

COVER PAGE

PROJECT INFORMATION

Please complete the fields below with information regarding your project.

Project Title Zero-Waste Zone

Brief Description Implement a clearly delineated area to educate, inspire, and share a vision for what a zero-waste McGill looks like.

Total Estimated Project Budget \$11,237.60 **Amount Requested from SPF** \$11,237.60

Campus(es) Impacted Downtown Macdonald Gault Nature Reserve Other _____

CONTACT INFORMATION

Project Leader

This person must be a current McGill University student, administrative staff, or academic staff.

Name	<u>Lauren MacDonald</u>	Affiliation	<u>Administrative Staff</u>
Email	<u>Lauren.macdonald3@mcgill.ca</u>	Campus	<u>Downtown</u>
Faculty/Unit/Organization	<u>McGill Office of Sustainability</u>		

Project Team Members

The SPF encourages you to be inclusive, collaborative (especially between staff and students), diverse, and interdisciplinary when possible. To list more members, please complete a second cover page. You may email it to [SPF Staff](#) to include with your application.

Name	<u>Rosalie Joly Simard</u>	Affiliation	<u>Administrative Staff</u>
Email	<u>Rosalie.jolysimard@mcgill.ca</u>	Faculty/Unit/Organization	<u>MOOS</u>
Name	<u>Edwin Murr</u>	Affiliation	<u>Undergraduate</u>
Email	<u>edwin.murr@mail.mcgill.ca</u>	Faculty/Unit/Organization	<u>SPF Ambassador</u>
Name	_____	Affiliation	<u>Choose one.</u>
Email	_____	Faculty/Unit/Organization	_____
Name	_____	Affiliation	<u>Choose one.</u>
Email	_____	Faculty/Unit/Organization	_____
Name	_____	Affiliation	<u>Choose one.</u>
Email	_____	Faculty/Unit/Organization	_____

SUBMISSION INFORMATION

In line with the [SPF Eligibility Criteria](#), our team certifies that this project takes place at **McGill University**, is **sustainability focused**, is requesting **seed funding**, and is **action oriented**. Yes No

Our team has read the [SPF Terms & Conditions](#) and agrees to respect them. Yes No

Our team understands that this application is not confidential and consents to have its contents shared with relevant stakeholders during the review process and, if approved, on the SPF website. Yes No

Our team agrees to have **their contact information** included in the complete and shared application and, if approved, on the SPF website. Yes No

PART 1: PROJECT OVERVIEW

Instructions: Please answer the questions below as clearly and concisely as possible. You will be able to detail your project further in Part 2 of the Over \$5,000 application process, the Project Plan, as well as submit relevant appendices. Once you have completed this Project Overview, save it and submit it online. SPF Staff will respond with feedback on your application within two weeks and send you Part 2. Once all sections are complete, the combined application will be provided to the SPF Governance Council for their review and decision. As a reminder, all SPF applications are assessed using the [SPF Eligibility & Evaluation Criteria](#):

ELIGIBILITY CRITERIA		EVALUATION CRITERIA		
AT MCGILL	SUSTAINABILITY FOCUSED	ANALYSIS	IMPACT	FEASIBILITY
SEED FUNDING	ACTION ORIENTED	COLLABORATION	SUPPORT	CAPACITY BUILDING

Before starting, you may find it helpful to consult the SPF Sustainability Brief and the [Climate & Sustainability Strategy 2020-2025](#).

CONTEXT

Criteria assessed in this section: **SUSTAINABILITY FOCUSED, ANALYSIS**

- 1. What specific environmental need/issue have you identified at McGill and aim to address through your project? In your response, please describe clearly how the need/issue is related to an environmental initiative which, where applicable, integrates social and economic considerations. Note: Please wait to detail your project idea in response to Question 5. Limit ~200 words**

The current triple planetary crises of climate change, biodiversity loss, and pollution require immediate and substantial action to mitigate their impacts on the planet. While individual behaviour change is crucial in tackling these challenges, influencing pro-environmental behaviours is a complex and challenging task, particularly in relation to consumption and waste disposal habits. Addressing these issues requires effective communication strategies to promote and incentivize sustainable actions.

