KWANTLEN
POLYTECHNIC
UNIVERSITY

Carbon Neutral Action Report

2012

KWANTLEN POLYTECHNIC UNIVERSITY

2012 Carbon Neutral Action Report Overview

Executive Summary

Kwantlen Polytechnic University (KPU) is one of BC's new universities, and the first university in BC with a polytechnic mandate, in recognition of its "versatility in providing academic, trades and horticultural training." The KPU executive team, shares the vision and ambition to create positive change across this vital part of our economy and society.

Throughout 2012 KPU continued to build on its inherent exemplary leadership in sustainability. In continuing to fulfill our commitment we've introduced a new Bachelor of Applied Science in Sustainable Agriculture and are continuing to develop new credentialed programs which embrace sustainability as a foundational philosophy. Thereby spreading our commitment of creating positive change, through the broad scope of programs we offer, to serve the needs of our community.

Strategic Energy Management Planning remains to be a key element for fulfilling our commitment to sustainability, and we will continue to pursue sustainable actions via the 2013 S.E.M.P.

2012 Greenhouse Gas Emissions

KPU's 2012 total emissions from all sources as reported by SMARTTool are 2665 tCO_2e, resulting in a reduction of 227 tCO_2e, or a 12.74% drop from 2011 emission levels. This decrease can be reasonably attributed to reduced Natural Gas consumption, which resulted from slightly warmer weather lowering demand, and the effects of energy efficiency improvement projects, which reduced overall energy consumption. We believe in continuous improvement and constant pursuit of efficiency enhancement is a foundational cornerstone of our organizational attitude.

2012 Mobile emissions totaling 19.32 tCO_2e, which were generated by KPU's seventeen assorted vehicles and a variety of outdoor-power equipment, were reported in our total emissions as fleet emissions and revealed a 2.22% increase from 2011 levels. This minimal increase in emissions is reasonably within normal variances resulting from operational activities. Yet once again this source remains well below 1% of our total emissions.

Annual Fugitive Emissions generated by refrigeration equipment are in minute quantities spread over many pieces of equipment, and there is difficulty gathering data. However, we have been gathering equipment maintenance records of refrigerant top ups, to record quantities of refrigerants contributing to fugitive emissions. While these emissions represent less than 1% of our total emissions and were not reported in 2012, as permitted under regulatory guidelines, we are in the process of developing a reporting template, to submit the data to the SMARTTool reporting system, and further hone emissions tracking and reporting precision.

Offsets Applied to be Carbon Neutral in 2012

KPU has completed our Carbon Offset Purchase Order Form from Pacific Carbon Trust and purchased carbon offsets for total emissions as identified in SMARTTool for the total emissions calculated for 2012.

Emission Reductions Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2012:

- The University has worked on establishing a broad based Green Campus initiative and the Executive has endorsed establishment of an Environmental Committee co-chaired by the Dean of Science & Horticulture and the Executive Director Facilities Services.
- As part of Facilities Services continuous focus on reductions of GHG emissions and energy consumption, we've completed installation of real time Earthright dashboards for 100% of our building main energy meters, and plan to install additional sub-metering within individual buildings or systems to obtain more refined data. This will allow us to track and analyze energy consumption patterns more definitively, and enable us in identifying more opportunities for energy savings.
- We updated records from previous years to monitor our energy performance baseline.
- Our Energy & Sustainability Website provides information and green tips to raise awareness on energy conservation and sustainability. http://kwantlen.ca/sustainability.html
- We have been providing interactive presentations on energy conservation and sustainability issues, at information sessions at the start of semesters and at new employee events.
- The University President is an exemplary proponent of environmental sustainability and uses a Hybrid vehicle.
- KPU Campuses registered withCarpool.ca in 2012 and provides a free ride matching service for students and employees accessible from the KPU website.
- KPU's inter-campus free shuttle funded by the Student Association and KPU has student and employee ridership increasing from 500 per week in Oct. 2011, to 1150 per week in Sept. 2012 and growing.
- In support of the Student Association Car-2-Go program KPU has provided at no cost dedicated reserved parking spaces on all campuses and identified on the KPU website and campus parking maps.
- The renovation of the former Trades Building at Langley (2,290 m^2) is targeted a minimum of LEED Silver.
- Mechanical, Lighting and Control Systems were upgraded during the Langley campus Community and Health Studies (2,290 m^2), & Richmond campus Phase One renovation projects (1,271 m^2).
- Upgraded insulation at Langley campus Community and Health Studies renovation project (2,290 m^2).
- We've continued the practice of ensuring that all computers purchased are "80 plus" certified and monitors are "Energy Star" certified.
- The Board of Governors continues to receive their materials electronically, and the use of electronic distribution of materials, has expanded to include the Senate and is continuing to expand throughout the administrative group and into other areas to minimize printing.
- The Shuttle Bus Service uses Low Emission vehicles. The Security service patrol vehicles and Parking service patrol vehicles are low emissions models.
- The Horticulture department developed and presented a series of educational symposiums called Green Wednesdays, aimed at informing and instructing community members in sustainability. http://www.horticulturebc.info/greenWednesdays.htm
- KPU's new Bachelor of Applied Science in Sustainable Agriculture creates more opportunities for the advancement of Sustainable Practices.

