



SP0186 Final Report

Please answer the following questions and return the completed form to the [SPF Staff](#) via e-mail.

Project Title: MOOSTrax

Final Report prepared by: Ali Rivers & Ian Tattersfield

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Actual Project Start Date: 4/10/2018

Actual Project End Date: 4/29/2019

1. Please summarize the project and its key accomplishments in 1-2 sentences.

(400 characters maximum)

We produced a polished & functional website and calculator: <https://www.mc3gill.ca> (v1.2). The platform has: 1) an informative static homepage about the platform; 2) an event host mode where events can be created & modified, and where results are summarized; 3) a guest check-in page that displays active events and modes of travel; and 4) an administrative mode which allows authorized users to modify all aspects of events and results throughout the system. To create these four interdependent aspects of the website platform, thousands of lines of code have been written, the UI/UX has been designed, databases have been designed and implemented, and many hours of testing, feedback generation and changes have been made. Following the platform soft & full launches in early 2019, three events successfully used the calculator: Sustainability Soirée, Catalyst Awards, and the HEC-McGill EMBA Ten Year Anniversary. Enhancements to the platform were then made and more events followed such as: McGill Geography Welcome Lunch (64 participants), CEGSS Conference (40 participants), Off-Campus Connects 2019 (42 participants), and the Redpath Museum’s “Climate Change and YOU” workshops (~20 participants per each of 5 events). A master spreadsheet was created to track key event information needed by the Sustainable Events team and Mc3Gill admin (such as # attendees, event emissions and third party offset purchase details). In addition, the Mc3Gill team collaborated with the MOOS team on content for the Office of Sustainability website, Sustainable Travel and Mobility Guide, Sustainable Event resources, and McGill Reporter articles. An "event host" guide was created, which will be provided as a resource to support individuals who want to use Mc3Gill at future events. We will design and print table-top banners to loan to event hosts to a) invite attendees to check-in and b) communicate about the project.

2. Your team listed the following goal in your application:

Finalize the MOOSTrax app, creating a standalone system that can be used by event hosts and attendees. Launch the app on a private web server prepaid for 3 years.

Did your team achieve your project’s goal? In your answer, please describe the impact your project had on McGill’s structures, processes, and/or systems. Also, please specify how this positively transformed people’s behaviors/perspectives/habits on McGill campus(es).

(Unlimited characters, suggested minimum ½ page or approximately 250 words)

Our team did achieve the project goals stated above. The platform is fully deployed with many features for event hosts and attendees and the hosting requirements are fully paid up until May 2021. As anticipated, Mc3Gill has facilitated the work of the Sustainable Events team by creating a McGill-specific tool for the actions related to calculating and offsetting attendee travel. University Advancement is working with MOOS to use the McGill Carbon Calculator to calculate and offset attendee travel associated with select Bicentennial Events; this will raise awareness and engagement of our alumni and event hosts as regards the impacts of travel and the

role our community has to play in minimizing them. Additionally, we have collected many suggestions for future improvements and applications of the application.

3. Please describe the key successes and challenges of your project. (Minimum of two examples for each)

(Unlimited characters, suggested minimum ½ page or approximately 250 words)

Our level of ambition for the features and functionality of the calculator grew significantly throughout the project. This resulted most notably in several delays and extensions to the original project timeline. We do feel, however, that the end result justifies the hurdles and extended timeline. In fact, this challenge led to an eventual success for our team, since we were able to pilot the calculator, collect community feedback, and integrate this into the final product. Another challenge was that as our ambition grew, so did the coding and development requirements, which tested the limits of our developer. Examples of such features include the log-in specific user interface and reformatting some of the graphical templates to match the data. Aside from producing a platform that we are extremely proud of, another success is the use of the Mc3Gill platform for both the 9th Annual Catalyst Awards and the HEC-McGill EMBA 10 Year Anniversary. These were events of very different size, modal split, and attendee type, and the calculator proved well-suited and engaging for both audiences and allowed for travel emissions to be offset in each case.

4. What key points of advice or *lessons learned* would you give to other SPF teams either regarding your experience managing your project or the project itself?

(Unlimited characters, suggested minimum ½ page or approximately 250 words)

We would tell other teams that it can be hard to fully conceptualize the milestones and finished product at the initial application stage. Taking time at this stage to discuss expectations, possible challenges, and outcomes is very beneficial to creating a realistic timeline and scope. Additionally, we would caution teams that creating a custom web application is almost always more complicated, expensive and time-consuming than you plan for.

