

Sustainability Projects Fund Final Report – Montreal's Ecosystems at Your Service/Montréal à Votre Service Écologique

April 30, 2014

What we set out to accomplish

Our mission is to connect McGillians and Montrealers with the ecosystems around them, and show how nature contributes to our quality of life.

McGill and Montreal rely on the benefits that we obtain from nature, including food, energy, clean air and water, climate regulation, places for recreation, and cultural inspiration, among many others. However, we are often unaware of these 'ecosystem services,' how ecosystems help produce them, how important they are to our well-being, and how our everyday activities impact them. This is particularly true for city-dwellers, who are relatively removed from nature. Our project's main goal is to engage with, educate, and interact with McGillians and Montrealers about the ecosystems services they use and rely on every day, by:

- 1) Describing which ecosystem services are provided on the island of Montreal and where this takes place using a story-telling approach
- 2) Provide diverse opportunities for McGill students to learn about ecosystem services and how to effectively communicate their knowledge and science to other groups inside and outside McGill
- 3) Interact with students and Montrealers to understand which ecosystem services they use every day and which services they view as important to their lives
- 4) Create a 'sense of place' within McGill and on the island of Montreal that incorporates our connections to surrounding ecosystems

To achieve this, our project aimed to create a bilingual website that incorporated social media to interactively tell the stories of Montreal's ecosystem services.

Other specific goals that we wanted to accomplish included:

- Create an online platform to capture the institutional memory of McGill and create a living, ongoing program to connect sustainability groups within McGill
- Create stories connecting the places and activities that Montrealers care about to the ecosystem services and the ecosystems that provide them using diverse multimedia techniques (e.g., text, pictures, audio, video, mapping)
- Publish accessible, entertaining, and accurate stories on Montreal's ecosystem services at least twice a week
- Develop an online map to display key Montreal ecosystem service locations
- Create a smartphone 'app' to link with our main website and map
- Incorporate social media (e.g., Facebook, Twitter, Instagram) into our website to encourage interaction between the community and our team
- Create links between researchers, organization, students, and citizens to collect data and carry out ecosystem service projects in and around Montreal

- Explore other public outreach activities including public lectures, school class modules, public art exhibits, etc.
- Train McGill undergraduate students as project ‘ambassadors’ who will be involved in all parts of the project.
- Link with specific McGill courses (e.g., ENVB 222 – St. Lawrence Ecosystems, GEOG 460 – Research in Sustainability, GEOG 494 – Urban Field Studies) to develop ecosystem service stories based on course projects and research

What we accomplished

We were able to accomplish the majority of major goals for our project during the year and four months of our SPF funding. We were lucky enough to hire three exceptional student ambassadors during the first four months of our project who were instrumental in launching our project by designing and building our website, connecting with McGill sustainability groups, creating a project outreach strategy, and producing video stories. Following this, our two project managers (Carly Ziter and Martine Larouche) and subsequent student ambassadors, were able to continue to grow the project. Specifically, they developed our social media presence, and connected us with a diverse community of storytellers at McGill. In particular, our accomplishment highlights over our period of SPF funding include:

- 1) Creating a vibrant, well-designed, interactive, and popular website
- 2) Telling entertaining and accessible stories about the ecosystem services in and around Montreal and how they contribute to our daily well-being
- 3) Managing a large and diverse project team successfully by creating the necessary protocols and tools to effectively track, edit, and publish stories
- 4) Connecting with various McGill and Montreal groups and students to tell ecosystem service stories
- 5) Training undergraduate and graduate students in science communication and outreach, specifically including the effective use of social media tools
- 6) Organizing a successful project launch event to connect with the McGill and Montreal communities
- 7) Organizing a successful workshop to train new project members how to write engaging and accessible stories
- 8) Organizing a successful Spring Photo Contest to increase our visibility in the McGill and Montreal communities and engage people in a different way.

We present our accomplishments, including impact metrics, in more detail below (Table 1).

We also extended our funding for four months (Jan-April 2014) beyond our original project proposal. This allowed us to connect with a large number of potential storytellers, run a storytelling workshop to introduce these new members to our project, and institutionalize our project so that it can continue beyond SPF funding. These accomplishments are noted below in Table 1.

