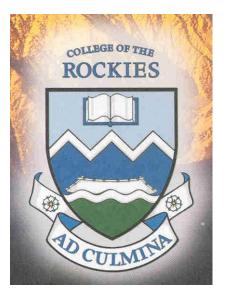
Executive Summary

The College of the Rockies plans to pursue various avenues such as: integration of environmental issues into some of our curriculum; campus signs to be solar powered; increase of video conferencing and program deliveries.



All of the items identified in this report, although they may look like small things, are major/large steps for our organization in this regional area/concept. They will serve to assist in the reduction of greenhouse gas emissions.

Executive Member:

D'a. M'hachlan

Doug McLachlan, Vice President Education

SMARTTool GREENHOUSE GAS INVENTORY REPORT

Reporting Entity: College of the Rockies GREENHOUSE GASES IN TONNES Reporting Year: Calendar Year 2011 Measure Quantity CO₂ CH4 **N20** tCO2e1 Scope 1 (Direct) Emissions Mobile Combustion (Fleet) Litres 13,116.16 29.67 0.00 0.01 31.88 Stationary Combustion, Gigajoules 418.30 20.86 0.00 0.00 20.98 Estimated 2 Stationary Combustion, Reported Gigajoules 9,172.49 457.34 0.01 0.01 460.09 **Total Scope 1 Emissions** 507.87 0.01 0.02 512.95 Scope 2 (Indirect) Emissions Purchased Energy, Estimated 2 Gigajoules 205.75 1.42 0.00 0.00 1.42 Purchased Energy, Reported 3 Gigajoules 11,424.42 78.83 0.00 0.00 78.83 **Total Scope 2 Emissions** 80.25 0.00 0.00 80.25 **Scope 3 Emissions Business Travel and Office Paper** Office Paper 10,670.00 **Packages** 42.59 0.00 0.00 42.59 **Total Scope 3 Emissions** 42.59 0.00 0.00 42.59 **Emissions from Biomass Total Biomass Emissions** 1.04 0.00 0.00 1.04 Total Emissions, Calendar Year 2011 631.75 0.01 0.02 636.83

^{1.} Global Warming Potential (GWP) has been applied only to the tCO2e values.

^{2.} Estimated data has been calculated based on the methods described in the Methodology Document.

^{3.} Reported data refers to consumption which has been directly billed to the organization.

This Information is provided by the Government of British Columbia, and is subject to verification.

OFFSETS APPLIED TO BECOME CARBON NEUTRAL IN 2011

Totals Calendar Year 2011, College of the R	otals Calendar Year 2011, College of the Rockies								
	Measure	Quantit	y CO ₂	BioCO ₂	CH₄	N ₂ O	tCO ₂ e ¹		
Scope 1 (Direct) Emissions		·							
Mobile Combustion (Fleet)	Litres	13,116.16	29.67	1.04	0.00	0.01	32.92		
Stationary Combustion, Estimated ²	GigaJoules	418.30	20.86	0.00	0.00	0.00	20.98		
Stationary Combustion, Reported ³	GigaJoules	9,172.49	457.34	0.00	0.01	0.01	460.09		
Scope 2 (Indirect) Emissions									
Purchased Energy, Estimated ²	GigaJoules	205.75	1.42	0.00	0.00	0.00	1.42		
Purchased Energy, Reported ³	GigaJoules	11,424.42	78.83	0.00	0.00	0.00	78.83		
Scope 3 (Business Travel and Office Paper)	Emissions								
Office Paper	Packages	10,670.00	42.59	0.00	0.00	0.00	42.59		
Total Emissions, Calendar Year 2011			630.71	1.04	0.01	0.02	637		
Carbon Neutral or Offset Exempt			16.70	1.04	0.00	0.00	19		
Total for Offsets ⁴			614.01	0.00	0.01	0.01	618		

^{1.} Each greenhouse gas has been converted to a standard measurement (tCO2e) by multiplying its emissions by its global warming potential (GWP). The GWP of carbon dioxide (CO2) from both anthropogenic and biogenic sources is 1; methane (CH4) is 21, and nitrous oxide (N2O) is 310. The Totals for tCO2e are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO2e can be purchased for offsets.

NOTE: There was an adjustment to the 2010 numbers of 13 Tonnes which has since been applied to the offsets purchased for 2011. A BC Hydro invoice for 21/12/2010 to 18/02/2011 was received in April 2011. The data was loaded on May 20th 2011 (post March 29th) which added .16 tonnes of CO2e to the College's Fourth Quarter and then triggered a re-calculation of the estimated data for 2010.

