



## Carleton University STARS REPORT

Date Submitted: Feb. 17, 2017

Rating: Silver

**Score:** 50.72

Online Report: Carleton University

STARS Version: 2.0

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#### **Moving Around in the Document**

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- Bookmarks You can jump to segments of the document quickly and easily using the Bookmarks provided in the
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## **About STARS**

The Sustainability Tracking, Assessment & Rating System (STARS®) is a transparent, self-reporting framework for colleges and universities to gauge relative progress toward sustainability. STARS was developed by AASHE with broad participation from the higher education community.

#### STARS is designed to:

- Provide a framework for understanding sustainability in all sectors of higher education.
- Enable meaningful comparisons over time and across institutions using a common set of measurements developed with broad participation from the campus sustainability community.
- · Create incentives for continual improvement toward sustainability.
- Facilitate information sharing about higher education sustainability practices and performance.
- Build a stronger, more diverse campus sustainability community.

STARS is intended to engage and recognize the full spectrum of colleges and universities—from community colleges to research universities, and from institutions just starting their sustainability programs to long-time campus sustainability leaders. STARS encompasses long-term sustainability goals for already high-achieving institutions as well as entry points of recognition for institutions that are taking first steps toward sustainability.

#### **About AASHE**

STARS is a program of AASHE, the Association for the Advancement of Sustainability in Higher Education. AASHE is a member-driven organization with a mission to empower higher education to lead the sustainability transformation. Learn more about AASHE.

## **Table of Contents**

Summary of Results	5
Institutional Characteristics	6
Institutional Characteristics	6
Academics	15
Curriculum	15
Research	37
Engagement	45
Campus Engagement	45
Public Engagement	72
Operations	87
Air & Climate	87
Buildings	95
Dining Services	106
Energy	114
Grounds	122
Purchasing	131
Transportation	144
Waste	155
Water	169
Planning & Administration	176
Coordination, Planning & Governance	176
Diversity & Affordability	200
Health, Wellbeing & Work	214
Investment	223
Innovation	228
Innovation	228

## **Summary of Results**

**Score** 50.72

Rating: Silver

D	mattational onal actoristics	0.007 0.00
Acad	emics	
b	Curriculum	18.35 / 40.00
b	Research	16.33 / 18.00
Enga	gement	
b	Campus Engagement	11.89 / 20.00
b	Public Engagement	5.20 / 16.00
Opera	ations	
b	Air & Climate	4.20 / 11.00
b	Buildings	4.50 / 8.00
b	Dining Services	1.36 / 7.00
b	Energy	1.94 / 10.00

b WaterPlanning & Administration

**Transportation** 

**Grounds** 

Waste

**Purchasing** 

**Institutional Characteristics** 

Institutional Characteristics

b

b

b

b

	_	
b	Coordination, Planning & Governance	8.00 / 8.00
b	Diversity & Affordability	5.25 / 10.00
b	Health, Wellbeing & Work	3.14 / 7.00
b	Investment	0.00 / 7.00

**Innovation** 

b Innovation 3.00 / 4.00

The information presented in this submission is self-reported and has not been verified by AASHE or a third party. If you believe any of this information is erroneous, please see the process for inquiring about the information reported by an institution.

0.00 / 0.00

1.00 / 4.00

1.35 / 6.00

2.75 / 7.00

6.70 / 10.00

0.61 / 5.00

## **Institutional Characteristics**

## **Institutional Characteristics**

Points Claimed 0.00

Points Available 0.00

The passthrough subcategory for the boundary

Credit	Points
	0.00 /
Institutional Boundary	Total adjusted for non-applicable credits
	Close
	0.00 /
Operational Characteristics	Total adjusted for non-applicable credits
	Close
	0.00 /
Academics and Demographics	Total adjusted for non-applicable credits
	Close

**Score** 

**Responsible Party** 

0.00 /

Total adjusted for non-applicable credits

Philip Mansfield
Sustainability Manager
Facilities Management and Planning

Close

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"---" indicates that no data was submitted for this field

#### Institution type (Associate, Baccalaureate, Doctorate, or Master's):

Master's

#### Institutional control:

Public

#### Which campus features are present and included in the institutional boundary?:

	Present?	Included?
Agricultural school	No	No
Medical school	No	No
Pharmacy school	No	No
Public health school	Yes	Yes
Veterinary school	No	No
Satellite campus	No	No
Hospital	No	No

Farm larger than 5 acres or 2 hectares	No	No
Agricultural experiment station larger than 5 acres or 2 hectares	No	No

#### Reason for excluding agricultural school:

Not present at Institution.

#### Reason for excluding medical school:

Not present at Institution.

#### Reason for excluding pharmacy school:

Not present at Institution.

#### Reason for excluding public health school:

Not present at Institution.

#### Reason for excluding veterinary school:

Not present at Institution.

#### Reason for excluding satellite campus:

Not present at Institution.

#### Reason for excluding hospital:

Not present at Institution.

#### Reason for excluding farm:

Not present at Institution.

#### Reason for excluding agricultural experiment station:

Not present at Institution.

Narrative:

--

Score	Responsible Party
0.00 /	
	Philip Mansfield
Total adjusted for non-applicable credits	Sustainability Manager
Class	Facilities Management and Planning
Close	
Criteria	
n/a	
	"" indicates that no data was submitted for this field
Endowment size:	
190,500,000 US/Canadian \$	
Total campus area:	
153.20 Acres	
IECC climate region:	
Cold	
Cold	
Locale:	
Large city	
Gross floor area of building space:	
4,758,519.31 <i>Gross Square Feet</i>	
Conditioned floor area:	
4,758,519.31 Square Feet	
Floor area of laboratory space:	
560,925.69 Square Feet	
Floor area of healthcare space:	
3,000 Square Feet	
Signal Syddio i Soc	
Floor area of other energy intensive space:	

#### Floor area of residential space:

962,475.40 Square Feet

#### Electricity use by source::

	Percentage of total electricity use (0-100)
Biomass	1
Coal	1
Geothermal	0
Hydro	20
Natural gas	7
Nuclear	65
Solar photovoltaic	1
Wind	5
Other (please specify and explain below)	

#### A brief description of other sources of electricity not specified above:

There is a very small PV (10KW) in the Canal building that feeds directly into the building. Compared to the total campus usage the PV KW are negligible by comparison and is not reflected as a percentage.

#### Energy used for heating buildings, by source::

	Percentage of total energy used to heat buildings (0-100)
Biomass	
Coal	
Electricity	

Fuel oil	
Geothermal	
Natural gas	100
Other (please specify and explain below)	

#### A brief description of other sources of building heating not specified above:

All of the buildings are heated by steam (natural gas) generated at the Campus Central Heating Plant

Score	Responsible Party
0.00 /	
	Philip Mansfield
Total adjusted for non-applicable credits	Sustainability Manager
	Facilities Management and Planning
Close	
Criteria	
n/a	
	"" indicates that no data was submitted for this field
Number of academic divisions:	
5	
Number of academic departments (or the equivalent):	
51	
Full-time equivalent enrollment:	
23,438	
Full-time equivalent of employees:	
2,190	
Full-time equivalent of distance education students:	
250	
Total number of undergraduate students:	
24,554	
Total number of graduate students:	
3,598	
Number of degree-seeking students:	
28,289	
Number of non-credit students:	

Number of employees:
2,855
Number of residential students:
3,600
Number of residential employees:
0
Number of in-patient hospital beds:
0
Data source(s) and notes about the submission:
Data for the year 2014.

## **Academics**

### Curriculum

Points Claimed 18.35

Points Available 40.00

This subcategory seeks to recognize institutions that have formal education programs and courses that address sustainability. One of the primary functions of colleges and universities is to educate students. By training and educating future leaders, scholars, workers, and professionals, higher education institutions are uniquely positioned to prepare students to understand and address sustainability challenges. Institutions that offer courses covering sustainability issues help equip their students to lead society to a sustainable future.

Credit	Points
Academic Courses	8.35 / 14.00
Learning Outcomes	0.80 / 8.00
Undergraduate Program	3.00 / 3.00
Graduate Program	3.00 / 3.00
Immersive Experience	2.00 / 2.00
Sustainability Literacy Assessment	0.00 / 4.00
Incentives for Developing Courses	0.00 / 2.00
Campus as a Living Laboratory	1.20 / 4.00

#### Score

#### **Responsible Party**

#### **Philip Mansfield**

8.35 / 14.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

#### Part 1

Institution offers sustainability courses and/or courses that include sustainability and makes an inventory of those courses publicly available.

#### Part 2

Institution's academic departments (or the equivalent) offer sustainability courses and/or courses that include sustainability.

In order to report and earn points for this credit, the institution must conduct a course inventory. The inventory should consist of two parts:

- 1) An inventory of sustainability courses that includes, at minimum, the title, department (or equivalent), and level of each course (i.e. undergraduate or graduate), as well as a brief description if the sustainability focus of the course is not apparent from its title
- 2) An inventory of other courses that include sustainability. The inventory includes, at minimum, the title, department (or the equivalent), and level of each course and a description of how sustainability is integrated into each course.

A course may be a sustainability course or it may include sustainability; no course should be identified as both:

- A sustainability course is a course in which the primary and explicit focus is on sustainability and/or on understanding or solving one or more major sustainability challenge (e.g. the course contributes toward achieving principles outlined in the Earth Charter).
- A course that includes sustainability is primarily focused on a topic other than sustainability, but incorporates a unit or module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability issues throughout the course.

For guidance on conducting a course inventory and distinguishing between sustainability courses and courses that include sustainability, see *Standards and Terms* and the Credit Example in the STARS Technical Manual. An institution that has developed a more refined approach to course classification may use that approach as long as it is consistent with the definitions and guidance provided.

Each institution is free to choose a methodology to identify sustainability courses that is most appropriate given its unique circumstances. Asking faculty and departments to self-identify sustainability courses and courses that include sustainability using the definitions outlined in *Standards and Terms* or looking at the stated learning outcomes and course objectives associated with each course may provide a richer view of sustainability course offerings than simply reviewing course descriptions, but it is not required.

"---" indicates that no data was submitted for this field

#### Figures required to calculate the percentage of courses with sustainability content::

	Undergraduate	Graduate
Total number of courses offered by the institution	3,063	1,936
Number of sustainability courses offered	11	11
Number of courses offered that include sustainability	371	144

Number of academic departments (or the equivalent) that offer at least one sustainability course and/or course that includes sustainability (at any level):

31

Total number of academic departments (or the equivalent) that offer courses (at any level):

51

Number of years covered by the data:

Two

A copy of the institution's inventory of its course offerings with sustainability content (and course descriptions):

FED Sustainability Courses\_1\_1\_2.xlsx

An inventory of the institution's course offerings with sustainability content (and course descriptions):

---

The website URL where the inventory of course offerings with sustainability content is publicly available: http://calendar.carleton.ca/

A brief description of the methodology the institution followed to complete the course inventory:

To complete the course inventory a review of all the departments courses that were offered during the summer, fall and winter semesters of the 2014/15 year were completed. This was done by using the online registration system at Carleton stars.aashe.org

Carleton University | STARS Report | 17

through Carleton Central in order to make a list of the courses that are offered in at least one of the three semesters. Afterwords emails with the list of courses were sent to the departments that had sustainability courses or courses that had an aspect of sustainability within them to be double checked to ensure that course did provide sections on sustainability.

How did the institution count courses with multiple offerings or sections in the inventory?:

Not applicable; no courses with multiple offerings or sections were included

A brief description of how courses with multiple offerings or sections were counted (if different from the options outlined above):

---

#### Which of the following course types were included in the inventory?:

	Yes or No
Internships	No
Practicums	Yes
Independent study	Yes
Special topics	Yes
Thesis/dissertation	
Clinical	No
Physical education	No
Performance arts	No

Does the institution designate sustainability courses in its catalog of course offerings?:

No

Does the institution designate sustainability courses on student transcripts?:

No

Score Responsible Party

#### **Philip Mansfield**

0.80 / 8.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

Institution's students graduate from degree programs that include sustainability as a learning outcome or include multiple sustainability learning outcomes. Sustainability learning outcomes (or the equivalent) may be specified at:

- Institution level (e.g. covering all students)
- Division level (e.g. covering one or more schools or colleges within the institution)
- · Program level
- Course level

This credit includes graduate as well as undergraduate programs. For this credit, "degree programs" include majors, minors, concentrations, certificates, and other academic designations. Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*. Programs that include co-curricular aspects may count as long as there is an academic component of the program. Learning outcomes at the course level count if the course is required to complete the program.

This credit is inclusive of learning outcomes, institutional learning goals, general education outcomes, and graduate profiles that are consistent with the definition of "sustainability learning outcomes" included in Standards and Terms.

Institutions that do not specify learning outcomes as a matter of policy or standard practice may report graduates from sustainability-focused programs (i.e. majors, minors, concentrations and the equivalent as reported for AC 3: Undergraduate Program and AC 4: Graduate Program) in lieu of the above criteria.

"---" indicates that no data was submitted for this field

Number of students who graduated from a program that has adopted at least one sustainability learning outcome:

439

Total number of graduates from degree programs:

4,379

A copy of the list or inventory of degree, diploma or certificate programs that have sustainability learning outcomes:

---

#### A list of degree, diploma or certificate programs that have sustainability learning outcomes:

Undergraduate:

Africa and Globalization

Architectural Conservation and Sustainability Engineering

**Architectural Studies** 

Biology BSc

**Biomedical Sciences** 

Earth Sciences

**Environment and Health** 

**Environmental Engineering** 

**Environmental Science** 

**Environmental Studies** 

European and Russian Studies

Geography (BA)

Global Development

**Global Politics** 

Globalization and the Environment

Globalization, Culture, Power

International Studies

Latin American and Caribbean Studies

Physical Geography

Sustainable and Renewable Energy Engineering

#### Masters:

Master of Science, Biology

Master of Engineering, Civil Engineering

Master of Applied Science, Environmental Engineering

Master of Engineering, Infrastructure Protection and International Security

Master of Philanthropy and Nonprofit Leadership

Master of Public Policy and Administration,

Master of Engineering, Environmental

Master of Arts, Sustainable Energy

Master of Applied Science, Sustainable Energy Engineering

Master of Environmental Engineering

#### **Doctoral Programs:**

Biology

Civil Engineering

**Environmental Engineering** 

Geography

**Public Policy** 

#### **Graduate Diplomas:**

**Architectural Conservation** 

Indigenous Policy and Administration

Sustainable Development

## A list or sample of the sustainability learning outcomes associated with degree, diploma or certificate programs (if not included in an inventory above):

Architectural Conservation and Sustainability Engineering (for example)

Carleton's program in Architectural Conservation and Sustainability Engineering teaches students a modern approach for the design and retrofit of buildings that holds sustainability as the guiding objective while respecting architectural history and significance. Students learn to consider the life cycle costs and environmental impacts of building materials, energy demand, and the effective reuse and conservation of existing structures.

The website URL where information about the institution's sustainability learning outcomes is available:

---

# Score Responsible Party Philip Mansfield 3.00 / 3.00 Sustainability Manager Facilities Management and Planning

#### Criteria

Institution offers at least one:

Sustainability-focused program (major, degree program, or equivalent) for undergraduate students

And/or

• Undergraduate-level sustainability-focused minor or concentration (e.g. a concentration on sustainable business within a business major).

Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*.

"---" indicates that no data was submitted for this field

Does the institution offer at least one sustainability-focused major, degree program, or the equivalent for undergraduate students?:

Yes

The name of the sustainability-focused, undergraduate degree program (1st program):

Sustainable and Renewable Energy Engineering

A brief description of the undergraduate degree program (1st program):

This program provides analytical and hands-on skills for designing, building, operating and enhancing sustainable energy systems that combine energy generation, distribution and utilization in an environmentally responsible and economically beneficial manner. Two streams are offered: Smart Technologies for Power Generation and Distribution, and Efficient Energy Generation and Conversion.

The website URL for the undergraduate degree program (1st program):

http://admissions.carleton.ca/programs/sustainable-and-renewable-energy-engineering/

The name of the sustainability-focused, undergraduate degree program (2nd program):

Architectural Conservation and Sustainability Engineering

#### A brief description of the undergraduate degree program (2nd program):

Carleton's program in Architectural Conservation and Sustainability Engineering teaches students to approach the design and retrofit of new and existing buildings with sustainability as the primary objective, which includes considering the life cycle costs and impacts of the materials selected, energy needs and consumption, and the effective reuse and adaptation of existing structures. Students in the program, working closely with Carleton's architecture students, have the option of following a Structural stream or an Environmental stream after their second year.

#### The website URL for the undergraduate degree program (2nd program):

http://admissions.carleton.ca/programs/architectural-conservation-and-sustainability-engineerin q/

g/
The name of the sustainability-focused, undergraduate degree program (3rd program):
A brief description of the undergraduate degree program (3rd program):
The website URL for the undergraduate degree program (3rd program):
The name and website URLs of all other sustainability-focused, undergraduate degree program(s):
Does the institution offer one or more sustainability-focused minors, concentrations or certificates for undergraduate students?:

Yes

The name of the sustainability-focused undergraduate minor, concentration or certificate (1st program): Technology, Society, Environment Studies

#### A brief description of the undergraduate minor, concentration or certificate (1st program):

A high level of industrialization and consumption, coupled with population growth, has created problems that past societies did not have to worry about. These have become the crucial problems of our generation.

To maintain reasonable material standards and quality of the environment on our crowded planet, we will have to continue to rely on technology. For this we will continue to need specialists in all fields of endeavor. However, the development of technology will no longer be governed solely by technical feasibility and economic gain, but also by desirability in terms of human and environmental values.

The TSE courses reflect the need to modernize education by tailoring it to our future needs. Taking one or more TSE courses makes it possible for you to "acquire an additional dimension of understanding, additional vision, and the sense of responsibility for the survival and importance of the whole that distinguishes the manager from the subordinate, and the citizen from the subject"

The website URL for the undergraduate minor, concentration or certificate (1st program): http://tse.carleton.ca/
The name of the sustainability-focused undergraduate minor, concentration or certificate (2nd program)
A brief description of the undergraduate minor, concentration or certificate (2nd program):
The website URL for the undergraduate minor, concentration or certificate (2nd program):
The name of the sustainability-focused undergraduate minor, concentration or certificate (3rd program)
A brief description of the undergraduate minor, concentration or certificate (3rd program):
The website URL for the undergraduate minor, concentration or certificate (3rd program):
The name, brief description and URL of all other undergraduate-level sustainability-focused minors, concentrations and certificates:

## Score Responsible Party

3.00/3.00

Sustainability Manager Facilities Management and Planning

**Philip Mansfield** 

#### Criteria

Institution offers at least one:

Sustainability-focused program (major, degree program, or equivalent) for graduate students

And/or

• Graduate-level sustainability-focused minor, concentration or certificate (e.g. a concentration on sustainable business within an MBA program).

Extension certificates and other certificates that are not part of academic degree programs do not count for this credit; they are covered in *EN 11: Continuing Education*.

"---" indicates that no data was submitted for this field

Does the institution offer at least one sustainability-focused major, degree program, or the equivalent for graduate students?:

Yes

The name of the sustainability-focused, graduate-level degree program (1st program):

Master of Public Administration

#### A brief description of the graduate degree program (1st program):

New forms of non-state governance, such as certification programs in the forest, fisheries and coffee sectors.

How governments can make the transition to an environmentally-sustainable economic & social system.

Low-carbon energy technologies & their application in the developing world.

Community engagement in urban planning and emergency management and preparedness.

#### The website URL for the graduate degree program (1st program):

http://graduate.carleton.ca/programs/public-administration-masters/

The name of the sustainability-focused, graduate-level degree program (2nd program):

#### A brief description of the graduate degree program (2nd program):

The Sustainable Energy Masters program has three fields:

Mechanical Energy Conversion: This field covers advanced principles of sustainable energy engineering from a mechanical point of view and leads to either an M.A.Sc. or an M.Eng.

Efficient Electrical Energy Systems: This field involves research in technological devices, components and systems that are intended for sustainable electrical energy generation, conversion, distribution and monitoring, and leads to either an M.A.Sc. or an M.Eng.

Sustainable Energy Policy: This field focuses on the public policy dimensions of sustainable energy problems, leading to a MA degree. Graduates gain an advanced understanding of the ways in which energy policy is made, policy choices and policy instruments, and the challenges that confront public policy in this field.

#### The website URL for the graduate degree program (2nd program):

http://carleton.ca/cserc/academic-programs/graduate-programs-in-sustainable-energy/

#### The name of the sustainability-focused, graduate-level degree program (3rd program):

Graduate Diploma in Sustainable Development

#### A brief description of the graduate degree program (3rd program):

0.5 credit in macroeconomics and public policy: theoretical foundations and current policy debates concerning economic growth and sustainable development, globalization and the open economy, stabilization policy, and fiscal and monetary policy analyzed in the Canadian and international context

2.5 credits in optional courses from the following areas: science and technology policy, industrial policy, innovation and sustainable production, science risk and evaluation, natural resource management, sustainable energy policy, environmental policy, sustainable development in industrialized countries, environmental and ecological economics, urban sustainability, global climate change, regulation and public policy.

#### The website URL for the graduate degree program (3rd program):

http://carleton.ca/sppa/academics/grad-diplomas/sustainable-development/

The name and website URLs of all other sustainability-focused, graduate-level degree program(s):

---

Does the institution offer one or more graduate-level sustainability-focused minors, concentrations or certificates?:

No

The name of the graduate-level sustainability-focused minor, concentration or certificate (1st program):

A brief description of the graduate minor, concentration or certificate (1st program):
The website URL for the graduate minor, concentration or certificate (1st program):
The name of the graduate-level sustainability-focused minor, concentration or certificate (2nd program)
A brief description of the graduate minor, concentration or certificate (2nd program):
The website URL for the graduate minor, concentration or certificate (2nd program):
The name of the graduate-level sustainability-focused minor, concentration or certificate (3rd program):
A brief description of the graduate minor, concentration or certificate (3rd program):
The website URL for the graduate minor, concentration or certificate (3rd program):
The name and website URLs of all other graduate-level, sustainability-focused minors, concentrations and certificates:
<del></del>

Score

#### **Responsible Party**

#### **Philip Mansfield**

2.00 / 2.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

Institution offers at least one immersive, sustainability-focused educational study program. The program is one week or more in length and may take place off-campus, overseas, or on-campus.

For this credit, the program must meet one or both of the following criteria:

It concentrates on sustainability, including its social, economic, and environmental dimensions

And/or

It examines an issue or topic using sustainability as a lens.

For-credit programs, non-credit programs and programs offered in partnership with outside entities may count for this credit. Programs offered exclusively by outside entities do not count for this credit.

See the Credit Example in the STARS Technical Manual for further guidance.

"---" indicates that no data was submitted for this field

Does the institution offer at least one immersive, sustainability-focused educational study program that meets the criteria for this credit?:

Yes

#### A brief description of the sustainability-focused immersive program(s) offered by the institution:

Carleton University offers a variety of immersive programs that range from shorter field courses to international exchange programs. Many of these programs focus on sustainability related topics such as conservation, bio-diversity, human rights, sustainable development, social change, health and the environment.

Program: Environmental Studies Intensive Field Course

Description: Training in fields of research or practice related to careers in Environmental Studies, linking human values and environment and may include engaging in action learning in environmental education, environmental auditing, environmental assessment, watershed protection or living resource inventories. Topics may change from year to year.

Program: Kroger College Internship in Peru

Description: Mission of Internship - To work alongside with communities who live in a situation of poverty and social exclusion in the development processes with the aim of promoting equality of opportunity and the right for the community to exercise their fundamental rights.

The website URL where information about the immersive program(s) is available:

---

Score Responsible Party

0.00 / 4.00

#### Criteria

Institution conducts an assessment of the sustainability literacy of its students. The sustainability literacy assessment focuses on knowledge of sustainability topics and may also address values, behaviors and/or beliefs. Assessments that focus exclusively on values, behaviors and/or beliefs are not sufficient to earn points for this credit.

Institution may conduct a follow-up assessment of the same cohort group(s) using the same instrument.

This credit includes graduate as well as undergraduate students.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

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#### **Responsible Party**

0.00 / 2.00

#### Criteria

Institution has an ongoing program or programs that offer incentives for faculty in multiple disciplines or departments to develop new sustainability courses and/or incorporate sustainability into existing courses or departments. The program specifically aims to increase student learning of sustainability.

Incentives may include release time, funding for professional development, and trainings offered by the institution.

Incentives for expanding sustainability offerings in academic, non-credit, and/or continuing education courses count for this credit.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Score	Responsible Party
	Philip Mansfield
1.20 / 4.00	Sustainability Manager
	Facilities Management and Planning

#### Criteria

Institution is utilizing its infrastructure and operations for multidisciplinary student learning, applied research and practical work that advances sustainability on campus in at least one of the following areas:

- · Air & Climate
- Buildings
- · Dining Services/Food
- Energy
- Grounds
- Purchasing
- Transportation
- Waste
- Water
- · Coordination, Planning & Governance
- Diversity & Affordability
- · Health, Wellbeing & Work
- Investment
- Public Engagement
- Other

This credit includes substantive work by students and/or faculty (e.g. class projects, thesis projects, term papers, published papers) that involves active and experiential learning and contributes to positive sustainability outcomes on campus (see the Credit Example in the STARS Technical Manual). On-campus internships and non-credit work (e.g. that take place under supervision of sustainability staff or committees) may count as long as the work has a learning component.

This credit does not include immersive education programs, co-curricular activities, or community-based work, which are covered by *AC 5: Immersive Experience*, credits in the Campus Engagement subcategory, and credits in the Public Engagement subcategory, respectively.

"---" indicates that no data was submitted for this field

Is the institution utilizing the campus as a living laboratory for multidisciplinary student learning and applied research in the following areas?:

|--|

Air & Climate	Yes
Buildings	Yes
Dining Services/Food	
Energy	Yes
Grounds	
Purchasing	
Transportation	
Waste	
Water	
Coordination, Planning & Governance	
Diversity & Affordability	
Health, Wellbeing & Work	
Investment	
Public Engagement	
Other	

## A brief description of how the institution is using the campus as a living laboratory for Air & Climate and the positive outcomes associated with the work:

Students at Carleton University draw on historical and real-time data from every room in the Canal building to learn about and experiment with building systems design and operation.

On May 29, 2012, representatives from Carleton and Delta Controls, the universities building automation partner, opened a new facility for teaching and research, housed in a building containing sensors and actuators from Delta Controls to monitor building energy use and respond to occupant needs for light, temperature control and air quality. More than convenience, this monitoring and adjustment ensures that Carleton is using energy efficiently, saving both power and expense.

With Delta Control's equipment and the expertise of Carleton's researchers, the building is providing data to further predictive and simulation modeling to enable building managers and designers create smarter, more efficient, sustainable buildings for building owners. Occupants and visitors to the building can also keep an eye on the building's performance. A display in the lobby shows current energy uses, weather factors and other variables.

http://carleton.ca/engineering-design/about/facilities/

## A brief description of how the institution is using the campus as a living laboratory for Buildings and the positive outcomes associated with the work:

Students at Carleton University draw on historical and real-time data from every room in the Canal building to learn about and experiment with building systems design and operation.

On May 29, 2012, representatives from Carleton and Delta Controls opened a new facility for teaching and research, housed in a building containing sensors and actuators from Delta Controls to monitor building energy use and respond to occupant needs for light, temperature control and air quality. More than convenience, this monitoring and adjustment ensures that Carleton is using energy efficiently, saving both power and expense.

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http://carleton.ca/engineering-design/about/facilities/

A brief description of how the institution is using the campus as a living laboratory for Dining Services/Food and the positive outcomes associated with the work:

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## A brief description of how the institution is using the campus as a living laboratory for Energy and the positive outcomes associated with the work:

Students at Carleton University draw on historical and real-time data from every room in the Canal building to learn about and experiment with building systems design and operation.

On May 29, 2012, representatives from Carleton and Delta Controls opened a new facility for teaching and research, housed in a building containing sensors and actuators from Delta Controls to monitor building energy use and respond to occupant needs for light, temperature control and air quality. More than convenience, this monitoring and adjustment ensures that

Carleton is using energy efficiently, saving both power and expense.

With Delta Control's equipment and the expertise of Carleton's researchers, the building is providing data to further predictive and simulation modeling to enable building managers and designers create smarter, more efficient, sustainable buildings for building owners. Occupants and visitors to the building can also keep an eye on the building's performance. A display in the lobby shows current energy uses, weather factors and other variables.

http://carleton.ca/engineering-design/about/facilities/

A brief description of how the institution is using the campus as a living laboratory for Grounds and the positive outcomes associated with the work:

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A brief description of how the institution is using the campus as a living laboratory for Purchasing and the positive outcomes associated with the work:

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A brief description of how the institution is using the campus as a living laboratory for Transportation and the positive outcomes associated with the work:

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A brief description of how the institution is using the campus as a living laboratory for Waste and the positive outcomes associated with the work:

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A brief description of how the institution is using the campus as a living laboratory for Water and the positive outcomes associated with the work:

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A brief description of how the institution is using the campus as a living laboratory for Coordination, Planning & Governance and the positive outcomes associated with the work:

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A brief description of how the institution is using the campus as a living laboratory for Diversity &

Affordability and the positive outcomes associated with the work:
<del></del>
A brief description of how the institution is using the campus as a living laboratory for Health, Wellbeing & Work and the positive outcomes associated with the work:
<del></del>
A brief description of how the institution is using the campus as a living laboratory for Investment and the positive outcomes associated with the work:
A brief description of how the institution is using the campus as a living laboratory for Public Engagement and the positive outcomes associated with the work:
A brief description of how the institution is using the campus as a living laboratory in Other areas and the positive outcomes associated with the work:
The website URL where information about the institution's campus as a living laboratory program or projects is available:
<del></del>

### Research

Points Claimed 16.33

Points Available 18.00

This subcategory seeks to recognize institutions that are conducting research on sustainability topics. Conducting research is a major function of many colleges and universities. By researching sustainability issues and refining theories and concepts, higher education institutions can continue to help the world understand sustainability challenges and develop new technologies, strategies, and approaches to address those challenges.

Credit	Points
Academic Research	11.33 / 12.00
Support for Research	3.00 / 4.00
Access to Research	2.00 / 2.00

#### **Responsible Party**

#### **Philip Mansfield**

11.33 / 12.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

#### Part 1

Institution's faculty and/or staff conduct sustainability research and the institution makes an inventory of its sustainability research publicly available.

#### Part 2

Institution's academic departments (or the equivalent) include faculty and staff who conduct sustainability research.

Any level of sustainability research is sufficient to be included for this credit. In other words, a researcher who conducts both sustainability research and other research may be included.

In order to report for this credit, the institution should conduct an inventory to identify its sustainability research activities and initiatives.

Each institution is free to choose a methodology to identify sustainability research that is most appropriate given its unique circumstances. For example, an institution may distribute a survey to all faculty members and ask them to self-identify as being engaged in sustainability research or ask the chairperson of each department to identify the sustainability research activities within his or her department. The research inventory should be based on the definition of "sustainability research" outlined in Standards and Terms and include, at minimum, all research centers, laboratories, departments, and faculty members whose research focuses on or is related to sustainability.

"---" indicates that no data was submitted for this field

Number of the institution's faculty and/or staff engaged in sustainability research:

238

Total number of the institution's faculty and/or staff engaged in research:

840

Number of academic departments (or the equivalent) that include at least one faculty or staff member that conducts sustainability research:

34

The total number of academic departments (or the equivalent) that conduct research:

A copy of the sustainability research inventory that includes the names and department affiliations of faculty and staff engaged in sustainability research:

Sustainability research Carleton.xlsx

Names and department affiliations of faculty and staff engaged in sustainability research:

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A brief description of the methodology the institution followed to complete the research inventory:

Went through the faculty pages of each department and reviewed the faculties current research and interests.

A brief description of notable accomplishments during the previous three years by faculty and/or staff engaged in sustainability research:

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The website URL where information about sustainability research is available:

https://carleton.ca/cserc/

Score	Responsible Party
	Philip Mansfield
3.00 / 4.00	Sustainability Manager
	Facilities Management and Planning

#### Criteria

Institution encourages and/or supports sustainability research through one or more of the following:

- An ongoing program to encourage students in multiple disciplines or academic programs to conduct research in sustainability. The program provides students with incentives to research sustainability. Such incentives may include, but are not limited to, fellowships, financial support, and mentorships. The program specifically aims to increase student sustainability research.
- An ongoing program to encourage faculty from multiple disciplines or academic programs to conduct research in sustainability topics. The program provides faculty with incentives to research sustainability. Such incentives may include, but are not limited to, fellowships, financial support, and faculty development workshops. The program specifically aims to increase faculty sustainability research.
- Formally adopted policies and procedures that give positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and/or tenure decisions.
- Ongoing library support for sustainability research and learning in the form of research guides, materials selection policies
  and practices, curriculum development efforts, sustainability literacy promotion, and e-learning objects focused on
  sustainability.

"---" indicates that no data was submitted for this field

Does the institution have a program to encourage student sustainability research that meets the criteria for this credit?:

Yes

A brief description of the institution's program(s) to encourage student research in sustainability:

Sustainable Energy Carleton will support research and demonstration of the most promising new energy technologies. The Centre will assist in the work to move new technologies from the lab to the marketplace by fostering partnerships with leading-edge companies in industry.

On the policy front, Sustainable Energy Carleton will support research into the design and implementation of policies which will inform government priorities, guide new policy initiatives, and strengthen public engagement in sustainable energy.

SEC also coordinates applications for grants and other funding sources which bring in additional resources to support multi-disciplinary research work.

