



2012 Carbon Neutral Action Report



# **Executive Summary**

As we continue on the path to building a more sustainable organization, Camosun is seeing our efforts pay off in the form of tangible results. This kind of change does not just occur over a one-year period, but is the result of years of commitment, investments and hard work. I am proud of how far we have come!

In 2012, Camosun reduced its overall greenhouse gas (GHG) emissions by 12% from 2011 levels. With two urban campuses, this has taken concerted effort on many fronts. Our partnership with BC Hydro and the Public Service Energy Conservation Agreement (PSECA) has been critical to yielding fruitful results. We have just finished the fifth year of our Energy Plan and have seen significant dollar, energy and carbon savings as a result of this project. In 2012 alone, over \$400,000 was saved in electricity and gas consumption combined. These benefits will continue accrue through the years and clearly demonstrates how energy conservation can enhance our operating budget.

In 2012, the new Office for Environmental Sustainability began the development of an action plan related to our strategic pillar *Sustainable Results*, helping Camosun become a leader in environmentally sustainable practices. Naturally, the integration of carbon neutral commitments and energy management will be essential to this plan. As well, our commitments to alternative transportation will continue and we are encouraged by positive trends in our bi-annual mode split count.

There are exciting times on Camosun's horizon. In 2013, the construction of our new Centre for Trades Education and Innovation will commence. Built to LEED Gold standards, this Centre will also be a living laboratory that meets demand for green trades and technologies of the future. Our Facilities Services team has just embarked on a collaborative partnership with FortisBC to further the Continuous Optimization Program for building energy use. We remain committed to developing and testing innovative real-world solutions on our campuses. Our third annual President's Fund will support several creative environmental sustainability projects including: 1) a solar powered charging station for tools and electric vehicles and 2) integration of clean technologies within the pipe trades curriculum.

Within action is opportunity. I am pleased to say that there are many opportunities at Camosun for our carbon neutral future.

Peter Lockie

Vice President, Administration & Chief Financial Officer



# 2012 Greenhouse Gas Emissions

Camosun College's greenhouse gas (GHG) emission calculations include emissions from both the Lansdowne and Interurban campuses. The total GHG emissions for the College are 1,843 tonnes of CO<sub>2</sub> equivalent (tCO2e) for the 2012 calendar year. From 2011 to 2012, Camosun saw a 12% reduction in total emissions. These emissions are roughly shared across the Interurban and Lansdowne campuses. A breakdown of emissions by source and comparison with 2011 levels is provided below.

SOURCE	2011 tCO2e	2012 tCO2e	Percent Change
Buildings	1978	1758	-11%
<b>Mobile Combustion Fleet</b>	39	28	-29%
Office Supplies	72	57	-20%
Carbon Neutral Exempt	-1	-1	0
Total Emissions	2088	1843	-12%

# **Offsets Applied to Become Carbon Neutral in 2012**

Total emissions for Camosun in 2012 consisted of 1844 tonnes. With 1 tonne of exempt emissions, a total emissions offset of 1843 tonnes of CO<sub>2</sub> equivalents has been applied by way of an investment in the Pacific Carbon Trust in the amount of \$48,879.75



# **Actions Toward Carbon Neutrality**

Camosun's impressive carbon reductions this year can be attributed to a variety of efforts and initiatives.

## **Buildings & Energy**

Camosun's five-year Energy Plan concluded on a high note, greatly exceeding its targets and contributing over \$2.7 Million to the fiscal bottom line in avoided costs and new equipment/infrastructure. In 2012, over \$400,000 was saved in electricity and gas consumption combined (compared to the 2005 baseline). The goal of saving 200 tonnes of GHG emissions by 2012 (5-year target) was more than quadrupled with an 828 tonne reduction. During this time, Camosun also received funding from the Public Sector Energy Conservation Agreement to perform energy saving retrofits to



both campuses. Retrofits to Interurban campus were completed in 2011, and in 2012 the Lansdowne energy retrofit project was implemented. As part of the project, the entire lighting system in the Fisher building was replaced (shift from fluorescent lighting to T5s and electronic ballasts). Additionally the five major buildings at Camosun's Interurban campus are enrolled in the BC Hydro Continuous Optimization program to ensure ongoing efficiency of existing operations. Combined these project have been extremely successful in allowing Camosun to improve the efficiency of campus operations.