ACTIONS TAKEN TO REDUCE GREENHOUSE GAS EMISSIONS IN 2011

- IT Department purchased a fuel efficient 2011 Toyota Matrix for servicing outlying campuses.
- Facilities Department replaced their 1984 Snow Plow with a newer one-ton in Spring 2011.
- COTR Student Association continued to implement a U-Pass program which provides unlimited public transit usage for students.
- Campuses have installed new bicycle racks to encourage commuting via bicycle.
- COTR purchased an Energy and Sustainability software module for recording, tracking and reporting on our energy usage.
- Low Flow urinals were purchased and installed in our Invermere Campus.

^{2.} Estimated data has been calculated based on the methods described in the Methodology Document.

^{3.} Reported data refers to consumption which has been directly billed to the organization.

^{4.} Report the tCO2e value from the "Total for Offsets" line, to the Pacific Carbon Trust.

- Rain barrels and water catchment off of the greenhouse drains were installed at the Creston Campus. This water will be used for the irrigation of the greenhouse and gardens.
- A "green cleaning policy" has been introduced into the newest janitorial contract for the Main Campus. All products will follow the LEED protocol for "green cleaning".
- Unscented foaming soap was introduced to our main campus, reducing the need to replace soap cartridges as often.
- Fernie Campus Partner with Fernie Eco-Garden and Wildsight to present various organic gardening and environmental workshops for the public in Fernie.
- The Creston Campus is producing food which is locally grown for the community year round.
- Installed new appliances in the Culinary Arts Kitchen.

PLANS TO CONTINUE REDUCING GREENHOUSE GAS EMISSIONS 2012 – 2014

- When it comes time to replace a College owned vehicle the College will consider the most fuel efficient/size efficient model.
- More signage to be posted regarding "no idling" zones
- LEED Silver Certification applications have been applied for our Main South Entrance Project.
- Install solar powered signs at other campuses as funding permits.
- Lighting retrofit of our Fernie Campus will reduce our energy consumption.
- Lighting retrofit of our Trades buildings to a more energy efficient model.
- Fernie Campus will have light sensors installed throughout the building.
- Started a succession plan for missing and outdated window coverings.
- E-books will be considered by various departments throughout the College of the Rockies.
- Installation of Video Conferencing in the Kimberley Campus board room.
- Travel budgets have been reduced to encourage virtual attendance at provincial meetings.



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 (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equip	ment)					
Vehicle fuel efficiency						
Replace vehicles with more fuel-efficient models	Ongoing/In Progress		IT Department purchased small fuel-efficient car (2011 Toyota Matrix) for servicing outlying campuses.	When it comes time to replace a College owned vehicle we will consider the most fuel efficient model.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right- sizing" principles	Ongoing/In Progress		Facilities Department replaced 1984 Ford snow plow with newer 1 ton in Spring 2011.	When it comes time to replace a College owned vehicle we will consider smaller models according to fleet "right-sizing" principles.	2008	No End Date (Continuous)
Perform regular fleet maintenance specifically to improve fuelefficiency	Ongoing/In Progress	% of vehicles are subject to 100 regular maintenance for fuel efficiency	All College staff who use College vehicles must complete pre and post trip inspection of any College vehicle they use. Pre and post trip inspections identify service problems with vehicles early to keep them running efficiently	All College staff who use College vehicles must complete pre and post trip inspection of any College vehicle they use. Pre and post trip inspections identify service problems with vehicles early to keep them running efficiently	2008	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress		When it comes time to replace a College owned vehicle we will consider the most fuel efficient model.	When it comes time to replace a College owned vehicle we will consider the most fuel efficient model.	2008	No End Date (Continuous)
Behaviour change program						
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	100 % of current drivers are trained	College of the Rockies Policy & Procedures Manual: 5 – Facilities 5.1 – Equipment 5.1.6 College Vehicles B.3 Driver Related: B.3.5.2 Where the College, in exceptional circumstances, may require services of an inexperienced driver, the driver shall complete a 1-day driver training workshop (theory and hands-on experience), including defensive driving, Code requirements and such other experiential training as may be required by the College, prior to driving. B.3.6 Education: B.3.6.1 College approved drivers with Class 4 or specialized licensing shall maintain their approved status by completing a 1-day driver training refresher every year. B.3.6.2 College approved drivers of Class 4+ vehicles or specialized licensing shall be required to take defensive driving, Code requirements, assessments and are recommended to take OFA1.	The same steps taken as in 2011.	2008	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress		No Tolerance Policy being enforced by College. Posted "Turn Off Engine" signs in wait zones.	No Tolerance Policy being enforced by College. Posted "Turn Off Engine" signs in wait zones.	2008	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress		All departments encouraged to use College van, as well as to carpool. Carpooling for students/staff activities that require vehicles, otherwise one bus is provided.	The same steps taken as in 2011.	2008	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress		College of the Rockies Student Association has implemented U-Pass program which is mandatory for all full-time Cranbrook Campus students and provides unlimited public transit usage. Campuses have installed additional bicycle racks during the South Entrance Project. The College holds a Bike To Work Day event.	The same steps taken as in 2011. Alternatives to consider: Blocking off adequate space for bicycles, motorcycles & scooters; Provide designated area for small cars only - they can be narrower; Paid parking in the long-term will encourage alternatives to driving alone.	2008	No End Date (Continuous)