Plans to Continue Reducing Greenhouse Gas Emissions 2013– 2015:

- KPU continues to develop new credentialed programs, advocating the philosophy of sustainable practices.
- The new Richmond campus $36 Million Chip and Shannon Wilson School of Design building, scheduled to open in 2015, will be designed and constructed to achieve a minimum of LEED Gold.
- Any new construction or major renovations will include LEED equivalent. All renovation and construction projects will use integrated design process.
- The Strategic Energy Management Plan is updated annually to identify further energy conservation projects.
- Mechanical, Lighting, and Control systems are being upgraded during the Richmond Phase Two renovation project.
- The Senate Education Council is planning for the move to the use of electronic distribution of materials. Other opportunities will be explored throughout the organization.

KPU is vitally committed to leadership in sustainability, providing progress opportunities to its community, and creating positive change.

Links to KPU documents with publically available sustainability information

Further information about KPU's plans and current initiatives in energy and environmental management, are available at the URL's below:
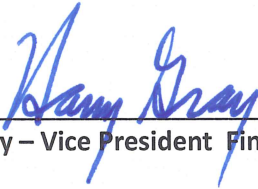
Facilities Services
http://www.kwantlen.ca/facilities/sustainability.html

Supply and Business Services
Green Index: http://kwantlen.ca/supply/green.html

Signature

Harry Gray

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Harry Gray – Vice President Finance & Administration

Date

May 9, 2013

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Kwantlen Polytechnic University - 2012 Carbon Neutral Action Report

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	Ongoing/In Progress	Completed before 2010.	Continue process.	2009	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	Reminder notice and instructions issued for all KPU vehicles and Campus Shuttle Buses for KPU's support anti-idling awareness program established by www.idlefreebc.ca	Continue process.	2011	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	KPU Campuses registered withCarpool.ca in 2012 and provides a free ride matching service for students and employees accessible from the KPU website.	Continue process.	2011	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	The "Translink Employer Pass Program (EPP) Implementation Plan" was provided to the KPU Administrative Council, for review.	Continue review and adoption process for launch of "Translink Employer Pass Program (EPP) Implementation Plan".	2011	No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	Vehicles updated prior to 2010. Planning in progress for next replacement cycle.	Develop replacement plan with fuel efficiency as a primary criteria.	2009	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	Vehicles updated prior to 2010. Planning in progress for next replacement cycle.	Will be considered as part of replacement plan in development.	2009	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	All Vehicles undergo regular maintenance, with fuel efficiency as a desired outcome.	Continue process.	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through ""workstation tune-ups""	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Not Yet Evaluated				No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress	Considered alternatives to increase participation in closing blinds to reduce heating/cooling demands.	Cleaning staff will be requested to close blinds as they move through areas on cleaning rounds, and we will increase communication to encourage more employee participation.	2008	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Not Yet Evaluated				No End Date (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)
Encourage use of stairs instead of elevators	In Development	Contemplated message delivery methods.	We will be installing signs in elevators to encourage use of stairs.	2012	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	Signs in place in all work areas asking occupants to turn off lights when leaving. Cleaning personnel reminded every 4 months, to	Continue process.	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		assist in energy conservation endeavor, by turning off lights in unoccupied areas, where lights have been left on.			
Promote hot water conservation	Ongoing/In Progress	Low flow aerators inspected routinely and replaced if missing or defective. All faucets have low plow aerators.	Continue process.	2008	No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	All our PC desktops are shut down automatically outside of regular business hours. We have converted 90% of the student PC Desktops with Thin Clients. Although Thin Clients are never shut down, a Thin Client power consumption is 85% less than a PC Desktop.	No Actions taken other than expanding the Thin Client implementation into the Staff areas which will cut the power consumption per computer by 85% of a standard computer. Cloverdale Campus has been 90% converted to TC the remaining 10% need to be PCs due to application requirements.	2009	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	65% of new Servers provisioned in 2011 have been virtualized.	All new servers requested will be virtualized unless there is a requirement for a Hardware server.	2009	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	100% of monitors are on screen savers and none of computers have auto sleep.	Expanded implementation of Thin Clients in staff areas with auto-sleep enabled which will bring the percentage up to 75%.	2009	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	No progress in 2012.	A new Management Print Service Contract will be developed for the University in the Spring of 2013, and will include the requirement for Assessment and Implementation for Print Device Optimization, Device Management Monitoring Tools, Print Management Cost Controls Tools and the development of a University wide Print Reduction Strategy and Policy.	2010	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Ongoing/In Progress	All multi-function devices are delivered with this setting.	All multi-function devices are delivered with this setting.	2010	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	All new computers purchased are "80 Plus" certified and Monitors are "Energy Star" certified.	Continue to purchase energy certified equipment.	2010	No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Ongoing/In Progress	Updated records from previous years to monitor energy performance baseline.	Will continue process and monitor energy performance baseline.	2008	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	Renovation of former Trades Building at Langley is targeted a minimum of LEED Silver.	Any new construction or major renovations will include LEED equivalent. Any Provincially funded new construction will meet a minimum LEED Gold. The new $36 Million Chip and Shannon Wilson School of Design building opening in 2015, will be designed and constructed to achieve a minimum of LEED Gold.	2008	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In	We maintain a program of continuous improvement and regularly	Strategic Energy Management Plan updated annually to identify	2008	No End Date

