

School District No. 48 (Sea to Sky) - 2009 Carbon Neutral Action Report

Executive Summary

School District No. 48 (Sea to Sky) is continuing to contribute to carbon neutrality by actively investing in equipment retrofits to improve efficiencies, increasing awareness and participation by staff, students and the school community towards sustainability and reduced carbon output.

The School District acknowledges that the actions and behaviours of all staff and students have a significant impact on the environment now and in the future and supports the integration of Sustainability Education into the curriculum as a way of incorporating environmental studies into the learning objectives set out in the provincial curriculum.

The School District also acknowledges its corporate responsibility to conduct its affairs in an environmentally responsible manner as a model for students and environmental stewardship. Policies are being updated to enable and compel staff where appropriate to integrate Sustainable Education into the curriculum and to update business procedures and guidelines as funds, knowledge and improved technology permit.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

During 2009 School District No. 48 (Sea to Sky) continued to increase sustainability levels and reduce carbon output by developing a new Sustainability Policy and Regulations which will lead to the formation of a Sustainability Committee and the development of a meaningful and transformational Sustainability Plan and implementation.

Under significant funding constraints in 2009 the School District continued to invest in energy lighting and HVAC control upgrades. Staff closely monitored and evaluated utility trends and responded to energy reduction opportunities to avoid unnecessary costs and carbon output. Resources were redirected to increase monitoring and reporting requirements mandated by the provincial government. Initiatives to reduce business travel, utilize green cleaning products, encourage staff and facility users to minimize energy use and supplies and continued support for school recycling program was ongoing.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

- Approval of a new Environmental Sustainability Policy
- Appoint a Sustainability Committee
- Develop and implement an Environmental Sustainability Plan
- Update guidelines for purchasing equipment and supplies and business travel according to School District Environmental Sustainability Policies, Regulation and Plan.
- Invest in District initiated programs to reduce energy and resource consumption.

- Monitor and evaluate energy consumption and actively respond to energy reduction opportunities to avoid unnecessary carbon output.
- Encourage staff, students and outside enterprises to seek and implement practical methods of reducing, reusing and recycling materials.
- Promote with students, staff and parents the walking or biking to their neighbourhood elementary or secondary school whenever possible in order to reduce traffic and green house emissions.

