CARLETON'S SUSTAINABILITY INITIATIVE

SUSTAINABILITY MAP OF CAMPUS

PROJECT REPORT 11/16/05

Team Members:
Karina Hill
Elizabeth Van Buren

Introduction

When given the opportunity to undertake an environmental activism project in Professor Everett's Environmental Ethic's class, we jumped at the notion of being able to contribute to Carleton's future sustainability. We felt drawn to the idea of creating a campus sustainability map, which would help to educate and inspire further action toward making the campus more sustainable. We see a sustainability map as an opportunity to reach those who are disconnected from the sustainability movement, rather than a project or event that runs the risk of preaching to the choir. As we brainstormed about avenues for displaying the map, we became even more excited about this project's ability to raise campus awareness regarding sustainability and how easily it can be incorporated into campus life.

Our project focuses on consolidating all of the sustainability initiatives on campus and inspiring further activities. In order to fulfill this, we have created a map to be displayed in buildings, distributed to tour guides, and to be featured in Carleton's developing Sustainability website. In addition to this, we have arranged for a photo essay to be on exhibit in the library that highlights Carleton's sustainability initiatives. Finally, we are working on the logistics of creating physical markers to be displayed at each of the sustainability sites on campus.

Procedure

We began our project by writing a proposal. The proposal outlined our project and its goals as well as the process we would take and resources we would use. This served to focus our goals and prepare us for the steps we would have to take throughout our process to achieve our goals.

First, we determined who might know about sustainable initiatives on Carleton's campus. To compile a thorough list of sustainable initiatives that encompasses as many areas of campus as possible, we tried to talk to people involved in different areas of the college. We met with Richard Strong, Director of Facilities, Management, and Planning, and Phil Camill, Associate Professor of Biology. They helped us create a list of items for the map, and also directed us to other relevant people. Joe Winegardner, General Manager Dining Services, helped us with Dining Services' initiatives. Dennis Easley, Superintendent of Grounds, explained what sustainable measures they are taking. We also contacted Kirk Campbell, Director of Maintenance and Custodial Services, to learn about Custodial Services' non-toxic chemicals.

After compiling a thorough list of items to highlight on the map, we began our final product. Because the leaves were falling fast, we began taking photos of each initiative as early on as we possibly could. To correct the photos we used Photoshop, but we had to return to some sites to take more photos.

We had some initial difficulty procuring an appropriate map on which to super-impose our items, but we eventually got the map featured on the back of the Lagniappe from Teresa Scalzo, Director of Publications. We also discussed with Mathias Bell where the map should be placed on the Sustainability website that his group has created.

We also created a sustainability symbol (see appendices) to identify future sustainable initiatives on campus, and talked with Dennis Easley again about physically labeling each item/site and what sustainable and durable material we might use.

We thought the best way to disseminate the sustainability map information to prospective students would be to have the information included in tours. Scott Konzem, Tour Czar, has agreed to work with us on adding some of the initiatives to the tour-guiding booklet, distributed to all tour guides.

The library curator, Margaret Pezalla-Granlund, told us we could use the back inside wall of the Rookery for our photo essay exhibit, and helped us determine the layout of it. She will also assemble our photos, matting, and frames, and hang them for us over winter break.

In designing the map, we wrote up short descriptions of each item/site, and for some we included a web-link for further information. We had to do some research to write the descriptions, find information on different items, and ask our contacts more specific questions. We also went to other college websites, looking for ideas for creating our sustainable map, but found none.

Finally, we pulled together all of our resources to produce our final products. The map will be on the sustainability website. A slightly altered version has been prepared for prospective students and tour guidelines and will be given to the Admissions Office. Margaret Pezalla-Granlund will hang our photo exhibit over winter break. Over winter-term we will obtain permission to hang large versions of the map in a few buildings around campus. And finally, so as to avoid obstruction by snowfall, we will construct and

place sustainable and durable markers at their respective locations around campus in the Spring.

Findings and Lessons

As predicted, we were overwhelmed by all the amazing things that individuals, academic departments, campus offices, and student groups had *already* done to contribute to Carleton's sustainability. Those we spoke with were incredibly helpful and enthusiastic in helping us with our research. The nature of this project is such that it is completely non-controversial. It provides a service to the college by creating a new publication, of sorts, which highlights all the positive steps the school has already taken. Because of the scope of the project, one can see how it would incite cooperation based on a positive attitude toward what the college has already accomplished.