Action	Status (as of 12/31/11)		Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Other Mobile Fuel Combustion Actions							
Each Department is responsible to pay for their own fuel usage.	Ongoing/In Progress			All College departments 100% comply. Each College department has to pay for and keep track of their own fuel usage when using College vehicles.	All College departments 100% comply. Each College department has to pay for and keep track of their own fuel usage when using College vehicles.	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Em	nissions (Buildings)						
Planning/management							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress			In May 2011, the College of the Rockies purchased an Energy & Sustainability" software module from FAME Assets Managements for recording, tracking & reporting on energy usage.	Continue using energy and sustainability software module as in 2011.	2011	No End Date (Continuous)
Reduce office space (square meters) per employee	In Development			Look at degree of workload and at having staff share desks/space for those not on campus.	Look at degree of workload and at having staff share desks/space for those not on campus.	2010	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	Completed in 2011			Contracted with consultant to conduct and provide "Energy Opportunity Profiles" for all College owned facilities - to be completed by April 2011.		2011	2011
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Ongoing/In Progress	5	% of owned buildings have operations and maintenance labelling/certification	Kootenay South Expansion (Main Entrance) Cranbrook Campus complete March 31, 2011.	Design and Architectural team applied for LEED certification in 2012.	2009	No End Date (Continuous)
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Ongoing/In Progress	5	% of commercial interiors in owned buildings have labelling	Kootenay South Expansion (Main Entrance) Cranbrook Campus complete March 31, 2011.	Design and Architectural team applied for LEED certification in 2012.	2009	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade lighting systems during retrofits	Ongoing/In Progress			Fernie Campus lighting systems anticipated to be upgraded as funding permits. Recommend Capital project to install motion sensor for lighting in all classrooms	Cranbrook Campus - Replacement of 84 fixtures to a more energy efficient model to be complete in the Trades department in 2012. Fernie Campus lighting system upgrade to be completed 2012. All rooms in Fernie Campus will have light sensors.	2011	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress			Operations staff adjust DDC system schedules daily to match program requirements. Resulting in less over-runs	Operations staff adjust DDC system schedules daily to match program requirements. Resulting in less over-runs	2008	No End Date (Continuous)
Install an on-site renewable energy demonstration project	In Development			Install solar powered signs at other campuses as funding permits. (Designed and installed solar powered sign at Gold Creek Campus in 2009)	Developing plan to install solar powered signs at all Campuses.	2009	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	65	% of computers shut down automatically outside of regular business hours	Continue to install power management software.	Continue to install power management software.	2008	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	98	% of servers have been virtualized since start year indicated	Continue to virtualize any new servers.	Continue to virtualize any new servers.	2004	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	100	% of computers have auto-sleep settings applied	Computers are set to "sleep" and/or go to screen saver mode when not in use.	Computers are set to "sleep" and/or go to screen saver mode when not in use.	2001	No End Date (Continuous)

