

# WASTE REDUCTION AND DIVERSION STRATEGY

*2018 – 2025*



**McGill**

SUSTAINABILITY  
AT MCGILL



# INTRODUCTION

**A**t McGill, waste management remains a complex issue that falls under the responsibility of several independent units on our campuses. Often, extensive improvements to our waste management system have been hindered by a lack of clear objectives and coordination.

Thus, in October 2016, the Associate Vice-Principal of Facilities Management and Ancillary Services and the Director of Procurement Services created the **Waste Management Task Force** with the mandate to develop a vision for McGill's future Waste Management program and to define a University-wide organizational framework that would outline the roles and responsibilities of all participating units. The Director of the Office of Sustainability and the Director of Utilities and Energy Management served as co-chairs of the Task Force.

The Task Force met seven times between 2016 to 2018 to create the Waste Reduction and Diversion Strategy. Building on initiatives championed by University staff and students, it aims to improve multiple facets of our waste system. The Strategy draws information and insights from meetings with students and employees, best practices guides, and government standards, among other sources. The scope of the Strategy is limited to **non-hazardous waste**, as a dedicated team under Environment, Health and Safety already manages hazardous waste through existing rules, regulations and protocols. As such, this Strategy does not include actions on electronic waste.

By benchmarking our performance with peer universities and identifying potential improvements, the Waste Reduction and Diversion Strategy has set out a few priority areas with the goal to harmonize existing waste processes, raise awareness of sustainable waste management, improve logistics, and set an institutional example. The Strategy covers the 2018-2025 period since some of the key initiatives identified in the Strategy will require a longer timeframe in order to be implemented properly throughout our campuses.

## UNITS CONSULTED:

- *Athletics and Recreation*
- *Buildings, Grounds, Events Support, Printing and Mail Services*
- *The Campus Planning and Development Office*
- *Design Services*
- *Environmental Health and Safety*
- *The Office of Sustainability*
- *The Post Graduate Students' Society*
- *Procurement Services*
- *Student Housing and Hospitality Services*
- *The Students' Society of McGill University*
- *Utilities and Energy Management*

# CONTEXT

As of Fall 2017, McGill University is home to 40,971 students and over 6,000 employees. The University is comprised of two main campuses, one in downtown Montreal and the other in Sainte-Anne-de-Bellevue (Macdonald campus). Together they contain a total of 219 buildings, 62% of which are located on the downtown campus. As an urban university opened to the public, with thousands of new students enrolling each year, a large variety and quantity of waste is created every day. In addition to these challenges, our institution's diversion rate is still unknown. This and other key figures are essential to create an adequate waste management strategy, therefore, it is one of the priority measures outlined in McGill's Waste Reduction and Diversion Action Plan.

## UNIT ROLES

When considering the full lifecycle of products circulated at McGill, from procurement to disposal, a wide variety of units share the responsibility to improve our waste management system. The table below highlights both the roles of different groups within the system and the ways in which they can contribute to improve it.

Unit	Roles in the Waste Management System
Athletics	Reduce waste from sporting events
The McGill Bookstore	Reuse equipment Eliminate the use of plastic bags Use recyclable/compostable packaging
Buildings and Grounds	Provide reusable goods (e.g. refillable water bottle) Ensure proper collection of waste and recyclable materials
Design Services	Implement pilot projects to improve McGill's diversion rate Harmonize multi-bins and information boards across campus
Faculty Members	Define construction waste management practices, reduction and diversion Direct applied student research projects towards waste management challenges and solutions at McGill
Hazardous Waste Management	Coordinate the elimination of hazardous waste material
Human Resources	Implement trainings for staff and faculty
The Office of Sustainability	Develop trainings for faculty, staff and student leaders on waste reduction Coordinate with SSMU, PGSS and MCSS on information campaign for students
Procurement Services	Develop a list of sustainable providers and monitor implementation
SSMU, PGSS, MCSS	Train student leaders campus-wide to adopt practices for sustainable events and practices
Student Housing and Hospitality Services (SHHS)	Educate first-year students on how to reduce their waste, and properly recycle and compost Manage donation stations and electronic waste stations
All Faculties, Departments and Administrative Units	Implement sustainable practices set campus-wide Participate in pilot projects related to waste management
Visitors	Adhere to McGill's waste reduction and diversion standard



## EXISTING WASTE INITIATIVES

Even though the Waste Reduction and Diversion Strategy identifies areas of improvement, there are already several inspiring initiatives and projects on which the McGill community can build.

