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2024 WASTE AUDIT REPORT

June 2024

Prepared for
F&P Manufacturing
1 Nolan Road
Tottenham, Ontario
L0G 1W0

Prepared by
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EXECUTIVE SUMMARY

Waste Solutions conducted a waste audit at 1 Nolan Road, Tottenham, Ontario for F&P Manufacturing to achieve compliance with *Ontario Regulation 102/94: Waste Audits and Waste Reduction Work Plans* (Ontario Regulation 102/94) *and Ontario Regulation 103/94* set by the Ministry of the Environment, Conservation and Parks (MECP).

The audit was conducted on June 11, 2024, and followed the Recycling Council of Ontario's (RCO) Standard Waste Audit Methodology (SWAM). Waste Solutions analyzed a 24-hour sample of waste that consisted of all the non-hazardous, solid waste generated from regular activities at the site, including waste destined for reuse, recycle, and disposal. Table 1 provides a summary of the audit findings.

Table 1. Summary of audit findings.

	SAMPLE VALUE	ANNUAL VALUE
TOTAL WASTE GENERATED	440.25 kg	560,975.00 kg
TOTAL WASTE SENT TO ENERGY RECOVERY	440.25 kg	163,851.00 kg
TOTAL WASTE DIVERTED FROM LANDFILL	0.00 kg	369,124.00 kg
TOTAL WASTE SENT TO LANDFILL	0.00 kg	28,0000 kg
OVERALL DIVERSION RATE	65.80%	
OVERALL CAPTURE RATE	89.32%	

*See **Appendix C: Waste Audit Calculations** for the definitions and formulas for the various rates calculated within this table.*

In addition, Waste Solutions observed the site's current waste collection, handling, and storage practices, as well as the organization's culture and attitude towards sustainability and waste diversion.

Using the information gathered through the site observations and the waste audit, Waste Solutions created meaningful recommendations to increase the site's diversion and capture rates; improve on-site waste collection and handling processes; and inspire change within the culture of the organization. The following recommendations were created for F&P Manufacturing:

1. Optimize Composting Stream
2. Reduce Waste Generated Onsite
3. Employee Education and Engagement

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1.0 INTRODUCTION

On June 11, 2024, Waste Solutions Canada (Waste Solutions) conducted a waste audit at 1 Nolan Road, Tottenham, Ontario, on behalf of F&P Manufacturing. Table 2 provides a description of the site.

The purpose of the audit and this waste audit report is to achieve compliance with *Ontario Regulation 102/94: Waste Audits and Waste Reduction Work Plans* (Ontario Regulation 102/94), and assess compliance with *Ontario Regulation 103/94: Industrial, Commercial and Institutional Source Separation Programs* (Ontario Regulation 103/94). Additionally, Waste Solutions evaluated whether F&P Manufacturing complies with the acceptance criteria set by the site's waste haulers.

The waste audit was completed as per the Standard Waste Audit Methodology (SWAM) set by the Recycling Council of Ontario (RCO).

Table 2. Description of the site.

	DESCRIPTION
Site Address	1 Nolan Road, Tottenham, Ontario
Type of Establishment	Large Manufacturing Establishment
Size of the Site	441,000 ft^2

The following audit was designed to exceed the minimum guidelines for waste audits as set forth by Canadian provincial regulatory authorities. The conclusions, observations, and recommendations contained in the report represent the opinions of Waste Solutions. The information in this report was provided to Waste Solutions by the client, its representatives, and partners. As a result, Waste Solutions has relied on the information to be accurate and for which no assurances are intended, and no representations or warranties are made. This report and the information contained herein is produced for the expressed use of F&P Manufacturing and the Ministry of the Environment, Conservation and Parks. Waste Solutions Canada prohibits redistribution of this report and the material contained herein in whole or part without expressed written permission of Waste Solutions.

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1.1 AUDIT SCOPE

Waste Solutions conducted a waste audit at 1 Nolan Road, Tottenham, Ontario, on June 11, 2024. Waste Solutions analyzed a 24-hour sample of waste that consisted of all the non-hazardous, solid waste generated from regular activities at the site between 7:00 a.m. on June 10 and 7:00 a.m. on June 11, 2024.

Waste excluded from the audit included:

1. hazardous waste;
2. non-solid waste; and
3. temporary waste generation not representative of a typical day at the site.

1.2 AUDIT OBJECTIVES

The main objectives of the audit were to:

1. Achieve compliance with Ontario Regulation 102/94 by conducting a waste audit on a representative sample of waste generated at the site under normal operating conditions.
2. Confirm effective implementation of a source separation program in compliance with Ontario Regulation 103/94.
3. Identify if the site meets the waste hauler's acceptance criteria, including the allowable contamination limits and storage methods.
4. Recommend initiatives to increase the site's diversion and capture rates; improve on-site waste collection and handling processes; and inspire change within the culture of the organization.

1.3 AUDIT CRITERIA: ONTARIO REGULATION 102/94 AND 103/94

Ontario Regulation 102/94 requires owner or operator of a manufacturing establishment to annually complete a waste audit and implement a waste reduction work plan if during the two preceding calendar years, there was a calendar month in which the hours worked by the persons employed at the site exceed 16,000 hours.

Under Ontario Regulation 102/94, the audit must address:

a) the amount, nature, and composition of the waste;
b) the manner by which the waste gets produced, including management decisions and policies that relate to the production of waste; and
c) the way in which the waste is managed (Ontario Regulation 102/94, s. 2.).

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Ontario Regulation 103/94 requires the owner or operator of a manufacturing establishment to implement a source separation program for the following materials, if during the two preceding calendar years, there was a calendar month in which the hours worked by the persons employed at the site exceed 16,000 hours:

1. Aluminum
2. Cardboard (corrugated)
3. Fine paper
4. Glass
5. Newsprint
6. Polyethylene (high density) jugs, pails, creates, totes, and drums
7. Polyethylene (linear low density and low density) film
8. Polystyrene (expanded) foam
9. Polystyrene trays, reels and spools
10. Steel
11. Wood (not including painted, treated, or laminated wood)

The source separation program must include provisions for the collection, handling, and storage of separated waste before it is delivered to a site with the capability and approval to handle source separated waste. In addition, the program must be effectively communicated to all employees and patrons. Reasonable efforts must be made to ensure separated waste is reused or recycled.

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1.4 WASTE STREAMS OPERATING ONSITE

The current waste collection and handling equipment utilized at the site are outlined in Table 3.

Table 3. The site's waste collection and handling equipment.

EQUIPMENT	STREAM	HAULER
1 x 14-yard bin	Sludge Disposal	U-Pak Disposals
3 x 40-yard bins 1 x 8-yard bin	Waste to Energy Recovery	
2 x 40-yard bins 1 x 8-yard bin	Cardboard Recycling Stream	
1 x 20-yard bin	Mixed Recycling Stream	
32-gallon totes	Composting Stream	
1 x 20-yard bin	Wood Recycling Stream	

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2.0 SOURCE SEPARATION PROGRAM

F&P Manufacturing has implemented a source separation program in compliance with Ontario Regulation 103/94. Table 4 indicates what materials are currently source separated for diversion at the site.

Table 4. Material categories that are source separated at the site.

DIVERTIBLE MATERIAL CATEGORIES	IS SOURCE SEPARATION REQUIRED BY ONTARIO REGULATION 103/94?	IS THE MATERIAL CURRENTLY SOURCE SEPARATED?
PET #1		✓
HDPE #2	✓	✓
LDPE #4	✓	✓
PP #5		✓
PS-C #6	✓	✓
Aluminum Cans		✓
Steel Cans		✓
Glass	✓	✓
Gable Top Containers		✓
Tetra Pak Containers		✓
OCC	✓	✓
Boxboard		✓
Fine Paper	✓	✓
Newsprint	✓	✓
Scrap Metal	✓	*
Scrap Wood	✓	✓
Food Waste		✓

**F&P Manufacturing does not currently produce significant amounts of scrap metal.*

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3.0 METHODOLOGY

3.1 COLLECTION PERIOD

From 7:00 a.m. on June 10 to 7:00 a.m. on June 11, 2024, staff collected all the non-hazardous, solid waste generated at 1 Nolan Road.

Staff were instructed to label each bag of waste with:

1. the collection location (i.e., the area of the building the bag was collected from); and
2. the waste stream (i.e., waste to landfill, mixed recycling, composting).

3.2 SITE REVIEW

Waste Solutions conducted a site review with F&P Manufacturing management to gain a better understanding of how waste is generated and managed onsite.

3.3 WASTE ANALYSIS

Once on-site, Waste Solutions weighed and analyzed the 24-hour waste sample to determine the amount, nature, and composition of the waste generated at F&P Manufacturing or 1 Nolan Road. Waste was classified into the material categories stated in Table 5. The middle column of Table 5, “Colour,” indicates the colour used to represent each material category in the graphs within section 4.0 Waste Audit Results.

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Table 5. The material categories used to classify waste at the audit.

TYPE OF WASTE	COLOUR	MATERIAL CATEGORY
Recyclable Material		Polyethylene terephthalate (PET #1)
		High-density polyethylene (HDPE #2)
		Low-density polyethylene (LDPE #4)
		Polypropylene (PP #5)
		Condensed polystyrene (PS-C #6)
		Aluminum
		Steel
		Glass
		Polycoat materials
		Cardboard (OCC)
		Boxboard
		Paper
		Scrap metal
		Scrap wood
Organic Material		Solid food waste (Food waste)
		Other organics
Mixed Waste		Labels and label backing
		Expanded polystyrene (PS-E #6)
		Plastic or metal banding
		Dust and floor sweeps
		Tissues & paper towel
		Disposable food packaging (DFP)
		Coffee cups
		Textiles
		Personal Protective Equipment (PPE)
		Non-recyclable packaging
		Sludge
		Other waste[1]

[1]*The "Other Waste" category is comprised of: work boots, batteries, welding mask, paint brush, hard hat, soap, absorption pads, grinding disk, foam.*

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Calculations

3.4 ANNUAL CALCULATIONS

Following the on-site visit, Waste Solutions calculated the annual amount (in kilograms) of waste generated, diverted, and disposed of at F&P Manufacturing or 1 Nolan Road.

The annual weights of the following streams were calculated using data provided by the hauler. The data represents the waste generated from January 2023 to December 2023.

- Sludge Disposal
- Waste to Energy Recovery
- Cardboard Recycling Stream
- Mixed Recycling Stream
- Scrap Wood Recycling Stream

*See **Appendix B: Annual Data Calculations** for a specific breakdown of Waste Solutions data annualization methods.*

Solutions

3.5 CREATION OF RECOMMENDATIONS

Lastly, Waste Solutions created unique recommendations to increase the site's diversion and capture rates; improve on-site waste collection and handling processes; and inspire change within the culture of the organization.

3.6 STATEMENT OF SAMPLING LIMITATIONS

Data collected during the on-site audit are based on the samples analyzed and information reviewed. While effort was taken to ensure data was representative of a typical day, it must be noted that the accuracy of all data is limited by these assumptions and cannot be absolute.

Specifically, cardboard generation is dependent on product delivery to the staff and the dates in which those deliveries coincide, because of this, a representative sample is difficult to obtain in a 24-hour period.

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4.0 WASTE AUDIT RESULTS

4.1 SUMMARY OF RESULTS

Table 6 provides a summary of the audit findings.

Table 6. Summary of audit findings.

	SAMPLE VALUE	ANNUAL VALUE
TOTAL WASTE GENERATED	440.25 kg	560,975.00 kg
TOTAL WASTE SENT TO ENERGY RECOVERY	440.25 kg	163,851.00 kg
TOTAL WASTE DIVERTED FROM LANDFILL	0.00 kg	369,124.00 kg
TOTAL WASTE SENT TO LANDFILL	0.00 kg	28,0000 kg
OVERALL DIVERSION RATE	65.80%	
OVERALL CAPTURE RATE	89.32%	

*See **Appendix C: Waste Audit Calculations** for the definitions and formulas for the various rates calculated within this table.*

4.1.1 Noteworthy Observations

- Due to there not being a recycling sample to audit at F&P Manufacturing, any diverted mixed recycling, cardboard or scrap wood recycling numbers are from the annual data provided to Waste Solutions.
    - Additionally, Waste Solutions was not able to assess contamination present in the recycling streams due to no recycling samples. As a result, any contamination numbers and figures have been excluded from this report.
- The labels that were put on bags of waste to indicate generation areas were found to be too specific to provide meaningful data, so generation areas have been grouped together to provide a better illustration.
- Although a composting stream appears to be available onsite based on the annual data provided, no organic material was reported being diverted.
    - Waste Solutions strongly recommends the organics composting stream to be utilized due to the importance of the material in nutrient recycling as opposed to incineration for energy recovery.

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4.2 TOTAL WASTE GENERATED

The total amount of waste generated at F&P Manufacturing or 1 Nolan Road in a 12-month period was 560,975.00 kg. This weight includes:

- The total annual amount of sludge disposed of.
- The total annual amount of waste diverted through the:
  - Waste to Energy Recovery Stream
  - Cardboard Recycling Stream
  - Mixed Recycling Stream
  - Scrap Wood Recycling Stream

A breakdown of how the waste generated at F&P Manufacturing was source separated on-site, including what percentage of generated waste was sent to energy recovery, what percentage of generated waste was diverted, and what diversion streams were utilized are provided in Figure 1 below. Figure 2 displays the total amount of waste generated by material category.

