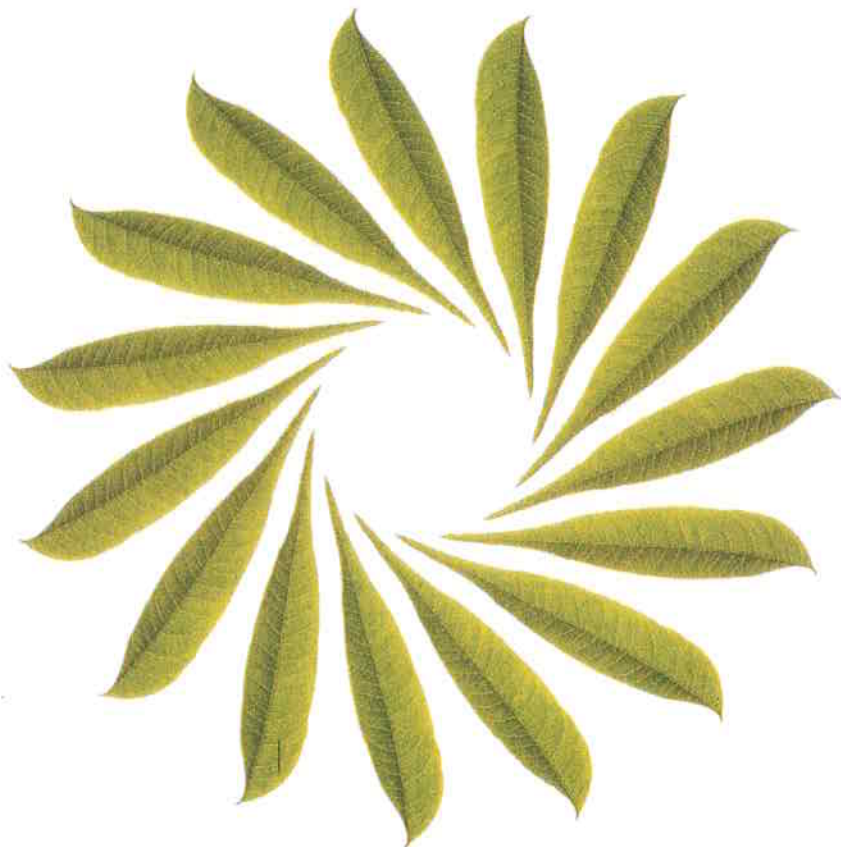


Waste to Resource Assessment



Prepared for:



Huron-Perth Catholic
District School Board

St. Anne's Catholic Secondary School
353 Ontario Street, Clinton, Ontario
May 14, 2019

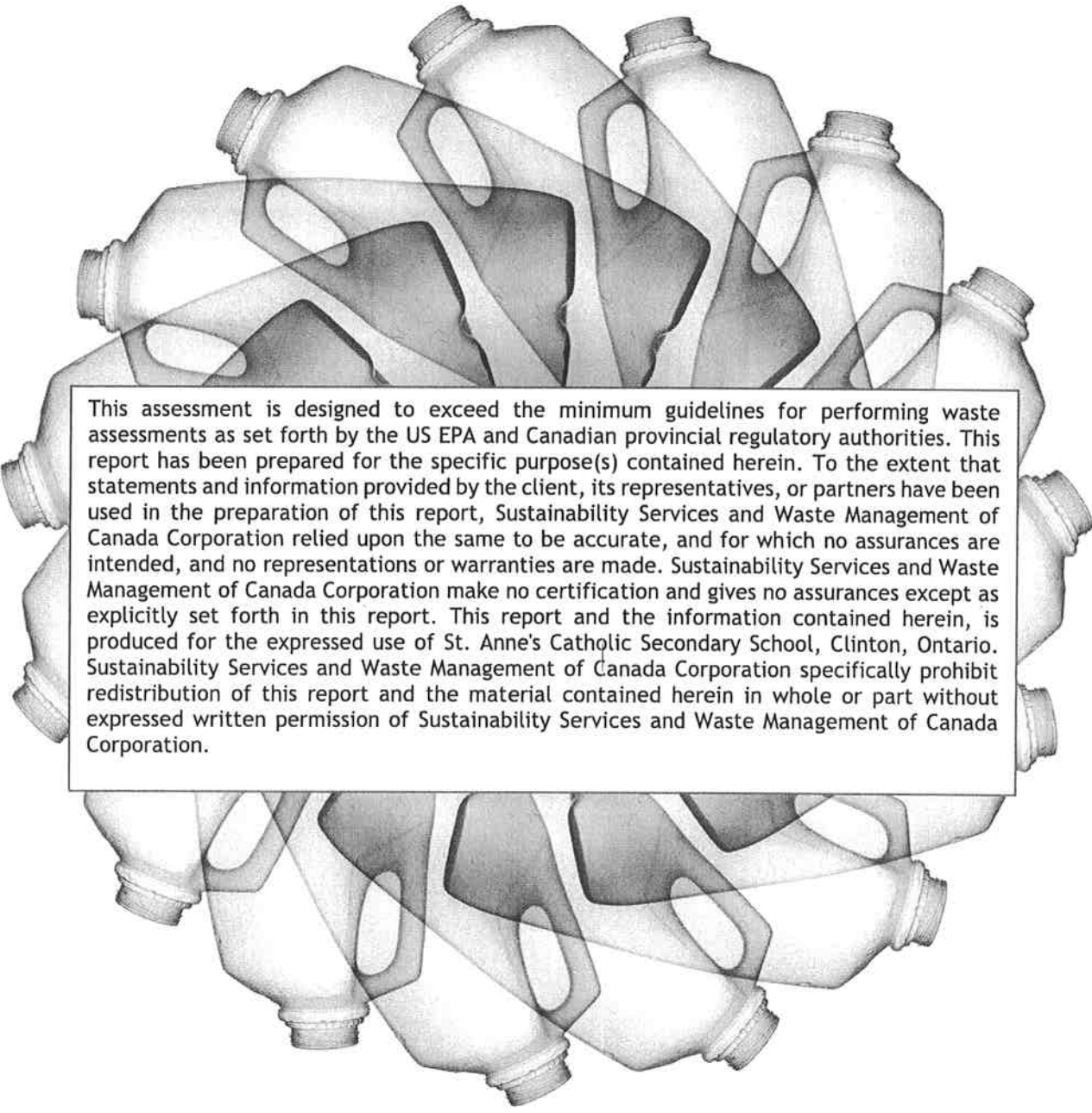


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This assessment is designed to exceed the minimum guidelines for performing waste assessments as set forth by the US EPA and Canadian provincial regulatory authorities. This report has been prepared for the specific purpose(s) contained herein. To the extent that statements and information provided by the client, its representatives, or partners have been used in the preparation of this report, Sustainability Services and Waste Management of Canada Corporation relied upon the same to be accurate, and for which no assurances are intended, and no representations or warranties are made. Sustainability Services and Waste Management of Canada Corporation make no certification and gives no assurances except as explicitly set forth in this report. This report and the information contained herein, is produced for the expressed use of St. Anne's Catholic Secondary School, Clinton, Ontario. Sustainability Services and Waste Management of Canada Corporation specifically prohibit redistribution of this report and the material contained herein in whole or part without expressed written permission of Sustainability Services and Waste Management of Canada Corporation.