### Ozzi Machines

McGill's Student Housing & Hospitality Services has found a creative approach to reducing single-use container waste by distributing reusable take-out containers through Ozzi Machines, thus reducing the amount of materials being sent to the landfill. When McGill community members eat in any of the five Residential Dining Halls, they can ask for food to be placed in the Ozzi reusable container. Once they're finished, they can return the container to a cafeteria, or one of the machines located on campus.



### Waste Educators

Starting in 2014, the Student Housing and Hospitality Services Waste Educator Program was created to optimize organic waste collection in the residence buildings, and to promote effective waste management practices. The program hires roughly 25 McGill students, as “Waste Educators”, to inform incoming students of proper waste sorting practices, and to answer any questions pertaining to composting. This is primarily completed during the first three weeks of school. The program has drastically increased the amount of compost collected in the cafeterias of the residence buildings. For instance, in the 2015-2016 academic year, 196,179 liters of organic material was collected in the five residential cafeterias. This was a 42% increase in collected compostable material from the previous year.

### McGill Plate Club

The Plate Club is a student-run service provided by the Student Society of McGill University (SSMU) that offers the use of reusable dishware, glasses and utensils without charge to members of the McGill community for use in the SSMU cafeteria and for events hosted on campus. Their goal is to reduce unnecessary waste created from disposable food containers, while encouraging sustainable habits on campus. The Plate Club has become a true fixture in the zero waste movement on campus and continues to expand its reach each year.



## IT Asset Management Regulation

The IT Asset Management Regulation Directive, led by Procurement Services, is responsible for the disposal and/or reuse of McGill-owned IT equipment. This has allowed the University to think about the life cycle management, longevity and optimization of its IT assets, while addressing data security and environmental concerns. The ultimate goal is to ensure that McGill is properly disposing of these pieces of equipment, while also encouraging their reuse until their end-of-life has been reached. In 2017, McGill redeployed more than \$30,000 worth of IT equipment across departments, including computers, servers, screens, printers, and accessories.

## Zero-Waste Team

The Zero-Waste Team is a group of McGill undergraduate and graduate students, led by McGill Design Services Staff. The group analyzes the current waste management practices of a representative sample of five buildings on campus. After months of analyzing, surveying, and benchmarking performance with other universities, they proposed recommendations to improve the waste reduction and diversion practices of these buildings, including a strategy to introduce composting on campus. This pilot project acts as the foundation of the Waste Reduction and Diversion Strategy, since the successes of this project will then be applied and expanded campus-wide.

## WASTE STREAMS

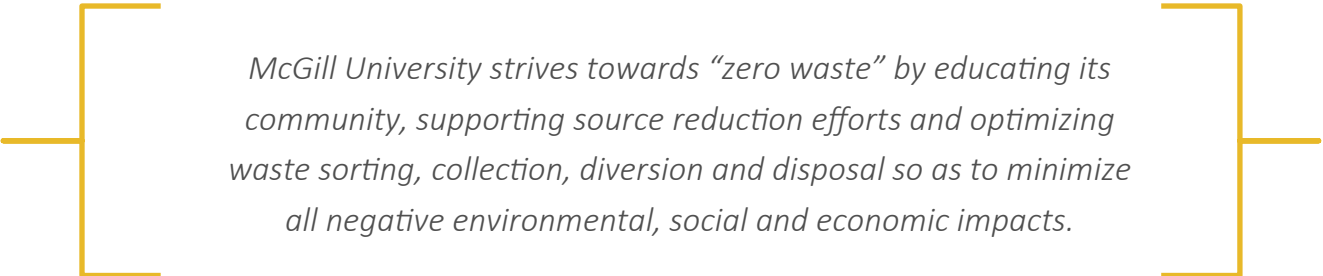
Waste stream
• Paper and Cardboard
• Glass, Metal and Plastic
• Waste
• Large/Bulky Items
• Organics
• Miscellaneous End-of-Life Products
• Construction Waste
• Animal Manure
• Used Oils from Vehicles



In all McGill-owned buildings on both the Downtown and Sainte-Anne-de-Bellevue campuses, waste is collected in three streams: paper/cardboard, glass/metal/plastic, and garbage. It is only in residence buildings where a fourth stream, composting, is collected. In the Appendix, one can find lists that outline the non-hazardous waste items that can and cannot be collected in the multi-purpose bins across all departments at McGill University.

# VISION AND STRATEGY

The Waste Task Force developed the following long-term aspirational vision to guide the future actions and decisions pertaining to waste management at McGill.



