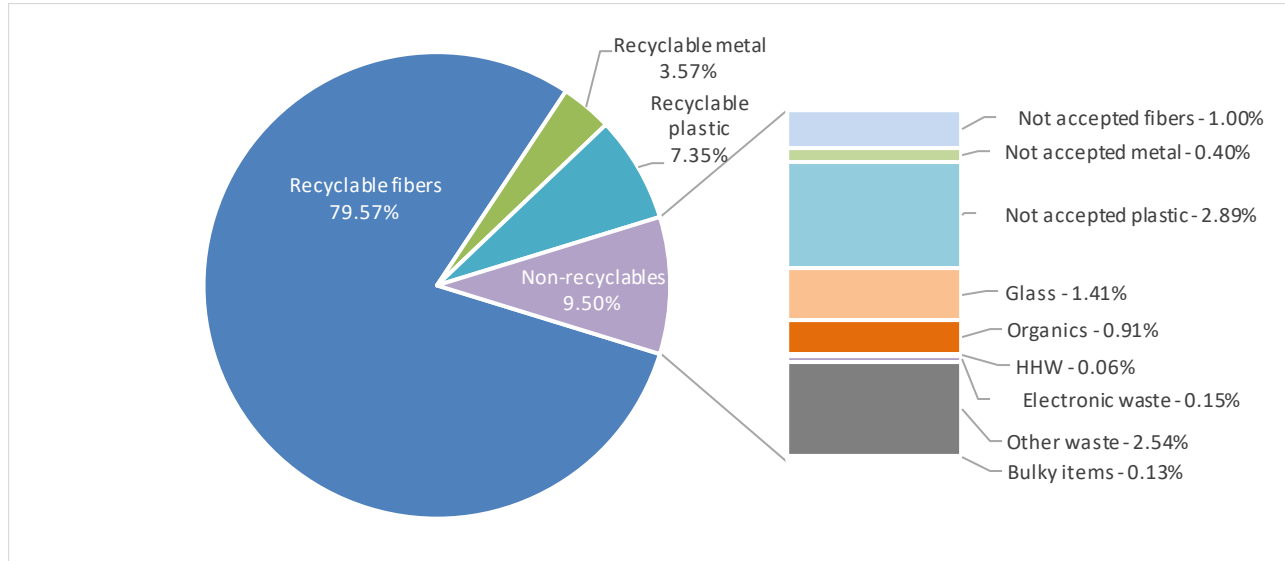
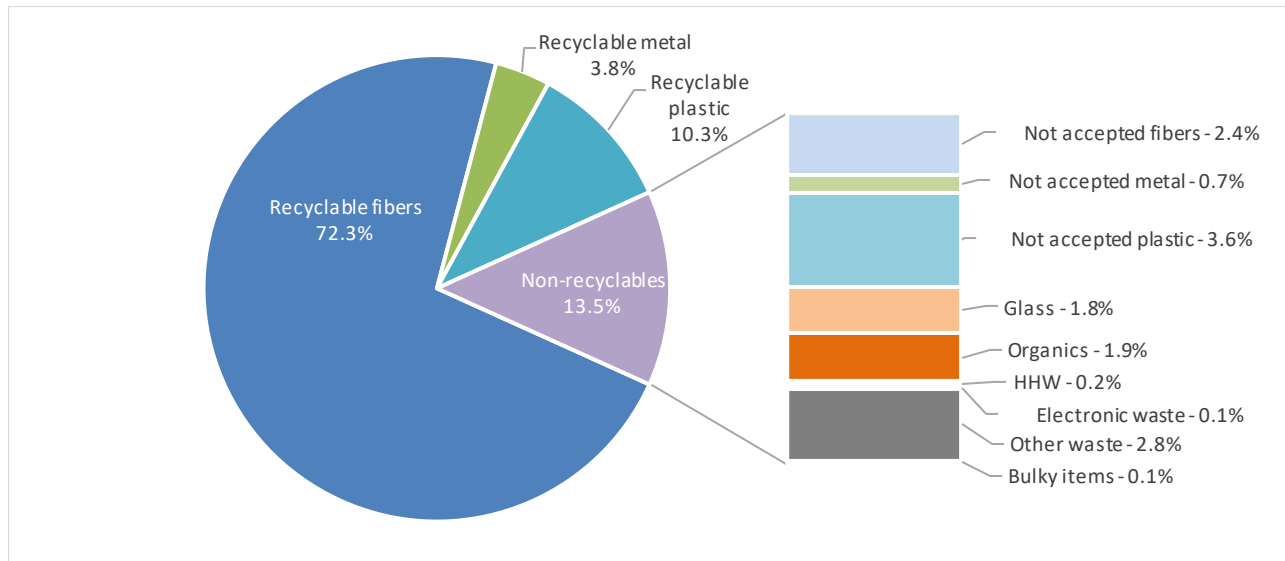


