School District No. 8 (Kootenay Lake) - 2009 Carbon Neutral Action Report

Executive Summary

Carbon neutrality for School District No. 8 will have many spin-offs at varying levels not only for the school district itself but also within the communities and the geographic regions in which we operate. In addition, reduction in the use of carbon will contribute to a reduction in our operating costs. Such operational cost savings will enable the school district to focus more resources on its' core objective of education. Reduction of carbon usage will also lead to an improvement in the quality of life not only for our clients and workers, but also for all residents in the communities and regions in which we operate. Also, our clients have , on many occasions, communicated directly with us on what initiatives we are undertaking and have offered numerous suggestions on this same topic. It is clear that, as a good corporate citizen responding to the needs and wishes of its constituents, reducing our carbon footprint is a good, and moral, direction to take for now and in the future. It is hoped that every employee, student and school volunteer would contribute to energy efficiency with a key goal of reducing our greenhouse gas emissions. Implementation of this commitment shall be the joint responsibility of the Board of Education, administration, teachers, students, staff and volunteers. Its success shall be dependent on cooperation at all levels. Each employee, student and school volunteer will be encouraged to actively participate in the district's energy conservation and efficiency programs. District facilities will be evaluated continually for efficient operation and cost effective modifications. The district has applied for LEED Gold standard for Crawford Bay Elementary Secondary School. The district is also converting J.V. Humphries Elementary Secondary School to ground source heating through funding provided by the Public Sector Energy Conservation Agreement. Our maintenance department is engaged in lighting retrofits and boiler retrofits on an on-going basis to reduce energy consumption. Accurate records are kept of energy consumption, associated costs and greenhouse gas emissions.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

Some key actions that SD8 has undertaken beginning January 1, 2009 through to December 31, 2009 are targeted staff training for energy management, creation of an active in-house energy retrofit program, exploration in the use of alternate fuels (bio-diesel), commitment to obtaining GOLD LEED standard on a Capital Project (Crawford Bay Elementary Secondary School), commencement of the JV Humphries ground source heating project, purchase and implementation of newer energy efficient and less polluting vehicles and equipment, as well as signing on to the Destination Conservation program.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

School District No. 8 is committed to meeting our GHG reduction targets as required under the charter. We will continue to seek creative and cost-effective strategies to meet that commitment. The maintenance department will continue to include boiler replacement and lighting upgrades. In addition, the maintenance department will continue with HVAC improvements such as controls upgrades, roof top AC upgrades, and heat recovery ventilation units. In the transportation department, the NRCan driver training course for reducing fuel consumption will be a fixture of all driver training. The district will continue with the district-wide energy conservation awareness program.

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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	60	% of vehicles are fuel- efficient models		SD8 has an on-going vehicle replacement program. Older, less efficient, polluting vehicles are replaced at scheduled intervals	2008	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		As part of the on-going SD8 vehicle replacement program the proposed use of any replaced vehicle defines the nature of the replacement, including the size required.	2008	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 vehicles within the SD8 fleet are maintained to the highest standard possible.	2008	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	10	% of small maintenance vehicles are fuel-efficient	As part of the on-going SD8 vehicle replacement program the proposed use of any replaced vehicle defines the nature of the replacement, including the size required.	Continuation of the existing replacement program.	2008	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	60	% of current drivers are trained	All school bus drivers as well as maintenance staff drivers attended a training session on the NR Canada Smart Driver Program for School Bus Drivers.	All new drivers will receive the NR Cananada training as part of the hiring process as well as part of our regular Professional Development opportunities	2008	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Complete			All sites have anti-idling signage in place.		2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	5	% of buildings have a real time metering system installed	Crawford Bay Elementary Secondary School opened on April 2009. This school has real time monitoring capabilities.	As systems are upgraded and/or replaced real time metering systems will be installed.	2009	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	Ongoing/In Progress	100	% of owned buildings have an established energy performance baseline	All buildings have been evaluated for baseline performance.	As upgrades are completed baselines will be modified.	2009	No End Date (Continuous)
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Ongoing/In Progress	5	% of owned buildings have operations and maintenance labelling/certification	Only Crawford Bay Elementary Secondary School has been submitted for GOLD LEED standard.	Future building replacements will be considered for GOLD LEED.	2009	No End Date (Continuous)
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Ongoing/In Progress	5	% of commercial interiors in owned buildings have labelling	Only Crawford Bay Elementary Secondary School has been submitted for GOLD LEED standard.	Future building replacements will be considered for GOLD LEED.	2009	No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	5	% of owned buildings are certified LEED NC Gold or LEED NC Platinum	Only Crawford Bay Elementary Secondary School has been submitted for GOLD LEED standard.	Future building replacements will be considered for GOLD LEED.	2009	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	Only minor retrofits specific to lighting and boilers occurred in 2009.	All future retrofits are contigent upon funding and project identification.	2009	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	30	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	Only minor retrofits specific to mechanical systems occurred in 2009.	All future retrofits are contigent upon funding and project identification.	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	30	% of retrofits (captured above) had lighting systems upgrades	Only minor retrofits specific to lighting occurred in 2009.	All future retrofits are contigent upon funding and project identification.	2008	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	30	% of retrofits (captured above) had control system upgrades or adjustments	Only minor retrofits specific to adjust control systems occurred in 2009.	All future retrofits are contigent upon funding and project identification.	2008	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
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	10	% of retrofits (captured above) had insulation improvements	Only minor retrofits specific to building insulation occurred in 2009.	All future retrofits are contigent upon funding and project identification.	2008	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	50	% of computers shut down automatically outside of regular business hours	As computers and labs are being replaced power management software is being installed and configured.	Continuation of existing power management software utilization process.	2008	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	50	% of computers have auto-sleep settings applied	As computers and labs are being replaced auto-sleep settings on computers and CPU's are being configured.	Program continuance.	2008	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	0	% reduction in printers, copiers, and/or fax machines since start year indicated	Wherever praticable stand alone printers, copiers, and/or fax machines have been replaced with multi-function devices.	Selection of devices is based on evaluation of needs by the user(s).	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	20	% of devices have auto-sleep settings applied	As printers, copiers, fax machines, and/or multi-function devices are being implemented auto-sleep settings are being configured.	Program continuance.	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress			As computers and labs are being replaced ENERGY STAR models are being purchased.	Program continuance.	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	30	% of fridges are ENERGY STAR rated	As refrigerators are replaced ENERGY STAR models are purchased.	The existing replacement program will continue	2008	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			As appliances are replaced ENERGY STAR models are purchased.	The existing replacement program will continue	2008	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			As desk lamp bulbs are replaced CFL's are being installed.	The existing replacement program will continue	2008	No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development				Staff will be encouraged through information dissemination	2010	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development				Staff will be encouraged through information dissemination	2010	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	In Development				Staff will be encouraged through information dissemination	2010	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	In Development				Staff will be encouraged through information dissemination	2010	No End Date (Continuous)
Encourage use of stairs instead of elevators	In Development				Staff will be encouraged through information dissemination	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	In Development				Staff will be encouraged through information dissemination	2010	No End Date (Continuous)
Promote hot water conservation	In Development				Staff will be encouraged through information dissemination	2010	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	30	% of total paper purchased contains 30% recycled content	Information has been provided to staff regarding the use of paper and its' impact upon the District climate action initiatives.	Work with suppliers to reduce price differential to encourage users to order 30% paper.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	In Development				Work with suppliers to reduce price differential to encourage users to order 100% paper.	2009	2011
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development				Collaborative software will be evaluated through the District IT committee.	2010	2010
Use electronic document library for filing common documents	In Development				Electronic document library for filing common documents wll be evaluated through the District IT committee.	2010	2010
Post materials online that were previously printed	Complete			The practice of posting materials online is a long established practice in SD8.		2007	2009