University students represent a significant demographic in the effort to combat these crises, as they are the next generation of leaders, policymakers, and consumers. However, promoting pro-environmental behaviours among university students poses unique challenges, including the diverse range of cultural backgrounds, lifestyles, and social norms that exist within this population. Additionally, many students have limited financial resources and may prioritize convenience and affordability over environmental considerations. Since committing to become a zero-waste university by 2035 three years ago, McGill has made significant efforts to increase awareness about waste sorting habits and improve waste infrastructure on campus. However, despite replacing standalone bins across McGill's campuses with integrated multi-stream sorting stations, standardizing waste sorting signage, expanding compost collection to 26 academic buildings, and establishing a peer-to-peer waste education program with 30 volunteers, McGill's overall waste tonnage has not decreased, our diversion rate is still only 42%, and 2022 waste audits still showed high contamination rates.

To address this issue, it is crucial to develop targeted communication strategies that are tailored to the specific needs and motivations of university students. These strategies should emphasize the positive impacts of sustainable behaviours, highlight the consequences of unsustainable actions, and provide actionable steps that are both feasible and affordable.

- 2. How do you know this is a need/issue? What research have you done on this need/issue (e.g. consultation, observation, survey)? Limit ~100 words**

McGill University has observed that pro-environmental behaviour from campus users in waste reduction and diversion habits has not yet reached a critical mass. Weigh bills from waste haulers and two waste audits conducted in March and November 2022 show that waste collection has increased by 156 metric tonnes from 2019, despite the

number of staff, faculty, and students remaining relatively unchanged. Waste sorting and diversion has improved due to recent interventions, but contamination remains a challenge, with 51% of paper and 27% of plastic/glass/metal recycling streams being contaminated. Many types of waste are consistently missorted, and knowledge is a major barrier to pro-environmental waste reduction and diversion for campus users. A survey conducted in March 2023 in four academic buildings on the downtown campus found that 23% of respondents never think about what happens to their waste, with 48% reporting not knowing enough about waste streams. In the Winter 2023 semester, Zero-Waste Ambassador student volunteers conducted focus groups with their peers, who were largely unaware of McGill's zero-waste target for 2035 but expressed willingness to contribute to it.

- 3. What relevant information and/or best practices have you found that relate to this need/issue? In addition to information from external sources, detail any relevant related initiatives (past or current) that you are aware of at McGill. Limit ~100 words**

This project directly progresses the Waste Management category of the Climate & Sustainability Strategy 2020-2025 by completing the flagship action of the category to "implement a zero-waste zone on campus." This action was included as the flagship action of the Waste Management category in the Strategy because it will make a significant contribution to achieving McGill's target of becoming zero-waste by 2035 by creating education and outreach tools that is easily accessible to a large amount of campus users.

The Board Committee on Sustainability, the Advisory Council on Sustainability, the Zero-Waste Working Group, and McGill students have been consulted on the implementation of the Zero-Waste Zone. Our project idea reflects the feedback gained from these consultations.

We gained valuable insights from the Zero-Waste Ambassador focus groups about best practices for waste awareness and education. One question asked was "What would you like to see in a physical space on campus dedicated to zero-waste education?" Suggestions included that the space needs to be integrated naturally into campus life, that the space should be used to host sustainability related events or fundraisers, and that the space should include posters and plants. Also, when asked whether they are more likely to refer to images or words on signage for information about what goes where when sorting waste, the overwhelming majority of participants said they refer to images only.

