



Vancouver Board of Education - 2010 Carbon Neutral Action Report

Executive Summary

The Vancouver School District (SD39) is proud to present its 2010 Carbon Neutral Action Report, as our actions toward our Carbon Neutral commitment and all other actions to reduce our environmental impact and enhance overall Sustainability has surpassed our efforts from the previous year in scope, breadth and number of programs delivered.

The report highlights actions such as the completion of the district wide computer power management system, to the lighting system re-design of 2 Secondary and 2 Elementary schools, to the improvement of Maintenance Fleet vehicles and driving patterns, the installation of 50 bicycle racks, the development of a draft food plan and draft waste plan, a strategic energy management plan, the installation of solar-thermal systems in 5 schools, and a water conservation program that will save 34 Million Litres of water, to name a few. The Vancouver School District also received a Top-10 ranking in the Province for our energy conservation efforts through BC Hydro's Power Smart program, which included being the highest ranking School District in this category.

In terms of behavioural change pilot programs the district has collaborated with BC Hydro to develop a 'Workplace Conservation Awareness' program, and we are also in the process of expanding our own 'Refrigerator Energy Conservation Pilot Program' district-wide. As far as training is concerned, we have provided Natural Resources Canada's 'Spot the Energy Savings' training program to most of our building operators and custodians, and have had a number of workshops internally and provided information and resources electronically for staff and students to raise awareness on resource conservation.

Looking into 2011 and beyond, we are currently exploring opportunities to collaborate with other government agencies to develop district heating systems in the Vancouver area, as well as reviewing our heating plants and systems district-wide to develop a holistic approach to their upgrade and integration with renewable energy and district heating systems. We will also continue with our lighting system upgrade program and build high-performance buildings that facilitate a 21st Century learning environment.

As demonstrated above the Vancouver School District has embraced energy, carbon reduction and sustainability initiatives in our district operations and we continue to strive to improve on this in the years ahead. Through the above programs and initiatives the Vancouver School District continues to foster an environment of environmental awareness, social responsibility and overall sustainability while enhancing the learning and working environment for students and staff.

Steve Cardwell

A handwritten signature in black ink, appearing to read 'Steve Cardwell', written over a horizontal line.

School District Superintendent

2010 Greenhouse Gas Emissions

The total Greenhouse Gas (GHG) Emissions for the Vancouver School District for calendar year 2010, for all sources covered under the Greenhouse Gas Reduction Targets Act (GGRTA), is approximately 16,258.49 tonnes of Carbon Dioxide equivalent (tCO₂e).

Offsets applied to become Carbon Neutral in 2010

The Vancouver School District has submitted payment to purchase Carbon Offsets from the Pacific Carbon Trust (PCT), for the 16,243.74 tCO₂e emissions. This does not include the 14.75 tCO₂e from bio-diesel consumption due to its inherent carbon neutrality. The total Carbon Offsets that were purchased amounted to \$405,724.75, excluding HST.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2010

