

# Sustainability Projects Fund

ANNUAL REPORT 2011



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Reporting on activities of the Sustainability Projects Fund from May 2010 – April 2011

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### **EXECUTIVE SUMMARY**

We are excited to share this report to share and celebrate the activities of the first year of McGill University's Sustainability Projects Fund (SPF). The \$840,000-a-year SPF is the largest of its kind in North America, and has been replicated elsewhere, including the University of British Columbia (UBC). Its mandate – *building a culture of sustainability among the McGill campus community* – reflects the evolution of campus sustainability to be not just energy efficiency, or operations, or reducing environmental impact, but instead an integration of environmental, social, and economic imperatives in how we, as a campus community, do things. How and what we teach and learn, how and what we research, how we run facilities and administration, and what it feels like to be part of our community.

The SPF has helped to integrate sustainability, collaboration, experiential learning by doing, into the academics and operations and campus experience. Academic staff have been supported in advance their own research through oncampus application in ways relevant to our community. Students have been able to learn more in, and out of, the classroom through project-based experience about how complex organizations work and how to make change for the better. Staff has been supported to help transform and improve their workplace within their mandates as well as above and beyond them. All in all, these projects represent myriad ways that our community has worked together to improve our community.

### **ACKNOWLEDGEMENTS**

The drive, dedication, and passion of the students, faculty, and staff of McGill University have made the Sustainability Projects Fund's (SPF) first year a resounding success. We are still learning but have enjoyed seeing connections made between people who have a shared vision of sustainability McGill. The SPF team would like to thank every applicant who has put in the effort to improve our campus community.

#### **ENVISIONING SUSTAINABILITY**

A sustainable future is one where "human intentions are recalibrated with the way the world works as a physical system" (Orr, 2004). The content of this future is endlessly diverse, and will range from new ways of producing and distributing energy, to new strategies for promoting diversity and equality, to innovative economic investments. The process of moving toward sustainability is where our focus is required. We must intentionally build new relationships founded on trust and anchored in a shared vision for a better future. Sustainability is that process of engaging our community in shared experiences to transform "how our community encounters the world" (Nilsson, 2009).

### **OUR MANDATE**

To fund projects led by students and staff of McGill University that will build a culture of sustainability among our campus community.

#### **OUR VISION**

A McGill campus community working together, in transformative and engaging ways, toward a shared vision for a better future.

### **HISTORY**

In the 2009-2010 academic year, McGill's three student societies—the Students' Society of McGill University (SSMU), the Post-Graduate Students' Society (PGSS), and the Macdonald Campus Students' Society (MCSS)—partnered with the McGill administration to create the Sustainability Projects Fund (SPF). The proposal was passed by student referendum in November 2009, with 79 per cent of voters at the downtown campus and 88 per cent at the Macdonald campus voting to adopt the fund. Approximately 5,300 students voted during the SSMU referendum, the second-highest total voter turnout in the society's history.

The Sustainability Projects Fund has been created for an initial three-year period, which will serve as a basis for future decisions regarding a possible extension or any changes to the contributions to the fund. Decisions about how to proceed after this initial period will be made based on an assessment of the tangible and measureable impacts of the fund over the course of the initial three-year period.



An outdoor event to bring the sustainability community together on the McGill downtown campus lower field (*Photo credit: Owen Egan*)

# **SPF** PROJECTS

(APPROVED BETWEEN MAY 1, 2010 AND APRIL 30, 2011)