- 4. What expertise or qualifications does your team have regarding this need/issue, if any? Limit ~100 words**

As the project lead and the Sustainability Officer at McGill responsible for monitoring and advancing progress on McGill's zero-waste target, I have a comprehensive knowledge of waste management on campus and have been involved in several key zero-waste initiatives, including accessing funding for and helping coordinate the installation of 713 indoor sorting stations and 31 outdoor sorting stations with a recycling stream across the downtown and Macdonald campuses; accessing funding for and managing the installation of eye-catching floor decals and posters installed at 34 4-stream indoor sorting stations; managing funding for and helping coordinate the expansion of compost collection across 26 academic buildings on the downtown campus; monitoring and coordinating the implementation of McGill's Waste Reduction & Diversion Strategy; assisting with the monitoring and reporting of McGill's waste diversion rate; providing support to the Recycling Pioneers on the Smart Bins project; and designing, accessing funding for, and initiating the Zero-Waste Dining Halls project. Additionally, Rosalie, the Waste Education Intern and I have collaborated to recruit, train, and manage 30 Zero-Waste Ambassador student volunteers; engage with over 400 students on zero-waste at orientation events, manage the creation of a new online Zero-Waste Knowledge Base, update McGill's waste sorting guide, and conduct 2 waste audits in academic buildings.

PROJECT IDEA

Criteria assessed in this section: **ALL ELIGIBILITY & EVALUATION CRITERIA**

5. **What is your project idea? Please describe the idea thoroughly and concisely. Identify how SPF funding will be used, key contributions to sustainability at McGill, and, if your project is happening in different stages, core phases in the project.** *Note: You may also share how the project is new or how it complements, builds upon, or scales existing initiatives. Limit ~400 words*

In order for McGill to reach its waste diversion and reduction goals, there is a need for innovative solutions to guide voluntary pro-environmental waste management behavior change among campus users. The solution this project presents is using a well-designed physical space, the “Zero-Waste Zone,” as a pedagogical instrument to educate the McGill community about McGill’s zero-waste target, the environmental and social impacts of waste, as well as best practices for waste reduction, reuse, and recovery to guide voluntary behavior change. This space will model an interactive museum exhibit and will be integrated naturally into a well-used campus space.

We aim to transform the ground floor of the McConnell Engineering building, a space that sees about 4,000 to 5,000 visitors a day when classes are in full session, into a Zero-Waste Zone. Several visual and interactive elements, complemented by infrastructure, will work together as a whole to create a space that shares a vision for what a zero-waste McGill looks like. People who interact with the space should feel empowered, motivated, and welcomed to take part in McGill’s zero-waste future and make it a reality. The elements in the Zero-Waste Zone will include (see Appendix B):

- **Waste sorting stations with no landfill stream** – The new waste sorting stations that were installed were designed with a feature that allows the signage on the front to be switched out. The two 4-stream waste sorting stations that are located in the hallway between the McConnell and Macdonald buildings will be converted into 3-stream sorting stations (compost, Plastic/Glass/Metal recycling, and paper recycling). SPF funding will be used to purchase the signage to convert 4-stream bins to 3-stream.
- **A specialty recycling bin for items that are not accepted in McGill’s standard recycling stream**, but that can be recovered (batteries, ink/toner cartridges, lightbulbs) – The McGill Hazardous Waste Management Unit already has processes in place for collecting and recycling batteries, lightbulbs, and ink/toner cartridges. For batteries, small red boxes, the size of a mailbox are located in several buildings. Lightbulbs and ink/toner cartridges can be sent to Hazardous Waste Management by internal mail, but no collection boxes for these materials exist on campus. A small battery collection box already exists outside the porter’s office on the ground floor of McConnell. After speaking to the McConnell porter and building director, the existing battery box is regularly overflowing and needs to be emptied once a week. According to the porter, campus users also have a hard time recognizing that the non-descript box is for battery recycling. Even though the box is located directly outside the porter’s office, he often has people asking him where they can recycle their batteries in the building. SPF funds will be used to purchase a 3-stream specialty recycling bin that is visually distinctive from the standard waste sorting stations on campus and clearly marked with what can be placed inside. The specialty recycling bin will be added to the custodian’s route who already collects batteries from the existing battery collection bin in the McConnell building. The batteries, lightbulbs, and ink/toner cartridges will be brought to the Hazardous Waste Management room in the McIntyre medical building weekly. The batteries will be sent to Call2Recycle for recycling, the ink/toner cartridges will be sent to Mira, and the lightbulbs will be sent to Recyc-fluo.
- **An Electrobac** - An Electrobac bin is a recycling bin for small electronic devices. Following collection, the items are recycled or refurbished responsibly, following environmental best practices. One Electrobac bin has been installed in the lobby of 680 Sherbrooke W. for the use of all McGill students, faculty, and staff. As part of an initiative being led by the IT and FMAS departments, 5 more Electrobacs will be installed on campus. McConnell has been identified as one of the new locations. FMAS is funding this initiative in full.
- **A Smart Waste Bin** -The Smart Bin system was developed by a student group called the Recycling Pioneers and works by retrofitting a series of sensors that together provide the user with data about how full each bin is via a screen mounted above the waste sorting station. This project was already funded by SP0286. A Smart Bin has already been scheduled for installation on the ground floor of McConnell.
- **Eco-friendly decals on the floor** – These decals will clearly delineate the Zero-Waste Zone and will be a compelling visual that sensitizes users to waste issues. The decals will bring cohesion to the different elements in the zone.
- **Informative graphic displays on the wall** - Informative videos, graphics, reports, and images will be present throughout the space and will educate McGillians about key waste-related issues, such as: the lifecycle of an object;