Sustainable Energy Carleton has many exciting initiatives underway. Carleton researchers in different fields are collaborating and making important contributions to the field of sustainable energy through top quality education and research.

Current activities and initiatives:

Professional Development Courses, Profiling SEC's Research, Supporting Sustainable, Energy Research, Building Partnerships, Green Revolving Fund Committee.

#### The website URL where information about the student research program is available:

http://carleton.ca/cserc/sec-activities-and-initiatives/supporting-research/

Does the institution have a program to encourage faculty sustainability research that meets the criteria for this credit?:

Yes

#### A brief description of the institution's program(s) to encourage faculty research in sustainability:

See previous description for students. The research support does not exclude/include specific research over others, ie. Students over faculty.

#### The website URL where information about the faculty research program is available:

http://carleton.ca/cserc/carletons-research-in-sustainable-energy/

Has the institution formally adopted policies and procedures that give positive recognition to interdisciplinary, transdisciplinary, and multidisciplinary research during faculty promotion and/or tenure decisions?:

Yes

#### A brief description or the text of the institution's policy regarding interdisciplinary research:

Carleton has a vibrant multidisciplinary research community whose work is complemented by high quality programs and innovative teaching methods. Research in sustainable energy at Carleton stems principally from the Faculty of Engineering and Design and the School of Public Policy and Administration, but also includes other faculties including Arts and Social Sciences, Biology, Economics, Political Science and the Sprott School of Business.

We are committed to world-class research in addressing real world issues and sustainable energy issues and developing practical "real world" solutions. Through CSERC, our research provides a unique platform to expose a new generation of students and professionals to cutting-edge research into scientific, social and political dimensions of transforming the energy sector into a more sustainable system. It is through those students, our future technology and policy professionals, that we will find leadership to design and deploy energy solutions that advance economic and social development locally, nationally and globally.

Our research in energy and sustainability has been captured in "Energizing our Future". This publication showcases some of the most significant research that is currently underway at Carleton, our researchers and our focus for the future through the Sustainable Energy Research Centre.

#### The website URL where information about the treatment of interdisciplinary research is available:

Does the institution provide ongoing library support for sustainability research and learning that meets the criteria for this credit?:  No	
A brief description of the institution's library support for sustainability research and learning:	
The website URL where information about the institution's library support for sustainability is available:	

## Score Responsible Party

2.00 / 2.00

Sustainability Manager Facilities Management and Planning

**Philip Mansfield** 

#### Criteria

Institution has a formally adopted open access policy that ensures that versions of all future scholarly articles by faculty and staff and all future theses and dissertations are deposited in a designated open access repository.

The open access repository may be managed by the institution or the institution may participate in a consortium with a consortial and/or outsourced open access repository.

"---" indicates that no data was submitted for this field

Total number of institutional divisions (e.g. schools, colleges, departments) that produce research:

101

Number of divisions covered by a policy assuring open access to research:

101

A brief description of the open access policy, including the date adopted and repository(ies) used:

The open-access policy applies to all faculty, staff and students at Carleton University and took effect January 1, 2012. The policy is the principle that all research and creative work, particularly from publicly funded institutions, should be freely accessible via the internet.

Carleton University Repository Virtual Environment (CURVE) is Carleton's institutional repository which collects, preserves and provides open access to the academic, research output and creative works of Carleton faculty and scholars.

#### A copy of the open access policy:

CU-Open-Access-Policy.pdf

The open access policy:

http://carleton.ca/secretariat/wp-content/uploads/Open-Access-Policy.pdf

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#### The website URL where the open access repository is available:

https://library.carleton.ca/services/curve

#### A brief description of how the institution's library(ies) support open access to research:

Carleton's MacOdrum Library supports Open Access and Scholarly Communication through a number of projects and initiatives intended to provide the widest possible access to the work of Carleton researchers and scholars. These initiatives include: The Carleton University Repository Virtual Environment, Open Journal Publication and Dataverse, a research data platform and repository for sharing, discovering and preserving research data.

#### The website URL where information about open access to the institution's research is available:

https://library.carleton.ca/services/scholarly-communications/policies-open-access

## **Engagement**

## **Campus Engagement**

Points Claimed 11.89

Points Available 20.00

This subcategory seeks to recognize institutions that provide their students with sustainability learning experiences outside the formal curriculum. Engaging in sustainability issues through co-curricular activities allows students to deepen and apply their understandings of sustainability principles. Institution-sponsored co-curricular sustainability offerings, often coordinated by student affairs offices, help integrate sustainability into the campus culture and set a positive tone for the institution.

In addition, this subcategory recognizes institutions that support faculty and staff engagement, training, and development programs in sustainability. Faculty and staff members' daily decisions impact an institution's sustainability performance. Equipping faculty and staff with the tools, knowledge, and motivation to adopt behavior changes that promote sustainability is an essential activity of a sustainable campus.

Credit	Points
Student Educators Program	0.97 / 4.00
Student Orientation	2.00 / 2.00
Student Life	1.75 / 2.00
Outreach Materials and Publications	2.00 / 2.00
Outreach Campaign	4.00 / 4.00
Employee Educators Program	0.17 / 3.00
Employee Orientation	1.00 / 1.00
Staff Professional Development	0.00 / 2.00

Score Responsible Party

0.97 / 4.00

Sustainability Manager
Facilities Management and Planning

**Philip Mansfield** 

#### Criteria

Institution coordinates an ongoing peer-to-peer sustainability outreach and education program for degree-seeking students. The institution:

- Selects or appoints students to serve as educators and formally designates the students as educators (paid and/or volunteer),
- · Provides formal training to the educators in how to conduct outreach, and
- Offers faculty or staff and/or other financial support to the program.

This credit focuses on programs for degree-seeking students enrolled in a for-credit program. Continuing education and/or non-credit students are excluded from this credit.

This credit recognizes ongoing student educator programs that engage students on a regular basis. For example, student educators may be responsible for serving (i.e. directly targeting) a particular subset of students, such as those living in residence halls or enrolled in certain academic subdivisions. Thus, a group of students may be served by a program even if not all of these students avail themselves of the outreach and education offerings.

Sustainability outreach campaigns, sustainability events, and student clubs or groups are not eligible for this credit unless the criteria outlined above are met. These programs are covered by EN 5: Outreach Campaign and EN 3: Student Life.

"---" indicates that no data was submitted for this field

Does the institution coordinate one or more ongoing student, peer-to-peer sustainability outreach and education programs that meet the criteria for this credit?:

Yes

Number of degree-seeking students enrolled at the institution:

29,737

Name of the student educators program (1st program):

Residence Eco Reps

Number of students served (i.e. directly targeted) by the program (1st program):

#### A brief description of the program, including examples of peer-to-peer outreach activities (1st program):

The Residence Eco Reps program is made up of student's who attempt to create a sustainable lifestyle in res. Each floor is to have an eco-rep, that will work directly with their floor on completing a series of tasks to make their residence/floor more sustainable.

#### A brief description of how the student educators are selected (1st program):

Students volunteer to become an eco-rep and all are accepted.

#### A brief description of the formal training that the student educators receive (1st program):

Their will be a series of lunch and learn meetings every two months where the eco-reps will learn different ways to have their floor more sustainable.

#### A brief description of the financial or other support the institution provides to the program (1st program):

Carleton's housing services and sustainable office will work together to support the program in providing their proper training and tools the eco-reps will need to make their floors more sustainable.

#### Name of the student educators program (2nd program):

**Eco-Facilitator** 

#### Number of students served (i.e. directly targeted) by the program (2nd program):

3,598

#### A brief description of the program, including examples of peer-to-peer outreach activities (2nd program):

The program occurs during student move in. During the move in the eco-facilitators will ensure that waste goes into the correct bins. The facilitators will provide assistance to the students on understanding what type of waste is appropriate for the each bin (garbage and different types of recycling). The facilitators will also provide information to the students on how to be more sustainable at Carleton.

#### A brief description of how the student educators are selected (2nd program):

The students volunteer for the position until all of the spots are full (8).

#### A brief description of the formal training that the student educators receive (2nd program):

Before the event the facilitators will be told the information that they need to know when helping out students who have questions about sustainability at Carleton.

#### A brief description of the financial or other support the institution provides to the program (2nd program):

Carleton's Sustainability office will support the eco-facilitators in providing their proper training and tools they will need to do their jobs correctly. This will be down by training the eco-facilitators before the event and providing a fact sheet about Sustainability at Carleton to express more information to the students they are educating.

#### Name of the student educators program (3rd program):

Eco Floor

Number of students served (i.e. directly targeted) by the program (3rd program):

46

#### A brief description of the program, including examples of peer-to-peer outreach activities (3rd program):

The Eco Community in Carleton's residence is a positive and supportive community dedicated to learning about environmental and social issues. By using this knowledge, students can create changes within their daily lives and in the larger community. Individuals on the floor are encouraged to more engaged in activities such as using the organic waste bins, campus clean ups and more.

#### A brief description of how the student educators are selected (3rd program):

The students are chosen based on the preference they select when submitting their residence application.

#### A brief description of the formal training that the student educators receive (3rd program):

The students on the floor are constantly in the presence of others engaged in sustainable living and will be informed on how to live a more sustainable life style during selected floor meetings.

#### A brief description of the financial or other support the institution provides to the program (3rd program):

Carleton supplies the floor with the materials needed to obtain their sustainability goals. An example of this was providing green bins for composting.

Name(s) of the student educator program(s) (all other programs):

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Number of students served (i.e. directly targeted) by all other student educator programs:

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A brief description of the program(s), including examples of peer-to-peer outreach activities (all other programs):

A brief description of how the student educators are selected (all other programs):
A brief description of the formal training that the student educators receive (all other programs):
A brief description of the financial or other support the institution provides to the program (all other programs):
<del></del>
Total number of hours student educators are engaged in peer-to-peer sustainability outreach and education activities annually:
The website URL for the peer-to-peer student outreach and education program(s):

#### **Responsible Party**

#### **Philip Mansfield**

2.00 / 2.00

Sustainability Manager Facilities Management and Planning

#### Criteria

Institution includes sustainability prominently in its student orientation activities and programming. Sustainability activities and programming are intended to educate about the principles and practices of sustainability. The topics covered include multiple dimensions of sustainability (i.e. social, environmental and economic).

Because orientation activities vary from one institution to another, prominent inclusion of sustainability may not take the same form on each campus. Prominent inclusion of sustainability may also take different forms for different types of students (e.g. undergraduate students, transfer students, graduate students). When reporting for this credit, each institution will determine what prominent inclusion of sustainability means given its particular context. (See the Credit Example in the STARS Technical Manual.)

As this credit is intended to recognize programming and student learning about sustainability, incorporating sustainability strategies into event planning (e.g. making recycling bins accessible or not serving bottled water) is not, in and of itself, sufficient for this credit. Such strategies may count if they are highlighted and are part of the educational offerings. For example, serving local food would not, in and of itself, be sufficient for this credit; however, serving local food and providing information about sustainable food systems during meals could contribute to earning this credit.

"---" indicates that no data was submitted for this field

The percentage of entering students that are provided an opportunity to participate in orientation activities and programming that prominently include sustainability:

100

#### A brief description of how sustainability is included prominently in new student orientation:

#### Sustainability Tool kits

Before incoming residence students even arrive at Carleton, they are being encouraged to live sustainably while at the university. The toolkit that is sent out to new students is an online presentation that teaches students about energy and water conservation, waste reduction and sustainable food choices. From these three main focuses, the tool kits develops the knowledge and understanding that incoming students will have about incorporating sustainable initiatives into their everyday lives. Examples of tool kit content are energy conservation tips, (such as using drying racks instead of dryers and putting on a sweater before turning up the heat), waste reduction knowledge (the importance of recycling and disposing of recyclables properly) and making sustainable food choices (eating in season and shopping for food locally, as well as eating less meat in favor of more vegetables).

#### Tabling at Move-In Weekend

During the Residence Move-In weekend, the Sustainability Team from Sustainability Programs sets up a table to talk with parents and incoming students about sustainable initiatives on campus, such as the Bike share and Ride Share, the Residence Students Sustainability Council and waste reduction through proper recycling methods. This Sustainability Team also takes on the task of diverting all the cardboard produced from Move-In from the garbage to cardboard recycling, among other recycling initiatives.

#### **Engagement at Expo Carleton**

Expo Carleton welcomes all incoming students and showcases the diversity in the clubs, societies and services that our university has to offer. Expo Carleton takes place during the first academic week of the year and hundreds of clubs and societies come out to recruit new members. The Sustainability Team will be active at this event as well, encouraging new students to get involved with sustainable action at the school, join the Residence Students Sustainability Council and pledge to live and act sustainably on Carleton's Campus.

#### Res Fellow Floor Talks

Residence Fellows are responsible for incorporating sustainability talks into their introduction floor meetings for incoming students. They typically discuss the importance of recycling and reducing the waste produced, as well as conserving energy when and where you can. In addition to verbal promotion of sustainable initiatives, Residence Fellows are also responsible for creating the "Sustainability Bulletin Board", which is put up on every floor in residence, and focuses on the main energy conservation areas, waste reduction points and on-campus initiatives established in the tool kit.

#### The website URL where information about sustainability in student orientation is available:

https://carleton.ca/fallorientation/expo-carleton/

#### Data source(s) and notes about the submission:

http://carleton.ca/fallorientation/

- General Webpage for Fall Orientation at Carleton University.

# Score Responsible Party Philip Mansfield 1.75 / 2.00 Sustainability Manager Facilities Management and Planning

#### Criteria

Institution has co-curricular sustainability programs and initiatives. The programs and initiatives fall into one or more of the following categories:

- · Active student groups focused on sustainability
- Gardens, farms, community supported agriculture (CSA) or fishery programs, and urban agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems
- Sustainable enterprises that include sustainability as part of their mission statements or stated purposes (e.g. cafés through which students gain sustainable business skills)
- Sustainable investment funds, green revolving funds or sustainable microfinance initiatives through which students can develop socially, environmentally and fiscally responsible investment and financial skills
- Conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience
- · Cultural arts events, installations or performances related to sustainability that have students as the intended audience
- Wilderness or outdoors programs (e.g. that organize hiking, backpacking, kayaking, or other outings for students and follow Leave No Trace principles
- Sustainability-related themes chosen for themed semesters, years, or first-year experiences (e.g. choosing a sustainability-related book for common reading)
- Programs through which students can learn sustainable life skills (e.g. a series of sustainable living workshops, a model
  room in a residence hall that is open to students during regular visitation hours and demonstrates sustainable living
  principles, or sustainability-themed housing where residents and visitors learn about sustainability together)
- Sustainability-focused student employment opportunities offered by the institution
- Graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions
- Other co-curricular sustainability programs and initiatives

Multiple programs and initiatives may be reported for each category and each category may include institution-governed and/or student-governed programs.

"---" indicates that no data was submitted for this field

Does the institution have one or more co-curricular sustainability programs and initiatives that fall into the following categories?:

Yes or No

Active student groups focused on sustainability	Yes
Gardens, farms, community supported agriculture (CSA) or fishery programs, or urban agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems	Yes
Student-run enterprises that include sustainability as part of their mission statements or stated purposes	
Sustainable investment funds, green revolving funds or sustainable microfinance initiatives through which students can develop socially, environmentally and fiscally responsible investment and financial skills	Yes
Conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience	Yes
Cultural arts events, installations or performances related to sustainability that have students as the intended audience	
Wilderness or outdoors programs that follow Leave No Trace principles	
Sustainability-related themes chosen for themed semesters, years, or first-year experiences	Yes
Programs through which students can learn sustainable life skills	Yes
Sustainability-focused student employment opportunities offered by the institution	Yes
Graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions	
Other co-curricular sustainability programs and initiatives	

#### The name and a brief description of each student group focused on sustainability:

Carleton University Students for the Environment - The group focuses on a wide variety of environmental issues that work to obtain a more sustainability driven society.

Sustainable Renewable Energy Engineers - represents the Sustainable Renewable Energy Engineers of Carleton who study new sustainable technologies.

Carleton University Geography and Environment Student Association - Group that represents the students at Carleton who study Geography and Environmental related programs. These students focus on the maintenance and preservation of the Earth.

Fair Trade Carleton - This group represents Fair Trade at the University Level. By representing Fair Trade it represents a more sustainable methods of producing coffee and teas.

Emerging Green Builders Carleton - The group represents a variety of Carleton students who are looking to become leaders in the green building industry.

#### The website URL where information about student groups is available:

http://www.cusaonline.ca/clubs/guide/

A brief description of gardens, farms, community supported agriculture (CSA) or fishery programs, and urban agriculture projects where students are able to gain experience in organic agriculture and sustainable food systems:

Kitigànensag GSA Carleton Community Garden - The initiative is run by the Graduate Students Association. The garden is an attempt to build a community around gardening and a way to increase local food availability to Carleton Students.

The website URL where information about the organic agriculture and/or sustainable food systems projects and initiatives is available:

http://gsacarleton.ca/garden/

A brief description of student-run enterprises that include sustainability as part of their mission statements or stated purposes:

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The website URL where information about the student-run enterprise(s) is available:

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A brief description of the sustainable investment or finance initiatives:

Green Revolving Fund - Carleton University has established a \$1 million revolving fund to allow for investment in sustainability-related projects. The main criteria for accepting projects will be to undertake those with positive environmental impacts and strong financial plans, as well as: The Student Experience, Innovation, Risk Reduction Demonstration of Social and/or Community Responsibility. Given that the fund is revolving, the project must be financially viable in order to be considered for funding. All members of the Carleton community are encouraged to submit ideas for consideration.

The website URL where information about the sustainable investment or finance initiatives is available:

http://www.carleton.ca/fmp/energy-and-sustainability/get-involved/green-revolving-fund/

A brief description of conferences, speaker series, symposia or similar events related to sustainability that have students as the intended audience:

Carleton Sustainable Energy Lecture Series

The Carleton Sustainable Energy Lecture Series is designed to raise awareness about current topics and issues associated with accelerating the transition to a sustainable energy future in Canada. Each lecture brings a speaker to campus who is a leader in an aspect of the transition. Recent lecturers and topics are listed below (inset box). The SE Lecture Series is organized by the Carleton Research Unit in Science, Innovation and the Environment (CRUISE) and the Carleton Sustainable Energy Research Centre (CSERC).

The website URL where information about the event(s) is available:

http://www.carleton.ca/cserc

A brief description of cultural arts events, installations or performances related to sustainability that have students as the intended audience:

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The website URL where information about the cultural arts event(s) is available:

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A brief description of wilderness or outdoors programs for students that follow Leave No Trace principles:

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The website URL where information about the wilderness or outdoors program(s) is available:

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A brief description of sustainability-related themes chosen for themed semesters, years, or first-year experiences:

Sustainability Floor - Residence Themed Community

The Sustainable Living floor is designed for students dedicated to learning about environmental and social issues, as well as stars.aashe.org

Carleton University | STARS Report | 55

promoting environmental responsibility. Members of this community will have the opportunity to work together to plan and participate in a variety of environmentally focused activities throughout the year. By using this knowledge, students can create changes within their daily lives and in the larger community.

#### The website URL where information about the theme is available:

http://housing.carleton.ca/applying/themed-communities/

A brief description of program(s) through which students can learn sustainable life skills:

Residence Eco Rep Program - This is a program where residence students volunteer as an eco representative for the their floor/building. They then educate their peers about how to live more sustainable life styles after being provided with a variety of tools to be more sustainable.

The website URL where information about the sustainable life skills program(s) is available:

A brief description of sustainability-focused student employment opportunities:

Sustainability Assistant - Student employee acts as an assistant to the initiatives of the Sustainability officer. Works directly with making Carleton a more sustainable University.

The website URL where information about the student employment opportuntities is available:

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A brief description of graduation pledges through which students pledge to consider social and environmental responsibility in future job and other decisions:

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The website URL where information about the graduation pledge program is available:

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A brief description of other co-curricular sustainability programs and initiatives:

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The website URL where information about other co-curricular sustainability programs and initiatives is available:

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# Score Responsible Party Philip Mansfield 2.00 / 2.00 Sustainability Manager Facilities Management and Planning

#### Criteria

Institution produces outreach materials and/or publications that foster sustainability learning and knowledge. The publications and outreach materials may include the following:

- A central sustainability website that consolidates information about the institution's sustainability efforts
- · A sustainability newsletter
- · Social media platforms (e.g. Facebook, Twitter, interactive blogs) that focus specifically on campus sustainability
- · A vehicle to publish and disseminate student research on sustainability
- · Building signage that highlights green building features
- Food service area signage and/or brochures that include information about sustainable food systems
- Signage on the grounds about sustainable groundskeeping and/or landscaping strategies employed
- · A sustainability walking map or tour
- A guide for commuters about how to use alternative methods of transportation
- Navigation and educational tools for bicyclists and pedestrians (e.g. covering routes, inter-modal connections, policies, services, and safety)
- A guide for green living and incorporating sustainability into the residential experience
- Regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat
- Other

A single outreach material or publication that serves multiple purposes may be counted more than once. For example, a sustainability website that includes tools for bicyclists and pedestrians may be counted in both categories.

"---" indicates that no data was submitted for this field

# Does the institution produce the following outreach materials and/or publications that foster sustainability learning and knowledge?:

	Yes or No
A central sustainability website that consolidates information about the institution's sustainability efforts	Yes
A sustainability newsletter	Yes

Social media platforms that focus specifically on campus sustainability	Yes
A vehicle to publish and disseminate student research on sustainability	
Building signage that highlights green building features	Yes
Food service area signage and/or brochures that include information about sustainable food systems	Yes
Signage on the grounds about sustainable groundskeeping and/or landscaping strategies employed	Yes
A sustainability walking map or tour	Yes
A guide for commuters about how to use alternative methods of transportation	Yes
Navigation and educational tools for bicyclists and pedestrians	No
A guide for green living and incorporating sustainability into the residential experience	Yes
Regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat	Yes
Other sustainability publications or outreach materials not covered above	Yes

#### A brief description of the central sustainability website:

The Central sustainability Website is within the Facilities Management Planning groups website. The page has a description of what sustainability Carleton University means and has a series of links to the different sustainable initiatives and aspects of Carleton University.

#### The website URL for the central sustainability website:

http://carleton.ca/fmp/energy-and-sustainability/

#### A brief description of the sustainability newsletter:

The sustainability newsletter consists of a green tip of the month and how to complete the task which the tip recommends.

#### The website URL for the sustainability newsletter:

http://carleton.ca/fmp/tag/sustainability-tip/

#### A brief description of the social media platforms that focus specifically on campus sustainability:

The Carleton Sustainability Office has a Twitter account called CU sustainability (@CUsustain). The twitter page provides interesting sustainability facts and dates for events about sustainability.

#### The website URL of the primary social media platform that focuses on sustainability:

https://twitter.com/CUsustain

#### A brief description of the vehicle to publish and disseminate student research on sustainability:

The Carleton Sustainable Research Centre website allows easy access through the web for people to learn about the research that the Carleton sustainability community is doing. The website displays a combination of professor and student research.

#### The website URL for the vehicle to publish and disseminate student research on sustainability:

http://carleton.ca/cserc/carletons-research-in-sustainable-energy/

#### A brief description of building signage that highlights green building features:

There are various signs through out different buildings of the University. In Robertson Hall and the Athletics building their is a large sign in each building explaining the Sustainability Strategic Plan and the buildings green features.

#### The website URL for building signage that highlights green building features :

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# A brief description of food service area signage and/or brochures that include information about sustainable food systems:

Dining services at Carleton provides signage and brochures that highlights dining services buying local practices.

## The website URL for food service area signage and/or brochures that include information about sustainable food systems:

https://carleton.ca/fmp/energy-and-sustainability/topics/dining-services/

A brief description of signage on the grounds about sustainable groundskeeping and/or landscaping strategies:

N/A

The website URL for signage on the grounds about sustainable groundskeeping and/or landscaping strategies:

---

#### A brief description of the sustainability walking map or tour:

There will be a map created through google maps and posted on the sustainability carleton website. As well during student move in a map will be posted in each residence highlighting the areas of the university which have been impacted by sustainability initiatives. Both maps will highlight these areas and provide a description.

The website URL of the sustainability walking map or tour:

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#### A brief description of the guide for commuters about how to use alternative methods of transportation:

The Carleton TDM website provides a variety of different means for commuters to commute to work including walking, cycling, public transit, carpool and ride share programs.

The website URL for the guide for commuters about how to use alternative methods of transportation:

http://carleton.ca/parking/tdm-sustainable-transportation/

A brief description of the navigation and educational tools for bicyclists and pedestrians:

There are campus maps located throughout the university which indicate bike and walking paths.

The website URL for navigation and educational tools for bicyclists and pedestrians:

http://carleton.ca/campus/map/

A brief description of the guide for green living and incorporating sustainability into the residential experience:

The Housing services website provides a blog on how to live more sustainably in residence as well there is a residence group called project green that brings residence students who are interested in green living together.

The website URL for the guide for green living and incorporating sustainability into the residential experience:

A brief description of regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat:

In the student newspaper The Charlatan sustainability initiatives are often covered in articles such as the recent creation of the campus sustainability research house.

The website URL for regular coverage of sustainability in the main student newspaper, either through a regular column or a reporter assigned to the sustainability beat:

http://www.charlatan.ca/?s=sustainability&x=0&y=0

A brief description of another sustainability publication or outreach material not covered above (1st material):

There is a monthly green tip of the month sent out by the sustainability office providing information about how to make the workplace for sustainable.

#### The website URL for this material (1st material):

http://carleton.ca/fmp/energy-and-sustainability/get-involved/

Does the institution produce another sustainability publication or outreach material not covered above? (2nd material):

Yes

#### A brief description of this material (2nd material):

Carleton releases a newsletter daily called Today @ Carleton that the sustainability office can use to send out information about sustainability initiatives to the Carleton staff.

#### The website URL for this material (2nd material):

http://carleton.ca/tac/

Does the institution produce another sustainability publication or outreach material not covered above? (3rd material):

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A brief description of this material (3rd material):

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#### The website URL for this material (3rd material):

Does the institution produce another sustainability publication or outreach material not covered above (4th material):
A brief description of this material (4th material):
The website URL for this material (4th material):
Does the institution produce another sustainability publication or outreach material not covered above (5th material):
A brief description of this material (5th material):
The website URL for this material (5th material):
Does the institution produce another sustainability publication or outreach material not covered above (6th material):
A brief description of this material (6th material):
The website URL for this material (6th material):
Does the institution produce another sustainability publication or outreach material not covered above (7th material):
A brief description of this material (7th material):

The website URL for this material (7th material):
Does the institution produce another sustainability publication or outreach material not covered above? (8th material):
A brief description of this material (8th material):
<del></del>
The website URL for this material (8th material):

#### **Responsible Party**

#### **Philip Mansfield**

4.00 / 4.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

#### Part 1

Institution holds at least one sustainability-related outreach campaign directed at students that yields measurable, positive results in advancing sustainability. The sustainability-related outreach campaign may be conducted by the institution, a student organization, or students in a course.

#### Part 2

Institution holds at least one sustainability-related outreach campaign directed at employees that yields measurable, positive results in advancing sustainability. The sustainability-related outreach campaign may be conducted by the institution or an employee organization.

The campaign(s) reported for this credit could take the form of a competition (e.g. a residence hall conservation competition), a rating or certification program (e.g. a green labs or green office program), and/or a collective challenge (e.g. a campus-wide drive to achieve a specific sustainability target). A single campus-wide campaign may meet the criteria for both parts of this credit if educating students is a prime feature of the campaign and it is directed at both students and employees.

To measure if a campaign yields measurable, positive results, institutions should compare pre-campaign performance to performance during or after the campaign. The following impacts are not sufficient for this credit:

- Increased awareness
- Additional members of a mailing list or group

"---" indicates that no data was submitted for this field

Has the institution held at least one sustainability-related outreach campaign directed at students within the previous three years that has yielded measurable, positive results in advancing sustainability?:

Yes

Has the institution held at least one sustainability-related outreach campaign directed at employees within the previous three years that has yielded measurable, positive results in advancing sustainability?:

Yes

#### The name of the campaign (1st campaign):

**Campus Conservation Nationals** 

#### A brief description of the campaign (1st campaign):

Campus Conservation Nationals (CCN) is the largest electricity and water reduction competition for colleges and universities in the world. CCN gives a common voice and motivation to hundreds of thousands of students across North America, all working together to reduce consumption and mitigate the impacts of climate change.

CCN is an opportunity to organize students and staff, host educational events, and challenge students and staff to participate in fun events that can have an immediate and lasting impact on your school's carbon emissions and campus culture. CCN is jointly organized by the U.S. Green Building Council, Lucid, National Wildlife Federation, and Alliance to Save Energy.

#### A brief description of the measured positive impact(s) of the campaign (1st campaign):

From March 9 to 29 2015, students in residence competed to achieve the greatest percentage reduction in electricity in residence buildings, saving a total of 35,871 kilowatt hours and resulting in the avoidance of 48,769 pounds of CO2 emissions. Overall, this resulted in a 7.2 per cent reduction in electricity use, as compared to the previous year.

#### The website URL where information about the campaign is available (1st campaign):

http://carleton.ca/tac/2015/carleton-university-wins-bit-at-the-campus-conservation-nationals-2 015-competition/

#### The name of the campaign (2nd campaign):

Green Workplace Certification (through the Eco Reps Program)

#### A brief description of the campaign (2nd campaign):

The Eco Reps program is a network of staff volunteers with an interest in sustainability issues. Located within different departments across the University, Eco Reps facilitate positive changes in their workplaces and support sustainability practices

across the campus.

The Green Workplace Certification is designed to educate and encourage members of the Carleton community to adopt sustainable practices in their workplaces. The checklist offers action items that promote environmental vitality, human health & well-being, and financial viability. We hope it inspires you to develop creative solutions to sustainability challenges in your workplace.

The program provides recognition of efforts towards sustainability through a workplace certification rating, which can be displayed in your workplace.

#### A brief description of the measured positive impact(s) of the campaign (2nd campaign):

To date, two of the Eco Reps at Carleton University have qualified their workplace for a Green Workplace Certification, with a third Eco Rep to be awarded soon. Of the two recipients thus far, one earned a gold rating certification and the other a silver rating. Both demonstrated key commitment and progress against a number of sustainability actions and highlight the good work Eco Reps are doing on campus.

#### The website URL where information about the campaign is available (2nd campaign):

http://carleton.ca/fmp/energy-and-sustainability/get-involved/green-workplace-certification-2/

A brief description of other outreach campaigns, including measured positive impacts:

**Responsible Party** 

#### **Philip Mansfield**

0.17 / 3.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

Institution administers or oversees an ongoing faculty/staff peer-to-peer sustainability outreach and education program.

In the program, employee sustainability educators are formally designated and receive formal training or participate in an institution-sponsored orientation. The institution offers financial or other support to the program.

This credit recognizes ongoing programs that engage employees on a regular basis. For example, employee educators may represent or be responsible for engaging workers in certain departments or buildings. Thus, a group of employees may be served (i.e. directly targeted) by a program even if not all of these employees avail themselves of the outreach and education offerings.

Training and/or professional development opportunities in sustainability for staff are excluded from this credit. These activities are covered in *EN 8: Staff Professional Development*.

"---" indicates that no data was submitted for this field

Does the institution administer or oversee an ongoing faculty/staff peer-to-peer sustainability outreach and education program that meets the criteria for this credit?:

Yes

Total number of employees:

2.855

Name of the employee educators program (1st program):

Eco Reps

Number of employees served by the program (1st program):

95

A brief description of how the employee educators are selected (1st program):

The Eco-reps program is a network of staff volunteers with an interest in sustainability issues. The program provides staff members with opportunities to influence positive changes in their workplaces and help the University to fully embed sustainability practices across the campus.

#### A brief description of the formal training that the employee educators receive (1st program):

The training that the eco-reps take is facilitated through a "lunch and learn" program where the employees are told what their responsibilities as eco-reps will be and how to be more sustainable in their workplace.

## A brief description of the staff and/or other financial support the institution provides to the program (1st program):

The institution provides educational support to the eco-reps and the other resources needed to successfully influence their workplace to become more sustainable.

#### The website URL where information about the program is available (1st program):

http://carleton.ca/fmp/energy-and-sustainability/get-involved/staff/eco-reps/

#### Name of the employee educators program (2nd program):

The Climate Commons

#### Number of employees served by the program (2nd program):

65

#### A brief description of how the employee educators are selected (2nd program):

The Carleton Climate Commons Working Group brings together faculty and graduate students at Carleton University to discuss climate change issues in relation to the humanities and social sciences, to share academic work, and to share ideas and articles. The Working Group is a forum for exploring what the role of those faculties in climate change might be.

#### A brief description of the formal training that the employee educators receive (2nd program):

There are working group meetings to discuss the areas of focus for the group. The members then can pass on any information to their own office spaces.

#### A brief description of the financial or other support the institution provides to the program (2nd program):

There is no financial support.

#### The website URL where information about the program is available (2nd program):

http://www.climatecommons.ca/

#### Name(s) of the employee educator program(s) (all other programs):

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Number of employees served by all other programs:
A brief description of how the employee educators are selected (all other programs):
A brief description of the formal training that the employee educators receive (all other programs):
A brief description of the staff and/or other financial support the institution provides to the program(s) (al other programs):
The website URL where information about the program(s) is available (all other programs):

#### **Responsible Party**

#### Philip Mansfield

1.00 / 1.00

Sustainability Manager Facilities Management and Planning

#### Criteria

Institution covers sustainability topics in new employee orientation and/or in outreach and guidance materials distributed to new employees, including faculty and staff. The topics covered include multiple dimensions of sustainability (i.e. social, environmental and economic).