*McGill University strives towards “zero waste” by educating its community, supporting source reduction efforts and optimizing waste sorting, collection, diversion and disposal so as to minimize all negative environmental, social and economic impacts.*

The main issues identified by the Waste Task Force are as follows:

- Increase the coherence and uniformity of the signage on waste bins
- Improve the University’s overall diversion rate
- Intensify communication activities on waste reduction
- Improve the waste tracking and monitoring system

To achieve this vision and address the main challenges related to waste management, a set of key initiatives have been identified across the following categories:

- Campus infrastructure
- Waste streams
- Supply chain
- Communications and engagement
- Monitoring and reporting

# 2018-2025 STRATEGY

KEY INITIATIVES	LEAD UNITS
<b>Campus infrastructure</b>	
Improve campus waste bin infrastructure:	<i>Design Service and Buildings &amp; Grounds</i>
Indoor: Transition to large multi-purpose bins	
Outdoor: Remove stand-alone trash bins and install combined of waste and recycling bins	
Standardize signage of multi-bin stations across campus.	<i>Design Services</i>
Implement pilot projects where faculty and staff will collect and self-sort their own desk-side waste and recyclables at designated recycling stations.	<i>Buildings &amp; Grounds and McGill Office of Sustainability</i>
<b>Waste streams</b>	
Optimize compost collection in buildings managed by Student Housing and Hospitality Services.	<i>Student Housing &amp; Hospitality Services</i>
Expand compost collection in additional buildings across campus, where organic matter is generated in significant quantities.	<i>Buildings &amp; Grounds and McGill Office of Sustainability</i>
<b>Supply chain</b>	
Work with suppliers to reduce product packaging and improve product durability.	<i>Procurement Services</i>
Develop and introduce, in a wide range of contracts, proper contractual terms and conditions that ensure optimal recovery and recycling of materials leaving McGill.	<i>Procurement Services</i>
Work with food suppliers in order to reduce single-use food packaging, and transition towards more compostable materials.	<i>Student Housing &amp; Hospitality Services and Procurement Services</i>
Develop call for tender (CFT) and contracting strategies that ensure waste management service provider(s) are properly picking up and managing the different types of waste.	<i>Procurement Services</i>
Work with contractors to reduce construction waste.	<i>Design Services and Projects Management</i>
Phase out the sale of bottled water on campus and minimize their distribution during events.	<i>McGill Office of Sustainability, Student Housing &amp; Hospitality Management</i>
Enhance the use of reusable containers, mugs and bottles across campus.	<i>Book Store and Student Housing and Hospitality Services</i>
Convert waste vegetable oil into biodiesel for use in McGill diesel vehicles and equipment.	<i>Student Housing &amp; Hospitality Services, Buildings &amp; Grounds, and McGill Office of Sustainability</i>



KEY INITIATIVES	LEAD UNITS
<b>Communications and engagement</b>	
Create communications materials (videos, guides, etc.) to educate community members about waste management.	<i>McGill Office of Sustainability , Student Housing &amp; Hospitality Services, and Buildings &amp; Grounds</i>
Support applied student research initiatives on waste management.	<i>McGill Office of Sustainability</i>
Conduct campaigns and workshops throughout the year to engage and educate the McGill community.	<i>McGill Office of Sustainability and Buildings &amp; Grounds</i>
Use the Sustainable Events Certification to reduce waste generated by events organized on campus.	<i>McGill Office of Sustainability, SSMU</i>
<b>Monitoring and reporting</b>	
Work with campus stakeholders to identify diversion rates and set reduction targets for waste management.	<i>Buildings &amp; Grounds, Student Housing &amp; Hospitality Services, and McGill Office of Sustainability</i>
Audit and report on the performance of the contracted waste management service provider(s) to ensure appropriate management of waste according to each stream.	<i>Buildings &amp; Grounds and Procurement Services</i>
Publish progress report every 2 to 3 years	<i>McGill Office of Sustainability</i>

## IMPLEMENTATION

In most organizations, an efficient waste management system relies on both sufficient infrastructure (e.g., well-labeled and consistent waste bins) and correct behaviours (e.g., sorting waste in the appropriate bin). Thus, the implementation of the McGill Waste Reduction and Diversion Strategy will require the participation and involvement of the entire McGill community – students, faculty and staff – to create better outcomes.

In order to initiate some of the key initiatives outlined in the Strategy, the University will hire a Zero-Waste Coordinator for a year, thanks to the Sustainability Project Fund. This additional staff position dedicated to improving waste management at McGill will help kick-start some high-impact projects and consolidate existing initiatives, in collaboration with student groups and key stakeholders.

McGill’s diversion rate and other key achievements will also be made available to the McGill community as they are being implemented on an ongoing basis.