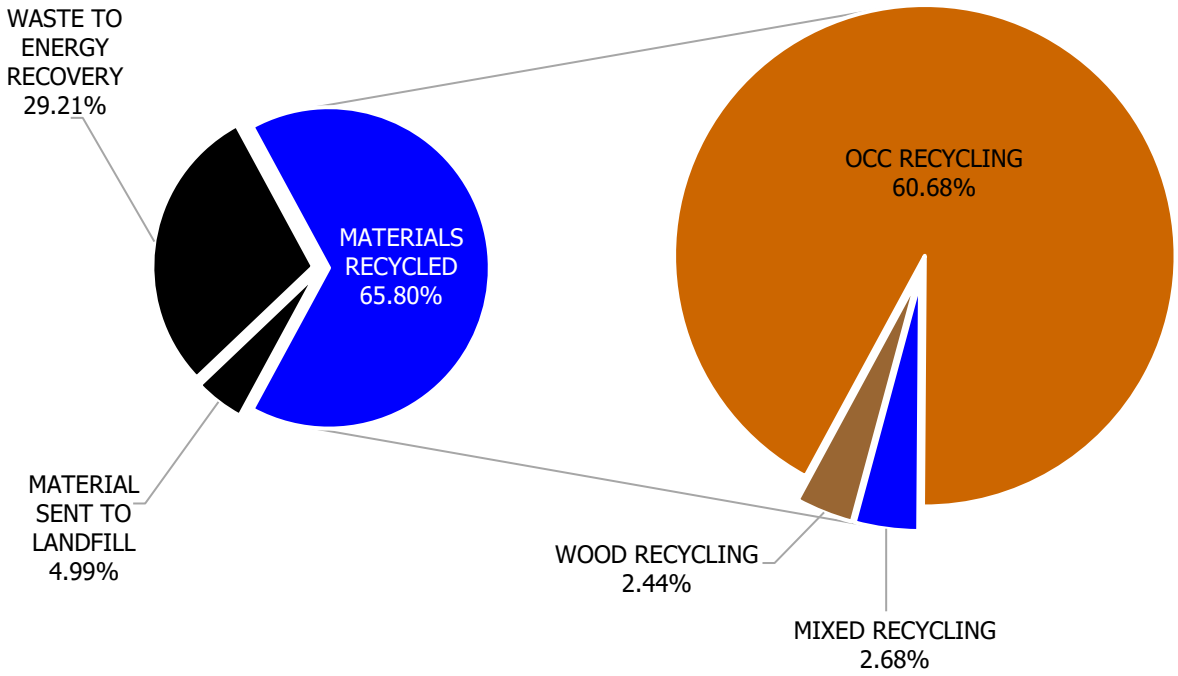

Figure 1. A breakdown of how waste was source separated at the site.

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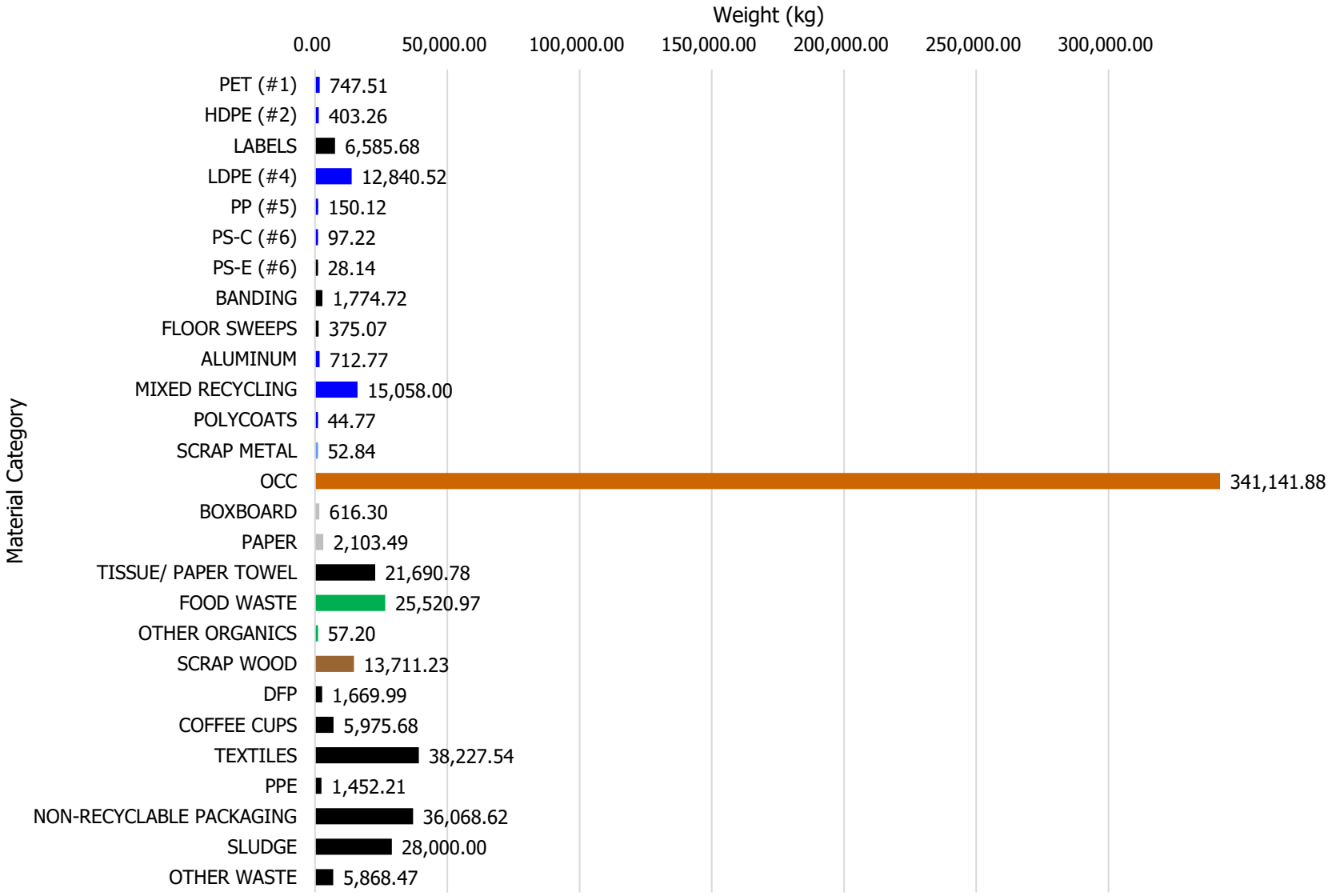

Figure 2. Waste generated by material category, shown in kilograms.

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4.3 TOTAL WASTE SENT TO ENERGY RECOVERY

The total amount of waste sent to energy recovery at F&P Manufacturing or 1 Nolan Road in a 12-month period was 163,851.00 kg. Figure 3 displays the total amount of waste sent to energy recovery by material category.

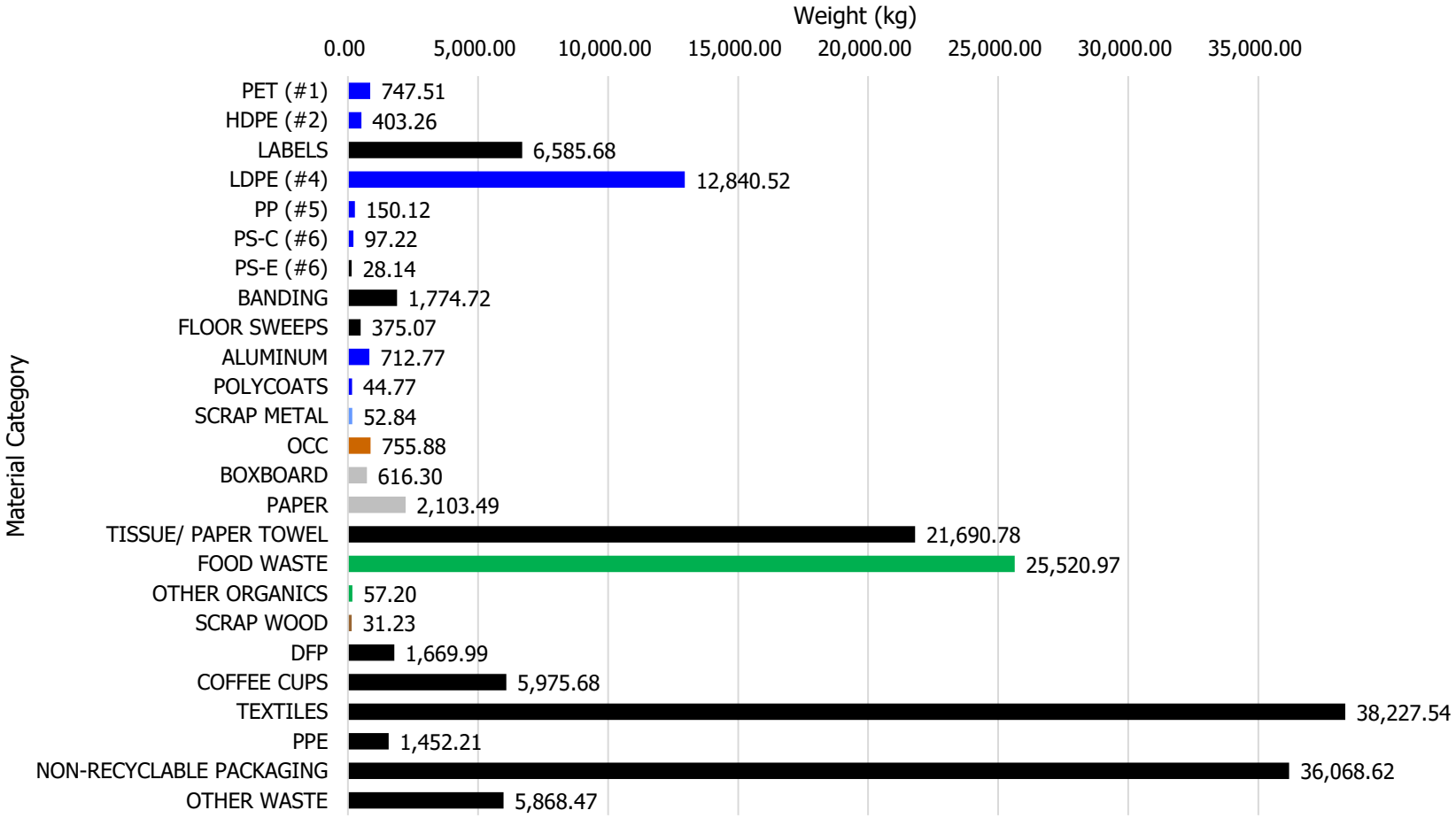

Figure 3. Waste sent to energy recovery by material category, shown in kilograms.

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4.3.1 Waste Sent to Energy Recovery: Breakdown by Area

Figure 4 illustrates how much waste each area is contributing to the overall disposal of waste to energy recovery, providing that they generated waste during the 24-hour sample period and their waste bags were correctly labelled.

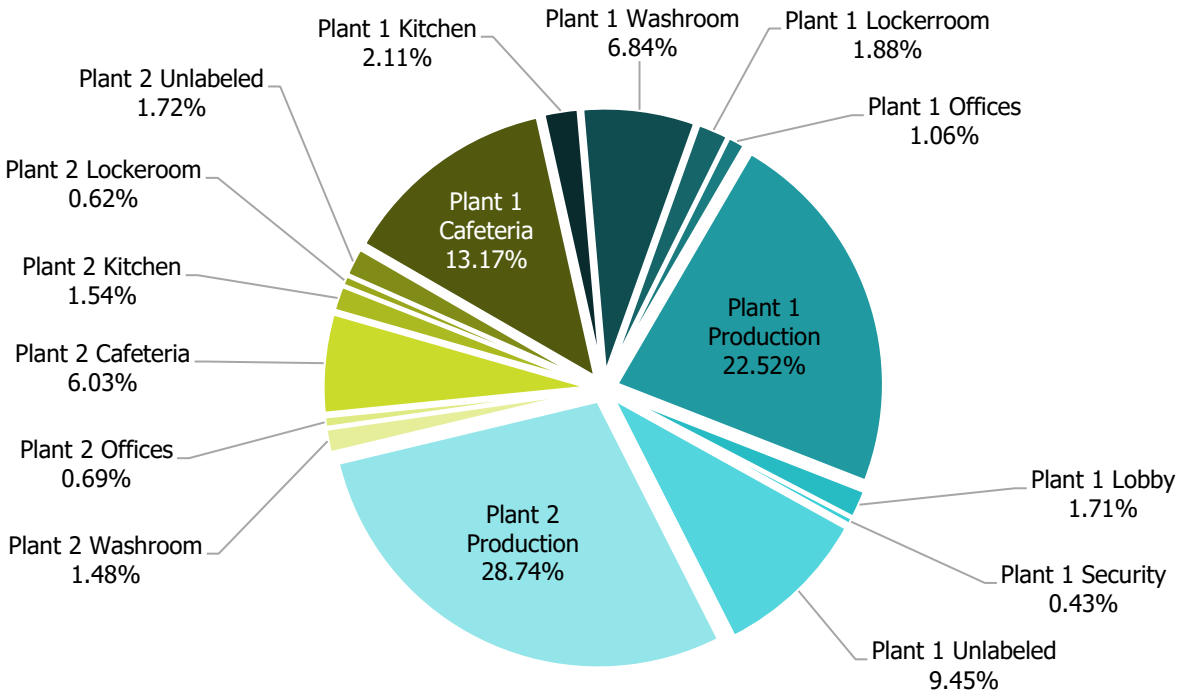

Figure 4. Area contribution to the waste to energy recovery stream, shown in percent.

Figures illustrating the composition of each individual area's waste to energy recovery stream can be found in ***Appendix G: Area Waste to Energy Recovery Stream Breakdown***, providing that they disposed of waste during the 24-hour sample period and their waste bags were correctly labelled. Material categories that contributed less than 1.00% of an area's total disposal of waste to energy recovery were not labelled in these figures.