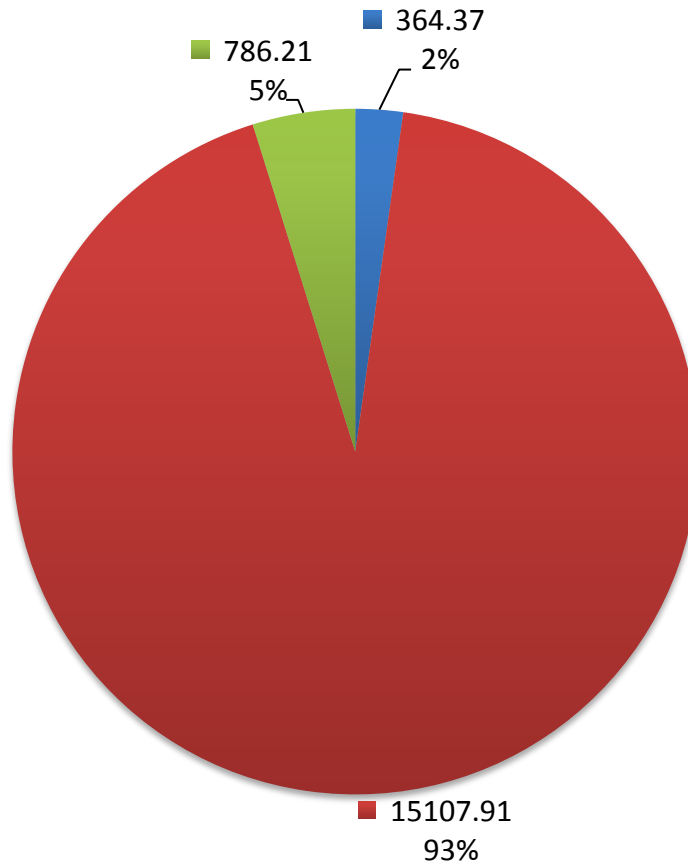
- Completed the installation of Power Management Software across 9,500+ PCs in the school district that reduced electricity consumption by over 2,000,000 kWh.
- Completed lighting system retrofits in 4 schools that reduced electricity consumption by over 750,000 kWh.
- Installed Solar Thermal (hot-water) systems in 5 Secondary Schools across the school district.
- Developed and initiated a 'Refrigerator Energy Conservation Pilot Program' to reduce total refrigerator count through an examination of the excess refrigeration capacity in the school district.
- Developed Goals and Targets for reducing the School Districts Energy and Carbon Footprint.
- Developed a 'Strategic Energy Management Plan' for the district.
- Developed a draft 'Food Plan' and draft 'Waste Plan'.
- Installed 50 bike-racks across the school district in collaboration with the City of Vancouver.
- Installed 75 Urinal Sensors on Urinal Tanks, which saved approx. 34 Million Litres of water for the School District.
- Supported a student led conference which helped raise awareness within the district on the social and environmental impacts of Tar/Oil sands development.
- Provided training for over 100 Building Operators (NRCan's 'Spot the Energy Savings' program) on how to operate the schools in a manner consistent with the school district's energy conservation and carbon reduction programs.
- Developed a semi-annual Publication called 'Energy Bulletin' which was distributed to all building operators and custodians and administrators in the school district.
- Improved the efficiency of Maintenance Fleet vehicles, through acquisition, driver training and optimization of driving patterns and logistics.

Plans to Continue Reducing Greenhouse Gas Emissions 2011 – 2013

- Work with external agencies to develop district energy systems where technically and operationally feasible.
- Complete review of the heating plants district-wide and apply a holistic approach to their upgrade and integration with renewable energy and district heating systems.
- Expand the 'Refrigerator Energy Conservation Pilot Program' district-wide.
- Finalize the draft Food Plan and draft Waste Plan.
- Continue with the water conservation through the urinal tank upgrade program.
- Communicate to Schools the districts move toward post-consumer recycled paper usage.
- Incorporate green design features in new construction and build high-performance buildings.

Through the above actions, behavioural change programs and education the Vancouver School Board is working toward the reduction of its overall energy and carbon footprint, as it is consistent with our long-term vision for sustainability.

Vancouver Board of Education Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e*)



Total Emissions: 16258.49

- 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: **16243.74**. Total offset investment: **\$406,093.50**. Emissions which do not require offsets: **14.75** **

*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.

Vancouver Board of Education - 2010 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 (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	95	% of vehicles are fuel- efficient models	Projected replacement of older tractor with new unit with level 4 emission standard. 95% of vehicles are fuel injected.	Projected replacement of older van with new fuel injected model.	2002	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	In Development	10	% of vehicles down-sized since start year indicated		Projected addition of third crew cab to transport workers rather than individual transport. Right-sizing will continue on future vehicles.	2002	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	Scheduled Preventative Maintenance Program in place. All required vehicles passed AirCare without modification.	Ongoing scheduled preventative maintenance/safety inspection program in place.	Started before 1995	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	95	% of small maintenance vehicles are fuel-efficient	Projected replacement of older less efficient fleet vehicles.	Continue to upgrade as funding permits.	2003	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	100	% of current drivers are trained	All drivers are trained for fuel efficient driving.	This will continue in the future.	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	100	% road vehicles GPS equipped	GPS/Monitoring units installed in all road vehicles.	This will continue in the future.	2007	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	5	% Crew cabs	Addition of Crew cabs into fleet.	Crew cabs are being utilized to reduce individual transportation.	2009	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Full utilization of crew-cabs to reduce use of personalvehicles on road.	Plans to add more crew-cab vehicles.	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Upgrade of 2 stroke power equipment	Ongoing/In Progress			Replacement of older less effiecient 2 stroke leaf blowers with newer 2 stroke/4 cycle leaf blowers and acquisition of large 4 stroke walk behind blower.	Replacement of remaining less efficient blowers and projected acquisition of diesel machine mounted turbine blower.	2009	No End Date (Continuous)
Bio-diesel fuel in Fleet	Ongoing/In Progress	45	% of Fleet is diesel powered	All diesel engines use 5% bio-diesel fuel as dictated by availability at fuelling depot.	Increase % of diesel powered vehicles in fleet.	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Reduce office space (square meters) per employee	In Development			We are presently reviewing district space.	Nothing planned at the moment.	2010	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	Ongoing/In Progress			Evaluating and benchmarking building performance.	Evaluating online access of data for building operators.	2009	No End Date (Continuous)

