

Board of Education No. 61 (Greater Victoria) - 2009

Carbon Neutral Action Report



Executive Summary

The Board of Education No. 61 (Greater Victoria) has established a Board supported District wide Climate Action Control Committee with representation from Trustees, Senior Administration, School Principals, Facilities Staff, Support Staff, PAC Representatives and Students. In addition, the adoption of an Environmental Climate Change Policy that commits to integrating environmentally sustainable considerations into all of our business decisions ensuring staff, students and parents are fully aware of our policy, actions and results. The District presently ensures suppliers and clients are aware of our policy and encourages them to adopt sound sustainable environmental management practices and to review, report and continually strive to improve our environmental sustainability performance. Furthermore, the Board has established an Energy Savings Program that includes lighting retrofits, fuel conversions, heating control upgrades, water conservation and building occupant education. The Board is actively upgrading heating plants and heating controls through its Annual Facilities Grant (AFG) as funding permits. Finally, the Board has initiated and supported a pilot waste reduction program that has resulted in a 75% reduction in waste at 20 schools.

Objectives:

- Strive to meet provincial carbon neutrality by 2010
- Ongoing support in the development of school based student/staff energy conservation, sustainability initiatives and development of performance rewards
- Continue to offer energy and environmental educational opportunities for students
- Continue to expand staff and student awareness of energy and resource conservation
- Ongoing preparation of a Joint Waste Management tender in conjunction with other major public service groups in the Victoria area
- Implementation of a waste management program that supports both Provincial and local government's mandate by identifying and implementing best practice methods of recycling, composting and paper use reduction

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

- The School District is a BC Hydro Power Smart Partner
- Establishment of District “Green Initiatives” website
- Continuation of behavioural change program through staff and student education
- Implementation of waste reduction / recycling program at 20 schools with a 75% reduction in waste generated
- All schools now using 40% recycled paper with plans to move to 100% recycled paper next year
- Introduction of electronic document management system to reduce duplication filing and copying
- Installation of new heating controls at Margaret Jenkins Elementary
- Introduction of “green” environmentally and people friendly janitorial cleaning products
- Installation of a real time metering system at a major secondary school
- Switchover to electronic payroll notification system
- Completion of District energy saving lighting replacement program
- New energy efficient windows installed at View Royal Elementary and Lansdowne Middle School
- Further reduction in water consumption through participation in CRD rebate program for the installation of 6L low flush toilets at Glanford Middle School, Arbutus Middle School and Northridge Elementary School

Operational Changes in 2009

There have been no significant operational changes which would impact the emissions profile in the Victoria School District over the 2009 calendar year i.e. increase or decrease in number of staff or buildings.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

The ability to implement energy saving projects this year, thereby reducing Greenhouse Gas Emissions, has been greatly hampered by the elimination of the Annual Facilities Grant Funding. However, the Board of Education No. 61 (Greater Victoria) will continue to work to provide energy management support where possible from the District Energy Management Program and will continue to implement energy efficiency upgrades to our facilities with heating controls, heating plant upgrades, lighting upgrades, window replacements as funding permits. In addition, continued educational awareness campaigns for staff and students will continue.

- The Board of Education No. 61 (Greater Victoria) has a link for Green Initiatives on the School District Website: <http://www.sd61.bc.ca/green/default.aspx>



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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 *Greenhouse Gas Reduction Targets Act*.

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	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		No new vehicles purchased.	Replacement vehicles will be energy efficient units.	2010	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress		No new vehicles purchased due to budget restraints.	Replacement vehicles will be energy efficient units.	2005	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress		Fleet maintenance program in place and always making an effort to keep vehicles tuned and running efficiently. Continuing to develop efficiency of fleet through regular servicing and tuning etc.	Annual Program.	1990	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	In Development			Purchase smaller more fuel efficient vehicles as funding permits.	2005	No End Date (Continuous)
Behaviour change program						
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress		District wide interest at schools with signage etc. messages to parents about anti idling.	Continued reminders and education.	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions						
Continued use of Bio-diesel fuel for diesel fleet.	In Development			Review of test results.	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)	In Development		Current program not renewed evaluating other available programs.	Possible participation in new program.	2011	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress		Planning for new heating controls at 3 schools.	Installation of new heating controls at 3 schools.	2010	2010
Owned buildings						
Establish energy performance baseline for owned buildings	In Development			Continue with study.	2011	No End Date (Continuous)
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress		Integrated design is practiced on all major renovations (Willows Elementary School 2009).	Central Middle School and Fairey Tech at Victoria High School.	2010	2011
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress			New efficient boilers at three schools. Solar walls at two schools.	2010	2011
Retrofitting owned buildings						
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress		Review of schools and selection of schools for upgrade.	Energy efficient boiler plants to be installed at Arbutus, Rogers, Victoria West. Installation of "Solar Wall" systems at 7 schools.	2010	2012