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4.3.2 Divertible Materials Found in the Waste to Energy Recovery Stream

44,134.08 kg or 26.94% of the material found in the waste to energy recovery stream had the potential to be diverted through a diversion stream. The percentage of recyclable materials and compostable (organic) materials sent to energy recovery can be seen in Figure 5.

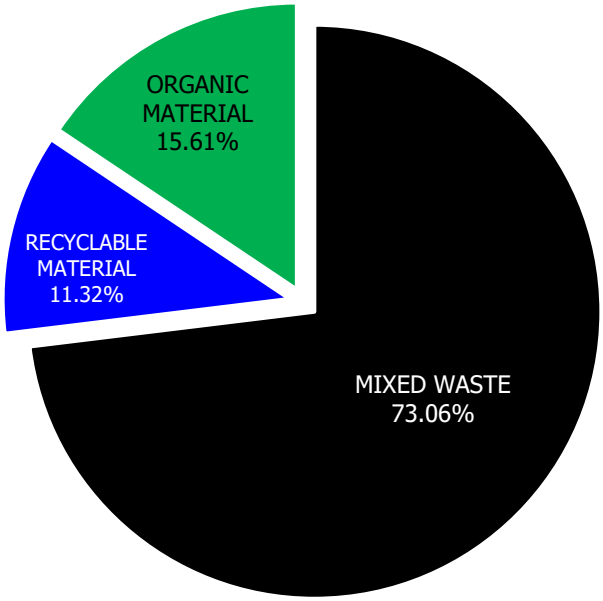

Figure 5. The composition of the waste to energy recovery stream, shown in percent.

Photographs of recyclable materials and compostable materials found in the waste to energy recovery stream during the waste audit can be found in ***Appendix D: Photo Log.***

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18,55.91 kg or 11.32% of the material found in the waste to energy recovery stream was recyclable. If disposed of correctly, this material could have been diverted through the recycling streams. A breakdown of the recyclable material found in the waste to energy recovery stream is shown in Figure 6.

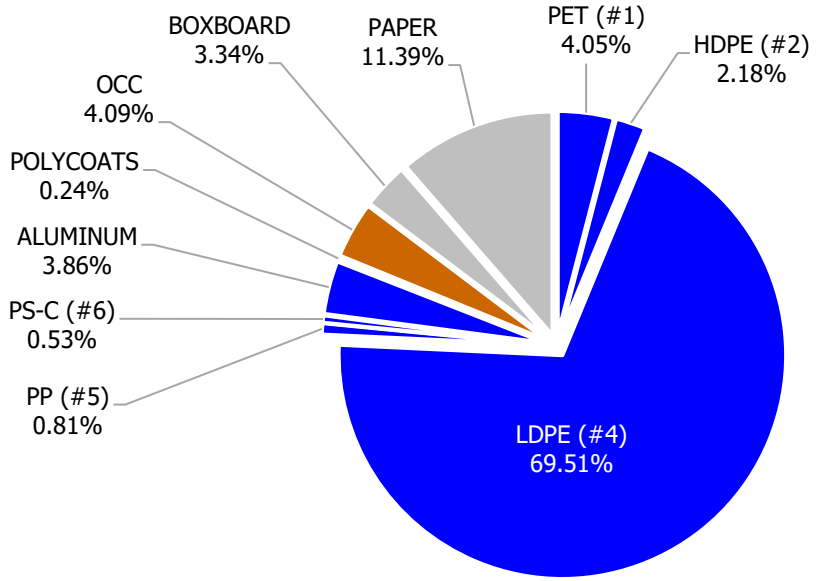

Figure 6. Recyclable materials found in the waste to energy recovery stream, shown in percent.

25,578.17 kg or 15.61% of the material found in the waste to energy recovery stream was compostable. If disposed of correctly, this material could have been diverted through a composting stream. A breakdown of the organic material found in the waste to energy recovery stream is shown in Figure 7.

Figure 7. Organic materials found in the waste to energy recovery stream, shown in percent.

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4.4 TOTAL WASTE RECYCLED

The total amount of waste recycled at F&P Manufacturing or 1 Nolan Road in a 12-month period was 369,124.00 kg. Figure 8 displays the total amount of waste recycled by material category.

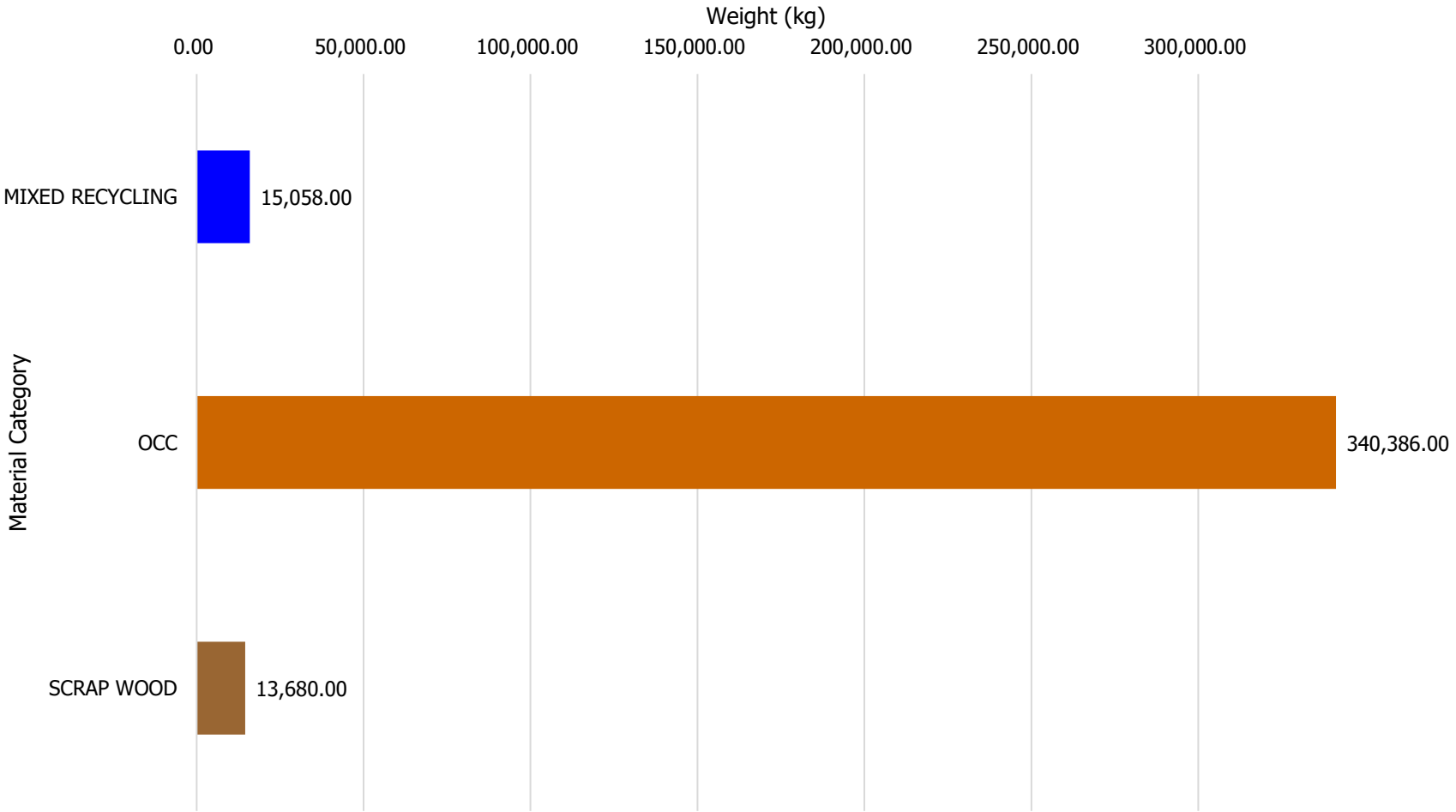

Figure 8. Waste recycled by material category, shown in kilograms.

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4.5 CAPTURE RATES

Capture rate provides an indication of how well a site's diversion streams are operating. The overall capture rate at F&P Manufacturing or 1 Nolan Road was 89.32%, meaning that 89.32% of all the divertible materials generated on-site were correctly source separated and diverted from landfill. The remaining 10.68% of divertible materials were incorrectly source separated and sent to landfill, even though they could have been diverted through one of the diversion streams currently operating at the site. Figure 9 identifies the capture rates for each divertible material category of waste.

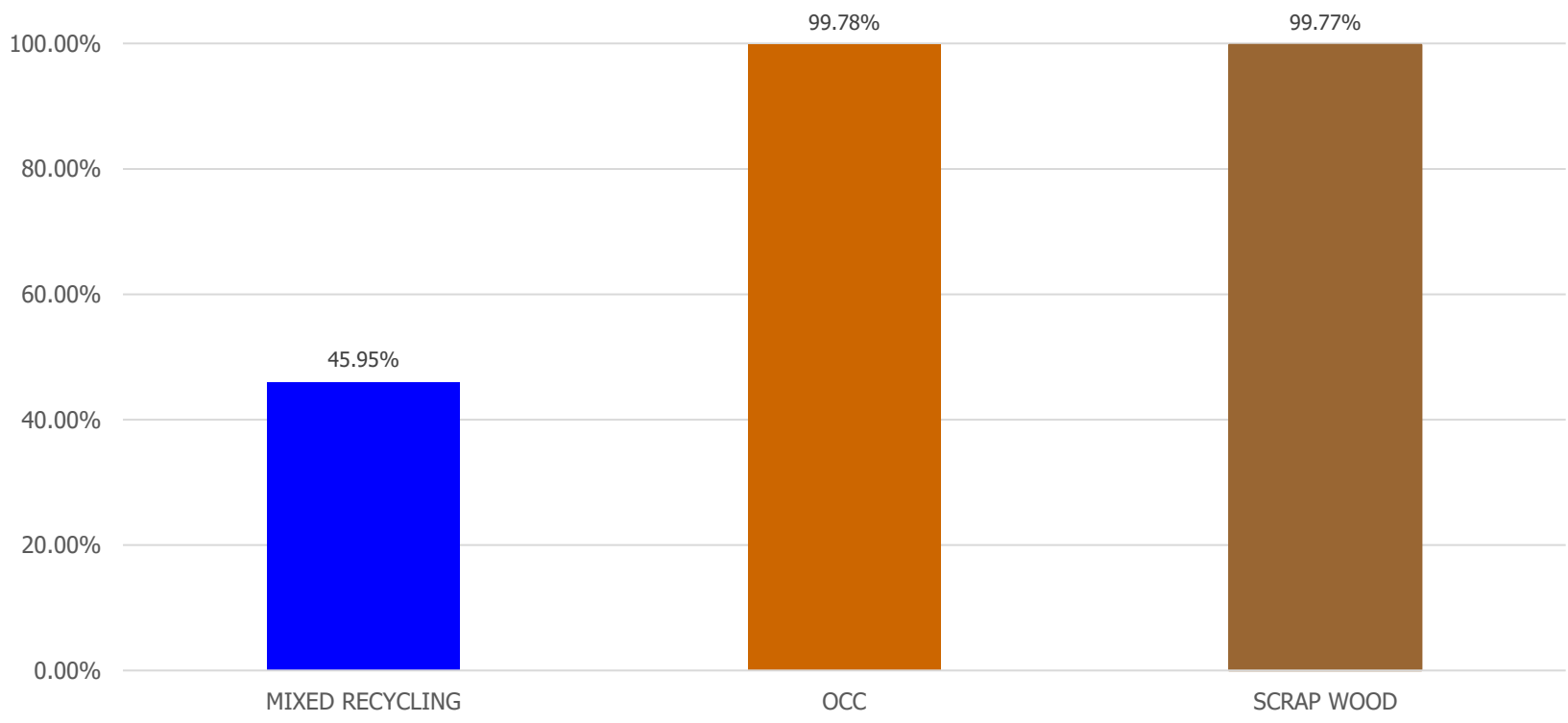

Figure 9. The capture rates for each divertible material category, shown in percent.

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4.6 CONCLUSION

ORGANIC WASTE

Better utilization of F&P Manufacturing's composting program would result in the largest contribution to improving diversion from landfill performance. In total, **25,578.17 kg** of organic material was generated at the site. This represents **4.56%** of all the waste generated at the site.

If the management team at F&P Manufacturing implemented strategies to better utilize the composting program, the site's diversion and capture rates would likely increase. For example, if 50% of the organic material currently being sent to energy recovery was correctly diverted through the composting stream, the site's diversion rate would increase by **2.28%**, from **65.80%** to **68.08%**.

RECYCLABLE MATERIALS

The site's diversion from landfill performance could be improved by addressing the recyclable materials sent to landfill. In total, **387.679.91 kg** of recyclable material was generated at the site, including: PET #1, HDPE #2, LDPE #4, PP #5, PS-C #6, aluminum, steel, glass, gable top containers, Tetra Pak containers, cardboard, boxboard, and paper.

91.68% of recyclable material was correctly source separated in the recycling streams. The remaining **8.32%** was incorrectly source separated and sent to energy recovery.

If the management team at F&P Manufacturing implemented strategies to better utilize the recycling programs, the site's diversion and capture rates would likely increase. For example, if 50% of the recyclable material currently being sent to energy recovery was correctly diverted through the recycling streams, the site's diversion rate would increase by **1.65%**, from **65.80%** to **67.45%**.

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5.0 RECOMMENDATIONS

5.1 OPTIMIZE COMPOSTING STREAM

Improving waste collection efficiency can lead to cost savings and a reduced environmental impact. Here are some recommendations for increasing waste collection efficiency:

OPTIMIZE BIN AND SIGNAGE PLACEMENT

- Place waste bins strategically to maximize convenience for employees. Ensure that recycling and compost bins are easily accessible and well-marked to promote proper waste disposal.
- Instead of having waste bins standing alone, make sure all waste-to-landfill disposal locations are also accompanied by diversion streams. This will encourage source separation practices.
- If the contamination rate is high and/or capture rates are low, consider optimizing signage locations by placing them where employees and/or visitors frequent, such as in elevators and washrooms.