Executive Summary

Overview

On May 14, 2019, Sustainability Services conducted a Waste to Resource™ assessment for St. Anne's Catholic Secondary School located at 353 Ontario Street in Clinton, Ontario. A few goals of the assessment were as follows:

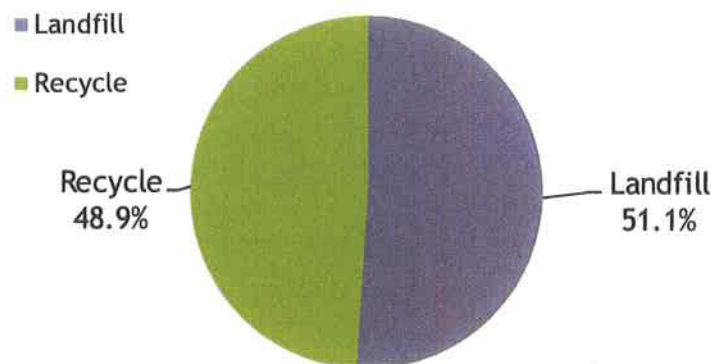
- ♻️ Develop baseline inventories for waste generation at St. Anne's Catholic Secondary School
- ♻️ To identify and quantify waste composition and commodity
- ♻️ To determine the recovery performance of existing programs
- ♻️ Identify opportunities to increase diversion and reduce cost
- ♻️ Develop recycling strategies that could be implemented throughout the facility

During the waste assessment conducted by Sustainability Services, visual inspections of waste generation points throughout the facility resulted in the discovery of additional diversion opportunities.

Our goal is to provide St. Anne's Catholic Secondary School with strategies that will maximize the efficiency of your waste management system. The facility generated a combined 36.20 tonnes of waste and recyclables last year. The current diversion rate for your facility is 48.9%.

- ♻️ Of all the material generated on site, up to 57% potentially could have been diverted through currently available diversion programs
- ♻️ Papers account for 49% of the waste sent to landfill
- ♻️ Organics account for 16% of the waste sent to landfill
- ♻️ Plastics account for 8% of the waste sent to landfill

Figure 1- Current Diversion Rate at St. Anne's Catholic Secondary School



Assessment Information

Table 1 - Facility Information

Item	Comments
Facility Name:	St. Anne's Catholic Secondary School
Description:	St. Anne's Catholic Secondary School is an elementary school with over 660 staff and students.
Address:	353 Ontario Street, Clinton, Ontario
Contact Name:	Denise DeJong
Contact Number:	Phone: 519.345.2440 ext. 8070

Table 2 - Assessment Summary

Item	Comments
Performed By:	Mohamed Hashi
Performed On:	May 14, 2019
Report Written:	Mohamed Hashi
Report Reviewed:	Christopher Doyle
Assessment Type:	Waste to Resource Assessment - Waste Audit
Assessment Level:	<input checked="" type="checkbox"/> Basic Material Characterization <input type="checkbox"/> Detailed Material Characterization <input checked="" type="checkbox"/> Basic Options Analysis <input checked="" type="checkbox"/> Detailed Option Analysis <input type="checkbox"/> Carbon Analysis <input type="checkbox"/> Material Process Mapping <input checked="" type="checkbox"/> Implementation Feasibility Analysis <input checked="" type="checkbox"/> Action Plan
Account Manager:	Kimberley Perdue

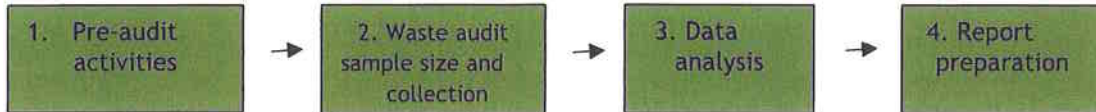
Photographs 1, 2, & 3 - Waste Collected for Assessment Period and Audit Area



Limitations

A significant amount of the collected sample was unlabeled; therefore, it was not possible to identify the origin of the sample from within the facility.

Sampling Method



1. **Pre-audit activities** - Collecting historical data/ diversion reports, service receptacle information, etc. Establishing the plan for the assessment. Conducting a site tour of the facility to review procedures and infrastructure.
2. **Waste audit and sample size** - To characterize the material stream, visual observations and waste samples were obtained from various collection areas throughout the facility. For the purposes of this assessment, a sample Generation Area is a combination of a specific Waste Collection Area and/or Waste Generating Process. The sample material was collected in a safe, designated location separate from other waste collection areas for the assessment.

During this assessment, samples were collected from unique source areas throughout the facility over a 24-hour period. The materials were sorted and divided into waste categories and weights of each material sub-category were recorded.
3. **Data analysis** - Analysis of on and off-site data. Calculation of Diversion and Capture rate for the site. Projections are based on the sample material collected and generation days of the facility.
4. **Report preparation** - Full report prepared including site specific recommendations and Ministry of the Environment Audit and Workplan forms.

The methods followed in this project adhere to the standards outlined for BOMA and LEED requirements.

Material Composition Breakdown

Landfill Waste Material Comparison by Category

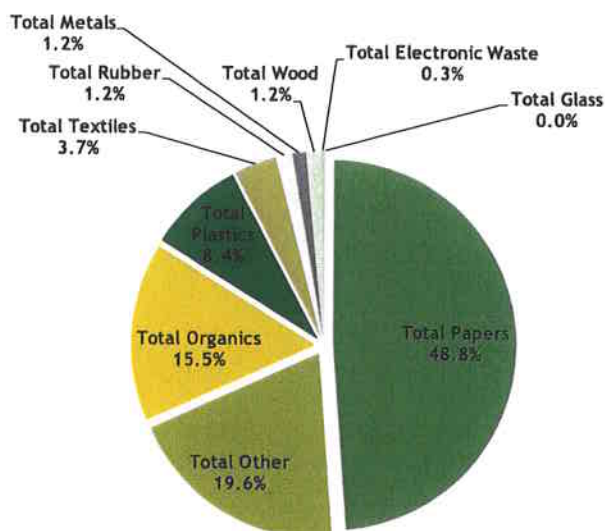
This section displays a breakdown of general material categories by weight and volume.

The largest category by weight and volume was Papers materials representing 48.8% of the landfill waste stream.

Table 3 - Landfill Waste Material Comparison

Waste Category	Total Audited Waste Material (kg)	Material Composition (%)	Annual Projected Volume Generated (kg)
Total Papers	18.76	48.8%	9,014
Total Other	7.52	19.6%	3,613
Total Organics	5.98	15.5%	2,873
Total Plastics	3.22	8.4%	1,547
Total Textiles	1.44	3.7%	692
Total Rubber	0.48	1.2%	231
Total Metals	0.48	1.2%	231
Total Wood	0.46	1.2%	221
Total Electronic Waste	0.12	0.3%	58
Total	38.46	100.0%	18,480

Figure 2 - Landfill Waste Material by Category



Diversion Opportunities

Increased diversion opportunities represent the largest potential cost savings and landfill diversion opportunity for St. Anne's Catholic Secondary School. While diversion programs are currently in operation, the audit shows that they are not working at their optimal efficiency.