### **COMPLETED PROJECTS**

Project	Cost	Project	Cost
Apartment Gardens A grassroots initiative of students distributing potted herbs and vegetables with information about how to grow them in an urban setting to 100 students	\$207	Macdonald Student-run Ecological Garden An educational farm to demonstrate ecological production methods in a closed-loop food system, growing produce; running two workshops and numerous events; and attracting over 60 volunteers	\$30,168
Campus Crops A student garden collective dedicated to engaging the community in alternative food production on campus through open garden hours and regular workshops and events, expanding in 2010 to the James Administration Terrace	\$8,858	Making the Edible Campus  An education-focused urban gardening project powered by over 200 volunteers, producing over 2000 pounds of produce each season for a bike-powered meals-on-wheels program for marginalized members of the local community	\$44,806
Desautels Business Conference on Sustainability A student-run conference whose deliverable for the SPF was a report documenting their lessons learned in reducing the impact of the event to ensure improvement and knowledge transfer of best practices	\$3,128	McGill Feeding McGill  A partnership between the Plant Science department and McGill Food & Dining Services that led to 22,000 lbs of fruits and vegetable grown at the Macdonald Horticultural Centre being served to the 3,000 student living in downtown residences, only 40 km away	\$24,886
Farmers' Market A student-led partnership to bring local farmers and artisans to the downtown campus to strengthen ties with the community and food producers. Weekly attendance was five food vendors and at least one artisan.	\$4,439	Meatless Mondays A student-led menu shift and education campaign in residence dining halls to encourage residents to reduce meat consumption	\$1,876
High-density Bike Rack A mechanical engineering capstone project that responds to the needs of the McGill Campus & Space Planning Office for a high-density low-cost bike rack solution	\$2,293	Sustainable Purchasing Agent A full-time position co-designed by students and the McGill Food & Dining Services (MFDS) to integrate sustainability into procurement and operations	\$16,417
Hitting the Benchmark  A design project that explores constructing outdoor benches using reclaimed discarded materials. Two benches currently reside in the Green Corner of the Student University Center	\$1,114	Student Sustainability Research Position Support for an academic research project to strengthen and institutionalize student sustainability efforts by engaging all McGill stakeholders who are or should be involved in those efforts to compile resources and recommendations, resulting in the creation of an SSMU student sustainability coordinator	\$251
La Cave Bike Collective Student-run space offering volunteers, workshops, tools, and parts sold at-cost to help students learn to repair their bicycles in Solin Hall, an off-campus residence: 20 volunteers and 100+ customers served	\$2,813	Sustainability Symposium  An event put on by 25 volunteers to bring McGill students and professors together across disciplines to share and discuss their research and build community connections. 140 people registered to see 20 student posters, two guest speakers and attend a World Café discussing sustainability challenges.	\$7,353

### **ONGOING PROJECTS**

Project	Budget	Project	Budget
Bellairs Waste Management	\$4,425	Hazardous Waste Minimization	\$11,600
A first step toward integrating sustainability into the		A strategy that has identified three key leverage points for	
operations of the Bellairs research station in Barbados		reducing waste in labs and working with lab members to	
		shift them	