As we met with people from different groups within the college, we were struck by how the issue of sustainability was something that they had not only just been thinking about, but had already taken action. For example, Phil Camill, biology professor, informed us that the biology department had already converted to using 100% recycled paper. Dennis Easley, Superintendent of Grounds, told us about Carleton's "bone yard" where they store arb-waste, like clippings and fallen trees, for composting and for student art materials. These type of findings show that the Carleton community is working toward sustainability in a grassroots effort, and that they are welcome to the idea of implementing additional sustainable features to the campus. It would seem that if sustainability could become a cohesive campus policy, rather than relying on voluntary commitments, Carleton could become a college leader in sustainability. Such policies

will give the already willing and active Carleton community the authority and the funds to take on more sustainability projects.

What is absolutely necessary to the success of this project is that it finds a care-taker after we graduate. While the process of updating the map and markers is rather simple and straightforward, it can only happen if someone is willing to keep up-to-date with additional sustainability projects on campus and add them to the map as well as add a marker to the sustainable locations. This would best be done through the creation of a Sustainability Coordinator who could devote the time to updating the map.

Recommendations

We see the end of this project being the point in which there are sustainability markers saturating the campus and there is no longer room on the map for sustainable additions. At this point, we feel confident that we will have reached our audience in pointing out how easily sustainability can fit into a campus and thus inspired more groups to take additional steps, leading to further campus sustainability. At the rate Carleton is going this will occur inevitably, however our project will contribute to this occurring at a faster rate. Once we have completed the map and designed our markers, in order for to our project to succeed, several things must be achieved.

Our first short-term goal is to hang our poster version of the sustainability map in key locations such as Sayles, Hulings, as well as the Burton Dormitory lobby. To accomplish this, we will contact Becca Campbell, Administrative Assistant in Campus Activities, in order to get permission for creating more permanent displays on the Carleton Campus. We will hang the poster maps during winter term, in conjunction with the library photo exhibit, for greater effect.

A short-term goal is to get our campus sustainability map included in tours for prospective students. Although we do not expect that a Carleton's sustainable measures will replace the traditional campus tour, we hope that a few of the sustainable landmarks could be included, as to better illustrate Carleton's values and hopes to become sustainable. Thanks to Scott Konzem, this additional information will be included in the next version of the tour-guiding booklet.

By this spring, we will have developed a sustainability marker, emblazoned with the Carleton Sustainability symbol, which we have already designed. We will position these markers in order to highlight Carleton's sustainability initiatives to passers-by. In terms of developing the physical marker, we will only be limited by funds. We will try to allocate a small amount of money, possibly funded by the Environmental Studies Department, to purchase a sustainable material for the construction of the markers.

As part of future sustainability at Carleton, we highly encourage the college to consider hiring a Sustainability Coordinator. The Sustainability Coordinator would be crucial to a cohesive and collaborative movement toward sustainability. He or she would easily be able to continue the task of updating the map we have created, as well placing markers on campus to correspond with the map. Additionally, he or she could work with Teresa Scalzo to create an admissions brochure that would highlight the schools sustainability efforts (printed on recycled paper, of course)! We have discussed the possibility of this publication with Teresa and she is open to this endeavor.

Appendices

CARLETON'S SUSTAINABILITY INITIATIVE
SUSTAINABILITY MAP OF CAMPUS
PROPOSAL
11/6/05

Team Members:

Karina Hill
Elizabeth Van Buren

Vision Statement:

Carleton will become a sustainable campus through cultural and environmental education and awareness. Our goal is to improve the lives of students, faculty, staff and the greater community and to make sustainability part of the living culture and values of society.

Goals:

Our overall goal is to show the wide variety of things that can constitute "sustainability," move sustainability forward, and inspire people to do more. We will create a map highlighting these initiatives, and establish permanent or temporary markers at each site we have listed on the map. The map will be posted on the Carleton website, used as educational information for tour guides, and hung in various buildings. We will then display a photo exhibit in the library to further explain these examples and publicize the existence of the map.