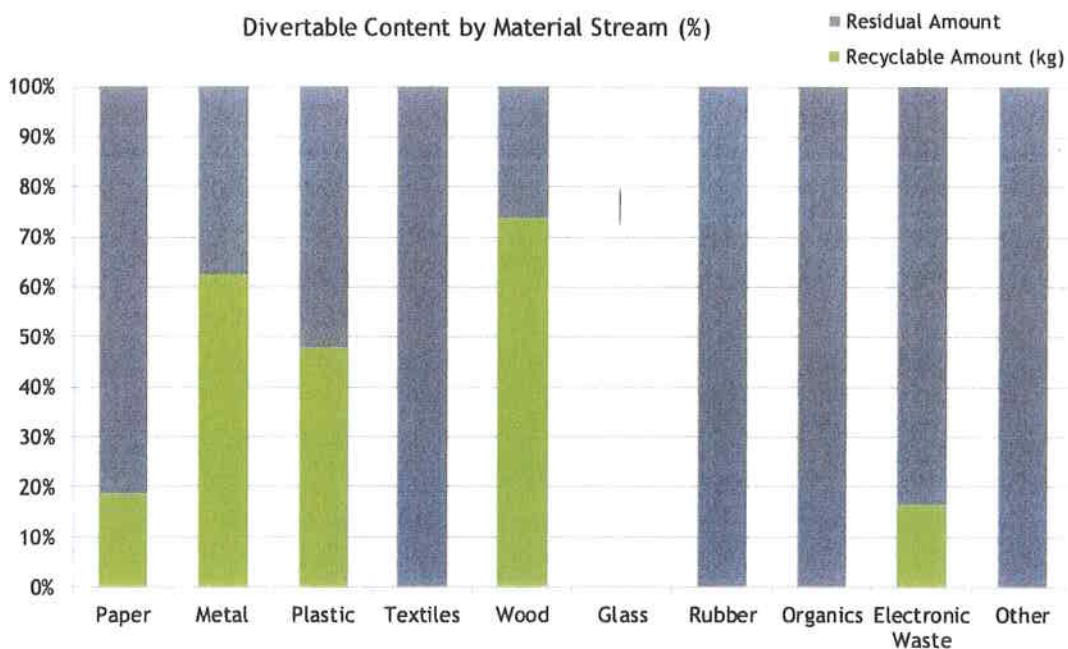
Diversion rate is calculated as follows:

$$\text{Diversion Rate} = \frac{\text{Weight of recovered material}}{\text{Total weight of material generated on-site}} \times 100\%$$

The current diversion rate at the site is 48.9%. Based on the diversion program currently in place 56.5% of the material generated at the facility is recyclable or divertible. Therefore, there is room for improvement within the diversion program where most employees, students, and visitors in the facility handle their waste.

Figure 3 outlines the material in each category which could potentially be diverted.

Figure 3 - Diversion Opportunity by Material Category



Diverted Material Comparison by Category

This following table displays a breakdown of assessed Diverted, Recycled, Reused and Composted materials. The facility currently has programs in place to capture the following waste streams:

- Cardboard
- Single Stream recycling for mixed papers and bottles & cans
- Confidential Paper Shredding
- Scrap Metals
- Paper Towel
- Batteries
- Toner, Ink Cartridges

The facility also has programs to capture and reuse; but service and weight information was not available at the time of the assessment.

- E-Waste
- Scrap Wood
- Light Bulbs

Table 4 - Diverted Material Comparison

Diverted Material	Annual Projected Volume (kg)	Percentage of all Diverted Materials (%)
Single Stream/ Mixed Recycling	9,450	53.3%
Cardboard	5,796	32.7%
Confidential Paper Shredding	1,810	10.2%
Metal	581	3.3%
Paper Towel	51	0.3%
Batteries	16	0.1%
Printer Cartridges	12	0.1%
Total	17,716	100.0%

Contamination Identified in Recycling Stream

A sample of the materials collected for the recycling and compost programs was reviewed during the assessment. It was determined that approximately 4.4% of the sample was various forms of contamination. This included liquids, food, polyfoam and wrappers identified in the recycling bags.

The Overall Capture Rate for the facility is 86.6%. The Capture Rate indicates the percentage of a material (i.e. office paper, organics) that is being disposed of via one of the sites recovery programs (i.e. Single stream, Mixed Recycling, Organics). A 100% Capture Rate indicates that all recoverable materials that are being produced on-site have been placed in the correct receptacle for collection and the landfill garbage contains no recoverable recyclable or compostable materials.

$$\text{Capture Rate} = \frac{\text{Recovered material (e.g. paper in mixed recycling)}}{\text{Recovered material (e.g. paper in mixed recycling)} + \text{Waste material (e.g. paper in garbage)}} \times 100\%$$

Table 5 - Capture Rate Calculations by Material

Diverted Material	Total Generated (kg)	Captured for Diversion (kg)	Landfilled (kg)	Capture Rate (%)
Aluminum food and beverage cans	373	229	144	61.4%
Cardboard	8,100	7,850	250	96.9%
Fine paper	5,443	4,982	461	91.5%
Glass food and beverage bottles/jars	382	382	-	100.0%
Newsprint	77	57	19	74.9%
Steel food and beverage cans	19	19	-	100.0%
PET (#1) plastic	823	545	279	66.2%
HDPE (#2)	1,157	956	202	82.6%
LDPE (#4) plastic film	240	-	240	0.0%
PP (#5) plastic containers	412	248	163	60.3%
Polystyrene (#6)	411	315	96	76.6%
Organics	2,873	-	2,873	0.0%
Boxboard	1,025	621	404	60.6%
Glossy magazines, catalogues, flyers	279	19	259	6.9%
Wood	221	-	221	0.0%
Steel	590	581	10	98.4%
Drywall	16	16	-	100.0%
Skids	-	-	-	0.0%
Paper towels	5,731	51	5,680	0.9%

Printer cartridges	12	12	-	100.0%
IT equipment/audio-visual equipment	-	-	-	0.0%
Furniture	-	-	-	0.0%
Building/renovation material	-	-	-	0.0%
Disposable food packaging (incl. polycoat)	1,389	784	605	56.4%
Cell phones	-	-	-	0.0%
Diapers	-	-	-	0.0%
Clothing/textiles	692	-	692	0.0%
Other: Mixed Packaging, Paint, Liquids, etc.	5,929	48	5,881	0.8%