"---" indicates that no data was submitted for this field

The percentage of new employees that are offered orientation and/or outreach and guidance materials that cover sustainability topics:

100

#### A brief description of how sustainability is included in new employee orientation:

New employees at Carleton are encouraged to get involved on campus. Part of this encouragement includes highlighting the opportunity to become an Eco Rep, which is a network of staff volunteers with an interest in sustainability issues. The program provides staff members with opportunities to influence positive changes in their workplaces and help the University to fully embed sustainability practices across the campus, such as purchasing eco-friendly office supplies, recycling efforts that can be made, energy conservation practices and more.

New employees have access to this information through Human Resources

http://carleton.ca/hr/cu-life/campus-sustainability/

- HR Orientation page.

The website URL where information about sustainability in new employee orientation is available:

http://carleton.ca/hr/cu-life/campus-sustainability/

**Responsible Party** 

0.00 / 2.00

#### Criteria

Institution makes available training and/or other professional development opportunities in sustainability to all staff at least once per year.

Separate training opportunities for each department would count for this credit, as long as each staff member has an opportunity to learn about sustainability at least once per year. It is not necessary that each staff member attend such trainings; the credit is based on making training available to all staff.

This credit applies to staff members only; it does not include faculty members.

The following training opportunities are not sufficient for this credit:

- · Specialized training for a small group of staff
- The opportunity to participate in an institutional sustainability committee or group

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

### **Public Engagement**

Points Claimed 5.20

Points Available 16.00

This subcategory seeks to recognize institutions that help catalyze sustainable communities through public engagement, community partnerships and service. Engagement in community problem-solving is fundamental to sustainability. By engaging with community members and organizations in the governmental, non-profit and for-profit sectors, institutions can help solve sustainability challenges. Community engagement can help students develop leadership skills while deepening their understandings of practical, real-world problems and the process of creating solutions. Institutions can contribute to their communities by harnessing their financial and academic resources to address community needs and by engaging community members in institutional decisions that affect them. In addition, institutions can contribute toward sustainability broadly through inter-campus collaboration, engagement with external networks and organizations, and public policy advocacy.

Credit	Points
Community Partnerships	3.00 / 3.00
Inter-Campus Collaboration	2.00 / 2.00
Continuing Education	Not Applicable
Community Service	0.20 / 5.00
Community Stakeholder Engagement	0.00 / 2.00
Participation in Public Policy	0.00 / 2.00
Trademark Licensing	0.00 / 2.00
Hospital Network	Not Applicable

Score	Responsible Party
	Philip Mansfield
3.00 / 3.00	Sustainability Manager
	Facilities Management and Planning

## Criteria

Institution has one or more formal partnership(s) with the local community, including school districts, government agencies, non-profit organizations, businesses and/or other entities, to work together to advance sustainability within the community.

Each partnership conforms to one of the following types:

Type of Partnership	Indicators
A. Supportive	<ul> <li>Scope: Addresses a sustainability topic or a specific aspect of sustainability (e.g. community garden, environmental remediation, community environmental health and education)</li> <li>Duration: May be time-limited (short-term projects and events), multi-year, or ongoing</li> <li>Commitment: Institutional involvement may include financial and/or staff support or may be limited to resource sharing and/or endorsement</li> <li>Governance: Campus and community leaders or representatives are engaged in program/project development</li> </ul>
B. Collaborative	<ul> <li>Scope: Addresses one or more sustainability challenge and may simultaneously support social equity and wellbeing, economic prosperity, and ecological health (e.g. a green jobs program in an economically disadvantaged neighborhood)</li> <li>Duration: May be time-limited, multi-year, or ongoing</li> <li>Commitment: Institution provides faculty/staff, financial, and/or material support</li> <li>Governance: Campus and local community members are both engaged in program/project development, from agenda setting and planning to decision-making, implementation and review</li> </ul>

C.Transformative	<ul> <li>Scope: Catalyzes community resiliency and local/regional sustainability by simultaneously supporting social equity and wellbeing, economic prosperity, and ecological health on a community or regional scale (e.g. "transition" projects and partnerships focused on community adaptation to climate change)</li> <li>Duration: Is multi-year or ongoing and proposes or plans for institutionalized and systemic change</li> <li>Commitment: Institution provides faculty/staff and financial or material support</li> <li>Governance: Partnership has adopted a stakeholder engagement framework through which community members, vulnerable populations, faculty, staff, students and other stakeholders are engaged in program/project development, from agenda setting and planning to decision-making, implementation and review</li> </ul>

An institution may have multiple partnerships of each type, however no single partnership may be both supportive and collaborative, collaborative and transformative, or supportive and transformative.

Recognizing the diversity of forms that community partnerships may take, it is not required that a partnership meet all of the criteria listed to be considered supportive or collaborative. A partnership must meet all of the criteria listed to be considered transformative, however. For further guidance in identifying community partnerships that meet the criteria for each type, see the Credit Example in the STARS Technical Manual.

This credit recognizes campus-community partnerships that advance sustainability in an explicit and participatory way. Participatory, community-based research and engaged scholarship around issues of sustainability may be included if it involves formal partnership(s). Although community service activities (e.g. academic service learning, co-curricular service learning and volunteer activities, Work-Study community service and paid community service internships) may involve local partnerships and contribute toward sustainability, they are not included in this credit. Community service is covered by *EN 12: Community Service*.

"---" indicates that no data was submitted for this field

Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as "supportive"?:

Yes

## A brief description of the institution's supportive sustainability partnership(s) with the local community:

With a demonstrated interest in serving the greater Ottawa community, it is natural that Carleton strives to develop meaningful partnerships within our community. Each year, over 100 Carleton students spread out across the city on a variety of service-learning projects with our community partners. This annual event, called Carleton Serves, is a great way to get students directly involved within the local community, gain new skills and further insights into community and social responsibility, make valuable community contacts and learn more about Ottawa services.

The following list is composed of all the community partners for the 2015 Carleton Serves event.

Abbeyfield Houses

ALSO- Alternative Learning Styles and Outlooks

Bruce House

Cornerstone Housing for Women

Fletcher Wildlife Garden

Gloucester Emergency Food Cupboard

Heart and Stroke Foundation

Matthew House

The Ottawa Mission
Ottawa Neighbourhood Services

Also, Carleton University organizes Days of Service, which are one day events around the academic year which encourage students to participate in hands-on learning by emphasizing action, reflection, and real-world engagement in the community. Carleton partners with community organizations that focus on a variety of themes, from senior care to wildlife conservation. Examples of past/ongoing partnerships include the Ottawa Mission, A.P.P.L.E., In From the Cold, Fletcher Wildlife Garden, and many more.

Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as "collaborative"?:

Yes

## A brief description of the institution's collaborative sustainability partnership(s):

1125@Carleton

1125@Carleton facilitates collaborations between Carleton researchers (faculty and students) and the broader community within a virtual and physical space designed for collaborative problem solving.

Many partners of 1125@Carleton are local foundations and organizations with sustainable foci, such as OREC Energy, a local company that works to empower Ottawa residents to support the growth of the local renewable energy sector through responsible long-term investments.

Just Food, another partner of Carleton1125, is a grassroots non-profit from Ottawa that combines the power of community partners, funders, staff and volunteers in order to create community-based food-centric projects and a just and sustainable food system in the area.

Does the institution have at least one formal sustainability partnership with the local community that meets the criteria as "transformative"?:

Yes

# A brief description of the institution's transformative sustainability partnership(s) with the local community:

The Urbandale Centre for Home Energy Research

Carleton University has expanded its research in modern sustainable residential design. The Urbandale Centre for Home Energy Research (a.k.a. the C-RISE house) will make use of solar thermal energy, seasonal thermal storage, and provide a test bed for various innovative concepts with the aim of reducing the overall energy demands.

The C-RISE project is largely funded by grants from the Canadian Foundation for Innovation. Urbandale construction has been a valuable industry partner. Urbandale Construction is a local Ottawa home builder who donated the house itself. The C-RISE house is a full-scale, single-family detached house built on campus by Urbandale Construction to meet the 2012 R2000 standard. Planning and construction began in 2011 and the house officially opened May 25th, 2016. Urbandale views this facility as a research project to explore innovative concepts before introducing them to market, and have stated in a letter of support that topics explored in C-RISE "may influence the way we construct our buildings in the future".

A number of graduate and undergraduate students have also benefited from conducting research experiments in the house, which harvests thermal energy through solar collectors on the roof and floors. That energy is then stored in basement water tanks and an underground sand store system in front of the house, and used to heat the building throughout the year. Windows in the house are also focused at the south side, with none on the north side, in order to maximize heat from the southern exposure.

The project will train a lot of students and others on a very important area of research, which is Solar Energy.

## A brief description of the institution's sustainability partnerships with distant (i.e. non-local) communities:

Carleton University Partnerships with India under the Canada-India Centre for Excellence in Science, Technology, Trade and Policy.

Located in Ottawa the Canada-India Centre was initiated in 2010 by Carleton University and leaders from the Indo-Canadian community in collaboration with the High Commission of India. The Canada India Centre is located in the River Building. Building on Carleton University's strong tradition of community engagement and 40 years of experience in working with India, the Centre brings together scholars and practitioners in different fields to contribute to policy initiatives that benefit both countries. The School of Public Policy and Administration, the Sprott School of Business, the School of Engineering and Design, Azrieli School of Architecture and Urbanism and the Faculty of Science work collaboratively to assure an interdisciplinary approach to research to address the most pressing issues facing India and Canada. The Centre is a hub of events, research and partnerships which expand our perspectives, build stronger partnerships and leverage great ideas into economic engines.

## The website URL where information about sustainability partnerships is available:

http://carleton.ca/cserc/sec-activities-and-initiatives/building-partnerships/

Score

Philip Mansfield

**Responsible Party** 

2.00 / 2.00

Sustainability Manager Facilities Management and Planning

### Criteria

Institution collaborates with other colleges and universities to support and help build the campus sustainability community.

See the Credit Example in the STARS Technical Manual for guidance on identifying appropriate collaborations.

"---" indicates that no data was submitted for this field

Does the institution collaborate with other colleges and universities to support and help build the campus sustainability community?:

Yes

A brief summary of papers, guides, presentations, and other resources the institution has developed to share their sustainability experience with other institutions:

Carleton University has a Sustainability Strategy open to the public that showcases what goals the university is planning on working on in terms of sustainability. Also in the Campus Master Plan it indicates what the university is going to do in terms of developing the campus in a sustainable manor. These documents can be shared with other universities as examples of how sustainability has been integrated into the larger plan of the university.

The names of local, state/provincial, regional, national, or international campus sustainability organizations or consortia in which the institution participates and/or is a member:

Council of Ontario Universities Green Globes

A brief summary of additional ways the institution collaborates with other campuses to advance sustainability:

Goes to conferences with the other universities and colleges of Ontario to discuss methods of becoming more sustainable. Also Carleton University supports Ottawa University and Algonquin College over social media in their sustainability campaigns, also accepting challenges such as the "Waste Bucket Challenge".

Carleton University has also worked along side the University of British columbia to develop new waste signage for the university. The new signage is currently implemented at UBC and is being installed at Carleton.

The website URL where information about cross-campus collaboration is available:		

## **Responsible Party**

### Criteria

### Part 1

Institution offers continuing education courses that address sustainability.

Courses that address sustainability include continuing education sustainability courses and continuing education courses that include sustainability. Courses that can be taken for academic credit are not included in this credit. They are covered by the Curriculum subcategory.

### Part 2

Institution has at least one sustainability-themed certificate program through its continuing education or extension department.

Degree-granting programs (e.g. programs that confer Baccalaureate, Masters, and Associates degrees) and certificates that are part of academic degree programs are not included in this credit. They are covered in the Curriculum subcategory.

This credit was marked as **Not Applicable** for the following reason:

Institution does not offer continuing education or community education programs.

Score **Responsible Party Philip Mansfield** 0.20 / 5.00Sustainability Manager Facilities Management and Planning Criteria

### Part 1

Institution engages its student body in community service, as measured by the percentage of students who participate in community service.

#### Part 2

Institution engages students in community service, as measured by the average hours contributed per full-time student per

Institutions may exclude non-credit, continuing education, and/or part-time students from this credit.

"---" indicates that no data was submitted for this field

Number of students engaged in community service:

667

Total number of students:

28,289

Does the institution wish to pursue Part 2 of this credit (community service hours)?:

Yes

Total number of student community service hours contributed during a one-year period:

36,760

Does the institution include community service achievements on student transcripts?:

Yes

A brief description of the practice of including community service on transcripts, if applicable:

Community Service-Learning

real-world engagement. Much more than just volunteerism, CSL supports students in the development of new skills and civic citizenship through combining community work and classroom learning.

#### Co-Curricular Record

The role of the Co-Curricular Record is to encourage and recognize student involvement "outside the classroom" while providing meaningful experiences for all students (undergraduate and graduates students). Many activities include student life programs, leadership development, community service learning, and involvement activities that contribute to your student experience.

Students will be able to present this official documentation to prospective employers and graduate schools. Your CCR is designed to complement your academic transcript and demonstrate the holistic learning you engaged in during your academic career.

## Alternative Spring Break?

ASB is an immersive year-long program that culminates with a week of social engagement and service-learning with a partner organization during reading week in February. For the 2015-2016 program, there were six different trips that students went on, each focusing on serving the local communities focused on specific themes, including access to education, biodiversity, and sustainable employment.

The reading week experience is preceded by months of preparation, which includes listening to guest speaker seminars, watching fascinating documentaries about a specific topic or theme, participating in various fundraising efforts for the trips, and team-building exercises.

Does the institution provide incentives for employees to participate in community service (on- or off-campus)?:

Yes

### A brief description of the institution's employee community service initiatives:

Carleton offers each employee one half day of work (paid) each year to dedicate to volunteer/community service. Beyond that half-day, the decision remains with the manager of each department with regards to incentives for employee community service initiatives.

The website URL where information about the institution's community service initiatives is available:

---

Score

**Responsible Party** 

## **Philip Mansfield**

0.00 / 2.00

Sustainability Manager Facilities Management and Planning

### Criteria

Institution has adopted a framework for community stakeholder engagement in governance, strategy and operations. The framework includes:

1) Policies and procedures that ensure community stakeholder engagement is applied systematically and regularly across the institution's activities (e.g. planning and development efforts, capital investment projects, and/or other activities and decisions that affect the broader community)

And

2) Established practices to identify and engage relevant community stakeholders, including any vulnerable or underrepresented groups.

Frameworks adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as the policies apply to and are followed by the institution.

This credit does not include the engagement of internal campus stakeholders (e.g. students, faculty and staff); internal stakeholder engagement is covered in *PA 3: Governance*.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

### Data source(s) and notes about the submission:

http://carleton.ca/edc/wp-content/uploads/Oxygen-of-Community.pdf

Score **Responsible Party Philip Mansfield** Sustainability Manager 0.00 / 2.00Facilities Management and Planning Criteria Institution advocates for national, state/provincial, or local public policies that support campus sustainability or that otherwise advance sustainability. The policy advocacy must be done by the institution, not by students or a student group. This credit acknowledges institutions that advocate for policy changes and legislation to advance sustainability broadly. Advocacy efforts that are made exclusively to advance the institution's interests or projects may not be counted. For example, advocating for government funding for campus sustainability may be counted, whereas lobbying for the institution to receive funds that have already been appropriated may not. "---" indicates that no data was submitted for this field Does the institution advocate for national, state/provincial, or local public policies that support campus sustainability or that otherwise advance sustainability?: No A brief description of how the institution engages in public policy advocacy for sustainability, including the issues, legislation, and ordinances for or against which the institution has advocated: A brief description of other political positions the institution has taken during the previous three years:

A brief description of political donations the institution made during the previous three years (if

applicable):

The website URL where information about the institution's advocacy efforts is available:

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Score **Responsible Party Philip Mansfield** Sustainability Manager 0.00 / 2.00Facilities Management and Planning Criteria Institution is a member of the Fair Labor Association (FLA) and/or the Worker Rights Consortium (WRC). "---" indicates that no data was submitted for this field Is the institution a member of the Worker Rights Consortium?: No Is the institution a member of the Fair Labor Association?: No Has the institution expressed an intention to participate in the WRC's Designated Suppliers Program? : No The website URL where information about the institution's participation in the WRC, FLA, and/or DSP is available:

## **Responsible Party**

### Criteria

Institution's affiliated hospital or health system is a member of the Global Green and Healthy Hospitals Network, the Healthier Hospitals Initiative and/or Practice Greenhealth.

This credit includes hospitals and health systems that are formally affiliated with a higher education institution (sometimes called "university hospitals"). Other types of health care providers (e.g. insurers through which an institution obtains health care for its employees) are not included.

This credit was marked as **Not Applicable** for the following reason:

The institution does not have an affiliated hospital or health system.

## **Operations**

## Air & Climate

Points Claimed 4.20

Points Available 11.00

This subcategory seeks to recognize institutions that are measuring and reducing their greenhouse gas and air pollutant emissions. Global climate change is having myriad negative impacts throughout the world, including increased frequency and potency of extreme weather events, sea level rise, species extinction, water shortages, declining agricultural production, and spread of diseases. The impacts are particularly pronounced for low-income communities and countries. In addition, institutions that inventory and take steps to reduce their air pollutant emissions can positively impact the health of the campus community, as well as the health of their local communities and regions.

Credit	Points
Greenhouse Gas Emissions	4.20 / 10.00
Outdoor Air Quality	0.00 / 1.00

Score

## **Responsible Party**

## **Philip Mansfield**

4.20 / 10.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

#### Part 1

Institution has conducted a publicly available greenhouse gas (GHG) emissions inventory that includes, at minimum, Scope 1 and Scope 2 GHG emissions and may also include Scope 3 GHG emissions. The inventory may be validated internally by campus personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party.

#### Part 2

Institution reduced its adjusted net Scope 1 and Scope 2 GHG emissions per weighted campus user compared to a baseline.

#### Part 3

Institution's annual adjusted net Scope 1 and Scope 2 GHG emissions are less than the minimum performance threshold of 0.02 metric tons of carbon dioxide equivalent (MtCO2e) per gross square foot (0.002 MtCO2e per gross square metre) of floor area.

Performance for Part 3 of this credit is assessed using EUI-adjusted floor area, a figure that accounts for significant differences in energy use intensity (EUI) between types of building space.

For this credit, the following carbon offsets may be counted:

- 1. Institution-catalyzed carbon offsets (popularly known as "local offsets")
- 2. Carbon sequestration due to land that the institution manages specifically for sequestration (as documented in policies, land management plans or the equivalent)
- 3. Carbon storage from on-site composting
- 4. Third-party verified purchased carbon offsets

Purchased Renewable Energy Certificates (RECs) that are either Green-e Energy certified or meet Green-e Energy's technical requirements and are verified as such by a third party may be counted as zero emissions energy for purposes of Scope 2 GHG accounting.

Purchased carbon offsets and RECs that have not been third-party verified do not count.

Institutions that have sold or transferred emissions reductions, e.g. in the form of verified emissions reductions (VERs), may not count those reductions toward this credit.

Does the institution's GHG emissions inventory include all Scope 1 and Scope 2 GHG emissions?: Yes

Does the institution's GHG emissions inventory include all Scope 3 GHG emissions from any of the following categories?:

	Yes or No
Business travel	No
Commuting	No
Purchased goods and services	No
Capital goods	No
Fuel- and energy-related activities not included in Scope 1 or Scope 2	No
Waste generated in operations	No

Does the institution's GHG emissions inventory include Scope 3 emissions from other categories?:

A brief description of the methodology and/or tool used to complete the GHG emissions inventory:

On an annual basis all of our GHG emissions are totalled and submitted to the province of Ontario for approval. The GHG emissions factor is provided by the government based on how electricity is generated from year to year.

Has the GHG emissions inventory been validated internally by personnel who are independent of the GHG accounting and reporting process and/or verified by an independent, external third party?:

Yes

## A brief description of the internal and/or external verification process:

Yes, Carleton University submits their utility usage and GHG emission to the Ministry of Energy where they validate our submission. Prior to this submission Carleton contracts out for third party audit validation of all data.

## Scope 1 and Scope 2 GHG emissions::

	Performance Year	Baseline Year
Scope 1 GHG emissions from stationary combustion	21,580 Metric Tons of CO2 Equivalent	20,788 Metric Tons of CO2 Equivalent
Scope 1 GHG emissions from other sources	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Scope 2 GHG emissions from purchased electricity	5,149 Metric Tons of CO2 Equivalent	5,415 Metric Tons of CO2 Equivalent
Scope 2 GHG emissions from other sources	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent

## Figures needed to determine total carbon offsets::

	Performance Year	Baseline Year
Institution-catalyzed carbon offsets generated	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Carbon sequestration due to land that the institution manages specifically for sequestration	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Carbon storage from on-site composting	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent
Third-party verified carbon offsets purchased	0 Metric Tons of CO2 Equivalent	0 Metric Tons of CO2 Equivalent

## A brief description of the institution-catalyzed carbon offsets program:

No such program exists at this time.

## A brief description of the carbon sequestration program and reporting protocol used:

No such program exists at this time.

## A brief description of the composting and carbon storage program:

As part of our overall waste program, Carleton has a compost program which targets, kitchen and dining waste, and residential compost waste. This accounts for about 10% of all waste diverted from landfill. Almost all compost/food waste collected on campus is processed as part of our overall waste contract, off campus. Carleton has limited on site composting programs largely focused on student gardens and facilities landscaping.

## A brief description of the purchased carbon offsets, including third party verifier(s) and contract timeframes:

No such program exists at this time.

## Figures needed to determine "Weighted Campus Users"::

	Performance Year	Baseline Year
Number of residential students	3,600	3,600
Number of residential employees	0	0
Number of in-patient hospital beds	0	0
Full-time equivalent enrollment	23,438	22,411
Full-time equivalent of employees	2,190	1,947
Full-time equivalent of distance education students	250	220

## Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	Jan. 1, 2015	Dec. 31, 2015
Baseline Year	Jan. 1, 2012	Dec. 31, 2012

## A brief description of when and why the GHG emissions baseline was adopted:

Baseline was adopted in 2012 as the Energy Baseline as that was the year that a new Energy Program with new staff positions was adopted at Carleton University. New energy data started being collected and new programs and goals were established.

## Gross floor area of building space, performance year:

4,758,519.31 Square Feet

## Floor area of energy intensive building space, performance year:

	Floor Area
Laboratory space	560,925.69 Square Feet
Healthcare space	3,000 Square Feet
Other energy intensive space	0 Square Feet

## Scope 3 GHG emissions, performance year::

	Emissions
Business travel	0 Metric Tons of CO2 Equivalent
Commuting	0 Metric Tons of CO2 Equivalent
Purchased goods and services	0 Metric Tons of CO2 Equivalent
Capital goods	0 Metric Tons of CO2 Equivalent
Fuel- and energy-related activities not included in Scope 1 or Scope 2	0 Metric Tons of CO2 Equivalent
Waste generated in operations	0 Metric Tons of CO2 Equivalent
Other categories (please specify below)	0 Metric Tons of CO2 Equivalent

## A brief description of the sources included in Scope 3 GHG emissions from "other categories":

---

## A copy of the most recent GHG emissions inventory:

2015\_GHG\_Reporting.xlsx

## The website URL where the GHG emissions inventory is posted:

---

## A brief description of the institution's GHG emissions reduction initiatives, including efforts made during the previous three years:

Carleton University has made commitments to reduce energy use by 1% each year, with a revision recently made to reduce by 2% each year, based on the success of early strategies. As well, the development of the Energy Master Plan outlines how Carleton plans to execute cross-campus measures, such as energy retrofits on an increasing number of buildings and the optimization of lighting, building controls and other recommissioning projects.

## Data source(s) and notes about the submission:

The Energy Conservation and Demand Management (CDM) Plans Regulation (O. Reg. 397/11) came into force January 1, 2012 requiring public agencies and Universities to report their annual energy use and GHG emissions to the Ministry of Energy.

The regulation also requires public agencies to develop five-year energy conservation and demand management (CDM) plans by July 1, 2014. These annual energy reports and five-year energy CDM plans will be publically available on their websites and in hard copy.

Score Responsible Party

0.00 / 1.00

#### Criteria

#### Part 1

Institution has adopted policies or guidelines to improve outdoor air quality and minimize air pollutant emissions from mobile sources. Policies and/or guidelines may include, but are not limited to, prohibiting vehicle idling, restrictions on the use of powered lawn care equipment, and other strategies for minimizing mobile emissions.

Policies adopted by entities of which the institution is part (e.g. government or university system) may count for Part 1 of this credit as long as the policies apply to and are followed by the institution.

#### Part 2

Institution has completed an inventory of significant air emissions from stationary sources on campus. Significant emissions include nitrogen oxides  $(NO_x)$ , sulfur oxides  $(SO_x)$ , and other standard categories of air emissions identified in environmental permits held by the institution, international conventions, and/or national laws or regulations.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

## **Buildings**

## Points Claimed 4.50

## Points Available 8.00

This subcategory seeks to recognize institutions that are taking steps to improve the sustainability performance of their buildings. Buildings are generally the largest user of energy and the largest source of greenhouse gas emissions on campuses. Buildings also use significant amounts of potable water. Institutions can design, build, and maintain buildings in ways that provide a safe and healthy indoor environment for inhabitants while simultaneously mitigating the building's impact on the outdoor environment.

Credit	Points
Building Operations and Maintenance	2.00 / 4.00
Building Design and Construction	1.50 / 3.00
Indoor Air Quality	1.00 / 1.00

Score	Responsible Party
	Philip Mansfield
2.00 / 4.00	Sustainability Manager
	Facilities Management and Planning

### Criteria

Institution owns and operates buildings that are:

1) Certified under a green building rating system for existing buildings, e.g. LEED® for Existing Buildings: Operations & Maintenance (O&M)

#### And/or

- 2) Operated and maintained in accordance with formally adopted sustainable operations and maintenance guidelines and policies that cover all of the following:
- · Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- Usage of environmentally preferable materials
- Indoor environmental quality
- · Water consumption
- · Building-level water metering

Building space that meets multiple criteria listed above should not be double-counted.

"---" indicates that no data was submitted for this field

## Does the institution have any building space certified under the following green building rating systems for existing buildings?:

	Yes or No
LEED for Existing Buildings or another 4-tier rating system used by an Established Green Building Council (GBC)	No
The DGNB system, Green Star Performance, or another 3-tier GBC rating system	No

BREEAM-In Use, CASBEE for Existing Building, or another 5-tier GBC rating system	No
Other non-GBC rating systems (e.g. BOMA BESt, Green Globes)	Yes

## A brief description of the green building rating system(s) used and/or a list or sample of certified buildings and ratings:

Carleton has adopted the APPA Energy and Sustainability Assessment Tool (ESAT). ESAT provides a comprehensive view of operations and helps our institution get the data and direction it needs to chart a course to sustainability. All buildings on campus are included in the assessment and benchmarking program.

## Total floor area of eligible building space (operations and maintenance):

4,372,142 Square Feet

## Floor area of building space that is certified at each level under a 4-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level (e.g. LEED Certified)	0 Square Feet
3rd Highest Level (e.g. LEED Silver)	0 Square Feet
2nd Highest Level (e.g. LEED Gold)	0 Square Feet
Highest Achievable Level (e.g. LEED Platinum)	0 Square Feet

# Floor area of building space that is certified at each level under a 3-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	0 Square Feet
Mid-Level	0 Square Feet
Highest Achievable Level	0 Square Feet

Floor area of building space that is certified at each level under a 5-tier rating system for existing buildings used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	0 Square Feet
4th Highest Level	0 Square Feet
Mid-Level	0 Square Feet
2nd Highest Level	0 Square Feet
Highest Achievable Level	0 Square Feet

Floor area of building space that is certified at any level under other green building rating systems for existing buildings:

4,372,142 Square Feet

Floor area of building space that is maintained in accordance with formally adopted sustainable building operations and maintenance guidelines or policies, but NOT certified:

0 Square Feet

A copy of the sustainable building operations and maintenance guidelines or policies:

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The date the guidelines or policies were formally adopted:

---

A brief description of the sustainable building operations and maintenance program and/or a list or sample of buildings covered:

The formal adoption of ESAT allows Carleton to manage and benchmark its building and operations. In addition Facilities Management and Planning oversees a series of plans and guidelines that have been implemented to improve everyday operations and maintenance of the campus and thus improve ESAT ratings. This includes the Energy Master Plan which outlines goals and objectives for managing, conserving and reducing energy consumption, alongside costs and estimated savings for proposed measures. In addition a specific and targeted energy retrofit program provide a comprehensive approach to facility upgrades and enhancements which have seen improvements to the indoor environment, providing consistent lighting levels, better temperature control and reduced drafts.

Carleton has also invested in a campus-wide Capital Development and Infrastructure Renewal plan which will see investment in building operations. New building developments are also examined from the standpoint of maximising building and operational sustainability through the Green Globe Certification program from design to operational use. Other examples

implemented on campus include:

- -Composting initiatives implemented in residences
- -Low flow washroom fixtures installed on campus
- -Residence faucets have been equipped with aerators
- -Green Cleaning Product Guidelines implemented across all buildings.
- -Light fixtures have been replaced with higher efficiency florescent/LED lights
- -HVAC Modifications: Improve the provision of heating, ventilation and cooling within buildings
- -Residence 'Green Team' program encourage energy and waste reduction for students living on campus
- Themed floor in campus residence for sustainability
- Staff and Faculty Eco Reps completing an internal 'Green Workplace' program whereby workplaces are certified for sustainability practices being implemented.

## A brief description of how the institution ensures compliance with sustainable building operation and maintenance guidelines and policies:

The Carleton Sustainability Strategic Plan outlines key commitments for ensuring the implementation of building operations and maintenance programs. These elements are also included as part of the wider University Strategic Integrated Plan and subsequent departmental scorecards for annual review.

The website URL where information about the institution's certified buildings and/or sustainable operations and maintenance guidelines or policies is available:

http://carleton.ca/fmp/energy-and-sustainability/topics/green-buildings/

Score	Responsible Party
	Philip Mansfield
1.50 / 3.00	Sustainability Manager
	Facilities Management and Planning

### Criteria

Institution-owned buildings that were constructed or underwent major renovations in the previous five years are:

- 1) Certified under a green building rating system for new construction and major renovations (e.g. the LEED® for New Construction and Major Renovations, LEED for Commercial Interiors, LEED for Healthcare, and/or LEED for Core and Shell Green Building Rating Systems)
- 2) Certified Living under the Living Building Challenge (LBC)

## And/or

- 3) Designed and built in accordance with formally adopted green building guidelines and policies that cover all of the following topics:
- · Impacts on the surrounding site
- Energy consumption
- Building-level energy metering
- · Usage of environmentally preferable materials
- · Indoor environmental quality
- · Water consumption
- · Building-level water metering

Building space that meets multiple criteria listed above should not be double-counted.

"---" indicates that no data was submitted for this field

## Does the institution have any building space certified under the following green building rating systems for new construction and major renovations?:

	Yes or No
LEED or another 4-tier rating system used by an Established Green Building Council (GBC)	No
The DGNB system, Green Star, or another 3-tier GBC rating system	No

BREEAM, CASBEE, or another 5-tier GBC rating system	No
The Living Building Challenge	No
Other non-GBC rating systems (e.g. BOMA BESt, Green Globes)	Yes

## A brief description of the green building rating system(s) used and/or a list of certified buildings and ratings:

Carleton University has committed to ensuring that all new construction and major renovations are assessed against the Green Globes Rating system and will achieve at minimum a rating of 3 out of 5.

The Green Globes system is an internationally recognised, third party, certification and building environmental design and management tool. It allows an evaluation against such factors as:project management, energy consumption, site use, space and water optimization, and waste management.

To date a number of buildings have been assessed across the campus including:

- Canal Building (5 Globes)
- •Health Sciences Building (Design) (5 Globes)
- •Residence Commons (4 Globes)
- •River Building (4 Globes)
- Herzberg Laboratories addition (4 Globes)
- •Russell-Grenville House (4 Globes)
- •Frontenac (3 Globes)
- MacOdrum Library renovation (3 Globes)
- Lennox-Addington (3 Globes)

## Total floor area of eligible building space (design and construction):

1,068,952 Square Feet

## Floor area of building space that is certified at each level under a 4-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level (e.g. LEED Certified)	
3rd Highest Level (e.g. LEED Silver)	
2nd Highest Level (e.g. LEED Gold)	

Floor area of building space that is certified at each level under a 3-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	
Mid-Level	
Highest Achievable Level	

Floor area of building space that is certified at each level under a 5-tier rating system for new construction and major renovations used by an Established Green Building Council::

	Certified Floor Area
Minimum Level	
4th Highest Level	
Mid-Level	
2nd Highest Level	
Highest Achievable Level	

Floor area of building space certified Living under the Living Building Challenge:

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Floor area of building space that is certified at any level under other green building rating systems for new construction and major renovations:

1,068,952 Square Feet

Floor area of building space that was designed and constructed in accordance with green building policies or guidelines but NOT certified:

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## A copy of the guidelines or policies:

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The date the guidelines or policies were adopted:

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A brief description of the green building guidelines or policies and/or a list or sample of buildings covered:

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A brief description of how the institution ensures compliance with green building design and construction guidelines and policies:

As part of Facilities Management and Planning sustainability initiatives (Sustainability Strategic Plan), Carleton has outlined a commitment for all new construction and major renovations are assessed against the Green Globes Rating system and will achieve at minimum a rating of 3 out of 5. Review and Assessment of this action are assessed as part of FMP planning and departmental scorecards.