#### Fleet

Our fleet may be small, but we are making efforts to make the vehicles we do own as efficient as possible. Vehicle purchases over the last year included two smaller grounds vehicles, a smaller heavily used inter-campus shuttle van, a hybrid sedan and an electric sedan (Chevy Volt). In 2012, Camosun retired three larger vehicles and one utility vehicle, resulting in a reduction of specifically designated vehicles.

#### Paper (Office Supplies)

From 2011 to 2012, carbon emissions from paper dropped 20% (from about 72 tCO2e in 2011, to just over 52 tCO2e in 2012). This dramatic decrease can be attributed to a combination of efforts:

- 1. In 2012, a new fleet of MFDs (multi-function devices) was implemented across both campuses. At the same time, Camosun dramatically reduced or phased out the number of personal and local printers. It is anticipated that this shift to more centralized printing resulted in fewer print jobs.
- 2. Employees were encouraged to send larger jobs to Camosun's Printshop, resulting in more efficient printing, less waste, and reduced demand for highvolume print jobs.
- 3. The trend from paper to digital course-packs continues. In 2011-12 fiscal year, there were fewer course packs printed, representing a decrease of about 5% from previous years. This trend from paper to digital is expected to continue.

4. Nearly 100% of Camosun's printers are set to print double-sided as a permanent default. This simple but powerful change has resulted in less paper waste.

In addition to the above actions, Camosun uses 100% post-consumer recycled paper wherever possible. Any paper waste is recycled and left-over paper trimmings from the Printshop are repurposed into notepads for staff.

# **Actions to Reduce Emissions and Improve Sustainability**

#### Office of Environmental Sustainability

In 2012, Camosun established the Office of Environmental Sustainability to support the achievement of Camosun's strategic pillar: *Sustainable Results*. The mandate of the office is to promote and support a culture of sustainability at Camosun College that is:

- Defined in a college-wide strategy
- Action-oriented, measureable, and achievable
- Integrated throughout the college's many business areas, departments and functions
- Engages students, staff and the broader community
- Positions Camosun as a leading Canadian educational institution in sustainability

Some existing commitments such as carbon neutrality, transportation and parking management will also fall under the portfolio of the new office.

#### **Greening our Operations**

#### **Grounds & Maintenance**

Grounds maintenance staff at Camosun College have adopted sustainable practices as a core principle. They have almost completely eliminated the use of chemical pesticides. To reduce water use, they chose native plant species that are adapted to Victoria's dry summers, including Dogwood trees and Labrador Tea.

Custodial staff also practices environmental responsibility in their day-to-day work such as using Green Seal certified products and/or microfiber cloths (to reduce the need for cleaning products).



#### **Composting, Recycling & Food Services**

#### **Composting and Recycling:**

In 2012 composting in food service and preparations areas diverted 31,000 kg of waste from landfills, reducing GHG emissions by approximately 29 tonnes. To help students and employees reduce their footprint, 33 additional composting stations were installed on Lansdowne campus and 15 additional recycling stations were installed on each campus. As well, Camosun has a comprehensive e-waste recycling program. In 2012 this program diverted 90 kg of batteries and e-waste, 280 kg of soft plastics and 120 kg of Styrofoam. Camosun conducted its first waste audit in 2012 and will use the results in the coming year to improve recycling rates.

#### **Food Services:**

Camosun aims to offer affordable and healthy food options which minimize impact on the environment and local community. Some highlights include:

Aramark: In fiscal 11-12, BC produce comprised 85% of supply. Of this, 28% was Island grown. All shell eggs are Island sourced and liquid eggs are BC cage free. Nearly 100% of cleaning products for dishwashing and surfaces are Green Seal certified, and packaging is compostable and biodegradable.



• Culinary Arts and Professional Cook Programs maximize food use and compost any remaining kitchen waste and leftover food. Fats, oils and grease are recycled through GREASEcycle. Take-out containers are compostable.



• Farm Box program: This student-run, not-for-profit initiative is dedicated to providing Camosun students and employees with affordable access to local, organic food through weekly markets. They also promote events and workshops in Victoria that deal with issues of food security, local agriculture, as well as culinary and DIY (do it yourself) education.

