Introduction

McMaster University is committed to developing a culture of sustainability through education, innovation, communication, community engagement and implementation. Seven areas of focus (AOF) are defined by McMaster’s Sustainability Policy: Education, Energy, Green Space, Health and Well-being, Transportation, Waste and Water. Each AOF has clearly defined objectives that guide the achievement of McMaster’s sustainability goals.

This report is intended to provide background information about sustainable procurement at McMaster University for all stakeholders. Vendors may use this report to help guide their responses about how they address each AOF, especially with respect to identifying sustainability certifications associated with their products and services. Internal personnel may use this report to evaluating these vendor responses. McMaster faculty students and staff, as well as members of the Hamilton community, will also have access to this report to learn more about how the sustainability of products and services are measured and certified.

General questions to consider before making any purchase
1. Have repairs, upgrading or refurbishing been considered as an alternative to purchasing new?
2. Can the product(s) be rented?
3. Does the supplier have sustainability goals for their own organization?
4. Is there a sustainability certification with, or ecolabel identifier on, the product or service?
Ecolabels

At the Rio Summit of 1992, labelling products with legitimate information regarding their sustainability, or “ecolabelling”, was identified as a method by which to increase product innovation and promote sustainable product consumption (Horne 2009). Ecolabels, visual identifiers that assist consumers in determining products that comply to a certain level of certification for sustainability, are becoming increasingly common (Horne 2009). Most ecolabels are all voluntary; however some are mandated in certain countries. For example, federal regulations in Canada require all new electrical appliances manufactured or imported into Canada to have an EnerGuide label. Certification processes for certain ecolabels vary, thus it is important to be informed when purchasing products that are labeled. In addition to visual identifiers on products, sustainability certifications may also be given to a vendor or a specific service (e.g. Ontario Electronic Stewardship, OES). Within this document, both ecolabels and sustainability certifications will be grouped under the term “ecolabel” for simplicity.

The following section highlights each of McMaster’s seven AOF for sustainability, and how they apply to procurement. Each section provides: (1) An overview of the specific AOF taken from McMaster’s Sustainability Policy; (2) Questions to consider before making a purchase; and (3) Related measures of sustainability (ecolabels). Appendix A contains a description of the most prevalent and legitimate ecolabels in Canada and the United States, according to best practices of other top universities in North America.

Areas of Focus

Education

The University acknowledges its role as an academic institution to provide students with the tools to be sustainably conscious citizens. The University also recognizes its role as a sustainable organization and is committed to promoting awareness and education, as well as engaging the University community in the collective responsibility to implement McMaster’s Sustainability Policy. To adhere to this principle, the University will pursue the following objectives:

- provide students, faculty, staff and administration with opportunities to increase their awareness and knowledge of sustainability;
- provide students with internships and volunteer opportunities in the areas of sustainable development;
- promote leadership roles among individuals from a variety of levels, providing support for sustainable initiatives;
- promote interdisciplinary education and research across faculties and departments;
• coordinate and cooperate with student groups, organizations, institutions, and surrounding communities pursuing sustainable programs and initiatives; and
• apply research/demonstration projects to campus initiatives as part of academic programs (e.g., Engineering).

Questions to consider
1. Have you taken the steps to be informed about the goods and services you are purchasing?
2. Have you communicated this information to others?
3. Does the vendor provide education about sustainability to its employees?

Applicable ecolabels
As ecolabels are designed to promote consumer awareness about the sustainability of products and services, each ecolabel described in this document promotes awareness and education. However, two ecolabels that provide an exceptional level of education are the Standards Council of Canada and EnerGuide. Standards Council of Canada promotes efficient and effective standardization and develops accepted practices, requirements and terminologies for systems and services in Canada. EnerGuide labels rate the performance and efficiency (annual energy consumption, efficiency relative to other products) of all new electrical appliances manufactured or imported into Canada.