respecting the planet; rethinking consumption habits; refusing non-sustainable items; reducing the amount waste generated; reusing, repurposing, and repairing existing resources; and recycling objects responsibly to avoid landfill; McGill’s waste management targets, current contracts, and on-campus initiatives. These displays will be designed by McGill graphic design services so that the visual identity is consistent with McGill’s design standards and other zero-waste communications initiatives on campus. Design, printing, and installation will be funded by the SPF.

- **Upcycled artwork** – Eye-catching artwork made from upcycled materials will be included in the space. SEAM has committed to organize a competition for students to submit upcycled artwork in fall 2023. Students whose artwork is chosen will be compensated with gift cards to local zero-waste bulk stores.
- **A Little Free Library (LFL)** - McConnell does not currently have an LFL anywhere in the building. There is a group of SPF Ambassadors who are working on a project to revitalize the LFLs (SP0166) across campus. They have already agreed to identify an existing LFL that is being underutilized and relocate it to the McConnell building.

Monitoring impact: We will use data from the Smart Bin installed in McConnell to measure the tonnage of waste collected in the building before and after the launch of the Zero-Waste Zone. We conduct a waste stream composition audit of the waste bins on the ground floor of McConnell before and after the launch of the Zero-Waste Zone. We will conduct surveys before and after the installation of the zone to gauge the community's understanding of zero-waste principles and whether the zone has contributed to an increase in awareness. Surveys will be conducted in-person by the Zero-Waste Ambassadors and we will have a permanent QR code on the graphic display where campus users can fill out a survey.

TRANSFORMING CAMPUS

Criteria assessed in this section: **AT MCGILL, IMPACT**

6. In the table below, describe your proposed project’s 2-5 main impacts on the McGill community or its main goals to accomplish. Please check the stakeholders that will be impacted. Finally, list at least one key **success indicator** for each impact (e.g. # people will be engaged, % waste will be diverted, # buildings certified). *Note: Indicate a realistic target for each success indicator (e.g., rather than “# people engaged,” include a target such as “50 people engaged”).*

Main Impacts/Goals		McGill Stakeholders Impacted (check all that apply)	Key Success Indicator(s)
REQUIRED	1 Model zero-waste institutional practices to inspire change (we will conduct a survey in McConnell in September 2023 and another one in March 2024)	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Academic Staff <input checked="" type="checkbox"/> Postgraduate <input checked="" type="checkbox"/> Admin. Staff <input checked="" type="checkbox"/> Alumni	Improve knowledge of responsible consumption and waste management
	2 Reduced environmental impacts of landfill methane emissions, pollution, energy use	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Academic Staff <input checked="" type="checkbox"/> Postgraduate <input checked="" type="checkbox"/> Admin. Staff <input checked="" type="checkbox"/> Alumni	Reduce overall tonnage of waste collected in the Smart Bin in McConnell 5% increase in sorting accuracy in McConnell bins
OPTIONAL	3 Progress on Climate & Sustainability Strategy 2020-2025	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Academic Staff <input checked="" type="checkbox"/> Postgraduate <input checked="" type="checkbox"/> Admin. Staff <input checked="" type="checkbox"/> Alumni	100% completion of waste management category flagship action and 2% increase in overall strategy completion.
	4	<input type="checkbox"/> Undergraduate <input type="checkbox"/> Academic Staff <input type="checkbox"/> Postgraduate <input type="checkbox"/> Admin. Staff <input type="checkbox"/> Alumni	