Figure 4. Composition of recyclables collected in the CRSC Region



The following observations can be made from the tables and figures above:

- A contamination rate of **9.5%** is observed in the recyclables collected in the GMRSC Region, compared with **13.52%** in the CRSC Region;
- **“Non-Accepted plastics”**, such as plastic # 6, unnumbered plastic packaging, and plastic film, are the main contaminants at **2.89%** (GMRSC) and **3.62%** (CRSC);
- The main materials recovered are "Recyclable Fibers" for the GMRSC and for the CRSC, at respectively **79.6%** and **72.3%**.

As with the waste analyzed in the previous section, the data for the two regions are very similar. The contamination rate for recyclables ranging from 9.5% (GMRSC) to 13.5% (CRSC) is similar to that observed for similar studies where the average sorting facilities rejection rate is 9%².

² RECYC-QUÉBEC, <http://recreer.recyq-quebec.gouv.qc.ca/questions-reponses/>, 2010 data.

3.3 DIVERSION RATES

Table 8 shows the diversion rates for the two (2) regions. The diversion rate is calculated using the following formula:

$$\text{Total diverted} / (\text{Total disposed} + \text{Total diverted}) = \text{Diversion rate}$$

Table 8. Diversion Rates

	GMRSC	CRSC
Total landfilled	11428 t	9544 t
Recyclables collected	1621 t	1892 t
Diversion rate	12,4%	16,5%

Since the generation of recyclable fibers such as newsprint and office paper is generally declining, there may possibly be a decline in the diversion rate in the future, depending on the amount of waste generated. If the generation of waste and all other materials remains stable but the quantities of recovered fiber decrease, the diversion rate will be lower.

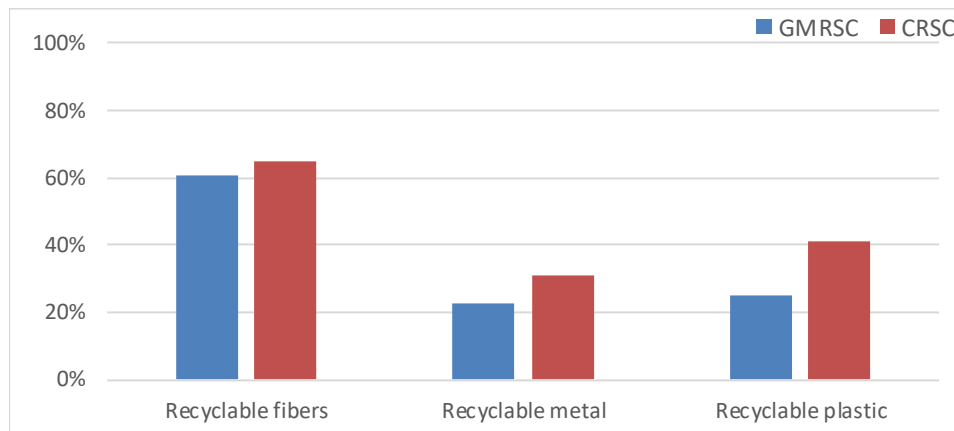
The capture rate of characterized recyclables is presented in **Table 9**.

Table 9. Recycling Material Categories Capture Rate

Capture Rate	GMRSC	CRSC
Recyclable fibers	60,4%	64,7%
Recyclable metal	22,8%	30,9%
Recyclable plastic	24,8%	40,9%

Capture rates for the two (2) regions are shown in **Figure 7**.