Energy
The University is committed to reducing its energy consumption, implementing conservation programs, and promoting energy efficiency. To adhere to this goal, the University will pursue the following objectives:
• provide tools and information regarding best practices to promote energy conservation by the campus community; and
• implement energy conservation programs to engage staff, faculty and students to practice energy efficiency

Questions to consider
1. What is the efficiency of the product?
2. Does the product have any additional energy-saving features?
3. How does the vendor address energy conservation and efficiency with respect to the production of manufactured goods, delivery of services, and/or within their internal organization?

Applicable ecolabels
• ENERGY STAR
• EnerGuide
• EPEAT
Green Space

The University is committed to maintaining a high degree of vegetative surface while limiting the use of pesticides, harmful chemicals and the need for irrigation. To ensure the responsible management of the University landscape, the University will attempt to:

- plant species that are disease and pest resistant;
- use organic pest control methods and fertilizers; and
- experiment with alternative paving methods that will incorporate vegetation.

Questions to consider

1. Is the product or service going to have any impact on McMaster’s green space?
2. Is the product or service going to have any impact on the surrounding community’s green space?
3. Does the vendor take actions to minimize impacts to it’s green space, and that of surrounding communities?

Applicable ecolabels

- Phosphate-free

Health and Well-being

The University understands that its staff, faculty and students are integral components to maintaining University sustainability. To ensure a high level of investment into the University’s human resources, the University will pursue the following objectives:

- promote programs, groups and departments which support all areas of personal health and wellbeing; and
- recognize accomplishments and achievements of its staff, faculty and students.

Questions to consider

1. Have all aspects of the product or service been evaluated to ensure there are no potential negative impacts on the health and well-being of staff, students and faculty?
2. Are there any aspects of the product or service, including available alternatives, which could have positive impacts on the health and well-being of staff, students and faculty?
3. How does the vendor address health and well-being for their employees, surrounding communities and stakeholders they partner with?
Applicable ecolabels
- BPA-free
- Fair Trade Certified
- Green Seal
- Low VOC

Transportation

The University encourages sustainable modes of transportation and recognizes the need to balance the demands of pedestrians, cyclists and vehicles. To adhere to this goal, the University will pursue the following objectives:
- collaborate and coordinate with other community agencies and groups (e.g., Hamilton Street Railway, City of Hamilton and neighbouring communities) to encourage the use of sustainable modes of transportation;
- provide amenities to encourage the use of sustainable modes of transportation (e.g., bicycle lockers and racks, external emergency telephones and pedestrian-priority campus walkways);
- provide education to promote pedestrian and bicycle safety in and around the campus; and
- identify and implement sustainable alternatives to University-owned vehicles where appropriate.

Not only is it important to consider the sustainability of vehicles purchased for on-campus transportation, it is also important to consider transportation of purchased goods and services to and from McMaster.

Questions to consider
1. What method(s) will be used to deliver the goods and services?
2. How far must they travel?
3. How frequent are deliveries? Can they be made less frequently? Can orders be made in bulk?
4. What does the vendor do to lower vehicle emissions through operations, and by staff, clients and suppliers?

Applicable ecolabels
- Hybrid
- Flex fuel
- Electric
Waste

The University is committed to minimizing the amount of waste generated on campus. In order to adhere to this goal, the University will pursue the following objectives:

- plan and coordinate campus initiatives to reduce consumption;
- where possible, purchase reusable products and attempt to extend the lifecycle of goods where appropriate;
- ensure that products purchased at the University may be recycled by our waste management provider and ensure that recycling is widely available on campus; and
- develop and implement effective programs and practices that support the above objectives.

Questions to consider

1. Does the vendor have a take-back program?
2. Is the product made of recovered or recycled materials?
3. How is the product packaged?
4. How will the packaging be disposed of?
5. Will any waste be generated as by-products of the good or service?
6. How long will the product last?
7. How will the product be disposed of?
8. Are the packaging and product recyclable through McMaster’s recycling program? (See http://www.mcmaster.ca/sustainability/waste_recycle.html for further information)
9. What is the vendor doing to minimize waste?