5. What recommendations do you have for the future of this project to be continued and are there any opportunities for complementary projects? Who will take responsibility for the project's future and how can interested persons be in touch? The SPF team will also be in touch with this contact for updates on the project's progress in coming years, if ongoing.

(Unlimited characters, suggested minimum 1 paragraph)

Since this is a web-based platform, there are recurring costs and mandatory steps needed to keep the website online (e.g. SSL certificate, domain registration and hosting). The Office of Sustainability has already agreed to this responsibility. Already integrated into the process is the need to update emission factors for each travel mode annually, which is now easily done through the admin mode permissions. An exciting future application of the platform is to use it to collect community commuting data for inclusion in our annual GHG inventories. This possibility has been discussed with one of the lead researchers at TRAM (Dr. Kevin Mannaugh) and the Office of Sustainability. The Mc3Gill team also strongly recommends that the calculator be updated with additional features over time to align with the University's larger offsetting initiatives and with the evolving nature of the internet. For the foreseeable future, Ali Rivers will manage the user support email and updates to the code base and technical support will be done by Ian Tattersfield.

6. Would you or your project team member(s) be willing to serve as a mentor to SPF project teams?

Please choose one. If yes, SPF Staff will contact you with more information. (800 characters maximum)

Yes No

7. In your application, you listed the following sources of funding: N/A

Please confirm if you received this funding in the space below. In your response, please list the actual amount (in dollars) that you received. Note: If you received funding from a McGill Department or Unit, please attach a letter from its Financial/Budget Officer confirming the actual amount of support.

(1,800 characters maximum)

N/A

8. Did you purchase equipment or make an installation on campus? Yes No

If yes, please briefly describe how these items will be maintained and used in the future.

(1,800 characters maximum)

In our Project Amendment, we added the purchase of reusable table-top banners that a) invite guests to check-in and b) explain the nature and purpose of the calculator. MOOS is the agreed custodian of these items, which will be loaned to event hosts to display at their events.

9. The following Key Success Indicators were indicated in your project application and selected for tracking. Please indicate the actual results that you have achieved in the "Actual" column.

Selected Key Success Indicators (as of September 2019)	Target	Actual
# of mentions of the project in online communications	5	9
# of visitors to website within one year (revised as number of trips recorded)	500	1,063
1 website-based application developed	Complete	1

If there is a significant difference in the target numbers and the actual numbers achieved, please explain. If you have any additional information to share about these success indicators, please also include it below.

(1,800 characters maximum)

. As of September 2019, the app had registered over 1,000 trips at 22 events. There are many parties who have expressed interest and intent to use the app for future events. Two examples of online communications are an [article](#) in The McGill Reporter about the 100th Sustainable Event, which also launched the Mc3Gill calculator to the wider community, and the integration of information about Mc3Gill into both the Sustainable Events resources and the [Sustainable Travel & Mobility Guide](#).

10. Please report on your results for the standard SPF Key Success Indicators in the "Actual" column.

Standard SPF Key Success Indicators	Actual #
# of volunteers directly or indirectly engaged in the project	30
# of people (student, staff, or other) trained in the context of the project	25
\$ raised for project activities subsequent to SPF funding	\$0
# of partnerships or collaborations developed between the project team and other McGill administrative units, student groups, community groups, other universities, and/or other groups/organizations.	8

Regarding the last Key Success Indicator, please list the groups and/or organizations that you counted.

(Unlimited characters; point form acceptable.)

- McGill Sustainable Events Team
- Office of Sustainability
- STM (for annual public transit emission factor updates)
- City of Montreal (requested link for final calculator to model city calculator on)
- University Advancement & Bicentennial Committee
- EMBA Program
- Transportation Research at McGill (TRAM) group
- ENV-401 student research group (requested to put room energy modelling tool on Mc3Gill website)

If you have any additional information to share about the Standard SPF Key Success Indicators, please include it below. (1,800 characters maximum)

Design, development and testing of the calculator took the majority of the last year, and it's only in the past few months that the calculator has been pushed live and available for use by the community. As a result, we expect that most indicators – website visitors, events created, communications mentions, volunteers and trained individuals – will increase significantly in the next year.

11. Please indicate the McGill stakeholder groups that were involved with your project as a team member or collaborator/partner. Choose all that apply.