Action	Status (as of 12/31/11)		Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	99	% reduction in printers, copiers, and/or fax machines since start year indicated	College uses single unit printer/fax/photocopiers. Stand-alone units used only where necessary.	We have replaced 99% of fax machines with multi-function devices - anticipate end date to be 2013.	2008	2013
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	100	% of devices have auto-sleep settings applied	Multi-function devices are set to "sleep" when not in use.	Already in place in 100% of machines	2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	100	% of computers are ENERGY STAR rated	College has replaced computers with Energy Star models during regular computer upgrades	Upgrade equipment to new standard when replacements are needed.	2009	No End Date (Continuous)
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			Cranbrook Campus installed new energy efficient deep freeze in cooks training area. Creston Campus replaced two very old small refrigerators with energy efficient ones.	Upgrade equipment to new standard when replacements are needed.	2008	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			Upgrade equipment to new standard when replacements are needed.	Upgrade equipment to new standard when replacements are needed.	2008	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress			Creston Campus - All staff have had workstation tune-ups (7 new desks, 2 new chairs, and 2 swing arms)	Continue to tune-up workstations where necessary.	2011	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development			All Management to encourage and implement. Establish Environmental Committee campaign. Creston Campus - Implemented daily walk through at closing time to shut off lights and computers.	Resurrect Environmental Committee.	2008	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			All Management to encourage and implement. Establish Environmental Committee campaign. Checklist by door - Lights off, blinds closed, computer off (powerbar). Creston Campus - Replaced blind that would not close in one classroom with more energy efficient blind.	Started a succession plan for all Campuses to replace missing and outdating window coverings. Resurrect Environmental Committee.	2008	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Creston Campus - All heating/cooling shut down during regular non-office hours. Staff taugh to do 3-hour overrides if necessary.	Resurrect Environmental Committee. Install light sensors in offices.	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	In Development			Establish Enviromental Committee campaign.	Resurrect Environmental Committee.	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Stickers have been posted and are available to be posted in classrooms and offices.	Initiate plan to install light sensors in classrooms and office spaces. Resurrect Environmental Committee to implement/endorse procedures.	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Washrooms - Turn down hot water, sensor taps.	Continue to conserve hot water where applicable.	2008	No End Date (Continuous)
Other Stationary Fuel Combustion, Electricity, and Fugitive Emissions Actions							
Shared Drives	Ongoing/In Progress			The College uses a shared drive that can be used to share certain documents between staff/departments. Some departments also share specfic drives so that documents can be accessed.	Same steps taken as in 2011	2008	No End Date (Continuous)

Action	Status (as of 12/31/11)		Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	100	% of total paper purchased contains 30% recycled content	Course Calendars, and Student Handbooks printed for 2011 were printed on 30% post-consumer waste paper using soya-based or vegetable inks.	2012's paper order for 8 1/2 x14, 11x17, and coloured paper was for 30% recycled content.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	100	% of total paper purchased contains 100% recycled content	January 2011 annual paper order was for 100% recycled content. Viewbooks printed on post-consumer recycled paper. Used soya-based and vegetable inks.	2012's 8 1/2 x 11 white paper order was for 100% recycled content. Course Calendars, Viewbooks and Student Handbooks continue to be printed on 30% post-consumer waste paper using soya-based or vegetable inks.	2011	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double- sided	Ongoing/In Progress	75	% of network printers or photocopiers are set to automatic double-sided	Staff and students are encouraged to print/copy double-sided when feasible. Invermere Campus printers are automatically set to double-side except for two that require single-sided option. Golden Campus staff print double-sided when feasible. Cranbrook Campus Administrative offices use double-sided printing.	Staff and students are encouraged to print/copy double-sided when feasible. Invermere Campus printers are automatically set to double-side except for two that require single-sided option. Golden Campus staff print double-sided when feasible. Cranbrook Campus Administrative offices use double-sided printing.	2009	No End Date (Continuous)
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	Ongoing/In Progress			This is done when applicable.	This is done when applicable.	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	100	% of staff workstations with software installed	All marketing media now done online on SharePoint replacing weekly photocopy circulation. SharePoint and shared network drives used for electronic storage and editing. Purchased Scantron to reduce paper copies of student exams and surveys.	All marketing media now done online on SharePoint replacing weekly photocopy circulation. SharePoint and shared network drives used for electronic storage and editing. Use Scantron to reduce paper copies of student exams and surveys.	2009	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress			Electronic documents are posted in SharePoint and on shared drives. Encourage students to use electronic databases to find research and academic articles.	Electronic documents are posted in SharePoint and on shared drives. Encourage students to use electronic databases to find research and academic articles.	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Marketing has instituted a monthly electronic newspaper rather than a paper version, have printed fewer course calendars and have full course calendars online. Increased on-line presence through social media marketing. This has recuded the need to market through printed materials such as posters. Some programs email class notes in advance to students. Faculty are posting more documents rather than printing and distributing. Some programs encourage students to email assignments rather than handing in printed work. Some programs post handouts online rather than making copies for class distribution and try to use online instructor manuals/resources rather than physical ones.	Marking will continue to progressively move marketing toward web-based approaches rather than printed material. Will continue to print fewer course calendars each year.	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress			Most employees receive electronic paystubs	Most employees receive electronic paystubs	1995	No End Date (Continuous)
Behaviour change program							