Applicable ecolabels

- Cradle to cradle
- EPEAT
- Green Seal
- Ontario Electronic Stewardship (OES)
- Compostable
- Recyclable

Water

The University recognizes that fresh water is a non-renewable resource that needs to be conserved. The University will attempt to:

- reduce the quantity of water used and waste water produced;
- employ natural stormwater management procedures: ponds, porous paving, roof gardens and other mitigation;
• reduce landscape irrigation needs by planting native and drought-resistant species; and
• implement water recycling programs to use rainwater for landscape irrigation.

Questions to consider
1. Are the products and services aimed to reduce water consumption on campus?
2. Are there options for more water efficient products or services?
3. Will the purchase impact water quality at a local or regional scale?
4. Does the vendor do anything to decrease water use, and to improve outgoing water quality?

Applicable ecolabels
• WaterSense
Appendix A

BPA-free
- Several ecologo variations
- Bisphenol A is an organic compound that has been shown to cause negative impacts to health
- Logo commonly found on bottles and other plastic food containers
- Source: http://www.fda.gov/default.htm

Carbonfree Certified
- Affiliated with Carbonfund.org, an organization facilitating education, carbon offsets and reductions, and outreach
- Recognizes products whose production emissions have been entirely offset
- Demonstrates producer/vendor awareness about sustainability
- Source: http://www.carbonfund.org/

Compostable
- Several ecologo variations
- Identifies products capable of biological decomposition in a compost site, into by-products that include carbon dioxide, water, and other inorganic compounds
- Biodegradable and compostable are not synonymous
- Applies to items such as bags

Cradle to cradle
- Assesses product safety to humans and the environment and design for future life cycles
- Identifies products made of materials that can be disassembled, recycled or composted
- Products evaluated based on the following criteria categories: Material Heath, Material Reutilization, Renewable Energy Use, Water Stewardship, Social Responsibility
- Basic, Silver, Gold and Platinum levels of certification
- Source: http://www.c2ccertified.org/

EcoLogo
- Very well-known and respected third-party certification that applies to thousands of products
- Founded by the Government of Canada, now internationally recognized
- Endorses environmentally friendly products by considering environmental attributes and standards throughout the entire life cycle
- Source: http://www.ecologo.org/en/

Electric
- Several ecologo variations
- Identifies vehicles powered by electric motors, that use electrical energy stored in batteries
- Do not emit carbon dioxide or other harmful pollutants
- Source: http://www.tc.gc.ca/eng/menu.htm

ENERGY STAR
- US Environmental Protection Agency and US Department of Energy
- Designation given to energy efficient products, including:
  - Appliances
  - Building products
  - Computers and electronics
  - Heating and cooling systems
  - Plumbing
  - Lighting
- Helps consumers make more informed purchasing decisions
- Source: http://www.energystar.gov/
**EnerGuide**
- Natural Resources Canada
- Labels that rates the energy consumption and efficiency of:
  - Appliances
  - Computers and electronics
  - Heating and cooling systems
  - Lighting
  - Ventilation equipment (windows, doors, skylights)
  - Vehicles
- Displays the following information:
  - Average annual energy consumption (kWh)
  - Efficiency relative to other models
  - Annual consumption range for similar products
  - Model number, type, size

**EPEAT (Electronic Product Environmental Assessment Tool)**
- Electronics registry that rates specific products according to a number of considerations, including:
  - Materials selection
  - Design for end of life
  - Product longevity
  - Energy conservation
  - End of life management
  - Corporate performance
  - Packaging
- Source: [http://www.epeat.net/](http://www.epeat.net/)

**Fair Trade Certified**
- Guarantees that farmers and artisans in developing countries are fairly paid for their goods through long-term contracts
- Ethical working conditions is another important factor in the certification process
- Producers of these products also commit to the following environmental standards:
  - Limited use of agrochemicals
  - Reduced waste
  - Soil maintenance
  - Water resource management
  - No use of GMOs
  - Limited energy consumption
- Source: [http://fairtrade.ca/](http://fairtrade.ca/)