Vancouver Board of Education - 2010 Carbon Neutral Action Report

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
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress			This is now standard practice.	This is now standard practice.	2005	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress			Began lighting upgrades to 3 of our schools.	Presently evaluating funding options.	1990	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			When feasible and if timing is right for capital turnover.	When feasible and if timing is right for capital turnover.	1990	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress			[1] Complete lighting system re-design work was completed at 2 Secondary and 2 Elementary Schools (Thompson, Windermere, Norquay and Waverly Annex); [2] Lighting system re-design work began and 3 additional Secondary Schools. [3] Lighting system re-design/upgrades began at 2 Elementary Schools (Quesnel and Secord), as part of their Seismic upgrade program.	Lighting system re-design and upgrades will be continued with other schools when feasible, cost-effective and if timing is right for capital turnover.	1990	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress			This was included as part of the lighting system upgrades.	Lighting system re-design and upgrades will be continued with other schools when feasible, cost-effective and if timing is right for capital turnover.	1995	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			Depending on the availability of funds we are generally replacing single glazed windows with double glazed high efficiency windows, during building retrofits. This was done in 2 Elementary schools (Quesnel, Secord).	This will be continued with other schools when feasible, cost-effective and if timing is right for capital turnover.	2010	No End Date (Continuous)
Install an on-site renewable energy demonstration project	Ongoing/In Progress			We installed 5 secondary schools with solar hot water panels.	We expect to install a Solar PV system at another school in 2011. In general we plan to evaluate opportunities for Solar technologies as funding becomes available.	2008	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	90	% of computers shut down automatically outside of regular business hours	Faronics Power Management Software (PowerSave) added to 3400 additional machines.	Finalize deployment to remaining machines (~10%).	2009	2012
Implement server virtualization	Ongoing/In Progress	20	% of servers have been virtualized since start year indicated	20% of data centre servers virtualized.	75% of data centre servers virtualized in 2011, remainder that support virtualization completed in 2012.	2009	2012
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	90	% of computers have auto-sleep settings applied	Power saving added to 3400 additional machines.	Finalize deployment to remaining machines.	2009	2012
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress			All newly purchased computers are Energy Star certified.	Continue to replace aging equipment with Energy star rated devices as and when budget is available.	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	5	% of fridges are ENERGY STAR rated	The Purchasing Department is facilitating the purchase of new Refrigerators identified through the 'Refrigerator Energy Conservation Pilot Program' (see row 51 below).	The Purchasing Department is in the process of standardizing all appliance purchases to be 'Energy Star' going forward, using the 'Refrigerator Energy Conservation Pilot Program' as precedence.	2010	No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development			None.	Currently evaluating possibilities for behavioural change.	2010	No End Date (Continuous)