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress		All Production Support Centre staff (3) trained in supporting faculty in moving toward progressively more online instruction in MOODLE. Production Services Centre requests going online through FAME system which will eliminate paper requests. Lengthy nursing program acceditations reports are saved on a common BSN drive for electronic editing which signficantly reduces the printing costs and paper consumption. Appendices were saved to jump drives and distributed to the reviewers electronically. Bookstore has implemented online Text Request System for faculty to order textbooks. Eliminates all paper requests.	To implement Production Services Centre requests in June 2012.	2009	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress		Encourage staff to use laptops to take notes and to make PowerPoint presentations.	The same steps as in 2011	2009	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress		College staff are encouraged to re-use non-confidential scrap paper when taking notes	Kimberley Campus - Create a separate recycling bin for non-confidential recycled paper to be reused.	2007	No End Date (Continuous)
Other Paper Supplies Actions						
Digital Reports	Ongoing/In Progress		Deans area producing digital reports rather than hard copies for licensing bodies.	Deans area producing digital reports rather than hard copies for licensing bodies.	2009	No End Date (Continuous)
e-Books and e-Readers (electronic textbooks)	In Development		Some programs are considering switching to e-books. Bookstore will sell and encourage the use of eReaders and electronic textbooks. Will begin to lessen the use and sale of printed textbooks.	Begin to sell eReaders through Bookstore in fall 2012.	2009	No End Date (Continuous)
Marketing issues a monthly online newsletter rather than a paper version.	Ongoing/In Progress		Completed introduction and implementation of online "What's New at COTR" newsletter. Subscriptions through RRS feeds, electronic sharing, etc.	The same steps as in 2011	2010	No End Date (Continuous)
Reduced budgets for photocopying to encourage both students and instructors to use technology when available.	Ongoing/In Progress		Reduced budgets for photocopying to encourage both students and instructors to use technology when available.	The same steps as in 2011	2011	No End Date (Continuous)
Encourage student and staff use of Bookstore online catalogue.	Ongoing/In Progress		Bookstore developed and introduced online catalogue whereby students and staff can order College-logo'd clothing and other item online.	The same steps as in 2011	2011	No End Date (Continuous)
Use scanner to copy and file and send electronically	Ongoing/In Progress		Kimberley Campus - Install scanners at admin desks	Student registrations and other paper based documents are scanned and send electronically saving on paper, evelopes, and postage.	2011	No End Date (Continuous)
Three interactive Wayfinding Directories installed at Cranbrook Campus entrances.	Completed in 2011		Three interactive Wayfinding Directories designed and installed at Cranbrook Campus entrances reduces the need for paper wayfinding maps.		2010	No End Date (Continuous)
Hanging Signage	Completed in 2011		Hanging signage installed as part of South Main Entrance Project reduces need for paper wayfinding maps.		2010	2011

Actions to Reduce Provincial Emissions and Improve Sustainability

The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the report on actions that will help British Columbia meet its provincial greenhouse gas reduction targets, engage the public, and improve environmental sustainability across all aspects of their organization.