Material Category Breakdown

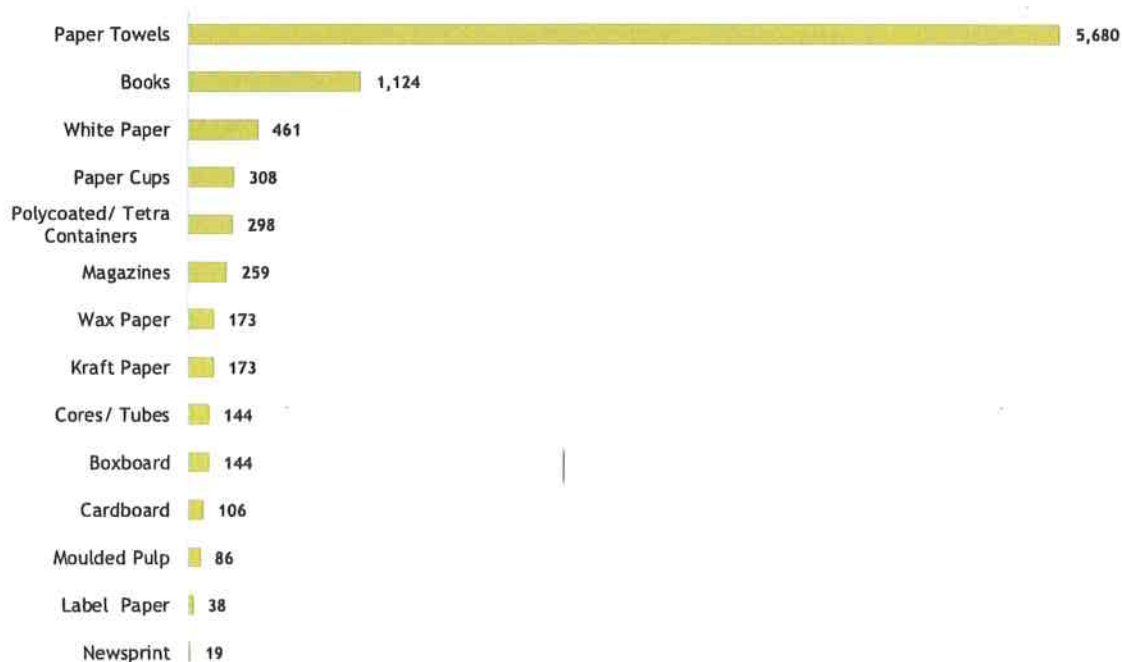


Papers

Paper materials sent to landfill accounted for 48.8% of your total waste; nearly 9,014 kg of paper will be sent to landfill annually.

The facility currently has programs in place to capture confidential paper shredding, cardboard and mixed paper collection for recycling.

Figure 4 - Annual Papers Disposed in Landfill (in kg)



The most significant paper materials identified in the landfill sample were:

1. **Paper Towel/ Tissue (Kleenex)** - representing 30.7%, most often generated in washrooms and is currently recycled at the facility; could be included in an organics collection program if implemented in the future;
2. **Books** - representing 6.1%, is recyclable in current recycling program. These materials should be specified on recycling labels and signage;
3. **White/ Office Paper** - representing 2.5%, recyclable in current paper recycling program, ensure receptacles are present where these materials are generated;
4. **Paper Cups** (coffee cups) - representing 1.7%, these materials are not accepted in local programs;

5. **Polycoat/ Tetra Paks** (milk cartons, juice boxes) - representing 1.6%, are recyclable in current bottle & can recycling program, the facility should ensure receptacles are present where these materials are generated;

Photographs 4, 5, & 6 - Paper Material Examples in Landfill Sample (Paper Towels, Books, & Office Paper/ Sticky Notes)



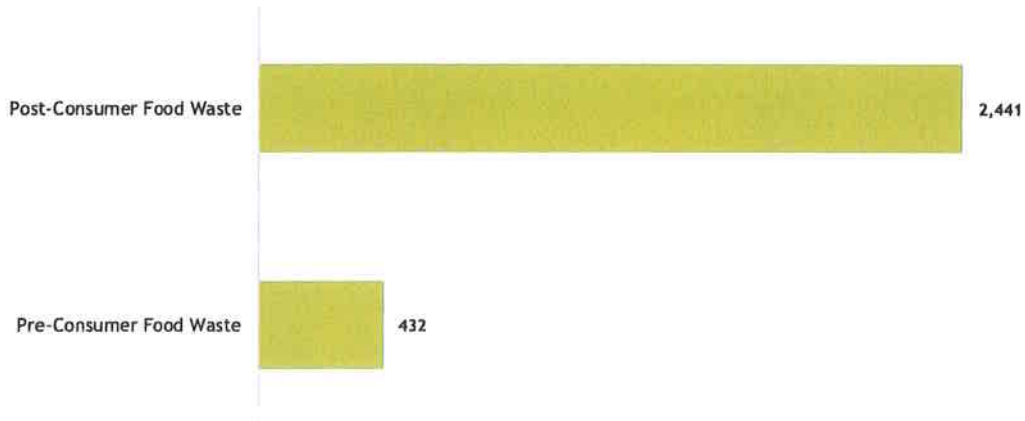


Organics

Organics materials sent to landfill accounted for 15.5% of your total waste; nearly 2,873 kg of Organics will be sent to landfill annually.

No program currently exists at the facility to capture food waste/ yard waste for compost.

Figure 5 - Annual Organics Disposed in Landfill (in kg)



The most significant organic materials identified in the landfill sample were:

1. **Post-Consumer Food Waste** (leftover lunches) - representing 13.2%, not currently recyclable, could be captured in an organic compost program, should the facility implement a program in the future;
2. **Pre-Consumer Food Waste** (prep. Scraps) - representing 2.3%, not currently recyclable, could be captured in an organic compost program, should the facility implement a program in the future;

Photographs 7, 8, & 9 - Organic Material Examples in Landfill Sample (Food Waste)



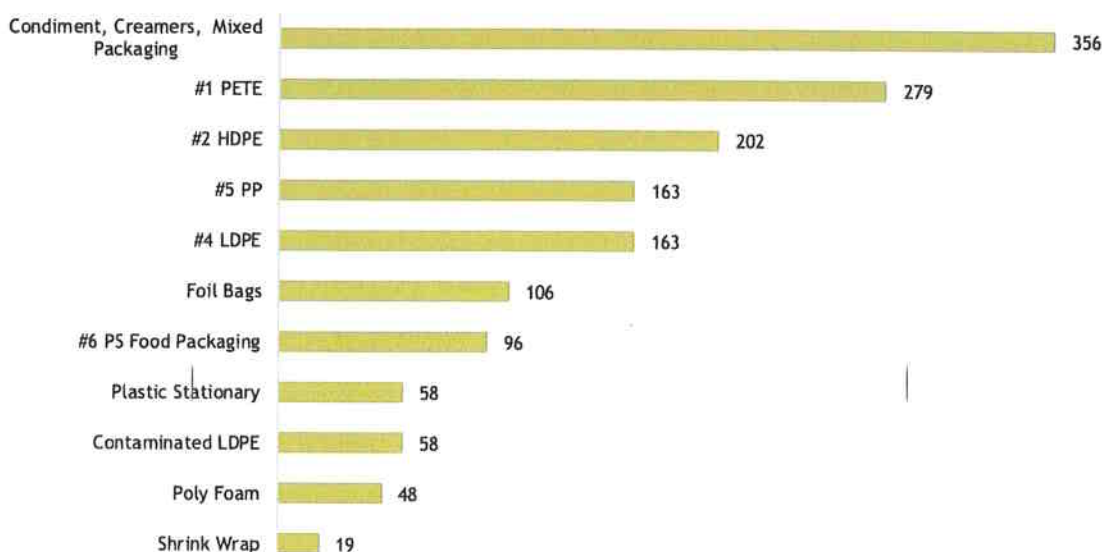


Plastics

Plastic materials account for 8.4% of your waste stream composition; 1,547 kg of plastic materials will be sent to landfill this year from your facility. Plastic is generally not a heavy material therefore the high weight generated indicated a huge volume of material. Utilizing current recycling programs will ensure this material is diverted.

The facility currently has programs in place to capture bottles and cans throughout the facility. All plastic material will be marked with a number indicating the type of plastic that was used to make the item. This number can be used to determine if recycling programs exist for that item. Most commonly, recycling programs will exist for #1, #2 and #5. Limited recycling programs currently exist for #3, #4 and #6 plastics.