Our long-term goal for this project is to keep the map up-to-date and to keep awareness of these initiatives high. To do so, we strongly support the creation of a Sustainability Coordinator position at Carleton. This person, among many jobs, would be capable of up-dating the map as other initiatives arise. As it is, the Environmental Studies Intern is overwhelmed not only with jobs concerning the Concentration, but also

with the rising interest in sustainability and environmentalism at Carleton. Hiring someone to specifically address the latter will increase our capabilities to achieve greater sustainability which is already an expressed goal of the college.

The information presented by the map must also infiltrate the literature and tours given to perspective students. We can formally present the map to the Admissions Office, but we will need the help of the Tour Czar to incorporate these sites into tours. Our goal is that the Czar will include these sites in the "How To Give a Tour" booklet distributed to tour guides at the beginning of each term.

Process:

1. What are sustainable/green places of interest on campus? We will talk with Phil Camill, Richard Strong, and Chris Petit about various places we can list on our map, and who else we might speak with.

2. How can we best call attention to these places? We will need to discuss putting up markers (whether temporary or permanent) with Dennis Easley. What kind of sustainable, durable material should we use? How should they be designed? Can we design a sustainability symbol to connect all the markers with the map and photo essay? Perhaps this symbol can become a Carleton-wide symbol for its sustainability initiatives.

3. We will ask the library curator, Margaret Pezalla-Granlund, about putting our display up in the library. With Margaret's help, we will design the exhibit and decide when it will be on display.

4. We will talk to the Admissions Office and the Tour Czar about integrating sustainability initiatives into the Prospective Student literature and the tour information.

5. We will take photos of the sites, items and projects we have identified and begin preparing them for the map and for the photo exhibit. (Cropping, printing, matting, and assembling etc.)

6. How will we make/design our map? We will contact Publications and select a Campus map appropriate to the sites. We will then use Adobe Photoshop to add the sites to the map and design a key which will explain the significance of each site.

7. We will design and tailor the map to accommodate its varied potential uses: a website map, a paper map to be displayed in buildings and as part of the library exhibit, and an informational tool for tour guides and prospective students. We will contact the group designing Carleton's sustainability website to figure out where the web version of the map will go.

8. We will deliver our photo essay components to the library. We will post the map on the website. The Admissions Office will receive material for tour guides and prospective students. We will set up the markers around campus (This will probably be a job for Spring Term, since the snow will obscure the markers from view if we put them out Winter Term.)

9. We will write up our project paper, and prepare a presentation for the class, using photos we took for the library exhibit in a PowerPoint, and showing the final products.

<u>Ethical Questions:</u>

- Is it good to be emphasizing these initiatives so positively when the fact is we still have a very long way to go?
- Is it ethical to do such things that might cost more money and be driving tuition fees up for students?

- Where does Carleton's (the institution) responsibility lie regarding teaching and influencing generations of civically engaged citizens?
- How do we prioritize certain sustainability efforts over others in situations where they conflict?
- Can you be ethical and not sustainable?
- Is it ethical to capitalize on sustainability? (Use it as a selling point)
- How does sustainability rank against other important issues?

Resources:

- http://apps.carleton.edu/campus/arb/ This is the official Arboretum website.
- http://apps.carleton.edu/campus/facilities/sustainability/sustain/ This site describes some of Carleton's sustainable initiatives.
- http://greenmap.org/ This site gives instructions on how to make a "green" map of one's hometown.

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Campus Activities
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RESOURCES FOR CREATING DESCRIPTIONS

Arboretum Prairie
http://apps.carleton.edu/campus/arb/

Bald Spot as Green space
http://www.mcjags.com/rog/greenspaces.html
http://apps.carleton.edu/admissions/character/traditions/

Compost Bins
www.composters.com/docs/bins_p3.html#hc

Cork Flooring
http://www.buildinggreen.com/auth/article.cfm?fileName=050110a.xml

Corn Gluten
http://thelawnclinic.com/xcart/customer/product.php?productid=31&cat=7
www.al-corn.com

Fair Trade Organic Coffee
http://www.greenmountaincoffee.com/navCategory.aspx?DeptName=OurCoffees&Name=FairTradeOrganic

Green Map
http://greenmap.org/

Green Roof
http://people.carleton.edu/~lordj/Olinroof.htm

Hardi Board
http://www.jameshardie.com/

Light Shelves and Photo Sensitive Light System
http://www.greenbiz.com/toolbox/howto_third.cfm?LinkAdvID=23607

Midwest Food Alliance
http://apps.carleton.edu/campus/dining_services/localgrowers/
http://www.foodalliance.org

Native Landscaping
http://ohioline.osu.edu/w-fact/0013.html
http://apps.carleton.edu/campus/arb/

Paper
http://apps.carleton.edu/campus/facilities/sustainability/sustain/

Recycled Carpeting
http://www.interfaceflooring.com/sustain/ReEntry.pdf

Recycled Paints
www.moea.state.mn.us/lc/purchasing/latexpaint.cfm

Straw bale
http://www.ironstraw.org/benefits.htm
www.apps.carleton.edu/campus/facilities/sustainability/environemntal_house.