The website URL where information about the institution's certified buildings and/or green building design and construction guidelines or policies is available:

http://carleton.ca/fmp/energy-and-sustainability/topics/green-buildings/

#### Score

## **Responsible Party**

## **Philip Mansfield**

1.00 / 1.00

Sustainability Manager
Facilities Management and Planning

### Criteria

Institution has an indoor air quality (IAQ) management program that includes regular auditing or monitoring, a mechanism for occupants to register complaints, and action plans to implement any corrective measures required in response to audits, monitoring or complaints.

Policies and plans adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as the policies apply to and are followed by the institution.

"---" indicates that no data was submitted for this field

Floor area of building space covered by an indoor air quality (IAQ) management program that meets the criteria for this credit:

4,758,519.31 Square Feet

## Gross floor area of building space:

4,758,519.31 Square Feet

A brief description of the institution's indoor air quality program(s) (including information about regular auditing or monitoring, mechanisms for occupants to register complaints, and action plans):

The Department continues its efforts implementing strategic initiatives to ensure all energy projects include indoor emission enhancements and manage energy consumption and conservation, which include:

Construction Standards to incorporate more energy-saving features in new buildings and during major renovations. The University's long-term operational costs will be lower if projects incorporate more energy-saving equipment, lights, HVAC, and automated system management features and standards;

Proactive maintenance and repair of building systems and campus-wide utility distribution systems. This includes adding insulation to reduce outdoor element infiltration, maintaining steam traps and system valves, locating and repairing leaks, updating the local and global controls systems for greater operational efficiency, and working towards reducing the deferred maintenance backlog on these systems;

Upgrading our chilled-water production and distribution systems to consolidate existing proliferation of cooling equipment, reduce maintenance costs and improve energy efficiency.

Building Ventilation System Operation and Reporting

We are responsible for operating and maintaining all heating, ventilating and air conditioning systems (HVAC) on campus. A call or email to the FMP Service Centre (ext. 3668) will allow the appropriate trades person to review and take corrective action. If the problem cannot be resolved, Environmental Health and Safety may be contacted to assist in the investigation.

Indoor Air Quality (IAQ) Investigation Procedure

We strive to respond to all Indoor Air Quality (IAQ) concerns voiced by staff and students in a timely and professional manner. Indoor Air Quality concerns will be investigated in the following manner:

- -Advise the area supervisor of the indoor air quality concern
- -Report the concern to the FMP Service Centre at extension 3668
- -The FMP Service Centre will initiate an IAQ Complaint Report and arrange for personnel to investigate

The website URL where information about the institution's indoor air quality program(s) is available:

http://carleton.ca/fmp/our-services/construction/energy-services/#air

## **Dining Services**

Points Claimed 1.36

Points Available 7.00

This subcategory seeks to recognize institutions that are supporting a sustainable food system. Modern industrial food production often has deleterious environmental and social impacts. Pesticides and fertilizers used in agriculture can contaminate ground and surface water and soil, which can in turn have potentially dangerous impacts on wildlife and human health. The production of animal-derived foods often subjects animals to inhumane treatment and animal products have a higher per-calorie environmental intensity than plant-based foods. Additionally, farm workers are often directly exposed to dangerous pesticides, subjected to harsh working conditions, and paid substandard wages. Furthermore, food is often transported long distance to institutions, producing greenhouse gas emissions and other pollution, as well as undermining the resiliency of local communities.

Institutions can use their purchasing power to require transparency from their distributors and find out where the food comes from, how it was produced, and how far it traveled. Institutions can use their food purchases to support their local economies; encourage safe, environmentally-friendly and humane farming methods; and help eliminate unsafe working conditions and alleviate poverty for farmers. These actions help reduce environmental impacts, preserve regional farmland, improve local food security, and support fair and resilient food systems.

Please note that while dining services can also play an important role in conserving energy and water, reducing waste, and purchasing environmentally preferable materials other than food, STARS measures these impacts across the institution instead of by department; therefore, the benefits of these actions are captured in the Energy, Water, Waste, and Purchasing subcategories, respectively.

Credit	Points
Food and Beverage Purchasing	0.36 / 4.00
Low Impact Dining	1.00 / 3.00

Score	Responsible Party
	David Van Dyk
0.36 / 4.00	District Manager
	Dining Services

#### Criteria

### Part 1

Institution's dining services purchase food and beverages that meet at least one of the following criteria:

· Local and community-based

And/or

• Third party verified to be ecologically sound, fair and/or humane

Food and beverage purchases that meet both criteria listed above (e.g. local community-based products that are Certified Organic) should not be double-counted.

Local community-based products:

- Are sourced from local community-based producers (directly or through distributors)
- Contain raw ingredients (excluding water) that are third party verified and/or locally harvested and produced (e.g. bread made with Organic flour or local honey) and
- Exclude products from Concentrated Animal Feeding Operations (CAFOs), products that have minimal nutritional value (e.g. soda, chewing gum, candies made predominantly from sweeteners), and products from producers that have been convicted of one or more labor law violations within the previous three years

Products that are not local and community-based must be third party verified to count. Recognized third party standards and certifications for food and beverages are outlined in the STARS Technical Manual. Institutions located outside the U.S. and Canada may use additional third party certifications to identify ecologically sound, fair and humane products, provided the certifications are reported in "Notes about this submission".

Part 1 of this credit includes food and beverage purchases for on-campus dining operations and catering services operated by the institution or the institution's primary dining services contractor (e.g. Aramark, Bon Appétit Management Company, Chartwells, Sodexo). On-site franchises, convenience stores, vending services, and concessions are excluded from Part 1.

### Part 2

Institution's on-site franchises, convenience stores, vending services, and/or concessions purchase food and beverages that are third party verified and/or locally sourced (i.e. meet the criteria outlined in Part 1).

"---" indicates that no data was submitted for this field

Percentage of dining services food and beverage expenditures that are local and community-based and/or third party verified:

9

A copy of an inventory, list or sample of sustainable food and beverage purchases:

Carleton U AASHE local supplier list FINAL.xls

An inventory, list or sample of sustainable food and beverage purchases:

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Does the institution wish to pursue Part 2 of this credit (food and beverage expenditures for on-site franchises, convenience stores, vending services, or concessions)?:

No

Percentage of on-site franchise, convenience store, vending services, and concessions food and beverage purchases that are local and community-based and/or third party verified:

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A copy of an inventory, list or sample of on-site franchise, convenience store, vending machine, and/or concessions food and beverage purchases that are sustainably produced:

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An inventory, list or sample of on-site franchise, convenience store, vending machine, and/or concessions food and beverage purchases that are sustainably produced:

We do not run the convenience store; the one on campus is run by CUSA (Carleton University Student Association) and their organization serves Fair Trade coffee/tea at all of their outlets and sell other Fair Trade products at their campus convenience store.

## A brief description of the sustainable food and beverage purchasing program:

Carleton University Dining Services is dedicated to measuring, reporting, and increasing their sustainable purchases on an annual basis. Dining services works closely with the office of sustainability on relevant initiatives that would benefit the whole campus community. Certified Fair Trade coffee, MSC / BAP certified seafood and Rainforest Alliance teas are staple items on campus, and a new focus on engaging with Ottawa area suppliers will soon show progress in support for local products and an even greater selection of certified sustainable products. We use local produce and meat distributors and engage with smaller businesses such as bakeries (i.e. Rideau Bakery) and specialty shops for specific items and catering needs.

A brief description of the methodology used to track/inventory sustainable food and beverage purchases:

Aramark has a sophisticated product tracking system which allows us to report virtually every purchase made in our operation. Whenever we require information on procurement patterns, reports can be generated detailing purchase volumes and total spend for any particular item, anywhere in the country. This system allows us to quickly pull up information regarding where we have room to use more sustainable practices and what components of our business need improvement

# Total annual food and beverage expenditures:

4,759,873.26 US/Canadian \$

# Which of the following food service providers are present on campus and included in the total food and beverage expenditure figures?:

	Present?	Included?
Dining operations and catering services operated by the institution	No	No
Dining operations and catering services operated by a contractor	Yes	Yes
Franchises	Yes	Yes
Convenience stores	Yes	No
Vending services	Yes	Yes
Concessions	No	No

# Has the institution achieved the following?:

	Yes or No
Fair Trade Campus, College or University status	Yes
Certification under the Green Seal Standard for Restaurants and Food Services (GS-46)	No
Marine Stewardship Council (MSC) certification	Yes
Signatory of the Real Food Campus Commitment (U.S.)	No

A brief description of other sustainable restaurant and food service standards that the institution's dining

### services operations are certified under:

By the end of 2013, 95% of our seafood was contracted sustainably as per Marine Stewardship Council, Best Aquaculture Practices, OceanWise Certifications, and identified as sustainable by the Sustainable Fisheries Partnership. Currently, dining services is working with the student community and the office of sustainability to obtain Fair Trade Campus designation.

# The website URL where information about the institution's sustainable food and beverage purchasing efforts is available:

https://dining.carleton.ca/about/#sustainability

### Data source(s) and notes about the submission:

Carleton University's Campus Master Plan available at:

http://carleton.ca/fmp/campus-master-plan/

which includes information about goals to do with environmental responsibility and sustainable development

Site on buying local and sustainable:

http://carleton.ca/fmp/2014/buy-local-sustainable/

A Strategic Plan for Embedding Sustainability into Carleton University Operations Page 11 (Dining Services) available at: http://carleton.ca/fmp/wp-content/uploads/Sustainability\_Strategic\_Plan\_-\_Updated\_May\_2013.pdf

Score	Responsible Party
	David Van Dyk
1.00 / 3.00	District Manager
	Dining Services

#### Criteria

#### Part 1

Conventionally produced animal products comprise less than 30 percent of the institution's total dining services food purchases.

Conventionally produced animal products include all food products that contain animal derived (i.e. meat, fish, egg, dairy) ingredients that have not been verified to be sustainably produced. Sustainably produced animal products have been either:

Third party verified to be ecologically sound and/or humane (see OP 6: Food and Beverage Purchasing)

Or

• Verified by the institution to be both ecologically sound and humane (e.g. "Pasture Raised", "Grass Fed" or "Humanely Raised") through a relationship with a local producer

#### Part 2

Institution:

· Offers diverse, complete-protein vegan options at all meals in at least one dining facility on campus

And

Provides labels and/or signage that distinguishes between vegan, vegetarian (not vegan), and other items

This credit includes on-campus dining operations and catering services operated by the institution or the institution's primary dining services contractor. On-site franchises, convenience stores, vending machines, and concessions should be excluded to the extent feasible.

"---" indicates that no data was submitted for this field

Percentage of total dining services food purchases comprised of conventionally produced animal products:

40

A brief description of the methodology used to track/inventory expenditures on animal products:

Aramark has a sophisticated product tracking system which allows us to report virtually every purchase made by our campus team over a given period of time. Whenever we require information on procurement patterns reports can be generated detailing purchase volumes and total spend for any particular item, anywhere in the country.

Does the institution offer diverse, complete-protein vegan dining options at all meals in at least one dining facility on campus?:

Yes

Does the institution provide labels and/or signage that distinguishes between vegan, vegetarian (not vegan), and other items?:

Yes

Are the vegan options accessible to all members of the campus community?:

Yes

A brief description of the vegan dining program, including availability, sample menus, signage and any promotional activities (e.g. "Meatless Mondays"):

We have a vast vegan dining program across our operation. In the main dining hall, there is a vegan station which runs along the three week menu cycle of the rest of the dining hall offering a large variety of vegan options including entrées, salads and sides. The vegan station is broken down into a hot station and a cold station. We take care to provide complete protein sources by offering a variety of different plant based proteins, while incorporating ingredients such as pulses/legumes, cereals & pseudocereals, nuts, seeds, soy / tofu, etc. to provide vegan and vegetarian diners with a balanced diet that is rich in plant based protein. We also ensure that there is at least one dish with legumes and beans available and one dish with tofu available at every meal period. At the retail locations, we offer vegan options at our stations including our franchise and in house brands. We continue to emphasize the benefits of plant based eating through our Healthy for Life marketing, communication, and educational platform through publishing materials such as a vegan eating brochure in our Healthy for Life information board, seasonal newsletters such as our fall 2014 live it good newsletter boasting the benefits of pulses in partnership with Pulse Canada, online news stories about vegan and vegetarian eating on liveitgood.ca, and through our social media channels. We also incorporate vegan and/or vegetarian entrees into our Go Local Wednesdays program so some weeks the featured dish is vegan friendly. We are currently working on a detailed dietary restrictions program which will have branded logos indicating whether every single menu item is vegan, vegetarian, gluten free, and/or Halal. This will provide even more signage at point of sale to showcase our options for people that follow these diets

# A brief description of other efforts the institution has made to reduce the impact of its animal-derived food purchases:

We purchase our shell eggs locally from Macartney Farms in order to not only support local producers in the Ottawa area, but also reduce emissions produced from transporting eggs across long distances. In addition, we purchase MSC certified wild-caught seafood and BAP certified farmed seafood through our contracted partner frozen fish supplier Lapointe Fish and Seafood LTD. Purchasing sustainably sourced seafood helps to reduce ecologically harmful practices such overfishing and promotes responsible aquaculture.

The website URL where information about the vegan dining program is available:

# Annual dining services expenditures on food:

4,759,873.26 US/Canadian \$

# Annual dining services expenditures on conventionally produced animal products:

1,900,586.56 US/Canadian \$

# Annual dining services expenditures on sustainably produced animal products:

50,169 US/Canadian \$

# **Energy**

### Points Claimed 1.94

Points Available 10.00

This subcategory seeks to recognize institutions that are reducing their energy consumption through conservation and efficiency, and switching to cleaner and renewable sources of energy such as solar, wind, geothermal, and low-impact hydropower. For most institutions, energy consumption is the largest source of greenhouse gas emissions, which cause global climate change. Global climate change is having myriad negative impacts throughout the world, including increased frequency and potency of extreme weather events, sea level rise, species extinction, water shortages, declining agricultural production, ocean acidification, and spread of diseases. The impacts are particularly pronounced for vulnerable and poor communities and countries. In addition to causing global climate change, energy generation from fossil fuels, especially coal, produces air pollutants such as sulfur dioxide, nitrogen oxides, mercury, dioxins, arsenic, cadmium and lead. These pollutants contribute to acid rain as well as health problems such as heart and respiratory diseases and cancer. Coal mining and oil and gas drilling can also damage environmentally and/or culturally significant ecosystems. Nuclear power creates highly toxic and long-lasting radioactive waste. Large-scale hydropower projects flood habitats and disrupt fish migration and can involve the relocation of entire communities.

Implementing conservation measures and switching to renewable sources of energy can help institutions save money and protect them from utility rate volatility. Renewable energy may be generated locally and allow campuses to support local economic development. Furthermore, institutions can help shape markets by creating demand for cleaner, renewable sources of energy.

Credit	Points
Building Energy Consumption	1.94 / 6.00
Clean and Renewable Energy	0.00 / 4.00

Score

Responsible Party

Philip Mansfield

1.94 / 6.00

Sustainability Manager
Facilities Management and Planning

### Criteria

#### Part 1

Institution has reduced its total building energy consumption per gross square foot/metre of floor area compared to a baseline.

#### Part 2

Institution's annual building energy consumption is less than the minimum performance threshold of 28 Btu per gross square foot (2.6 Btu per gross square metre) of floor area per degree day.

Performance for Part 2 of this credit is assessed using EUI-adjusted floor area, a figure that accounts for significant differences in energy use intensity (EUI) between types of building space.

"---" indicates that no data was submitted for this field

# Total building energy consumption, all sources (transportation fuels excluded):

	Performance Year	Baseline Year
Total building energy consumption	588,778 <i>MMBtu</i>	576,630 <i>MMBtu</i>

# Purchased electricity and steam:

	Performance Year	Baseline Year
Grid-purchased electricity	243,200 <i>MMBtu</i>	243,045 <i>MMBtu</i>
District steam/hot water	345,578 <i>MMBtu</i>	333,585 <i>MMBtu</i>

# Gross floor area of building space::

Performance Year Baseline Year	
--------------------------------	--

# Floor area of energy intensive space, performance year::

	Floor Area
Laboratory space	560,925.69 Square Feet
Healthcare space	3,000 Square Feet
Other energy intensive space	

# Degree days, performance year (base 65 °F)::

	Degree days (see help icon above)
Heating degree days	8,161
Cooling degree days	414

# Source-site ratios::

	Source-Site Ratio (see help icon above)
Grid-purchased electricity	2.05
District steam/hot water	1.20

# Start and end dates of the performance year and baseline year (or 3-year periods)::

	Start Date	End Date
Performance Year	Jan. 1, 2015	Dec. 31, 2015
Baseline Year	Jan. 1, 2012	Dec. 31, 2012

# A brief description of when and why the building energy consumption baseline was adopted:

---

### A brief description of any building temperature standards employed by the institution:

Annually, FMP does a systems switchover from heating to cooling taking into account two important constraints:

- (1) three consecutive days of 25 degrees Celsius outside temperature, and
- (2) weather projections for the next 14 days.

The weather projections are very important because if we were to start the cooling systems and subsequently have water freeze in the cooling towers and pipes, this could inflict major damage to the mechanical parts of the systems, delaying cooling for the season while systems are repaired – and we do not want to do that.

The switchover process usually starts mid May. However, we continue to monitor temperatures and weather forecasts and will respond as appropriate.

The changeover to cooling is performed on the basis of priorities established to

- (1) provide comfort to students living in University Housing,
- (2) maintain required temperatures to protect equipment and research in progress, and
- (3) serve the greatest number of individuals and activities.

# A brief description of any light emitting diode (LED) lighting employed by the institution:

Currently, a small portion of the lighting across campus has been converted to LED. It is our mission to convert all lighting, eventually, to LED lighting. This is being done through gradual retrofits and upgrades campus-wide.

### A brief description of any occupancy and/or vacancy sensors employed by the institution:

Newer buildings constructed on campus have all motion-sensored lighting within the building. A large portion of other buildings on campus have began to be upgraded with daylight sensors around the perimeter of the building; retrofitted buildings are employing the same sensors.

A brief description of any passive solar heating employed by the institution:

---

A brief description of any ground-source heat pumps employed by the institution:

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A brief description of any cogeneration technologies employed by the institution:

Cogeneration system to be in-service Jan 1st 2018.

A brief description of any building recommissioning or retrofit program employed by the institution:

As identified in the energy master plan, buildings are upgraded and retrofits are implemented on average of one building per year. Recommissioning efforts are ongoing for building on an as-needed basis

# A brief description of any energy metering and management systems employed by the institution:

Carleton University has an extensive metering system which operates on a fiber optic communication network and measures electric, natural gas, water, steam and chilled water consumption for each building across campus.

The Carleton metering system approach is used to measure all the energy used in each of the buildings on campus. The metering server logs all energy values once every hour and measurements of each meter are reviewed monthly, or more frequently as required.

A brief description of the institution's program to replace energy-consuming appliances, equipment and systems with high efficiency alternatives:

As equipment reaches end of life, or if it would have a beneficial payback items are replaced as required.

A brief description of any energy-efficient landscape design initiatives employed by the institution:

Carleton is currently switching to electric vehicles for landscaping and maintenance fleet vehicles.

A brief description of any vending machine sensors, lightless machines, or LED-lit machines employed by the institution:

All vending machines on campus have vending misers and all new vending machines are LED.

A brief description of other energy conservation and efficiency initiatives employed by the institution:

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The website URL where information about the institution's energy conservation and efficiency initiatives is available:

https://carleton.ca/fmp/energy-and-sustainability/

#### Score

# **Responsible Party**

### **Philip Mansfield**

0.00 / 4.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

Institution supports the development and use of clean and renewable energy sources, using any one or combination of the following options.

Option 1:

Option 2:

Option 3:

Option 4:

Generating electricity from clean and renewable energy sources on campus and retaining or retiring the rights to the environmental attributes of such electricity. (In other words, if the institution has sold Renewable Energy Credits for the clean and renewable energy it generated, it may not claim such energy here.) The on-site renewable energy generating devices may be owned and/or maintained by another party as long as the institution has contractual rights to the associated environmental attributes.

Using renewable sources for non-electric, on-site energy generation, such as biomass for heating.

Catalyzing the development of off-site clean and renewable energy sources (e.g. an off-campus wind farm that was designed and built to supply electricity to the institution) and retaining the environmental attributes of that energy.

Purchasing the environmental attributes of electricity in the form of Renewable Energy Certificates (RECs) or other similar renewable energy products that are either Green-e Energy certified or meet Green-e Energy's technical requirements and are verified as such by a third party, or purchasing renewable electricity through the institution's electric utility through a certified green power purchasing option.

Since this credit is intended to recognize institutions that are actively supporting the development and use of clean and renewable energy, neither the electric grid mix for the region in which the institution is located nor the grid mix reported by the electric utility that serves the institution count for this credit.

The following renewable systems are eligible for this credit:

- · Concentrated solar thermal
- Geothermal systems that generate electricity
- Low-impact hydroelectric power
- Solar photovoltaic
- Wave and tidal power

Wind

Biofuels from the following sources are eligible:

- Agricultural crops
- Agricultural waste
- · Animal waste
- Landfill gas
- Untreated wood waste
- · Other organic waste

Technologies that reduce the amount of energy used but do not generate renewable energy do not count for this credit. For example, daylighting, passive solar design, and ground-source heat pumps are not counted in this credit. The benefits of such strategies, as well as improved efficiencies achieved through using cogeneration technologies, are captured by *OP 1: Greenhouse Gas Emissions* and *OP 8: Building Energy Consumption*.

Transportation fuels, which are covered by *OP 1: Greenhouse Gas Emissions* and *OP 18: Campus Fleet*, are not included in this credit.

"---" indicates that no data was submitted for this field

# Total energy consumption (all sources, transportation fuels excluded), performance year:

322.42 MMBtu

# Clean and renewable energy from the following sources::

	Performance Year
Option 1: Clean and renewable electricity generated on-site during the performance year and for which the institution retains or has retired the associated environmental attributes	0.00 <i>MMBtu</i>
Option 2: Non-electric renewable energy generated on-site	0 MMBtu
Option 3: Clean and renewable electricity generated by off-site projects that the institution catalyzed and for which the institution retains or has retired the associated environmental attributes	0 MMBtu

Option 4: Purchased third-party certified RECs and
similar renewable energy products (including renewable
electricity purchased through a certified green power
purchasing option)

0 MMBtu

purchasing option)	
A brief description of on-site renewable electricity generating devices :	
A 10kW array of 25 roof top solar panels on Canal Building feeds directly into the Canal Building panel.	
A brief description of on-site renewable non-electric energy devices:	
A brief description of off-site, institution-catalyzed, renewable electricity generating devices:	
A brief description of the RECs and/or similar renewable energy products:	
The website URL where information about the institution's renewable energy sources is available:	

# **Grounds**

Points Claimed 1.00

Points Available 4.00

This subcategory seeks to recognize institutions that plan and maintain their grounds with sustainability in mind. Beautiful and welcoming campus grounds can be planned, planted, and maintained in any region while minimizing the use of toxic chemicals, protecting wildlife habitat, and conserving water and resources.

Credit	Points
Landscape Management	1.00 / 2.00
	0.00 / 2.00
	This credit is weighted more heavily for institutions that own or manage land that includes or is adjacent to any of the following:
	Legally protected areas (e.g. IUCN Category I-VI)
	<ul> <li>Internationally recognized areas (e.g. World Heritage, Ramsar, Natura 2000)</li> </ul>
Biodiversity	<ul> <li>Priority sites for biodiversity (e.g. Key Biodiversity Areas, Alliance for Zero Extinction sites)</li> </ul>
Diodiversity	Regions of conservation importance (e.g. Endemic Bird Areas, Biodiversity Hotspots, High Biodiversity Wilderness Areas)
	Institutions may identify legally protected areas, internationally recognized areas, priority sites for biodiversity, and regions of conservation importance using the Integrated Biodiversity Assessment Tool (IBAT) for Research & Conservation Planning or an equivalent resource or study.
	Close

Score	Responsible Party
	Philip Mansfield
1.00 / 2.00	Sustainability Manager
	Facilities Management and Planning

### Criteria

Institution's grounds include areas that are managed at one or more of the following levels:

- 1) Managed in accordance with an Integrated Pest Management (IPM) Plan
- 2) Managed in accordance with a sustainable landscape management program

And/or

3) Organic, certified and/or protected

The level at which an area of grounds is managed may be determined as outlined in the table below:

Management Level	Standards and/or Certifications Required
1) IPM Plan	<ul> <li>IPM plan calls for:</li> <li>Using least-toxic chemical pesticides,</li> <li>Minimum use of chemicals, and</li> <li>Use of chemicals only in targeted locations and only for targeted species</li> </ul>

2) Sustainable Landscape Management Program	The program includes formally adopted guidelines, policies and/or practices that cover all of the following:  Integrated pest management (see above)  Plant stewardship - protecting and using existing vegetation (e.g. through the use of a tree care plan), using native and ecologically appropriate plants, and controlling and managing invasive species  Soil stewardship - organic soils management practices that restore and/or maintain a natural nutrient cycle and limit the use of inorganic fertilizers and chemicals  Use of environmentally preferable materials - utilizing reused, recycled and local and sustainably produced landscape materials  Hydrology and water use - restoring and/or maintaining the integrity of the natural hydrology by promoting water infiltration, minimizing or eliminating the use of potable water for irrigation, and protecting/restoring riparian, wetland, and shoreline habitats and lost streams  Materials management and waste minimization - composting and/or mulching waste from groundskeeping, including grass trimmings  Snow and ice management (if applicable) - implementing technologies or strategies to reduce the environmental impacts of snow and ice removal
3) Organic, Certified and/or Protected	<ul> <li>Protected areas and land that is:</li> <li>Maintained in accordance with an organic land care standard or sustainable landscape management program that has eliminated the use of inorganic fertilizers and chemical pesticides, fungicides and herbicides in favor of ecologically preferable materials</li> <li>Certified Organic</li> <li>Certified under the Forest Stewardship Council (FSC) Forest Management standard</li> <li>Certified under the Sustainable Sites Initiative™ (SITES™) and/or</li> <li>Managed specifically for carbon sequestration (as documented in policies, land management plans or the equivalent)</li> </ul>

Land that meets multiple criteria should not be double-counted. An area of grounds that does not meet the standards specified for a particular management level should be reported at the next appropriate level for which it does meet the standards. For example, a landscape management program that includes an IPM plan and meets some, but not all, of the other standards listed for a sustainable landscape management plan should be reported at level 1 (IPM Plan).

# Figures required to calculate the total area of managed grounds::

	Area
Total campus area	153.20 <i>Acres</i>
Footprint of the institution's buildings	28.65 <i>Acres</i>
Area of undeveloped land, excluding any protected areas	23.70 Acres

# Area of managed grounds that is::

	Area
Managed in accordance with an Integrated Pest Management (IPM) Plan	100.85 <i>Acres</i>
Managed in accordance with a sustainable landscape management program that includes an IPM plan and otherwise meets the criteria outlined	0 Acres
Managed organically, third party certified and/or protected	0 Acres

### A copy of the IPM plan:

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## The IPM plan:

Integrated Pest Management

Integrated Pest Management (IPM) is the use of chemical, biological and cultural controls to manage the pest population with techniques that cause as little disruption as possible to the natural environment. In this context the term "pest" refers to anything that may be unwanted such as fungi, virus, weed, insect or animal. A pesticide is anything that limits unwanted growth. IPM recognizes that the use of chemicals is a necessary part of a pest control program. IPM stresses conservative and accurate application of chemicals with an emphasis on a selective and responsible approach.

Biological control involves the introduction of a living organism such as predators or parasites into the environment for the purpose of reducing or controlling an antagonistic species.

Cultural controls include selecting plants that are native or suited to the environment, maintaining a diverse plant population and maintaining proper soil conditions.

IPM recognizes and appreciates the imperative balance of nature while at the same time allowing for manipulation of the environment. The goals of Integrated Pest Management are to reduce the use of chemical pesticides and manage pest populations by other methods.

### A brief summary of the institution's approach to sustainable landscape management:

The Campus Master Plan reinforces many aspects of sustainability. Growth will be achieved through deinsification of the existing property and the Campus Master Plan notes that replacement of existing buildings will be considered so that more efficient use can be made of a building footprint.

A brief description of how the institution protects and uses existing vegetation, uses native and ecologically appropriate plants, and controls and manages invasive species:

Green spaces are to be maintained and highlighted through careful planning.

# A brief description of the institution's landscape materials management and waste minimization policies and practices:

In 2011-'12, Carleton University produced approximately 2,360metric tons of waste or approximately 83 kg per capita. Of that 2,360 metric tons of waste, 1,332 metric tons or 56 per cent, were diverted through reuse, composting and recycling and by adding more recycling containers on campus, producing consistent signage and education materials, and diverting other materials such as unwanted furniture. Just the

recycling of the blue box-type materials at Carleton saved the university approximately \$74,500. In 2015, the waste diversion rate was 61%.

To better understand the waste streams, building level waste audits were conducted in 2010. The results were used to evaluate where improvements were needed (reallocating recycling or garbage bins), as well as engaging the community (meetings with the cleaning staff in order to educate/engage them in the program). Special waste depots were established in 2009 to collect batteries, printer cartridges and cellular phones. To date, Carleton has shipped three large 45-gallon drums of batteries for recycling and disposal and many printer cartridges

#### Practices:

- 1. Increase the diversion of waste to 60 percent by 2015.
- 2. Continue to work with Housing and Conference Services to focus on diversion (reuse and recycling) for move-in and move-out.
- 3. Create a comprehensive management plan for paper on campus –the largest individual stream of waste. The plan will include targets for overall reduction of paper use as well as recycling targets. A reduction in paper use will generate significant cost savings for Carleton as well. Aspects of the strategy may include: all computers on campus having double-sided printing as a default setting; requiring the use of centralized printers where possible (eliminate or reduce support for individual
- printers which are less efficient in many ways); promoting the use of electronic course packs (provide training); track the amount of paper each department uses and set reduction targets; require all theses to be double-sided (they are currently required to be single-sided); ensure that all mailings are targeted and that only the number needed are produced.
- 4. Hardware Services to develop a comprehensive strategy for dealing with all electronic waste or e-waste (by May 2014 and implemented by December 2014). E-waste such as computer monitors, hard drives, printers, etc. have components that are hazardous when not disposed of properly so a strategy ensuring proper disposal is an important step to achieving a more sustainable campus.

- 5. Work with Carleton's main vendors such as Unisource and Grand and Toy to minimize the waste generated from regular deliveries (reusable shipping containers, combining shipments, etc.).
- 6. Purchasing and Facilities Management and Planningto explore the possibility of expanding the surplus goods process and establishing a permanent system for furniture reuse/recycling/disposal (June 2014).
- 7. Ensure that opportunities for minimizing waste and maximizing diversion are pursued for all construction and renovationjobs at Carleton. Comply withthe ASHRAE standard 189.1 for construction and demolition wa

# A brief description of the institution's organic soils management practices:

The university has used no chemical pesticides on the grounds in at least five years.

# A brief description of the institution's use of environmentally preferable materials in landscaping and grounds management:

Carleton's land use and management of the 62 hectare campus impact the local ecosystem through the use of water, campus development and construction, landscaping applications such as fertilizers in summer or salt in winter, and storm water management. The university already has a policy for integrated pest management and has used no chemical pesticides on the grounds in at least five years.

# A brief description of how the institution restores and/or maintains the integrity of the natural hydrology of the campus:

Carleton University has invested substantially over the years in metering potable water by building. As a result, the university is in the enviable position of being able to assess where water is consumed and target specific areas where additional conservation is possible. The Canal Building is sub-metered to provide even more specific information on how and where potable water is consumed.

To better understand where water is consumed on campus, the sustainability office conducted a water audit of Carleton University. The data collected will allow for specific targeting of high-use areas.

The Sustainability Office has also worked with Housing and Conference Services to ensure that the renovation of the Russell Grenville residence in 2010 established a new level of water conservation at Carleton. There has been a drop in water consumption in Russell Grenville of 65 percent which will save Carleton's Housing and Conference Services \$44,000 a year in utility costs alone.

# A brief description of how the institution reduces the environmental impacts of snow and ice removal (if applicable):

---

# A brief description of any certified and/or protected areas:

The Rideau River flood plain is regulated by the Rideau Valley Conservation Authority (RVCA), which is interested in reducing development in the river's riparian zone. Carleton will work with the RVCA to balance active use of the amenity of the river bank (such as walks, seating and patios) for a portion of the river bank, with limits of use to the majority of the area on campus, as shown below.

Is the institution recognized by the Arbor Day Foundation's Tree Campus USA program (if applicable)?:

The website URL where information about the institution's sustainable landscape management programs and practices is available:

http://carleton.ca/fmp/wp-content/uploads/Sustainability\_Strategic\_Plan\_-\_Updated\_May\_2013.pdf

### Data source(s) and notes about the submission:

Our Campus Master Plan states, "Carleton will continually seek ways to build, renew and maintain buildings, infrastructure and landscapes in a way which conserves resources, land, water and vegetation, reduces energy use, and limits waste disposal".

Score

**Responsible Party** 

0.00 / 2.00

This credit is weighted more heavily for institutions that own or manage land that includes or is adjacent to any of the following:

- Legally protected areas (e.g. IUCN Category I-VI)
- Internationally recognized areas (e.g. World Heritage, Ramsar, Natura 2000)
- Priority sites for biodiversity (e.g. Key Biodiversity Areas, Alliance for Zero Extinction sites)
- Regions of conservation importance (e.g. Endemic Bird Areas, Biodiversity Hotspots, High Biodiversity Wilderness Areas)

Institutions may identify legally protected areas, internationally recognized areas, priority sites for biodiversity, and regions of conservation importance using the Integrated Biodiversity Assessment Tool (IBAT) for Research & Conservation Planning or an equivalent resource or study.