Vancouver Board of Education - 2010 Carbon Neutral Action Report

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
Encourage use of stairs instead of elevators	In Development			No concrete steps, except adhoc encouragement by some staff members to others.	Currently evaluating possibilities for behavioural change.	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Most schools have them.	Most schools have them.	1995	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Building Engineers and Head Custodians are instructed to turn off hot-water tanks, circulation pumps etc., as part of the winter and summer shutdown procedure.	We will continue with this program going forward.	1990	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
'District Heating Systems' Program	Ongoing/In Progress			Engaged the City of Vancouver (CoV) to consider collaboration on the development of 'District Heating Systems'. VSB and CoV has agreed to work collaboratively to develop a district heating system at a School (new construction) and adjacent Community Centre.	[1] Begin work on the 'District Heating System' at the new construction site. [2] Continue expansion of 'District Heating Systems' across the School District with CoV and other external agencies.	2010	2013
Vancouver School Board - FortisBC MOU	Ongoing/In Progress			Collaborated with Terasen Gas (a.k.a. Fortis BC) to develop a MOU for district-wide heating plant review and possible upgrades.	Sign the MOU and begin district-wide heating plant review. Evaluate opportunities for comprehensive energy and carbon reduction across the school district, while enhancing performance and convenience.	2010	2013
[1] Strategic Energy Management Plan (SEMP); [2] Energy Management Assessment (EMA); [3] Energy/Carbon Goals & Targets	Ongoing/In Progress			[1] Completed the 'Strategic Energy Management Plan'. SEMP was approved by BC Hydro; [2] Conducted the BC Hydro Energy Management Assessment with the Senior Management Staff ; [3] Developed a comprehensive set of Goals and Targets (5 year period) for the Management of Energy and Carbon Emissions (electricity/natural gas)	Execute the actions in the SEMP.	2009	2010
Refrigerator Energy Conservation Pilot Program	Ongoing/In Progress	4	Number of Schools Participating in the Program	Initiated an incentive based 'Refrigerator Energy Conservation Pilot Program' with 4 Secondary Schools. Expected to retire ~ 20 refrigerator/freezer units and replace another 15. Expected kWh reduction from this Pilot ~ 40,000 kWh/yr. District wide conservation potential from refrigerators/freezers alone is estimated to be ~ 250,000-450,000 kWh/yr (enough to take 2-3 Elementary Schools off the electricity grid).	Complete the 'Refrigerator Energy Conservation Pilot Program'. We expect to scale this program up to the entire district, over 2011-12.	2010	2012
Summer/Winter Shutdown checklist	Ongoing/In Progress	90	% of building operators that completed and returned the Shutdown Checklist (Average for Summer and Winter)	As part of improving efficiency of operating our schools, all building operators across the school district were required to submit a detailed checklist of actions for shutting down all non-essential systems during break periods.	This program will be continued every year.	2010	No End Date (Continuous)
Spot the Energy Savings' Training Program - NRCan	Ongoing/In Progress	100	Number of Operations Staff that completed this training	Approximately 100 Building Engineers and Head Custodians at the School District completed this program.	We will continue providing this training to all Asst. Building Engineers and Asst. Head Custodians, as needed.	2005	No End Date (Continuous)
Heating Plant Operating Guidelines	Ongoing/In Progress			Strict operating times and set-points were enforced through a district wide Memo to all Building Engineers and Head Custodians.	We will continue these operating times and set-points over this time frame.	2010	No End Date (Continuous)
Technology Pilot - Thermal Coating for windows and thermal Paint for walls	Ongoing/In Progress			Researched and evaluated new Technology, for window coating and paint, to reduce heat loss in existing buildings. Developed a Pilot program to test the technology at 3 sites.	Complete application of the thermal paint and window coating at the 3 sites by end of Summer 2011. Monitor energy consumption at the 3 sites to evaluate technology effectiveness in reducing the heating and electricity loads.	2010	2012
Window Upgrades	Ongoing/In Progress			A number of single glazed windows will be replaced with high-efficiency double glazed windows at 2 Schools - Gladstone and Hamber Secondary.	The project is underway and is expected to be completed in July, 2011.	2010	2011

Vancouver Board of Education - 2010 Carbon Neutral Action Report

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
Reducing leased space and move programs into district owned buildings.	Ongoing/In Progress			Consolidated four buildings into two.	Discontinue the lease and move 2 program into district facilities.	2010	2012
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	23	% of total paper purchased contains 30% recycled content	Communication to schools to encourage the purchase of recycled content vs virgin paper.	Continued communication to move toward Post Consumer Waste (PCW) paper only.	2009	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	10	% of network printers or photocopiers are set to automatic double-sided	All recommended network printers support duplex printing.	No planned actions.	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			Existing intranet portal is under review along with email and other collaboration suites.	Develop new policy and practice for online collaboration and provide new web-based toolsets to assist. Develop central document repository and promote "soft copy" as "only copy". Reduce print volumes, reduce/remove the need for copies to be mailed internally and switch all pay advices to electronic format.	2010	2012
Use electronic document library for filing common documents	In Development			Existing intranet portal is under review along with email and other collaboration suites.	Develop new policy and practice for online collaboration and provide new web-based toolsets to assist. Develop central document repository and promote "soft copy" as "only copy". Reduce print volumes, reduce/remove the need for copies to be mailed internally and switch all pay advices to electronic format.	2010	2012
Post materials online that were previously printed	In Development			Existing intranet portal is under review along with email and other collaboration suites.	Develop new policy and practice for online collaboration and provide new web-based toolsets to assist. Develop central document repository and promote "soft copy" as "only copy". Reduce print volumes, reduce/remove the need for copies to be mailed internally and switch all pay advices to electronic format.	2010	2012
Switch to an electronic payroll notification system in place of paper pay stubs	In Development			Existing intranet portal is under review along with email and other collaboration suites.	Develop new policy and practice for online collaboration and provide new web-based toolsets to assist. Develop central document repository and promote "soft copy" as "only copy". Reduce print volumes, reduce/remove the need for copies to be mailed internally and switch all pay advices to electronic format.	2009	2011
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development	1	% of staff currently have received collaborative software training	This occurs on an individual basis.	We expect this to proliferate gradually across the organization.	2009	2013
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development			A number of staff are conducting paper-less meetings.	We expect this to proliferate gradually across the organization.	2009	No End Date (Continuous)
Encourage re-use of scrap paper	In Development			This occurs on an individual basis.	We expect this to proliferate gradually across the organization.	Started before 1995	No End Date (Continuous)