Sustainable Linoleum
http://www.greenresourcecenter.org/MaterialSheetsWord/NaturalLinoleum.pdf

Wind Turbine
http://apps.carleton.edu/campus/facilities/sustainability/Green_Power_Wind_Turbine/

DESCRIPTIONS OF SUSTAINABILITY INITIATIVES FOR MAP

1.

Composting Bins:

Composting is nature's way of disposing of trash. Carleton provides twelve composting bins for its campus houses. Composting helps reduce the amount of waste sent to local landfills and provides the campus with its own source of fertilizer**.** For more information from Carleton's compost bin provider, visit:
www.composters.com/docs/bins_p3.html#hc

Native Landscaping:

Carleton has various plots on campus that use native landscaping which work toward making the land closer to the way nature intended. Native Landscaping helps increase biodiversity, prevent erosion, reduce the need for additive chemicals, and reduce the amount of time spent on maintenance of landscaping. For information on native plantings, visit: http://apps.carleton.edu/campus/arb/

Sustainable Linoleum:

Rather than using vinyl tiling, Carleton has installed linoleum flooring. This linoleum is made from various mixtures of natural materials, and is bio-degradable. For further information on linoleum, visit:
http://www.greenresourcecenter.org/MaterialSheetsWord/NaturalLinoleum.pdf

Exterior Siding of Townhouses:

The exterior of each townhouse is constructed with Hardi Board. Hardi Board, a mix of fiber and cement, is often used in Green Design and provides a durable, long lasting siding option. For more information on Carleton's Hardi-Board supplier, visit:
http://www.jameshardie.com/

2.

Drainage Pond:

This drainage pond collects storm water run-off from the road and townhouse area on the slope above it and helps to filter the water before it disperses into the Cannon River.

3.

Custodial Chemicals:

The Maintenance and Custodial Services Office uses a variety of safe and non-toxic chemicals for cleaning and maintenance of the college

4.

Recycled Paints:

Secondhand, re-mixed paints are used in residential housing. Recycled paints create a new market for former waste, and can be up to fifty percent less expensive than new paints, while still performing at the same level. For more on recycled paint information visit: www.moea.state.mn.us/lc/purchasing/latexpaint.cfm

5.

Midwest Food Alliance:

Sodexho Food Services currently partners with two local food growers who have been endorsed by the Midwest Food Alliance. The Midwest Food Alliance's members use environmentally and socially responsible farming techniques. Besides the positive benefits of using responsible farming techniques, buying from local growers also helps to support the local economy as well as decrease pollution caused by shipping.
For more information on where Carleton gets its food, visit:
www.foodalliance.org/midwest

Organic Salad Fixings in Dining Halls:

Many of the fixings at the salad bar come from an organic farm in California, including baby spinach, mixed greens, and other vegetables.

6.

Recycled Material in Severance Hall Renovation:

The renovations in Sevy incorporated reusable parts of the original building into the new design. Recycling building materials in reconstruction is a fundamental method to cut down on consumption and waste.

Recycled Paints:

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Sustainable Linoleum:

Rather than use vinyl tiling, Carleton has installed linoleum flooring. This linoleum is made from various mixtures of natural materials, and is bio-degradable. For further information on linoleum, visit:
http://www.greenresourcecenter.org/MaterialSheetsWord/NaturalLinoleum.pdf

Faculty Lounge Cork Floor:

The flooring in the Faculty Lounge is made from cork oak tree bark. Because they regenerate their bark, cork oak trees do not have to be cut down for their cork and can provide a sustainable alternative that is quite common in Green Design. For further information on cork flooring, visit:
http://www.buildinggreen.com/auth/article.cfm?fileName=050110a.xml

7.
Recycling Bins:
Carleton recycles mixed-use office paper as well as commingled cans and glass bottles. Recycling bins are located in multiple locations in every building on campus.