Close

# **Philip Mansfield**

Sustainability Manager
Facilities Management and Planning

#### Criteria

The institution conducts one or both of the following:

 An assessment to identify endangered and vulnerable species (including migratory species) with habitats on institution-owned or -managed land

And/or

An assessment to identify environmentally sensitive areas on institution-owned or -managed land

The institution has plans or programs in place to protect or positively affect the species, habitats and/or environmentally sensitive areas identified.

Assessments conducted and programs adopted by other entities (e.g. government, university system, NGO) may count for this credit as long as the assessments and programs apply to and are followed by the institution.

Does the institution own or manage land that includes or is adjacent to legally protected areas, internationally recognized areas, priority sites for biodiversity, and/or regions of conservation importance?:

Yes

A brief description of any legally protected areas, internationally recognized areas, priority sites for biodiversity, and/or regions of conservation importance on institution owned or managed land:

The Rideau Canal is adjacent to Carleton University, recognized not only as a National Historic Site of Canada, but also a World Heritage Site. In the winter months, a portion of the canal also becomes the Rideau Canal Skateway, which is the largest skating rink in the world.

Part of the Carleton Campus also covers the Rideau River flood plain, regulated by the Rideau Valley Conservation Authority (RVCA), which is interested in reducing development in the river's riparian zone. Carleton will work with the Rideau Valley Conservation Authority to balance active use of the amenity of the river bank (such as walks, seating and patios) for a portion of the river bank, with limits of use to the majority of the area on campus, as shown below.

Has the institution conducted an assessment or assessments to identify endangered and vulnerable species with habitats on institution-owned or –managed land?:

No

Has the institution conducted an assessment or assessments to identify environmentally sensitive areas on institution-owned or –managed land?:

No

The methodology(-ies) used to identify endangered and vulnerable species and/or environmentally sensitive areas and any ongoing assessment and monitoring mechanisms:

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A brief description of identified species, habitats and/or environmentally sensitive areas:

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A brief description of plans or programs in place to protect or positively affect identified species, habitats and/or environmentally sensitive areas:

---

The website URL where information about the institution's biodiversity policies and programs(s) is available:

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# **Purchasing**

Points Claimed 1.35

Points Available 6.00

This subcategory seeks to recognize institutions that are using their purchasing power to help build a sustainable economy. Collectively, colleges and universities spend many billions of dollars on goods and services annually. Each purchasing decision represents an opportunity for institutions to choose environmentally and socially preferable products and services and support companies with strong commitments to sustainability.

Credit	Points
Electronics Purchasing	0.85 / 1.00
Cleaning Products Purchasing	0.25 / 1.00
Office Paper Purchasing	0.25 / 1.00
Inclusive and Local Purchasing	0.00 / 1.00
Life Cycle Cost Analysis	0.00 / 1.00
Guidelines for Business Partners	0.00 / 1.00

Score Responsible Party

J.P. Gaceta

0.85 / 1.00

Manager Purchasing Services

#### Criteria

#### Part 1

Institution has an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products. This can take the form of purchasing policies, guidelines, or directives.

Policies and directives adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as the policies apply to and are followed by the institution.

#### Part 2

Institution purchases EPEAT registered products for desktop and notebook/laptop computers, displays, thin clients, televisions and imaging equipment.

This credit does not include servers, mobile devices such as tablets and smartphones, or specialized equipment for which no EPEAT certified products are available.

"---" indicates that no data was submitted for this field

Does the institution have an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products?:

Yes

A copy of the electronics purchasing policy, directive, or guidelines:

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# The electronics purchasing policy, directive, or guidelines:

No written policy. Current contract for desktops, laptops & servers has the following requirements (Ref. our RFSO 2009-11):

#### PART 6 - CERTIFICATIONS

- 1. The offeror must supply all certifications as detailed throughout this RFSO document.
- c. Electronic Product Environment Assessment Tool (EPEAT Silver Level)
- d. Energy Star 4.0 certified

- e. TCO certification certificate
- f. Members in good standing of a recognized entity specifically established to addressf. Members in good standing of a recognized entity specifically established to address end-of –life electronics recycling and reuse in Canada.
- g. RoHS Certified

#### 5.0 ENVIRONMENTAL STEWARDSHIP

- a. In pursuit of the University's Sustainable initiatives on Green Procurement, system and monitor manufacturers must commit to a comprehensive, nationally recognised environmental standard for:
- i. The reduction or elimination of environmentally hazardous materials
- ii. Design for reuse and recycle
- iii. Energy efficiency
- iv. End of Life Management for reuse and recycle
- v. Environmental stewardship in the manufacturing process
- vi. Packaging
- b. Category 1.0D and 2.0D systems and all monitors must be certified through the Electronic Product Environment Assessment Tool (EPEAT Silver level). The Offeror must include proof of certification and subsequent verification in their offer. Program information, registry and certification details are available at the following web site:

#### www.epeat.net

In addition to the mandatory EPEAT Silver certification, the system must meet and be verified to meet a minimum of 14 out of 25 optional points for PCs and 13 optional points for monitors. Included in that optional criteria the OEM must comply and be verified for:

- 4.7.2.2 Third-party certified environmental management system for design and manufacturing organizations.
- c. Category 1.0D and 2.0D systems and all monitors must be EnergyStar 4.0 certified and must appear on the Energy Star qualified list prior to bid closing (

# www.energystar.gov

).

- d. Default and optional LCD displays must be TCO '03 certified. The exact make and model of the display offered must appear on the TCO Development web site or the Offeror must supply a copy of the TCO certification certificate in their offer.
- e. For categories 1.0 and 2.0 the system manufacturer must include 80Plus certified, high efficiency power supplies in their default offering.
- f. System and monitor manufacturers must be members in good standing of a recognized entity specifically established to address end-of-life electronics recycling and reuse in Canada. This entity must demonstrate an investment in environmental stewardship, and must be in compliance with all applicable laws and regulations.

Note: An example of such a collective organization is, Electronics Product Stewardship Canada. Should the manufacturer/vendor wish to identify membership in a similar entity's or provide evidence of participation in a corporate or collective take-back/stewardship service they must do so during the RFSO question and answer period. The contract authority reserves the right to determine the level of applicability, hence compliance at that time.

g. Category 2.0D workstations must be certified RoHS (the restriction of the use of certain hazardous substances in electrical and electronic equipment) compliant.

#### 2.0 ENVIRONMENTAL STEWARDSHIP - FOR CATEGORIES 1.0N and 2.0N

- a. In pursuit of the Carleton University's initiatives on Green Procurement, the system manufacturer must commit to a comprehensive, nationally recognized environmental standard for:
- i. The reduction or elimination of environmentally hazardous materials

- ii. Design for reuse and recycle
- iii. Energy efficiency
- iv. End of Life Management for reuse and recycle
- v. Environmental stewardship in the manufacturing process
- vi. Packaging
- b. Systems must be certified through the Electronic Product Environment Assessment Tool (EPEAT Silver level). Offerors must include proof of certification and subsequent verification in their offer. Program information, registry and certification details are available at the following web site:

#### www.epeat.net

In addition to the mandatory EPEAT Silver certification, systems must meet and be verified to meet a minimum of 14 out of 25 optional points. Included in that optional criteria the OEM must comply and be verified for:

- a. Exceptions for uni-lingual content are allowed for technical descriptions, part number references and technical documentation.
- b. When the Offeror refers specifically to this RFSO on its web site, the information presented must be accurate in that only equipment and related prices listed on the offerors submission may be represented on the Offeror's web site as being available on its SO.

#### 22.0 ENVIRONMENTAL STEWARDSHIP

In pursuit of the University's Green Procurement, system manufacturers / OEMs must meet the following:

- a. RoHS Certified Reduction in the hazardous materials entering electronic products. The components are, but not limited to the following minimum items: Case / Chassis, Motherboard / System board, Drive controller, Hard Disk Drives, Optical Disk Drives, Power Supplies
- b. Member of EPSC Electronic Product Stewardship of Canada
- c. Must be an ISO 14001 certified manufacturer
- d. "Contributor Membership" level to "www.thegreengrid.org"

A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed:

See above

Does the institution wish to pursue to pursue Part 2 of this credit (expenditures on EPEAT registered electronics)?:

Yes

Expenditures on EPEAT registered desktop and laptop computers, displays, thin clients, televisions, and imaging equipment::

	Expenditure Per Level
EPEAT Bronze	2,187 US/Canadian \$

EPEAT Silver	117,946 US/Canadian \$
EPEAT Gold	96,547 US/Canadian \$

Total expenditures on desktop and laptop computers, displays, thin clients, televisions, and imaging equipment:

220,603 US/Canadian \$

The website URL where information about the institution's electronics purchasing policy, directive, or guidelines is available:

---

# Data source(s) and notes about the submission:

The total expenditure reflects spending under current contracts. There is no effective way for us to track all electronics purchased on campus.

# Score Responsible Party

# **Philip Mansfield**

0.25 / 1.00

Sustainability Manager Facilities Management and Planning

#### Criteria

#### Part 1

Institution has an institution-wide stated preference to purchase cleaning and janitorial products that are Green Seal<sup>™</sup> or UL Environment (EcoLogo)<sup>™</sup> certified and/or meet similar multi-criteria sustainability standards for cleaning and janitorial products. This can take the form of purchasing policies, guidelines, or directives.

Policies and directives adopted by entities of which the institution is part (e.g. government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

#### Part 2

Institution's main cleaning or housekeeping department(s) and/or contractor(s) purchase Green Seal or UL Environment (EcoLogo) certified cleaning and janitorial products.

Cleaning and janitorial products include, at minimum:

- Cleaning/degreasing agents
- · General-purpose, bathroom, glass, and carpet cleaners
- Biologically-active cleaning products (enzymatic and microbial products)
- Floor-care products, e.g. floor finish and floor finish strippers
- · Hand cleaners
- Sanitary paper products, e.g. toilet tissue, facial tissue, paper towels, napkins, and placemats
- Plastic film products (e.g. garbage bags/liners)
- Laundry care products including powder, liquid or pre-measured dosage laundry detergents, stain removers and dryer sheets
- Specialty surface cleaning products and odor removers, including but not limited to: boat cleaning products; deck and outdoor furniture cleaning products; graffiti removers; metal cleaning products; motor vehicle (automotive/tire/wheel) cleaning products; motor vehicle windshield washing fluid; optical lens cleaning products; oven cleaning products; upholstery cleaning products; and other cleaning products sold for specific specialty uses

"---" indicates that no data was submitted for this field

Does the institution have an institution-wide stated preference to purchase third party certified cleaning and janitorial products?:

Yes

# A copy of the green cleaning product purchasing policy, directive, or guidelines:

Carleton University Green Cleaning Standard 2014.pdf

# The green cleaning product purchasing policy, directive, or guidelines:

Carleton university has prepared a Green Cleaning Standard to ensure that present and future cleaning practices maintain a high degree of sustainability. The standard outlines proper sustainable training and procedures as well as certified products, chemicals and equipment. The standard is grouped into 5 categories: training, procedures, products, further standards and continued improvement. This can help create healthy high performance cleaning and a more productive indoor environment with fewer burdens to our natural resources.

Carleton University is partnered with our internal custodial contract provider for all cleaning on campus. In doing so we have created a Green Cleaning Plan for the campus and Carleton University encourages that both the Standard and Plan be used in conjunction with each other.

This cleaning standard was created to meet current industry best practices. New buildings on campus are required to input data and information in the Green Globes Energy and Environment Assessment for New Construction. Existing buildings must complete the APPA online assessment for campuses which measures the ongoing sustainability of each building and of the whole campus at Carlton University. This Standard will identify the credits corresponding to green cleaning. Other standards include the policies put in place by Green Seal, Environmental Choice, Ecologo and CRI's Green Label Program.

# A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed:

As outlined within the guidelines attached, Carleton has introduced a number of steps to ensure the policy is implemented. This includes general communications and formal meetings with our cleaning contractor towards its implementation and effectiveness. In addition a formal training program is in place and set procedures are in place to ensure guidelines are followed.

Does the institution wish to pursue Part 2 of this credit (expenditures on cleaning and janitorial products)?:

No

Expenditures on Green Seal and/or UL Environment (EcoLogo) certified cleaning and janitorial products:

---

Total expenditures on cleaning and janitorial products:

---

Has the institution's main cleaning or housekeeping department(s) and/or contractor(s) adopted a Green Seal or ISSA certified low-impact, ecological ("green") cleaning program?:

Yes

# A brief description of the institution's low-impact, ecological cleaning program:

Currently, many green products are already being used to clean the 44 buildings at Carleton. Products may vary from mild cleaning soap and general cleaning capability products to hard strippers and waxing agents. Equipment ranges from buffers and polishers to walk-behinds and ride-ons. Each product shall clean common soils and surfaces in its category effectively, at the most dilute/least concentrated manufacturer-recommended dilution level for routine cleaning, as measured by the following applicable standard test methods.

In addition Carleton University uses several aqueous ozone units which converts water into aqueous ozone that acts as a cleaner. The unit is produced by Tersano and their website states "The unit produces a continuous flow of approximately 3 gallons of aqueous ozone per minute which is then easily transferred for use in mop buckets, floor cleaners and auto scrubbers. It provides residue free performance for a longer lasting clean and low slip/fall hazard on even the smoothest floors." The unit eliminates the need for ordering cleaning products, decreases waste and bottles and is a very effective cleaner. Carleton University uses this system as well as other products outlined within our guidelines (attached).

# A copy of the sections of the cleaning contract(s) that reference certified green products:

DTZ Green Cleaning Plan.doc

The sections of the cleaning contract(s) that reference certified green products:

See references within the contractors guidelines: Choosing Products and Cleaning Supplies.

The website URL where information about the institution's green cleaning initiatives is available:

http://carleton.ca/fmp/energy-and-sustainability/topics/cleaning/

Score Responsible Party

J.P. Gaceta

0.25 / 1.00

Manager Purchasing Services

#### Criteria

#### Part 1

Institution has an institution-wide stated preference to purchase office paper that has recycled content, is certified by the Forest Stewardship Council (FSC), and/or is certified to meet similar multi-criteria sustainability standards for paper. This can take the form of purchasing policies, guidelines, or directives.

Policies and directives adopted by entities of which the institution is part (e.g. government or the university system) may count for this credit as long as the policies apply to and are followed by the institution.

#### Part 2

Institution purchases office paper with post-consumer recycled, agricultural residue, and/or FSC certified content.

"---" indicates that no data was submitted for this field

Does the institution have an institution-wide stated preference to purchase office paper that has recycled content and/or is certified to meet multi-criteria sustainability standards for paper?:

Yes

A copy of the paper purchasing policy, directive or guidelines:

---

# The paper purchasing policy, directive or guidelines:

Terms of current contract require FSC or SFI Certified paper as per our RFP 2012-16. We use FSC certified. There is no requirement for any recycled content.

Our RFP's contain this standard clause:

**ENVIRONMENTAL CONCERNS** 

The University is committed to giving serious consideration to purchasing goods, which are less harmful to the overall environment.

While Proponents are required to Proposal on the specifications stated herein, the University encourages Proponents to submit supplementary Proposals on products or services which are environmentally friendly. Goods or services which offer a measure of protection for the environment may take several forms namely: Have a high recyclable content; produce fewer

pollutants during the course of its operation or consumption; consume less natural resources during fabrication or its operation; these but to name a few.

Proponents are required to include documentation sufficient to substantiate their claims.

It is our intention that any offers resulting from this request would be submitted to the users for their consideration and ultimate decision.

A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed:

Contract not awarded unless FSC or SFI requirement was met.

Does the institution wish to pursue Part 2 of this credit (expenditures on office paper)?:

No

Expenditures on office paper with the following levels of post-consumer recycled, agricultural residue, and/or FSC certified content::

	Expenditure Per Level
10-29 percent	
30-49 percent	
50-69 percent	
70-89 percent (or FSC Mix label)	
90-100 percent (or FSC Recycled label)	

# Total expenditures on office paper:

90,483 US/Canadian \$

The website URL where information about the paper purchasing policy, directive, or guidelines is available:

---

Score

**Responsible Party** 

0.00 / 1.00

#### Criteria

#### Part 1

Institution has an institution-wide stated intent to support disadvantaged businesses, social enterprises, and/or local community-based businesses.

Support could take the form of giving preference during RFP processes, conducting targeted outreach to these businesses about opportunities to work with the institution, and/or other efforts to increase purchases made from such businesses.

#### Part 2

Institution makes purchases from companies that include disadvantaged businesses, social enterprises and/or local community-based businesses.

Purchases that meet multiple criteria listed above should not be double counted. Food and beverage purchases, which are covered by *OP 6: Food and Beverage Purchasing* and *OP 7: Low Impact Dining*, are not included in this credit.

This credit was marked as Not Pursuing so Reporting Fields will not be displayed.

Score Responsible Party

0.00 / 1.00

#### Criteria

Institution employs Life Cycle Cost Analysis (LCCA) as a matter of policy and practice when evaluating energy- and water-using products and systems. Practices may include structuring RFPs so that vendors compete on the basis of lowest total cost of ownership (TCO) in addition to (or instead of) purchase price.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

#### Score

# **Responsible Party**

0.00 / 1.00

#### Criteria

Institution has and acts on policies, guidelines and/or agreements that set expectations about the social and environmental responsibility of its business partners. The policies, guidelines and/or agreements require new and/or existing vendors and contractors and/or franchisees to adhere to:

1) Minimum environmental standards and practices defined by the institution, for example as outlined by the institution's sustainability policies

And/or

2) Minimum standards and practices governing employee wages, benefits, working conditions and rights that are consistent with fundamental International Labor Organization (ILO) conventions.

All enterprises with employees on-site as part of regular campus operations (e.g. contractors and franchisees) and other standing and/or formal business relationships (e.g. regular vendors and contracted services) are included.

Businesses that produce and/or sell licensed articles bearing the institution's trademarked logo ("licensees") are not included. They are covered in *EN 15: Trademark Licensing*.

The credit acknowledges institutional engagement in selecting its business partners and guiding them toward sustainability. Policies, guidelines or practices of the businesses themselves do not count for this credit in the absence of institutional selection criteria and/or guidance. Requiring compliance with existing legislation does not count on its own, but may be included as part of broader requirements that meet the criteria outlined above.

Policies adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as the policies apply to and are followed by the institution.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

# **Transportation**

### Points Claimed 2.75

#### Points Available 7.00

This subcategory seeks to recognize institutions that are moving toward sustainable transportation systems. Transportation is a major source of greenhouse gas emissions and other pollutants that contribute to health problems such as heart and respiratory diseases and cancer. Due to disproportionate exposure, these health impacts are frequently more pronounced in low-income communities next to major transportation corridors. In addition, the extraction, production, and global distribution of fuels for transportation can damage environmentally and/or culturally significant ecosystems and may financially benefit hostile and/or oppressive governments.

At the same time, campuses can reap benefits from modeling sustainable transportation systems. Bicycling and walking provide human health benefits and mitigate the need for large areas of paved surface, which can help campuses to better manage storm water. Institutions may realize cost savings and help support local economies by reducing their dependency on petroleum-based fuels for transportation.

Credit	Points
Campus Fleet	1.00 / 1.00
Student Commute Modal Split	0.00 / 2.00
Employee Commute Modal Split	0.00 / 2.00
Support for Sustainable Transportation	1.75 / 2.00

# Score **Responsible Party Philip Mansfield** 1.00 / 1.00 Sustainability Manager Facilities Management and Planning Criteria Institution supports alternative fuel and power technology by including in its motorized vehicle fleet vehicles that are: A. Gasoline-electric hybrid B. Diesel-electric hybrid C. Plug-in hybrid D. 100 percent electric E. Fueled with Compressed Natural Gas (CNG) F. Hydrogen fueled G. Fueled with B20 or higher biofuel for more than 4 months of the year And/or H. Fueled with locally produced, low-level (e.g. B5) biofuel for more than 4 months of the year (e.g. fuel contains cooking oil recovered and recycled on campus or in the local community) For this credit, the institution's motorized fleet includes all cars, carts, trucks, tractors, buses and similar vehicles used for transporting people and/or goods, including both leased vehicles and vehicles that are institution-owned and operated. Heavy construction equipment (e.g. excavators and pavers), maintenance equipment (e.g. lawn-mowers and leaf blowers), and demonstration/test vehicles used for educational purposes are not included in this credit. Vehicles that meet multiple criteria (e.g. hybrid vehicles fueled with biofuel) should not be double-counted. "---" indicates that no data was submitted for this field Total number of vehicles in the institution's fleet: 99 Number of vehicles in the institution's fleet that are::

Number of Vehicles

Carleton University | STARS Report | 145

Gasoline-electric, non-plug-in hybrid	25
Diesel-electric, non-plug-in hybrid	0
Plug-in hybrid	0
100 percent electric	74
Fueled with compressed natural gas (CNG)	0
Hydrogen fueled	0
Fueled with B20 or higher biofuel for more than 4 months of the year	0
Fueled with locally produced, low-level (e.g. B5) biofuel for more than 4 months of the year	0

# A brief description of the institution's efforts to support alternative fuel and power technology in its motorized fleet:

The vast majority of our fleet is 100% electric carts. We have a relatively small fleet of 26 vehicles and have most recently looked for hybrid/electric vehicles to replace older vehicles as and when needed. This has included hybrid vehicles for our Safety patrols and an electric vehicle for maintenance services. We will continue to pursue this policy.

The website URL where information about the institution's support for alternative fuel and power technology is available:

---

Score Responsible Party

0.00 / 2.00

### Criteria

Institution's students commute to and from campus using more sustainable commuting options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, or a combination of these options.

Students who live on campus should be included in the calculation based on how they get to and from their classes.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Score	Responsible Party
0.00 / 2.00	

### Criteria

Institution's employees (faculty, staff, and administrators) get to and from campus using more sustainable commuting options such as walking, bicycling, vanpooling or carpooling, taking public transportation, riding motorcycles or scooters, riding a campus shuttle, telecommuting, or a combination of these options.

Employees who live on campus should be included in the calculation based on how they get to and from their workplace.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

1

Score	Responsible Party
	Philip Mansfield
1.75 / 2.00	Sustainability Manager
	Facilities Management and Planning

### Criteria

### Part 1

The institution demonstrates its support for active (i.e. non-motorized) transportation on campus in one or more of the following ways:

### Option A: Institution:

- Provides secure bicycle storage (not including office space), shower facilities, and lockers for bicycle commuters. The storage, shower facilities and lockers are co-located in at least one building/location that is accessible to all commuters.
- Provides short-term bicycle parking (e.g. racks) within 50 ft (15 m) of all occupied, non-residential buildings and makes long-term bicycle storage available within 330 ft (100 m) of all residence halls (if applicable).
- Has a "complete streets" or bicycle accommodation policy (or adheres to a local community policy) and/or has a
  continuous network of dedicated bicycle and pedestrian paths and lanes that connects all occupied buildings and at least
  one inter-modal transportation node (i.e. transit stop or station)

And/or

Has a bicycle-sharing program or participates in a local bicycle-sharing program

Option B: Institution is certified as a Bicycle Friendly University (at any level) by the League of American Bicyclists (U.S.) or under a similar third party certification for non-motorized transportation.

### Part 2

Institution has implemented one or more of the following strategies to encourage more sustainable modes of transportation and reduce the impact of student and employee commuting. The institution:

- Offers free or reduced price transit passes and/or operates a free campus shuttle for commuters. The transit passes may be offered by the institution itself, through the larger university system of which the institution is a part, or through a regional program provided by a government agency.
- · Offers a guaranteed return trip (GRT) program to regular users of alternative modes of transportation
- Participates in a car/vanpool or ride sharing program and/or offers reduced parking fees or preferential parking for car/vanpoolers
- Participates in a car sharing program, such as a commercial car-sharing program, one administered by the institution, or one administered by a regional organization
- Has one or more Level 2 or Level 3 electric vehicle recharging stations that are accessible to student and employee commuters
- Offers a telecommuting program for employees, either as a matter of policy or as standard practice

- Offers a condensed work week option for employees, either as a matter of policy or as standard practice
- Has incentives or programs to encourage employees to live close to campus
- Other strategies

"---" indicates that no data was submitted for this field

Does the institution provide secure bicycle storage (not including office space), shower facilities, and lockers for bicycle commuters?:

Yes

### A brief description of the facilities for bicycle commuters:

There is no charge to use any of the open racks for bicycle storage on campus and it only costs \$10 per annum to register/use the secure bicycle facility at Athletics. Users are given an access card that grants access into the compound. The area has space to accommodate over 200 bikes and is located beneath the athletics building.

There are shower facilities in athletics.

Does the institution provide short-term bicycle parking (e.g. racks) within 50 ft (15 m) of all occupied, non-residential buildings and make long-term bicycle storage available within 330 ft (100 m) of all residence halls (if applicable)?:

Yes

## A brief description of the bicycle parking and storage facilities:

Yes there are metal bike racks placed throughout residence and also available beside non-residential buildings. There are enclosed bike park areas in residence commons and athletics.

Does the institution have a "complete streets" or bicycle accommodation policy (or adhere to a local community policy) and/or have a continuous network of dedicated bicycle and pedestrian paths and lanes?:

Yes

### A brief description of the bicycle/pedestrian policy and/or network:

Carleton has outlined the need to give pedestrians pride of place on the campus. The pedestrian environment is intended to provide a sense of comfort for users throughout the day and evening hours with well-lit walkways, shade trees and outdoor recreational and study seating areas in sheltered locations where appropriate.

The City of Ottawa and the National Capital Commission (NCC) have provided good infrastructure for those persons walking along city streets and the alongside the canal to get to Carleton University. Once on the campus, there is a well maintained designated "Safe Path" walkway to follow as you navigate your way across the campus.

Does the institution have a bicycle-sharing program or participate in a local bicycle-sharing program?:

Yes

### A brief description of the bicycle sharing program:

We participate in a bike sharing program called Right Bike. Right Bike is a social business that provides jobs and training for individuals in the community who are working to overcome barriers to employment. They deliver a community-based bike share service in Ottawa, Canada. We have 5 bicycles available on campus. Right Bike bicycles can also be found through out Ottawa.

Is the institution certified as a Bicycle Friendly University by the League of American Bicyclists (U.S.) or under a similar third party certification covering non-motorized transportation?:

Yes

### A brief description of the certification, including date certified and level:

Share the Road Cycling Coalition recognized Carleton University with a Bronze level rating for their ability as a university to make a great workplace for people who bike. (The League of American Bicyclists has welcomed the Share the Road Cycling Coalition to their National Bike Summits, with Summit Presentations from Eleanor McMahon, Share the Road Coalition representative from Ontario Canada, discussing Bicycling Advocacy in Ontario. With this information in mind, it is assumed that the Share the Road Cycling Coalition could classify as a "similar third party certification covering non-motorized transportation").

Does the institution offer free or reduced price transit passes and/or operate a free campus shuttle for commuters?:

Yes

A brief description of the mass transit program(s), including availability, participation levels, and specifics about discounts or subsidies offered (including pre-tax options):

The role of public transportation within Transportation Demand Management (TDM) is twofold: to provide an attractive and competitive alternative to longer-distance driving trips and to connect the campus to downtown and shared facilities.

### Transit routes

Getting to the Carleton University campus by bus or O-Train is a convenient option for many students, staff, and faculty. The transit way is a big part of the OC Transpo public transit system. It provides rapid transit service across the entire city on bus-only roadways and intersects with the O-Train. Users can even combine cycling with journey rides on public transit – the Rack & Roll program allows cyclists to bring their bicycles with them. Racks are installed on over 200 buses, including all articulated buses on several City of Ottawa transit routes. Bike racks are available on a first-come, first-served basis and some trips may not have a bike rack — if this is the case, you may need to wait for the next bus. There is no cost to use the rack.

Inter-campus shuttle

Carleton University and uOttawa provide a shuttle service between the two campus facilities. The shuttle service is free

however it is restricted to students, faculty and staff members of the University of Ottawa and Carleton University. The shuttle operators are authorized to request boarding passengers to provide a valid University of Ottawa or Carleton University student or employee identification card. The shuttle service does not operate during the summer months

#### **UPass**

In 2010, student associations at both Carleton University and the University of Ottawa jointly negotiated with the City of Ottawa to implement a Universal Transit Pass for full-time students at both universities. The result of the negotiations and the subsequent student referenda is the U-Pass: A bus pass offered through Carleton University at a discounted rate. The pass will cost \$373.10 for the eight-month 2013-2014 school year and is a mandatory cost for all full-time (1.5 credits or more) students. The pass is valid on all OC Transpo vehicles providing regular, express, rural express or Para Transpo services, as well as the O-Train. Only Para Transpo service to rural zones requires a supplemental fare.

### Key strategies

The use of pre-paid transit services (UPass) is seen as a key element of the overall TDM plan at Carleton. To further encourage transit use, by the Carleton Community, it is thought that parking must first be priced at an equivalent level to transit passes. This will then provide an incentive for further take up and subsequent pursuit of additional strategies and programs can follow.

- Ongoing advocacy and support for improved routes.
- Summer pass pilot program

Does the institution offer a guaranteed return trip (GRT) program to regular users of alternative modes of transportation?:

No

### A brief description of the GRT program:

A formal GRT program is not in place on campus. Throughout the duration of our current TDM program, which includes car share programming with have had no demand or request for GRT. Should this change we will review.

Does the institution participate in a car/vanpool or ride sharing program and/or offer reduced parking fees or preferential parking for car/vanpoolers?:

Yes

## A brief description of the carpool/vanpool program:

There are two ride-share programs available to the Carleton community. These are eRideShare and OttawaRideMatch, both of which are a free online service that helps match commuters for ride-sharing opportunities within the Ottawa region. Matches are based on origin and destination points and commuting hours. Carleton also provides flexibility in parking permit options for those persons wishing to organize/declare themselves as a carpool group. This allows parking permits to be shared among several vehicles so long as all vehicles are registered under the permit holder's profile. Only one vehicle may be parked on campus at any given time and the same permit must be shared between vehicles.

Does the institution participate in a car sharing program, such as a commercial car-sharing program, one administered by the institution, or one administered by a regional organization?:

## A brief description of the car sharing program:

Carleton university has also partnered with Vrtucar and studentcarshare to make car-sharing available for staff, faculty and students right here on campus. This venture allows Parking Services to offer yet another transportation alternative to our campus community.

Vrtucar car sharing was established in Ottawa in 2000 and serves over 2,300 members from Ottawa to Kingston. There is a vehicle located on the Carleton campus and if that vehicle is reserved there is also a pod of vehicles available within Ottawa.

Vrtucar cars can be reserved by phone or Internet, 24-hours-a-day, and then can be used for a few hours, or a week. You only pay per trip, and never have to worry about gas, insurance, repairs or monthly parking. Membership agreements are between the users and Vrtucar and costs vary dependant on the plan offered and usage.

Studentcarshare is an additional car-sharing service available at Carleton, and to date 15 other locations in Ontario and Quebec. To be eligible to become a Student CarShare member you must be at least 18 years or older, have a valid credit card, a valid G2 driver's license (minimum) and have had no more than one minor violation within 3 years. Membership is \$50 per year, with an additional \$25 application fee, rated vary based on the time of day and week: \$5-8 per hour, \$56-70 per day. Insurance is included in your membership fees.

Does the institution have one or more Level 2 or Level 3 electric vehicle recharging stations that are accessible to student and employee commuters?:

Yes

### A brief description of the electric vehicle recharging stations:

Located in the one of the largest parking garages on campus, the university has one Level 2 electric vehicle charging station (208-240 VAC).

Does the institution offer a telecommuting program for employees as a matter of policy or as standard practice?:

No

A brief description of the telecommuting program:

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Does the institution offer a condensed work week option for employees as a matter of policy or as standard practice?:

Nο

A brief description of the condensed work week program:

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Does the institution have incentives or programs to encourage employees to live close to campus?:

A brief description of the incentives or programs to encourage employees to live close to campus:

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Does the institution have other incentives or programs to encourage more sustainable modes of transportation and reduce the impact of student and employee commuting?:

Yes

A brief description of other sustainable transportation initiatives and programs:

We offer free EV charging on campus.

The website URL where information about the institution's sustainable transportation program(s) is available:

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# **Waste**

### Points Claimed 6.70

### Points Available 10.00

This subcategory seeks to recognize institutions that are moving toward zero waste by reducing, reusing, recycling, and composting. These actions mitigate the need to extract virgin materials, such as trees and metals. It generally takes less energy and water to make a product with recycled material than with virgin resources. Reducing waste generation also reduces the flow of waste to incinerators and landfills which produce greenhouse gas emissions, can contaminate air and groundwater supplies, and tend to have disproportionate negative impacts on low-income communities. Waste reduction and diversion also save institutions costly landfill and hauling service fees. In addition, waste reduction campaigns can engage the entire campus community in contributing to a tangible sustainability goal.

Credit	Points
Waste Minimization	3.08 / 5.00
Waste Diversion	1.82 / 3.00
Construction and Demolition Waste Diversion	0.80 / 1.00
Hazardous Waste Management	1.00 / 1.00

Score Responsible Party
-------------------------

3.08 / 5.00

Sustainability Manager
Facilities Management and Planning

**Philip Mansfield** 

### Criteria

### Part 1

Institution has implemented source reduction strategies to reduce the total amount of waste generated (materials diverted + materials disposed) per weighted campus user compared to a baseline.

