

## Carbon Neutral Action Report Selkirk College

### Executive Summary

Numerous actions have been undertaken over the years in addressing climate change. In recognition of these actions the college has received numerous accolades over the years in regards to energy conservation. These awards include an Environment excellence award in 2004 and 2005, Conservation excellence awards for 2007 and 2008 in recognition of Selkirk's outstanding achievement in energy efficiency thru sustainable choices and innovative projects.

Operational and capital resources are continually being directed towards carbon reduction. In the years up to and including 2008 the college spent approximately \$5.0 million dollars in controls, night setbacks on HVAC's, and general HVAC upgrades. The HVAC system on the Castlegar Campus is currently being upgraded at a cost of \$1.9 Million in 2009.

An Environmental sustainability committee was established and has undertaken numerous initiatives in reducing carbon emissions. The committee has initiated ongoing reviews of consumption practices and undertaken efforts to reduce consumption whenever and wherever possible. Two faculty members and two students also sit on the Citizens Conservation Council on Climate Action for this region. A Transportation study is also being undertaken in order to improve service and reduce carbon emissions.

The reduction of carbon emissions is a multi pronged task which must be undertaken and embraced by all stakeholders to be successful.

### Objectives

The College has adopted Sustainability as it's sixth strategic goal

#### 6. Sustainability: Toward Selkirk College as a Green College

Conservation of the natural environment and responsible use of natural resources are a core organizational value at Selkirk College. We are committed to implementing practices that promote a healthy natural environment: in our teaching activities, our administration, our facilities and operations, our funding allocations and our applied research priorities. We are committed to reducing our ecological footprint and creating a culture of sustainability through our educational efforts.

Strategic Direction: Selkirk College will work toward becoming a green college.

6.1 Strategic Priority: We will work toward achieving climate action goals established by the Ministry (carbon neutral by 2010 and GHG emission reduction by 33% in 2020).

**Part 1: Actions Taken to Reduce Greenhouse Gas Emissions in 2008**

**Overview**

Carbon reduction will take a multi faceted approach that will involve our students, employees and community partners. During the 2008/2009 year Selkirk has undertaken a number of initiatives. Some of these will continue into coming years and be used as a basis for continuous improvement.

Current initiatives include:

- the establishment of an Environmental Sustainability Committee which meets on a regular basis to plan implement and review everyday initiatives employees students can undertake to reduce their carbon footprint.
- the launching of a "POWER OFF" program,
- A project to reduce bottled water consumption,
- Improvements to recycling, solid waste reduction and composting . The completion of a baseline "State-of- the - Environment audit to determine a baseline for a number of "Indicators" including carbon reduction. Once the audit is complete Selkirk will be able to measure with some certainty the positive effects of any future initiatives.
- Initiation of a Facilities Master Plan which will include a complete review of all facilities. This review will include a component of proposed carbon reduction and greening based on LEED principles throughout the facilities. Based on the Facilities Master Plan future capital initiatives and maintenance programs will be adjusted to best reflect improvements towards carbon neutrality.

The Board of Governors, with the assistance of Senior management developed a sixth Strategic Direction, namely "Sustainability: Toward Selkirk College as a Green College", Providing strategic direction and priority around conservation and sustainable practices.

During the annual budget and operational planning process attention has been paid and initiatives budgeted that will reduce carbon emissions from the facilities and operations. For the 2009/2010 budget year an evaluation of all printing and copying processes are to be undertaken with the objective of significantly reducing the usage of paper products.

**1.1 Mobile Fuel Combustion**

| Action  | Action Taken | Outcome/Performance Measure   | Notes Clarifying Action Taken                                       |
|---|--------------|---|---|
| Replaced # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid                  | Complete     | The number and usage of 15 passenger vans is revised, as well as curriculum needs and travel distance to field sites. | Review of use of college transportation fleet used for field trips. |
| Established anti-idling behaviour change program (e.g. signs, stickers, messages) | In progress  | Promote anti-idling behaviour   |   |
| Encouraged car pooling in fleet vehicles  | In progress  | We encourage employees to pool together whenever practical  |   |
| Transportation Study  | In progress  | A transportation study in currently underway to improve public transportation and reduce carbon emissions             |   |