Fair Trade Organic Coffee:
Carleton provides Fair Trade Organic Coffee in the Snack Bar. By providing this coffee over conventional coffee, they are supporting coffee that is made under fair, safe, and healthy conditions and providing these coffee-growers with a sustainable form of income. For more information on Carleton's Fair Trade Coffee provider, visit: http://www.greenmountaincoffee.com/navCategory.aspx?DeptName=OurCoffees&Name=FairTradeOrganic

8.
Lighting and Energy Improvements:
Carleton Facilities provides the campus with T-8 lighting, a super energy efficient form of lighting that decreases energy use.

9.
Paper:
Currently the Bio-Department uses all 100% recycled paper. The rest of campus uses 60% recycled paper. For more on Carleton's paper use, visit: http://apps.carleton.edu/campus/facilities/sustainability/sustain/

10.
Corn Gluten Fertilizer:
Carleton uses Corn Gluten Fertilizer on all of its turf areas. Corn gluten, a bi-product of corn, is a great source of nitrogen for lawns, and also acts as an effective weed control product. It is a safe product for mature plants, animals and people. Carleton uses corn gluten from an ethanol plant in Claremont, MN. For more information on corn-gluten from Carleton's provider, visit www.al-corn.com

11.
Lower Arb Parking Lot:
Located adjacent to the Cannon River, this parking lot features a vegetated swale on the perimeter to help clean storm water run-off. The water then passes into a second swale, and finally, after this two step process, drains into the Cannon River.

12.
Ox Bow Drainage Pond in the Arboretum:
This man-made lake has been a very successful drainage unit as many native species have rooted themselves in and around its perimeter. It serves as a holding pond for storm water run-off from the paved Rec center parking lots on the hill above before the water enters the Cannon River system.

13.
Arb Prairies:
Since European settlement, almost all of the native prairie has been lost. Carleton has been slowly restoring prairie to the Arboretum, beginning with Hillside Prairie in 1978. While not in the Arb, Carleton owns McKnight Prairie a few miles away which is the most intact remnant of native prairie we have and has been useful in the prairie restoration efforts within the Arb. To learn more go to the Carleton Arboretum website: http://apps.carleton.edu/campus/arb/

14.
Wind Turbine:
The energy provided by Carleton's wind turbine goes directly into the local Xcel energy power grid, increasing the amount of green power available for use. It helps to decrease our dependency on fossil fuels, and also will prove to be cost-effective. For more information on Carleton's wind turbine, visit http://apps.carleton.edu/campus/facilities/sustainability/Green_Power_Wind_Turbine/

15.
Bald Spot:
The Bald Spot can be considered a designated green space on campus. Although there is not formal commitment to preserving the Bald Spot as green space, the campus's attachment to it is such that it will inevitably remain a grassy space surrounded by trees. Green spaces filter pollution, prevent erosion, cool ambient air, and ultimately act as a carbon sink, which help to combat global warming. For information on Carleton's Bald Spot, visit: http://apps.carleton.edu/admissions/character/traditions/

16.
Paper:
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17.
Green Roof:
Located on a part of Olin's roof, Carleton's green roof was installed in the spring of 2005. Green roofs, by cooling their surroundings during the summer, and providing some insulation during the winter, help to reduce energy expenditures. Green roofs reduce water runoff, and wear and tear on a roof. They also add a natural, green aesthetic. For more information on Carleton's green roof, visit: http://people.carleton.edu/~lordj/Olinroof.htm

18.
Sustainable Linoleum:

Rather than use vinyl tiling, Carleton has installed linoleum flooring. This linoleum is made from various mixtures of natural materials, and is bio-degradable. For further information on linoleum, visit:
http://www.greenresourcecenter.org/MaterialSheetsWord/NaturalLinoleum.pdf

Recycled Carpeting, Particularly prominent in the Language and Dining Center:
These carpets are derived primarily from post-consumer plastic soft drink bottles and provide a sustainable alternative to non-recycled carpet. For further information on Carleton's Carpet, visit: http://www.interfaceflooring.com/sustain/ReEntry.pdf

Light Shelves:
This passive architectural mechanism allows natural light to permeate deep inside a building, thus cutting down on the amount of electrical light used inside. For more information on light shelves:
http://www.greenbiz.com/toolbox/howto_third.cfm?LinkAdvID=23607

Photo Sensitive Light System:
This lighting system automatically reduces the amount of electric light used in a room when more natural light is available. For more information on photo-sensitive light systems, visit:
http://www.greenbiz.com/toolbox/howto_third.cfm?LinkAdvID=23607

Midwest Food Alliance:
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Organic Salad Fixings in Dining Halls:
Many of the fixings at the salad bar come from an organic farm in California, including baby spinach, mixed greens, and other vegetables.