5	<input type="checkbox"/> Undergraduate <input type="checkbox"/> Academic Staff <input type="checkbox"/> Postgraduate <input type="checkbox"/> Admin. Staff <input type="checkbox"/> Alumni
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7. Have you considered implementing your project at more than one McGill campus? (e.g. If your project is downtown, could it be implemented at Macdonald Campus as well?)

Yes No

8. Please describe your choice of campus(es) and why this choice is best for your project. *Limit ~150 words*

We chose to implement the first Zero-Waste Zone on the downtown campus because we wanted to maximize the visibility of the space. The downtown campus has significantly more daily foot traffic than the Macdonald campus. If the Zero-Waste Zone in the McConnell building is successful, then the project could be replicated at the Macdonald campus.

To complete the application process, please submit this form on the SPF website. The SPF Staff will be in touch regarding your application within two weeks and will send you Part 2 for the Over \$5,000 application process, the Project Plan.

PART 2: PROJECT PLAN

Instructions: Please answer the questions below as clearly and concisely as possible. Once you have completed this Project Plan, save it and submit it online. SPF Staff will respond with feedback on your application within 2 weeks. Once all sections are complete, the combined application will be provided to the SPF Governance Council for their review and decision. As a reminder, all SPF applications are assessed using the [SPF Eligibility & Evaluation Criteria](#):

ELIGIBILITY CRITERIA		EVALUATION CRITERIA		
AT MCGILL	SUSTAINABILITY FOCUSED	ANALYSIS	IMPACT	FEASIBILITY
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IMPLEMENTATION

Criteria assessed in this section: **ACTION ORIENTED, FEASIBILITY, IMPACT**

- List the key **activities** for your project and indicate the timing for these on the right. Please be specific and realistic when formulating your activities, ensuring that they are achievable within the indicated timeframe.

Key Project Activities	Start Date (DD-MM-YY)	End Date (DD-MM-YY)
Finalize locations for zero-waste zone elements within the space	01-05-23	30-05-23
Order specialty recycling bins	01-05-23	30-05-23
Compile content for informative graphic displays	01-05-23	01-06-23
Submit design brief to graphic design services	01-06-23	01-06-23
Design graphic elements	01-06-23	15-07-23
Order printing of signage and floor decals	15-07-23	15-07-23
Install signage and graphic decals	01-08-23	30-08-23
Install smart bin	01-08-23	30-08-23
Install specialty recycling bins, LFL	01-08-23	30-08-23
Coordinate student upcycled artwork submissions and display	01-06-23	30-08-23
Waste audit and awareness survey #1	06-09-23	15-09-23
Waste audit and awareness survey #2	01-03-24	10-03-23

- Please describe what will happen to your project after the SPF funding ends. Additionally, please share if anything will be produced or installed (e.g. a workshop guide, equipment, a toolkit, a network, website, etc.) and indicate future maintenance plans. *Limit ~200 words*

After the SPF funding ends, the signage and other elements of the Zero-Waste Zone will remain. The decals will be approved with the Building Services Manager to ensure that they will not affect floor cleaning and will be long lasting. A long-term plan for collecting materials from the specialty recycling bin has been established. The speciality recycling bin will be added to the custodian's route who already collects batteries from the existing battery collection bin in the McConnell building. The batteries, lightbulbs, and ink/toner cartridges will be brought to the Hazardous Waste Management room in the McIntyre medical building weekly. The batteries will be sent to Call2Recycle for recycling, the ink/toner cartridges will be sent to Mira, and the lightbulbs will be sent to Recyc-fluo. Hazardous Waste Management already has agreements with these recycling partners. MOOS will continue to promote the use of the Zero-Waste Zone and hold sustainability-related events in the space.