**1.2 Stationary fuel combustion and electricity**

| Action  | Action Taken | Outcome/Performance Measure | Notes Clarifying Action Taken            |
|---|--------------|-----------------------------|--|
| Undertaken workstation tune-ups to help staff understand what they can do to reduce personal energy use | In progress  | Energy savings              | Power Down program with assigned coaches |
| Supplied power bars – to turn off power to non-essential items when not in use (e.g. phone chargers)    | In progress  | Energy savings              | Supplied as required                     |
| Undertaken Monitor turn-off challenge   | In progress  | Energy savings              | Part of our Power Down Program           |
| Replaced # computers with EnergyStar models   | In progress  | Energy savings              | Part of our evergreen program            |
| Turned off lights in unused rooms   | In Progress  | Energy savings              | Through motion sensors .                 |

|   |             |   |  |
|---|-------------|---|--|
| Replaced Refrigerators (EnergyStar rated appliance)                       | In Progress | Evergreen process of replacement                    | 95% Complete                                   |
| Replaced other appliances (with EnergyStar rated appliance)               | in progress | Lower water consumption                             | To complete Replacement of dishwashers in 2009 |
| Installed multi-function devices (and removed stand-alone printers/faxes) | In Progress | Began a review of copier deployment and paper usage |  |
| Replaced standard bulbs with CFLs   | In progress | Energy savings                                      | Completed in 2009                              |
| Installed motion activated lights   | In Progress | Energy savings                                      | All Classrooms Complete except for corridors   |
| Undertaken lighting retrofit  | Complete    | Energy savings                                      |  |
| Implemented server virtualization   | In Progress | Energy savings                                      | Initiated as capital becomes available         |
| Utilized desk-top power management settings on computer                   | In Progress | Energy savings                                      | Set by work station                            |
| Initiated corporate computer shut-down/wake-up for maintenance            | In Progress | Energy savings                                      | Using PEXE and Wake Up on LAN                  |
| Unplugged unused equipment  | In Progress | Energy savings                                      | We encourage unplugging unused equipment.      |
| Undertaken building energy audit at LOCATION(s)                           | Complete    | Audited 3 main campus buildings                     |  |

### 1.3 Supplies

| Action   | Action Taken | Outcome/Performance Measure  | Notes Clarifying Action Taken                  |
|--|--------------|--|--|
| Committed to use 30% recycled paper  | Ongoing      | Under review   |  |
| Initiated automatic double sided printing                                    | In Progress  | Double sided printing is enabled whenever possible                     |  |
| Committed to hold paperless meetings   | In Progress  | Under consideration and evaluation where possible                      |  |
| Developed document library (online and one printed copy) for large documents | In Progress  | Encouraging sharing of document folders                                |  |
| Used collaborative software to edit on-line                                  | In Progress  | Undertaken where possible  |  |
| Restructured a process to use less paper                                     | In Progress  | An evaluation and study around paper usage in underway                 |  |
| <b>Actions on non-paper related supplies:</b>                                |              |  |  |
| Chose "Green" items from Distribution Centre                                 | In Progress  | Evaluate and select green products as appropriate for our organization |  |
| Encouraged re-use of furniture and equipment                                 | In Progress  | Whenever possible furniture is recycled within the institution         | Inventory surplus items and re-use as possible |

### 1.4 Employee Engagement

| Action   | Action Taken | Outcome/Performance Measure   | Notes Clarifying Action Taken   |
|--|--------------|---|---|
| Provided climate change education              | Complete     | Website provides information about current Greener Campus initiatives, tips for reducing personal ecological footprint, and links to more information (for example "One Million Acts of Green") | Developed Sustainability website<br><a href="http://selkirk.ca/research/sustainability">http://selkirk.ca/research/sustainability</a> |
| Provided conservation education                | Complete     | Students developed a set of signs to go with recently installed recycling stations to educate students on how to recycle properly and why   | Website, student-developed recycling education campaign   |
| Held contests to change behaviour/make pledges | In Progress  | Nineteen members in group to date   | Challenged faculty/staff to sign up with Selkirk College group on "One Million Acts of Green" site                                    |

|                                    |             |   |   |
|------------------------------------|-------------|---|---|
| Developed Green Teams              | Complete    | This campaign was patterned after one currently operating at Simon Fraser University and designed to encourage staff and faculty to reduce their personal energy consumption. Volunteer Energy Ambassadors in each area of the campus provided a list of behaviours to be changed to staff and faculty in their area, along with the rationale for doing so and a variety of helpful tools. | Power Down campaign                               |
| Supported Green Teams (resources)  | Complete    | Energy Ambassadors were provided with training on educating staff/faculty and data collection, along with various memory prompts to hand out (door hangers, Power Down stickers), and ongoing mentoring.  | Power Down campaign                               |
| Provided green tips                | Complete    | Weekly electronic newsletter goes out to all faculty and staff and includes a sustainability "Tip of the Week" along with news about various sustainability efforts   | Website (see above), weekly electronic newsletter |
| Supported professional development | In Progress | The college's Environmental Sustainability committee has funded attendance at related workshops for its members (for example a recent "Fostering Sustainable Behaviour" workshop in Vancouver). The committee has also funded speakers to come to the campus; for example Maude Barlow spoke recently to students, staff and faculty on issues of water sustainability.                     |   |