Table 1 – Project Accomplishments

Task	Target	Status	Date	Details	Costs
Milestone: Website creation and launch	April/May 2013	Complete – Website successfully up and running	Creation May/June 2013 Launch June 2013	Website created primarily by undergrad ambassador Valentine Rinner	\$250 (website hosting and software)
Milestone: Website/project launch event	September 2013	Complete	September 25th 2013	Hosted ~60 people at Thomson House to launch project. Made numerous connections and interviewed with le Délit and CKUT.	\$1060 (room booking and food)
Milestone: Initial mapping of ecosystem services in Montreal	By Summer 2013	Interrupted: 2013 updated map on website	Map launched June 2013	Map was updated as we published stories, as a way of visualizing ES across Montreal, but website issues prevented us from maintaining it	
Milestone: Connecting with Montreal community and NGO groups	Ongoing throughout 2013	Ongoing	Ongoing	Initial focus was on connecting with McGill, now that the project is up and running, we are focusing on branching out to the Montreal community (ex. CRE Montréal, Montréal par la Racine)	Cost here is some of student ambassador salary
Milestone: Connecting with McGill University groups, courses, researchers	Ongoing throughout 2013	Ongoing	Ongoing	Partnerships with McGill courses and researchers: GEOG 460 (Brian Robinson), ENVR 401, MUSE. Welcomed two new project members from McGill	Cost here is some of student ambassador and project manager salary
Milestone: Continuation	Summer/Fall 2013	Ongoing	Ongoing (started	We have a wide variety	

of ES story research & writing		106 stories researched/written (96 published, 10 in progress)	publishing June 2013)	of stories published on our website, in both English and French. We continue to publish 2 stories each week	
Milestone: Development of smartphone app	Summer/Fall 2013	Canceled	Canceled	Would have liked to develop this, but didn't have the expertise or resources to pursue this	
Milestone: Development of additional public outreach activities	Fall 2013	In progress	In progress	Launched a Spring Photo contest in April 2014. ESMontreal will be integrated in the LARS project funded by SPF.	
Deliverable: Number of page views per month	200	2200 (Average # of pages viewed/month as of end April 2014)	Ongoing	6236 unique visitors (avg. 860/month) and 9948 total visits as of end April 2014. Average time visitors spend on site is 2:15 min.	
Deliverable: Number of twitter followers by year's end	500	371 (as of April 2014)	April 2013-April 2014		
Deliverable: Klout score by year's end	50	45 (as of April 2014)	April 2013-April 2014		
Deliverable: Number of posts per week	2	2	Ongoing	We have been able to publish 2 stories per week since June 2013	
Deliverable: Number of tweets per day	2	Variable (average 3 per day, as of April 2014)	Ongoing		
Deliverable: Number of guest posts per month	2 to 4	3 (in 2014) (21 guest posts total as of April 2014)	Ongoing	Welcomed 6 new guests authors following our 'Call for Bloggers' ad published on our website on January 30th	Cost here is some of student ambassador and project manager salary
Deliverable: Number of groups involved with	24	7 (as of April 2014)	April 2013-April 2014	Revised target to 12 not achieved (Oct. 2013)	

writing guests posts in first year				Most authors are members of groups but they write as individuals	
Deliverable: Number of people/groups interviewed for posts in first year	12	5 (as of April 2014)	April 2013-April 2014	Revised target to 10 not achieved (Oct. 2013). A lot of authors visited places with a guide, which doesn't require an interview	
Deliverable: Number of events attended to promote the blog in first year	6	10 (as of April 2014)	April 2013-April 2014	2012 QCBS Symposium, 2013 Sustainability Symposium, Ecohack, Biodiversity on the Université de Montréal Campus, Alveole launch, Lufa open house/tour, St. Michel Environment Complex tour, Great Canadian Shoreline Cleanup Montreal, Fete des Semences, Urban Biodiversity Conference	
Deliverable: Number of media interviews in the first year	6	3 (as of April 2014)	April 2013-April 2014	Le Délit, The McGill Reporter, CKUT Radio	
Deliverable: Number of tweets about us per week (by others)	10	17 (average, as of April 2014)	Ongoing	Includes retweets & mentions	
Deliverable: Number of McGill students involved in writing posts in first year	100	28	April 2013-April 2014	Revised Target to 25 (Oct 2013).	
Deliverable: Number of media articles written about us in first year	3	2 (as of April 2014)	April 2013-April 2014	The McGill Reporter, Le Délit	
Deliverable: Number of project ambassadors	2	5	April 2013-April 2014	3 ambassadors Summer 2013, 2 ambassadors	