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Business Travel						
Policy and budgeting						
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress		Our policy encourages use of public transit and carpooling. The International Department strongly encourages the use of public transit in all travel. International Homestay Host families are chosen based on their proximity to public transit. Staff is also encouraged to walk or bike to and from home. Conference call and video-conference meetings to satellite campuses instead of travel.	Kimberley Campus - Create campus guidelines regarding reducing travel costs and footprint.	2008	No End Date (Continuous)
Virtual meeting technology						
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	% of computers have web- conferencing software installed	Equipment ordered and with the exception of the boardroom, has arrived. Summer project.	Equipment ordered with installation anticipated during Summer 2012. Kimberley Campus - Use of Bridgit web-conferencing commenced and will be increased to connect staff more regularly without having to travel.	2008	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	100 % of staff have access to a desktop web-camera	5 or 6 are available for signout at the library. Almost all Regional campus managers have webcams.	The same steps as in 2011	2008	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	% of meeting rooms have access to video-conferencing equipment	Three new classrooms in the new Kootenay South Entrance Expansion have video-conferencing equipment. Video conferencing equipment are being installed at all regional campuses. Will allow for more classes and meetings to be held using this technology.	Kimberley Campus - Installation of video-conferencing in meeting room.	2009	No End Date (Continuous)
Behaviour change program						
Train staff in web-conferencing	Ongoing/In Progress		All managers have been trained on webtools including Sharepoint. Professional Development Days session for all employees on webconferencing planned for 2011. Deans attend regional and provincial meetings via teleconference and Office Live Meeting to significantly reduce provincial travel. The International Department regularly uses various technologies including Skype for meetings, interviews, training sessions. Child, Youth & Family Studies uses Skype to conference with students to reduce travel. All College employees are being trained to use technological tools for meetings including Sharepoint software and teleconferencing. Some programs use Skype to conference with students to reduce travel. Administrative assistants at main and satelite campuses received training via web-conferencing.	The same steps as in 2011	2008	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video- conferencing set-up	Ongoing/In Progress	% of staff are trained in video- conferencing or have access to technical support	IT Department designated to support. Increase training to staff so that they are comfortable with using the technology.	The same steps as in 2011	2008	No End Date (Continuous)

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		The College of the Rockies has proactively sought out virtual attendance options for meetings. Registration staff has begin providing training to satellite campus staff via webinars.	Travel budgets have been reduced to encourage virtual attendance at Provincial meetings.	2008	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress		All departments encouraged to use College van, as well as to carpool. Carpooling for student/staff activities that require vehicles is encouraged, otherwise a bus is provided. Deans department schedules meetings backto-back where possible to reduce travel requirements. Child, Youth & Family Studies faculty carpool to regional communities to visit practicum students. Board members and Executive Committee carpooled to Board Retreat.	The same steps as in 2011	2008	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress		All departments encouraged to use College van, as well as to carpool. Carpooling for student/staff activities that require vehicles is encouraged, otherwise bus is provided. Deans department schedules meetings back-to- back where possible to reduce travel requirements.	The same steps as in 2011	2008	No End Date (Continuous)
Other Business Travel Actions						
Video Recorded Assignments	Ongoing/In Progress		Child, Youth & Family Studies - Video recorded assignments for practicum students cuts down on faculty travel for site visits. YouTube used for posting video assignments.	The same steps as in 2011	2008	No End Date (Continuous)
Schedule Multiple Student Observations	Ongoing/In Progress		Child, Youth & Family Studies - Schedules multiple student observations on one day so that they only have to travel once to the site or to combined sites.	The same steps as in 2011	2008	No End Date (Continuous)
Schedule Piggy-Backed Meetings	Ongoing/In Progress		Deans area schedules piggy-backed meetings to reduce travel requirements (Human Services Dean, Health Sciences Dean, Nursing Educators of BC meetings scheduled back to back - BC Business Deans, Arts and Sciences Deans scheduled back to back.)	The same steps as in 2011	2008	No End Date (Continuous)
Reduced Travel to Meetings	Ongoing/In Progress		Programs have reduced travel to out of region meetings (attend one meeting per year rather than two).	The same steps as in 2011	2008	No End Date (Continuous)
Professional Development Days	Ongoing/In Progress		Some instructors watch online webinars for PD Days.	The same steps as in 2011	2008	No End Date (Continuous)
Articulation Conferences	Ongoing/In Progress		Programs send their faculty to articulation conferences only when their discipline is being articulated.	The same steps as in 2011	2008	No End Date (Continuous)
Education, Awareness, and Engagement						
Team-building						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress		Bachelor of Business Administration students completing an assessment of COTR's 'STARS' rating.	The same steps as in 2011	2010	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress		Bachelor of Business Administration Program hired a .2 Sustainability Coordinator to promote a culture of sustainability within the department and College.	The same steps as in 2011	2010	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress		e-Marketing instead of print marketing.	The same steps as in 2011	2010	No End Date (Continuous)