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Sustainable Linoleum:
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20.
Native Landscaping:

Carleton has various plots on campus that use native landscaping which work toward making the land closer to the way nature intended. Native Landscaping helps increase biodiversity, prevent erosion, reduce the need for additive chemicals, and reduce the amount of time spent on maintenance of landscaping. For information on native plantings, visit: http://apps.carleton.edu/campus/arb/

21.
Gardens at Farmhouse:
The eleven residents of Farmhouse, as well as volunteers, help maintain an organic garden which supplies those residents with much of their produce needs. They also often hold potlucks, where they invite community members and students to enjoy delicious organic and sustainable foods.

22.
Straw bale Warehouse:
Straw bale construction provides better insulation to help reduce heating and cooling costs. Straw is a non-toxic, renewable resource that helps to preserve forests by reducing lumber needs. Straw, as a by-product from grains, can provide additional income to farmers. For more information on Carleton's Straw bale warehouse visit www.apps.carleton.edu/campus/facilities/sustainability/environemntal_house.

23.
Facilities Compost Pile:
Near the Bone Yard, facilities maintains a compost pile for Arb waste. This Arb waste is composted and used by farmhouse residents on the organic garden and is sometimes used as fertilizer on other parts of the campus.

24.
Arb Office Parking Lot:
This parking lot is a pervious surface, using metal cylinders and gravel to allow storm water to soak into the ground and not run off down the hillside.

25.
Bone Yard:
The "Bone Yard" is what facilities calls the storage area across from Farm House. This storage space holds the dumpsters for Carleton's recyclables, like old furniture and left-over building material for repairs. Also, it contains fallen trees from the Arb, which are cut and used by art students in the studios.

26.
Composting Bins:
Composting is nature's way of disposing of trash. Carleton provides twelve composting bins for its campus houses. Composting helps reduce the amount of waste sent to local landfills and provides the campus with its own source of fertilizer**.** For more information from Carleton's compost bin provider, visit:
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28.
Myers Parking Lot:
This vegetated swale helps to clean storm water run-off from the parking lot. It is planted with Big Bluestem, a native prairie grass, which has dense roots to filter the storm water, and dramatic foliage to beautify the parking area and connect it to the surrounding native habitat.

29.
Arb Prairies:
Since European settlement, almost all of the native prairie has been lost. Carleton has been slowly restoring prairie to the Arboretum, beginning with Hillside Prairie in 1978. While not in the Arb, Carleton owns McKnight Prairie a few miles away which is the most intact remnant of native prairie we have and has been useful in the prairie restoration efforts within the Arb. To learn more go to the Carleton Arboretum website: http://apps.carleton.edu/campus/arb/

DESCRIPTIONS OF SUSTAINABILITY INITIATIVES FEATURED IN PHOTO EXHIBIT

Composting Bins, Dacie Moses House (1, 7, 26)
Composting is nature's way of disposing of trash. Carleton provides twelve composting bins for its campus houses. Composting helps reduce the amount of waste sent to local landfills and provides the campus with its own source of fertilizer**.**

Native Landscaping, Hillside by Goodsell (1, 20, 27)
Carleton has various plots on campus that use native landscaping which work toward making the land closer to the way nature intended. Native Landscaping helps increase biodiversity, prevent erosion, reduce the need for additive chemicals, and reduce the amount of time spent on maintenance of landscaping.

Townhouses (1)
The exterior of each townhouse is constructed with Hardi Board. Hardi Board, a mix of fiber and cement, is often used in Green Design and provides a durable, long lasting siding option. Rather than use vinyl tiling, Carleton has installed linoleum flooring in the townhouses. This linoleum is made from various mixtures of natural materials, and is biodegradable. The townhouses also use energy efficient lighting and appliances (see Lighting and Energy Improvements). Finally, the surrounding landscaping is about 80% native prairie plantings (see Native Landscaping).