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
	Progress	implement energy efficiency projects. In 2012 we performed 5 projects.	further projects.		(Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress	All equipment using refrigerant is maintained on a regular basis and refrigerant is recorded to meet regulatory requirements.	Continue process.	2008	No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Ongoing/In Progress	Spacial inventory to establish baseline data completed.	Monitoring with annual reporting ongoing.	2011	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	Completed installation of Earthright dashboards in 100% of our buildings for main energy meters.	We plan to add additional sub-metering for individual buildings, connected to our Building Automation System to refine energy consumption tracking and identify savings opportunities.	2008	No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	We upgraded during the Langley CAHS project and Richmond Phase One Renovation project.	Future projects will include upgrades.	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	We upgraded during the Langley CAHS project and Richmond Phase One Renovation project.	Future projects will include upgrades.	2008	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	We upgraded during the Langley CAHS project and Richmond Phase One Renovation project.	Future projects will include upgrades.	2008	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	We upgraded building insulation / envelope during the Langley CAHS project.	Future projects will be reviewed and upgrades will be included when required.	2009	No End Date (Continuous)
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	Continued posting material using Sharepoint.	Continue deploying Sharepoint institution wide.	2011	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	The Board of Governors continues to receive their materials electronically. This has expanded to include the Senate, and is continuing to expand throughout the administrative group and into other areas.	Continue process of expanding use of electronic distribution of materials. The Senate Education Council is planning to move to the use of electronic distribution of materials.	2011	No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	Continued to deploy Sharepoint institution wide.	Continue deploying Sharepoint.	2011	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	Practice of using electronic library for filing common documents implemented before 2010.	Continue practice.	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress	Practice of using an electronic payroll notification system in place of paper pay stubs implemented before 2010. Implemented optional electronic T4 Statements.	Continue practice.	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Paper Type					
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	Paper purchased contains the maximum percentage of recycled content possible that will work in our printers.	Continue practice.	2011	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	In Development	Under review by Print Centre.	Continue review.	2011	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	All network printers are setup to default to automatic double sidded when installed.	Continue Practice	2010	No End Date (Continuous)

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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 reporting requirements defined in the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act. Public sector

