



2010 Carbon Neutral Action Report

Okanagan College



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Executive Summary

Okanagan College is continuing its development as an organization whose students, staff and administrators are focused on environmental leadership. In November 2010, the College was honored with the first-ever **TechGREEN** award to be presented by the Applied Science, Technician and Technologists of British Columbia.



The award recognizes “those who take a leadership role or have substantial involvement in initiatives that have a positive impact on green living, sustainable best practices, energy conservation and environmental benefits.”

In 2010, Okanagan College became a signatory to the Sustainable Tracking and Assessment Ratings System (STARS), which is administered by the **Association for the Advancement of Sustainability in Higher Education (AASHE)**. More important than the membership though, is the College’s commitment to using the **STARS** as a Key Performance Indicator within its strategic plan (which was revisited and redeveloped in 2010-11).

The commitment to promoting carbon neutrality, energy efficiencies and new ways of thinking, learning and teaching spread across the country, with a consortium agreement

that Okanagan College signed with Ontario's Durham College, Alberta's Lethbridge College and Nova Scotia Community College. That partnership will facilitate knowledge and technology development and transfer related to renewable energy, while advancing Canada's sustainable building agenda.



college sustainable building consortium

Under the agreement, the Colleges will work together to plan and co-ordinate program development, applied innovation projects and connections with industry and various federal and provincial agencies.

The \$28-million Centre for Learning at the College's Kelowna Campus continues to attract the attention of those interested in energy-efficient design and construction. In 2010, the Centre, its architects and builders won three awards at the Okanagan Mainline Real Estate Board (OMREB) Commercial Division awards, including the award for greenest building and the Judges' Choice.



A new era in public building standards draws close as construction nears completion on the \$28-million Centre of Excellence in Sustainable Building Technologies and Renewable Energy Conservation, at Okanagan College's Penticton campus. The goal is to achieve the **Living Building Challenge** – the most stringent of environmentally-responsible construction and operating standards. The structure, the construction techniques, and the process that led to its design and development have all attracted international attention. Systems being implemented in that building include a photo-voltaic array on the roof of the building, geothermal heating and cooling, a living roof, solar chimneys . . . the list is extensive.



The efforts to promote and realize carbon neutrality extend further, from energy-savings initiatives, to implementation of a bicycle lending program at our Penticton campus, and addition of bike lockers at each of our four campuses.

A solar hot water heating system was added to our Kelowna campus residence, while building automation control programs were completed on the Salmon Arm and Kelowna campuses in 2010. The Vernon and Penticton campuses are targeted for completion in the future.

A technical and economic feasibility study on our Kelowna campus's innovative district heating system (which relies on grey-water discharge from the nearby water treatment plant) is underway. The goal is to further reduce our natural gas dependency and greenhouse gas emissions. Pulse Energy, Fortis BC and Okanagan College are partnered in a continuous optimization program that should further reduce energy usage; it may well include sub-metering capabilities.

With the support of our students, staff and the communities we serve, Okanagan College is making significant strides toward the goals of carbon neutrality, environmental stewardship and leadership.

Jim Hamilton

President, Okanagan College



2010 Greenhouse Gas Emissions

Total Greenhouse Gas Emissions for 2010 = **1904.26 tonnes of CO₂e**

Offsets Applied to Become Carbon Neutral in 2010

1901.61 tonnes of CO₂e will be applied to Pacific Carbon Trust to become carbon neutral.

2.65 tonnes of CO₂e do not require offsets due to the ethanol content in fuel for vehicles.

Emissions Reductions Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2010

- Okanagan College is constantly updating its long term energy plan. Using renewable energy technology is a primary consideration in our entire decision making.
 - Penticton – Centre of Excellence will have both photo voltaic cells and solar thermal systems. Geothermal systems are used to utilize ground source energy in this new building. (Completion date May 2011)
 - Kelowna - A solar hot water heating system was added to the Student Residence.
- We executed a number of building automation control project upgrades designed to reduce energy usage. Kelowna and Salmon Arm campuses are completed with Vernon and Penticton campuses to follow.
- An interim Energy Manager was hired for 2010 and we hope this will continue in the following year.
- Lighting upgrades are continuous on all campuses. This includes both lamp replacement and control strategies i.e.; occupancy sensors and daylight sensors.
- Other initiatives completed this year included secured bike lockers, bicycle sharing program, solar powered ticket dispensers, formation of campus eco-committees.

