

Sustainability Projects Fund (SPF) McGill Office of Sustainability (MOOS) 1010 Sherbrooke St West, Suite 1200 Montreal, Quebec H3A 2R7



Fonds des projets durables

Bureau du développement durable 1010, rue Sherbrooke Ouest, bur. 1200 Montréal (Québec) H3A 2R7

SPF Application Form Section A - Cover Page

Fill out this Cover Page and save it to your files for future reference before uploading it on the SPF website.

Project Title Educatioanl Hone	ey Bee Hive			
In one to three sentence(s), ex	plain what your project is about:			
Improve Macdonald Campus	apiary society by purchasing and asse /e will create a safer environment for	_		
Indicate the McGill campus(es)	where your project will be imple	mented:		
	☐ Gault Reserve ☐ Bellairs Res		Other (Spe	ecify):
Approximate Budget Requ	nested to the SPF (\$): \$1,060.00	Approximate Total (incl. other sources of		
	xpense(s) for your project that r (incl. approx. % of total budget):	FLOWHIVE CLASSIC CEDAR MARKETING = 165, TOTA	•	CHANGE RATE, SHIPPING, COLONY) +
Indicate which of the follow	ring team members oring the project's budget (maximu	ım 1 person):	Erin Brow	/n
_	Project Lead will be the contact person		Erin Brow	n
·	he entire duration of the project:	,	\boxtimes Y	□N
If no, explain in a few sente transition plan for one or l Lead for sustainable conti PROJECT TEAM MEMBERS (1	both of the Project	<u>eria #5</u> for more informa	ntion)	
	to be inclusive of individuals who volunta e of colour, LGBTTQI, student parents, m			
1. Project Team Member				
First Name & Last Name	Erin Brown	_ Affiliation		Undergraduate
Phone (daytime; only put #)	514-969-1742	Specify if Other		
Email <u>erin.brown3@ma</u>		_ Faculty/Unit/Orga	nization	Ag.Env.Sc
2. Additional Project Team Mer				
First Name & Last Name	Ociane Canada	_ Affiliation		Undergraduate
Phone (daytime; only put #)	510-759-6295	_ Specify if Other		
Email <u>ociane.canadas@</u>		_ Faculty/Unit/Orga	nization	Ag.Env.Sc
3. Additional Project Team Mei	nber			
First Name & Last Name	Chloe Trépanier	Affiliation		Undergraduate
Phone (daytime; only put #)	4188500074	Specify if Other		
Email chloe.trepanier@	mail.mcgill.ca	_ Faculty/Unit/Orga	nization	Ag.Env.Sc
l. Additional Project Team Me	mber			
First Name & Last Name	Caroline Begg	Affiliation		Academic Staff
Phone (daytime; only put #)		Specify if Other		
Email caroline.begg@m	ıcgill.ca	Faculty/Unit/Orga	nization	Natural Resource Sciences



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SPF Application Form Section A - Cover Page

PROJECT TEAM MEMBERS (CONT'D)

5. Additional Project Team Member		
First Name & Last Name	Affiliation	Choose one.
Phone (daytime; only put #)	Specify if Other	
Email	Faculty/Unit/Organization	
6. Additional Project Team Member		
First Name & Last Name	Affiliation	Choose one.
Phone (daytime; only put #)	Specify if Other	
Email	Faculty/Unit/Organization	
7. Additional Project Team Member		
First Name & Last Name	Affiliation	Choose one.
Phone (daytime; only put #)	Specify if Other	
Email	Faculty/Unit/Organization	
8. Additional Project Team Member		
First Name & Last Name	Affiliation	Choose one.
Phone (daytime; only put #)	Specify if Other	
Email		
To list more members, fill a 2nd Cover Page form and save it separately. You	u may then e-mail it to <u>SPF Staff</u> direc	ctly, also specifying your project title.
Has any member on your team been part of an SPF project in	the past? 🛛 Y 🔲 N	
If yes, list all the projects they have been part of: Caroline Begg		
OPTIONAL: If applicable, total number of team members voluntarily self-i	identifying as members of mar	ginalized communities:
Represented marginalized communities: Choose one. Choose	se one. Choose one.	
Specify if Other(s) and/or add more:		
If you plan to recruit volunteers to help implement your proje	eyflow.com/shop/flow-hive/f ct, please indicate how many: fy if Other	
Please check the boxes to confirm that you have re	ad and agree to the following i	nformation:
 ✓ All of our project team members understand that the SPF is publicly fur that if needed, the SPF Steward, the SPF Administrator and/or the SC communicate part of its content in the case where they would need to (e ✓ If our project is approved, all our project team members agree that their r 	SPF Working Group members read .g. to receive professional advice, cor	and/or share the application and/or nect our team to stakeholders, etc.).
be disclosed (e.g. for contact information or through our application and this box, the SPF staff will communicate with you to know whose inform	progress/final reports published on nation to remove before sharing you	the SPF website). <i>If you do not check</i> r project online.
All of our project team members have read and understood the SPF Terms & Conditions are unclear to you, contact this box in confidence. Also note that, if your project is approved, the Planck of the Pla	t the <u>SPF Staff</u> before you submit you	ur application so that you can check