## President's Funds Projects to Improve Sustainability

President's Funds are designed to foster innovation and creativity in all employees. Employees are invited to apply to funds in the areas of innovation: interdisciplinary, environmental sustainability, conferences, and student success. In 2012, President's Funds projects relating to sustainability include:

• **Greenhouse Sustainability Project:** The Groundskeeping team will purchase and equip a greenhouse for use by their department and Camosun programs, such as

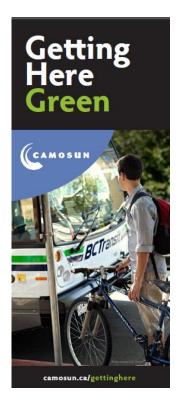
Environmental Technology and Horticulture. Plants will be grown for use on Camosun grounds and by Camosun programs.

- Outdoor Recycling Stations: Groundskeeping has been facilitating a more functional outdoor recycling system on both campuses, including the purchase of outdoor, heavy-duty recycling bins
- **Rainwater Harvesting Project, Phase 1:** Rainwater that was entering the municipal storm water system was harvested and used for the college's cross-connection lab in the Plumbing shop.
- Organic Waste Diversion Compost Program for Interurban Campus: A successful Organic Waste Diversion Project was established for Lansdowne Campus in the 2011-2012 fiscal year. Taking lessons learned from this project, a similar system was developed for Interurban. Part of the mandate of the project is to develop and deliver an educational component explaining and expanding on the proper use of the compost system at both campuses.
- Worm Composting at the Interurban campus: Through the raising and use of worms, the collection of compost from offices at Interurban, and the selling and use of the vermicompost, students in the EARTH Gardening and Employment Training and Preparation (ETP) programs will gain skills in composting and customer service.

#### **Alternative Transportation**

As part of its Transportation & Parking Management Plan, Camosun is dedicated to reducing the use of single occupancy vehicles coming to campus. Some highlights from 2012 include:

- Alternative Transportation Campaign: increasing awareness and promoting alternative travel choices such as cycling, transit, walking or carpooling.
- Car Free Day, October 2012: transforming parking spaces into an outdoor bistro serving free coffee and pancakes to everyone who signed a pledge to commute to campus green at least one day per week.
- "Nasty November" Cycling Challenge: three weeks, six teams, 31 riders, and a total of 3,345 kilometres logged.
- Bike to Work: celebrations and support for Bike to Work Day and Bike to Work Week.
- **Videoconferencing:** with two campuses, Camosun employees make active use of videoconferencing to reduce travel time and GHGs.



# Plans to Continue Reducing Greenhouse Gas Emissions 2013-2014

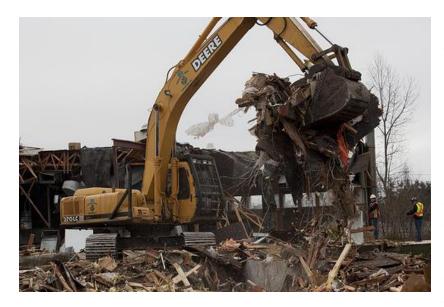
#### **Energy Plan - Phase II**

Camosun plans to continue with a program of energy management, setting new goals and targets for the future. The college will continue to identify energy performance, factors and trends. Our focus will be on identifying energy savings retrofit opportunities, new building developments (such as the Centre for Trades Education and Innovation) and Power Smart incentive opportunities. The Continuous Optimization program will continue, with hopes to expand the program towards things like maintenance operations and management, buildings systems (e.g. Direct Digital Control), programming, etc. Finally, we will be looking for ways to proactively ingrain an energy conservation culture at Camosun.

#### Transportation & Parking Management - Phase II

Building on the work from the first three-year plan (2010 – 2013), Camosun will continue with its transportation and parking management program. To achieve the 2009 goal of a 20 - 40% reduction in vehicles on campus by 2020, an overall annual reduction of 5 to 10% in SOVs is required. This work will include initiatives to greater promote and encourage alternative transportation mode choice, while decreasing the use of single occupancy vehicles. Transportation surveys and mode split counts will measure the success of these initiatives. Support and cooperation by stakeholders will be critical to the success of these efforts.

#### **New Centre for Trades Education & Innovation**



Camosun's new 80,000 square foot training facility will be built to LEED gold standards and is set to be completed by 2015. It will offer modern, well-equipped spaces including a new marine and metal-trades centre and a new mechanical trades centre. The project also includes repurposing existing trades shops to create a revitalized sustainable construction and renewable energy trades facility and a new technology and innovation centre to house Camosun's applied research and technology capabilities for local industry including: product prototyping, research, technical consultation and design.

"This new centre will help us better meet the demand for emerging skilled trades central to our local economy, such as ship building, manufacturing, resource infrastructure, and of course green trades," says Camosun President Kathryn Laurin.