Campus Composter A pilot project of an in-vessel bioreactor with the capacity to compost up to 200 tonnes of food waste annually, internalizing a piece of the food system and producing soil used by McGill Grounds	\$104,192	Law Plate Club A student-led initiative based on the SSMU Plate Club to offer reusable dishware and cutlery to upper campus events, documenting the costs and benefits in order to make the case for other similar initiatives	\$1,500
Campus Crops 2 A student garden collective dedicated to engaging the community in alternative food production on campus through open garden hours and regular workshops and events, expanding summer 2011 to Thomson House and the Strathcona Terrace	\$5,000	Materials Assessment Tool An online tool to rate the sustainability of the materials used in over \$100M worth of construction and renovation projects at McGill to inform all purchasing decisions, engage manufacturers, and encourage knowledge transfer	\$93,001
Edible Campus 2  An education-focused urban gardening project powered by over 200 volunteers, producing over 2000 pounds of produce each season for a bike-powered meals-on-wheels program for marginalized members of the local community	\$127,444	Mac Bottle Refill Station A dispenser of chilled municipal water that keeps track of how many disposable plastic water bottles are displaced	\$3,750
Electric Low Speed Vehicle  An electric vehicle to be shared by various departments, to encourage their next vehicle purchase to be electric	\$30,000	Outdoor Frosh An opportunity for 100 first year students to be brought into the McGill community by upper year students through various outdoor trips and engagement workshops run by the McGill Outdoors Club	\$6,000
Energy Dashboard Real-time, building-specific energy dashboards and website to engage occupants to reduce consumption and measure progress	\$1,200	SPF Budget Student intern wages to support the activities of the SPF—e.g., website revamping, finance & reporting, applied student research & curriculum, multimedia, materials, and events	\$6,000
Farmers' Market 2 A student-led partnership to bring local farmers and artisans to the downtown campus to strengthen ties with the community and food producers	\$5,700	Sustainable Eating A series of stage opportunities for Human Nutrition & Dietetics students to learn and then teach others about the deep connection between sustainable food systems, humans and environmental health	\$12,075
Fluorescent Lamps Disposal  Demonstration of responsible disposal of mercury-containing fluorescent lamp tubes to make the case for a wider roll-out of such a program	\$16,500	Sustainable Thomson House A collaborative audit done through community engagement and student research that will lay the groundwork for retrofits and other similar building on campus	\$30,000
Food Systems Administrator 2 A full-time position co-designed by students and MFDS to integrate sustainability into procurement and operations by implementing a three-year sustainability strategy developed in 2010-2011	\$22,325	Transport Survey Academic-led campus survey to assess the transportation habits of the entire McGill community, identify motivations and barriers to sustainable alternatives, and inform policy decisions	\$24,000
Food Waste Processing for In-Vessel Composting Three pilot devices to macerate and de-water food scraps to increase the annual capacity of the Big Hanna composter from 60 to 200 tonnes	\$65,390	Water Collection System A demonstration of a water collection system on the greenhouses at the Macdonald campus to use as a teaching tool	\$39,957
Gault Electric ATV A mechanical engineering capstone project to respond to the needs of the McGill's Gault Nature Reserve for an electric all-terrain vehicle	\$6,000	Water is Life! An engaging traveling exhibit that summarizes the context of water issues that affect McGill and asks the community the question of how best to use water wisely	\$44,000
Hazardous Chemicals Disposal Campaign A hazardous waste inventory and minimization program, designed to engage and assist members of McGill's 800 laboratories to eliminate their use of harmful chemicals	\$46,700		

### **SAMPLE PROJECTS**

### LA CAVE COLLECTIVE

### PROJECT TEAM:

- MATTHEW PARK (UG)
- Danji Buck-Moore (UG)
- CONNOR BAYS (UG)
- Jesse Bourns (UG)

#### **PROCESS:**

- SOLIN HALL IS THE FURTHEST OF McGILL'S DOWNTOWN RESIDENCES WITH MOST STUDENTS COMMUTING BY METRO. ITS NEIGHBOURHOOD IS INACCESSIBLE TO AFFORDABLE BIKE WORKSHOPS
- LA CAVE STARTED AS A WAY TO FILL THIS VOID, AND PROVIDE FREE REPAIR HELP TO SOLIN STUDENTS.

  AVAILABLE SERVICES WERE LIMITED TO AVAILABLE TOOLS. CAPITAL WAS THEREFORE REQUIRED TO

  PURCHASE STANDS AND TOOLS FOR COMPLETE BICYCLE REPAIR AND MAINTENANCE
- EMPOWERED MANY STUDENTS TO LEARN AND TEACH THEMSELVES ABOUT CYCLING FOR LITTLE COST
- WORKED WITH ON-CAMPUS BIKE COLLECTIVE TO SHARE LESSONS LEARNED AND COLLABORATE