### Part 2

Institution's total annual waste generation (materials diverted and disposed) is less than the minimum performance threshold of 0.45 tons (0.41 tonnes) per weighted campus user.

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

Total waste generation includes all materials that the institution discards, intends to discard or is required to discard (e.g. materials recycled, composted, donated, re-sold and disposed of as trash) except construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered in *OP 24: Construction and Demolition Waste Diversion* and *OP 25: Hazardous Waste Management*.

"---" indicates that no data was submitted for this field

# Waste generated::

	Performance Year	Baseline Year
Materials recycled	553.03 Tons	563.41 <i>Tons</i>
Materials composted	236.39 Tons	163.90 <i>Tons</i>
Materials reused, donated or re-sold	0 Tons	15.65 <i>Tons</i>
Materials disposed in a solid waste landfill or incinerator	918 <i>Tons</i>	1,030.62 <i>Tons</i>

# Figures needed to determine "Weighted Campus Users"::

	Performance Year	Baseline Year
Number of residential students	3,598	2,881
Number of residential employees	0	0
Number of in-patient hospital beds	0	0
Full-time equivalent enrollment	23,438	20,099
Full-time equivalent of employees	1,900	1,909
Full-time equivalent of distance education students	250	202

# Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	Jan. 1, 2014	Dec. 31, 2014
Baseline Year	Jan. 1, 2009	Dec. 31, 2009

## A brief description of when and why the waste generation baseline was adopted:

The waste generation baseline was adopted as it represented the first full year where full waste data was received from our waste contractor. In addition waste audits were conducted from this baseline year.

### A brief description of any (non-food) waste audits employed by the institution:

In 2014, for the second successive year, Carleton diverted from landfill 61% of its waste. The university collecting over 2,300 metric tonnes of waste (non-hazardous). Of this 918 tonnes was sent to landfill and 1417 tones was recycled, which included mixed paper recycling (578 mt), Plastics, Metal and Glass (320 mt), Wood (20 mt) and Organic compost waste (213 mt).

## A brief description of any institutional procurement policies designed to prevent waste:

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A brief description of any surplus department or formal office supplies exchange program that facilitates reuse of materials:

Carleton university has in place a formal Surplus Sales list. This list enables all staff and faculty to advertise (at cost or for free) merchandise or goods that are no longer required by that department. In addition Carleton has signed up to

### mycampuswall.com

(An online website to advertise goods) to enable the exhange/sale of goods across departments.

# A brief description of the institution's efforts to make materials available online by default rather than printing them:

- professors are instructed not to print out any class assignments or syllabus's for handout, and instead, are instructed to make copies of all course outlines and assignments available through cuLearn, the online learning environment that Carleton University uses. cuLearn becomes an extension of the classroom space.
- -many professors and teaching staff will use textbooks that are available online, or on reserve at the library, in order to both save costs for the students and minimize paper waste.

### A brief description of any limits on paper and ink consumption employed by the institution:

Free-printing is restricted to specific faculties at their discretion, whereas public printers available in common areas, such as main floors of academic buildings, residence commons and the library, are charged per page and charged extra for colour printing.

# A brief description of any programs employed by the institution to reduce residence hall move-in/move-out waste:

The Sustainability Team at Move-in - Move-in weekend is attended by a team made up of students and staff who want to make a environmentally friendly impact on move-in weekends. This team circulates residence looking for waste that can be diverted, specifically cardboard waste, as that is the most common during move-in and unpacking.

Sustainability Bulletin Boards - bulletin boards with waste and energy reduction information will be posted on every single floor of every residence building prior to students moving in, so that during Move-In, and the remainder of the school year, the students are getting a visual every time they step onto their floor, about how they can be diverting and minimizing waste.

Sustainability Toolkit - before students even move into residence, all incoming students are to be sent a "Sustainability Tool kit", which is an online pamphlet outlining how to live, eat, shop and divert waste in a sustainable manner. The tool kit serves to teach students about sustainable practices and routines on campus, in the hopes that they will begin to divert their waste immediately on campus. For example, separating their move in waste into the proper streams of recycling available. Using the waste bins provided in their rooms appropriately, etc.

### Move-Out

-large donation bins are available on residence grounds during the move-out period and students are encouraged to donate household items, clothing and other miscellaneous items from their dorms they wish to get rid of. This diverts textile waste, as well as household waste, from going to landfills.

### A brief description of any other (non-food) waste minimization strategies employed by the institution:

#### ---

### A brief description of any food waste audits employed by the institution:

Food waste audits are the end result of the pre-consumer food waste reduction programs and practices. Food waste audits include following through all steps in the food waste reduction process and are included as part of our larger food management audit process to ensure that food waste reduction programs and practices are being implemented at all Aramark-managed Carleton University operations.

# A brief description of any programs and/or practices to track and reduce pre-consumer food waste in the form of kitchen food waste, prep waste and spoilage:

Our food waste reduction program is embedded into our food management process and includes staff training around expected and/or preventable (i.e. trimmings, over-production) food waste, and clear bins and scales to weigh and track waste (while also making our staff more mindful of food waste). The food management process also includes practices such as product labeling and storing to ensure first-in/first-out practices are being followed. Food waste bins are observed by management regularly before being discarded to identify and act on opportunities to reduce waste. The tracked waste is entered into an online reporting system that provides a food waste dashboard that is monitored and used to provide valuable training feedback to reduce pre-consumer waste through enhancing both awareness of waste and for training staff around practical techniques for reducing waste through production planning and efficient culinary practices.

\*Trimmings can be both expected and preventable (over-trimming). We don't consider leftovers waste because we use them again.

Pre-consumer food waste is separated in all Aramark-managed kitchens and diverted to compost bins, which are then composted in Carleton's on-site in-vessel composter processing up to 600lbs of food waste per day (takes a full 21 hours to process 600lbs of compost) and currently operating at maximum capacity.

## A brief description of programs and/or practices to track and reduce post-consumer food waste:

Aramark managed operations have implemented trayless dining to reduce food waste and reduce water / energy / chemicals used to clean trays. We have also modified menus to reduce portion sizes, particularly in residential dining operations to encourage diners to try smaller amounts of many different dishes and avoid waste from choosing too much food that they can not consume. We also continue to monitor and modify menus on an ongoing basis through our food management and auditing process to make changes to the menu in real-time to reduce post-consumer food waste by substituting unpopular menu choices with items that have greater acceptability.

Post-consumer food waste is separated from recycling and traditional waste via "eco-stations" (separating bins or scraping stations) in residential dining locations where students separate food waste into bins that can then be composted by Carleton's in-vessel composter.

A brief description of the institution's provision of reusable and/or third party certified compostable to-go containers for to-go food and beverage items (in conjunction with a composting program):

Compostable options are provided for to-go take-out containers, bowls, cutlery, hot beverage cups. Clear plastic take out containers as part of our "express" grab n go program are recyclable PET. Re-usable take-out containers (eco-tainers) will be launched in the fall of 2014.

A brief description of the institution's provision of reusable service ware for "dine in" meals and reusable and/or third party certified compostable service ware for to-go meals (in conjunction with a composting program):

All Aramark residential and retail operations provide reusable service ware / cutlery (china / stainless steel) as a default unless disposables are requested by the diners (and with the exception of franchise operations where some packaging is dictated by franchise brand standards). Where disposable service ware is offered, compostable options are provided for plates, bowls, cutlery, hot beverage cups, and some take out containers (again with any franchise brand standard exceptions). Clear plastic take out containers as part of our "express" grab n go program are recyclable PET.

A brief description of any discounts offered to customers who use reusable containers (e.g. mugs) instead of disposable or compostable containers in to-go food service operations:

We offer "lug a mug" discounts to incent customers to use reusable travel mugs when purchasing a hot beverage (ie. we charge the lower price of a small coffee for any size travel mug).

### A brief description of other dining services waste minimization programs and initiatives:

We separate all recyclables and ensure they are diverted to the appropriate recycling streams at Carleton University. We also promote recycling on campus, partnering with suppliers such as Coca Cola to incorporate directional signage and additional recycling bins for recyclable packaging wherever we can. Aramark has implemented Green Seal certified bio-based cleaning products for daily green cleaning. Products include ware washing, all purpose, glass, floor cleaners, and hand soap. These products do not contain phosphorus, are formulated with environmentally responsible ingredients, and do not contain persistent, bio-accumulative or highly toxic substances.

The website URL where information about the institution's waste minimization initiatives is available:

http://dining.carleton.ca/about/#sustainability

#### Score

# **Responsible Party**

### **Philip Mansfield**

1.82 / 3.00

Sustainability Manager
Facilities Management and Planning

### Criteria

Institution diverts materials from the landfill or incinerator by recycling, composting, reusing, donating, or re-selling.

This credit includes on-campus dining services operated by the institution or the institution's primary on-site contractor.

This credit does not include construction, demolition, electronic, hazardous, special (e.g. coal ash), universal and non-regulated chemical waste, which are covered in *OP 24: Construction and Demolition Waste Diversion* and *OP 25: Hazardous Waste Management*.

"---" indicates that no data was submitted for this field

Materials diverted from the solid waste landfill or incinerator:

1,417 Tons

Materials disposed in a solid waste landfill or incinerator :

918 Tons

A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate, including efforts made during the previous three years:

Carleton is committed to operating an efficient campus that promotes reduction and reuse and maximizes the amount of waste diverted from landfill. As outlined in our Sustainability Strategic Plan we are committed to increasing the amount of waste diverted to landfill to 60% by 2015. Carleton's extensive waste reduction and recycling program of initiatives include duel stream recycling, construction and demolition waste diversion, donation stations, special waste and electronic waste collection depots and composting.

In 2014, for the second successive year, Carleton diverted from landfill 61% of its waste. To better understand our waste streams and collections, Carleton is conducting campus and building level audits to evaluate contamination rates and opportunities for improvements. Carleton is also focusing on maximizing waste diversion and recycling from constriction and renovations projects ensuring all such projects evaluate recycling efforts prior and after construction.

As part of ongoing commitment to waste reduction, Carleton has also established six Special Waste Depots, spread throughout the campus.

### A brief description of any food donation programs employed by the institution:

The Food Centre was opened in 1997 in response to increased student poverty due to drastic tuition fee increases, and cutbacks to student funding. The centre was opened with the aim of providing a temporary relief for students but unfortunately continues to be needed by many students on our campus. This emergency food bank (as an agency of the Ottawa Food Bank) is for anyone who self-identifies as being in need of food assistance. After filling out a form and request, people can return the next day to receive their hamper of food supply for approximately three days of emergency assistance. Folks can come up to twice a month.

http://cusaonline.ca/foodcentre/

### A brief description of any pre-consumer food waste composting program employed by the institution:

All pre consumer food waste generated from the largest food service operation, the Fresh Food Company, is composted through our green bin program

### A brief description of any post-consumer food waste composting program employed by the institution:

The Fresh Food Company allows for students to recycle any post comsumer waste in the dining hall. Waste bins have been magnetized to eliminate contamination of cutlery, etc through the waste.

# Does the institution include the following materials in its waste diversion efforts?:

	Yes or No
Paper, plastics, glass, metals, and other recyclable containers	Yes
Food donations	Yes
Food for animals	No
Food composting	Yes
Cooking oil	Yes
Plant materials composting	No
Animal bedding composting	No

Batteries	Yes
Light bulbs	Yes
Toner/ink-jet cartridges	Yes
White goods (i.e. appliances)	
Laboratory equipment	
Furniture	
Residence hall move-in/move-out waste	Yes
Scrap metal	
Pallets	
Motor oil	
Tires	

Other materials that the institution includes in its waste diversion efforts:

---

#### Score

### **Responsible Party**

# **Philip Mansfield**

0.80 / 1.00

Sustainability Manager
Facilities Management and Planning

### Criteria

Institution diverts non-hazardous construction and demolition waste from the landfill and/or incinerator.

Soil and organic debris from excavating or clearing the site do not count for this credit.

"---" indicates that no data was submitted for this field

### Construction and demolition materials recycled, donated, or otherwise recovered:

208 Tons

### Construction and demolition materials landfilled or incinerated:

53 Tons

# A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate for construction and demolition waste:

Any contractor that works at Carleton on a project above 2,000 square meters is required by O. Reg.102/94, to conduct a Waste Audit. This audit shall cover the waste that will be generated in the project and the extent to which materials or products used consist of recycled or reused materials or products. After the audit, the contractor shall prepare a written report of the Audit.

The contractor shall also prepare a written Waste Reduction Work Plan based on the Waste Audit, to reduce, reuse and recycle waste generated in the project. This report shall be communicated to workers at the site and must be completed before construction or renovation work begins. Both the Waste Audit and Reduction plan shall be passed on to Carleton.

In addition all contractors shall complete a Waste Management Success Measurement Report. This shall contain a summary of the weight of the materials that were actually generated through the project, including a summary of materials that were reduced, reused and recycled. This report should be produced within 1 month of the completion of the project.

Quantitative information needed for the Waste Management Success Measurement Report should be obtained from the tracking sheets/weigh bills. Please note that the General contractor is responsible for providing records for any sub-contractor they use, and is to incur any associated costs in their quotation.

If the job is large enough to have a dedicated waste bin than the contents of this bin must be separated at the landfill or waste transfer site into the various categories. Carleton requires a copy of the weigh bill that shows the breakdown for all of the waste from the bin to be included with the Waste Management Success Measurement Report.

Score

Responsible Party

Philip Mansfield

1.00 / 1.00

Sustainability Manager
Facilities Management and Planning

### Criteria

### Part 1

Institution has strategies in place to safely dispose of all hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste and seeks to minimize the presence of these materials on campus.

### Part 2

Institution has a program in place to recycle, reuse, and/or refurbish electronic waste generated by the institution and/or its students. Institution takes measures to ensure that the electronic waste is recycled responsibly, for example by using a recycler certified under the e-Stewards and/or R2 standards.

"---" indicates that no data was submitted for this field

Does the institution have strategies in place to safely dispose of all hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste and seek to minimize the presence of these materials on campus?:

Yes

A brief description of steps taken to reduce hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste:

All individuals working in laboratories or other areas where hazardous materials are used can have a direct effect on the total volume of hazardous waste generated by the department. Considering the following points before beginning new projects could result in a safer area and reduce the amount of waste disposal and the costs associated with it:

- The use of a non-hazardous or less hazardous material,
- Micro scale experiments,
- Buy only what is needed, disposal costs negate the savings of bulk purchasing,
- Check with the College of Natural Sciences Central Stores before purchasing to see if the product is already available in the stores,
- Advise the College of Natural Sciences Central Stores of products available for others to use,
- Label all products; costs to verify unknowns are very high,
- Arrange the return of test materials in advance,
- Do not accept donations of hazardous materials if there is not an immediate use.
- -Chemical inventory exists across Campus. People from different faculties are able to share inventory instead of having to buy new. For 3 years the inventory has been running successfully.

- approximately 3 years ago a \$30 000 investment was made by Environmental Health and Safety to be put towards hazardous waste disposals.

# A brief description of how the institution safely disposes of hazardous, universal, and non-regulated chemical waste:

Each department currently has a contact person who helps them bring hazardous waste to disposal. When they have waste that is ready to be disposed of, they call to arrange a pick up time. Hazardous waste is stored in a cinder block bunker, for a time period of no longer than 90 days. Typically, every 2 months a waste hauler comes onsite to remove the hazardous waste from each designated spot on campus.

As well, whenever waste is brought to a bunker, a form must be filled out, describing the hazardous waste disposal. This allows that department to later be charged for their disposal.

Chemical Waste is stored in a fenced in area by maintenance, for the disposal of chemicals such as paint.

Biomedical Waste is picked up monthly. Biomedical waste includes pharmaceutical waste and anatomical (from the animal care facility), and sharps from labs.

Finally, any waste that requires being pumped out, such as the hydraulic oil from an elevator is pumped out by a third party company.

# A brief description of any significant hazardous material release incidents during the previous three years, including volume, impact and response/remediation:

On December 15th 2015, a trash compactor on campus malfunctioned, spilling hydraulic oil from the compactor onto the asphalt and into the storm drain. A third party company was called and came in to pump out catch basin of storm drain and thoroughly rinse out the affected water.

While the hydraulic oil spill itself was fairly small in size, 5,006 liters of water was pumped out of storm drain, through rinsing and washing to ensure all hydraulic oil was removed. The situation was remedied quickly and efficiently.

A brief description of any inventory system employed by the institution to facilitate the reuse or redistribution of laboratory chemicals:

http://carleton.ca/ehs/chemical-inventory-management-system/

Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish all electronic waste generated by the institution?:

Yes

Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish electronic waste generated by students?:

## A brief description of the electronic waste recycling program(s):

- Carleton has partnered with Electrobac to provide small electronic waste and ink cartridge recycling on the campus.
- -We offer an e-waste recycling program for all Carleton community members to recycle their computers, monitors and electronic accessories responsibly. In 2013, we diverted from landfill 19,000 kg of E-Waste.
- -CCS Hardware Services arranges the other e-waste recycling, for larger e-waste. Through the Ontario Electronics Stewardship (OES) program electronics are collected, recycled and/or disposed of in an environmentally responsible way.
- Hardware Services operates the E-Waste Recycling Program and provide environmentally friendly and secure disposal of E-Waste. Campus community members (staff, faculty and students) can drop off their departmental e-waste at the Herzberg Building.

# A brief description of steps taken to ensure that e-waste is recycled responsibly, workers' basic safety is protected, and environmental standards are met:

The organisation that collects Carleton University's E-Waste abides the rules set out by the Ontario Electronic Stewardship (OES) program.

On campus, measures are taken to ensure e-waste is being disposed of in a safe manner. For example, all batteries going to e-waste are placed in plastic bags before being picked up, so the worker doing the pick ups is not touching expired batteries directly.

The website URL where information about the institution's hazardous and electronic-waste recycling programs is available:

http://carleton.ca/ehs/programs/working-lab/hazardous-waste-management-program/

# Water

### Points Claimed 0.61

### Points Available 5.00

This subcategory seeks to recognize institutions that are conserving water, making efforts to protect water quality and treating water as a resource rather than a waste product. Pumping, delivering, and treating water is a major driver of energy consumption, so institutions can help reduce energy use and the greenhouse gas emissions associated with energy generation by conserving water. Likewise, conservation, water recycling and reuse, and effective rainwater management practices are important in maintaining and protecting finite groundwater supplies. Water conservation and effective rainwater and wastewater management also reduce the need for effluent discharge into local surface water supplies, which helps improve the health of local water ecosystems.

Credit			Points
	0.61 / 2.00		
Water Use	areas of water institutions in a points available for "Physical Risk QUAN as indicated by the	r stress and scarcity reas with relative w this credit are deter ITITY" for the institu ne World Resources	institutions located in y and less heavily for ater abundance. The mined by the level of tion's main campus,, a Institute's Aqueduct in the following table:
	Physical Risk QUANTITY	Points Available For Each Part	Total Available Points For This Credit
	Low Risk	0.67	2
	Low to Medium Risk	1	3
	Medium to High Risk	1.33	4
	High Risk	1.67	5
	Extremely High Risk	2	6
			Close
Rainwater Management	0.00 / 2.00		
Wastewater Management			0.00 / 1.00

### Score

### **Responsible Party**

0.61 / 2.00

This credit is weighted more heavily for institutions located in areas of water stress and scarcity and less heavily for institutions in areas with relative water abundance. The points available for this credit are determined by the level of "Physical Risk QUANTITY" for the institution's main campus,, as indicated by the World Resources Institute's Aqueduct Water Risk Atlas and detailed in the following table:

Physical Risk QUANTITY	Points Available For Each Part	Total Available Points For This Credit
Low Risk	0.67	2
Low to Medium Risk	1	3
Medium to High Risk	1.33	4
High Risk	1.67	5
Extremely High Risk	2	6

# Philip Mansfield

Sustainability Manager
Facilities Management and Planning

Close

### Criteria

## Part 1

Institution has reduced its potable water use per weighted campus user compared to a baseline.

### Part 2

Institution has reduced its potable water use per gross square foot/metre of floor area compared to a baseline.

### Part 3

Institution has reduced its total water use (potable + non-potable) per acre/hectare of vegetated grounds compared to a baseline.

# Level of water risk for the institution's main campus:

Low

# Total water use (potable and non-potable combined)::

	Performance Year	Baseline Year
Total water use	110,028,188 <i>Gallons</i>	120,943,777 <i>Gallons</i>

## Potable water use::

	Performance Year	Baseline Year
Potable water use	110,028,188 <i>Gallons</i>	120,943,777 <i>Gallons</i>

# Figures needed to determine "Weighted Campus Users"::

	Performance Year	Baseline Year
Number of residential students	3,598	3,500
Number of residential employees	0	0
Number of in-patient hospital beds	0	0
Full-time equivalent enrollment	27,856	27,856
Full-time equivalent of employees	1,972	1,900
Full-time equivalent of distance education students	1,000	1,000

# Gross floor area of building space::

	Performance Year	Baseline Year
Gross floor area	4,758,519.31 Square Feet	4,758,519.31 Square Feet

### Area of vegetated grounds::

	Performance Year	Baseline Year
Vegetated grounds	32.13 <i>Acres</i>	32.13 Acres

### Start and end dates of the performance year and baseline year (or three-year periods):

	Start Date	End Date
Performance Year	May 1, 2014	May 1, 2013
Baseline Year	April 30, 2015	April 30, 2014

# A brief description of when and why the water use baseline was adopted:

The baseline was adopted as 2013/14 due to confidence in water metering and data from this period.

## Water recycled/reused on campus, performance year:

0 Gallons

### Recycled/reused water withdrawn from off-campus sources, performance year:

0 Gallons

## A brief description of any water recovery and reuse systems employed by the institution:

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## A brief description of any water metering and management systems employed by the institution:

Domestic water consumption is metered in every building on campus. Water consumption is monitored for anomalies so any leaks or deficiencies can be addressed.

# A brief description of any building retrofit practices employed by the institution, e.g. to install high efficiency plumbing fixtures and fittings:

Currently, we are working with an energy/water service company through a series of ESCOs to reduce energy and water consumption throughout campus.

A brief description of any policies or programs employed by the institution to replace appliances, equipment and systems with water-efficient alternatives:

Carleton has an ongoing maintenance program to improve efficiency and reduce demands. In addition, a common set of standards has been introduced to ensure that all new water fixtures are ultra low flow.

A brief description of any water-efficient landscape design practices employed by the institution (e.g. xeriscaping):

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A brief description of any weather-informed irrigation technologies employed by the institution:

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A brief description of other water conservation and efficiency strategies employed by the institution:

Water conservation is included as part of the overall Energy Master Plan for Carleton. As such water conservation measures such as washroom replacement and updated water fixtures are included as part of a building renewal program.

The website URL where information about the institution's water conservation and efficiency initiatives is available:

http://carleton.ca/fmp/wp-content/uploads/Energy-Master-Plan.pdf

Score

**Responsible Party** 

0.00 / 2.00

#### Criteria

### Part 1

Institution uses Low Impact Development (LID) practices as a matter of policy or standard practice to reduce rainwater/stormwater runoff volume and improve outgoing water quality for new construction, major renovation, and other projects that increase paved surface area on campus or otherwise significantly change the campus grounds.

The policy, plan, and/or strategies cover the entire campus. While the specific strategies or practices adopted may vary depending on project type and location, this credit is reserved for institutions that mitigate rainwater runoff impacts consistently during new construction. Implementing a strategy or strategies for only one new development project is not sufficient for Part 1 of this credit.

### Part 2

Institution has adopted a rainwater/stormwater management policy, plan, and/or strategies that mitigate the rainwater runoff impacts of ongoing campus operations and treat rainwater as a resource rather than as a waste product.

The policy, plan, and/or strategies address both the quantity and quality (or contamination level) of rainwater runoff through the use of green infrastructure. Though specific practices adopted may vary across the campus, the policy, plan, and/or strategies cover the entire institution. Implementing strategies for only one building or area of campus is not sufficient for Part 2 of this credit.

Policies adopted by entities of which the institution is part (e.g. state government or the university system) may count for both parts of this credit as long as the policies apply to and are followed by the institution.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

Score Responsible Party

0.00 / 1.00

## Criteria

Institution's wastewater is handled naturally on campus or in the local community. Natural wastewater systems include, but are not limited to, constructed treatment wetlands and Living Machines. To count, wastewater must be treated to secondary or tertiary standards prior to release to water bodies.

This credit recognizes natural handling of the water discharged by the institution. On-site recycling/reuse of greywater and/or blackwater is recognized in *OP 26: Water Use*.

This credit was marked as Not Pursuing so Reporting Fields will not be displayed.

# **Planning & Administration**

# **Coordination, Planning & Governance**

Points Claimed 8.00

Points Available 8.00

This subcategory seeks to recognize colleges and universities that are institutionalizing sustainability by dedicating resources to sustainability coordination, developing plans to move toward sustainability, and engaging students, staff and faculty in governance. Staff and other resources help an institution organize, implement, and publicize sustainability initiatives. These resources provide the infrastructure that fosters sustainability within an institution. Sustainability planning affords an institution the opportunity to clarify its vision of a sustainable future, establish priorities and help guide budgeting and decision making. Strategic planning and internal stakeholder engagement in governance are important steps in making sustainability a campus priority and may help advocates implement changes to achieve sustainability goals.

Credit	Points
Sustainability Coordination	1.00 / 1.00
Sustainability Planning	4.00 / 4.00
Governance	3.00 / 3.00

#### Score

## **Responsible Party**

### **Philip Mansfield**

1.00 / 1.00

Sustainability Manager Facilities Management and Planning

### Criteria

Institution has at least one sustainability committee, office, and/or officer tasked by the administration or board of trustees to advise on and implement policies and programs related to sustainability on campus. The committee, office, and/or officer focus on sustainability broadly (i.e. not just one sustainability issue, such as climate change) and cover the entire institution.

An institution that has multiple committees, offices and/or staff with responsibility for subsets of the institution (e.g. schools or departments) may earn points for this credit if it has a mechanism for broad sustainability coordination for the entire campus (e.g. a coordinating committee or the equivalent). A committee, office, and/or officer that focuses on just one department or school within the institution does not count for this credit in the absence of institution-wide coordination.

"---" indicates that no data was submitted for this field

Does the institution have at least one sustainability committee, office, and/or officer that focuses on sustainability broadly and covers the entire institution?:

Yes

A brief description of the activities and substantive accomplishments of the committee(s), office(s), and/or officer(s) during the previous three years:

Scope of Sustainability Advisory Committee

- The Sustainability Advisory Committee (SAC) reports to and make recommendations to the Vice-President (Finance and Administration) in regard to Carlton University's Sustainability agenda.

### Mandate:

- \* Provide coordination of the Sustainability agenda at Carlton University;
- \* Monitor progress towards objectives and targets set within Carleton University's Strategic Integrated plan, within the Sustainability Strategic Plan and as outlined within any relevant sustainability themed policies;
- \* Enhance the ongoing development of Carleton University's Sustainability Strategic Plan and Policies, with any significant changes or new programs being recommended to the Vice President (Finance and Administration);
- \* Make recommendations for the funding of initiatives aimed at carbon reduction and sustainability improvement, for discussion and agreement at a senior level. This includes identification of external grant funding;
- \* Consider and prioritise projects which contribute to the achievement of Carleton University's Sustainability targets;

- \* Promote Carleton University's environmental performance (including against relevant benchmarks) to ensure input into the vision and direction of the sustainability program;
- \* Establish and monitor the progress of standing or task based subgroups to manage specific Sustainability related issues, as necessary;
- \* Enhance the integration of environmental initiatives and programs across research, teaching and professional services;

### Does the institution have at least one sustainability committee?:

Yes

The charter or mission statement of the committee(s) or a brief description of each committee's purview and activities:

Membership

It is essential that attendees of SAC reflect the environmental competences and knowledge required and that there is a balance of 'business' and 'technical' representatives.

## Members of each committee, including affiliations and role (e.g. staff, student, or faculty):

One Undergraduate student representative - TBC

- \* One Graduate student representative TBC
- \* Three Faculty (with direct research/interest in sustainability:
- Steven Cooke, Institute of Environmental Science (Faculty of Science)
- Liam O'Brian, Architectural Conservation and Sustainability (Faculty of Engineering and Design)
- Douglas King, Geography and Environmental Studies (Faculty of Arts and Social Sciences)
- Other suggestion: Marie Tudoret, Civil and Environmental Engineering (FED)
- \* Four Staff (University Services (food), Residence, Research, Facilities Management and Planning)
- David VanDyk, Aramark, Dining Services
- Laura Storey, Housing and Residence Life
- Lisa Paterick, Facilities Management and Planning
- Kim Holtz, Procurement
- Suggestion for CURO : Cathy Stafford
- \* Sustainable Program Manager
- \* Assistant Vice-President (Facilities Management and Planning) Chair stars.aashe.org

### The website URL where information about the sustainability committee(s) is available:

http://carleton.ca/fmp/energy-and-sustainability/sustainability-strategic-plan/sustainability-strategic-plan-update/

Does the institution have at least one sustainability office that includes more than 1 full-time equivalent (FTE) employee?:

Yes

### A brief description of each sustainability office:

Sustainable operations have a long history at Carleton University, although for many years it was known by other names. Presently, Energy and Sustainability Programs is the office that oversees the implementation of Carleton's Sustainability Strategic Plan. The 3 full time employees are key members of the Facilities Management and Planning team overseeing the implementation and co-ordination of all sustainability efforts on campus.

### Full-time equivalent (FTE) of people employed in the sustainability office(s):

3

## The website URL where information about the sustainability office(s) is available:

http://carleton.ca/fmp/energy-and-sustainability/sustainability-team/

### Does the institution have at least one sustainability officer?:

Yes

### Name and title of each sustainability officer:

Philip Mansfield, Manager, Sustainability Programs

### A brief description of each sustainability officer position:

- Forging partnerships, doing outreach and learning about existing sustainability efforts on campus.
- responsibilities based around waste management and the engagement and education side of things (referring to a 60 per cent waste recycling goal set out in the university's Sustainability Strategic Plan)

## The website URL where information about the sustainability officer(s) is available:

http://carleton.ca/fmp/energy-and-sustainability/sustainability-team/

#### Score

### **Responsible Party**

## **Philip Mansfield**

4.00 / 4.00

Sustainability Manager
Facilities Management and Planning

### Criteria

Institution has current and formal plans to advance sustainability. The plan(s) cover one or more of the following areas:

- Curriculum
- Research (or other scholarship appropriate for the institution)
- Campus Engagement
- Public Engagement
- · Air & Climate
- Buildings
- · Dining Services/Food
- Energy
- Grounds
- Purchasing
- Transportation
- Waste
- Water
- · Diversity & Affordability
- · Health, Wellbeing & Work
- Investment
- Other

The plan(s) may include measurable objectives with corresponding strategies and timeframes to achieve the objectives.

The criteria may be met by any combination of formally adopted plans, for example:

- · Strategic plan or equivalent guiding document
- · Campus master plan or physical campus plan
- Sustainability plan
- Climate action plan
- Human resources strategic plan
- Diversity plan

For institutions that are a part of a larger system, plans developed at the system level are eligible for this credit.

# Does the institution have current and formal plans to advance sustainability in the following areas? Do the plans include measurable objectives?:

	Current and Formal Plans (Yes or No)	Measurable Objectives (Yes or No)
Curriculum		
Research (or other scholarship)		
Campus Engagement	Yes	No
Public Engagement	Yes	No
Air and Climate	Yes	Yes
Buildings	Yes	Yes
Dining Services/Food	Yes	Yes
Energy	Yes	Yes
Grounds	Yes	Yes
Purchasing	Yes	Yes
Transportation	Yes	Yes
Waste	Yes	Yes
Water	Yes	Yes
Diversity and Affordability		
Health, Wellbeing and Work	Yes	Yes
Investment	Yes	Yes
Other	No	

A brief description of the plan(s) to advance sustainability in Curriculum:
The measurable objectives, strategies and timeframes included in the Curriculum plan(s):
Accountable parties, offices or departments for the Curriculum plan(s):
A brief description of the plan(s) to advance sustainability in Research (or other scholarship):
The measurable objectives, strategies and timeframes included in the Research plan(s):
Accountable parties, offices or departments for the Research plan(s):

## A brief description of the plan(s) to advance Campus Engagement around sustainability:

Educating and Engaging with the Carleton campus community on all aspects of the sustainability is one of the key pillars within the Sustainability Strategic Plan. This not only outlines the breadth and opportunities available but also in includes specific measures and milestones.

In addition our overall University Strategic Integrated Plan includes a Goal (Goal 4-2) to develop an integrated approach to environmental stewardship and campus sustainability. This references engagement with academic and research communities and professional services with environmental initiatives.

Thirty one thousand people live, work, study and play at Carleton University. Success with this plan will only be achieved if a large portion of that community is engaged and participates in its implementation and shares in the successes. Policies and practices must evolve and change but, more importantly, individual behaviours must also evolve and change. There is a large opportunity to harness the current level of awareness around sustainability and move students, staff and faculty toward real actions that will benefit Carleton University on many levels.

## The measurable objectives, strategies and timeframes included in the Campus Engagement plan:

1. Launch a series of outreach programs to raise awareness about this strategic plan and to garner input and support. Include within this a sustainability communications plan. Ongoing initiative updated annually.