- Undergraduate Postgraduate Administrative Staff Academic Staff Alumni

12. Please rate your project team's overall satisfaction with the support provided by the SPF Staff. Choose only one response.

- Very Dissatisfied Dissatisfied Neither Satisfied Nor Dissatisfied Satisfied Very Satisfied

13. Please provide any feedback or recommendations regarding your team's experience with the SPF.

(Unlimited characters, suggested minimum 1 paragraph)

Our team is very thankful for the new streamlined SPF forms, which made filling out the Project Amendment and Final Report delightful. We also appreciated their patience and understanding during the timeline extensions, as well as their promptness and clarity in official communications.

14. If there is additional information you would like to share about your project, please use the field below.

(Unlimited characters)

Can't wait for our community to use Mc3Gill more in the coming years!

15. Has involvement in this SPF project positively impacted your team in the area of professional growth?**Please choose one. If you would like to elaborate, please use the field below.** (800 characters maximum)

- Yes No Prefer Not to Share

The project was technically challenging for our developer, who learned a lot and found value in the experience. Our Climate Officer enjoyed the opportunity to dust off and apply her design, UI/UX and testing skills.

16. Has involvement in this SPF project positively impacted your team in the area of personal growth?**Please choose one. If you would like to elaborate, please use the field below.** (800 characters maximum)

- Yes No Prefer Not to Share

Our developer has a much better understanding and appreciation of the environmental cost of travel – particularly when it comes to flights and single occupancy vehicle use. Our tester has a heightened appreciation

when it comes to informal development projects without full-time staff resources and a dedicated UI/UX design department.

17. Which of the following skills or attributes has your team improved through involvement in your SPF project? Choose all that apply.

- | | | |
|---|--|--|
| <input type="checkbox"/> Budgeting | <input type="checkbox"/> Networking | <input type="checkbox"/> Systems Thinking |
| <input checked="" type="checkbox"/> Communications | <input type="checkbox"/> Planning | <input checked="" type="checkbox"/> Teamwork |
| <input checked="" type="checkbox"/> Conflict Resolution | <input checked="" type="checkbox"/> Problem Solving | <input checked="" type="checkbox"/> Technology |
| <input type="checkbox"/> Leadership | <input checked="" type="checkbox"/> Project Management | <input checked="" type="checkbox"/> Time Management |
| <input type="checkbox"/> Listening | <input type="checkbox"/> Public Speaking | <input type="checkbox"/> Writing |
| <input type="checkbox"/> Mentoring | <input type="checkbox"/> Stakeholder Engagement | <input type="checkbox"/> Other (Please specify in the field below) |
| <input checked="" type="checkbox"/> Negotiating | <input type="checkbox"/> Stakeholder Identification | |

Other:

18. Since starting your SPF project, has your team improved its knowledge of sustainability? Please choose one. If you would like to elaborate, please use the field below. (800 characters maximum)