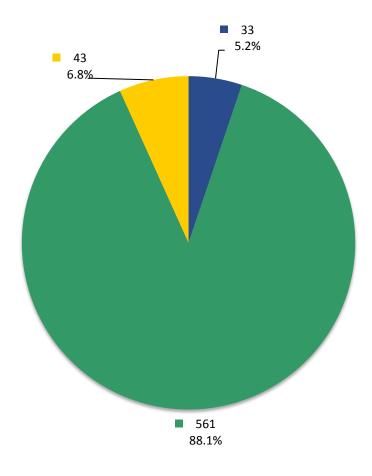
Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Staff Professional Development						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		Business Administration faculty attend sustainability-focused professional development events/workshops.	Creston Campus - Environmental Solar Heating Conference June 2012	2008	No End Date (Continuous)
Staff awareness/education		'				
Provide education to staff about the science of climate change	Ongoing/In Progress		All College of the Rockies campuses provide courses to staff and the community on various topics related to climate change.	The same steps as in 2011	2008	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		All College of the Rockies campuses provide courses to staff and the community on various topics related to conservation.	Creston Campus - Newsletter posted on website and emailed with Greenhouse Happenings, including xeriscape workshops.	2008	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		College website - Environmental Committee has a Projects page with information on campaigns and recycyling going on around the College. Student Handbook on website details some of the initiatives that students will notice around the campus.	The same steps as in 2011	2008	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		All College of the Rockies campuses provide courses to staff and the community on various topics related to climate change. Golden Campus' Adventure Tourism Business Operations Diploma has several courses dedicated to sustainability and stewardship. Fernie Campus Mountain Adventures Skills Training students co-host an environmental film festival every February which aims to educate the public, students, and staff about the effects of climate change. University Studies Program hosted workshops for students/staff/faculty/community on environmental sustainability.	2nd Annual Green Building Conference March 2-3, 2012 in Kimberley, BC. Plan to expand on conference to attract even more regional builders. Changing Climates, Changing Forests presentation March 8th, 2012 @ Cranbrook Campus.	2008	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		All College of the Rockies campuses provide courses to staff and the community on various topics related to sustainability and conservation. Examples of College of the Rockies courses offered at our various campuses - Bachelor of Business Administration in Sustainable Practices; Introduction to Greenhouse Growing; Xeriscape (Water Wise Gardening); Composting; Community Garden Development Training; Home Energy Efficiency; Green Building - The Natural Way; Compost Facility Operators Certificate Program; Natural Building Workshops; Managing Sustainable Operations; Environmental Studies Certificate. Creston Campus has an ongoing demonstration water-saving garden in front of campus building.	All College of the Rockies campuses provide courses to staff and the community on various topics related to sustainability and conservation.	2008	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		Newsletter posed on website and emailed with Greenhouse Happenings and xeriscape workshops.	Newsletter posed on website and emailed with Greenhouse Happenings and xeriscape workshops.	2010	No End Date (Continuous)
Other Education, Awareness, and Engagement Actions						
Winter Harvest Project - Row Cover Experiment Report	Completed in 2011		College of the Rockies Community Greenhouse, Creston Campus. Testing difference in plant growth among three different weights of plant covers used in growing environments in a hoop house over the growing season.		2009	2011

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Classes on Purchasing Local Produce	Ongoing/In Progress		Creston Campus - Classes on purchasing local produce. Share space with Farmer's Market. Work with local Farmer's Market and promotion.	Creston Campus - Classes on purchasing local produce. Share space with Farmer's Market. Work with local Farmer's Market and promotion.	2009	No End Date (Continuous)
LEED Slideshow on Main Entrance Wayfinding Directory	Completed in 2011		Green Building Design / LEED slideshow playing on Main Entrance Wayfinding Directory.		2010	No End Date (Continuous)
Other Sustainability Actions						
Water conservation						
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress		Upgrading of fixtures as needed. Invermere Campus - Urinals replaced in men's washrooms. In the spring and summer months, the campuses abide by their community's water conservation regulations. Completed before 2011 - Cranbrook Campus water fountains introduced in weight room and gym to encourage students and staff to bring water bottles and not purchased bottled water.	Plan to replace all aging fixtures in satelite campuses.	2010	No End Date (Continuous)
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		Creston Campus - Rain barrels and water catchment that catch water off of greenhouse drains; irrigation system in the greenhouse and gardens to save water; slowly changing lawns to beautiful xeric plants and pathways to minimize water usage.		2008	No End Date (Continuous)
Waste reduction/diversion						
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress		Campuses have implemented and follow paper recyclables programs. Creston Campus - Have set up compost buckets in the staff room as well as in the student lounge (and have the compost bins outside the actually do something with it); Collecting hand towels outside of washrooms - these are being put in the compost bins; Using all the cuttings from the lawn in the compost bins; Both the staff office and student kitchen have had donations of place settings for 60 people so have done away with disposable plates and cutlery.	Creston Campus - Plan to create a compost bin that is more readily available to staff and students.	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		Hazardous waste reduction and disposal strategy in the chemistry lab. Tube Eater disposal strategy for fluorescent light bulbs.		2008	
Procurement (non-paper supplies)						
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Ongoing/In Progress		All toner is ordered in a larger size to reduce waste. All cartridges are recycled. Purchasing department to look into recycled content in non-paper office supplies. Golden Campus - Town of Golden designates certain weeks per year where non-paper items, such as computers, printers, cartidges, etc can be gathered for recycling. Environmental Committee - Attempt to draft a policy regarding all of the issues. Research the quality of recycled goods to ensure that we are not disposing of two recycled items rather than one non-recycled item.		2008	