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Upgrade lighting systems during retrofits	Complete	100	% of retrofits (captured above) had lighting systems upgrades	Ongoing energy awareness program. Lighting upgrade program in schools completed.		2005	2010
Upgrade/adjust control systems during retrofits	Ongoing/In Progress			Review of schools and selection of schools for upgrade.	DDC control upgrades at Macaulay Elementary School and Rockheights Middle School and 2 more schools.	2010	2011
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			Review of schools and selection of schools for upgrade.	Funding targeted for 3/4 schools.	2010	2011
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	75	% of computers shut down automatically outside of regular business hours	Review and testing of software.	Completion of review. Purchase of software.	2011	2012
Implement server virtualization	Complete	48	% of servers have been virtualized since start year indicated	Completed server virtualization in data centre. Continuing to purge physical servers.	Will be adding server virtualization to school servers.	2011	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	In Development			All schools and departments on the replacement schedule will be replaced with multi-function devices to reduce the need for stand alone printers, faxes and scanners. New multi-function photocopiers being installed around the district. Installed 35 MFD to date and 13 more are scheduled for July 1, 2010.	Annual Program.	2010	2012
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	50	% of computers are ENERGY STAR rated	Purchase only Energy Star rated computers and monitors.	Replace with Energy Star as funding permits.	2010	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			All appliances that have Energy Star rating are standard. Replaced 5 refrigerators and 1 All Refrigerator with Energy Star models.	Replace with Energy Star as funding permits.	2010	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			All appliances that have Energy Star rating are standard. Replaced 7 dishwashers, 2 freezers and 1 washing machine with Energy Star models.	Replace with Energy Star as funding permits.	2010	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Ongoing/In Progress			Ongoing energy awareness program.	Annual program.	2008	No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Ongoing energy awareness campaign.	Annual program.	2005	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Reminders sent out to all staff.	Continual reminders and education.	1990	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Staff encouraged to use heat and power only in areas used.	Continual reminders and education.	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Ongoing energy awareness campaign/program.	Annual Program.	2005	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			District slogan: "Use Only What you Need"	Continual reminders and education.	2005	No End Date (Continuous)

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Other Stationary Fuel Combustion and Electricity Actions						
Student education programs	Ongoing/In Progress		The District is active with educational programs offered from BC Hydro, Destination Conservation, Sierra Club Sustainable Schools Project and programs from the CRD.	Year end Forum 2010.	2010	No End Date (Continuous)
Supplies (Paper)						
Paper Type						
Purchase 30% post-consumer recycled paper	Ongoing/In Progress		All Schools have moved to 40% as a minimum once old stock is used.	Agreement to move to 100% in 2011/12.	2010	2012
Purchase 100% post-consumer recycled paper	Ongoing/In Progress		See "Steps Planned"	Agreement to move to 100% in 2011/12.	2010	2012
Printer/document settings						
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress		Recommend double sided printing to reduce paper use. In progress.	Continual reminders and education.	2010	No End Date (Continuous)
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	Ongoing/In Progress		Continual reminders and education.	Continual reminders and education.	2010	No End Date (Continuous)
Electronic media in place of paper						
Use electronic document library for filing common documents	Ongoing/In Progress		Document Management System.	Administration offices now actively practicing electronic filing.	2010	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress		Meeting minutes/newsletters being posted to website.	Board minutes and newsletters on website.	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete		Completed.		2008	No End Date (Continuous)
Behaviour change program						
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress		I.T. Department currently working on this initiative.	In-service for staff.	2010	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress		In Progress.	Continual reminders and education.	2010	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress		Shredded Paper is recycled.	Continual reminders and education.	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 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 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Education, Awareness, and Engagement						
Team-building						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress		Green teams established at over 20 schools.	Expand program to include more schools.	2010	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress		Resources available on website.	Expand and share information on website.	2010	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress		Forum held for members of all teams.	Forum to share successes planned.	2010	No End Date (Continuous)
Awards/Recognition						
Establish a sustainability/green awards or recognition program	Ongoing/In Progress		Website development will offer school based challenges and contests.	Climate Action Committee to roll out challenges.	2010	2011
Staff awareness/education						
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		Various student programs from BC Hydro, Destination Conservation. Employee awareness briefings, NRCAN training opportunities.	Annual Program.	2010	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		The District has developed an awareness website to showcase successes, current programs, and future opportunities for energy conservation and awareness.	Continual expansion of website.	2010	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		Introduction of District Website.	Continual expansion of website.	2010	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		Tips available on website.	Continual expansion of website.	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		Annual program with the CRD with 6 litre low flow toilet units. All schools have Water Matrix urinal valve sensors. Waterless are installed at some sites. Continued retrofit program of toilet replacements annual with low flow units. Low flow toilets installed at Glanford Middle School, Arbutus Middle School and Northridge Elementary School.	Additional low flow toilets to be installed.	2006	2012
Waste reduction/diversion						

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	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	Complete		Expansion of composting programs at schools. Paper / cardboard currently recycled in all sites. Expand the installation of electric hand driers in schools to eliminate paper towel products. Expansion of the waste streams. Expansion of recycling programs at schools. Composting at 20 schools.	Adding the remaining schools into the Composting Program.	2010	2012
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		Purchasing practices support reduction of hazardous waste.	Review and expansion of purchasing practices.	2010	2012
Procurement (non-paper supplies)						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Complete		Tender issued for green cleaning products tested and meeting ECO-Logo implemented June 30, 2009. Custodial green cleaning products being used. Bio Degradable Garbage bags. Expansion of District program. Completed.		2009	No End Date (Continuous)
Require a minimum purchase of sustainable, and organic food and beverages supplied by contracted food suppliers or caterers	Ongoing/In Progress		Limited use of vending machines, only healthy foods allowed.	School Meal Program - new caterers will need to meet a minimum standard. Currently under review.	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		Reuse of used items from storage. Re: Furniture and equipment.	Annual program.	2010	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	Complete		District practice is to use low VOC latex paints.		2005	No End Date (Continuous)
Commuting to and from home						
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		Provision made at renovated schools.	Two more schools under renovation will have showers and lockers for staff.	2010	2012
Other Sustainability Actions						
Reduce / replace bottled water with filtered or refrigerated water	Complete		Unit installed at Spectrum Community School.		2010	2010
Choose "Green" items from Distribution Centre	Complete		Green Office products: New contract will offer green products.	Further revision of contract as new products become available.	2009	No End Date (Continuous)
Use reusable dishes	Ongoing/In Progress		Many District meetings reflecting this topic.	Expand to schools.	2010	No End Date (Continuous)