Phase one of the project began in January 2013 and aims to limit the environmental impact of the project. With the exception of toxic materials, most of the wood, metal and cement scraps from the aged facility will be recycled.

"The wood will be ground into 'hog fuel' or small light-weight bark chips that can be reused as fill for road foundations or burning fuel for commercial facilities," says Shean Beardsley, foreman of HL Demolition and Waste Management. "The cement from the foundation will also be crushed and recycled as road base. Metal and wiring will go to recycling facilities and everything is tracked. The goal is to recycle 95 to 98 per cent of all job site materials."

## **Support of Clean Energy Vehicles**

In 2013, Camosun will undertake the installation of a publicly available Electric Vehicle Charging station at the Interurban campus funded, in part, by the Province of BC through the Community Charging Infrastructure Fund. In addition, the Automotive Trades program will also be including training and learning related to the maintenance and operations of electric vehicle engines.



## **Actions Towards Carbon Neutrality**

The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act.

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Mobile Fuel Combustion (Fleet and other)					
Behaviour change program					
Provide fleet driver training to reduce fuel use	Not Yet				No End Date
	Evaluated				(Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet	Ongoing/In	Anti-idling signage installed at both Receiving bays; Purchase	Evaluation of potential problem idling areas and implement	2008	No End Date
drivers (e.g., signs, stickers, messages) Encourage carpooling in fleet vehicles	Progress Ongoing/In	Orders to contractors contain "anti-idling" reminder language.  In 2012, Camosun launched its Alternative Transportation Campaign	corresponding signage in those areas (e.g. near parking metres).  Explore ways to improve the campaign through the use of	2012	(Continuous) No End Date
Encourage carpooning in neer vehicles	Progress	to help reduce the use of Single Occupancy Vehicles. Encouraging	technological tools. The Transportation Office will explore an online	2012	(Continuous)
	1 Togicss	carpooling with Campus to Campus travel is part of this campaign.	ride-matchg service and policy/guidelines to increase the number of		(Continuous)
		The majority of this travel occurs with employee personal vehicles.	employees who are carpooling from campus to campus.		
		Camosun has very few fleet vehicles, but wherever possible,			
		carpooling occurs.			
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles,	Ongoing/In	Most employee travel for work occurs in personal vehicles. As part	The Transportation Office will be reviewing policy and	2012	No End Date
public transit, walking)	Progress	of its Alternative Transportation Campaign, Camosun encouraged	incentives/awards to promote greater uptake of alternative travel		(Continuous)
		employees to commute by alternative transportation (e.g. bus, cycle, carpool) between our two campuses. Information and	modes.		
		communications, the Nasty November Cycling Challenge, and prizes			
		were part of this campaign.			
Vehicle fuel efficiency		note parter the sampaign			
Replace vehicles with more fuel-efficient models	Ongoing/In	Vehicle purchases in 2011-12 year included two smaller grounds	Continue to choose fuel-efficient models wherever possible.	2012	2013
	Progress	vehicles, smaller heavily used inter-campus shuttle van, hybrid			
		sedan and an electric sedan (Chevy Volt).			
Replace larger vehicles with smaller models according to fleet "right-	Ongoing/In	In 2012, Camosun retired three larger vehicles and one utility	Camosun has a very small fleet but will be considering fuel efficient	2012	No End Date
sizing" principles  Perform regular fleet maintenance to improve fuel-efficiency	Progress Ongoing/In	vehicle, resulting in a reduction of specifically designated vehicles.  Standard annual blanket purchae order exist for the maintenance of	models in all new purchasing decisions.  Standard annual blanket purchae order exists for the maintenance of	2008	(Continuous) No End Date
r enorm regular neer maintenance to improve ruer-eniciency	Progress	all fleet vehicles.	all fleet vehicles	2000	(Continuous)
Stationary Fuel Combustion, Electricity	1.09.000	The rest verification	The state of the s		(00:1110000
Behaviour change program					
Help staff reduce personal energy use through ""workstation tune-ups""	Ongoing/In	Workstation energy usage is monitored (through Direct Digital	Continue monitoring energy usage and conduct repairs and	2008	No End Date
7 37 3	Progress	Control) and areas of excessive use are identified and investigated.	upgrades to workstation on a as-needed basis.		(Continuous)
		The use of high-consumption personal appliances such as space			`
		heaters and small refrigerators is discouraged.			
Ask staff to unplug electrical equipment or switch off power bars when	Completed (in				No End Date
not in use	Previous Year)				(Continuous)
Ask staff to unplug electrical equipment or switch off power bars when	Completed (in				No End Date
not in use	Previous Year)				(Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling	Not Yet				No End Date
demands	Evaluated				(Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Not Yet Evaluated				No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Completed (in				No End Date
1 Tovide Terriniders for turning on lights (e.g., signs, stickers, filessages)	Previous Year)				(Continuous)
IT power management					(22111111111111111111111111111111111111
Install power management software which shuts down computers	In Development	None	In planning stage. Target 2016 for completion.	2013	No End Date