Vancouver Board of Education - 2010 Carbon Neutral Action Report

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 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							
Policy and budgeting							
Create a low-carbon travel policy or travel reduction goal	In Development	25	% of eligible Education Centre staff who took the survey	Staff transportation survey completed.	Evaluate use of electric vehicles at VSB Education Centre.	2009	No End Date (Continuous)
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	In Development			None.	Will examine web-conference options.	2009	No End Date (Continuous)
Behaviour change program							
Train staff in web-conferencing	In Development			None.	Output depends on web conference option selected.	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Ad-hoc encouragement to staff. Email notices went to staff reminding of this option for meetings. Student climate conference 'skyped' guest speakers into the plenary session.	Further email notice as well meeting with administrators to discuss this option. Policy options need to be examined by senior management.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Sub-site set up, staff encouraged to use ride share during and post Olympics.	Transportation options section on VSB sustainability website and communicated to staff and students.	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	In Development			Sustainability coordinator provides bus tickets for people coming to meetings at VSB. New, more visible, bike rack installed at Ed Centre.	Highlight and promote transportation options through website.	2009	No End Date (Continuous)
Other Business Travel Actions							
Olympic bike rack program	Ongoing/In Progress	98	% of 50 olympic bike racks installed across the district	City and VSB each paid for 50% of cost of 50 racks. City donated their portion post-olympics to VSB. Installation list created and racks installed.	Complete installation of racks.	2010	2011
Education, Awareness, and Engagement							
Team-building							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress			The School District's Sustainability Coordinator provides support to Green Teams, on an ongoing basis.	Continue providing support to the teams, as needed.	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			The Sustainability Coordinator responds to frequent questions for resources and support from staff/students.	Continue providing support to the teams, as needed.	2009	No End Date (Continuous)
Awards/Recognition							
Establish a sustainability/green awards or recognition program	Ongoing/In Progress			[1] Organized a green team challenge at the District Head Office; [2] Secondary Schools were awarded dollar incentives to remove/retire excess refrigerator capacity, through the Refrigerator Energy Conservation Pilot Program.	[1] Establish criteria for zero waste awards and certification process for schools; [2] Expand the Pilot to the entire district.	2009	No End Date (Continuous)
Staff Professional Development							