Figure 5. Recycling Material Categories Capture Rates for the GMRSC and the CRSC Regions



4. CONCLUSION

The study revealed several interesting observations, and the methodology was shown to be appropriate to meet the objectives.

For a future study the following points should be considered:

- Final disposal of unsampled material requires the cooperation of the site's machinery operator;
- Random data verification performed by the coordinator is an effective method for controlling the quality of the results;
- Detailed training must be given to all technicians at the beginning, and it is recommended that the Project Manager make constant checks to this end to ensure standard sorting procedures;
- The sorting location used was functional, safe and suitable for the work;
- An effective characterization team must consist of at least 2 people handling the materials, and a person responsible for receiving the trucks and interviewing the drivers;
- The addition of a second annual characterization in the spring or summer would be very interesting to consider in order to evaluate the seasonal variation of the material transported to the Red Pine site.

To significantly reduce the amount of recyclable materials in the garbage stream, the following recommendations should be considered:

- Priority should be maintained on sensitization to source separation of organic matter, which accounts for approximately 40% of the material buried at Red Pine for the two (2) studied regions;
- In order to reduce the presence of organic matter, especially food residues, it will be important to analyze which target audiences have not yet integrated organic collection.

The recovery rate of recyclable materials has great potential for improvement. As recyclable fibers account for 8.3% to 9.0% of landfilled materials, better recovery would have a significant impact on both the recovery rate and the decrease in landfilled material.

APPENDIX A — CATEGORIES

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Material categories	Examples
Recyclable fibers	Newspaper, advertisement flyers, magazines, books and phone directories, writing paper, office paper and printer paper, brown paper bags, envelopes (with or without windows), calendars and posters, wrapping paper, flat cardboard (cereal boxes, etc.), egg cartons, corrugated cardboard, milk cartons, paper cups, juice cartons (Tetra pak)
Not accepted fibers	Metallized paper, packaging tape, laminated or wax paper, carbon and blotting paper, facial tissues, fabric softener sheet, paper towel, disposable diapers and soiled paper, soiled cardboard
Recyclable metal	Tin cans (with or without labels), aluminum cans, aluminum articles (plates, lids, etc.), tin foil (rolled into good-sized ball)
Not accepted metal	Materials contaminated by food, household appliances, pressurized containers
Recyclable plastics	Beverage containers (juice, milk, water, soft drink, etc.), food containers (margarine, yogurt, ice cream, etc.), household cleaning product containers (bleach, dish detergent, laundry detergent, etc.), personal hygiene product containers (shampoo, conditioner, and body lotion, etc.)
Not accepted plastics	Disposable plastic plates, utensils, etc. toys made of several plastic materials, plumbing pipes, agricultural plastics, products made of plastic #3 & #6, plastic wrap, plastic bags, vinyl siding, styrofoam
Glass	Glass, dishes, Pyrex, ceramic, porcelain, bottles and jars, windows, mirrors, light bulbs, fiberglass

Organics	Vegetable and fruit peelings, meat, fish, fats, oils, bones, baked goods, dried food, etc. Animal feces, animal bedding, kitty litter, indoor plants, BPI certified compostable bags/liners.
Hazardous Household Waste	Paint, stain, oil, oil filters, solvents, antifreeze, acids, pool chemicals, weed killer, gasoline, brake fluid, glues, adhesives, cleaners
Electronic Waste	Electronics: anything with a plug or battery. Cell phones, radio, television, electric wires.
Other Waste	Any waste items that do not fit the above categories. Multi-material objects: toothbrush, pen. Cigarettes, fines (Smaller bits of materials <10mm across), textiles, toys, decorations.
Bulky items	Furniture (i.e.: tables, chairs, couches), mattresses, toilets.