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
outside of regular business hours					(Continuous)
Implement server virtualization	Completed (in Reporting Year)	power consumption.		2010	2013
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	Completed as part of the configuration process for all new computers.	Ongoing.	2010	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices as part of a print management strategy	Ongoing/In Progress	Done wherever feasible.	Ongoing. Target 2016 for completion.	2009	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi- function devices	Ongoing/In Progress	Part of configuration process with all new devices.	Ongoing task. Target 2016 for completion.	2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	"Refresh" of computers and select monitors are with Energy Star models.	Continue with IT procurement policy of purchasing Energy Star products.	2010	No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Completed (in Previous Year)				No End Date (Continuous)
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Not Yet Evaluated				No End Date (Continuous)
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	All new construction of commercial buildings on campus is, at minimum, to LEED Gold certification; however no major construction projects were undertaken in 2012.	Begin construction on the new Centre for Trades Education and Innovation on Interurban campus. The project will consist of a renewal and enhancement of existing trades facilities and construction of a new marine and metal trades centre and a new mechanical trades centre, all of which will be done to LEED Gold standards.	2008	2014
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	In 2012, the Lansdowne energy retrofit project was implemented. As part of the project, the entire lighting system in the Fisher building was replaced (shift from fluorescent lighting to T5s and electronic ballasts). Additionally the five major buildings at Camosun's Interurban campus are enrolled in the BC Hydro Continuous Optimization program to ensure ongoing efficiency of existing operations.	The Continuous Optimization program will continue with the objective of saving energy and reducing GHGs (e.g. optimizing the Digital Direct Control system at Lansdowne campus).	2009	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress	Refrigeration systems are upgraded on an ongoing basis to newer less harmful refrigerants.	Continuation of upgrades and replacement of outdated equipment where applicable.	2008	No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Completed (in Previous Year)				No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Completed (in Previous Year)				No End Date (Continuous)
Retrofit details for owned buildings					(
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Completed (in Reporting Year)	As part of the PSECA retrofit project, heat pumps on the rooftop of the Paul Building (Lansdowne campus) were replaced.		2009	2012

## **Actions Towards Carbon Neutrality**

The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Upgrade lighting systems during retrofits	Completed (in Reporting Year)	As part of the PSECA retrofit project, the entire lighting system in the Fisher building was replaced (shift from fluorescent lighting to T5s and electronic ballasts).		2009	2012
Upgrade/adjust control systems during retrofits	Completed (in Reporting Year)	As part of PSECA retrofit project, the Direct Digital Control (DDC) system was upgraded to include more buildings and add greater control. Upgrades were also made to the flow sensors and controls on the Variable Air Volume (VAV) systems in the Centre for Business & Access and Campus Center buildings.		2009	2012
Improve building insulation (including windows) during retrofits	Completed (in Reporting Year)	As part of the PSECA retrofit project, buildings were surveyed with a thermal camera and areas of excessive heat loss were identified. New doors were ordered for Library Learning Commons and Fisher buildings.		2009	2012
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	None to note.	Continue growth in use of Sharepoint and online editing.	2010	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Not Yet Evaluated				No End Date (Continuous)
Electronic media in place of paper					,
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Completed (in Previous Year)				No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	Shared network drives in place; Sharepoint active at enterprise level (100+ sites running).	Continue growth in use of Sharepoint	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress	Pay stubs, T4s, and T2202As are all online now.	Greater push to get staff to consent to electronic T4s.	2009	2013
Paper Type					
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	100% of all the copy paper purchased is 100% PCW	Continue with 100% recycled paper purchasing.	2009	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Completed (in Previous Year)				No End Date (Continuous)