confirm in writing (through email or signing the document) that they agree to the SPF Terms & Conditions before officially starting the project.

Thank you! Save this form to your files for future reference and fill Section B 'Project Plan' of the SPF Application Form to complete the process.



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SPF Application Form Section B - Project Plan

Answer the following questions and save this form to your files for future reference before uploading it on the SPF website with Section A - Cover Page.

Project Title	Educational Honey Bee Hive				
Project Lead First & Last Na	Erin Brown	- Phone (daytime)	514-969-1742	Email	erin.brown3@mail.mcgill.ca

Before you fill out this form, make sure you have consulted all related application documents online, including the SPF Evaluation Criteria, the SPF Glossary, the SPF Project Flow Diagram, and the SPF Sustainability Brief. Read all questions first before answering them. Answer exactly what is being asked: stay straight to the point, clear, and succinct.

The character limit (including spaces) is indicated for each question.

Project Vision To have a safe and accessible honey bee colony on campus for educational purposes.

A vision depicts the ideal future that someone is hoping for. Thus, a vision is a dreamed aspiration that someone intends to lead or contribute to, and it does not necessarily need to seem realistic at this time. As such, tell us how you see McGill campuses in an ideal world once your project is completed successfully. The vision does not need to be completed within the timeline of the SPF funding.

Project Goal

(225 char. max. ~30 words) 1) To provide a safe environment for honey bees. 2) To teach students of all ages about apiary sciences. 3) To more easily produce sustainable honey and agriculture.

A goal is the overarching desired tangible realization (and thus change) to be achieved within the project's lifespan. The goal contributes to the project's vision in a palpable and realistic manner. The project's goal may last longer than the SPF funding period. In line with the SPF mandate, when achieved, your project's goal should result in a culture shift (e.g. change in ideas, habits, behavior).

- 1a. What is the specific sustainability-related issue/challenge that you see on McGill campus(es) that you want to address?

 1b. What is your project idea and how will it help address this issue/challenge? (3000 char. max. ~485 words)
- 1a. Bees are vital in the pollination of food crops. Nevertheless, bees are being threatened by urgent issues like colony collapse disorder which is causing cascade effects for many honey-bee dependent plants, including common fruits like: apples, rasberries and tomatoes, all of which are produced on the MacCampus. Therefore, a healthy honey bee population is vital to sustianable agricultural success at McGill. Through the use of a FlowHive, we can ensure the survival of honey bees on campus.
- 1b. The FlowHives extract honey with the turn of a knob to ensure minimal disturbance to the colony. The Flow frame consists of already partly formed honeycomb cells. The bees complete the comb with their wax, fill the cells with honey and cap the cells as usual. When we turn the knob, the cells split vertically inside the comb forming channels allowing the honey to flow down trough the cells to the base of the frame and out of the hive while the bees are undisturbed on the comb surface. The hives also have a glass pannel, which will allow students to see into the colony without any worry of stings or disturbance to the colony. Therefore, we can ensure a safe environment both for students and the bees to learn about apiculture. We will use the hive for educational purposes, both for the McGill students and the Farm-to-School club, teaching students about the importance of sustainable honey. Having a safe hive will allow students to develop an interest in this otherwise non-accessible field. We hope to raise awarness for honey bee populations in Quebec and ensure sustainable agriculture. The hives are designed with proper winter protection for the bees, for greater survival rate from year to year. We expect the FlowHive to last for approximatly 10 years.