RIGHT SIZE WASTE BINS

- Match the size of waste bins to the volume of waste generated in specific areas. Right-sizing bins can prevent unnecessary collections and reduce costs associated with waste removal.
- By continuously monitoring the waste bins before collection, it can be determined whether the bins are full on collection day.

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EXPLORE TECHNOLOGY SOLUTIONS

- Consider implementing smart waste management solutions that use sensors to monitor fill levels in front-end waste bins. This technology can optimize collection routes and timing, reducing unnecessary pickups.
- Waste Solutions provides smart sensors as a value add for our clients to ensure the highest level of efficiency for material collection. For more information follow this link: https://waste.solutions/technology/smart-sensors/

EVALUATE WASTE HAULER CONTRACTS

- Regularly review and negotiate waste hauling contracts to ensure they align with the specific needs of F&P Manufacturing. Look for opportunities to optimize costs and services based on changing waste generation patterns.
- Waste Solutions provides this service for our clients, to find ways to improve the sustainability of waste management practices onsite, while reducing costs. Please visit the following link if you are interested in an assessment of your current hauler contract: https://waste.solutions/get-started/

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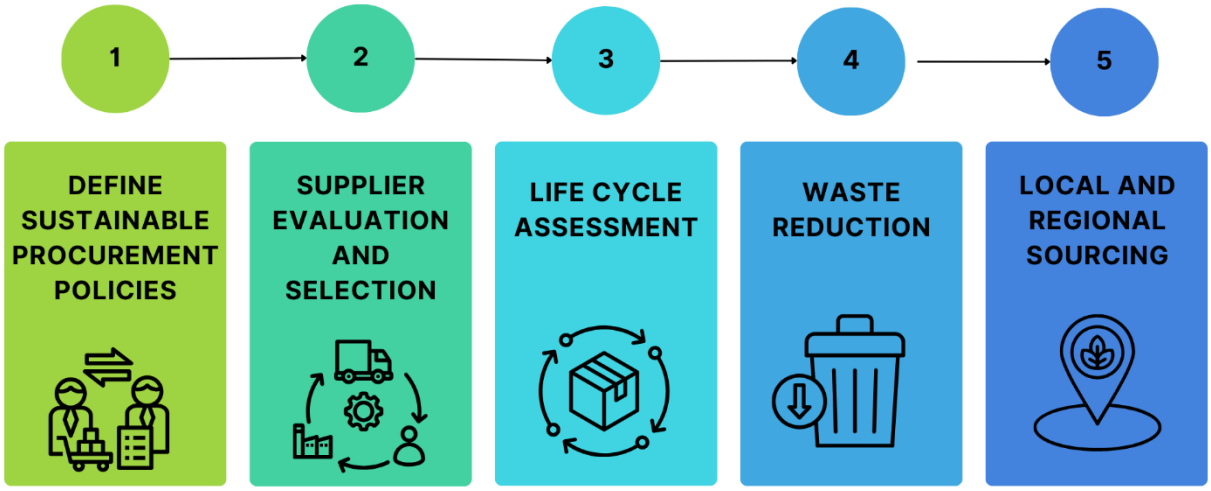
5.2 REDUCE WASTE GENERATED ONSITE

Implementing sustainable procurement practices at F&P Manufacturing can significantly contribute to reducing the waste onsite and increasing environmental responsibility and social impact. Here are some recommendations for adopting sustainable procurement practices:



1. DEFINE SUSTAINABLE PROCUREMENT POLICIES

- Develop and implement clear sustainable procurement policies that prioritize environmentally friendly, ethically sourced, and socially responsible products and services.
- For example, some materials have a lower environmental impact, such as materials with recycled content, biodegradable materials, or those sourced from a sustainable renewable source.

2. SUPPLIER EVALUATION AND SELECTION

- Evaluate and select suppliers based on their environmental and social performance. Consider factors such as their commitment to reducing carbon emissions, use of eco-friendly materials, and fair labor practices.
- Conducting a pilot program can test the performance of materials, ensuring they meet the standards of durability protection and other functional requirements.

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3. LIFE CYCLE ASSESSMENT

- Conduct life cycle assessments of products and services to understand their environmental impact from production to disposal. This can help in making informed decisions about the sustainability of different options.
- A free life cycle assessment tool for beginners: https://www.openlca.org/

4. WASTE REDUCTION

- Opt for products with minimal packaging or those using recycled and recyclable materials. Encourage suppliers to adopt waste reduction practices and consider packaging waste in the procurement decision-making process.
- By using the results of this audit as a baseline for improvement, reduction targets can be implemented. Goals should be measurable, achievable, relevant, and time bound for reduction of waste. For example, setting a specific goal of reducing the overall waste of packaging by a certain percentage within a specific timeline.
- Consider the use of biodegradable or compostable materials for packaging. These materials break down naturally and can be accepted into specialized composting programs.

5. LOCAL AND REGIONAL SOURCING

- Give preference to local and regional suppliers to reduce the environmental impact of transportation and support the local economy. This can also enhance relationships with nearby businesses.
- Fostering collaboration with suppliers and engaging stakeholders at various levels enables your organization to create a more inclusive and impactful approach to sustainable procurement and ensures that all key participants in the supply chain are aligned with your organization's environmental goals.

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5.3 EMPLOYEE EDUCATION AND ENGAGEMENT

5.3.1 EDUCATION OPPORTUNITIES

Waste Solutions recommends that F&P Manufacturing provide employees with a waste education session. Waste Solutions are experts in waste and can provide educational materials to improve the company culture around waste management as well as give a better understanding of the importance of sustainable waste disposal practices. The options Waste Solutions provides are listed below:

IN PERSON EDUCATION SESSION	REMOTE EDUCATION SESSION	PRE-RECORDED EDUCATION SESSION	EDUCATION MATERIAL
This option includes a member of the Waste Solutions team coming to the site to give a presentation to staff based on the audit results and recommendations.	This option includes a member of the Waste Solutions team giving a live video conference presentation to staff based on the audit results and recommendations.	This option includes a member of the Waste Solutions team pre-recording themselves giving a presentation based on the audit results that can be sent and played back for employees.	Waste Solutions can provide handouts for employees that are specifically tailored to the needs and goals of the site. Material can be used in onboarding process for new employees.

If you are interested in one of the options listed above, please contact the Waste Solutions team at the following address: wasteaudit@waste.solutions to get started on your journey towards a more sustainable culture within F&P Manufacturing.

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5.3.2 IMPLEMENTING SIGNAGE

The easiest way to engage staff in diversion programs is to clearly communicate the acceptance criteria of these programs through clear signage accompanying waste receptacles. The benefits of implementing waste signage onsite are listed below.

REDUCED CONTAMINATION

- **Proper Disposal Guidance:** Clear waste signage helps prevent contamination of recycling and composting streams by guiding users on what items are accepted in each bin. This improves the quality of recycled and composted materials.

ENHANCED DIVERSION RATE

- **Promoting Recycling:** Informative waste signage encourages individuals to participate in recycling programs by clearly indicating which items are recyclable. This can lead to increased recycling rates within a community, workplace, or public space.

POTENTIAL COST SAVINGS

- **Efficient Waste Collection:** Proper waste signage contributes to efficient waste collection processes, reducing the time and resources required for sorting at later stages. This can result in cost savings for waste management operations.

ADAPTABILITY TO MULTILINGUAL ENVIRONMENTS

- **Inclusivity:** Multilingual friendly waste signage accommodates diverse populations, ensuring that individuals who speak different languages can understand and follow proper waste disposal procedures. This includes the use of pictures and graphics to convey the message.

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Waste Solutions can curate specific signage for the site, which will increase the employee understanding of the waste management practices onsite. Examples of waste signage:

Please contact Waste Solutions at wasteaudit@waste.solutions if you are interested in learning more about these additional services.

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APPENDIX A: DEFINITIONS

ACCEPTANCE CRITERIA

Specifications set by the process for materials management that when met, facilitate optimum processing results as planned, such as commingling and contamination thresholds.

ANNUALIZE

To calculate the mass of materials generated for an entire year based on any sample size.

BLACK PLASTICS

Plastic that has been dyed black. This material can be difficult to recycle, as many Material Recovery Facilities use optical sensors in their processes, and these sensors cannot easily detect materials that have been dyed black.

CAPTURE RATE

The proportion of a divertible waste, expressed as a percentage, which is successfully diverted from disposal.

CONDENSED POLYSTYRENE (PS-C #6):

A type of plastic commonly used to make compact disc cases, coffee cup lids, yogurt cups, coffee pods, and disposable plastic plates and cups.

CONTAINERS RECYCLING

A diversion program where containers are source separated on-site, placed in designated bins, and collected by a waste hauler to be recycled and diverted from landfill disposal. This program can also be referred to as a “cans and bottles” recycling stream. Although the acceptance criteria for these programs can change from region to region, a container recycling stream typically accepts the following materials: PET #1, HDPE #2, LDPE #4, PP #5, PS-C #6, aluminum, steel, glass, gable top containers, and Tetra Pak containers.

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CONTAMINATION

Material found in a diversion stream that is not considered divertible as it does not meet the acceptance criteria outlined by the site's waste hauler. This material reduces the efficiency and effectiveness of the diversion process and ultimately is disposed of in a landfill.

DISPOSABLE FOOD PACKAGING (DFP)

Single-use, disposable, packaging material often originating from fast food restaurants, takeout restaurants, and catering establishments. The disposable food packing material category is typically comprised of: poly coated paper plates and bowls; wax coated fountain drink cups; cardboard and boxboard packaging soiled with food waste or grease (i.e. soiled pizza box, French fry holders, etc.); chip bags; and assorted wrappers from burgers, sandwiches, granola bars, and candy bars.

DIVERSION

The following activities are considered diversion actions: actions to prevent waste materials from being generated, actions to reduce material generation, reuse (internal or external), source-separated recycling, composting (on-site or off-site). Post-collection sorting, such as recyclable material removed from a commingled waste bin at the transfer station, does not qualify as a source-separated diversion activity for the original generator of the waste even though the hauler or processor may ultimately diver the discarded material from disposal.

DIVERSION RATE

The proportion by weight of all material diverted from disposal to the total weight of all waste material generated, expressed as a percentage.

EXPANDED POLYSTYRENE (PS-E #6)

A type of plastic commonly referred to as "Styrofoam," that is used to make take-out food containers, packing peanuts, and other foam packaging inserts used to protect product during shipping and handling processes.

HIGH-DENSITY POLYETHYLENE (HDPE #2)

A type of plastic commonly used to make milk jugs, household cleaner containers, meal-replacement bottles, protein powder containers, shampoo bottles, detergent bottles, and toiletries bottles.

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LOW-DENSITY POLYETHYLENE (LDPE #4)

A type of plastic commonly used to make squeezable bottles, shopping bags, shrink wrap, bread bags, and food wraps. Also referred to as "soft plastics."

MIXED RECYCLING STREAM

A diversion program where recyclable materials are source separated on-site, placed in designated bins, and collected by a waste hauler to be recycled and diverted from landfill disposal. Mixed recycling programs accept both containers and fibre-based materials in a single stream. Although the acceptance criteria for these programs can change from region to region, a mixed recycling stream typically accepts the following materials: PET #1, HDPE #2, LDPE #4, PP #5, PS-C #6, aluminum, steel, glass, polycoats, cardboard, boxboard, and mixed paper.

MIXED WASTE

The category of waste comprised of materials that are not typically considered to be recyclable, and therefore are usually disposed of in a waste to landfill or waste-to-energy (incineration) stream.

ORGANIC COMPOSTING STREAM

A diversion program where organic materials are source separated on-site, placed in designated bins, and collected by a waste hauler to be composted and diverted from landfill disposal. Although the acceptance criteria for these programs can change from region to region, an organic composting stream typically accepts the following material: food waste, yard waste, paper towel, compostable food packaging, and small quantities of wood (i.e. wooden stir sticks and chop sticks).

OTHER PLASTIC (P #7)

The generic name for other plastic material usually comprised of a variety of other types of plastics. This material is commonly used to make blister packaging, sunglasses, toys, and single-use plastic items like straws, cutlery, and single pots that hold milk, cream, and butter.

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PAPER RECYCLING STREAM

A diversion program where fibre-based materials are source separated on-site, placed in designated bins, and collected by a waste hauler to be recycled and diverted from landfill disposal. Although the acceptance criteria for these programs can change from region to region, a paper recycling stream typically accepts the following materials: cardboard, boxboard, and mixed paper.

POLYETHYLENE TEREPHTHALATE (PET #1)

A type of plastic commonly used to make water bottles, soda bottles, salad dressing containers, mouthwash bottles, clamshell food packaging, and peanut butter containers.

POLYPROPYLENE (PP #5):

A type of plastic commonly used to make yogurt containers, ketchup bottles, syrup bottles, iced coffee cups, and medicine bottles.

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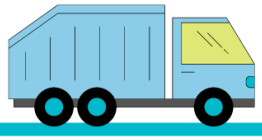
APPENDIX B: ANNUAL DATA CALCULATIONS

Annual Data Calculations

Hauler Data

After bins are emptied, material collected is disposed of at local waste facilities, and this material is weighed and reported monthly by the haulers.
Waste Solutions sums a 12-month period of hauler weights to annualize the 24-hour sample of waste audited at the site.



Service Schedule

Annual weight of waste streams are calculated multiplying the following variables:

- Number of Bins
- Bin Size
- Waste Solutions Standardized Waste Estimate
- Pick-ups per Week
- # Weeks per Year
- Bin Fullness (%)

Operating Days

Annual weight of waste streams is calculated by multiplying the 24-hour sample of waste audited by the number of operating days onsite.