#### **OUTCOMES:**

- BUILT NEW RELATIONSHIPS BETWEEN STUDENTS AND RESIDENCE ADMINISTRATIVE STAFF
- Self-sufficient after kick-start funds
- SERVICE FOR FURTHEST RESIDENCE AND SURROUNDING COMMUNITY TO ENCOURAGE CYCLING CULTURE
- 20 VOLUNTEERS AND HUNDREDS OF CUSTOMERS

### MACDONALD STUDENT-RUN ECOLOGICAL GARDEN

#### PROJECT TEAM:

- Andrea Hawkes (UG)
- EMILY McGILL (UG)
- Kourosh Mohtashami (UG)
- KATRYNA VAN VLIET (UG)

### **PROCESS:**

- BUILT ON THE SUCCESS OF A SMALLER PROJECT FROM THE PREVIOUS SUMMER, THE PROJECT PRODUCED FOOD USING A VARIETY OF SUSTAINABLE PRACTICES WHILE CONNECTING STUDENT LEARNING FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCES WITH THE MACDONALD CAMPUS FOOD SYSTEM AND LOCAL COMMUNITY

#### **OUTCOMES:**

- GREW AND SOLD PRODUCE AT SAINTE-ANNE'S FARMERS' MARKET, GENERATING OVER \$3000 IN MARKET REVENUES
- WORKED WITH OVER 60 VOLUNTEERS AND EMPLOYING 8 CASUAL EMPLOYEES 4 FULL-TIME EMPLOYEES
- CREATED A FOUNDATION FOR SELF-SUSTENANCE WITHIN 2 YEARS\*

### **ENERGY DASHBOARD**

#### PROJECT TEAM:

JÉRÔME CONRAUD, ENERGY MANAGER, UTILITIES AND ENERGY MANAGEMENT

#### **PROCESS:**

- McGill purchased Pulse Energy, an energy management software that would provide real-time
  information about energy consumption for major buildings on downtown and MacDonald campuses
- Pulse Energy features a dashboard that would display this information on the internet to the general public. For this public display to be meaningful, It was necessary to add descriptive and useful information. This task, however, was beyond the mandate of Utilities and Energy Management

#### **OUTCOMES:**

- TWO STUDENTS HIRED PART-TIME
- Information for 50 buildings compiled
- ENABLED THE MYPULSE DASHBOARD PUBLIC RELEASE TO OCCUR ON SCHEDULE

### **CENTRAL CAMPUS COMPOSTER**

#### PROJECT TEAM:

- DAVID MORRIS, UNDERGRADUATE, CHEMICAL ENGINEERING
- MICHAL BONAR, GRADUATE, COMPOSTER COORDINATOR
- DAVID GRAY-DONALD, SSMU SUSTAINABILITY COORDINATOR, FORMER PROJECT COORDINATOR
- Chuck Adler, Director, McGill University Services
- KATHLEEN NG, ENVIRONMENTAL OFFICER, McGILL UNIVERSITY SERVICES
- Mathieu Laperle, Director, Food and Dining Services
- OLIVER DE VOLPI, EXECUTIVE CHEF, FOOD AND DINING SERVICES
- AVIVA BELHASSEN, SUSTAINABILITY MANAGER, ARAMARK HIGHER EDUCATION

#### **PROCESS:**

- THE GORILLA COMPOSTING STUDENT CLUB COLLECTED STUDENT FOOD WASTE AND TRUCKED IT TO AN OFFSITE COMPOST FACILITY FROM 2005-2010, DIVERTING 15 TONNES OF ORGANIC WASTE
- In 2008, MEMBERS BEGAN TO QUESTION ITS SUSTAINABILITY AND A COLLABORATION BEGAN BETWEEN DAVID GRAY-DONALD, THEN AN UNDERGRADUATE AND HEAD OF GORILLA COMPOSTING, AND DENNIS FORTUNE, FORMER DIRECTOR OF THE OFFICE OF SUSTAINABILITY, TO BEGIN PROCESSING FOOD WASTE, WHICH ACCOUNTS FOR 35% OF McGill's waste, at an on-site demonstration location
- FUNDING WAS SECURED FROM THE SPF, GENERATIONS PACT, ENVIRONMENT CANADA, SSMU, AND TD FRIENDS OF THE ENVIRONMENT FOUNDATION, AND APPROVAL GRANTED BY McGILL AND QUEBEC MINISTRIES FOR INSTALLATION IN MAY 2010