| <b>1.6 Sustainability Actions (others)</b>                                |                     |                                    |  |
|---|---------------------|------------------------------------|--|
| <b>Action</b>   | <b>Action Taken</b> | <b>Outcome/Performance Measure</b> | <b>Notes Clarifying Action Taken</b>             |
| Took water conservation measures – low flow showers or toilets, fix leaks | In Progress         | Reduced water Consumption          | Replace as repair needed                         |
| Ran dishwasher only when full   | In Progress         | Reduced water Consumption          |  |
| Reduced/replaced bottled water with filtered or refrigerated water        | In Progress         | Reduced water Consumption          | Part of our sustainability committee initiatives |
| Improved recycling measures   | In Progress         | Reduce amount to land fill         | Part of our sustainability committee initiatives |
| Supported composting  | In Progress         |                                    | Part of our sustainability committee initiatives |
| Used re-usable dishes   | In Progress         | reduced purchase of paper products | Part of our sustainability committee initiatives |

|   |             |  |  |
|---|-------------|--|--|
| Purchased green cleaning products           | In Progress | Evaluate and select green products as appropriate for our organization | Will purchase when product performs as desired |
| Used green (low-e paints)                   | In Progress |  | Will purchase when product performs as desired |
| Supported sustainable procurement practices | In Progress |  | Will purchase when product performs as desired |
| Adopted low-carbon contracting practices    | In Progress |  | Will purchase when product performs as desired |

## Part 2: Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011

### Overview

The reduction of greenhouse gases is an ongoing project of importance and priority. Many actions have been undertaken in 2008 and will continue unabated into 2009. New initiatives will include a Facilities Master Plan and a Transportation plan that will yield further improvement in emission reductions. The sustainability committee will continue to work in promoting and changing behaviour that will promote sustainability. The committee and others will continue to develop and implement new initiatives that promote sustainability thru education and change behaviour. The objective is to promote sustainable behaviour as a component of the cultural environment that will promote responsible citizenry in our communities.

### 2.1 Stationary Fuel Combustion (including electricity)

| Action   | Action Planned | Outcome/Performance Measure                       | Notes Clarifying Action Taken                 | Timeframe |
|--|----------------|---|---|-----------|
| Replace standard bulbs with CFLs                             | Complete       | Energy savings                                    | Completed in 2009                             |           |
| Initiate or complete a building energy retrofit              | In Progress    | Energy savings                                    | Completing in 2009 at a cost of \$1.9 Million |           |
| All new Renovations will be done according to LEED standards | In Progress    | ACA renovation projects will be to LEED standards |   |           |

### 2.2 Supplies

| Action                            | Action Planned | Outcome/Performance Measure | Notes Clarifying Action Taken                      | Timeframe |
|-----------------------------------|----------------|-----------------------------|--|-----------|
| Commit to use 100% recycled paper | In progress    |                             | Will consider when equipment capable of processing |           |

### 2.3 Employee Engagement

| Action  | Action Planned | Outcome/Performance Measure   | Notes Clarifying Action Taken   | Timeframe |
|---|----------------|---|---|-----------|
| Provide conservation education                | In Progress    | Recycling stations will continue educate students on how to recycle properly and why. We will also continue to provide employee professional development opportunities to improve engagement. | Website, student-developed recycling education campaign will be fully implemented |           |
| Hold contests to change behaviour/make pledge | In Progress    | Plan implementation   | Plan to develop "Green Kudos" program for recognizing employees.                  |           |
| Develop Green Teams                           | In Progress    | Increased engagement with the program   | Continue with Power Down campaign   |           |
| Provide green tips                            | complete       | Weekly electronic newsletter goes out to all faculty and staff and includes a sustainability "Tip of the Week" along with news about various sustainability efforts                           | Website (see above), weekly electronic newsletter                                 |           |

### 2.4 Sustainability Actions (others)

| Action                 | Action Planned | Outcome/Performance Measure | Notes Clarifying Action Taken | Timeframe |
|------------------------|----------------|-----------------------------|-------------------------------|-----------|
| Dishwasher Replacement | complete       | Lower water consumption     | To complete in 2009           |           |