hired				Fall 2013/Winter 2014	
Deliverable: Number of student volunteers working on project, year 2	4 to 6	3	April 2014-April 2015		
Deliverable: Number of articles about the project in e-bulletins and newsletters in first year	4	4 (as of April 2014)	April 2013-April 2014	McGill Channels, Conseil Régional de l'Environnement de Montréal, Ontario Network on Ecosystem Services, What's New McGill	

What we learned & Challenges overcome

Our project in many ways is quite different compared to other SPF projects and what undergraduate and graduate students are trained in during their universities degrees. As such, there were a number of major challenges that we encountered during the last year and four months. Most of these we were able to overcome successfully, while others we would likely have wanted to deal with differently if given another chance. In both of these cases, what we learned helped us as the project developed and should help future project that are focused on science communication and outreach.

We identify six major challenges that we encountered and discuss if/how we were able to successfully deal each, and what we learned going forward in each case.

- 1) **Project Management Resources Needed:** Our project involved a large number of team members (20+ people) located at both McGill campuses. We also had significant turnover in personnel, both in Project Managers, Project Leaders, and student ambassadors over the course of the SPF funding. In addition, none of our personnel had their main focus on this project; in almost every case (other than our summer student ambassadors in 2013), working on this project was a secondary task. This meant that managing and organizing the project was difficult, and was a challenge that we underestimated at the beginning of the project.

We learned early in the project that project organization and inter-project communication was key to addressing this challenge. First, we created a number of project guides to explicitly describe the protocols used in the project. These included the following guides: story-writing, story editing, story tracking, using Twitter, and maintaining and updating the website. These guides are available from the ESMontreal team upon request. These served three main purposes: first, they ensured that we had described in detail how we managed project tasks and whose responsibility each of these were; second, they facilitated communication within the project team about how different processes were to occur, and; third, they allowed us to transfer this knowledge more easily as personnel left the project and were replaced.

We also decided early during the project to have weekly meetings between team members to communicate tasks completed and challenges encountered. This helped maintain a cohesive project team and allowed us to track more easily the progress of specific tasks and where more attention was needed. In most cases, meeting notes and outcomes were written up after each meeting and sent out to project members that were unable to attend.

We were also lucky to have a dedicated project manager from project initiation. This was key to ensure that there was a single person who was able to keep track of the progress of different tasks. Without these dedicated project managers, it would have been very difficult to maintain project momentum and cohesion.

- 2) **Effort and Planning for Outreach:** McGill and Montreal have a large number of sustainability projects, initiatives, and groups. We initially had the idea that contacting these groups and having them contribute to our project, mainly by

writing stories for us would be quite easy and would provide an easy source of stories for the project.

Unfortunately this wasn't completely the case. Sifting through the numerous McGill groups and classes for those most relevant to our project goals was not an insignificant task. Next, it was often challenging to contact many of these groups or the instructors for classes and obtain a response back. It took a large amount of time to organize these emails and track which groups and classes had been contacted. University classes were especially challenging, both in identifying the current course instructor, and in getting responses back from busy professors who might not see the benefit to their students in contributing to our project.

We learned early on that we had to be very specific in what we were looking for as a contribution (e.g., a story, an interview, etc.). Asking groups or people to "contribute to our project" often lead to more questions about specifics, which increased our workload and slowed down the contribution of stories from external groups.

We eventually were able to make a number of connections. However this occurred much more slowly and gradually than we had anticipated. As our website developed, stories accumulated and we were able to more widely publicize our project, it became easier to make connections and demonstrate the benefits of contributing. Our consensus is that a larger initial push to connect with McGill groups and classes (and external McGill groups) would have been extremely beneficial to our project, both in creating a larger number of stories as well as establishing a greater initial reach for our project.

- 3) **Story Writing, Tracking, and Editing:** The story tracking and editing process, especially for stories from external editors was a much more complicated and intensive process than first imagined.