#### **OUTCOMES:**

- 3 STUDENT RESEARCH PROJECTS AND PAPERS ABOUT THE COMPOSTER
- In the first year, 16 tonnes of food waste\* has been processed from 5 different campus kitchens, preventing 23 emission of tonnes of CO₂ equivalent and producing compost for gardens and planters around campus

### **FUNDING PROCESS**

The Sustainability Projects Fund is financed partly by a 'non-opt-out-able' student fee of \$0.50 per credit (with a maximum of \$15/year). Funds collected from students are matched by the McGill administration. The estimated annual total of the fund is \$800,000, totalling approximately \$2.4 million over three years. Any unspent funds remaining from one year will be rolled over into the fund balance of the subsequent year.

### **FUND ALLOCATION**

The fund monies will be dedicated to a wide variety of student- and staff-led sustainability projects. A portion of the monies is reserved to pay for the position of the Sustainability Projects Fund Administrator and three student intern positions until the end of the initial three-year period of the SPF. At that time the SPF will seek a renewed mandate through student referenda in the 2012-2013 academic year.

### **FUND DISTRIBUTION**

The Sustainability Projects Fund has received a steady influx of applications during its first year from both McGill students and staff. As of April 2011, the fund has committed a total of \$924,535 to finance the 39 approved projects listed earlier in this report. The number and diversity of applicants demonstrates the desire of the McGill community to work together toward change on our campuses and reaffirms that the SPF is meeting an important need at McGill. Additionally, the funds approved are on in line with the ideal timeline for the commitment of funds.

Table 1: Summary of Submissions 2010-2011

	Count	Percentage	Value (\$)
Total Applications Received	104	100%	2,539,195
Approved Applications	39	38%	924,535
Rejected Applications	35	34%	894,444
Applications in Review	20	19%	567,035
Ineligible Applications	10	9%	153,181

The SPF's significant investments have also led to a number of concrete positive impacts, some of which are highlighted in sidebar.

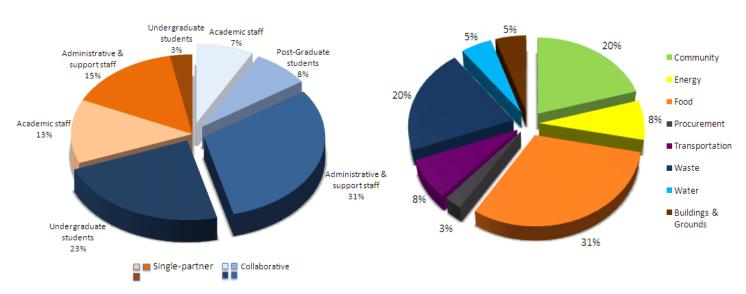
# **IMPACT** HIGHLIGHTS **APPLIED STUDENT** RESEARCH: 60 **OPPORTUNITIES ENERGY** MONITORING OF 50 BUILDINGS WATER COLLECTION TANK OF **20,000L PURCHASING** TOOL: **200+** MATERIALS RATED **FOOD** LOCALLY GROWN: 11,400 KG **BUILDING** AUDIT OF **THOMSON HOUSE COMMUNITY** OUTREACH: 482 **VOLUNTEERS WASTE** COMPOSTED: 12,000 KG **TRANSPORTATION: 1** BIKE COLLECTIVE

### **CONNECTIONS AND COLLABORATION**

Collaboration between stakeholder groups has emerged as a common thread across successful project applications. These multi-stakeholder projects rely on individuals moving beyond their traditional roles and relationships in order to work and build connections with people from different groups and departments. This has been the most effective way to build the significant cultural shift towards sustainability that the fund aims to create. Approximately 77% of committed funds, equivalent to over \$710,000, have been allocated to collaborative projects. For example, 88% of the approved projects that are staff-led are implemented by project teams that include students, academic staff, community partners, and administrative staff from other departments.