Figure 6 - Annual Plastics Disposed in Landfill (in kg)



1. **Condiment, Creamers, & Mixed Packaging** - representing 1.9%, not recyclable in current program;
2. **PETE (#1, e.g. water bottles)** - representing 1.5%, is recyclable in recycling bottles & cans recycling program, clear signage and receptacles should be placed where these materials are often generated;
3. **HDPE (#2) hard plastic bottles** - representing - 1.1%, is recyclable in recycling bottles & cans recycling program, clear signage and receptacles should be placed where these materials are often generated;
4. **PP (#5, e.g. yogurt containers)** - representing 0.9%, is recyclable in recycling bottles & cans recycling program, clear signage and receptacles should be placed where these materials are often generated;
5. **LDPE (#4)** - representing 0.9%, not recyclable in current program;

Photographs 10, 11, & 12 - Plastic Material Examples in Landfill Sample (Mixed Packaging, PET Bottles, & HDPE Containers)

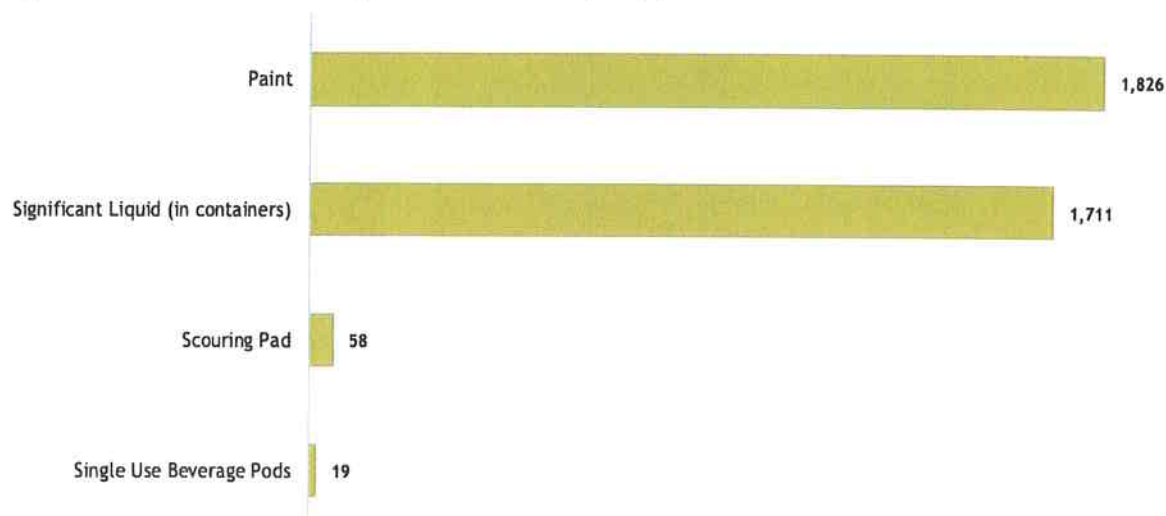


Other Materials

Other materials sent to landfill accounted for 19.6% of your total waste; nearly 3,613 kg of this category of material will be sent to landfill annually.

Currently there are no programs in place to capture most of these materials from landfill, programs may be available for construction & demolition on an as needed basis;

Figure 7 - Annual Other Disposed in Landfill (in kg)



The most significant other materials identified in the landfill sample were:

1. **Paint** - representing 9.9%, consider reaching out to TerraCycle for the purpose of recycling hard to recycle materials like arts & crafts materials (crayons, pens, paints, clay, etc.);
2. **Significant Liquids** (in containers) - representing 9.3%, not recyclable in current program;
3. **Scouring Pad** - representing 0.3%, not recyclable in typical programs;
4. **Single Use Beverage Pods** - representing 0.1%, not accepted in your current recycling program;

Photographs 13, 14, & 15 - Other Material Examples in Landfill Sample (Paint, Liquids, & Beverage Pods)

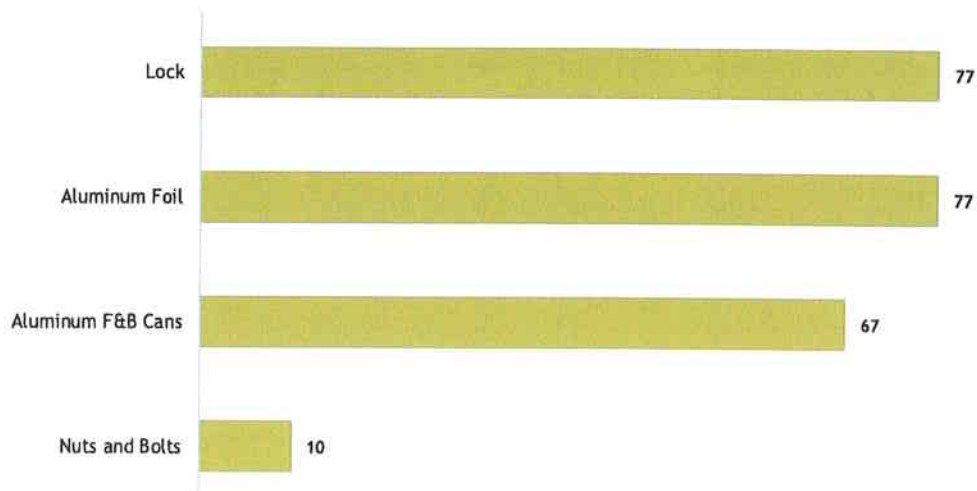




Metals

Metals materials sent to landfill accounted for 1.2% of your total waste; nearly 231 kg of Metals will be sent to landfill annually. The facility has programs in place to capture most metal containers.

Figure 8 - Annual Metals Disposed in Landfill (in kg)



The most significant other materials identified in the landfill sample were:

1. **Locks** - representing 0.4%, is recyclable in your scrap metals recycling program, these materials should be collected in central locations like the office or automotive shop where they can be moved to the larger scrap metals container;
2. **Aluminum Foil** - representing 0.4%, is recyclable in recycling bottles & cans recycling program, clear signage and receptacles should be placed where these materials are often generated;
3. **Aluminum Cans** - representing 0.4%, is recyclable in recycling bottles & cans recycling program, clear signage and receptacles should be placed where these materials are often generated;
4. **Nuts & Bolts** - representing 0.1%, is recyclable in your scrap metals recycling program, these materials should be collected in central locations like the trades shops where they can be moved to the larger scrap metals container;

Photographs 16, 17, & 18 - Metal Material Examples in Landfill Sample (Pad Lock, Aluminum Foil, & Nuts/ Bolts)