- Kelowna campus district heating systems had significant changes made to the overall operations. The initial modifications are showing an immediate reduction in natural gas usage.
- Mandate purchase standards to require a minimum of 30% post consumer waste for all copy paper.
- Replaced larger fleet vehicles with more fuel-efficient models, perform regular fleet maintenance to improve fuel efficiency.

Plans to Continue Reducing Greenhouse Gas Emissions 2011-2013

- Construction on the new Centre of Excellence Building in Penticton will be completed by May 2011. It is expected to meet LEED Platinum and the more stringent Living Building Challenge status.
- OC – KLO campus is undergoing a technical and economic feasibility study on our district heating system. This should further reduce our natural gas dependency and greenhouse gas emissions.
- In a partnership with Fortis BC and Pulse Energy, we are participating in a continuous optimization program which will help reduce our energy usage and by extension, greenhouse gas emissions. Part of this program includes further developing our sub metering capabilities.
- OC started a project called “3 Steps Forward” in 2009. The mission is to make Okanagan College environmentally, socially, and economically sustainable. This project is being pursued more aggressively going forward. Some planned initiatives include composting station, community garden and a community hobby farm.
- Behavior changes (other than transportation) to include driver training.
- Enhance processes to evaluate cradle to grave product life cycles.
- Systematically review all assets and develop a repair schedule that focuses on proactive and sustainable approaches to improvement.

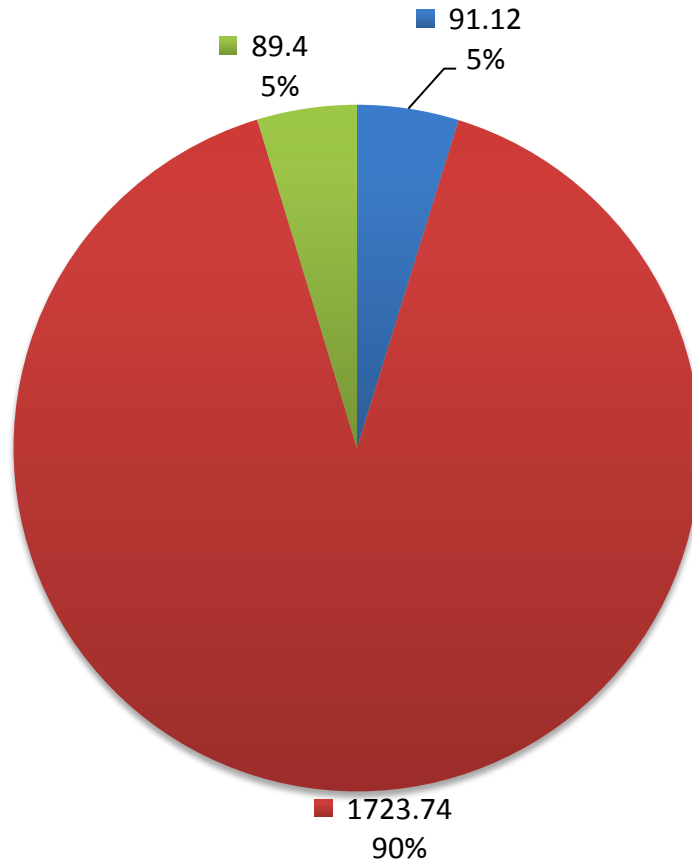


Operational Changes in 2010

- Facilities Management has hired an interim Energy Manager to identify policies and strategies for reducing GHG emissions and to promote energy conservation among student, faculty and staff.

Okanagan College

Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e*)



Total Emissions: 1904.26

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion and Electricity (Buildings)
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: **1901.61**. Total offset investment: **\$47,540.25**. Emissions which do not require offsets: **2.65** **

*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.