Figure 1: Single-Partner and Collaborative Projects, by Lead Partner

Figure 2: Projects by Primary Theme



The fund has been used to implement projects at both the Macdonald and Downtown campuses. Before its adoption, there had been discussions about an independent fund for the Macdonald campus. However, the decision to have one McGill-wide fund has proven effective in addressing the needs of both campuses. It has been important in facilitating the implementation of projects that span both campuses and build stronger connections between them.

Downtown
66%
Mac
25%

Mac
8%
Other
1%

Figure 3: Fund Allocation by Location

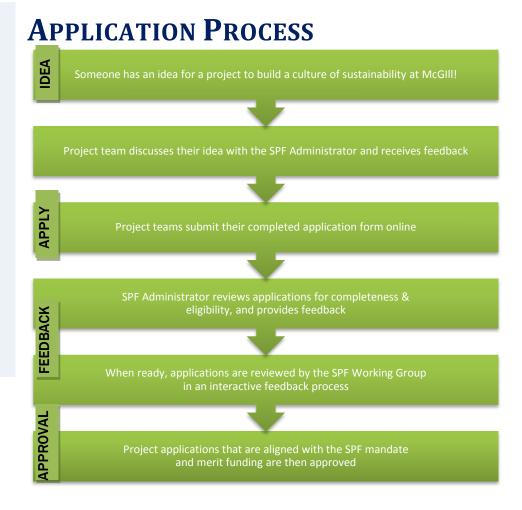
### **LESSONS LEARNED**

- We have worked hard to be more clear to applicants about the mandate, vision, and definition of sustainability held by the SPF—e.g., Communicating what we mean by the evaluation criteria
- We are supporting the community by facilitating connections between with those ideas requiring a team and those keen to join a team
- We have become more effective at ensuring diversity of applications and applicants through outreach
  - Engaging faculty members in a way that was in line with the SPF mandate, avoiding simply replacing research funds
  - Engaging post-graduate students in ways that allow them the time
- It is critical to effectively communicate the activities & impact of the SPF to the campus community at large in order to respect the mandate of the SPF and ensure the renewal of funding through:
  - Because of student turnover, ongoing promotion is needed
  - Accessibility by graduate students and academic staff must be increased by better communicating available opportunities
  - The iterative process of feedback that transforms/ameliorates a project
  - Effective projects are frequently collaborative
- Key challenges
  - Institutionalization and institutional memory: Storing and making accessible results of projects

### **LOOKING FORWARD**

- Revising the application form and SPF description to better articulate our mandate; creating materials (e.g., videos, infographics, website) to further communicate our vision, process, and <a href="impact">impact</a>
- Improving communication with projects through of customized excel templates (work plan and metric)
- Bringing in more interns to assist in moving forward with the SPF's mandate
- Resources to shorten the learning curve re: <u>sustainability at McGill</u>
- Encouraging continuity of projects with events— e.g., Connecting leaders with interested team members; Meet and greets with previous project leaders; Meet and greet with McGill sustainability champions

ANY MEMBER OF THE
MCGILL COMMUNITY CAN
SUBMIT A PROJECT
APPLICATION



## **ELIGIBILITY CRITERIA**

#### Projects must:

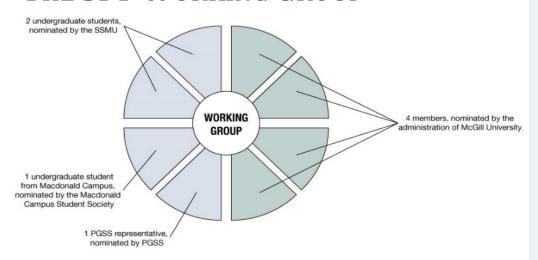
- Be led by a current McGill student or staff member
- Not be covered by an existing operating budget
- ✓ Not be eligible for a research grant
- Contribute to sustainability, in a life-cycle assessment
- Make sense and be relevant in McGill's context
- Be possible, achievable, and realistic