## **Actions to Reduce Provincial Emissions and Improve Sustainability**

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	Staff are provided with support and training for webconferencing on request.	Continue to support staff with web-conferencing on an as-needed basis.	2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	Staff are encouraged and supported to attend remotely via teleconference or videoconference wherever applicable. This action is promoted through the alternative transportation campaign and ITS training and support.	Continue to encourage use of video conferencing equipment and virtual meeting attendance. Greater encouragement and information to choose this alternative over physical travel.	2010	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	Encouraging carpooling as a mode choice for Campus to Campus travel is part of the Alternative Transportation Campaign.	Improve rideshare matching tools for Camosun, and broader communications and/or policy to encourage greater uptake.	2012	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Launch of the Alternative Transportation Campaign for employees and students. Through promotions and outreach, greater information-sharing, events (e.g. Community Bike Ride, Nasty November Cycling Challenge, Bike to Work, Ride Share Day, Car Free Day, etc.), and prizes/incentives, Camosun is attempting to shift the mode split choice towards more alternatives.	Development of more formalized policy and incentives; continued promotions and events.	2012	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress	Travel reduction goal in place (20% reduction in per capita vehicle trips). To support this, Camosun's Transportation and Parking Management Plan has been implemented. Alternative modes are being supported through the alternative transportation campaign. Intercampus travel is being tracked.	Telecommuting travel policy in development. Explore tools & incentives for employees and students to choose alternatives.  Develop Phase II of the TPM plan with revised goals and activities.	2008	No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	Lync licensed for use by up to 50 users and installed on request.	None noted	2009	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	All new laptop technology in use has built-in camera technology. As part of the technology refresh and replacement program, approximately 20% of laptop users will gain access to web cameras each year.	Continue implementation. Provide training/orientation upon request.	2009	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Completed (in Reporting Year)	Video conferencing has been implemented at both campuses, reducing business travel. Guidance and support is provided by the ITS department. Ongoing training/information for staff may be offered.		2009	2012
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Not Yet Evaluated				No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress	The college supports training of staff to allow professional and personal development in sustainability and other areas. This year, it sent employees to the International Sustainable Campus Network, Green Biz Forum in San Francisco, the RCBC Zero Waste Conference, the Resilient Region CRD breakfast meetings, and a masters class on cycling advocacy, the Kickstand Sessions.	Camosun will continue to provide professional development, particularly in support of the college mandate, which holds sustainable results as a strategic pillar. Plan for staff to attend the Recycle Council of B.C. Conference (May 2013); plan for staff to attend the AASHE Building Campuses as Living Laboratories (June 2013).	2011	No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet				No End Date

## **Actions to Reduce Provincial Emissions and Improve Sustainability**

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
	Evaluated				(Continuous)
Staff awareness/education					
Provide education to staff about the science of climate change	Not Yet				No End Date
<b>v</b>	Evaluated				(Continuous)
Provide education to staff about the conservation of water, energy, and	Ongoing/In	Ongoing training to Custodial staff about Wasre and Recycling	Continue training to staff.	2011	No End Date
raw materials	Progress	trends and requirements.			(Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress	A project to increase use and improve information on sustainability section of website was initiated. On the website, employees and students can find tips regarding energy usage, alternate forms of transportation and recycling practices. Sustainability news and events reported in weekly e-mail to all employees.	Continued development of "Green Pages" on Camosun's website, including integration with social media, current information and event postings, and more opportunities for employees and students to get involved.	2012	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress	New staff orientation process includes education about sustainability activities and policies at Camosun.	Work with Human Resources to included sustainability information/education at new staff orientations. Update staff handbook to include new sustainability policies as they are developed.	2008	No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress	The Environmental Sustainability Council provides an open forum for the discussion of college-wide environmental initiatives with a goal of improving and extending current environmental practices. In 2012 the council met three times and was involved in various projects including: Sustainable Education Day, Resilient Region community networking event, Read Set Solve and Installation of a electric vehicle charging station.	The Council will continue to champion various initiatives and will have regular dialogue in order to stay abreast of developing events, practices, etc.  (draft)	2010	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress	The Office of Environmental Sustainability was formed in 2012. Its goal is to promote and support a culture of sustainability that is action oriented and integrated throughout the college. The office is working to increase student, staff and community engagement and has undertaken projects to improve sustainability communications, coordinate sustainability initiatives and guide future actions. In 2012 the Office supported severals student teams including 1) Ready Set Solve Waste Diversion Challenge, 2) School of Business classes in developing alternative transportation options.	Moving forward, the goals of the office are to contineu to support engagement with employees and students in activities thgat advance sustainability at the college.	2012	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g.,	Not Yet				No End Date
community-based social marketing)	Evaluated				(Continuous)
Other Sustainability Actions					
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in	Not Yet				No End Date
climate will affect the organization's business areas	Evaluated				(Continuous)
Integrated considerations of extreme weather events and/or long term	Not Yet				No End Date
changes in climate into the organization's decision making.	Evaluated			<u> </u>	(Continuous)
Building construction, renovation					
Establish a policy to reuse materials where possible and divert	Ongoing/In	As part of the development of Camosun's new Centre for Trades	Report on amount recycled from the old Tillicum Lodge.	2012	2013
construction and demolition debris from landfills and incineration facilities	Progress	Education & Innovation, demolition of the Tillicum Lodge was	, , , , , , , , , , , , , , , , , , , ,		