- Please list any potential risks associated with your project and the measures you will take to reduce their likelihood.

Main Risks	Preventative Measures
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Waste education efforts will be short-lived, due to the transient nature of the McGill population.	Ongoing outreach and communications activities that follow the flow of students' time at McGill, with special attention paid to reaching first year students.

STAKEHOLDER ENGAGEMENT

Criteria assessed in this section: **AT MCGILL, COLLABORATION, SUPPORT, CAPACITY BUILDING**

4. Please list all the key stakeholders involved in your project, indicating their role and support. If the stakeholder has provided a support letter, please indicate so here and attach it as an appendix document. *Note: Projects involving modifying a space on campus, making a permanent installation, hiring a full-time staff, or adding/modifying a garden, etc., must seek permission from the appropriate stakeholder(s) (e.g. building director, Campus Planning and Development, staff supervisor, etc.). SPF Staff can help you assess if any key stakeholders need to be added to your list.*

Stakeholder's Name(s)	Title	Role in the Project	Support/Permission	Support Letter
Leela Baldeo	McConnell Building Director	Space allocation approval	Confirmed	No
Enrico Recine	McConnell Building Porter	Space use approval	Confirmed	No
Elio Taddeo	Southeast District Supervisor, B&G	Coordination of Smart Bin installation and specialty recycling	Confirmed	No
George Lazaris	Director, Buildings & Grounds	Project Sponsor	Confirmed	No
Sandra Gauthier	Project Coordinator, SEAM	Enhance visibility	Confirmed	Yes
			Choose one.	Choose one.
			Choose one.	Choose one.
			Choose one.	Choose one.
			Choose one.	Choose one.
			Choose one.	Choose one.

5. How will you communicate about your project and share its impacts with your stakeholders and the McGill community? Please describe your tactics (e.g. social media, workshops, tabling, newsletters, etc.) and any related timing (e.g. at the beginning, during, or after the project). Related activities can also be included in Question 1. *Limit ~200 words*

In addition to the zero-waste informational materials that will be a core part of the project, MOOS will work together to share the goals and impacts of the project with the McGill community through digital communications, such as videos, Instagram reels, social media posts, and newsletters on each unit's online channels. SEAM will also help promote the project through their online platforms and the physical outreach activities they conduct in the McConnell building.

Once the Zero-Waste Zone is implemented, the Zero-Waste Ambassadors will conduct regular tabling in the space to communicate the intended impacts of the project and answer questions.

6. If applicable, are there any training, volunteer opportunities, jobs, or complementary applied student research integrated in your project? Please describe. *Limit ~100 words*

This project is not requesting an funding for training, volunteer opportunities, or jobs. However, there will be opportunities for existing student interns and volunteers to be involved in the program. The Waste Education intern will support the project by helping to compile content for informative graphic displays.

There are several SPF Ambassadors directly contributing to the program as well by conducting research on speciality recycling bins and coordinating the relocation of a Little Free Library to the Zero-Waste Zone.

The Zero-Waste Ambassador volunteers have already been regularly conducting tabling in academic buildings, including McConnell, to provide information on waste sorting and waste reduction. This volunteer program will continue to play an important role in complemeting improvements in signage and infrastructure with education and awareness raising to reach zero-waste.

APPENDIX

Relevant Support Documents

List any appendix documents in order in the table below.

Please keep the total number of pages as low as possible (recommended max 10). Please include any relevant support letters.

Doc #	Appendix Document Title	# of Pages
1	Zero-Waste Zone Concept	1
2	IMSF Survey Results	1
3	Specialty Recycling Bin Quote	1
4	Letter of Support SEAM	1
5	Approval of building space use	1
6		
7		
8		
9		
10	Staff Position Information Appendix , if applicable	