- Yes No Prefer Not to Share

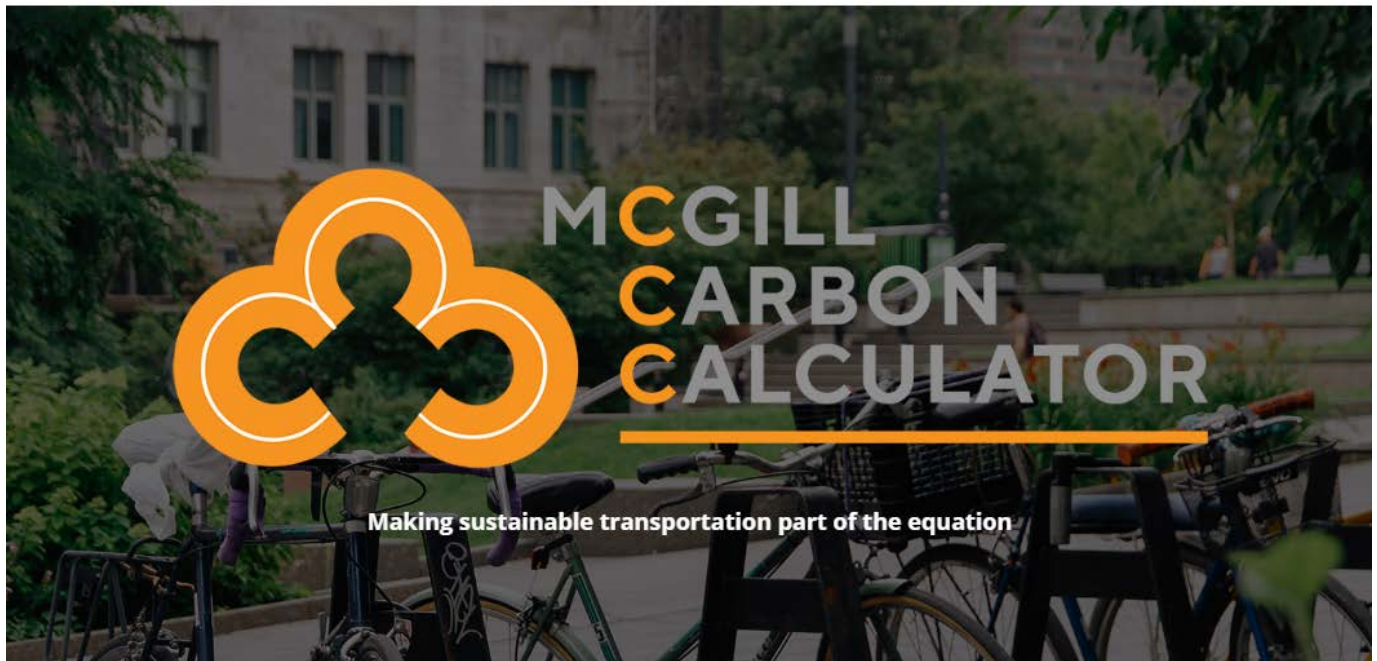
See response to Q#16.

19. (Optional) If applicable, please list the total number of team members voluntarily self-identifying as members of marginalized communities:

Please identify the represented communities below. (e.g. women, Indigenous people, people of colour, LGBTTQI, student parents, members of ethnic minorities, immigrants, people with disabilities)
 (1,800 characters maximum)

Thank you for completing your Final Report!

Please e-mail your report to the [SPF Staff](#) attaching any additional information that you would like to share about your project (e.g. other reports, research, documents, photos, etc.). Please note that this Final Report will be shared publicly on your SPF project's webpage.



[calculate emissions](#)



PERSONAL USE

Use the Mc3Gill App to calculate your personal travel emissions, compare travel scenarios, and offset your own footprint!



SUSTAINABLE EVENTS

Want to make your event at McGill Sustainable-Certified? Our app partnered with the McGill Sustainable Events Team!




CARBON OFFSETTING

Use emissions results calculated from Mc3Gill to offset the carbon cost of your event or travel.

Screenshot of event results page

← → ↻ Not secure | mc3gill.ca/admin/event-host.php#



MAIN NAVIGATION

- 📁 Navigate Site
- 🏠 Mc3Gill Home
- 📱 Checkin App
- 🏠 Event Host Home
- 📅 McGill Demo Event (Downtown)
- 📅 McGill Demo Event (Macdonald)
- 📅 9th Annual Catalyst Awards Gala
- 📊 Event Results
- ⚙️ Event Settings
- 📄 Export .csv
- ✉️ Need Help? Email Us

Create a new event

Logout

9th Annual Catalyst Awards Gala

Event Details

Name	9th Annual Catalyst Awards Gala
Location	McCord Museum
Event Start	April 01, 2019 @ 3:30 PM
Event Finish	April 01, 2019 @ 11:00 PM

☁️ **TOTAL GHG EMISSIONS**

72.075 kgCO₂e


👤 **TOTAL ATTENDEES**

114

📊 **AVERAGE EMISSIONS/ATTENDEE**

0.632 kgCO₂e

Emissions by Greenhouse Gas



Emission factor for metro provided by STM in units of CO2e only (no breakdown by gas available). All emissions have been assigned to CO2 for by gas breakdowns.