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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 <i>Greenhouse Gas Reduction Targets Act</i> .							
Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equipment)							
Vehicle fuel efficiency							
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	10	% of vehicles are fuel- efficient models	No new fleet vehicles have been aquired	Lobby for additional funding for fleet replacement	2011	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	10	% of vehicles down-sized since start year indicated	No new fleet vehicles have been aquired	Lobby for additional funding for fleet replacement	2011	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	All fleet vehicles are regularly serviced and meet requirements	Continued awareness and development of campus wide vehicle maintenance schedules	2011	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	In Development	10	% of small maintenance vehicles are fuel-efficient	Electric golf carts are utilized more to replace gas powered delivery vans where applicable	Continued evaluation	2011	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress			2010 Hired interim Energy Manager for 1 yr contract	The executive at Okanagan College have endorsed the “Stars” program which is at the preliminary stages. A bench mark will have to be set.	2009	No End Date (Continuous)
Reduce office space (square meters) per employee	In Development	50	is the current average rentable square meters per employee	Okanagan College has developed "Office Space Guidelines" for Faculty, Staff and Management offices. Additionally open plan offices are being suggested to further reduce the space required per faculty /staff member, through common space efficiencies.	During renovation or new construction projects promote the use of open plan office spaces and/or redesign of existing office spaces to reduce their size to reflect the current office space standards.	2007	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	70	% of buildings have a real time metering system installed	We have added Pulse Energy as a reporting tool to our KLO Campus - which accounts for 80% of our Total Electricity and 64% of our Total Natural Gas. This includes individual Elec. Meters for each building and 3 sub-meters for the gas. We could further improve the M&V of our gas with additional BTU metering in each building (our gas is the fuel source for the central heating plant which is distributed throughout the campus). The Pulse system reports on the data collected from our pre-existing sub meters as well as an additional 5 electrical meters added to further isolate some buildings which were previously "grouped" with others.	Any new buildings will have sub-metering included as part of our construction standard. We have also requested funding to add all significant buildings not already sub-metered.	2009	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	Completed in 2010	100	% of owned buildings have an established energy performance baseline	All Campuses Now Have Established Baselines.		2009	2010
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	In Development	0	% of owned buildings have operations and maintenance labelling/certification	We have procured a copy of the LEED EB O&M Manual and are reviewing to determine if there is a strong business case for using this as a roadmap as our O&M policies.	Further discussion of logistics and financial implications needs to occur before we can determine feasibility of LEED EB O&M	2010	No End Date (Continuous)