- 2a. List 1 to 3 main impacts you expect/wish your project to have on McGill structures, processes and/or systems. These must relate to the Project Vision and Project Goal you mentioned above. Specify how those impacts will positively transform peoples' behaviors/perspectives/habits on McGill campus(es).
- 2b. How will this continue after funding is spent (i.e. how will you institutionalize the project)? (1550 char. max. ~250 words)

2a.

- 1) To provide an educational resource for McGill students to learn about sustainable apiculture. We hope to increase awarness for the threats facing honey bees and their uses in our society.
- 2) To create a safe and healthy colony for the honey bees.
- 3) To ensure the survival of sustainable agriculture on campus.

2b.

Funding will allow us to purchase a FlowHive, which will be used for many years after funding is spent. We expect the FlowHive to last approximately 10 years, with proper maintenance. The educational component will run throughout the school year and during the summer, with increased interest as we continue to create awarness for apiculture on campus. Through the creation of a sustainable hive, continual pollination and sustainable agriculture will thrive on campus.

- 3a. How do you intend to address social, environmental, and/or economic dimensions of sustainability in your project's obiectives?
- 3b. Please also address how the project will be planned and managed/executed sustainably (e.g. material local sourcing, accessibility, etc.; see the SPF Sustainability Brief). (1045 char. max. ~165 words)

3a. We will use the FlowHive to teach and promote sustainable apiculture. We want to show students about sustainable honey and the science of honey bees. This hive will also act as a resource for McGill professors to use as an educational component in courses like: Organisms 2, Biophysical Environment, St. Lawrence Ecosystems, Entomology. Although, any course that discusses sustainable agriculture or organisms could incorporate this resource into the course through small field trips or classroom discussions. 3b. The project will be planned and managed with collaboration between MSEG, Beekeeping Club and the Farm To School Club. We expect a short time (1 day) for set up of project because of the ease of construction, and a few weeks for delivery. The hive will be kept near the MSEG gardens by the Mac Farm for easy accessibility for Macdonald students and staff and to make sure it is well maintained. It will be kept away from direct sunlight and harsh elements to ensure survival from year-to-year

Beside appear the five categories in which the McGill students, faculty, and staff think the University can make a positive difference within society. The McGill Sustainability Strategy, Vision 2020, describes a specific vision and goals for each of these categories, as they were defined by the McGill direct stakeholders through a comprehensive consultation process.

- 4a. In the figure, check all the categories under which your project falls (Select only one if no other categories apply to your project).
- 4b. Among the categories that you checked, select the one that you think is most relevant to your project:

Dominant Category: Education

Vision 2020 Categories Exploring Sustainability Collaborative · Finance & Investment Community-Engaged RESEARCH · Diversity & Equity · Social-Ecological Footprint Transparency Interdisciplinary \square · Inclusiveness · Applied Student Research · Accessibility **GOVERNANCE &** Experimentation ADMINISTRATION · Accountability Leadership · Citizenship · Human Resources · Leadership · Lifelong Learning **EDUCATION** Experiential Learning Sustainability · Materials \boxtimes Knowledge & Skills · Energy **OPERATIONS** · Food · Water X Transportation · Wellness & Health - Land Community Engagement Living Lab CONNECTIVITY Sense of Belonging · Accessibility

5. List 3 to 5 key stakeholders on/off McGill campus(es) that will be involved with and/or impacted by your project, and indicate their respective role in your project.

Stakeholder's Name(s)	Affiliation	Role in the Project	Confirmed Support
MSEG	On Campus	Summer hive maintenance	Yes
Farm To School Club	On Campus	Education about bees on campus	Yes
Macdonald Beekeeping club	On Campus	Collaboration and advising	No
			Choose one.
			Choose one.

6. List the 4 most important <u>objectives</u> of your project and at least one key related <u>activity</u> that you need to conduct to reach each of these and your project impacts. Make your objectives and <u>activities</u> as <u>S.M.A.R.T.</u> as <u>possible</u>. Also indicate at least one <u>output</u> and a key <u>success indicator</u> per activity. (read instructions below; you can also refer to the <u>Sample Project Plan <5K</u> for guidance)

Of your 4 **S.M.A.R.T. objectives**, a minimum of one should relate to "monitoring" your project's progress and effectiveness. Another objective should relate to "outreach" (e.g. raising awareness about your project's topic, promoting your project in the McGill Community and/or calling for individuals' participation), and two should be more specific to your project, i.e. "other" objectives. The nature of these "other" objectives is for you to decide and tailor to your project.