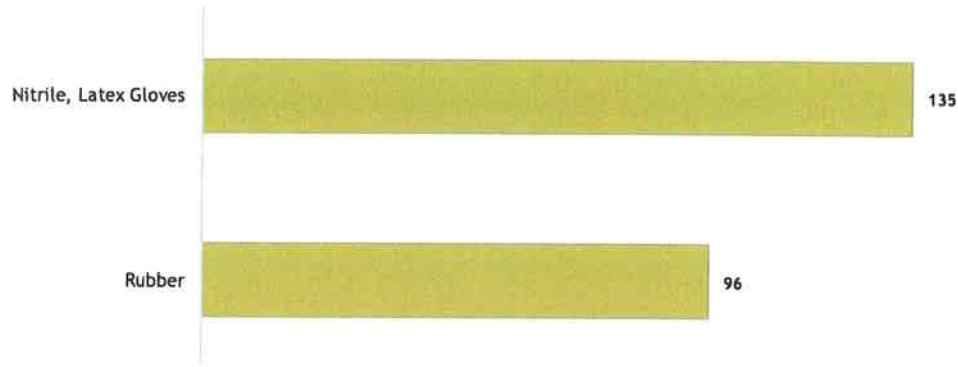




Rubber

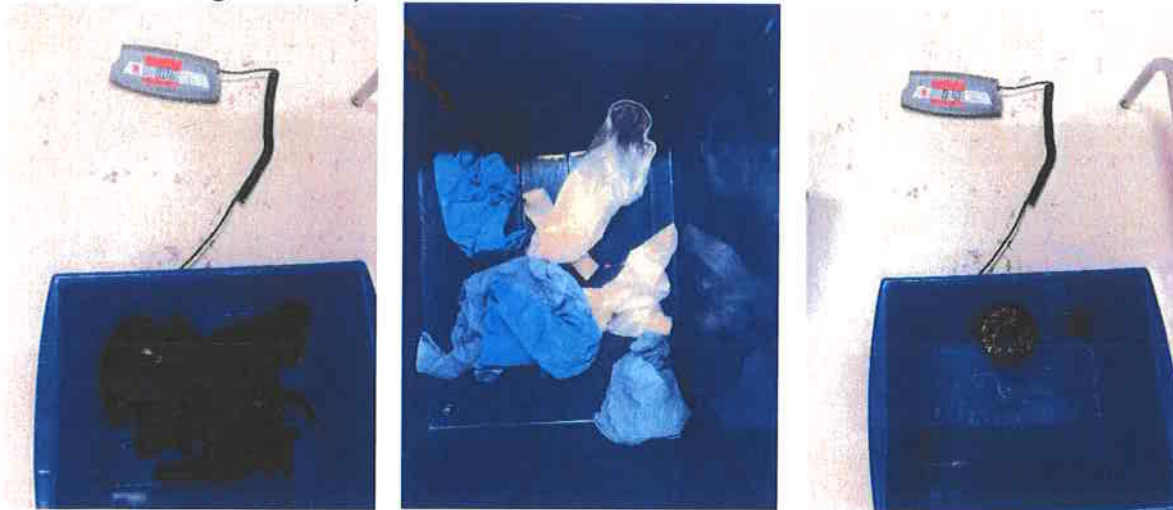
Rubber materials sent to landfill accounted for 1.2% of your total waste; nearly 231 kg of Rubber will be sent to landfill annually.

Figure 9 - Annual Rubber Disposed in Landfill (in kg)



This category was primarily composed of various work gloves, including **Nitrile/ Latex Gloves** and **Rubber Materials**. The facility should consider implementing a targeted program from a supplier such as a Terracycle. Terracycle can offer programs for diverting unique materials not typically recycled.

Photographs 19, 20, & 21 - Rubber Material Examples in Landfill Sample (Latex Gloves & Rubber Plumbing Materials)



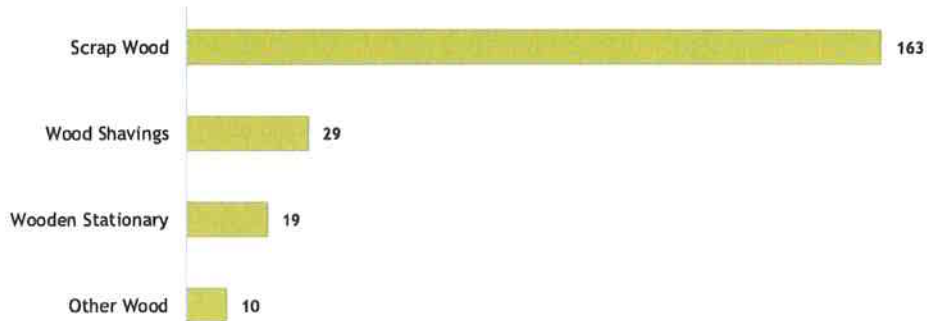


Wood

Wood materials sent to landfill accounted for 1.2% of your total waste; nearly 221 kg of Wood will be sent to landfill annually.

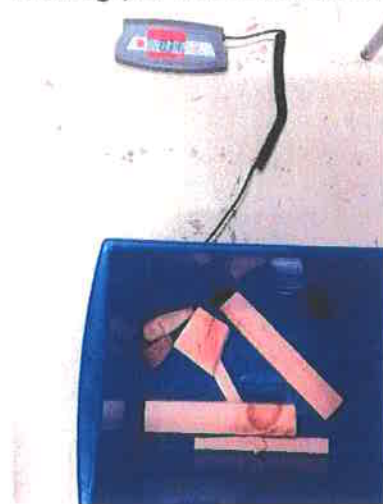
A program for Scrap Wood Materials is not available at the facility.

Figure 10 - Annual Wood Disposed in Landfill (in kg)



Wood was primarily identified as **Scrap Wood**, **Wooden Shavings**, **Wooden Stationary**, & **Other Wood** at (0.9%, 0.2%, 0.1%, & 0.1%) of the audited sample.

Photographs 22, 23, & 24 - Wood Material Examples in Landfill Sample (Scrap Wood, Wood Shavings, & Wooden Stationary)

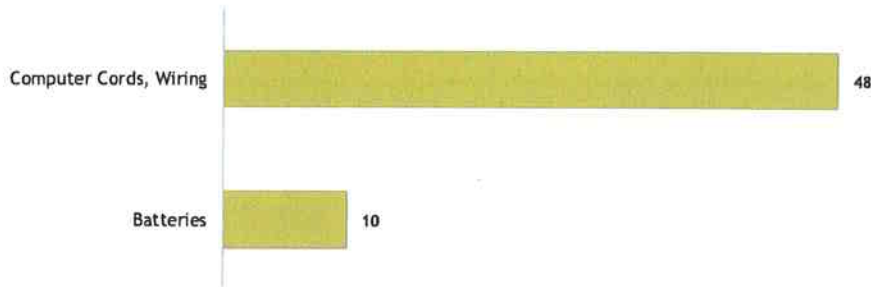




Electronic Waste

Electronic Waste materials sent to landfill accounted for 0.3% of your total waste; nearly 58 kg of Electronic Waste will be sent to landfill annually.

Figure 11 - Annual Electronic Waste Disposed in Landfill (in kg)



Programs are readily available for E-Waste (including **Computer Cords/ Wiring** and **Batteries** representing 0.3% and 0.1% of the audited sample). E-waste including Wiring and Toner Cartridges are serviced through qualified haulers. Efforts should be made to divert these materials from landfill to avoid negative environmental issues.

Photographs 25 & 26 - Electronic Material Examples in Landfill Sample (Electrical Wires & Batteries)





Textiles

Textiles materials sent to landfill accounted for 3.7% of your total waste; nearly 692 kg of Textiles will be sent to landfill annually.

There is currently no program in place to capture these materials.

Textiles identified in the landfill waste stream are not currently recyclable. The facility should ensure the employees are trained to fully use all resources such as mop heads/ wipes prior to disposal.

The facility should consider a **Donations Collection** program in place at the facility to collect footwear/ clothing in good condition for reuse.