APPENDIX B — RAW DATA

Sorted weight (kg)		Waste								
DATE	2018-11-19	2018-11-20	2018-11-22	2018-11-22	2018-11-23	2018-11-23	2018-11-24	2018-11-24	2018-11-26	2018-11-28
Origin	Miramichi Chatham	Rough Water/Big river	local service district baie Sainte-Anne	Pointe-Verte	Nigadoo	Miramichi zone D chatam head	madran tremblay	Pabineau	Robertville/dunlop-freegran	miramichi Local district New castle
ICI proportion	3.0%	<1%	<1%	<5%	<5%	<5%	<5%	<5%	<5%	<5%
Truck net weight (kg)	8 730	8 230	11 120	8 100	8 890	2 180	7 820	1 180	8 890	8 940

Recyclable fibers	7.33	7.475	9.636	7.068	7.411	6.218	12.922	7.95	11.003	8.817
Not accepted fibers	15.483	13.841	3.364	11.756	13.451	8.093	11.369	9.261	16.218	7.747
Recyclable metal	2.914	1.008	2.157	1.812	1.908	1.583	2.966	0.997	2.378	0.908
Not accepted metal	4.995	2.007	7.661	1.074	0.377	2.066	5.265	0.659	1.111	0.366
Recyclable plastic	2.52	4.299	4.717	3.291	2.971	2.962	3.558	2.831	3.237	3.58
Not accepted plastic	9.534	9.294	5.731	9.68	6.853	12.655	6.82	7.054	10.134	11.211
Glass	2.472	4.734	3.255	3.227	2.431	2.333	3.852	1.803	3.37	3.21
Organics	40.942	47.986	50.912	44.16	38.909	30.969	28.325	35.546	34.809	40.337
HHW		1.132	0.836	0.659	0.953	0.937	0.891	0.788	0.369	1.806
Electronic waste	0.013		0.035	1.098	0.367	0.106		0.688	0.23	6.047
Other waste	8.348	5.907	13.461	15.783	29.306	30.372	20.013	33.648	18.683	19.122
Bulky items	7.354	4.206				12.669	5.038			
TOTAL	101.905	101.889	101.765	99.608	104.937	110.963	101.019	101.225	101.542	103.151

Sorted weight Recyclables										
DATE	19/11/2018	19/11/2018	19/11/2018	20/11/2018	2018-11-20	2018-11-21	2018-11-21	2018-11-22	2018-11-26	2018-11-23
Origin	miramichi chatham	Dunlop- Freegrant	Belledune	Allardville	miramichi new castle	south/dow ntown p/riverview Bathurst	Beresford echantillon 1 (camion 1)	Beresford echantillon 2 (camion 2)	salmon beach	barryville
ICI proportion	<5%	0.0%	0.0%	0.0%	<1%	0.0%	0.0%	0.0%	<5%	<5%
Truck net weight (kg)	830	2 780	200	2 970	3 880	3 770	2 460	2 630	non disponi	840
Fibres recyclables	81.592	71.971	64.667	74.589	72.705	73.481	77.799	70.574	74.29	72.147
Fibres non-recyclables	0.904	1.32	0.43	1.573	1.08	5.321	1.748	1.866	2.478	2.586
Métal recyclable	4.573	3.852	3.819	5.016	7.618	1.924	3.952	2.646	4.268	4.467
Métal non-recyclable	0.005	1.929	1.089	0.306	1.194	0.878	0.104	1.077	1.646	1.587
Plastique recyclable	11.363	15.558	5.673	12.329	8.757	8.745	10.332	8.695	7.18	9.54
Plastique non-recyclable	1.664	4.258	14.544	4.371	4.058	6.534	2.632	3.305	5.59	2.602
Verre - tous	0.79	1.763	1.425	0.897	3.636	0.734	0.911	5.244	0.453	5.778
Organiques	0.021	0.136	1.079	0.595	0.561	3.296	1.335	5.656	4.527	1.387
RDD			1.591			0.415	0.262	0.281	0.184	0.319
Autres récupérables	0.071			0.034	0.59	0.009	0.248			0.008
Résidus ultimes	0.045	0.975	3.082	1.072	0.73	4.851	2.695	2.887	3.284	5.094
Encombrants			4.434		1.475					
TOTAL	101.028	101.762	101.833	100.782	102.404	106.188	102.018	102.231	103.9	105.515