- 2. Establish a Green Team pilot program by November 2013 made up of individuals from departments/faculties across campus who would become eco-reps and work to influence change in their area or department. To date over 20 departments have been included across campus.
- 3. Pilot a Green Workplace Certification Program by September 2013 so that departments and offices that met certain criteria would be recognized for their efforts. Roll it out to all departments and offices by June 2014. The program has subsequently be rolled out across the community and has active participation.
- 4. Explore the possibility with student unions of establishing a student levy to support sustainability initiatives. Funds from the levy would be used to support student led initiatives that would have a measured impact on making the Carleton community more sustainable.
- 5. Integrate sustainability as a topic in new employee and student orientation by September 2013. All employees receive a welcoming video, which includes an introduction to sustainability, this in addition to a employee guide to sustainability on campus.

## Accountable parties, offices or departments for the Campus Engagement plan(s):

Energy and Sustainability, Facilities Management and Planning Communications, Finance and Administration

## A brief description of the plan(s) to advance Public Engagement around sustainability:

The inclusion of advancing public engagement around Sustainability is a key recommendation within the Carleton Sustainability Strategic Plan. Conducting public consultation and engaging the community is a fundamental element in initially establishing buy-in and then subsequently for implementation.

The success of the sustainability strategic plan has been dependent on the level of engagement and buy-in from the staff, faculty and students involved. It has been critical to have the engagement of senior administrators to ensure that resources are made available and that the support is allocated where needed.

The strategic plan includes the development of a communications strategy, linked to faculty, staff and students and the setting up of a cross-community sustainability advisory committee which will have representation from students as well as faculty and professional staff.

## The measurable objectives, strategies and timeframes included in the Public Engagement plan(s):

- 1. Develop a comprehensive communications strategy for sustainability. It will serve to engage and educate participants, share successes and build commitment. This plan is updated annually to reflect changing priorities and programs.
- 2. An annual report outlining the progress of the program, prepared for the community and posted on the website. In addition to a snapshot of results (one-pager document) published annually, the full strategy progress is annually updated.
- 3. Number of projects that engage the community in environmental initiatives. Full details of numbers (unique visits, participants, lecture/interviews etc) are outlined in internal reporting.

## Accountable parties, offices or departments for the Public Engagement plan(s):

Energy and Sustainability, Facilities Management and Planning

## A brief description of the plan(s) to advance sustainability in Air and Climate:

Carleton has committed to developing a climate action plan which will plan for both energy conservation as well as establishing specific targets related to carbon emissions. The current strategic plan is focused on carbon reduction through a mix of energy conservation and efficiency (as demonstrated through the Energy Master Plan), commitment to green buildings and renewable alternatives, technology and process improvements and community education. This in addition to wider carbon and climate advancements as linked to procurement and travel.

## The measurable objectives, strategies and timeframes included in the Air and Climate plan(s):

- 1. Develop an Energy Master Plan (May 2014) which would have a major energy conservation and carbon reduction component. Plan developed and reported annually.
- 2. Life Cycle analysis for all new projects to consider the long-term costs of major energy infrastructure (chillers, etc.).
- 3. All new equipment purchased through the Purchasing Department should be Energy Star or better.
- 4. Rollout of the installation of power bars to feed computing peripherals and that it is shut off at the end of each day.
- 5. Move to using centralized printers to reduce the high cost of personal printers.
- 6. Develop a Climate Action Plan with clear, real targets for reduction. This is to be included in the overall strategy revision 2018 onwards.

### Accountable parties, offices or departments for the Air and Climate plan(s):

Facilities Management and Planning

## A brief description of the plan(s) to advance sustainability in Buildings:

Carleton University conducts a regular master planning process which engages the community to develop a long-term plan for the development of university facilities. The latest Campus Master Plan was adopted in 2015. The Campus Master Plan reinforces many aspects of sustainability. Green spaces are to be maintained and highlighted through careful planning. Growth will be achieved through densification of the existing property and – for the first time – the Campus Master Plan notes that replacement of existing buildings will be considered so that more efficient use can be made of a building footprint.

In addition the master plan outlines a network of safe, navigable paths for pedestrians and cyclists will be enhanced. There will be no increase in parking spaces per capita with the new growth on campus; in fact, a decrease in per capita parking is

foreseen over several years, as more transportation alternatives are promoted and developed.

The overall Strategic Plan has also committed Carleton to ensuring that all new construction and major renovations achieve a minimum rating of 3 out of 5 globes with the Green Globes Rating system (

### www.greenglobe.com

). All new buildings to date have on average, received a 4 globe rating.

In 2009, Carleton University also conducted a pilot project with Green Globes to develop an Environmental Assessment tool for university campuses. The result was a detailed report for each of the 44 buildings at Carleton University, identifying such things as water consumption, energy usage, electricity usage, and waste management. The report also provided a list of recommendations for improvements that would result in a more sustainable operation. This tool has been evolved to the Environmental Sustainability Assessment Tool and is used to review all buildings every 2 years.

### The measurable objectives, strategies and timeframes included in the Buildings plan(s):

- 1) Use the Green Globes environmental assessment system for all major construction on campus with a focus on continual improvement.
- 2) Use Green Globes to assess all new construction and major renovations with a minimum target standard of 3 out of 5 globes.
- 3) Continue to pursue opportunities to maximize how Carleton University currently allocates and uses space.
- 4) Ensure a waste management/recycling strategy is utilized for all construction and renovation projects.
- 5) Ensure that all renovations and new construction follow the sustainability principles in the Design Guidelines and the Sustainability Assessment Program. Page 6 of 13
- 6) Ensure that the campus development is consistent with the Sustainability principles contained in the current Campus Master Plan.
- 7) Utilize the ESAT tool for building reviews and updates. Tool used to inform planning and process development.

### Accountable parties, offices or departments for the Buildings plan(s):

Facilities Management and Planning

### A brief description of the plan(s) to advance sustainability in Dining Services/Food:

The universities Sustainability Strategic Plan sets out key programs and objectives which are aligned to our dining services and food operations. In addition, all food operations are sub-contracted to Aramark on campus, and there are set plans that are detailed through the partner which are aligned to sustainable operations.

The measurable objectives, strategies and timeframes included in the Dining Services/Food plan(s):

- 1) Conduct an initial audit of all of the food and supplies purchased by Dining Services. Develop a plan with specific targets to ensure that a certain percentage of food and supplies purchased meet at least one of the four sustainability criteria outlined.
- 2) Develop and implement a comprehensive waste diversion strategy for Dining Services to provide support to a wider campus target of 60 per cent diversion from landfill. The strategy includes among other initiatives: recycling waste and composting organics from all dining operations and catered events; conducting annual waste audits to verify diversion rates and ensure contamination is minimized through ongoing education and engagement; extensively promoting reusable mugs at all outlets; conducting a review of all packaging materials used by Dining Services in an effort to reduce the use disposables when it makes sense to do so.
- 3) Develop a green event options for catered events. Dining Services caters almost all events at Carleton University. A "green" option would be one way of introducing the next level of sustainable dining to catered events. For example, reusable tableware and flatware would be used, all products and packaging at the event would be recyclable or compostable, vegan and vegetarian options would be provided, etc.).
- 4) Conduct a water and energy audit of Dining Services operations to identify any areas where reduction can be realized. Subsequently develop a plan based on the recommendations made.
- 5) Achieve Fairtrade campus status and review wider sustainability certifications.
- 5) Ensure that all major equipment purchased for Dining Services undergoes a life cycle analysis and be energy and water efficient.

## Accountable parties, offices or departments for the Dining Services/Food plan(s):

Dining Services
Facilities Management and Planning

### A brief description of the plan(s) to advance sustainability in Energy:

The Sustainability Strategic Plan outlines the plans and key actions to advance and reduce energy and greenhouse gas emissions. In addition a key action as defined at the time was the development of a separate Energy Master Plan.

The Energy Master Plan looks at the campus historical energy and water use and the future requirements for these utilities to satisfy the campus physical development set in the Campus Master Plan. This document also identifies energy and water conservation opportunities that are available in the existing buildings that when implemented could reduce the future energy requirements.

### The measurable objectives, strategies and timeframes included in the Energy plan(s):

1. Develop an Energy Master Plan which would have a major energy conservation component.

This plan has been developed and includes a full building by building review, future energy requirements, energy benchmarks and conservation opportunities. In addition a building specific energy savings generator provides all energy and

water conservation opportunities across the campus with payback and timelines. All buildings are included and priority for review and implementation is based on age, condition and payback.

- 2. Develop an energy conservation policy encouraging all students, staff and faculty to participate.
- 3. Provide ongoing building energy audits, using audit consultants, and subsequently track this energy data.
- 4. Develop an action-based, targeted education and awareness program to engage students, staff and faculty in energy conservation at Carleton.
- 5. Encourage individual departments to have specific policies or guidelines that encourage energy conservation.
- 6. Initiate and promote the installation of power bars to feed computing peripherals and that it is shut off at the end of each day.
- 7. Move to using centralized printers to reduce the high cost of personal printers (electricity, lack of double-sided printing, more costly ink cartridges, less durable, etc.).
- 8. Develop a annual green revolving fund program to encourage and fund staff, faculty and student suggestions to sustainability on campus.

## Accountable parties, offices or departments for the Energy plan(s):

Facilities Management and Planning

## A brief description of the plan(s) to advance sustainability in Grounds:

The Sustainability Strategic Plan and the Campus Master Plan outlines the key actions and plans as related to the advancement of sustainability on the campus grounds, including the commitment to: continually seek ways to build, renew and maintain buildings, infrastructure and landscapes in a way that conserves resources, land, water and vegetation, reduces energy use, and limits waste disposal.

### The measurable objectives, strategies and timeframes included in the Grounds plan(s):

The Campus Master Plan makes the following recommendations as related to sustainability on campus grounds:

- New campus development should clearly articulate the environmentally sustainable features of a project through building science.
- Signage and education opportunities should further promote Carleton's commitment to environmentally responsible Campus development and maintenance.
- Landscapes and open spaces should promote all season use, particularly in the winter months.
- Infrastructure and amenities for cycling should be integrated into all new and existing Campus open spaces.
- All landscape plans should use non-invasive and/or native planting.
- Overall tree health on Campus should be monitored and a tree succession plan created to ensure the long-term viability of the existing tree canopy.
- Hardscaped areas should consider materials that allow for water infiltration to minimize runoff.
- The accommodation of cycling will be further improved, with secure bicycle parking nodes at key locations throughout the campus, and integrated within building entrances.

- Aim to reduce car use per person using tools such as incentives for multiple vehicle occupancy, increased parking charges and reduced availability, and improved bicycle access and storage.
- New trees should be planted to create a shade canopy during the summer months, and the shrub material should be low to improve visibility and increase the sense of safety in the grounds.
- Lighting should be designed to minimize light pollution.

## Accountable parties, offices or departments for the Grounds plan(s):

Facilities Management and Planning

## A brief description of the plan(s) to advance sustainability in Purchasing:

Carleton University's Sustainability Strategic Plan outlines the importance of sustainable procurement and working directly with service providers in order to reduce both environmental and economics costs associated with purchasing and delivery.

## The measurable objectives, strategies and timeframes included in the Purchasing plan(s):

There is a large potential for Carleton University to influence change by using the university's purchasing power to influence suppliers and service providers:

- 1) Expand the surplus goods process and establish a permanent system for furniture reuse/recycling/disposal.
- 2) Develop a Procurement Policy to ensure all major purchases for products and services undergo a lifecycle analysis so that long-term costs are considered.
- 3) Work with the five main product and service providers to reduce the environmental and economic costs associated with numerous deliveries.

### Accountable parties, offices or departments for the Purchasing plan(s):

Purchasing

Facilities Management and Planning

## A brief description of the plan(s) to advance sustainability in Transportation:

While the campus Master Plan outlines some key plans aligned to sustainability in transportation such as bike parking and car sharing to reduce parking needs, key plans are outlined within the Sustainability Strategic Plan and daughter document the Carleton Demand Transportation Plan.

## The measurable objectives, strategies and timeframes included in the Transportation plan(s):

1) Parking Services developed a long-term Demand Transportation Plan which outlines the way students, staff and faculty get to and from Carleton University in the most sustainable means, as possible. This includes:

- Provide incentives for car pooling onto campus.
- Provide vehicles/options for emergency use for staff who car pool for their daily commute.
- Expand and communicate car share programs.
- Implement electric car charging stations in main car parks (covered).
- Ensure secure bike storage and provide bike share programs for use at work.
- 2) Establishing the baseline impact from fleet vehicles and ensure an efficient transfer to more sustainable means to include; Purchasing hybrid vehicles when appropriate, the use of smaller and more fuel-efficient vehicles, encouraging car-sharing services for departmental car needs.
- 3) Make the campus bike friendly and ensure sufficient parking, adequate bike lanes/cycling policy, provide showers.

## Accountable parties, offices or departments for the Transportation plan(s):

Facilities Management and Planning Safety, Parking Services

### A brief description of the plan(s) to advance sustainability in Waste:

The Sustainability Strategic Plan outlines the key actions for waste reduction and improved diversion from landfill. This includes reducing waste generation, improving segregation and a target around waste diversion from landfill. In addition there is emphasis on improving the types of waste and recycling currently collected on campus and promoting this to the wider community.

### The measurable objectives, strategies and timeframes included in the Waste plan(s):

Actions within the Strategic Plan include:

- 1) Increase the diversion of waste to 60 per cent.
- 2) Focus on diversion (reuse and recycling) for residence move-in and move-out. These two relatively short periods generate a large amount of waste that can be relatively easily diverted. The move-in period is also critical as it serves as an introduction to sustainability programs at Carleton University for new students and parents.
- 3) Create a comprehensive management plan for paper on campus the largest individual stream of waste.
- 4) Develop a comprehensive strategy for dealing with all electronic waste or e-waste. This is both staff/faculty (i.e. Carleton purchased) e-waste and community generated waste.
- 5) Work with Carleton's main vendors such as Unisource and Grand and Toy to minimize the waste generated from regular deliveries (reusable shipping containers, combining shipments, etc.).
- 6) Purchasing and Facilities Management and Planning to explore the possibility of expanding the surplus goods process and establishing a permanent system for furniture reuse/recycling/disposal.
- 7) Ensure that opportunities for minimizing waste and maximizing diversion are pursued for all construction and renovation jobs at Carleton. Require a pre and post waste audit trail to be completed with final waste diversion rates submitted.
- 8) Improved waste signage rolled out across campus and targeted educational campaigns and events to engage the community.

### Accountable parties, offices or departments for the Waste plan(s):

## A brief description of the plan(s) to advance sustainability in Water:

Advancements in Sustainability as related to water as found with the Strategic Sustainability Plan, the Campus Master Plan and the Energy Master Plan.

## The measurable objectives, strategies and timeframes included in the Water plan(s):

- 1) Energy Master Plan to consider such aspects as:
- Standards for plumbing fixtures for use at Carleton University. The standards need to be detailed and address the different typed of fixtures that may be needed in different settings at Carleton University (residence, public washroom being renovated in an existing building, washrooms in a new building).
- 2) A review of all laboratory equipment to ensure that water efficiency is considered. An assessment of the sewage infrastructure that is needed to support decreased flow rates.
- 3) The provision and maintenance of public drinking fountains and water bottle filling stations.
- 4) Exploring further opportunities for using grey water and/or rain water from roof areas.
- 5) Ensure that the implications of current and future sewer use bylaws and the associated cost are considered as part of the water management plan.

### Accountable parties, offices or departments for the Water plan(s):

Facilities Management and Planning

## A brief description of the plan(s) to advance Diversity and Affordability:

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The measurable objectives, strategies and timeframes included in the Diversity and Affordability plan(s):

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Accountable parties, offices or departments for the Diversity and Affordability plan(s):

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## A brief description of the plan(s) to advance sustainability in Health, Wellbeing and Work:

Carleton University's Healthy Workplace Plan,'Healthy Conversations, Healthy Relationships, Healthy People, Healthy

Community' outlines the university wide initiatives to advance a culture of health and wellness at work.

Stars.aashe.org

Carleton University | STARS Report | 190

# The measurable objectives, strategies and timeframes included in the Health, Wellbeing and Work plan(s):

The key overarching goals are:

- 1) To ensure key priorities for Healthy Workplace as outlined in this plan are linked and integrated with the Strategic Integrated Plan (SIP) and a Human Resources Plan.
- 2) To ensure the continued planning and commitment of financial, human and other resources, for the overall healthy workplace strategy and related programs.
- 3) To conduct regular assessments and progress evaluations of the Healthy Workplace Plan (related programs and goals, and workplace performance) to determine strengths and opportunities for improvement.
- 4) To communicate the Healthy Workplace Plan and messages across the university.
- 5) To enhance a supportive workplace where there is an understanding of employees' roles and responsibilities to contribute to a healthy workplace at all levels of the university. With specific emphasis on those who manage people and their relationships.
- 6) To recognize staff achievement in meeting job and healthy workplace goals.
- 7) To achieve recognition and certification for our efforts to a healthy workplace by Excellence Canada. Obtain Level 2 in 2014 and Level 3 in 2016.

## Accountable parties, offices or departments for the Health, Wellbeing and Work plan(s):

Office of Quality Initiatives

### A brief description of the plan(s) to advance sustainability in Investment:

The Carleton University Retirement Plan outlines key areas as related to responsible investment.

### The measurable objectives, strategies and timeframes included in the Investment plan(s):

The plan is guided by certain principles as they relate to responsible investing. These are:

- That the fund must be invested to achieve the best possible risk-adjusted rate of return on the Fund's assets.
- That portfolio diversification is necessary to achieve these returns.
- That responsible corporate behavior with respect to environmental, social and governance (ESG) factors can have a positive effect on long-term financial performance (to varying degrees across companies, sectors, regions, assets classes and time)
- That taking into account ESG issues may better align the portfolio with the interests of our plan members.
- That imposing constraints on portfolio investments may increase risk or reduce returns or both.
- Encourage investment counsel and other service providers to incorporate ESG issues into investment analysis and decision making.

- Require annual disclosure by Investment counsel of the processes by which ESG factors are incorporated into the investment decision making process.
Accountable parties, offices or departments for the Investment plan(s):
Finance and Administration, Pensions
A brief description of the plan(s) to advance sustainability in other areas:
<del></del>
The measurable objectives, strategies and timeframes included in the other plan(s):
<del></del>
Accountable parties, offices or departments for the other plan(s):
The institution's definition of sustainability:
Does the institution's strategic plan or equivalent guiding document include sustainability at a high level?:
Yes
A brief description of how the institution's strategic plan or equivalent guiding document addresses sustainability:
The website URL where information about the institution's sustainability planning is available:
http://carleton.ca/fmp/wp-content/uploads/Sustainability_Strategic_PlanUpdated_May_2013.pdf

## Score Responsible Party

### **Philip Mansfield**

3.00/3.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

### Part 1

Institution's students participate in governance in one or more of the following ways:

- A. All enrolled students, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)
- B. There is at least one student representative on the institution's governing body. To count, student representatives must be elected by their peers or appointed by a representative student body or organization.

#### And/or

- C. Students have a formal role in decision-making in regard to one or more of the following:
- Establishing organizational mission, vision, and/or goals
- · Establishing new policies, programs, or initiatives
- · Strategic and long-term planning
- Existing or prospective physical resources
- · Budgeting, staffing and financial planning
- · Communications processes and transparency practices
- Prioritization of programs and projects

#### Part 2

Institution's staff participate in governance in one or more of the following ways:

- A. All staff members, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)
- B. There is at least one non-supervisory staff representative on the institution's governing body. To count, staff representatives must be elected by their peers or appointed by a representative staff body or organization.

### And/or

C. Non-supervisory staff have a formal role in decision-making in regard to one or more of the areas outlined in Part 1.

### Part 3

Institution's faculty participate in governance in one or more of the following ways:

- A. All faculty members, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)
- B. There is at least one teaching or research faculty representative on the institution's governing body. To count, faculty representatives must be elected by their peers or appointed by a representative faculty body or organization.

And/or

C. Faculty have a formal role in decision-making in regard to one or more of the areas outlined in Part 1.

Participatory or shared governance bodies, structures and/or mechanisms may be managed by the institution (e.g. committees, councils, senates), by stakeholder groups (e.g. student, faculty and staff committees/organizations), or jointly (e.g. union/management structures).

Structures or mechanisms adopted by entities of which the institution is part (e.g. government or university system) may count for this credit as long as they apply and are adhered to by the institution.

"---" indicates that no data was submitted for this field

Do all enrolled students, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:

Yes

# A brief description of the mechanisms through which students have an avenue to participate in one or more governance bodies:

1. Carleton University Student's Association (CUSA)

CUSA acts as a representative of the entire undergraduate student body at Carleton University. It is an incorporated, non-profit, student-run organization that promotes the interests of the students. The Council of CUSA is the Association's main decision making body. It consists of 28 elected representatives, elected from each

faculty and six Executive Members. There are also representatives from the

Rideau River Residence Association(RRRA) and the Graduate Students Association (GSA). Elections are held during the Winter Semester and all undergraduates are eligible to vote as well as run for a council position.

2. Rideau River Residence Association (RRRA)

RRRA is the oldest and largest residence association in Canada. All undergraduate students living in residence at Carleton University are members.

The Residence Council is the association's legislative body and consists of the Executive and one representative from each of the 50 floors in residence (called a "Floor Representative"). Council enacts policy and provides an avenue for Floor Representatives and students to become more involved in the formulation of policy and gives all students a chance to participate in the planning of their community.

RRRA structurally consists of an executive council and Board of Directors (President, Vice-President Administration, and Vice-President Programming), and a Council. General elections are held in February and the President, Vice-president and Vice President Programming run as a team and are elected for the following year. Every undergraduate resident is eligible to run for a RRRA position.

### 3. Board of Governors

### Governors has 32 members:

(2) Chancellor and the President; (2) faculty members; (2) Senate representatives; (4) students; (2) staff members; (2) nominees of the Alumni Association and (18) from the community-at-large. For students wishing to serve on the board, candidates must fulfill the requirements of an Expression of Interest and submit the document.

The names of eligible candidates will be presented for a vote by the respective student body (Undergraduate and Graduate) to determine which Undergraduate and Graduate student will be presented for nomination to the Board. All eligible students will receive an email inviting them to participate in the on-line election the morning of the vote/voting days.

Is there at least one student representative on the institution's governing body who was elected by peers or appointed by a representative student body or organization?:

Yes

## A brief description of student representation on the governing body, including how the representatives are selected:

The Senate is the highest academic body in the university. The Senate is the final academic authority on campus and as such makes decisions of significant importance to students and faculty.

### Senate Board Structure and Membership

Senate draws its members from faculty, students, alumni and senior administration as well as representatives from the Board of Governors. The names of eligible candidates will be presented for a vote by the respective student body (Undergraduate and Graduate) on April 4th and 5th, to determine which Undergraduate and Graduate student will be presented for nomination to the Board. All eligible students will receive an email inviting them to participate in the on-line election the morning of April 4th and will have until 10pm on April 5th to vote.

## Do students have a formal role in decision-making in regard to the following?:

	Yes or No
Establishing organizational mission, vision, and/or goals	Yes
Establishing new policies, programs, or initiatives	Yes
Strategic and long-term planning	Yes
Existing or prospective physical resources	Yes
Budgeting, staffing and financial planning	Yes
Communications processes and transparency practices	Yes
Prioritization of programs and projects	Yes

## A brief description of the formal student role in regard to each area indicated, including examples from the previous three years:

Establishing organizational mission, vision, and/or goals:

CUSA and RRRA both student roles in which elected student executives can establish organizational mission, vision, and/or goals. In CUSA, for example, The Vice President Finance is in charge of the financial operations of the organization, including the budget, which designates what goals will be financially supported. The VPF also make decisions about the health insurance plan and negotiates the collective agreement with CUSA's employees.

### Establishing new policies, programs, or initiatives:

RRRA Council enacts policy and provides an avenue for Floor Representatives and students to become more involved in the formulation of policy and gives all students a chance to participate in the planning of their community. In the 2014-2015 school year, RRRA had promised students that landline phones would be taken out of residence rooms, as many students found them unnecessary and would rather not have to pay a mandatory phone fee. In the 2015-2016 school year, the promise held true and no residence rooms automatically came with a landline phone and fee.

## Strategic and long-term planning:

RRRA and CUSA both have student positions that oversee strategic and long-term planning. The Vice President Finance (of CUSA) is in charge of the financial operations of the organization, including the budget. The VPF also make decisions about the health insurance plan and negotiates the collective agreement with CUSA's employees.

### Existing or prospective physical resources:

In CUSA, The Vice President Student Services manages all of CUSA's Service Centres and Service Centre employees.

## Budgeting, staffing and financial planning:

The President of RRRA, for example, is responsible for overseeing the financial matters of the association, and the overall well being of RRRA.

### Communications processes and transparency practices:

As a collective, the students that make up the Executive's of both CUSA and RRRA are responsible for communications processes and transparency practices, as the Executives see fit. For example, with RRRA, Council shall have the power to enact amendments to the Constitution.

### Prioritization of programs and projects:

CUSA's Vice President Student Issues offers a great example of that. The Vice President Student Issues is in charge of ensuring that student issues are addressed at all levels of government. The VPSI also works to create awareness about important student issues such as mental health and financial literacy.

## Do all staff, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:

Yes

# A brief description of the mechanisms through which all staff have an avenue to participate in one or more governance bodies:

Staff members are represented on the Board of Governors. As the Governance Committee-Terms of Reference describes, the Governance Committee shall be comprised of, one representative from the academic and library staff and one

representative from University staff who is not a member of the academic or library staff (among other positions to be filled).

Is there at least one non-supervisory staff representative on the institution's governing body who was elected by peers or appointed by a representative staff body or organization?:

Yes

# A brief description of non-supervisory staff representation on the governing body, including how the representatives are selected:

The Board of Governors includes two employees of the University who are continuing and/or permanent employees but who are not members of the academic and/or library staff. These members are nominated by those employees, and they serve three-year terms.

The election to identify these two non-academic staff representatives to the Board will be conducted by an electronic election on

Tuesday, August 11th Wednesday, August 12th Thursday, August 13th

Eligible voters will receive an email on August 11th inviting them to participate in the election by choosing a candidate for EACH of the two vacancies.

## Do non-supervisory staff have a formal role in decision-making in regard to the following?:

	Yes or No
Establishing organizational mission, vision, and/or goals	Yes
Establishing new policies, programs, or initiatives	Yes
Strategic and long-term planning	Yes
Existing or prospective physical resources	Yes
Budgeting, staffing and financial planning	Yes
Communications processes and transparency practices	Yes
Prioritization of programs and projects	Yes

A brief description of the formal staff role in regard to each area indicated, including examples from the previous three years:

There are currently 2 Staff members sitting on the Board of Governors. Each member holds a three year post to this position and in addition to board duties, will also be engaged in specific board committees, including; Community Relations and Advancement,

Governance and Building program.

Do all faculty, regardless of type or status, have an avenue to participate in one or more governance bodies (through direct participation or the election of representatives)?:

Yes

A brief description of the mechanisms through which all faculty (including adjunct faculty) have an avenue to participate in one or more governance bodies:

Faculty is represented on the Board of Governors by two faculty members, both elected positions.

- 1. Fred Afagh. Professor Afagh, Ph.D., P.Eng, is an Associate Dean (Research) of Engineering and Design, in the Faculty of Mechanical and Aerospace Engineering. He has been elected to the Board of Governors for a three-year term, ending June 30, 2018.
- 2. Root Gorelick, Root Gorelick, BA, MA, MS, MA, MS, PhD, is an Associate Professor of Biology at Carleton, with cross-appointments in Mathematics & Statistics and Interdisciplinary Studies, who also teaches Indigenous Studies. He was elected by the academic/library staff to the Board for a three-year term, ending on June 30, 2016.

Is there at least one teaching or research faculty representative on the institution's governing body who was elected by peers or appointed by a representative faculty body or organization?:

Yes

A brief description of faculty representation on the governing body, including how the representatives are selected:

Faculty representative must meet Eligibility Requirements as set out in the Bylaws (must be a full-time employee of the University holding the academic rank of: professor, associate professor, assistant professor, lecturer, university librarian or associate librarian).

They must also complete the Expression of Interest Application – Academic Staff application form and submit it in person or by email to the University Secretary (

julie\_caldwell@carleton.ca

) no later than 4 p.m. on Friday, May 27th, 2016.

Following this process, the names of eligible candidates will be presented for a vote to the eligible academic staff body on June 6th and 7th, to determine which academic staff member will be presented for nomination to the Board. The election of the successful Academic Staff candidate will take place at the June 28th, 2016 meeting of the Board of Governors.

Do faculty have a formal role in decision-making in regard to the following?:

	Yes or No
Establishing organizational mission, vision, and/or goals	Yes
Establishing new policies, programs, or initiatives	Yes
Strategic and long-term planning	Yes
Existing or prospective physical resources	Yes
Budgeting, staffing and financial planning	Yes
Communications processes and transparency practices	Yes
Prioritization of programs and projects	Yes

# A brief description of the formal faculty role in regard to each area indicated, including examples from the previous three years:

Root Gorelick

Board Committees: Community Relations and Advancement

Root Gorelick, BA, MA, MS, MA, MS, PhD, was elected by the academic/library staff to the Board for a three-year term, ending on June 30, 2016.

Faculty has formal role in decision-making in regard to the mentioned areas above, via their vote on the Board of Governors.

http://carleton.ca/secretariat/boardofgovernors/electionsnominations/academic-and-library-repre

sentatives/

The website URL where information about the institution's governance structure is available:

http://carleton.ca/secretariat/boardofgovernors/

## **Diversity & Affordability**

Points Claimed 5.25

Points Available 10.00

This subcategory seeks to recognize institutions that are working to advance diversity and affordability on campus. In order to build a sustainable society, diverse groups will need to be able to come together and work collaboratively to address sustainability challenges. Members of racial and ethnic minority groups and immigrant, indigenous and low-income communities tend to suffer disproportionate exposure to environmental problems. This environmental injustice happens as a result of unequal and segregated or isolated communities. To achieve environmental and social justice, society must work to address discrimination and promote equality. The historical legacy and persistence of discrimination based on racial, gender, religious, and other differences makes a proactive approach to promoting a culture of inclusiveness an important component of creating an equitable society. Higher education opens doors to opportunities that can help create a more equitable world, and those doors must be open through affordable programs accessible to all regardless of race, gender, religion, socio-economic status and other differences. In addition, a diverse student body, faculty, and staff provide rich resources for learning and collaboration.

Credit	Points
Diversity and Equity Coordination	2.00 / 2.00
Assessing Diversity and Equity	0.25 / 1.00
Support for Underrepresented Groups	2.00 / 2.00
Support for Future Faculty Diversity	0.00 / 1.00
Affordability and Access	1.00 / 4.00

Score	Responsible Party
	Philip Mansfield
2.00 / 2.00	Sustainability Manager
	Facilities Management and Planning

#### Criteria

### Part 1

Institution has a diversity and equity committee, office and/or officer tasked by the administration or governing body to advise on and implement policies, programs, and trainings related to diversity and equity on campus. The committee, office and/or officer focuses on student and/or employee diversity and equity.

### Part 2

Institution makes cultural competence trainings and activities available to all members of one or more of the following groups:

- Students
- Staff
- Faculty
- Administrators

"---" indicates that no data was submitted for this field

Does the institution have a diversity and equity committee, office, and/or officer tasked by the administration or governing body to advise on and implement policies, programs, and trainings related to diversity and equity on campus?:

Yes

Does the committee, office and/or officer focus on one or both of the following?:

	Yes or No
Student diversity and equity	Yes
Employee diversity and equity	Yes

A brief description of the diversity and equity committee, office and/or officer, including purview and activities:

The Office of Equity Services, reporting directly to the President, provides leadership in all areas of equity, diversity and human rights, including development of policies, programs and practices and the management of informal and formal complaints of harassment and discrimination. The Office is responsible for the university's Employment Equity Program and Accessibility standards.

There are 4 university committees dealing with diversity and equity. The Equity Policy Committee is a standing committee which advises the President on matters relating to equity and human rights for students and employees at Carleton University. The Senate Committee on Educational Equity assists Senate in the implementation of educational equity and related policies. The Aboriginal Education Council oversees the implementation of Carleton's Aboriginal Coordinated Strategy and reports to the Board of Governors and Senate, through the President. The AODA Task Force, reporting to the President, oversees the implementation of strategies to increase accessibility for students and employees with disabilities.

The full-time equivalent of people employed in the diversity and equity office:

7

The website URL where information about the diversity and equity committee, office and/or officer is available:

http://www.carleton.ca/equity/

Does the institution make cultural competence trainings and activities available to all members of the following groups?:

	Yes or No
Students	Yes
Staff	Yes
Faculty	Yes
Administrators	Yes

### A brief description of the cultural competence trainings and activities:

Cultural proficiency workshops are apecifically designed and delivered based on a needs analysis of each group's interactions and challenges of working in a culturally diverse environment. Culture is defined broadly in recognition that cultural groups center around a wide variety of shared identities, including race, age, nationality, geographical setting, socioeconomic class, able-bodiedness or disability, sexual orientation, language, religion, profession or job role, and gender. All training includes:

- a balance of theory and practice, interpersonal and practical skills development in cultural proficiency
- exploring differences in a safe and positive environment
- continuing self-assessment of one's values, beliefs and biases
- follow up with individualized coaching and feedback with any challenges encountered within the university environment. Co-facilitation with faculty, staff and students takes place whenever possible.