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	10	% of owned buildings are certified LEED NC Gold or LEED NC Platinum	We have one building under construction (to be completed April 2011) which is being targeted as LEED NC Platinum as well as the more challenging "Living Building" Status. See link: http://ilbi.org/	While we do not currently have a policy mandating LEED NC standard for new building or major reno's, it is our intent ot meet AT LEAST LEED Gold when these opportunities present themselves.	2007	No End Date (Continuous)
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress	15	% of buildings built or renovated since start year indicated used the integrated design process	Okanagan College currently utilizes an integrated design process on new capital construction projects, including most recently the new Centre for Excellence project under construction at our Penticton campus. Before that project an integrated design process was used on our Centre for Learning project built at the Kelowna Campus in 2009.	Further expand the use of integrated design processes on major renovation projects in the future.	2007	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress	100	% of owned buildings	Refrigeration contractors by law are required to follow ODS regulations. Our contactors use the "Safeguard Refrigerant Tracking system". Policy is not to recharge any refrigeration system prior to following through with a complete leak check sequence as per regulation. All refrigerant lost at Okanagan College is available upon request.	Ensure present standards are maintained. All refrigeration units are checked routinely on our scheduled preventiive maintenace program. Certified contractors are used to do all refrigeration work.	2007	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	5	% of owned buildings have undergone energy retrofits since start year indicated	Our Cafeteria building underwent a complete HVAC upgrade including mechanical system design change, new equipment, DDC controls and lighting.	We have a large number of older buildings with dated mechanical systems - built in an era where energy efficiency was not a major consideration. As such, many of our buildings would benefit from major energy-based retrofits. With a current need for fiscal restraint, many of these must wait until the business case changes (increased utilty prices, system failures, major retrofits, more capital funding etc.)	2009	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	100	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	Our Cafeteria building was our only significant retrofit and it included a complete mechancial system overhaul. As a separate project, we also added a solar-thermal heating plant to the domestic hot water system in our Student Residence Building.	There are a number of mechanical system changes we would like to make but they don't make financial sense unless they are implemented as part of a larger retrofit project. As our Facilities Management and Campus Planning groups are all part of the same Department, all of our retrofits undergo a mechanical system review as part of the planning process.	2007	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	100	% of retrofits since start year indicated had lighting systems upgrades	All retrofits include an upgrade to the most logical lighting system - we have replaced virtually all indoor T-8 and incandescent light fixtures. We have also been addiing occupancy and daylight sensors whenever and wherever we find opportunities that make sense.	We will continue to identify opportunities and implement lighting upgrades wherever budget and manpower levels allow.	2009	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	100	% of retrofits since start year indicated had control system upgrades or adjustments	Our Cafeteria building was the only significant retrofit and it included a control system upgrade. Any other retrofits will also include automation upgrades and adjustments as required. We also performed a DDC upgrade to our Salmon Arm Main Campus - including occupancy and CO2 controls for most of the HVAC systems.	We have a few smaller upgrades in the works for our Vernon campus and KLO Campus Lab building. We will continue to identify opportunites and implement controls upgrades wherever budget and manpower levels allow.	2009	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	0	% of retrofits since start year indicated had insulation improvements	No renovations undertaken in 2010 increased building insulation.	Preliminary budgeting for window retrofit at the Skaha Residence in Kelowna would increase from single to double pane glass on all exterior windows.	2008	No End Date (Continuous)

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Install an on-site renewable energy demonstration project	Ongoing/In Progress	50	% of retrofits since start year indicated had on-site renewable energy components	We added a solar-thermal heating plant to the domestic hot water system in our Student Residence Building.	We will be developing an appropriate educational campaign illustrating how the Student Residence system works and hopefully raising awareness and support for future endeavors. We also have PV electrical generation as part of our new Penticton Center of Excellence. We are looking into additional solar opportunities as well as wind and bio-mass projects.	2008	No End Date (Continuous)
Leased buildings							
Establish energy performance baseline for leased buildings	Ongoing/In Progress	0	% of leased buildings have an established energy performance baseline	Our leased space is such a small percentage of our total building area that we are focusing FIRST on our larger buildings with better ROI's - budget is a strong determining factor in this decision.	We will identify baselines in these spaces as time permits.	2011	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	85	% of computers shut down automatically outside of regular business hours	No progress	Investigate Faronics Powersave	2006	2011
Implement server virtualization	Ongoing/In Progress	73	% of servers have been virtualized since start year indicated	Additional servers were virtualized	Additional servers will be virtualized	2006	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	20	% reduction in printers, copiers, and/or fax machines since start year indicated	No progress	Install additional MFDs	2008	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	100	% of fridges are ENERGY STAR rated	All new purchases must meet Energy Star requirement.	Adherence to procurement policy when purchasing new equipment.	2010	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	In Development			Appliances to be replaced as they become obsolete.	Lobby for funding to replace aging equipment	2011	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Completed in 2010			No incandescent bulbs are purchased for office lamps or any other devices.		2007	2010
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development			Energy Management Section Set-up on College Web Site. Including "Tip of the month". This is one of the responsibilities of the Energy Manager.	Funding has been requested to continue our Energy Manager Program. Further Development of web-site would continue to be his responsibility.	2007	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Janitorial staff, identify and adjust blinds as part of their daily process.	Web-Site and College newsletters to include Energy Savings "Tips of the day".	2000	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	In Development			Energy Management Section Set-up on College Web Site. Including "Tip of the month". This is one of the responsibilities of the Energy Manager.	Funding has been requested to continue our Energy Manager Program. Further Development of web-site would continue to be his responsibility.	2010	No End Date (Continuous)
Encourage use of stairs instead of elevators	In Development			Energy Management Section Set-up on College Web Site. Including "Tip of the month". This is one of the responsibilities of the Energy Manager.	Funding has been requested to continue our Energy Manager Program. Further Development of web-site would continue to be his responsibility.	2010	No End Date (Continuous)