Sorted weight

DATE	2018-11-23	2018-11-27	2018-11-26		2018-11-27	2018-11-27	2018-11-28	2018-11-28	2018-11-28	2018-11-29
Origin	petit-rocher	Eel ground (et DSL sunny corner) echantillon 1	LSD sunny corner (et redbank/ Eel ground) echantillon 2	City of Miramichi zone B	north tetagouche - bathurst	baie st- anne , st margerite	LSD Renous (et blissfield)	lsd blissfield (et renous)	miramichi : Loggieville	west bathurst
ICI proportion	moins de 5%	0.0%	LSD sunny cc	20.0%	0.0%	0.0%	0.0%	0.0%	<5%	<5%
Truck net weight (kg)	3 910	1 250	1 250	2 180	1 760	1 440	1 880	1 880	3 780	5 170

Fibres recyclables	73.343	95.961	71.036	84.422	76.71	79.466	70.658	79.805	89.292	77.746
Fibres non-recyclables	2.284	2.446	0.906	0.179	2.751	0.655	1.326	0.851	1.202	1.02
Métal recyclable	4.813	1.335	2.943	2.552	4.661	4.994	5.513	4.6	2.267	2.977
Métal non-recyclable	0.237	1.735	0.485	0.167	0.61	0.944	0.082		0.08	0.933
Plastique recyclable	7.697	3.442	13.588	10.175	11.274	9.305	10.288	7.969	6.175	10.508
Plastique non-recyclable	3.499	0.004	5.026	3.689	4.942	3.756	2.993	2.171	2.778	2.133
Verre - tous	2.216	0.602	7.713	0.831	0.779	1.954	0.863		3.004	1.897
Organiques	3.12	1.682	0.524	0.435	2.052	0.342	6.098	0.039	1.998	1.223
RDD	0.187		0.223		0.174		0.063	0.127	0.003	
Autres récupérables		0.288				0.057	0.288		0.136	0.523
Résidus ultimes	5.539	0.238	3.535	2.176	0.609	2.595	5.762	4.786	0.253	1.603
Encombrants										
TOTAL	102.935	107.733	105.979	104.626	104.562	104.068	103.934	100.348	107.188	100.563

Sorted weight											
DATE	2018-11-29	2018-11-29	2018-11-29	2018-11-30	3dec	7dec	x	2018-11-30	7 dec *trié à	4dec *trié à	7dec *trié à
Origin	pointe verte	local service district Glenelg	doaktown, LDS Renous, LDS Nelson	upper miramishi echantillon 1: ludlow	upper miramishi echantillon 2: boiestown	Chatam head (et douglasfield, nelson) ech 1 (camion 1)	douglasfield, nelson, chatam head camion 1 ech 2	chatam head (camion 2) echantillon 3	DSL Laplante	DSL Madran-tremblay 1	dsl madran-tremblay(et petit rocher nord)echantillon 2
ICI proportion	<5%	<5%	<5%	<5%	<5%	<5%	0.0%	<5%	<5%	<5%	<5%
Truck net weight (kg)	2 010	1 880	5 480	6 000	6 000	2 050	0	1 610	2 180	1 330	1 190
Fibres recyclables	73.644	84.75	78.608	91.802	83.15	85.816		83.729	78.365	75.019	67.269
Fibres non-recyclables	0.75	0.382	1.838	0.271	1.073	0.832		1.408	1.451	1.058	14.512
Métal recyclable	6.069	2.272	3.302	1.772	4.284	4.096		3.809	5.502	4.997	3.76
Métal non-recyclable	0.191		0.178	0.806	0.067			0.218	0.162	0.891	0.282
Plastique recyclable	13.092	9.515	6.201	4.386	8.595	7.423		6.874	12.699	9.852	8.367
Plastique non-recyclable	2.87	4.117	3.849	2.461	2.484	1.637		3.269	3.677	1.642	3.406
Verre - tous	2.465		1.679	0.003		1.677		1.348	1.564	2.761	0.569
Organiques	1.135	0.392	0.45	0.035	0.427	3.749		0.032	1.802	0.692	1.451
RDD	0.304	0.054	0.213			0.307				0.144	0.023
Autres récupérables			0.081	0.101	0.245					0.205	0.059
Résidus ultimes	3.503	2.085	7.136	1.781	2.22	1.096		0.46	1.809	7.541	1.632
Encombrants	1.31										
TOTAL	105.333	103.567	103.535	103.418	102.545	106.633	0	101.147	107.031	104.802	101.33