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	Continued training additional personnel and expanding use of web-conferencing.	Continue expanding.	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	The university has video conference facilities on each campus as well as implementing desktop video conferencing and continues to expand services.	Full implementation including encouraging staff behavior changes will be undertaken in 2013.	2011	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	Carpooling is encouraged through preferential parking.	Continue practice.	2008	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress	The University continued to operate an inter campus shuttle service throughout the year.	Reduction of budget for mileage is being planned to further encourage reducing travel costs.	2011	No End Date (Continuous)
Other Business Travel Actions					
Use of Hybrid and Low Emission Vehicles	Ongoing/In Progress	The University President is an exemplary proponent of environmental sustainability and uses a Hybrid vehicle. The Shuttle Bus Service uses Low Emission vehicles. The Security service patrol vehicles and Parking service patrol vehicles are low emissions models.	When the Shuttle Bus contract is retendered it will emphasize use of Low Emission vehicles.	2011	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress	Kwantlen's Travel policy is currently being revised.	A Draft Policy is being reviewed and is expected to be implemented in 2013.	2011	No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	Office communication is installed on all desktops.	Implement MS Lync.	2011	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	Continued expansion of installation of desktop web cameras.	Continue installing web cameras as required.	2010	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	Continued expansion of installation of video conferencing installations in meeting rooms.	Continue expanding.	2011	No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	In Development	No action taken.	No initiatives planned at present. The new Environmental committee will consider.	2013	No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Not Yet Evaluated				No End Date (Continuous)
Include green options in employee performance measurement system	Ongoing/In Progress	A new Bachelor of Applied Science in Sustainable Agriculture offered for intake in September 2012. Establishing these programs provides educational opportunities to both Faculty and Staff.	KPU continues to develop new credentialed programs, advocating the philosophy of sustainable practices.	2011	No End Date (Continuous)

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Actions to Reduce Provincial Emissions and Improve Sustainability

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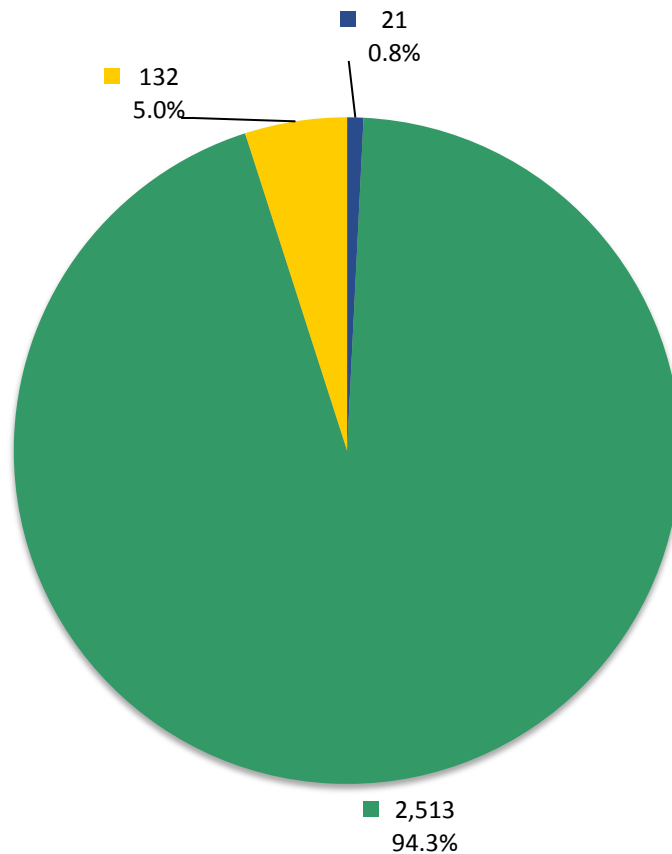| Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Staff awareness/education					
Provide education to staff about the science of climate change	Ongoing/In Progress	Our Energy & Sustainability Website provides information and raises awareness on energy conservation and sustainability. We have been providing presentations on energy conservation and sustainability issues, at information sessions at the start of semesters and at new employee events.	A new Bachelor of Science, Physics for Modern Technology, is in development and will include Special Topics such as Green Energy Technology. Establishing these programs provides educational opportunities to both Faculty and Staff.	2011	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress	Our Energy & Sustainability Website provides information and raises awareness on energy conservation and sustainability. We have been providing presentations on energy conservation and sustainability issues, at information sessions at the start of semesters and at new employee events.	We plan to offer training and support on energy conservation to employees in high use energy areas who control the major equipment and systems.	2011	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress	Our Energy & Sustainability Website provides green tips and raises awareness on energy conservation and sustainability.	Continue process.	2011	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress	Provided interactive presentations on energy conservation and sustainability at Employee & Student orientation and information events.	Continue process.	2011	No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress	The University has worked on establishing a broad based Green Campus initiative and the Executive has endorsed establishment of an Environmental Committee co-chaired by the Dean of Science & Horticulture and the Executive Director Facilities Services.	Document the particulars of the various groups activities.	2010	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development	No action taken.	Resource funding strategies will be explored.	2013	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress	The Horticulture department developed and presented a series of educational symposiums called Green Wednesdays, aimed at informing and instructing community members in sustainability.	Continue practice and explore further opportunities.	2009	No End Date (Continuous)
Other Sustainability Actions					
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in climate will affect the organization's business areas	Ongoing/In Progress	This forms part of the university's 'all hazards approach' for addressing its business continuity planning efforts	No changes planned.	2012	No End Date (Continuous)
Integrated considerations of extreme weather events and/or long term changes in climate into the organization's decision making.	In Development	No action taken.	Will be reviewed as part of a broader Risk Management mandate.	2014	No End Date (Continuous)
Building construction, renovation					
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress	New construction & renovations diverted debris from the landfill and reused building material, as required by LEED , or as LEED equivalent.	This is addressed through department practices rather than policy.	2008	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Ongoing/In	We use life cycle costing when appropriate, to determine most	Continue process.	2008	No End Date