For each of your 4 objectives, you should indicate at least one key activity.

The bottom of the table is for you to list four additional activities that you think are crucial to the success of your project. As such, depending on what you think is important to having the impact(s) you envision, you may end up having three activities in total that relate to your monitoring objective (e.g. developing a survey, any other activity that will help you and other stakeholders learn through your project) or to outreach (e.g. producing and sharing a video about the project). In any case, since you have limited space, only indicate the objectives and activities that relate best to the impacts you listed under Question 2, and thus to sustainability at McGill.

For each objective/activity, specify a key **success indicator** that you think should be used to assess its degree of achievement/completion. Your indicators can be qualitative or quantitative (e.g. number of participants, participants, participant testimonials, website analytics, quantity of energy saved, etc.). See the document <u>Sample Indicators</u> for inspiration. Also indicate the **output(s)** that will be created as a result of each activity and objective, such as a deliverable (e.g. video, report), training, website, network, design plan, or any other output adding value to the project and helping reach its objectives/impacts.

	Objective/ civity	Main S.M.A.R.T. Objectives / Activities (125 char. max. ~20 words)	Resulting Output(s) (15 char. Max.)	Responsible Team Member(s) and Time (initials + if paid, estimated # of hours to complete objective/activity) (35 char. max.)	Start Date (MM-DD-YY)	End Date (MM-DD-YY)	Related Key Success Indicator – do not forg to include targeted numbers for each (igno the check boxes for now) (75 char. max. ~10 wo	ore rds)
Objective #1	Other	To complete construction of the FlowHive and have local bee keepers inspect the hive before we implement the colony.	Checklist	Ociane Canadas + Undefined bee keep	05-20-17	08-01-17	0: nothing completed, 1: Hive built, 2: Hive built and inspected	
Related Activity	Other	Engage at least 3 professors to discuss and show the hives to students	Education	Erin Brown	09-01-17	12-20-17	1, 2 3, >3 out of 3	
Objective #2	Other	To collect honey from the hive and sell it at a fair price to the MacDonald campus community	Honey/money	Chloe Trepanier	01-17-09	12-20-17	0: nothing, 1: honey collected, 2: honey collected and sold	\boxtimes
Related Activity	Other	Sickers to brand our sustainable honey and inform consumers where it comes from, use the money to maintain hive in condition	Stickers/sustain	Erin Brown	09-01-17	12-20-17	0: no sticker, no sales, 1: sticker only, 2: sales only, 3: stickers and sales	\boxtimes
Objective #3	Outreach	To have a workshop to educate McGill and the local community about bees.	Presentation	Erin Brown	09-01-17	11-01-17	yes or no	\boxtimes
Related Activity	Outreach	Create a factsheet for use by professors and volunteer educators.	Factsheet	Erin Brown	09-01-17	11-01-17	0: no factsheet, 1: factsheet created, 2: factsheet created and used	\boxtimes
Objective #4	Monitoring	Study this hive's production and survival, see if such hives could replace older ones on the campus	Comparaison	Chloe Trepanier & Erin Brown	09-01-17	05-01-18	yes or no	\boxtimes
Related Activity	Monitoring	Communicate and inform the beekeeping club on how such hive may/could be implemented on a larger scale	Improve Campus	Erin Brown	09-01-17	05-01-18	yes or no	\boxtimes
Addt'l Activity	Choose an item.	Inform the entemology department and interested student body in the findings	Newsletter	Erin Brown	01-17-09	01-18-05	Include production values, education intitative, and findings of study	\boxtimes
Addt'l	Choose an							
Activity	item.							
Addt'l	Choose an							
Activity	item.							+
Addt'l	Choose an							
Activity	item.							

7. Now, about the check boxes: Select a total of 3 success indicators that you wish to track and report on during your project. These 3 indicators should be the most relevant to your goal and to creating a culture of sustainability at McGill. They should also be relatively easy to monitor.