Photograph 27 - Textile Material Examples in Landfill Sample (Footwear)



Photographs of Receptacles and Collection Bins

Photos 28 to 33 - Diversion Program Infrastructure



Student, Employee and Visitor Education and Engagement

There are three critical factors necessary to ensure that diversion programs are effective. These factors are education and engagement; as well as providing a program infrastructure that is set up for success.

For school staff (faculty):

Regular training demonstrates the facility's commitment to recycling programs, update staff on policy changes and accounts for changes in workforce.

- Staff should be trained on all the streams available in the campus diversion program and where they can access them, and staff should be able to communicate the program to students.
- Targeted training sessions and regular reminders can ensure that staff understands the steps that are being taken to achieve environmental sustainability and their roles to achieve success;
- Staff should be trained to notify facility management if receptacles or signage is missing or in disrepair;
- Supervisors should regularly meet with the custodial manager and maintenance staff (custodians) as they may be able to provide hands on insight into aspects of the diversion program and areas of improvement. Custodial staff should be trained on the diversion program during their orientation and reminded on a regular basis by their managers.

For students:

- The facility should create a **slogan or branding** to help promote their recycling program and create continuity for all promotional or educational materials.
- Awareness posters should be placed on bulletin boards to increase engagement.



- For courses that include environmental themes, students should be encouraged to participate in environmental events on campus, such as waste audits or to take field trips to recycling plants for hands on education.

There are several activities, events and practices that educational institutions have implemented, which have proven to work well to promote environmental efforts in a campus setting. The following are some examples of campus wide activities involving students:

- A. A student run Environmental Committee and Campus Green Team can take the lead and provide energy and ideas to the campus.
 - a. Booth displays or events on campus can help engage students this may include an Orientation Week Promotion to educate new students. An Environmental Themed Day/ Assembly, for Earth Day in April or Waste Reduction Week in October are other examples to increase and maintain awareness on campus;

- b. The Green Team may also as part of their duties ensure that the infrastructure described in this report is in place;
- B. Conduct Campus Waste Audits - Conduct campus waste audits, so students can see first hand the composition of their waste stream and identify recyclables that are currently being sent to garbage.
- C. Waste Free Lunches - Events or specific days can be arranged for students and staff to bring their own lunches in reusable containers.
- D. Charity Drives - Where students collect refundable's and use the proceeds as donations to charity.
- E. Community Clean-up - Where students participate or organize activities to collect litter in their local community.
- F. Green Sporting Events - The school may set up green events during well-attended sporting or community events. All food vendors for the event must provide biodegradable plates, containers, cutlery for food service or easily recyclable containers. During the event, volunteers may help attendees to sort materials into the correct receptacles so that nothing is unnecessarily sent to landfill.

Source: <http://gamedaychallenge.org/>

Ensure Effective Diversion Infrastructure

The infrastructure of a diversion program, including the receptacles and education materials, play an integral role in its success. If containers are not present, or accessible to collect recyclable material, users will not be able to participate. Ensure that consistent and effective receptacles and signage are in place for ease of use by employees, students, and visitors.

Managers should, as part of their duties, routinely tour the facility to monitor the infrastructure of the waste management Program. By ensuring recycling stations are present, appropriately labelled and conveniently available throughout the facility, this will allow for more participation and the proper source separation of materials.

- Recycling receptacles should be the largest receptacles and the most available in terms of numbers. As described in this report, most of the materials generated at the site are recyclable; therefore, waste receptacles should be less prominent to encourage the use of the recycling receptacles;
- Older receptacles can be updated with labels (e.g. stickers, printing labels, posters, magnets) to remain consistent and effective;
- All receptacles must be clearly labelled so users are sure which materials are to be placed there;
- Applying a colour coding system (e.g. blue receptacles for bottles and cans) will significantly aid users in disposing of their waste easily and understanding what goes where;
- Pictures, with simple easily recognizable images, should be used to convey the message to those not familiar with the language;
- Recycling receptacles should never be lined with black bags, as they may be confused for landfill and misplaced, during disposal;
- Keep loading dock and collection stations clear and orderly, so containers are accessible;

Request that all maintenance or environmental employees use clear bags to dispose of material, this will help those who dispose of material place it into the correct receptacle. As well the facility could easily conduct spot checks to ensure that recyclable or compostable materials are directed to the correct receptacle.

The first pictures, below, shows how existing receptacles can be updated, through use of stickers/ labels or signage without purchasing new supplies. Next, is an example of a three-stream collection unit appropriate for office or building spaces, with bold colouring and pictorial signage, displaying a variety of acceptable materials.



Below, further examples of colour coded pictorial signage and receptacles.



Additionally, below is the WM version of their Single Stream recycling guideline and a similar example.



Continual Improvement and Additional Recommendations

The following are suggested actions to help the facility improve their internal processes and strive to reach higher diversion rates while maintaining a strong, efficient Diversion Program.

It is recommended that the facility regularly check with their waste hauler to confirm what materials are recyclable in their jurisdiction. As some of these materials may be integral to the operations of the facility, it is recommended that you regularly review opportunities to reduce or substitute these materials in your operations.

i. Contamination in Recycling Sample

Some non-recyclable materials were identified within the recycling and compost samples. This included a significant amount of liquids, food, polyfoam and wrappers in recycling bags and cans, containers, and other plastics in paper towel bags. Based on the assessment about 4.4% of the of the mixed recycling sample could be considered contamination.

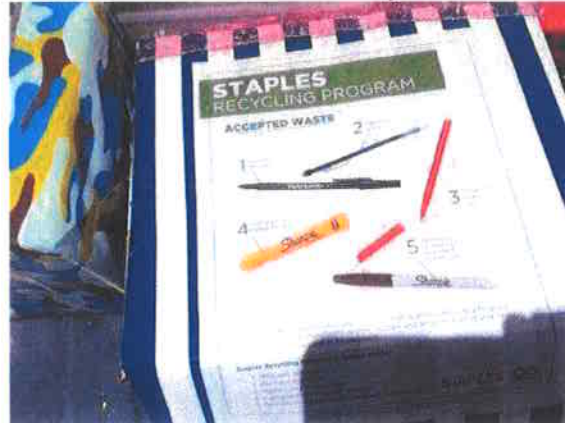
Education and awareness should be provided to ensure staff and students know that these materials may contaminate the recycling and compost streams and, in some instances, force the material to be sent to landfill, thus wasting the efforts of others who made efforts to recycle.

ii. Capture Additional Materials

Some non-traditional recyclable materials were identified in the landfill waste sample. This included pens and markers. Programs are available from companies like Terracycle in to provide the resources to set up a collection station at your facility, for such materials which can be dropped off at a nearby Staples location.

<https://www.terracycle.ca/en-CA/brigades/writing-instrument-retail-based-brigade>

Example from waste sample and example of collection box at a similar facility.



iii. Implement Post-Consumer Organics Program

A program currently exists at the facility to capture paper towel materials from the washrooms.

No program was in place at time of the audit to capture organic material in the cafeteria or classrooms with kitchens. An organics program would benefit the facility by providing an alternative to waste disposal. Should the facility consider providing more options to sort organics from general waste, it is possible over 8.55 more tonnes of scrap food material and compostable materials could be diverted from the landfill.

iv. Stakeholder Buy-In

Get 'Buy In' and support from contractors and service providers who work on site. All service providers should be aware of St. Anne's Catholic Secondary School's environmental goals and be active participants, including any contractors who work on site (e.g. custodians & security).