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			We have implemented a "pay-it-forward" motivation campaign where staff and students distribute laminated "turn off your lights" cards to people who have left their lights on, encouraging them to turn off their lights and pass the card on to another offender.	Web-Site and College newsletters to include Energy Savings "Tips of the day".	2007	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			The only significant Hot water usage we have is in the student residence building. We have just completed a solar-thermal heating upgrade and are currently working on an associated educational campaign.	We will be competing in the BC wide College/University energy reduction challenge. This will include student engagement and educational activites designed to reduce our hot water usage. This is planned to be an annual event. Web-Site and College newsletters to include Energy Savings "Tips of the day".	2010	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Install Solar ticket dispensors in parking lot areas.	In Development	5	% of solar ticket dispensors installed.	2 solar ticket dispensers were added to the Vernon & Penticton campuses to replace the electric dispensers.	To install 3 more solar powered ticket dispensers in Vernon & Penticton, dependent on funding.	2009	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	100	% of total paper purchased contains 30% recycled content	Compliance to regulatory requirements	Continued compliance	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	10	% of total paper purchased contains 100% recycled content	Compliance to regulatory requirements	Continued compliance	2009	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	15	% of network printers or photocopiers are set to automatic double-sided	Set new/replacement printers to default to duplex	Purchase only duplex capable printer Make duplexing the default on duplex capable printers	2009	No End Date (Continuous)
Electronic media in place of paper							
Use electronic document library for filing common documents	Ongoing/In Progress	50	% of documents are in electronic format	Extended to President's Office	Extend to Student Services	2003	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress	50	% of materials are online that were previously printed.	New online services added (e.g.: leave requests)	More online services to be added	1995	No End Date (Continuous)
Behaviour change program							
Encourage re-use of scrap paper	Ongoing/In Progress			No Specific Actions taken yet.	Web-Site and College newsletters to include Energy Savings "Tips of the day".	2009	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 <i>Greenhouse Gas Reduction Targets Act</i> . Public sector organizations can optionally use this section to 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 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Business Travel							
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress			No progress	Investigate web-conferencing alternatives	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress			No progress	Investigate video conferencing alternatives	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			To continue to promote carpooling	Continued promotion	2009	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			We have small, burgeoning eco-committees on some of our campuses but need to develop a full fledged "Strategic Energy Management Plan". We started working on this in collaboration with BC Hydro and Fortis. OC has adopted the "STARS" Program to further enhance green initiatives.	This Strategic Energy Management Plan (S.E.M.P.) was the goal of our currently contracted Energy Manager. We are trying to secure funding to continue his contract beyond the current expiration if March 31/2011.	2010	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			Our Energy Manager (contract expires on March 31/2011) was responsible for providing that support	We are trying to secure funding to continue his contract beyond the current expiration if March 31/2011.	2010	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress			"Change Management" is one of the key tenets in the S.E.M.P.	Our Energy Manager is scheduled to attend a Change Management Seminar hosted by BCHydro in March.	2010	No End Date (Continuous)
Staff awareness/education							
Provide education to staff about the conservation of water, energy, and raw materials	In Development			One of the responsibilities of our Energy Manager is to provide ongoing energy conservation education.	Funding has been requested to continue our Energy Manager Program. Further Development of the education department would continue to be his responsibility.	2011	No End Date (Continuous)
Provide green tips on staff website or in newsletters	In Development			Energy Management Section Set-up on College Web Site. Including "Tip of the month". This is one of the responsibilities of the Energy Manager.	Funding has been requested to continue our Energy Manager Program. Further Development of web-site would continue to be his responsibility.	2011	No End Date (Continuous)
Provide sustainability education during new staff orientation	In Development			HR currently provides a basic level of sustainability orientation to new employees.	HR is already in the process of enhancing the orientation package to meet the requirements of the STARS program.	2011	No End Date (Continuous)
Client/public awareness/education							
Provide education to clients/public about the conservation of water, energy, and raw materials	In Development			One of the responsibilities of our Energy Manager is to provide ongoing energy conservation education.	Funding has been requested to continue our Energy Manager Program. Further Development of the education department would continue to be his responsibility.	2011	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	In Development			Energy Management Section Set-up on College Web Site. Including "Tip of the month". This is one of the responsibilities of the Energy Manager.	Funding has been requested to continue our Energy Manager Program. Further Development of web-site would continue to be his responsibility.	2011	No End Date (Continuous)