When selecting your indicators, make sure that you will have/plan the time and resources you will need to allocate to monitor them throughout the course of your project. Before you start your project, the SPF may ask you to change a chosen indicator for another that seems more pertinent to the SPF or to the University sustainability reporting. Note that, in addition to these three indicators, you will be asked to track four other generic ones that will be specified in the Award Letter.

You will be required to indicate progress towards your final 7 indicators in your progress and final reports to the SPF. Because the SPF values the experiences and learning that occurs during your project (not only results), these reports will also gather related information through open-ended questions.

We have selected the 3 Success Indicators that we wish to monitor during the project:

Please refer to the SPF Guide to Budgeting to complete your project's budget.

REVENUES

Indicate any funding you will receive or anticipate receiving to complete your project, including funds from McGill Departments and Units.

Reminder: If your project is approved, any financial contributions from McGill department/unit will need to be confirmed with a letter or email from its Financial/Budget Officer at the beginning and end of the project.

(A) Funding Source(s)	(B) Amount	(C) Status
1. Sustainability Projects Fund (SPF)	\$1,665.00	Unconfirmed
2. Honey Sales	\$100.00	Unconfirmed
3.		Choose one.
4.		Choose one.
REVENUES GRAND TOTAL - add all (B)	\$1,765.00	

EXPENSES

1. Salaries & Wages (only if applicable)

If applicable, indicate the job position(s) under your project and the associated costs. See the SPF Guide to Budgeting for further instructions.

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Position Title	~# of Hours per Week	~# of Week	Hourly Wage* (\$)	Subtotal (\$) (B x C x D)	20% Benefits	Total Cost (\$) (E x F)	Funding Sources**
	-		\$0.00	\$ 0.00	1.2	\$ 0.00	
			\$0.00	\$ 0.00	1.2	\$ 0.00	
			\$0.00	\$ 0.00	1.2	\$ 0.00	
			\$0.00	\$ 0.00	1.2	\$ 0.00	
Expenses Subtotal 1 - add all (G)							

Do you already have a specific person in mind for filling the above position(s)? \Box Y	⊠N
Do you have a personal and/or professional affiliation with the above position(s)? \square Y	⊠ N
If you answered 'Y' to one or both	
of the above questions, please	
disclose:	

2. Other Expenses

Indicate all of the expenses associated with your project; think back to all of your project's activities and all of the items that you need to complete them. It may be beneficial to group by category (not required); if you do so, please use the following categories: Materials-Supplies, Equipment, Printing, Events, Transportation, One-time Profess. Fees, and Misc.

(A)	(B)	(C)	(D)	(E)	(A)	(B)	(C)	(D)	(E)
Item Description	# of	Unit Cost	Total Cost	Funding	Item Description	# of	Unit Cost	Total Cost	Funding
(<u>inputs</u>)	Units	(\$)	(\$) (B x C)	Sources**	(<u>inputs</u>)	Units	(\$)	(\$) (B x C)	Sources**
FlowHive Cedar	1	\$1,500.00	\$1,500.00				\$0.00	\$ 0.00	
Jars	50	\$3.00	\$ 150.00				\$0.00	\$ 0.00	
Stickers	100	\$0.15	\$ 15.00				\$0.00	\$ 0.00	
		\$0.00	\$ 0.00				\$0.00	\$ 0.00	
		\$0.00	\$ 0.00				\$0.00	\$ 0.00	
		\$0.00	\$ 0.00				\$0.00	\$ 0.00	
		\$0.00	\$ 0.00				\$0.00	\$ 0.00	
		\$0.00	\$ 0.00				\$0.00	\$ 0.00	
		\$0.00	\$ 0.00				\$0.00	\$ 0.00	
Expenses Subto	tal 2 -	add all (D)	\$1,665.00		Expenses Su	btotal 3 -	add all (D)	\$ 0.00	

EXPENSES GRAND TOTAL (Subtotals 1 + 2 + 3)	\$1,665.00

^{*} See the SPF Guide to Budgeting for the conditions and Hourly Wages applicable to hiring under the SPF.

Thank you! After you save a copy of your file, you can now upload this form and Section A - Cover Page on the SPF website to complete the application process. The SPF staff will contact your team within two weeks to provide feedback. Congratulations on applying to the SPF!

^{**} To indicate the one or many Funding Source(s) that will pay for the expenses, use their respective number as you listed under Revenues (e.g. SPF = 1).