**Flex fuel**
- Several ecologo variations
- Denotes vehicles powered by internal combustion engines that use gasoline or a blend of up to 85% ethanol, stored in one tank
- Benefits of biomass fuels are controversial: they may have a lower carbon footprint, but cause indirect land use changes and take land out of agricultural production
- Source: [http://www.tc.gc.ca/eng/menu.htm](http://www.tc.gc.ca/eng/menu.htm)

**Forest Stewardship Council**
- International non-profit organization
- Third-party certification promotes responsible forest management
- Label guarantees that wood and paper products come from forests meeting specific environmental and social standards, including:
  - Protection of natural forests
  - Respect of indigenous rights
  - Prohibition of hazardous pesticides
- Source: [https://ca.fsc.org/](https://ca.fsc.org/)

**Green Seal Certified**
- Non-profit organization dedicated to promoting a sustainable economy
• Promotes the manufacture, purchase and use of environmentally responsible products
• Applies to a variety of products including household products, paint, paper, food packaging and soaps and cleaners
• Source: http://www.greenseal.org/

Hybrid
• Several ecologo variations
• Denotes vehicles that are powered by two or more sources
• Most commonly refers to internal combustion and electric motors
• Compared to internal combustion vehicles, hybrids have a better fuel economy and thus release fewer emissions
• Source: http://www.tc.gc.ca/eng/menu.htm

Low VOC
• Several ecologo variations
• Volatile organic compounds have low boiling points and are harmful to humans and the environment, having long-term effects
• Low VOC products are especially important for indoor use, especially paint
• Source: http://www.ec.gc.ca/

Marine Stewardship Council
• International non-profit organization that works to transform seafood markets and promote sustainable fishing practices
• Seafood products with this label come from a certified sustainable fishery
• Includes two standards: sustainable fishing and seafood traceability
• Source: http://www.msc.org/

Ocean Wise
• Vancouver Aquarium conservation program created to educate and empower consumers about sustainable fishing
• Ocean Wise provides information to restaurants, markets, food services and suppliers to promote informed purchasing decisions
• Logo found on menus next to sustainable seafood choices, and on some retail seafood items
• Source: http://www.oceanwise.ca/

Ontario Electronic Stewardship (OES)
• Non-profit organization that oversees the responsible reuse and recycling of waste electronics
• Collects fees from retail, IT, and consumer electronics companies in exchange for fulfilling the Ontario Government's 2002 Waste Diversion Act
• Includes over 600 collection sites as well as affiliate sites
• Source: http://www.ontarioelectronicstewardship.ca/

Phosphate Free
• Several ecologo variations
• High levels of phosphorus in freshwater systems may cause rapid algae and plant growth, leading to eutrophication
• Common products containing phosphates include preserved food, soap and fertilizers
• Phosphate free alternatives to such products are labeled to increase consumer awareness

Recyclable
• Identifies products, especially paper, plastic and metal, that can be recycled through municipal programs
• On plastic items, the polymer type is identified by a number within the logo, ranging from 1-7, 1 being the lowest grade
• When possible, purchase products with a higher grade
• Source: https://www.rcro.on.ca/

Standards Council of Canada
• Canadian federal Crown corporation

Updated: May 2013
• Promotes efficient and effective standardization in Canada
• Develops accepted practices, technical requirements, and terminologies for systems and services
• This promotes more innovative, efficient and safe systems and services
• Source: http://www.scc.ca/

Sustainable Forestry Initiative
• Independent, non-profit organization responsible for maintaining, overseeing and improving a sustainable forestry certification program.
• SFI identifies products that are:
  o Wood or paper from certified forests or certified sourcing
• Source: http://www.sfiprogram.org/

WaterSense
• US Environmental Protection Agency (EPA) partnership program that promotes water-efficient products
• Third-party certification process used to identify products that:
  o Are 20% more efficient than average related products
  o Realize water savings on a national level
  o Provide measurable results
• Source: http://www.epa.gov/

Useful links and resources

McMaster’s Sustainability Policy:
http://www.mcmaster.ca/sustainability/policies/McMaster_University_Sustainability_Policy.pdf

Recycling at McMaster:
http://www.mcmaster.ca/sustainability/waste_recycle.html