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Actions to Reduce Provincial Emissions and Improve Sustainability

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
	Progress	suitable products for renovations & construction.			(Continuous)
Commuting to and from home					
Introduce telework/work from home policy	Ongoing/In Progress	This is done informally throughout the University.	Continue process.	2008	No End Date (Continuous)
Offer staff a compressed work week	Ongoing/In Progress	A number of our employees enjoy a modified or flexible work arrangement within the department where they work. These arrangements provide for employees to work the same number of hours that they have been hired for in a reduced number of days.	Continue process.	2008	No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress	Continued to operate inter campus shuttle between Surrey, Cloverdale, & Langley campuses, providing free service to all Kwantlen students, faculty & staff members. The UPASS program has been continued.	Continue to explore opportunities.	2008	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress	Completed at 3 of our 4 campuses before 2011.	Continue to explore opportunities to improve services and provide facilities at all campuses.	2008	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress	Bicycle storage fixtures are in place at all campuses for cyclists to lock their bicycles with their own locks.	The KSA is installing additional bike lockers on all campuses.	2008	No End Date (Continuous)
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	The Purchasing Green Index for consumables, equipment and services is included in terms of reference for the Sustainable Healthy Campus Committee presented to the Administrative Council.	Continue process.	2012	No End Date (Continuous)
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Ongoing/In Progress	Furniture, carpet and paint products selected include green standards as selection criteria and requirement specified in contract agreements. Established written green standards for office & classroom furniture as part of new procurement contracts.	Continue process.	2010	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress	Continued using green cleaning products & processes.	Continue Green cleaning program.	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	Departmental Waste Management and the Environment practice has an active listing of approximately 24 material products that are recycled or diverted from landfill including auctioning of obsolete furnishings and equipment.	Continue program. With signing of a new contract for Waste & Recycling Services, will be reviewing whether any emerging industry trends provide new opportunities. The KSA and KPU are adding Water Fill stations to all campuses to reduce the number of plastic water bottles in the landfill and to decrease the amount of plastic consumed.	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress	Minimized hazardous products used. Disposed through recycling and safe disposal practices.	Continue program.	2008	No End Date (Continuous)
Water conservation					

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Actions to Reduce Provincial Emissions and Improve Sustainability

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress	Enhanced maintenance program that continued to repair or replace old or worn out taps with efficient models.	Continue process and replace old taps with new ones.	2011	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	All landscape modifications are xeriscape landscaping. The recently completed CAHS project at Langley Campus uses water efficient toilets and plumbing fixtures.	The planned new building at Richmond campus will use water efficient toilets and plumbing fixtures. All new installations will use water efficient models. When existing fixtures reach end of life they will be replaced with efficient models.	2008	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress	Maintained existing storm water management features including bioswales, low flow roof drains, and permeable paving.	Continue practice.	2008	No End Date (Continuous)

Kwantlen Polytechnic University
Greenhouse Gas Emissions by Source
for the 2012 Calendar Year (tCO$_2$e*)

21
0.8%

132
5.0%

2,513
94.3%

Total Emissions: 2,666

■ 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 2012 (Generated May 27, 2013 11:39 AM)
Total offsets required: **2,665**. Total offset investment: $**66,625**. Emissions which do not require offsets: **1** **

*Tonnes of carbon dioxide equivalent (tCO$_2$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.

** 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.