Vancouver Board of Education - 2010 Carbon Neutral Action Report

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
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		[1] Seven Professional Development workshops were delivered - 2 on schools gardens, 1 on outdoor education, 3 on sustainability and 1 on water. [2] Approximately 100 Building Engineers and Head Custodians at the School District completed the 'Spot the Energy Savings Program', from Natural Resources Canada.	Continue to offer Professional Development opportunities to staff.	2009	No End Date (Continuous)
Staff awareness/education						
Provide education to staff about the science of climate change	Ongoing/In Progress		Education opportunities communicated to staff through e-news.	Set up events calendar on sustainability portal - allow staff to sign up for updates.	2010	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	In Development		[1] Approximately 100 Building Engineers and Head Custodians at the School District completed the 'Spot the Energy Savings Program' from NRCan; [2] Developing resource use and waste action plan.	[1] The 'Spot the Energy Savings program' will be offered every year to Building Operators; [2] Communicate goals and targets for waste reduction to all schools.	2010	2012
Provide green tips on staff website or in newsletters	Ongoing/In Progress		E-news sent to staff and students approx. every 3 weeks.	Set website up to be the 'go to' place for tips, for staff and students. Move to monthly e-news.	2010	No End Date (Continuous)
Provide sustainability education during new staff orientation	Ongoing/In Progress		Information on VSB sustainability goals put into new staff orientation.	Continue with this and look for new opportunities to increase new staff exposure to this information.	2010	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		Supported a student led conference which helped raise awareness within the district on the social and environmental impacts of Tar/Oil sands development.	Supporting student led walk for climate change for Earth Day 2011.	2010	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		Water workshop delivered.	Deliver Water workshop. Direct staff/students to education opportunities on VSB website.	2009	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		E-news sent to staff and students approx. every 3 weeks.	Set website up to be the 'go to' place for tips, for staff and students. Move to monthly e-news.	2010	No End Date (Continuous)
Other Education, Awareness, and Engagement Actions						
BC Hydro 'Workplace Conservation Awareness' Behavioural Pilot Program	Ongoing/In Progress		Launched the program with support from the Superintendent. Competition held for program name. \$1000 award given to winning submission - Project ECO (Energy Conservation in the Office).	Execute the program according to the plan. Monitor/Evaluate program effectiveness at the end of the program in June 2012.	2010	2012
'Energy Bulletin' Publication	Ongoing/In Progress		Two publications of the 'Energy Bulletin' were distributed (in May and Dec 2010) to all Building Operators/Custodians, Principals and Administrators (>500 staff), to raise awareness and to inform them of energy and climate action programs in the school district and the support that is required from them.	Continue with the semi-annual publication and distribution of the 'Energy Bulletin'.	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		75 Urinal Sensors were installed on Urinal Tanks, which will save approx. 34 Million Litres of water for the School District.	Depending on AFG funding we will continue with this program; also plan to install ultra-low-flush systems if funding is available.	2008	No End Date (Continuous)
Waste reduction/diversion						

Vancouver Board of Education - 2010 Carbon Neutral Action Report

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
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	In Development		An advisory committee was formed for 'waste'. Workshop held on 'waste' for staff and students. A draft plan was developed for 'waste'. A battery recycling program was initiated. 3 Earth Tubs were installed.	Work with MetroVancouver to conduct Waste Audit. Obtain feedback from stakeholders on draft waste plan. Implement the Waste plan. Expand battery recycling to all schools.	2010	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 district purchasing policy is under review. We are working toward a 'Sustainable Purchasing Policy'.	Complete the development of the purchasing policy.	2010	2012
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		The district purchasing policy is under review. We are working toward a 'Sustainable Purchasing Policy'.	Complete the development of the purchasing policy.	2009	2012
Require a minimum purchase of sustainable, and organic food and beverages supplied by contracted food suppliers or caterers	In Development		A draft 'Food Plan' was developed which targets local food purchasing.	Conduct public consultation and approve the Food Plan.	2010	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		Whenever possible steps are taken to maintain heritage buildings and reduce demolition waste, with new construction/renovation projects.	We will continue this into the future.	2010	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	In Development		We are gradually moving in this direction.	We are gradually moving in this direction.	2005	No End Date (Continuous)
Indoor air quality						
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	In Development		Continue to research low VOC products as part of our overall maintenance and custodial procedures.	We will continue this process going forward.	2005	No End Date (Continuous)
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Educated staff on options available to them.	Continue to educate staff on options available to them.	2009	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		This is available at our main office and some schools.	Evaluate expansion at seismic upgrade sites.	2000	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		This is available at our main office and some schools.	Evaluate expansion at seismic upgrade sites.	2010	No End Date (Continuous)
Modify parking fees or parking availability for staff/students	In Development		The monthly parking fees was increased for the public at the Education Centre. Hourly parking were also increased.	Evaluating increased parking fees to fund public transit subsidy for staff.	2010	No End Date (Continuous)
Other Sustainability Actions						
VSB Bike Advisory Committee	Ongoing/In Progress		This committee is ongoing.	Continue to support this committee.	2009	No End Date (Continuous)
Food and Waste Advisory Committees	Ongoing/In Progress		Formed external advisory committee's to develop action plans for food and waste.	Finalize action plans and begin implementation.	2010	No End Date (Continuous)
BC Hydro Energy Embassadors Program (for High School Students)	Ongoing/In Progress		Provided support for this program.	Will continue to support this program.	2008	No End Date (Continuous)