## **Actions to Reduce Provincial Emissions and Improve Sustainability**

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		needed. There were considerations given to the demolition of the Tillicum Lodge that included re-using materials. With the exception of the toxic materials, most of the wood, metal and cement scraps from the aged facility will be recycled. The wood will be ground into small light weight bark chips that can be reused as fill for road foundations or burning fuel for commercial facilities. The cement from the foundation will also be crushed and recycled as road base. Metal and wiring will go to recycling facilities and everything is tracked. The goal is to recycle 95 to 98 per cent of all job site materials.			
Incorporate lifecycle costing into new construction or renovations	In Development	Initial planning and design of the Trades building and existing building retrofits include lifecycle cost considerations.	The design of the two new Trades building will include energy efficiency wherever possible, LEED Gold standard, and demonstration of the builing of a living laboratory highlighting the best technologies and design possible.  As well, Camosun will be repurposing the Jack White Trades Building as a revitalized Sustainable Construction and Renewable Energy Trades Centre to house Electrical, Plumbing and Piping Trades, and future Renewable Energy programs. We will also be repurposing the John Drysdale Trades Building as a new Technology and Innovation Centre.	2012	2014
Commuting to and from home					
Introduce telework/work from home policy	Ongoing/In Progress	Employees surveyed; policy in development.	Continue discussions with labour groups; potential approval and implementation of telework policy.	2008	No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress	Alternative Transportation Awareness campaign for students and employees was launched in 2012. This campaign included various outreach events, a pledge, prizes, carpooling awards program, bike commuting challenges and other activities. In additiona, the number of people reportedly using these alternatives is measured through the bi-annual Mode Split count. In 2012, Camosun conducted its second mode split count which identified some improvements in key areas, along with reductions in the use of siingle occupanyc vehicles.	Continue the alternative transportation campaign. Explore incentives and creative communications/marketing to garner interest. Explore car pool and ride share alternatives.	2008	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by	Completed (in				No End Date
foot or by bicycle Provide secure bicycle storage	Previous Year) Completed (in	Construction of secure bike parking facility, one at each campus.		2011	(Continuous) 2013
1 TOVIDE SECUTE DICYCLE STUTAGE	Reporting Year)			2011	2013
Procurement (non-paper supplies)		and the state of t			
Incorporate minimum recycled content standards into procurement	Ongoing/In	Supplier ageement includes requirement to provide a "green" list of	Exploration of further enhancements to procurement policies to	2009	No End Date
policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Progress	office supply consumable list. No minimum recycled content is listed. Our primary office supplies provider has developed and expanded a list of "green" items for college staff to order.	incorporate sustainability criteria.		(Continuous)
Establish green standards for goods that are replaced infrequently	Ongoing/In	The current RFP for furniture included a large (19%) energy/green	RFP for furniture expires in 2013 and a new agreement with the	2009	No End Date
and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Progress	component as part of the evaluation and all products selected have their own green standards for manufacturing, packaging and shipping. Carpeting specifications include requirements for low	same / larger emphasis on green content and processes will be developed.		(Continuous)

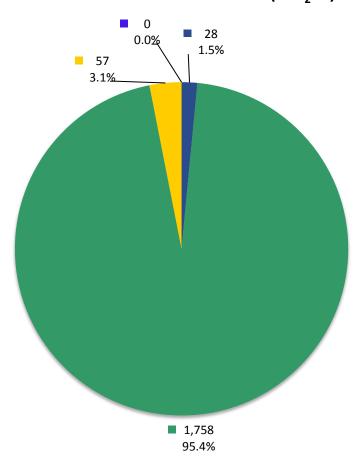
## **Actions to Reduce Provincial Emissions and Improve Sustainability**