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APPENDIX C: WASTE AUDIT CALCULATIONS

Waste Audit Calculations

Diversion Rate

The percentage of waste diverted from the landfill through the diversion streams operating onsite.

$$\left\{ \frac{\text{Total Waste Diverted}}{\text{Total Waste Generated}} \right\} \times 100$$

Capture Rate

Proportion of all waste diverted from the landfill to the total of all waste material that could have been diverted.

$$\left\{ \frac{\text{Total Waste Diverted}}{\text{Total Divertible Materials Generated}} \right\} \times 100$$

Contamination Rate

Proportion of all unacceptable materials found in diversion streams onsite.

$$\left\{ \frac{\text{Total Contamination}}{\text{Total Contamination + Total Waste Diverted}} \right\} \times 100$$

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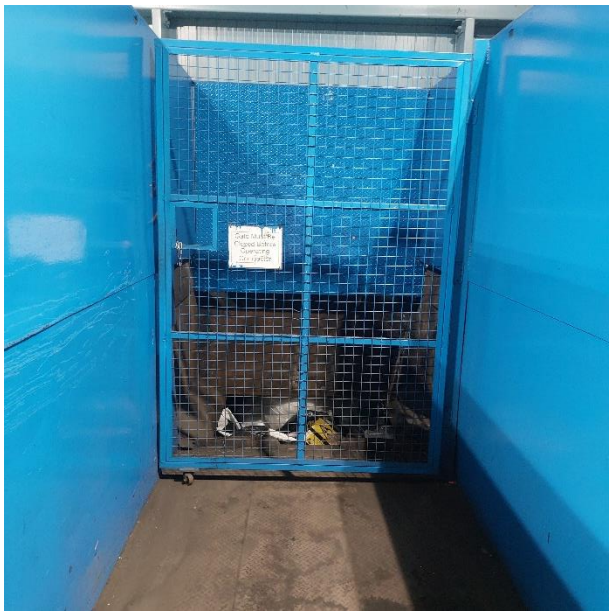
APPENDIX D: PHOTO LOG



Images 1-2. On-site methods to handle, collect, and store waste.

Images 3-4. The waste receptacles and signage observed at the site.

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Images 5-8. The staged waste sample representing 24-hours of waste generation.

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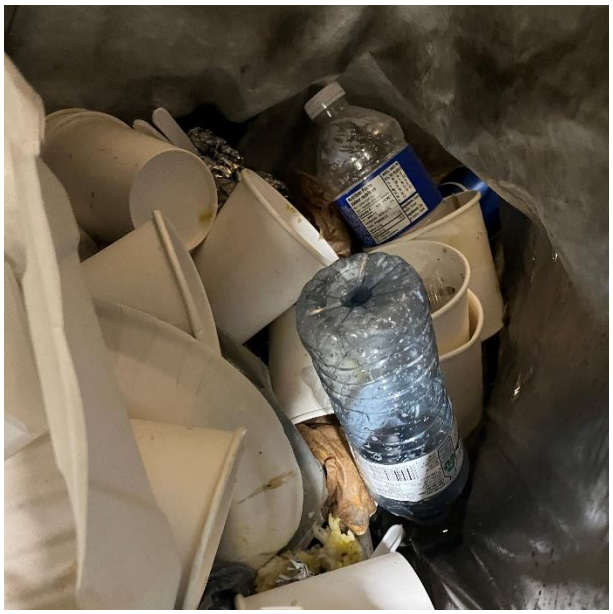

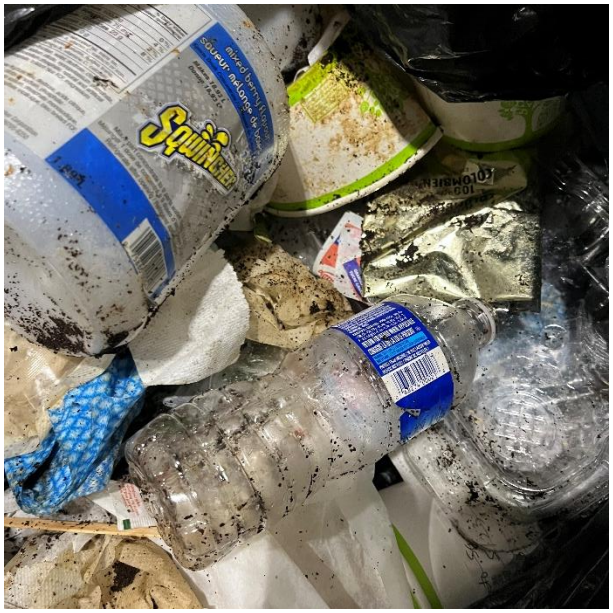

Images 9-12. Recyclable materials found in the energy recovery stream that could have been diverted through the mixed recycling stream.

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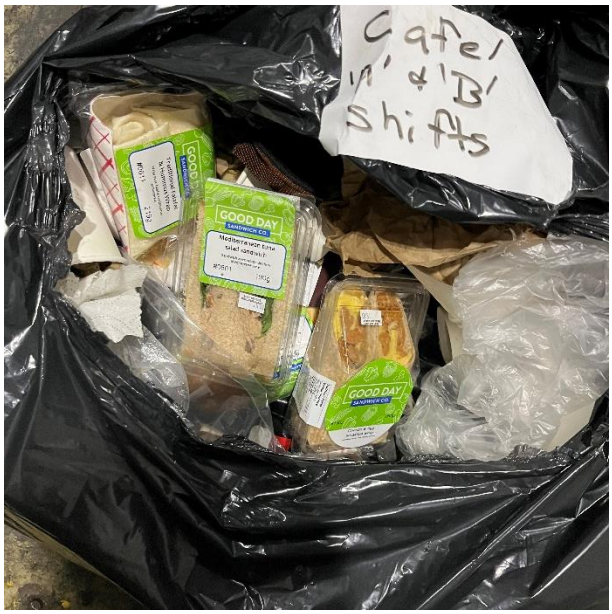

Images 13-16. Organic materials found in the energy recovery stream that could have been diverted through the composting stream.

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APPENDIX E: REPORT OF A WASTE AUDIT FORM

Ministry of the Environment, Conservation and Parks
Report of a Waste Audit
Industrial, Commercial and Institutional Establishments
As required by Ontario Regulation 102/94

I. General Information

Name of Owner and/or Operator of Entity(ies) and Company Name:		
F&P Manufacturing care of F&P Manufacturing		
Name of Contact Person:	**Telephone Number:**	**Email Address:**
Terry Diemert	905.936.3435	terry.diemert@fandpmfg.com
Street Address of Entity(ies):		
1 Nolan Road		
Municipality:		
Tottenham, Ontario		
Type of Entity:		
Manufacturing Establishments		

II. Description of Entity

Provide a brief overview of the entity(ies):
F&P is a tier 1 automotive parts manufacturing facility located in Tottenham, Ontario. Metal stamping, welding, hydroforming, e-coat and modular assembly are some of the services/products they offer.

III. How Waste is Produced and Decisions Affecting the Production of Waste

Categories of Waste:	**How is the Waste Produced and What Management Decisions/Policies Affect Its Production?**
Polyethylene Terephthalate (PET #1)	Waste is generated when materials are brought to the site by visitors and employees, or when the material is purchased for daily operations onsite. Waste is commonly generated from water bottles or condiment bottles.
High-Density Polyethylene (HDPE #2)	Waste is generated when materials are brought to the site by visitors and employees, or when the material is purchased for daily operations onsite. Waste is commonly generated from cleaning bottles or soap bottles.
Labels and Label Backing	Waste is generated when material is purchased for daily operations onsite.
Low-Density Polyethylene (LDPE #4)	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite. Waste is commonly generated from shopping bags, clear food containers, squeezable bottles, and general “soft plastics”.

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Polypropylene (PP #5)	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite. Waste is commonly generated from yogurt containers or butter containers.
Condensed Polystyrene (PS-C #6)	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite. Waste is commonly generated from coffee cup lids, and disposable plates and cups.
Expanded Polystyrene (PS-E #6)	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite. Waste is commonly generated from packaging inserts, take-out containers, or packing peanuts.
Plastic or Metal Banding	Waste is generated when material is purchased for daily operations onsite. Waste is commonly generated from single use plastic items.
Dust and Floor Sweeps	Waste is generated as a byproduct of daily operations onsite.
Aluminum Food and Beverage Cans	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite.
Steel Food and Beverage Cans	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite.
Glass Bottles & Jars for Food & Beverage	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite.
Polycoats	Waste is generated when materials are brought to the site by visitors and employees. Waste is commonly generated from juice boxes, soup boxes or gable top cartons.
Scrap Metal	Waste is generated during the manufacturing process.
Cardboard (Corrugated)	Waste is generated when materials are brought to the site by visitors and employees. Waste is commonly generated through the packaging associated with the purchase or consumption of products.
Boxboard	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite.
Mixed Paper (Fine Paper & Newsprint)	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite.
Tissues & Paper Towel	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite. Waste is commonly generated when product is used for cleaning purposes onsite.
Solid Food Waste	Waste is generated during the consumption of food products onsite by employees and visitors.
Other Organics	Waste is generated when organic materials are brought to the site by visitors and employees.
Scrap Wood	Waste is generated during the manufacturing process.
Disposable Food Packaging	Waste is generated when food is consumed onsite.
Coffee Cups	Waste is generated when single-use coffee cups are brought to the site by visitors and employees.

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Clothing and Textiles	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite.
Personal Protective Equipment	Waste is generated when the material is purchased for protection against hazardous conditions at the site.
Non-Recyclable Packaging	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite.
Sludge	Watse is generated during the production process onsite.
Other Waste	Waste is generated when materials are brought to the site by visitors and employees or when the material is purchased for daily operations onsite.

IV. Management of Waste

Category:	Waste to be Disposed:	Reused or Recycled Waste:
Polyethylene Terephthalate (PET #1)	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
High-Density Polyethylene (HDPE #2)	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Labels and Label Backing	This material is handled as mixed waste and is placed in a bin for disposal.	Not applicable.
Low-Density Polyethylene (LDPE #4)	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Polypropylene (PP #5)	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Condensed Polystyrene (PS-C #6)	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Expanded Polystyrene (PS-E #6)	This material is handled as mixed waste and is placed in a bin for disposal.	This material is not recycled or reused. Occasionally, it is incorrectly disposed of in the recycling totes by employees and visitors.

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Plastic or Metal Banding	This material is handled as mixed waste and is placed in a bin for disposal.	This material is not recycled or reused. Occasionally, it is incorrectly disposed of in the recycling totes by employees and visitors.
Dust and Floor Sweeps	This material is handled as mixed waste and is placed in a bin for disposal.	Not applicable.
Aluminum Food and Beverage Cans	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Steel Food and Beverage Cans	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Glass Bottles & Jars for Food & Beverage	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Polycoats	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Cardboard (Corrugated)	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees place this material in the compactor to be recycled.
Boxboard	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Mixed Paper (Fine Paper & Newsprint)	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Tissues & Paper Towel	This material is handled as mixed waste and is placed in a bin for disposal.	This material cannot be recycled or reused. Occasionally, it is incorrectly disposed of in the recycling/ composting totes by employees and visitors.

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Scrap Metal	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Solid Food Waste	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current composting program.	Employees and visitors place this material in the bins to be composted.
Other Organic Material	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current composting program.	Employees and visitors place this material in the bins to be composted.
Scrap Wood	Material is occasionally disposed of as waste by employees and visitors due to non-compliance with the current recycling program.	Employees and visitors place this material in the recycling bins to be recycled.
Disposable Food Packaging	This material is handled as mixed waste and is placed in a bin for disposal.	Not applicable.
Coffee Cups	This material is handled as mixed waste and is placed in a bin for disposal.	This material cannot be recycled or reused. Occasionally, it is incorrectly disposed of in the recycling totes by employees and visitors.
Clothing and Textiles	This material is handled as mixed waste and is placed in a bin for disposal.	Not applicable.
Personal Protective Equipment	This material is handled as mixed waste and is placed in a bin for disposal.	Not applicable.
Non-Recyclable Packaging	This material is handled as mixed waste and is placed in a bin for disposal.	Not applicable.
Sludge	This material is handled as mixed waste and is placed in a bin for disposal.	Not applicable.
Other Waste	This material is handled as mixed waste and is placed in a bin for disposal.	Not applicable.

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Part V	Estimated Amount of Waste Produced in Kilograms (kg)											
	Generated			Reused			Recycled			Disposed		
Waste Categories	"A" Base Year	"B" Current Year	"C" Change (A-B)	"A" Base Year	"B" Current Year	"C" Change (A-B)	"A" Base Year	"B" Current Year	"C" Change (A-B)	"A" Base Year	"B" Current Year	"C" Change (A-B)
Polyethylene Terephthalate (PET #1)		747.51						0.00			747.51	
High-Density Polyethylene (HDPE #2)		403.26						0.00			403.26	
Labels and Label Backing		6,585.68						0.00			6,585.68	
Low-Density Polyethylene (LDPE #4)		12,840.52						0.00			12,840.52	
Polypropylene (PP #5)		150.12						0.00			150.12	
Condensed Polystyrene (PS-C #6)		97.22						0.00			97.22	
Expanded Polystyrene (PS-E #6)		28.14						0.00			28.14	
Plastic or Metal Banding		1,774.72						0.00			1,774.72	
Dust and Floor Sweepings		375.07						0.00			375.07	
Aluminum Food and Beverage Cans		712.77						0.00			712.77	
Steel Food and Beverage Cans		0.00						0.00			0.00	
Glass Bottles & Jars for Food & Beverage		0.00						0.00			0.00	
Mixed Recycling		15,058.00						15,058.00			0.00	
Polycoats		44.77						0.00			44.77	
Scrap Metal		52.84						0.00			52.84	

Continued next page.