### **EVALUATION CRITERIA**

### Projects must:

- Demonstrate clear commitment from project team members and partners
- ✓ Be comprehensive and well thought-out
- Engage the community at large, or key decision makers
- Effectively communicate why the project is being undertaken
- Nurture learning and change in behaviour and evaluate success
- ✓ Demonstrate the impact is worth its cost
- Involve institutionalizing itself and identifying future leaders and funders
- ✓ Identify **other benefits**, such as applied student research, innovation, etc.

### THE SPF WORKING GROUP



#### CHAIR

### Jim Nicell

Associate Vice-Principal (University Services)

### STUDENT REPRESENTATIVES

Jonathan Glencross SSMU representative

Max Luke SSMU representative

**Alex Goulet-Hanssens** PGSS representative

Joyce Mak MCSS representative

#### **PAST MEMBERS**

**Chris Wrobel** PGSS representative

**Christopher Wolf** MCSS representative

Mohsin bin Latheef MCSS representative

### **STEWARD**

### Lilith Wyatt

Sustainability Projects Fund Administrator

# ADMINISTRATIVE REPRESENTATIVES

### Marcy Slapcoff,

Educational Developer, Teaching and Learning Services

#### George McCourt

Associate Director, Undergraduate Affairs, McGill School of Environment

### Steve Maguire

Associate Professor, Desautels Faculty of Management

### Emmanuelle Lapointe

Architect, Facilities Operations and Development

#### RESOURCE MEMBERS

#### **Dennis Fortune**

Sustainability Director

The Sustainability Projects Fund Working Group (WG) is a parity committee responsible for reviewing & approving project applications by consensus, and providing feedback & guidance to project teams. The WG is comprised of four student representatives and four administrative representatives at any given time. Representatives are chosen based on their experience with and commitment to sustainability efforts at McGill.

The Sustainability Projects
Fund Administrator acts as a
liaison between the WG and
project teams. They are also
responsible for ensuring that
approved projects are
executed as planned, advising
on all SPF processes, and
reporting on the challenges
and achievement of SPF
projects.

During review meetings, any working group member in conflict of interest with the project being reviewed does not take part in the review process for that project.

### **APPENDIX: SELECTED CONSULTATION & OUTREACH**

- Presented to:
  - Green Drinks Montreal
  - Macdonald Campus Student Society
  - Faculty of Science faculty council
  - Faculty of Agricultural & Environmental Sciences faculty council
  - McGill Project Management
  - Senate Committee on Physical Development
- Met with:
  - Graduate & Post-Doctoral Studies
  - Social Equity & Diversity Education Office
  - o Faculty of Medicine
  - o Enrolment Services
  - o Macdonald Campus Farm
  - Residences
- The SPF Administrator met with SSMU and PGSS executives at the beginning of the academic year
- The SPF Administrator presented on the activities of the SPF once per semester to the SSMU and PGSS councils with the respective representatives to the working group
- September 28, 2010, "Meet the Projects": A social event and community feedback forum where attendees could learn about projects that had been funded at that point as well as contribute to priorities and share recommendations for the SPF
- March 15, 2011, "Make it happen: Growing toward sustainability at McGill": A forum at Thomson
  House, beginning with a talk by new McGill Board of Directors member Gerald Butts, President & CEO
  of WWF Canada, followed by an Open Space Technology discussion with staff sustainability champions
  to develop new strategies for collaborating on sustainability efforts at McGill