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		VOC, use of carpet tile where possible, and recycling of removed product.			
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress	Implemented use of green products for custodians to use, campus wideEnvironmental Choice and Green Seal are preferred products (some Graffiti removers and disinfectants will not be). Our hand soap dispensers inject air on each use providing many hand washings per unit reducing shipping impact to environment when compared to liquid or bulk soap. Most of our cleaning products are also concentrated used through dispensing systems.	Environmental Choice and Green Seal remain preferred products (some Graffiti removers and disinfectants will not be).	2010	No End Date (Continuous)
Waste reduction/diversion				0010	
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress	Composting put into various buildings at 33+ locations at Lansdowne campus. Recycle stations increased by 15 stations at each campus. Used cooking oil diverted to local Biodeisel producer supporting local business. Used cooking oil from food service areas collected and used for our own Biodiesel production for use with our Grounds vehicles with excess being used by a local Biodiesel producer. To reduce bottled water use, 11 additional water bottle refill stations were added to both campuses.  Student team initiated to assess ways to reduce waste by proper sorting and awareness about recycling.	Increase of waste/recycle collection stations with another 12 locations per campus added. Composting put into various buildings at Interurban most at waste/recycle station locations across campus. Horticulture Program starts Worm Composting Project. Expansion to collection of washroom paper towels from additional buildings at each campus. Plan to attend the Recycle Council of B.C. Conference in May 2013. Ongoing training to Custodial staff about waste and recycling trends and requirements. Remove some waste containers and replace with recycling alternatives (some GP Classrooms).  To eliminate contamination of recycling streams, plan to implement better communication/signage and awareness amongst employees and students.  Moving to clear bags for all waste (has proven to increase awareness of improperly disposed of material). No bags for paper/fiber/plastics and other recycleables.	2010	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress	Occupational Health and Safety arranges for hazardous chemicals no longer needed to be taken away and disposed of in accordance with current environmental legislation. Materials are stored and several times per year are taken away and properly disposed of or recycled. Chemical resistant totes, spill trays and earthquake precautions are taken so that, should an earthquake occur, hazardous chemicals would be less likely to spill and would be contained if they do.	Continue in accordance with environmental legislation.	2008	No End Date (Continuous)
Water conservation					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress	Water fixtures are replaced with water efficient models on life cycle replacement. Additionally, this year, a \$70,000 retrofit was done on all disabled washrooms. All taps and toilets were replaced with touch-less and flow-controlled models.	Continue with fixture replacements as infrastructure reaches lifespan. Will consider the demonstration of water conservation best practices in the new Trades building.	2008	2013
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Ongoing/In Progress	Use of drought tolerant and native species in landscaping, use of drip and mico-irrigation systems, selective lawn irrigation to high priority areas only. Replacement of toilet fixtures is done with low flow fixtures.	Continue to look for opportunities to reduce building level potable water demand.  (draft)	2008	No End Date (Continuous)
Introduce a stermuster management landscape strategy (s. c.	Ongoing/In	(draft)	A biggwale will be greated as part of the Centre for Trades Education	2010	No End Date
Introduce a stormwater management landscape strategy (e.g.,	Ongoing/In	Grounds-keeping staff at both campuses monitor bioswale systems	A bioswale will be created as part of the Centre for Trades Education	2010	No End Date

## **Actions to Reduce Provincial Emissions and Improve Sustainability**

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
vegetated roofs, permeable paving, rain gardens, bioswales)	Progress	which were originally developed to deal with sediments resulting	and Innovation construction project to handle the change in post-		(Continuous)
		from construction projects. All parking lots have catch basins to stop	development storm-water runoff.		
		oils and fluid leaks from vehicles from entering our storm drains.			

# Camosun College Greenhouse Gas Emissions by Source for the 2012 Calendar Year (tCO<sub>2</sub>e\*)



#### **Total Emissions: 1,844**

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)
- Fugitive Sources

#### Offsets Applied to Become Carbon Neutral in 2012 (Generated May 27, 2013 11:23 AM)

Total offsets required: 1,843. Total offset investment: \$46,075. Emissions which do not require offsets: 1 \*\*

<sup>\*</sup>Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

<sup>\*\*</sup> Under the Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.