In order to maintain our two stories a week pace, it took a concerted effort from our project team to write stories, especially at the beginning of the project when external stories were less common. In addition, these same people were also required to edit stories to ensure accuracy and consistency across stories. Finding time for this given each project members busy schedule was often a challenge. Luckily, each team member was committed to the project and its goals.

In order to post two stories a week and ensure that final, edited stories were available on schedule, it also took a large amount of effort to track stories through the editing process and encourage new stories from project members. We learned early that we needed a straightforward process for this that was managed by a single person. Weekly updates on story progress, editing assignments, and story needs were also key.

- 4) **Technical Skills for Website Creation & Maintenance:** We were extremely lucky to hire during the first summer of the project a student ambassador who was able to create a custom website for the project. This has allowed our project to attract more viewers and has immeasurably increased the reach of our stories. This wasn't initially seen as a key requirement for the project, but in hindsight, without someone

with these skills contributing to the project, it wouldn't have been nearly as successful.

If we were starting this project again, we would recommend making sure that someone on the project team has the necessary web design, coding, and management skills. This same person would also train another team member for common website maintenance and troubleshooting to ensure a fully functioning and updated website at all times. While generic websites are easily created, the benefits of a custom website that is well-designed and easy to navigate are enormous.

- 5) **Social Media Skills:** Managing social media tools and doing so effectively is much more difficult than what we originally anticipated. Regular posting on Facebook and Twitter takes large amounts of time to create timely and effective posts, and to respond to comments on stories. Understanding how these different platforms function and how to best use them is also a difficult skill (see our Twitter guide if interested in more information).

Again, we were lucky to have team members who were enthusiastic about using these tools, who are extremely active on Twitter and Facebook, and who were able to create effective personas for the project to help communicate our stories. They were also able to help instruct other team members, who have less experience, on how to use social media effectively. Having team members with these types of skills is invaluable for science communication and outreach projects today.

- 6) **Bilingualism:** From the start, as our project was focused on the city of Montreal, we wanted to have a bilingual website. We felt that this would ensure that we maximized our ability to communicate with Montrealers across the city. However, the difficulties in actually creating a bilingual website and translating stories were much more substantial than we imagined.

We were lucky to have both native French and English speakers on our project team. However, translating between languages is not an easy task, and can take considerable time to ensure that stories remained consistent. Additionally, while most French speakers are also bilingual and can translate stories in that direction, the same isn't as true for English speakers. This resulted in disproportionate workloads on our French speakers. In the end, we decided that while our website would be in both languages, that we would only post stories in either English or French. While this made workloads for the project reasonable, it likely did reduce the reach of particular stories.

We had the same difficulties when using social media. We found Tweeting in both English and French difficult. In many cases Tweets were only in either English or French, again likely reducing our potential reach.

Project impact & future

We believe that our project has had a positive and substantial impact on how people at McGill and in Montreal, and in some cases around the world (people from nine other countries visited our website), view their connections with the natural

environment. Through our stories and activities, we connected with a diverse and large number of people through our website and social media reach. The lessons we learned from developing and managing this type of project has led to some lessons learned that should help inform future projects of this type at McGill that are funded through the SPF. While our SPF funding had now ended, it allowed us to create a vibrant project that will continue on into the future. Specific details about the project's impact and future are:

- 1) **Communication and outreach platform:** We created an active and interactive platform for students, labs, professors, groups and other individuals (former students, professionals, etc.) to: communicate their research to a large audience; gain experience in non-academic writing and communicate with non-academic audiences; promote their activities to the wider public; learn from our story editors and gain experience in blogging using our expertise and resources.
- 2) **Montreal's Ecosystems at Your Service will be Included in the LARS (Linking Action and Research on Sustainability) project:** Montreal's Ecosystems at Your Service will be incorporated into the new SPF-funded LARS project as a platform to post videos made by McGill scholars who are working on positive contributions/solutions to sustainability. This will ensure that our project has the resources and personnel to continue into the future.
- 3) **Self-sustainable management into the future:** While LARS's project manager will manage the website until April 2015, the project will not have the capacity to hire student ambassadors or a dedicated project manager now that SPF funding has ended. However, because SPF funding allowed us to create a self-sustaining project, Montreal's Ecosystems at Your Service will continue to run into the future thanks to our dedicated volunteers and Prof. Elena Bennett's lab members. Dr. Bennett in particular is dedicated to the project and will endeavor to keep it running into the future.