Faculty Lounge Cork Floor, Severance Hall (6)
The flooring in the Faculty Lounge is made from cork oak tree bark. Because they regenerate their bark, cork oak trees do not have to be cut down for their cork and can provide a sustainable alternative that is quite common in Green Design.

Fair Trade Organic Coffee, Sayles-Hill Snack Bar (7)
Carleton provides Fair Trade Organic Coffee in the Snack Bar. By providing this coffee over conventional coffee, they are supporting coffee that is made under fair, safe, and healthy conditions and providing these coffee-growers with a sustainable form of income.

Recycling Bins: (7)
Carleton recycles mixed-use office paper as well as commingled cans and glass bottles. Recycling bins are located in multiple locations in every building on campus.

Lighting and Energy Improvements (8)
Carleton Facilities provides the campus with T-8 lighting, a super energy efficient form of lighting that decreases energy use.

Vegetated Swale, Lower Arb Parking Lot (11)

Located adjacent to the Cannon River, this parking lot features a vegetated swale on the perimeter to help clean storm water run-off. The water then passes into a second swale, and finally, after this two step process, drains into the Cannon River.

Ox Bow Drainage Pond, Carleton Arboretum (12)
This man-made lake has been a very successful drainage unit as many native species have rooted themselves in and around its perimeter. It serves as a holding pond for storm water run-off from the paved Rec center parking lots on the hill above, before the water enters the Cannon River system.

Wind Turbine (14)
The energy provided by Carleton's wind turbine goes directly into the local Xcel energy power grid, increasing the amount of green power available for use. It helps to decrease our dependency on fossil fuels, and also will prove to be cost-effective.

The Bald Spot (15)
The Bald Spot can be considered a designated green space on campus. Although there is not formal commitment to preserving the Bald Spot as green space, the campus's attachment to it is such that it will inevitably remain a grassy space surrounded by trees. Green spaces filter pollution, prevent erosion, cool ambient air, and ultimately act as a carbon sink, which help to combat global warming.

Green Roof, Olin Hall (17)
Located on a part of Olin's roof, Carleton's green roof was installed in the spring of 2005. Green roofs, by cooling their surroundings during the summer, and providing some insulation during the winter, help to reduce energy expenditures. Green roofs reduce water runoff, and wear and tear on a roof. They also add a natural, green aesthetic.

Recycled Carpeting, Language and Dining Center (18)
These carpets are derived primarily from post-consumer plastic soft drink bottles and provide a sustainable alternative to non-recycled carpet.

Straw bale Warehouse, Across from Farm House (22)
Straw bale construction provides better insulation to help reduce heating and cooling costs. Straw is a non-toxic, renewable resource that helps to preserve forests by reducing lumber needs. Straw, as a by-product from grains, can provide additional income to farmers.

Pervious Parking Lot, Arb Office (24)
This parking lot is a pervious surface, using metal cylinders and gravel to allow storm water to soak into the ground and not run off down the hillside.

Vegetated Swale, Myers Parking Lot (28)

This vegetated swale helps to clean storm water run-off from the parking lot. It is planted with Big Bluestem, a native prairie grass, which has dense roots to filter the storm water, and dramatic foliage to beautify the parking area and connect it to the surrounding native habitat.

Arboretum Prairies (13, 29)
Since European settlement, almost all of the native prairie has been lost. Carleton has been slowly restoring prairie to the Arboretum, beginning with Hillside Prairie in 1978. While not in the Arb, Carleton owns McKnight Prairie a few miles away which is the most intact remnant of native prairie we have and has been useful in the prairie restoration efforts within the Arb.

SUSTAINABLE TIDBITS FOR TOURGUIDES

CAMPUS INTEREST HOUSES

Composting Bins:

Composting is nature's way of disposing of trash. Carleton provides twelve composting bins for its campus houses. Composting helps reduce the amount of waste sent to local landfills and provides the campus with its own source of fertilizer**.** For more information from Carleton's compost bin provider, visit:
www.composters.com/docs/bins_p3.html#hc

Gardens at Farmhouse:

The eleven residents of Farmhouse, as well as volunteers, help maintain an organic garden which supplies those residents with much of their produce needs. They also often hold potlucks, where they invite community members and students to enjoy delicious organic and sustainable foods.