- All service providers should be aware of the facility's environmental goals and be active participants.
- Waste and recycling material management should be a significant aspect within future contracts with service providers.
- The facility should regularly meet with their waste and recycling vendors to review what options are available in the area for diversion.

While the facility may not be able to completely control what material employees, students, or contractors bring into the facility, they will have significant influence over purchasing and sourcing products that the facility employees use at work. The facility must develop and enforce purchasing policies that:

- Call for minimum packaging;
- Enforce take-back programs for hard to recycle items;
- Increase the recyclable content of expendable and durable goods;
- Follow actions known as extended producer responsibility;
- Look for opportunities to substitute multiple use items for single-use items;
- Avoid any products that are shipped in hard to recycle 'hybrid' packaging;

v. Recycling Ambassador and Green Team

Recycling Ambassador

Each department should designate a representative to oversee the Diversion Program and the specific procedures in their space. This 'Ambassador' should be a key resource for fellow staff & students to help understand the Program and help answer questions, such as which materials are accepted in diversion programs.

Green Team

A good way to ensure engagement and consistency is to set up a Green Team, comprised of representatives from all departments of the facility. This team will be able to monitor, evaluate and provide to the group recommendations and consultation on the recycling program and other environmental issues.

Members of the team will be able to monitor receptacles, signage required and perform spot checks on all phases of the waste management Program.

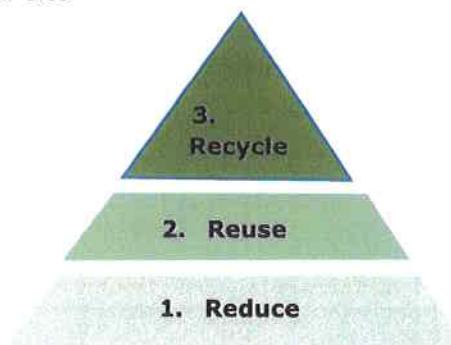
Supplementary Information

Appendix 1 - Detailed Waste Breakdown by Generation Area

Area	Paper	Metal	Plastic	Textile	Wood	Rubber	Organic	Electric	Other	Total
UNLABELLED	18.76	0.48	3.22	1.44	0.46	0.48	5.98	0.12	7.52	38.46
Grand Total	18.76	0.48	3.22	1.44	0.46	0.48	5.98	0.12	7.52	38.46

Appendix 2 - Six Steps to a Successful Sustainability Program

The three R's waste hierarchy gives an order of priority of actions to be taken to reduce the overall amount of waste generated at your site



Studies indicate that between 2 and 5 percent of waste streams are reusable. There are many ways to prevent waste, at the source, and reuse products to reduce waste, including:

	Material	Reduction Strategies	Reuse Strategies	Recycling Strategies
Papers	Cardboard / boxboard	Encourage suppliers to use reusable packaging (e.g. plastic totes) Purchase reusable products	Re-use of cardboard for storage and packaging	Provide enough receptacles, information and signposting for OCC and mixed recycling programs
	Office paper	Encourage use of electronic communications Encourage Students to print two sided	Encourage one sided printed paper for scrap paper Creation of scrap pads Utilize centralized notice boards	
	Paper towels	Install hand-dryers in washrooms and dish cloths in kitchens		
	Newsprint / Magazines	Provide communal newspapers in break out areas and spaces	Encourage staff to share magazines and newspapers Donate used magazines and newsprint Use newsprint for packaging materials	
	Paper cups	Place reusable coffee cups in kitchen areas Encourage users to bring reusable coffee cups Incentivize the use of own cups (discounts, loyalty cards)	Provide coffee making facilities in kitchens and encourage users to refill reusable coffee cups	Encourage Students to use compostable and recycling coffee cups which are accepted in organics/mixed recycling programs
Plastics	PETE	Encourage building users to bring reusable water bottles Ensure sufficient water fountains for building users	Encourage building users to reuse plastic bottles Use refundable recycling schemes at the site	Provide enough receptacles, information and signposting for mixed recycling programs
	HDPE	Encourage bulk buying of goods to reduce volume of packaging Purchase products with minimal packaging		

	LDPE	Train custodial staff to empty individual waste receptacles into single black garbage bag		
	Polystyrene	Develop procurement policies which require on-site retailers to use compostable and recyclable packaging and cutlery		
	Organics	Set up partnerships and donation programs with local charities		Implement organics program
Containers	Beverage Cans	Encourage use of drinks dispensers at food courts and in kitchens	Use refundable recycling schemes at the site	Provide enough receptacles, information and signposting for mixed recycling programs
	Glass Bottles/Jars	Encourage use of drinks dispensers at food courts and in kitchens		
	Single Use Beverage Pods	Encourage use alternative coffee making facilities (i.e. filter coffee, pod free coffee machines)	Use reusable k-cups	Set up k-cup recycling programs with local supply companies
	Office supplies	Set up communal stationary points in offices for building users	Establish donation programs with local schools	Set up recycling programs with specialist companies such as Teracycle

Appendix 3 - Material Descriptions

Material	General Descriptions
#1 PETE	Polyethylene Terephthalate, Water Bottles, Soft Drink Bottles
#2 HDPE	High Density Polyethylene Containers, Chemical Containers or Jugs; High Density Polyethylene Bags or Film, Strong "crispy" Bags
#4 LDPE	Low Density Polyethylene Bags and Film, Garbage Bags, Shopping Bags
#5 PP	Poly Propylene, Yogurt Containers, Straws
#6 PS	Poly Styrene, Beverage Containers, Packaging Materials, Take-out Food Containers, Packing Popcorn
#7 Other	Products Labeled #7, Unlabeled Plastic Items
Aluminum	Aluminum Parts and Products
Aluminum F & B Cans	Aluminum Food and Beverage Cans, Pop Cans
Aluminum Foil / Wrappers	Food Wrappers and Packaging
Boxboard	Cereal, Tissue Box Material
Clear Glass	Clear Beverage Bottles and Jars
Electronics	Electronic Products, Toasters, TV's, Cell Phones
Floor Sweepings	Debris, Dust
Kraft Paper	Paper Bags, Heavy Brown Paper
Magazines	Glossy Magazines and Newspapers
Metal Clothes Hangers	Clothes Hangers
Misc. Textiles	Rags
Napkins	Paper Napkins
Newsprint	Newspapers, Weekly Flyers
OCC	Old Corrugated Cardboard
Paper Cups	Paper or Polycoated Cups
Paper Towels	Paper Hand Towels, Napkins, Tissue
Personal Clothing	Used Shirts, Uniforms, Hats
Photo Paper	Glossy Paper
Plastic Strapping	Plastic Shipping Straps
Polycoat	Milk Cartons, Tetra Packs
Polyfoam	Foam Protective Packaging Materials, Styrofoam
Post-Consumer Waste	Scrap Food Waste
Pre-Consumer Waste	Food Preparation Waste
Scrap Wood	Construction Materials
Shipping Bags	Strong or Thin Shipping Bags
Steel	Steel Parts and Products
Steel Fixtures	Hardware for Facility Displays
Tissue Paper	Thin Packing Paper
Wax Paper	Paper for Wrapping or Packaging
White/ Ledger/ Office Paper	White Paper, Printer Paper
Wood Shavings	Scrap Construction Shavings and Debris