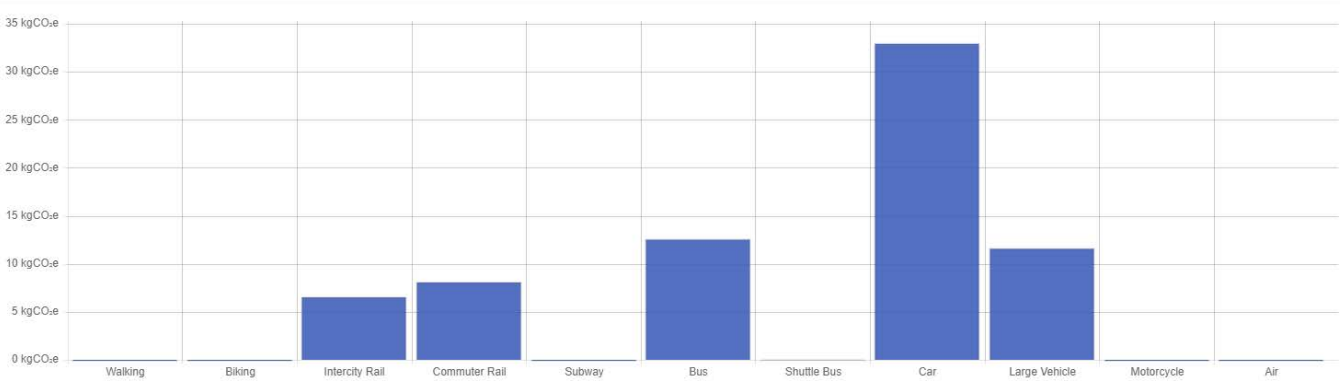
GHG Totals by Greenhouse Gas

GHG	GWP	kgGHG	kgCO ₂ e
Carbon Dioxide (CO ₂)	1	71.53	71.53
Methane (CH ₄)	28	0.0040	0.11
Nitrous Oxide (N ₂ O)	265	0.0016	0.42
Tetrafluoroethane (R134 _a)	1300	0.000018	0.023

Emission factor for metro provided by STM in units of CO2e only (no breakdown by gas available). All emissions have been assigned to CO2 for by gas breakdowns.

Emissions by Mode of Transport

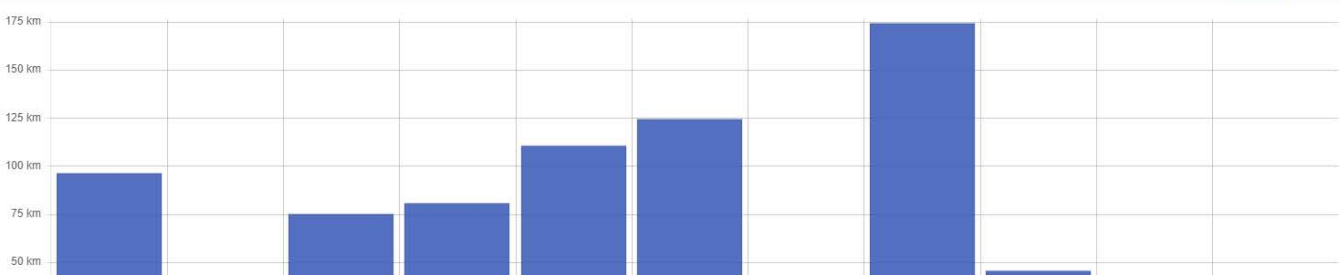
Chart
Table



Mode of Transport	Emissions (kgCO ₂ e)
Walking	0
Biking	0
Intercity Rail	~6
Commuter Rail	~8
Subway	0
Bus	~12
Shuttle Bus	0
Car	~33
Large Vehicle	~11
Motorcycle	0
Air	0

Total distance by Mode of Transport

Chart
Table



Mode of Transport	Total Distance (km)
Walking	0
Biking	0
Intercity Rail	~75
Commuter Rail	~80
Subway	0
Bus	~110
Shuttle Bus	0
Car	~175
Large Vehicle	~40
Motorcycle	0
Air	0

Screenshot of McGill Reporter Article. Photo shows participants using the carbon calculator.
Full article can be accessed here: <https://reporter.mcgill.ca/mcgill-hosts-its-100th-certified-sustainable-event/>

← mcgill.ca



McGillREPORTER

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SUSTAINABILITY

LE FRENCH SIDE DE MCGILL

McGill hosts its 100th certified sustainable event

Sustainable Event Certification Program encourages organizers to make events more inclusive, accessible and environmentally-responsible

By Shona Watt, Sustainability Officer & Projects Fund Administrator

MARCH 21, 2019



Christa Grant, Executive MBA program administrator (left), uses the new McGill Carbon Calculator to find out the emissions generated by EMBA alumnus Ken Rock (centre) and Elizabeth Branco, International Masters for Healthcare Leadership & Management program administrator (right), as they traveled to the event.