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Cardboard (Corrugated)		341,141.88						340,386.00			755.88	
Boxboard		616.30						0.00			616.30	
Mixed Paper (Fine Paper & Newsprint)		2,103.49						0.00			2,103.49	
Tissues & Paper Towel		21,690.78						0.00			21,690.78	
Solid Food Waste		25,520.97						0.00			25,520.97	
Other Organic Materials		57.20						0.00			57.20	
Scrap Wood		13,711.23						13,680.00			31.23	
Disposable Food Packaging		1,669.99						0.00			1,669.99	
Coffee Cups		5,975.68						0.00			5,975.68	
Clothing and Textiles		38,227.54						0.00			38,227.54	
Personal Protective Equipment		1,452.21						0.00			1,452.21	
Non-Recyclable Packaging		36,068.62						0.00			36,068.62	
Facility Production Waste		28,000.00						0.00			0.00	
Other Waste		5,868.47						0.00			5,868.47	
Total	**24,812,947.39**	**560,975.00**	**24,251,972.39**	**0.00**	**0.00**	**0.00**	**24,653,837.39**	**369,124.00**	**24,284,713.39**	**157,691.37**	**163,851.00**	**-6,159.63**
Percent Change (total C/ total A x 100)			**97.74%**						**98.50%**			**-3.91%**

Please note that the values reported as base year correspond to the values retrieved from the 2023 waste audit report.

Please note that the mixed recycling captures PET #1, HDPE #2, LDPE #4, PP #5, PS-C #6, aluminum cans, steel cans, polycoat materials, glass, cardboard, boxboard and mixed paper as part of the recycled/divertible results

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VI. Extent to which Materials or Products used or sold by the Entity Consist of Recycled or Reused Materials or Products.

1.	**Do you have a management policy in place that promotes the purchasing and/or use of materials or products that consist of recycled and/or reused materials or products? If yes, please describe.**
	Yes. F&P Manufacturing promotes the purchasing and use of sustainable ongoing consumables and durable goods. As part of its ISO 14001 certification, F&P Manufacturing has developed an environmental management system and the Green Purchasing Guideline.
2.	**Do you have plans to increase the extent to which materials or products used or sold* consist of recycled or reused materials or products? If yes, please describe.**
	No plans currently in place to increase the extent to which materials/products used consist of recycled or reused materials.

*Information regarding materials or products "sold" that consist of recycled or reused materials or products is only required from owners of retail shopping establishments and the owner(s) or operator(s) of large manufacturing establishments.

I hereby certify that the information provided in this Report of a Waste Audit is complete and correct.		
Signature of Authorized Official:	**Title:**	**Date:**

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APPENDIX F: REPORT OF A WASTE REDUCTION WORK PLAN

Ministry of the Environment, Conservation and Parks
Report of a Waste Reduction Work Plan
Industrial, Commercial and Institutional Establishments
As required by Ontario Regulation 102/94

I. General Information

Name of Owner and/or Operator of Entity(ies) and Company Name:		
F&P Manufacturing care of F&P Manufacturing		
Name of Contact Person:	**Telephone Number:**	**Email Address:**
Terry Diemert	905.936.3435	Terry.diemert@fandpmfg.com
Street Address of Entity(ies):		
1 Nolan Road		
Municipality:		
Tottenham, Ontario		
Type of Entity:		

Retail Shopping Establishment		Hotel and Motel	
Retail Shopping Complex		Hospital	
Office Building		Educational Institution	
Restaurant		Large Manufacturing Establishment	X

II. Description of Entity

Provide a brief overview of the entity(ies):
F&P is a tier 1 automotive parts manufacturing facility located in Tottenham, Ontario. Metal stamping, welding, hydroforming, e-coat and modular assembly are some of the services/products they offer.

III. Plans to Reduce, Reuse and Recycle Waste

For each category of waste described in Part V of "Report of a Waste Audit" (on which this plan is based), explain what your plans are to reduce, reuse, and recycle the waste, including: 1) how the waste will be source separated at the establishment, and 2) the programs to reduce, reuse, and recycle all source separated waste.	
Polyethylene Terephthalate (PET #1)	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate PET (#1). Bins have been provided in offices and staff areas for employees.
High-Density Polyethylene (HDPE #2)	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate HDPE (#2). Bins have been provided in offices and staff areas for employees.

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Labels and Label Backing	No plans to reduce, reuse, or recycle labels and label backing.
Low-Density Polyethylene (LDPE #4)	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate LDPE (#4). Bins have been provided in in offices and staff areas for employees.
Polypropylene (PP #5)	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate PP (#5). Bins have been provided in offices and staff areas for employees.
Condensed Polystyrene (PS-C #6)	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate PS-C (#6). Bins have been provided in offices and staff areas for employees.
Expanded Polystyrene (PS-E #6)	No plans to reduce, reuse, or recycle PS-E (#6).
Plastic or Metal Banding	No plans to reduce, reuse, or recycle plastic or metal banding.
Dust and Floor Sweeps	No plans to reduce, reuse, or recycle dust and floor sweeps.
Aluminum Food and Beverage Cans	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate aluminum. Bins have been provided in offices and staff areas for employees.
Steel Food and Beverage Cans	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate steel. Bins have been provided in offices and staff areas for employees.
Glass Bottles & Jars for Food & Beverage	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate glass. Bins have been provided in offices and staff areas for employees.
Polycoats	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate polycoat containers. Bins have been provided in offices and staff areas for employees.
Scrap Metal	Reduce: No plans Reuse: No plans Recycle: Scrap metal recycling stream Employees will be encouraged to use recycling bins to source separate scrap metal. Bins have been provided in offices and staff areas for employees.

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Cardboard (Corrugated)	Reduce: No plans Reuse: No plans Recycle: Cardboard recycling stream Employees will be encouraged to use recycling bins to source separate cardboard. Bins have been provided as in offices and staff areas for employees.
Boxboard	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate boxboard. Bins have been provided in offices and staff areas for employees.
Mixed Paper (Fine Paper & Newsprint)	Reduce: No plans Reuse: No plans Recycle: Mixed recycling stream Employees will be encouraged to use recycling bins to source separate paper. Bins have been provided in offices and staff areas for employees.
Tissues & Paper Towel	No plans to reduce, reuse, or recycle tissues and paper towel.
Solid Food Waste	Reduce: No plans Reuse: No plans Recycle: Composting stream Employees will be encouraged to use composting bins to source separate solid food waste. Bins have been provided in staff areas for employees.
Other Organic Materials	Reduce: No plans Reuse: No plans Recycle: Composting stream Employees will be encouraged to use composting bins to source separate other organic materials. Bins have been provided in staff areas for employees.
Scrap Wood	Reduce: No plans Reuse: No plans Recycle: Scrap wood recycling stream Employees will be encouraged to use recycling bins to source separate wood. Bins have been provided in staff areas for employees.
Disposable Food Packaging	No plans to reduce, reuse, or recycle disposable food packaging.
Coffee Cups	No plans to reduce, reuse, or recycle coffee cups.
Clothing and Textiles	No plans to reduce, reuse, or recycle clothing and textiles.
Personal Protective Equipment	No plans to reduce, reuse, or recycle personal protective equipment.
Non-Recyclable Packaging	No plans to reduce, reuse, or recycle non-recyclable packaging.
Sludge	No plans to reduce, reuse, or recycle sludge.
Other Waste	No plans to reduce, reuse, or recycle other waste items.

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IV. Responsibility for Implementing the Waste Reduction Work Plan

Identify who is responsible for implementing the Waste Reduction Work Plan at your entity(ies). If more than one person is responsible for implementation, identify each person who is responsible and indicate the part of the Waste Reduction Work Plan that each person is responsible for implementing.		
Name of Person:	**Responsibility:**	**Telephone Number:**
	Source Separation and 3R Program Implementation	

V. Timetable for Implementing Waste Reduction Work Plan

Provide a timetable indicating when each source separation and 3Rs program of the Waste Reduction Work Plan will be implemented.	
Source Separation and 3Rs Program:	**Schedule for Completion:**
Optimize the Diversion Streams: Consider optimizing diversion streams through the use of signage and engagement with stakeholders onsite. **Reduce Waste Materials:** Consider reducing the disposal of single-use products onsite through stakeholder engagement and participation in re-use programs onsite.	**Ongoing –** F&P Manufacturing will continuously work towards a more sustainable waste management strategy onsite through optimizing/implementing diversion streams, increasing stakeholder engagement in the waste management programs, and reducing waste where possible.

VI. Communication to Staff, Visitors, and Guests

Explain how the Waste Reduction Work Plan will be communicated to employees, visitors, staff, and students:
The waste reduction work plan will be posted for staff to review. Staff will be briefed on new changes to diversion programs.

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VII. Estimated Waste Produced by Material Type and the Projected Amount

Material Categories *(as stated in Part III)*	**Estimated Annual Waste Produced*** *(kgs)*	**Name of Proposed 3Rs Program** *(as stated in Part III)*	**Projections to Reduce, Reuse or Recycle Waste** *(kgs)*			**Estimated Annual Amount to be Diverted**** *(%)*
			Reduce	**Reuse**	**Recycle**	
Polyethylene Terephthalate (PET #1)	747.51	Mixed Recycling Stream			0.00	N/A
High-Density Polyethylene (HDPE #2)	403.26	Mixed Recycling Stream			0.00	N/A
Labels and Label Backing	6585.68	Mixed Recycling Stream			0.00	0.00%
Low-Density Polyethylene (LDPE #4)	12840.52	Mixed Recycling Stream			0.00	N/A
Polypropylene (PP #5)	150.12	Mixed Recycling Stream			0.00	N/A
Condensed Polystyrene (PS-C #6)	97.22	Mixed Recycling Stream			0.00	N/A
Expanded Polystyrene (PS-E #6)	28.14	Mixed Waste Stream			0.00	0.00%
Plastic or Metal Banding	1774.72	Mixed Waste Stream			0.00	0.00%
Dust and Floor Sweepings	375.07	Mixed Waste Stream			0.00	0.00%
Aluminum Food and Beverage Cans	712.77	Mixed Recycling Stream			0.00	N/A
Steel Food and Beverage Cans	0.00	Mixed Recycling Stream			0.00	N/A
Mixed Recycling	15058.00	Mixed Recycling Stream			15058.00	45.95%
Glass Bottles & Jars for Food & Beverage	0.00	Mixed Recycling Stream			0.00	N/A
Polycoats	44.77	Mixed Recycling Stream			0.00	N/A
Scrap Metal	52.84	Scrap Metal Recycling Stream			0.00	0.00%

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Cardboard (Corrugated)	341141.88	Cardboard Recycling Stream			340386.00	99.78%
Boxboard	616.30	Mixed Recycling Stream			0.00	N/A
Mixed Paper (Fine Paper & Newsprint)	2103.49	Mixed Recycling Stream			0.00	N/A
Tissues & Paper Towel	21690.78	Mixed Waste Stream			0.00	0.00%
Solid Food Waste	25520.97	Organics Composting Stream			0.00	0.00%
Other Organic Materials	57.20	Organics Composting Stream			0.00	0.00%
Scrap Wood	13711.23	Scrap Wood Recycling Stream			13680.00	99.77%
Disposable Food Packaging	1669.99	Mixed Waste Stream			0.00	0.00%
Coffee Cups	5975.68	Mixed Waste Stream			0.00	0.00%
Clothing and Textiles	38227.54	Mixed Waste Stream			0.00	0.00%
Personal Protective Equipment	1452.21	Mixed Waste Stream			0.00	0.00%
Non-Recyclable Packaging	36068.62	Mixed Waste Stream			0.00	0.00%
Sludge	28000.00	Sludge Waste Stream			0.00	0.00%
Other Waste	5868.47	Mixed Waste Stream			0.00	0.00%

* Estimated Waste Produced = Waste Diverted (3Rs) + Waste Disposed
** Estimated Waste Diversion Rate = Amount of Waste Diverted (3Rs) / Estimated Waste Produced x 100%

[1]Taking into consideration that plastics (PET #1, HDPE #2, LDPE #4, PP #5, PS-C #6), aluminum, steel, polycoat materials, cardboard, paper, and boxboard are collected through the mixed recycling stream, it is not possible to calculate a diversion rate for each category. Therefore, a "N/A was applied to these materials and an overall rate was calculated under "Mixed Recycling".

I hereby certify that the information provided in this Waste Reduction Work Plan is complete and correct.		
Signature of Authorized Official:	**Title:**	**Date:**

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APPENDIX G: AREA WASTE TO ENERGY RECOVERY BREAKDOWN

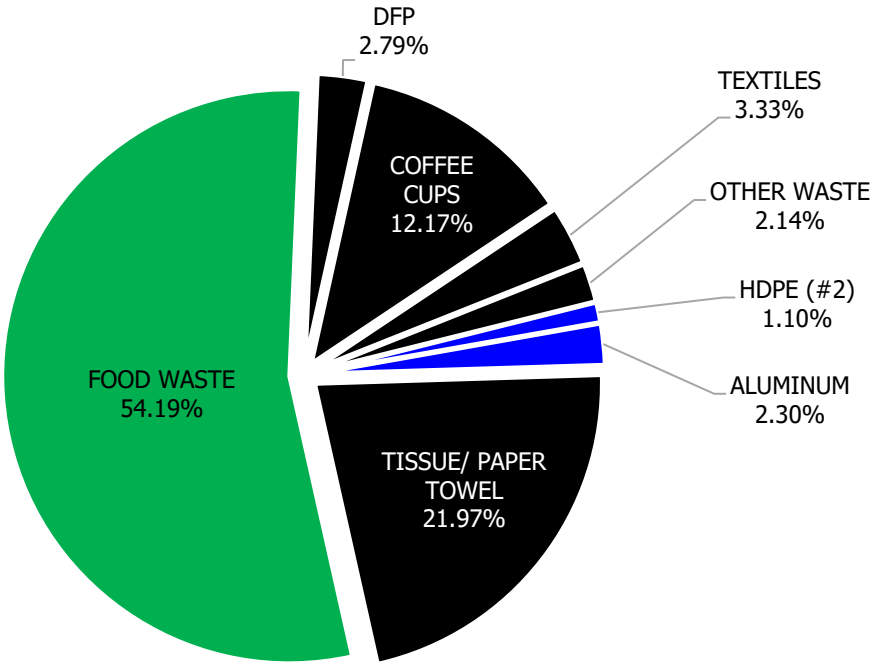

Figure G1. Plant 1 Cafeteria's waste to energy recovery stream, shown in percent.