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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			Washroom faucets upon failure are replaced with hands-free units. Also replacement urinals and water closets upon failure are replaced with low-flow units only.	Continue to replace washroom fixture failures with updated hands-free and/or low-flow units. (ie; Urinals, Water-Closets and Faucets)	2002	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			Capital construction project underway in Penticton will employ the use of grey water from the City of Penticton treatment plant. The building will also have portions of green roof and will utilize xeriscaping on the surrounding grounds.	Complete work on wireless irrigation management system at the Kelowna campus. Will allow for smart watering taking advantage of sensors that detect when irrigation is required rather than running on a timeclock only.	2003	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress			Consultant was engaged to access entire storm water management system on the Kelowna Campus.	Implement consultants recommendations from the Storm Water Management report, this will be subject to available funding.	2007	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			No OC Policy in effect yet. However the process is undergoing continual expansion throughout the college as budgets allow.	To continue expanding the collection network thus reducing mainstream waste.	1998	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress			OC continues to be a leader in the community when it comes to hazardous waste disposal; 2010 saw another successful hazardous waste round-up day in which members of the public brought their household waste items to KLO Campus for disposal. Internally, our "green" movement has influenced many OC departments who have made the choice to improve their level of environmental responsibility.	In 2011 our OC Joint Occupational Health and Safety Committees are auditing our WHMIS inventory at all locations and will provide recommendations for "green" solutions as a "natural" outcome of our review.	2003	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.)	In Development			Awareness of procurement standards, compliance where applicable	Continued awareness and compliance to procurement standards.	2010	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress			Operating inventory has been reduced. Continue to standardise cleaning products. All products to be third party environmental approval.	Continual reduction of inventory. Plus standardisation of process	2000	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	In Development			Okanagan College, Campus Planning has started to develop a "Construction & Demolition Debris Recycling Policy" for implementation on all capital construction and renovation projects.	Complete and implement the policy regarding construction & demolition debris recycling on all renovations and new construction.	2010	No End Date (Continuous)
Indoor air quality							

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Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	In Development			We continued to educate our OC community in scent-awareness in 2010.	OC is currently in a period of heightened scent-awareness; we recognize that we are all unique individuals with different thresholds for scent tolerance. With this in mind, we will be gaining feedback from our college community in 2011 regarding the costs/benefits of moving towards a scent-free environment. In 2012 we will be implementing a plan for scent management. We are currently in a pivotal period in which we all share a responsibilty to raise the awareness level of this matter within our community.	2010	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			Okanagan College construction specifications for carpet/painting on new construction/renovations projects eliminates products that do not meet low VOC standards.	Expand standards for low VOC to procurement of furniture and equipment.	2000	No End Date (Continuous)
Commuting to and from home							
Encourage commuting by foot, bicycle, carpool or public transit	In Development			We continue to host a carpooling website. Penticton campus now has a bicycle sharing program.	Further development and promotion of the carpooling function.	2009	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	In Development			No new steps were taken. Showers and lockers are currently available.	More showers will be added dependant on demand increase and budget.	2010	No End Date (Continuous)
Provide secure bicycle storage	In Development			Secure Bike lockers have been installed on all campuses	Further assess demand for bike lockers.	2010	No End Date (Continuous)
Modify parking fees or parking availability for staff/students	In Development			Multiple discussions regarding parking options are ongoing.	Discussions are under way to look at revising current parking fees and plan. One class of Business students currently have a project regarding parking underway.	2009	No End Date (Continuous)