The website URL	where information	about the cultural	competence training	gs is available:

Score **Responsible Party Philip Mansfield** 0.25 / 1.00Sustainability Manager Facilities Management and Planning Criteria Institution assesses diversity and equity on campus and uses the results to guide policy, programs, and initiatives. The assessment(s) address one or more of the following areas: 1. Campus climate, e.g. through a survey or series of surveys to gather information about the attitudes, perceptions and experiences of campus stakeholders and underrepresented groups 2. Student diversity and educational equity, e.g. through analysis of institutional data on diversity and equity by program and level, comparisons between graduation and retention rates for diverse groups, and comparisons of student diversity to the diversity of the communities being served by the institution 3. Employee diversity and employment equity, e.g. through analysis of institutional data on diversity and equity by job level and classification, and comparisons between broad workforce diversity, faculty diversity, management diversity and the diversity of the communities being served by the institution 4. Governance and public engagement, e.g. by assessing access to and participation in governance on the part of underrepresented groups and women, the centrality of diversity and equity in planning and mission statements, and diversity and equity in public engagement efforts "---" indicates that no data was submitted for this field Has the institution assessed diversity and equity in terms of campus climate?: No A brief description of the campus climate assessment(s):

Has the institution assessed employee diversity and employment equity?:

A brief description of the student diversity and educational equity assessment(s):

Has the institution assessed student diversity and educational equity?:

Yes

No

## A brief description of the employee diversity and employment equity assessment(s):

All employees are requested to complete an employment census asking to self-identify if they are a visible minority/racialized person, a person with a disability, an Aboriginal person and/or female. The census is confidential - the data is used to benchmark the university's diversity as compared to the external availability of qualified persons. This data, along with data on hiring, promotions, etc. is used to conduct a workforce analysis every few years. The last workforce analysis was completed in 2011. This analysis shows where the 4 groups are under-represented and focuses the university as it develops new strategies and goals.

Has the institution assessed diversity and equity in terms of governance and public engagement?: No

A brief description of the governance and public engagement assessment(s):

---

The website URL where information about the assessment(s) is available:

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Score Responsible Party

**Philip Mansfield** 

2.00 / 2.00

Sustainability Manager Facilities Management and Planning

#### Criteria

### Part 1

Institution has mentoring, counseling, peer support, academic support, or other programs in place to support underrepresented groups on campus.

This credit excludes programs to help build a diverse faculty throughout higher education, which are covered in *PA 7:* Support for Future Faculty Diversity.

### Part 2

Institution has a discrimination response policy, program and/or team (or the equivalent) to respond to and support those who have experienced or witnessed a bias incident, act of discrimination or hate crime.

"---" indicates that no data was submitted for this field

Does the institution have mentoring, counseling, peer support, academic support, or other programs to support underrepresented groups on campus?:

Yes

A brief description of the programs sponsored by the institution to support underrepresented groups:

Centre for Aboriginal Culture and Education

- The Centre for Aboriginal Culture and Education (CACE) supports Aboriginal (First Nations, Inuit and Métis) students through their academic journeys at Carleton University. CACE aims to increase the recruitment and retention of Aboriginal students, faculty and staff at Carleton by ensuring Aboriginal cultures, traditions, and worldviews are respected and represented on campus.

The Paul Menton Centre (PMC)

- -The Paul Menton Centre is responsible for the coordination of academic accommodations and support services for students with disabilities. Some of our functions include:
- Liaising with faculty, departments, Scheduling and Examination Services, Educational Development Centre, and other student services to ensure that students' needs are met
- Facilitating the resolution of problems or misunderstandings as they arise between students and faculty/departments
- Providing information about disabilities, policies and procedures pertaining to students with disabilities to faculty and to the broader Carleton community

- Providing a variety of support services for students with disabilities such as one-on-one learning support, note taking, adaptive equipment loans, sign language interpretation, and screening and referral for LD/ADHD assessment

https://carleton.ca/pmc/

The Womyn's Centre

- The Womyn's Centre aims to be a safe(r) space for those who identify as Womyn but also anyone interested in gendered based issues. The Womyn's Centre provides free male/female condoms, pregnancy tests, menstrual products, and a wealth of resources and material. The centre is home to the only Womyn's only space on campus. All Womyn can use the quiet space for resting, prayer, breastfeeding, and self-care.

http://www.carletonspc.ca/womyns-centre-community-service/

The website URL where more information about the support programs for underrepresented groups is available:

http://carleton.ca/aboriginal/resources/

Does the institution have a discrimination response policy and/or team (or the equivalent) to respond to and support those who have experienced or witnessed a bias incident, act of discrimination or hate crime?:

Yes

A brief description of the institution's discrimination response policy, program and/or team:

Carleton University provides multiple responses to acts of discrimination or hate crime on/within the campus and the Carleton community.

Carleton's Discrimination and Harassment Policies protects all Carleton staff, students and faculty from discrimination and harassment because of political affiliation or belief, and gender identity, and/or any of the prohibited grounds under the Ontario Human Rights Code.

The Policy offers both formal and informal procedures for handling complaints. Wherever possible, complaints are managed using the informal process. Equity Advisors are advocates for the Policy; they do not act as advocates for complainants or respondents.

Carleton's Equity Services works to prevent discrimination and harassment on campus. They provide informal and formal procedures for handling complaints, offer education on a wide variety of human rights and diversity issues and coordinate Carleton University's employment and educational equity programs.

The website URL where more information about the institution's discrimination response policy, program

## and/or team is available:

http://www.carleton.ca/equity/human-rights/policy/

Does the institution offer housing options to accommodate the special needs of transgender and transitioning students?:

Yes

Does the institution produce a publicly accessible inventory of gender neutral bathrooms on campus?:

Yes

Score **Responsible Party Philip Mansfield** 0.00 / 1.00Sustainability Manager Facilities Management and Planning Criteria Institution administers and/or participates in a program or programs to help build a diverse faculty throughout higher education. Such programs could take any of the following forms: Teaching fellowships or other programs to support terminal degree students from underrepresented groups in gaining teaching experience. (The terminal degree students may be enrolled at another institution.) Mentoring, financial, and/or other support programs to prepare and encourage undergraduate or other non-terminal degree students from underrepresented groups to pursue further education and careers as faculty members. Mentoring, financial, and/or other support programs for doctoral and post-doctoral students from underrepresented groups. "---" indicates that no data was submitted for this field Does the institution administer and/or participate in a program or programs to help build a diverse faculty that meet the criteria for this credit?: No A brief description of the institution's programs that help increase the diversity of higher education faculty: The website URL where more information about the faculty diversity program(s) is available:

Score	Responsible Party
	Philip Mansfield
1.00 / 4.00	Sustainability Manager
	Facilities Management and Planning

#### Criteria

### Part 1

Institution has policies and programs in place to make it accessible and affordable to low-income students and/or to support non-traditional students. Such policies and programs may include, but are not limited to, the following:

- Policies and programs to minimize the cost of attendance for low-income students
- Programs to equip the institution's faculty and staff to better serve students from low-income backgrounds
- Programs to prepare students from low-income backgrounds for higher education (e.g. U.S. federal TRIO programs)
- Scholarships provided specifically for low-income students
- Programs to guide parents of low-income students through the higher education experience
- Targeted outreach to recruit students from low-income backgrounds
- · Scholarships provided specifically for part-time students
- An on-site child care facility, a partnership with a local facility, and/or subsidies or financial support to help meet the child care needs of students

### Part 2

Institution is accessible and affordable to low-income students as demonstrated by one or more of the following indicators:

- A. The percentage of entering students that are low-income
- B. The graduation/success rate for low-income students
- C. The percentage of student financial need met, on average
- D. The percentage of students graduating with no interest-bearing student loan debt

"---" indicates that no data was submitted for this field

Does the institution have policies and programs in place to make it accessible and affordable to low-income students?:

Yes

A brief description of any policies and programs to minimize the cost of attendance for low-income students:

The Work Study Program is a financial aid program funded by Carleton University. Students in the work-study program must:

- be applying and receiving student assistance for the fall/winter session (e.g. OSAP/loans, government student aid/loans from another province)
- demonstrate financial need as determined by the Awards Office
- be a Canadian citizen or permanent resident. A limited number of international students may also participate in the program subject to the availability of funds
- -Must be in an undergraduate degree program and remain registered in 60% of a full course load (1.5 credits per term) or 40% of a full course load (1.0 credit per term) for students with disabilities registered with the Paul Menton Centre Students must apply to participate in the Work Study Program each year and be approved by the Awards Office before they can be hired. Jobs include working in the library and academic departments and in various areas within student services. Work study job postings are limited to internal Carleton employers.

Bursaries - Carleton offers a multitude of bursaries to incoming and returning students every year. Bursaries are based off of demonstration of financial need, therefore pertaining to low-income students. An example of the one of the many bursaries available would be the First Generation Bursary. This is a unique opportunity to recognize and provide direct support to students with financial need who are the first in their families to attend university.

A brief description of any programs to equip the institution's faculty and staff to better serve students from low-income backgrounds:

---

A brief description of any programs to prepare students from low-income backgrounds for higher education:

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## A brief description of the institution's scholarships for low-income students:

At Carleton, scholarships are based on academic merit, as opposed to financial need. That being said, various scholarships will indicate on their description that priority will be given, or consideration will be given, to students with demonstrated financial need. Our bursaries are designed to cater to financial need more so than our Scholarships.

A brief description of any programs to guide parents of low-income students through the higher education experience:

Not specific to low-income parents, the university offers the "Future CU Parents newsletter" featuring top tips for choosing a program, prepping for a profession, financing university, student support, campus safety, important deadlines, upcoming events and more.

A brief description of any targeted outreach to recruit students from low-income backgrounds:

---

A brief description of other admissions policies or programs to make the institution accessible and		
affordable to low-income students:		
<del></del>		

A brief description of other financial aid policies or programs to make the institution accessible and affordable to low-income students:

\_\_\_

A brief description of other policies and programs to make the institution accessible and affordable to low-income students not covered above:

\_\_\_

Does the institution have policies and programs in place to support non-traditional students?: Yes

A brief description of any scholarships provided specifically for part-time students:

---

A brief description of any onsite child care facilities, partnerships with local facilities, and/or subsidies or financial support to help meet the child care needs of students:

Colonel By Child Care Centre - The Colonel By Child Care Centre is located on Carleton's Campus and accepts children between the ages of six months and five years. Priority is given to students, staff, and faculty.

## A brief description of other policies and programs to support non-traditional students:

The Aboriginal Enriched Support Program (AESP), a sister program to the Enriched Support Program (ESP), is designed for Aboriginal students, First Nations, Status and Non-Status, Metis, Inuit, and Aboriginal Descent (including individuals who may have just recently discovered that they have Aboriginal ancestry, and want to learn more about their heritage).

The Learning in Retirement program at Carleton University provides an opportunity for semi-retired and retired individuals to learn for personal satisfaction while participating in a community of life-long learners who enjoy acquiring knowledge about new topics, discussing issues of common interests, and sharing life-stories.

Centre for Initiatives in Education - The Centre for Initiatives in Education (CIE) at Carleton University offers accessibility and learning support to individuals from a variety of non-traditional educational backgrounds who experience barriers entering into university for reasons of GPA, learning needs, and former educational experiences.

Does the institution wish to pursue Part 2 of this credit (accessibility and affordability indicators)?:

No

Indicators that the institution is accessible and affordable to low-income students::

	Percentage (0-100)
The percentage of entering students that are low-income	
The graduation/success rate for low-income students	
The percentage of student financial need met, on average	
The percentage of students graduating with no interest-bearing student loan debt	

The percentage of students that participate in or directly benefit from the institution's policies and programs to support low-income and non-traditional students:

---

The website URL where information about the institution's affordability and access programs is available:

https://carleton.ca/awards/

## Health, Wellbeing & Work

### Points Claimed 3.14

## Points Available 7.00

This subcategory seeks to recognize institutions that have incorporated sustainability into their human resources programs and policies. An institution's people define its character and capacity to perform; and so, an institution's achievements can only be as strong as its community. An institution can bolster the strength of its community by making fair and responsible investments in its human capital. Such investments include offering benefits, wages, and other assistance that serve to respectfully and ethically compensate workers and acting to protect and positively affect the health, safety and wellbeing of the campus community. Investment in human resources is integral to the achievement of a healthy and sustainable balance between human capital, natural capital, and financial capital.

Credit	Points
Employee Compensation	0.00 / 3.00
Assessing Employee Satisfaction	1.00 / 1.00
Wellness Program	1.00 / 1.00
Workplace Health and Safety	1.14 / 2.00

Score Responsible Party

**Terrence Odin** 

0.00 / 3.00

Manager, Information Systems Humans Resources

### Criteria

#### Part 1

Institution's employees and/or the employees of its on-site contractors are covered by sustainable compensation standards, guidelines, or policies and/or collective bargaining agreements.

A sustainable compensation (or "living wage") standard, guideline or policy is one that addresses wages and benefits in terms of the ability of employees to meet basic needs. For example, a sustainable compensation policy may index hourly wages to a poverty guideline or to local cost-of-living indicators. A labor market survey, salary survey or similar assessment may be used in conjunction with a basic needs/cost-of-living approach, but is not sufficient on its own to count as a sustainable compensation policy.

#### Part 2

Institution's employees and/or the employees of its on-site contractors receive sustainable compensation.

To earn points for Part 2 of this credit, an institution must assess employee compensation against one or more of the following:

- A sustainable compensation standard developed or adopted by a committee with multi-stakeholder representation (i.e. its membership includes faculty, staff, and students and may include Human Resources administrators or other parties). The standard need not be formally adopted by the institution.
- 2. A sustainable compensation standard that is in use in the institution's locality. The standard may be formal (e.g. a "living wage" ordinance covering public employees) or informal (e.g. a standard adopted by a local, regional or national campaign).
- 3. An appropriate poverty guideline, threshold or low-income cut-off for a family of four.

For institutions that elect to assess compensation against a poverty guideline, threshold or low-income cut-off, sustainable compensation is defined as wages equivalent to 120 percent of the poverty guideline for a family of four. An institution may offset up to 20 percent of the wage criteria with employer-paid benefits that address basic needs (e.g. healthcare and retirement contributions).

Both parts of this credit are based on the total number of employees working on campus as part of regular and ongoing campus operations, which includes:

- Staff and faculty, i.e. all regular full-time, regular part-time and temporary (or non-regular) employees, including adjunct
  faculty and graduate student employees (e.g. teaching and research assistants). Institutions may choose to include or
  omit undergraduate student workers.
- Employees of contractors that work on-site as part of regular and ongoing campus operations. Such contractors may include, but are not limited to, providers of dining/catering, cleaning/janitorial, maintenance, groundskeeping,

transportation, and retail services.

Construction and demolition crews and other temporary contracted employees may be excluded.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

## Data source(s) and notes about the submission:

The vast majority of Carleton's continuing employees are covered under a collective bargaining agreement.

Score	Responsible Party
	Philip Mansfield
1.00 / 1.00	Sustainability Manager
	Facilities Management and Planning

#### Criteria

Institution conducts a survey or other evaluation that allows for anonymous feedback to measure employee satisfaction and engagement. The survey or equivalent may be conducted institution-wide or may be done by individual departments or divisions. The evaluation addresses (but is not limited to) the following areas:

- Job satisfaction
- · Learning and advancement opportunities
- Work culture and work/life balance

The institution has a mechanism in place to address issues raised by the evaluation.

"---" indicates that no data was submitted for this field

Has the institution conducted an employee satisfaction and engagement survey or other evaluation that meets the criteria for this credit?:

Yes

The percentage of employees (staff and faculty) assessed, directly or by representative sample: 100

## A brief description of the institution's methodology for evaluating employee satisfaction and engagement:

For the survey, Talent Map was hired as a third party. We went through a formal RFP process to select TalentMap.Basically, we were looking to answer those four key questions using 15 proven drivers of engagement. There four key questions were: How engaged are your employees and faculty?

How effective are your workplace dimensions?

What are the most powerful drivers of engagement?

Where should you focus your workplace improvements?

Questions were asked to substantiate each of the drivers and an overall rating was determined.

A brief description of the mechanism(s) by which the institution addresses issues raised by the evaluation (including examples from the previous three years):

For the engagement survey, we are looking at action planning at the organizational, divisional and departmental level for the next two and a half years before we launch the engagement survey again in the fall of 2018. We are asking teams to read, review and disseminate the results to their teams. We are then asking them to create an action of one or two things they will work on over the next two and a half years.

https://carleton.ca/hr/engagement-survey/

The year the employee satisfaction and engagement evaluation was last administered:

2,015

The website URL where information about the institution's employee satisfaction and engagement assessment is available:

http://carleton.ca/hr/engagement-survey/

#### Data source(s) and notes about the submission:

For the Employee Satisfaction Surveys, these are at the OIRP website:

http://oirp.carleton.ca/main/surveys-css-employee/

For the Engagement Survey:

http://carleton.ca/hr/engagement-survey/

# Score Responsible Party Philip Mansfield 1.00 / 1.00 Sustainability Manager Facilities Management and Planning

#### Criteria

Institution has a wellness and/or employee assistance program that makes available counseling, referral, and wellbeing services to all members of any of the following groups:

- Students
- Staff
- Faculty

"---" indicates that no data was submitted for this field

## Does the institution make counseling, referral, and wellbeing services available to all members of the following groups?:

	Yes or No
Students	Yes
Staff	Yes
Faculty	Yes

#### A brief description of the institution's wellness and/or employee assistance program(s):

Staff and Faculty: Healthy Workplace

Carleton University's Healthy Workplace initiative is an exciting program that is bringing workplace health to all Carleton's staff and faculty. The program is based on exhaustive research on wellness and recognition practices throughout the university community. The Healthy Workplace Committee, comprised of staff from all over campus, seeks to make Carleton a healthy and enjoyable place to work.

A healthy workplace is about a cultural shift to a workplace were employees feel recognized for the work they do and are encouraged to maintain a healthy lifestyle. The healthy workplace initiative is working to help you enjoy a better balance between your responsibilities at home and work by offering you the opportunity to get involved in healthy activities that will benefit your physical and mental health.

#### Students: Counselling Services

Confidential personal counselling services are available for current Carleton University students. Our primary responsibility is to alleviate distress and promote healthy functioning by providing short-term counselling services. Students can self refer to counselling. Some examples of the issues students may discuss with a counsellor include: coping with stress/homesickness, increasing sadness, handling a crisis, improving communication, learning to be assertive, increasing self-esteem, gender identity, understanding one's sexuality and dealing with alcohol and drug concerns.

#### The website URL where information about the institution's wellness program(s) is available:

http://carleton.ca/healthy-workplace/

Score	Responsible Party
	David Hunt
1.14 / 2.00	Manager, University Operations Safety
	Environmental Health and Safety

#### Criteria

#### Part 1

Institution has reduced its total number of reportable workplace injuries and occupational disease cases per full-time equivalent (FTE) employee compared to a baseline.

#### Part 2

Institution has fewer than 5 reportable workplace injuries and occupational disease cases annually per 100 full-time equivalent (FTE) employees.

This credit includes employees of contractors working on-site for whom the institution is liable for workplace safety, for example workers for whom the institution is mandated to report injuries and disease cases by a health and safety authority such as the U.S. Occupational Health and Safety Administration (OSHA) or the Canadian Center for Occupational Health and Safety (CCOHS). Injuries and disease cases include OSHA/CCOHS-reportable fatal and non-fatal injuries (or the equivalent) arising out of or in the course of work and cases of diseases arising from a work-related injury or the work situation or activity (e.g. exposure to harmful chemicals, stress, ergonomic issues). See *Sampling and Data Standards*, below, for further guidance on reporting injuries and disease cases.

"---" indicates that no data was submitted for this field

#### Please enter data in the table below::

	Performance Year	Baseline Year
Number of reportable workplace injuries and occupational disease cases	23	34
Full-time equivalent of employees	3,902.50	4,258

#### Start and end dates of the performance year and baseline year (or three-year periods):

|--|

Performance Year	Jan. 1, 2013	Dec. 31, 2013
Baseline Year	Jan. 1, 2010	Dec. 31, 2010

#### A brief description of when and why the workplace health and safety baseline was adopted:

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#### A brief description of the institution's workplace health and safety initiatives:

CU strives to create and implement programs and policies that allow the Carleton community to work and learn in a safe environment. This is achieved through a number of solution based programs around Fire and Life Safety, Laboratory Safety, Operational Safety, Workplace Harassment and Violence Prevention, Ergonomics, and Accident/Incident Prevention. Environmental Health and Safety Office works collaboratively with faculty and staff, to ensure that compliance to legislative requirements is met while enabling research and student activities to move forward with effective integrated safeguards.

The website URL where information about the institution's workplace health and safety initiatives is available:

http://carleton.ca/ehs/

#### Investment

#### Points Claimed 0.00

#### Points Available 7.00

This subcategory seeks to recognize institutions that make investment decisions that promote sustainability. Most institutions invest some of their assets in order to generate income. Together, colleges and universities invest hundreds of billions of dollars. Schools with transparent and democratic investment processes promote accountability and engagement by the campus and community. Furthermore, institutions can support sustainability by investing in companies and funds that, in addition to providing a strong rate of return, are committed to social and environmental responsibility. Investing in these industries also supports the development of sustainable products and services. Finally, campuses can engage with the businesses in which they are invested in order to promote sustainable practices.

Throughout this subcategory, the term "sustainable investment" is inclusive of socially responsible, environmentally responsible, ethical, impact, and mission-related investment.

Credit	Points
Committee on Investor Responsibility	0.00 / 2.00
Sustainable Investment	0.00 / 4.00
Investment Disclosure	0.00 / 1.00

Score

**Responsible Party** 

0.00 / 2.00

#### Criteria

Institution has a formally established and active committee on investor responsibility (CIR) or similar body that makes recommendations to fund decision-makers on socially and environmentally responsible investment opportunities across asset classes, including proxy voting. The body has multi-stakeholder representation, which means its membership includes faculty, staff, and students and may include alumni, trustees, and/or other parties.

Institutions for which investments are handled by the university system and/or a separate foundation of the institution should report on the investment policies and activities of those entities.

A general committee that oversees the institution's investments does not count for this credit unless social and environmental responsibility is an explicit part of its mission and/or agenda.

This credit applies to institutions with endowments of US \$1 million or larger. Institutions with endowments totaling less than US \$1 million may choose to omit this credit.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

0.00 / 4.00

#### Criteria

There are two possible approaches to this credit; institutions may pursue one or both. Institutions for which investments are handled by the university system, a separate foundation of the institution and/or a management company contracted by the institution should report on the combined activities of those entities.

Option 1: Positive Sustainability Investment

Institution invests in one or more of the following:

- Sustainable industries (e.g. renewable energy or sustainable forestry). This may include any investment directly in an entire industry sector as well as holdings of companies whose entire business is sustainable (e.g. a manufacturer of wind turbines).
- Businesses selected for exemplary sustainability performance (e.g. using criteria specified in a sustainable investment policy). This includes investments made, at least in in part, because of a company's social or environmental performance. Existing stock in a company that happens to have socially or environmentally responsible practices should not be included unless the investment decision was based, at least in part, on the company's sustainability performance.
- Sustainability investment funds (e.g. a renewable energy or impact investment fund). This may include any fund with a mission of investing in a sustainable sector or industry (or multiple sectors), as well as any fund that is focused on purchasing bonds with sustainable goals.
- Community development financial institutions (CDFI) or the equivalent (including funds that invest primarily in CDFIs or the equivalent).
- Socially responsible mutual funds with positive screens (or the equivalent). Investment in a socially responsible fund with only negative screens (i.e. one that excludes egregious offenders or certain industries, such as tobacco or weapons manufacturing) does not count for Option 1.
- Green revolving loan funds that are funded from the endowment

Option 2: Investor Engagement

Institution has policies and/or practices that meet one or more of the following criteria:

- Has a publicly available sustainable investment policy (e.g. to consider the social and/or environmental impacts of investment decisions in addition to financial considerations)
- Uses its sustainable investment policy to select and guide investment managers
- Has engaged in proxy voting to promote sustainability, either by its CIR or other committee or through the use of guidelines, during the previous three years
- Has filed or co-filed one or more shareholder resolutions that address sustainability or submitted one or more letters about social or environmental responsibility to a company in which it holds investments, during the previous three years
- Has a publicly available investment policy with negative screens, for example to prohibit investment in an industry (e.g. tobacco or weapons manufacturing) or participate in a divestment effort (e.g. targeting fossil fuel production or human rights violations)

collaborations to share best practices  nis credit was marked as <b>Not Pursuing</b> so Reporting Fields will not be displayed.					
s credit was marked as	Not Pursuing so R	eporting Fields v	vill not be display	ed.	

0.00 / 1.00

#### Criteria

Institution makes a snapshot of its investment holdings available to the public, including the amount invested in each fund and/or company and proxy voting records. The snapshot of holdings is updated at least once per year.

Institutions for which investments are handled by the university system, a separate foundation of the institution and/or a management company contracted by the institution should report on the combined activities of those entities.

This credit was marked as **Not Pursuing** so Reporting Fields will not be displayed.

## **Innovation**

### **Innovation**

Points Claimed 3.00

Points Available 4.00

These credits recognize institutions that are seeking innovative solutions to sustainability challenges and demonstrating sustainability leadership in ways that are not otherwise captured by STARS.

Credit	Points
Innovation 1	1.00 / 1.00
Innovation 2	0.00 / 1.00
Innovation 3	1.00 / 1.00
Innovation 4	1.00 / 1.00

#### **Philip Mansfield**

1.00 / 1.00

Sustainability Manager
Facilities Management and Planning

#### Criteria

- Innovation credits are reserved for new, extraordinary, unique, ground-breaking, or uncommon outcomes, policies, and practices that greatly exceed the highest criterion of an existing STARS credit or are not covered by an existing STARS credit.
- 2. In general, innovation credits should have roughly similar impacts or be on the same scale as other STARS credits.
- 3. Outcomes, policies, and practices that are innovative for the institution's region or institution type are eligible for innovation credits.
- 4. The innovative practice, policy, program, or outcome must have occurred within the three years prior to the anticipated date of submission.
- 5. The innovative practice or program has to be something that the institution has already done; planned activities do not count.
- 6. The innovative practice or program should originate from an area within the defined institutional boundary.
- 7. An institution can only claim a particular activity as an innovation credit once. When re-submitting for a STARS rating, an innovation credit that the institution submitted previously cannot be re-submitted. An institution that has made significant advancements to a project or program that was previously submitted as an innovation may resubmit based on those advancements if the project or program is still considered innovative.
- 8. Practices, policies, and programs that were once considered innovative but are now widely adopted (e.g. being the first institution to enact a policy 20 years ago that is now common) may not be claimed as innovation credits.
- 9. Multiple activities or practices whose sum is innovative can be considered for an innovation credit as long as those activities or practices are related. For example, three innovative waste reduction programs in research laboratories could be listed together under a single innovation credit for Greening Laboratories. Listing a series of unrelated accomplishments or events under a single innovation credit is not accepted.
- 10. While the practices that led to receiving an award may be appropriate for an innovation credit, winning awards and/or high sustainability rankings in other assessments is not, in and of itself, grounds for an innovation credit. When the innovation is part of a partnership, the summary provided must clearly describe the institution's role in the innovation.

To help ensure that the policy, practice, program, or outcome that the institution is claiming for an innovation credit is truly innovative, institutions must submit a letter of affirmation from an individual with relevant expertise in the associated content area. The letter should affirm how the innovation meets the criteria outlined above.

For example, if an institution claims an innovation credit for water use reduction, the institution might solicit a letter from a hydrologist or a water expert from another campus or organization to verify that the strategy is innovative. An innovation may be affirmed internally by campus personnel who are independent of the policy, practice, program, or outcome. Please note that it is not required that the individual be employed in the higher education sector to submit a letter of verification.

The letter should be specific to a single innovation credit. If an institution is claiming three innovation credits, it would solicit and submit three separate letters, with each letter speaking to the specific innovation credit it addresses.

#### Title or keywords related to the innovative policy, practice, program, or outcome:

Green Revolving Fund

#### A brief description of the innovative policy, practice, program, or outcome :

Carleton University has established a \$1 million revolving fund to allow for investment in sustainability-related projects. The main criteria for accepting projects will be to undertake those with positive environmental impacts and strong financial plans, as well as the student experience, innovation, risk reduction, demonstration of social and/or community responsibility

## A brief description of any positive measurable outcomes associated with the innovation (if not reported above):

The first ideas that were submitted and selected to be funded dealt with energy consumption. These projects were a power harmonizer and smart building technologies to reduce energy consumption and the introduction of an electric maintenance vehicle to campus to highlight the commitment to sustainability.

#### A letter of affirmation from an individual with relevant expertise:

STARS\_GreenFund.pdf

## Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of 5):

	Yes or No
Curriculum	No
Research	Yes
Campus Engagement	Yes
Public Engagement	No
Air & Climate	No
Buildings	Yes
Dining Services	No
Energy	Yes
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Grounds	
Purchasing	
Transportation	
Waste	
Water	
Coordination, Planning & Governance	
Diversity & Affordability	
Health, Wellbeing & Work	
Investment	Yes

Other topic(s) that the innovation relates to that are not listed above:

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The website URL where information about the innovation is available :

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#### Score

#### **Responsible Party**

#### **Philip Mansfield**

0.00 / 1.00

Sustainability Manager
Facilities Management and Planning

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**Philip Mansfield** 

1.00 / 1.00

Sustainability Manager
Facilities Management and Planning

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#### Title or keywords related to the innovative policy, practice, program, or outcome:

Residence Building conservation competition

#### A brief description of the innovative policy, practice, program, or outcome:

Carleton's Housing and Residence Life Department is engaging annually with all campus residents towards energy and water savings. As part of this wider program residence has installed live energy data dashboards into both the main reception space and the foyer of all resident buildings. These provide live energy data, links to other sustainability programs, top tips, water use and waste diversion numbers.

In addition

## A brief description of any positive measurable outcomes associated with the innovation (if not reported above):

The initiative has seen a number of positive programs developed and implemented on campus. Engaging with residents has been a priority and a residence environment committee oversee a annual competition between residences during a specific 2 week period on campus. This resulted in a reduction of 7% in energy use above a baseline of the previous year (2015). In addition a set of programs has been developed to support the competition period including themed events (dine in the dark) and coffee hours.

The data including within the dashboards has also been made available for students to support course work and provide key indicators for overall energy reduction and programs on campus.

#### A letter of affirmation from an individual with relevant expertise:

STARS\_EnergyDisplay.pdf

# Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of five):

	Yes or No
Curriculum	
Research	
Campus Engagement	Yes
Public Engagement	Yes
Air & Climate	

Buildings	
Dining Services	
Energy	Yes
Grounds	
Purchasing	
Transportation	
Waste	
Water	
Coordination, Planning & Governance	
Diversity & Affordability	
Health, Wellbeing & Work	
Investment	

Other topic(s) that the innovation relates to that are not listed above:

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The website URL where information about the innovation is available:

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#### **Philip Mansfield**

1.00 / 1.00

Sustainability Manager
Facilities Management and Planning

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#### Title or keywords related to the innovative policy, practice, program, or outcome:

Living laboratory within the university setting.

#### A brief description of the innovative policy, practice, program, or outcome:

The Canal Building, one of Carleton University's newest academic buildings, is being actively used as a living laboratory for which controls and operational strategies are being continually developed and tested.

## A brief description of any positive measurable outcomes associated with the innovation (if not reported above):

The Human Building Interaction Lab at Carleton is engaged in three main research and development projects as follows.

1) Adaptive/learning controls: Controls are being developed that learn occupant habits and preferences for comfort and the thermal properties of offices using a sparse set of standard sensors and actuators. For example, in one application the new control algorithm learns when an individual occupant is likely to arrive and depart on a given day of the week. Meanwhile, the controls are also learning how long a specific room takes to heat up from nighttime setback to daytime setpoint based not only on envelope properties but also heating system capacity and room contents (e.g., thermally massive components like furniture and books). Combining knowledge of occupants habits and room characteristics, the heating and cooling setpoints can be optimized for energy savings and comfort. This project is funded by Delta Controls, Regulvar, and NSERC.

- 2) Data visualization, diagnostics, and BIM: The Canal Building's automation system yields vast amounts of data (e.g., room temperatures, light states, heating and cooling energy use, etc.) that largely go unexploited. This project involves presenting performance data in engaging and revealing ways to identify opportunities for improvement to building operations. Sample projects include using building information modelling (BIM) and building performance simulation to assess different building-scale control strategies, data mining operations data for fault diagnosis, and visualizing energy flows from the point where is enters campus to the point it leaves the building. This project is funded by Autodesk and NSERC.
- 3) Occupant behaviour observational studies: Occupant behaviours is normally treated very coarsely and simplistically in existing predictive building simulation in design practice. But there's a wealth of information that can be obtained by monitoring various aspects of occupant behaviour (e.g., light switching, office equipment energy use, blind movement) that can be incorporated into the design process of new buildings. Using observed events of many occupants from raw building controls data over months or years, statistical models are being developed and implemented into advanced building simulation tools for use by the simulation community. These models can help improve predictive accuracy and inform designers of building design strategies that are more comfortable. This project is funded by NSERC and Natural Resources Canada.

In closing, the Canal Building has proven to be a valuable hands-on training opportunity for students and a powerful facility for testing novel control algorithms. Once the research is more developed, it will be extended to other Carleton buildings and even off-campus.

#### A letter of affirmation from an individual with relevant expertise:

STARS\_LivingLab.pdf

Which of the following STARS subcategories does the innovation most closely relate to? (Select all that apply up to a maximum of five):

	Yes or No
Curriculum	Yes
Research	Yes
Campus Engagement	Yes
Public Engagement	No
Air & Climate	No
Buildings	Yes
Dining Services	No
Energy	Yes
Grounds	No
Purchasing	No
Transportation	No
Waste	No
Water	No
Coordination, Planning & Governance	No
Diversity & Affordability	No
Health, Wellbeing & Work	No
Investment	No

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The website URL where information about the innovation is available:

http://carleton.ca/hbilab/