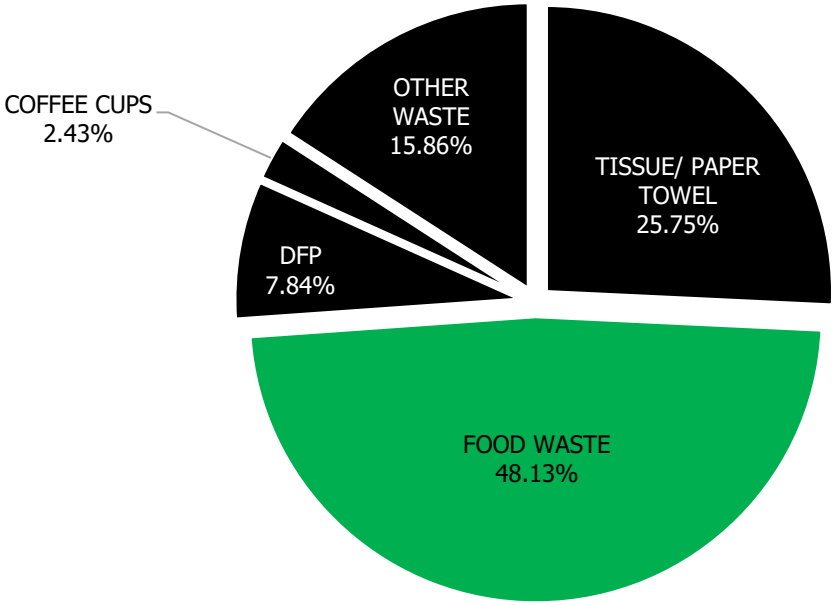

Figure G2. Plant 1 Kitchen's waste to energy recovery stream, shown in percent.

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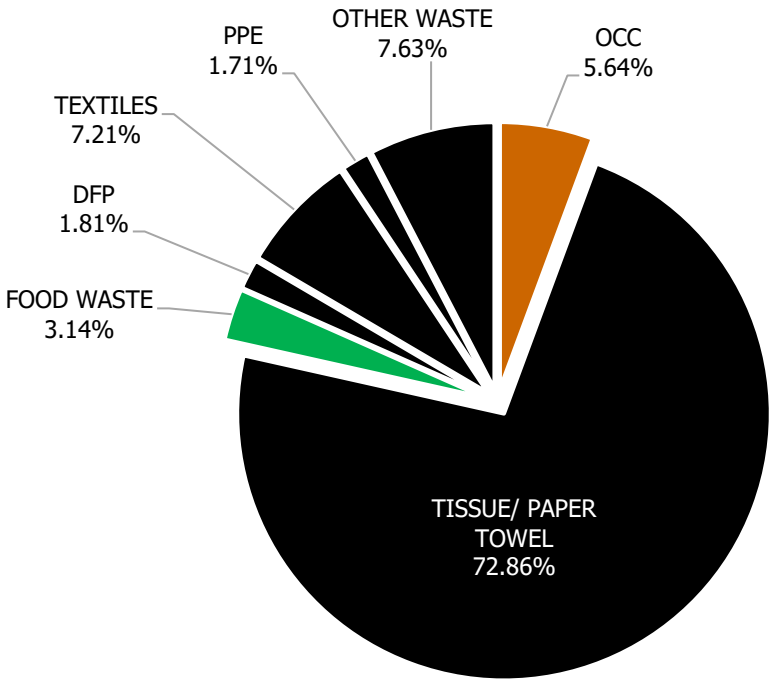

Figure G3. Plant 1 Washroom's waste to energy recovery stream, shown in percent.

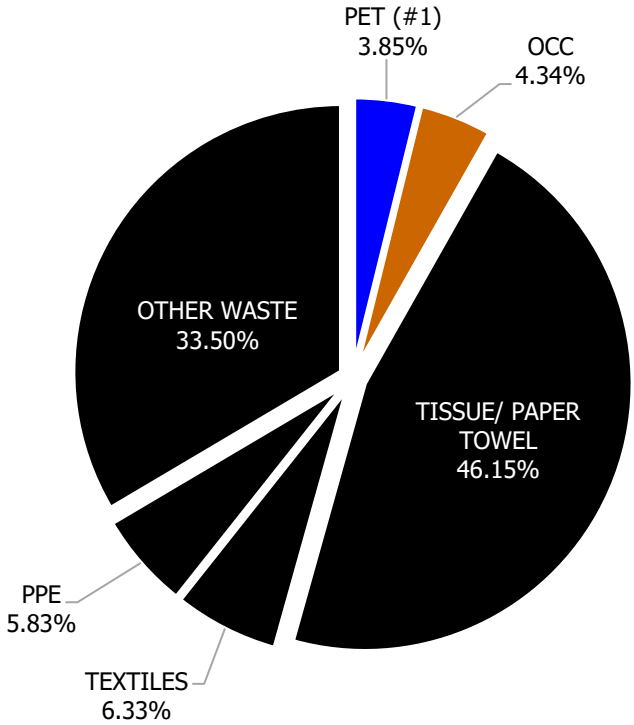

Figure G4. Plant 1 Locker-room's waste to energy recovery stream, shown in percent.

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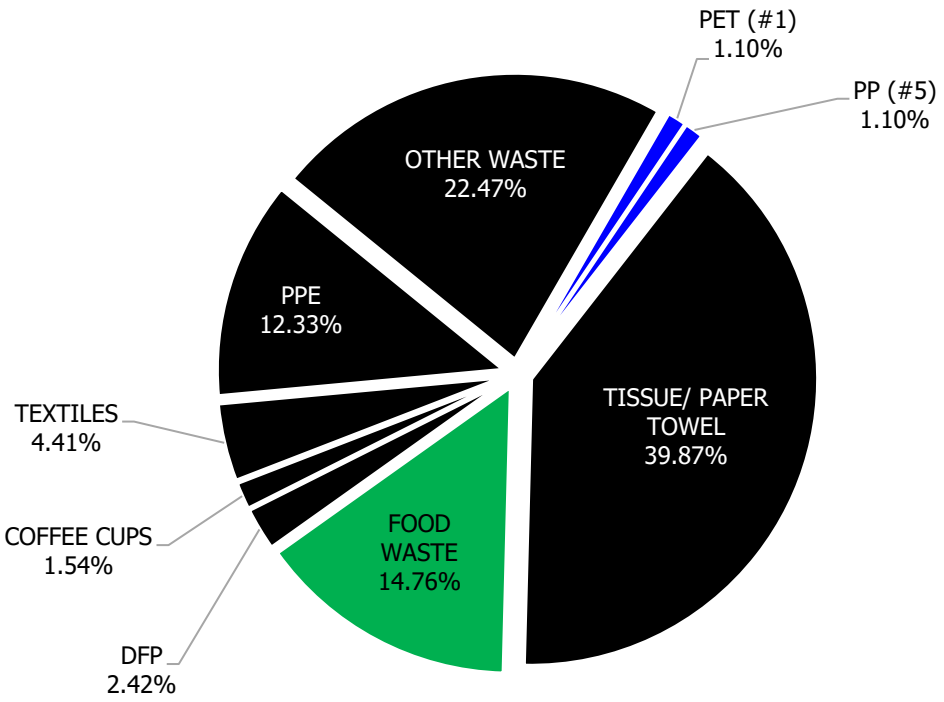

Figure G5. Plant 1 Office's waste to energy recovery stream, shown in percent.

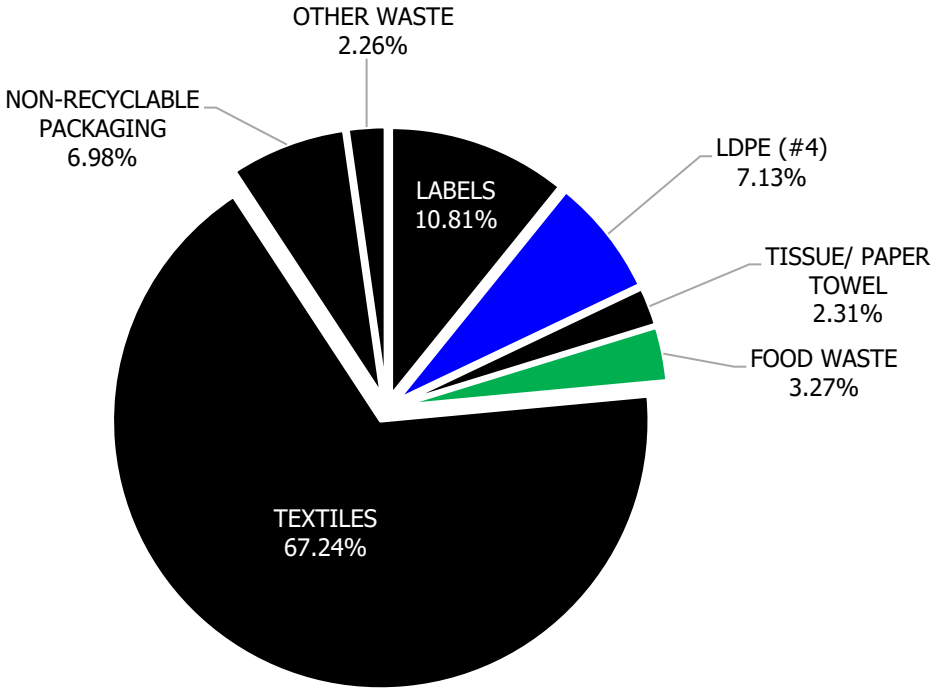

Figure G6. Plant 1 Production's waste to energy recovery stream, shown in percent.

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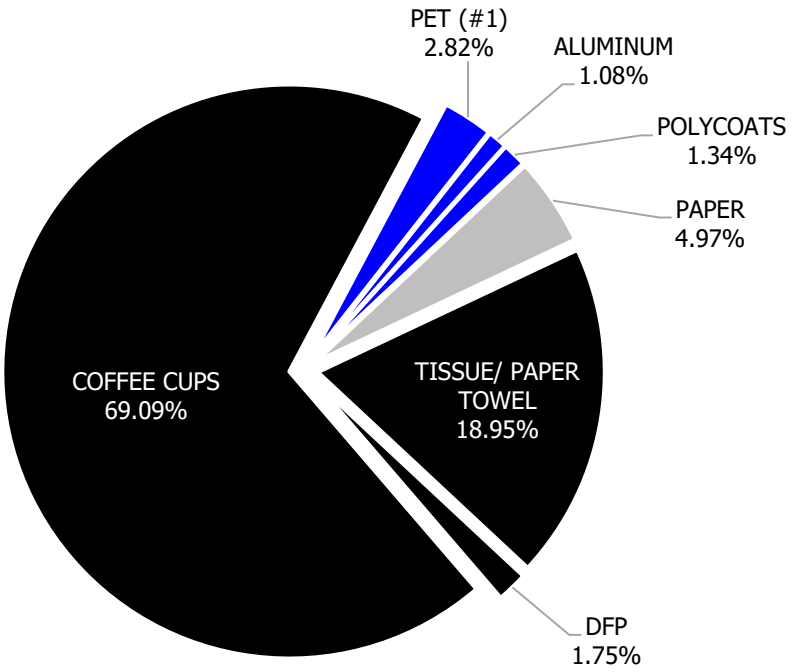

Figure G7. Plant 1 Lobby's waste to energy recovery stream, shown in percent.

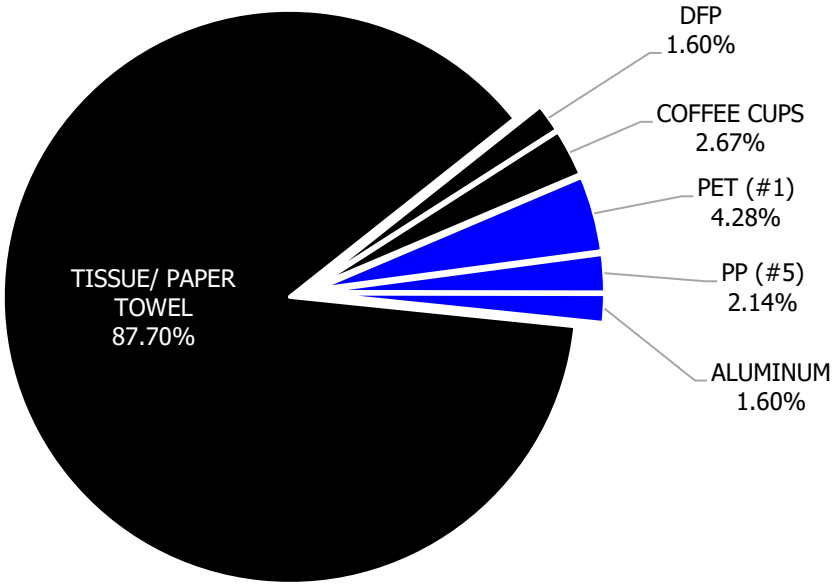

Figure G8. Plant 1 Security's waste to energy recovery stream, shown in percent.