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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
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress		Almost 50% of staff receive electronic payroll notification.	Work will continue to increase participation rates towards the goal of 100%.	2009	No End Date (Continuous)
Behaviour change program						
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress		Information has been provided to staff regarding the use of paper and its' impact upon the District climate action initiatives.	Staff will be encouraged through information dissemination	2010	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress		Information has been provided to staff regarding the use of paper and its' impact upon the District climate action initiatives.	Staff will be encouraged through information dissemination	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
Business Travel							
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	15	% of computers have web-conferencing software installed	Web conferencing software has been installed on select computers only.	Expansion of web conferencing software to a wider group of machines will be upon recommendations of the District IT Committee	2008	No End Date (Continuous)
Make desktop web-cameras available to staff	In Development				The use of web cameras will be evaluated by the District IT committee.	2010	2010
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Complete	100	% of meeting rooms have access to video-conferencing equipment	Video conferencing is currently available in Creston and Nelson.	The existing system will continue to be used whenever practicable.	2009	2009
Behaviour change program							
Train staff in web-conferencing	In Development				Indentifcation of staff to receive web conferencing training will be evaluated by the District IT Committee.	2010	2010
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress	10	% of staff are trained in video-conferencing or have access to technical support	Specific staff have been designated to provide technical support for the video conferencing software and equipment.	Continuation of support will be provided.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Board and staff meetings have regularly used carpooling.	Continuation of existing practices.	2009	2010
Education, Awareness, and Engagement							
Team-building							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress			2009 is the second year of operation for SD8 Destination Conservation Teams.	All schools not yeat signed on to Destination Conservation will be encouraged to participate.	2008	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			SD8 has provided all Teams with training, assistance in travel to attend meetings, as well as honorariums for participation.	The DC program is an established fixture on our schools. We are committed to the continuance of this program.	2008	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress			SD8 has provided all Teams with training, assistance in travel to attend meetings, as well as honorariums for participation.	The DC program is an established fixture on our schools. We are committed to the continuance of this program.	2008	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			As fixtures are damaged or are rendered unservicable they are replaced with more efficient models.	Continuation of existing program.	2006	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			An active recycling program has been in place in the majority of schools throughout the district.	Continuation and possible expansion of the recycling program.	2005	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress			All schools have an active hazardous waster identification process in place. The district collects and disposes of all hazardous waste through qualified suppliers.	Continuation of existing program.	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
Building construction, renovation, and leasing							
Incorporate lifecycle costing into new construction or renovations	Ongoing/In Progress	100	% of business cases incorporating lifecycle costing since start year indicated	All projects and renovations contemplated by the district employ, as part of the project evaluation phase and benefit/cost analysis, lifecycle costing to determine viability.	Continuation of existing program.	2005	No End Date (Continuous)