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	In Development		At this time we do our best to take all of this inter consideration wnd with more time and research alternatives we can meet these objectives.		2008	
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Gold Creek Campus 2011 custodial contract and Cranbrook Campus 2011 custodial contract were tendered with use of green products as a requirement. Use of green products will be specified and required in all future custodial contract tenders.	Green Cleaning Policy adopted. All products must follow LEED standards.	2011	No End Date (Continuous)
Require a minimum purchase of sustainable, and organic food and beverages supplied by contracted food suppliers or caterers	Ongoing/In Progress		Golden Campus was instrumental in establishing the Golden Community as a Fair Trade Community.	Kimberley Campus - Contact caterers and request from them menus that incorporate organic or regionally grown food.	2011	No End Date (Continuous)
Building construction, renovation, and leasing						
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress		Contractors and staff are instructed to re-use/recycle materials where feasible. Inveremere Campus - Donates old monitors to community organizations.	Creston Campus - Reuse old cabinets etc. as much as possible. Destroyed student tables being reused as greenhouse planting tables with wire mesh.	2008	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		Scent free environment is encouraged with signage but is not policy.	Cranbrook Main Campus changed hand soap from scented to non-scented.	2008	No End Date (Continuous)
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		The Facilities department purchases products with low VOCs whenever possible.	Same steps as in 2011	2008	No End Date (Continuous)
Commuting to and from home						
Introduce telework/work from home policy	Ongoing/In Progress		Faculty staff can work from home if necessary. Post lessons on MOODLE. Have students upload assignments to MOODLE sites and then mark assignments virtually.	Same steps as in 2011	2008	No End Date (Continuous)
Offer staff a compressed work week	Ongoing/In Progress		Marketing's graphic artist works four days rather than five per week. Eliminates commute to and from Kimberley one day per week.	Same steps as in 2011	2011	No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		COTR Students Association Upass program continued which is manditory for all full-time Cranbrook Campus students and provides unlimited public transit usage. Bike racks available on College of the Rockies campuses.	Same steps as in 2011	2008	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		Shower facilities available in gym locker rooms.	Same steps as in 2011	2008	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		Bike racks available on College of the Rockies Campuses.	Same steps as in 2011	2008	No End Date (Continuous)
Modify parking fees or parking availability for staff/students	Ongoing/In Progress		No parking fees at College of the Rockies' Campuses.	Same steps as in 2011	2008	No End Date (Continuous)
Other Sustainability Actions						

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Local Food Production	Ongoing/In Progress		Creston Campus - Our greenhouses are producing food locally for our community - no packaging needed. Growing vegetables in the winter with no heat and no electricity (in cold frame).	Same steps as in 2011	2008	No End Date (Continuous)
Cafeteria/Kitchen	Ongoing/In Progress		Cranbrook Campus - Tender issued in Summer 2011 for cafeteria service provider included requirements for environmentally friendly products, including biodegradable or recyclable dishes and cutlery. Cafeteria service providers when applicable utilizes fair trade Organic products.	Cafeteria service provider interested in bringing in separated garbage can system which would allow users to recycle paper products from garbage items, and recyclables.	2011	No End Date (Continuous)

College of the Rockies Greenhouse Gas Emissions by Source for the 2011 Calendar Year (tCO₂e*)



Total Emissions: 637

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

Offsets Applied to Become Carbon Neutral in 2011 (Generated May 18, 2012 11:07 AM)

Total offsets required: 618. Total offset investment: \$15,450. Emissions which do not require offsets: 19 **

^{*}Tonnes of carbon dioxide equivalent (tCO₂e) 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.

^{**} 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.