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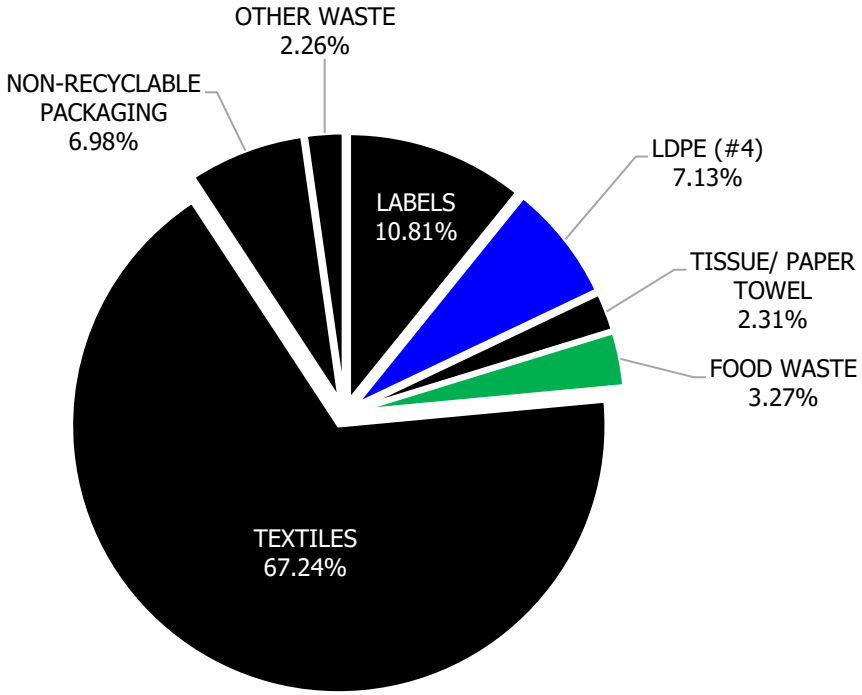

Figure G9. Plant 1 Unlabelled's waste to energy recovery stream, shown in percent.

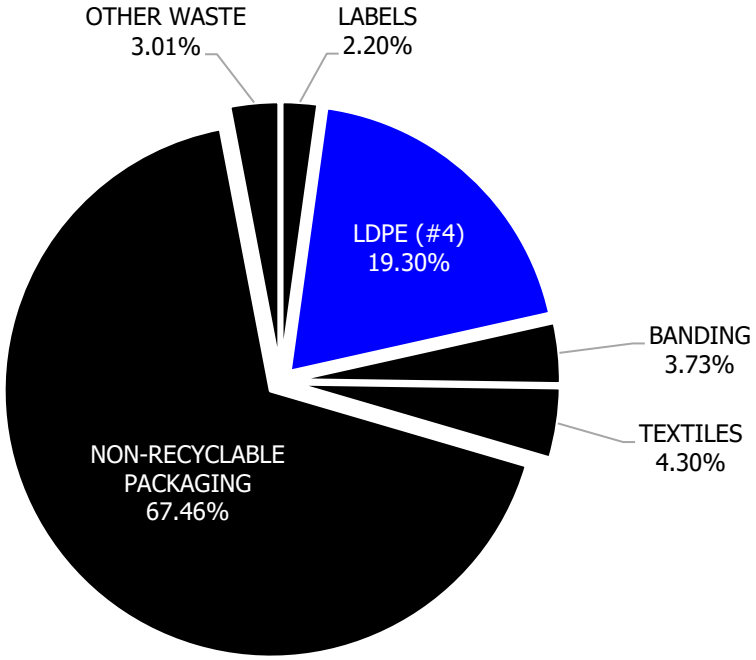

Figure G10. Plant 2 Production's waste to energy recovery stream, shown in percent.

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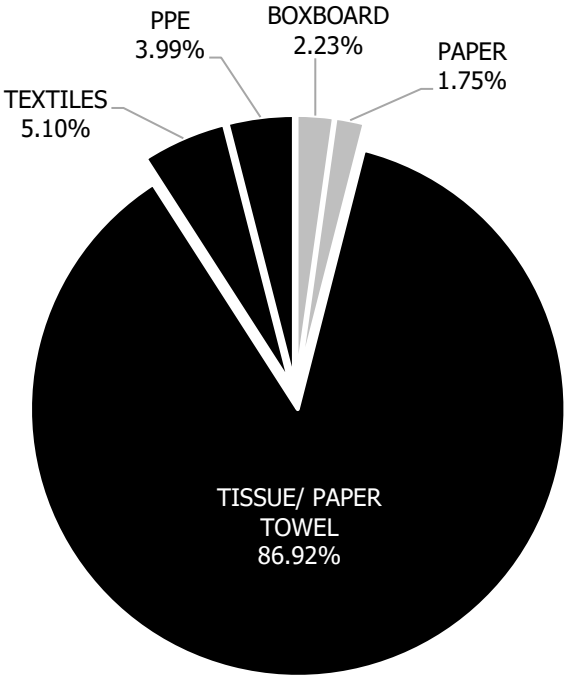

Figure G11. Plant 2 Washroom's waste to energy recovery stream, shown in percent.

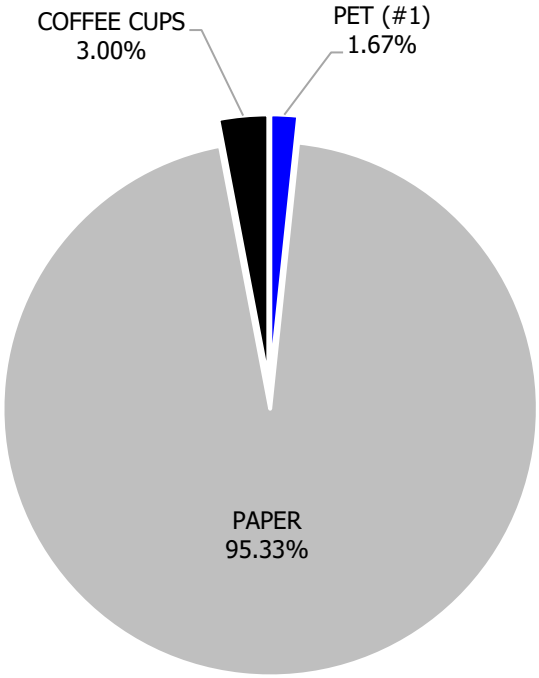

Figure G12. Plant 2 Offices' waste to energy recovery stream, shown in percent.

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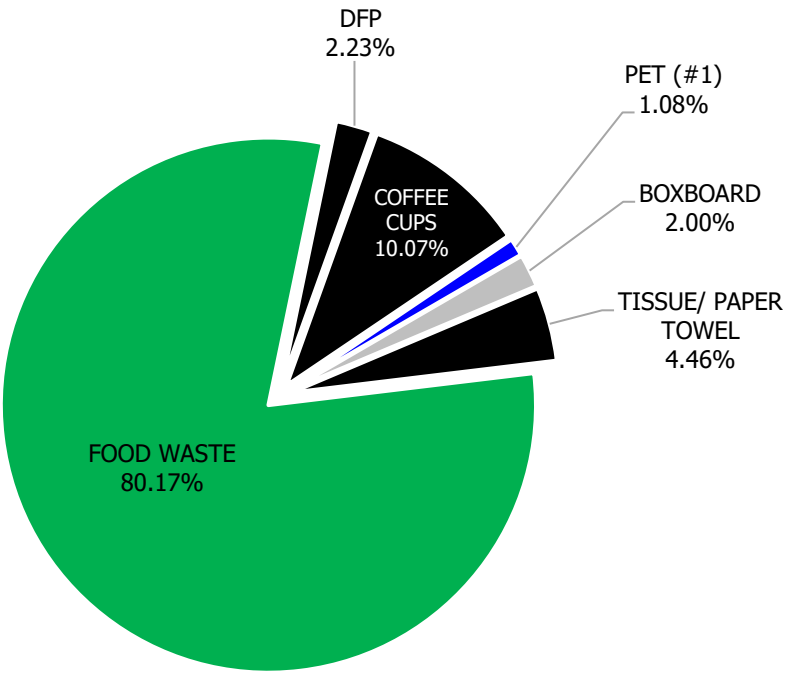

Figure G13. Plant 2 Cafeteria's waste to energy recovery stream, shown in percent.

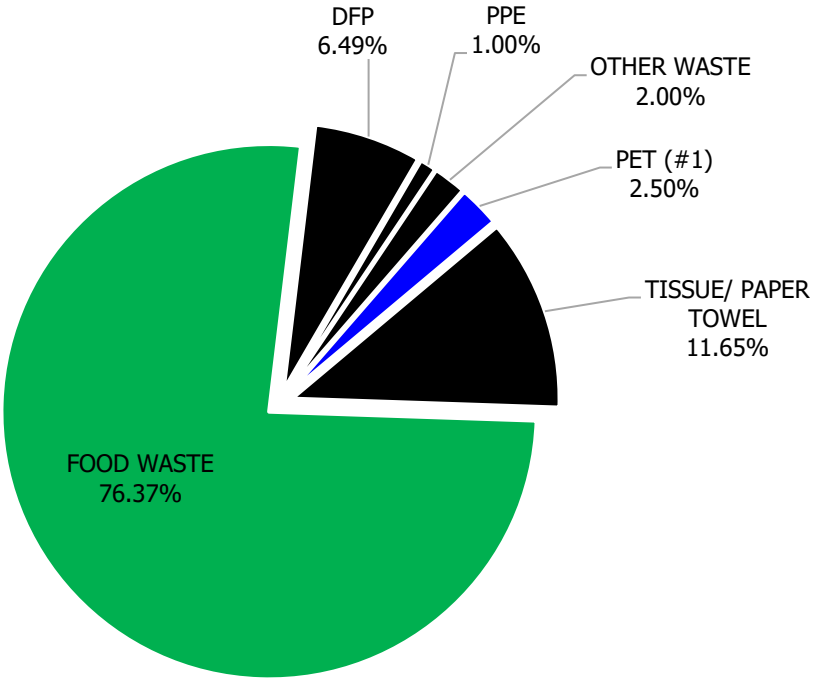

Figure G14. Plant 2 Kitchen's waste to energy recovery stream, shown in percent.

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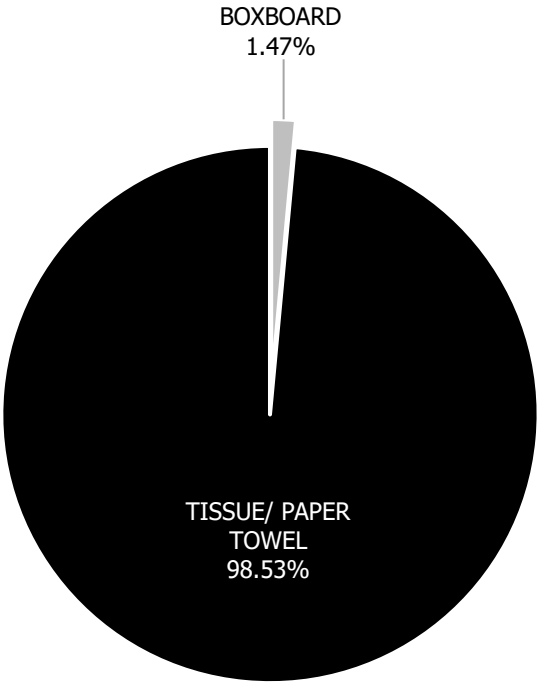

Figure G15. Plant 2 Locker-room's waste to energy recovery stream, shown in percent.

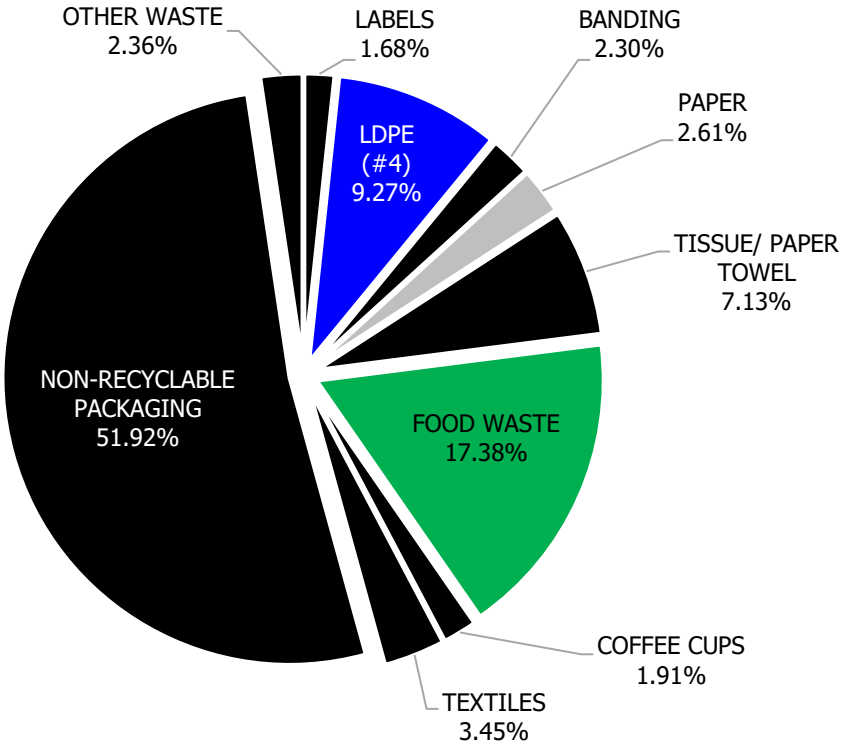

Figure G16. Plant 2 Unlabelled's waste to energy recovery stream, shown in percent.

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