OUTSIDE PATHS: BETWEEN MYERS AND BELL FIELD, OR UP THE HILL BEHIND MUDD

Native Landscaping:

Carleton has various plots on campus that use native landscaping which work toward making the land closer to the way nature intended. Native Landscaping helps increase biodiversity, prevent erosion, reduce the need for additive chemicals, and reduce the amount of time spent on maintenance of landscaping. For information on native plantings, visit: http://apps.carleton.edu/campus/arb/

Myers Parking Lot:

This vegetated swale helps to clean storm water run-off from the parking lot. It is planted with Big Bluestem, a native prairie grass, which has dense roots to filter the storm water, and dramatic foliage to beautify the parking area and connect it to the surrounding native habitat.

DINING HALLS

Midwest Food Alliance:

Sodexho Food Services currently partners with two local food growers who have been endorsed by the Midwest Food Alliance. The Midwest Food Alliance's members use environmentally and socially responsible farming techniques. Besides the positive benefits of using responsible farming techniques, buying from local growers also helps to support the local economy as well as decrease pollution caused by shipping.
For more information on where Carleton gets its food, visit:
http://apps.carleton.edu/campus/dining_services/localgrowers/

Organic Salad Fixings in Dining Halls:

Many of the fixings at the salad bar come from an organic farm in California, including baby spinach, mixed greens, and other vegetables.

SAYLES-HILL, SNACK BAR

Fair Trade Organic Coffee:

Carleton provides Fair Trade Organic Coffee in the Snack Bar. By providing this coffee over conventional coffee, they are supporting coffee that is made under fair, safe, and healthy conditions and providing these coffee-growers with a sustainable form of income. For more information on Carleton's Fair Trade Coffee provider, visit: http://www.greenmountaincoffee.com/navCategory.aspx?DeptName=OurCoffees&Name=FairTradeOrganic

OUTDOOR TURF AREAS: BALD SPOT, BELL FIELD

Corn Gluten Fertilizer:

Carleton uses Corn Gluten Fertilizer on all of its turf areas. Corn gluten, a bi-product of corn, is a great source of nitrogen for lawns, and also acts as an effective weed control product. It is a safe product for mature plants, animals and people. Carleton uses corn gluten from an ethanol plant in Claremont, MN. For more information on corn-gluten from Carleton's provider, visit www.al-corn.com

OVERLOOKING BELL FIELD

Arb Prairies:

Since European settlement, almost all of the native prairie has been lost. Carleton has been slowly restoring prairie to the Arboretum, beginning with Hillside Prairie in 1978. While not in the Arb, Carleton owns McKnight Prairie a few miles away which is the most intact remnant of native prairie we have and has been useful in the prairie restoration efforts within the Arb. To learn more go to the Carleton Arboretum website: http://apps.carleton.edu/campus/arb/

Wind Turbine:

The energy provided by Carleton's wind turbine goes directly into the local Xcel energy power grid, increasing the amount of green power available for use. It helps to decrease our dependency on fossil fuels, and also will prove to be cost-effective. http://apps.carleton.edu/campus/facilities/sustainability/Green_Power_Wind_Turbine/

OLIN HALL

Green Roof:

Located on a part of Olin's roof, Carleton's green roof was installed in the spring of 2005. Green roofs, by cooling their surroundings during the summer, and providing some insulation during the winter, help to reduce energy expenditures. Green roofs reduce water runoff, and wear and tear on a roof. They also add a natural, green

aesthetic. For more information on Carleton's green roof, visit: http://people.carleton.edu/~lordj/Olinroof.htm

COOL THINGS OVER BY THE REC CENTER

Straw bale Warehouse:

Straw bale construction provides better insulation to help reduce heating and cooling costs. Straw is a non-toxic, renewable resource that helps to preserve forests by reducing lumber needs. Straw, as a by-product from grains, can provide additional income to farmers. For more information on Carleton's Straw bale warehouse visit www.apps.carleton.edu/campus/facilities/sustainability/environemntal_house.

Bone Yard:

The "Bone Yard" is what facilities calls the storage area across from Farm House. This storage space holds the dumpsters for Carleton's recyclables, like old furniture and leftover building material for repairs. Also, it contains fallen trees from the Arb, which are cut and used by art students in the studios.