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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	1	% of vehicles are fuel- efficient models	Replaced two owned school buses with clean diesel technology.	Light duty and heavy duty vehicles will be replaced according to our ongoing 10 year equipment replacement plan. Evaluation of replacement vehicles will include consideration for higher efficiency vehicles such as hybrids when evaluating best value and funding available.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	In Development				Will evaluate all vehicle purchases to assure right-sizing.	2010	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	Continued with comprehensive preventive maintenance vehicle program.	Ongoing preventive maintenance vehicle program.	1990	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	0	% of small maintenance vehicles are fuel-efficient	Small maintenance vehicle replacement deferred due to funding constraints.	Planned replacement of one owned tractor mower with higher efficiency unit in 2010 and other equipment needing replacement will be higher efficiency type.	2008	No End Date (Continuous)
Behavior change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	90	% of current drivers are trained	Transportation Supervisors provided driver training to all bus drivers.	Transportation Supervisors to continue to provide driver training to all new bus drivers.	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			Transportation Supervisors provide ongoing driver training in accordance with the SD48 Anti Idling Policy.	Ongoing driver training and anti idling enforcement.	2007	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Managers and supervisory staff have been encouraged to car pool whenever practical.	Continue to encourage managers and supervisory staff to car pool whenever practical. SD48 Sustainability Committee to review opportunities and recommend actions supported the SD48 Sustainability Policy and future plans.	2008	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	In Development			Purchase bicycle rack for School Board Office.	Planned SD48 Sustainability Committee to review opportunities and recommend actions supported by the SD48 Sustainability Policy.	2010	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Explore a proposal and feasibility of running diesel buses on vegetable oil.	In Development			Initial discussions with proponent.	Plan to complete an in house feasibility study and consider a pilot project.	2009	2010
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Owned buildings							
Establish energy performance baseline for owned buildings	Complete	100	% of owned buildings have an established energy performance baseline	Increased level of monitoring and evaluation of utility consumption history to identify trends and efficiency opportunities.	Continue to monitor and evaluate utility consumption history and identify opportunities to expand reporting audience to encourage and promote behavior change.	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
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	70	% of owned buildings have undergone energy retrofits since start year indicated	Energy lighting and HVAC control retrofits were completed at various schools and administrative facilities.	Further energy lighting and HVAC control retrofits to be reviewed and completed when feasible and as funding becomes available.	2003	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	25	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	Energy HVAC control upgrades were complete at one school and partially completed and two other schools.	Further HVAC retrofits to be reviewed and completed when feasible and as funding becomes available.	1998	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	90	% of retrofits (captured above) had lighting systems upgrades	Energy lighting retrofits were completed at three schools, one maintenance building and one bus garage.	Four newer schools will be considered for energy lighting retrofits. Older schools have all been retrofitted.	2003	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	25	% of retrofits (captured above) had control system upgrades or adjustments	Energy HVAC control upgrades were approved in four schools and are in progress..	Further HVAC control retrofits to be reviewed and completed when feasible and as funding becomes available.	1998	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	0	% of retrofits (captured above) had insulation improvements	One building envelope remediation project was completed and in 2009 which included an insulation upgrade to a portion of the wall system which will reduce heat loss and improve energy efficiency.	Feasibility of ceiling insulation upgrade for one secondary school gym will be reviewed and possibly completed.	2009	No End Date (Continuous)
Install an on-site renewable energy demonstration project	In Development			Submitted grant application to Solar BC and grant was approved to partially fund a solar hot water heating demonstration project.	Plan to install hot water demonstration project subject to available funding and will consider other similar projects if feasible and funding is available.	2009	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	95	% of computers shut down automatically outside of regular business hours	Continue to have computer labs on automatic timed shutdown and office PCs imaged with auto sleep mode turned on.	Review opportunities to expand power management software.		
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	100	% of computers have auto-sleep settings applied	Continued to image office PCs with auto sleep mode turned on.	Continue to image office PCs with auto sleep mode turned on.	2005	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	60	% reduction in printers, copiers, and/or fax machines since start year indicated	Continued to explore opportunities for more energy efficient office equipment and purchase as funding becomes available.	Continue to explore opportunities for more energy efficient office equipment and replace older and less efficient equipment as funding becomes available.	2005	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	60	% of devices have auto-sleep settings applied	Continued to apply auto-sleep settings on office equipment.	Continue to apply auto-sleep settings on office equipment and replace older less efficient equipment as funding becomes available.	2005	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	95	% of computers are ENERGY STAR rated	Continued to phase out all non-ENERGY STAR computers as funding becomes available.	Continue to phase out all non-ENERGY STAR computers as funding becomes available.	2007	2012
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	Continued to phase out all non-ENERGY STAR fridges as old ones are replaced and when funding becomes available.	Continue to phase out all non-Energy Star fridges as old ones are replaced and when funding becomes available.	2008	No End Date (Continuous)
Behavior change program							
Help staff reduce personal energy use through "workstation tune-ups"	In Development			Scheduled for 2010	Sustainability Committee to review and recommend.	2010	2011

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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
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Continued to encourage staff to reduce energy consumption.	Continue to encourage staff to reduce energy consumption. Expecting to expand communication and awareness of energy conservation through Sustainability Committee.	2005	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Continued to encourage staff close window coverings and have custodians close security blinds daily.	Continue to encourage staff close window coverings and have custodians close security blinds daily.	2005	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			Continued to encourage staff to reduce energy consumption.	Continue to encourage staff to reduce energy consumption. Expecting to expand communication and awareness of energy conservation through Sustainability Committee.	2005	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Continued to encourage staff to reduce energy consumption.	Continue to encourage staff to reduce energy consumption. Expecting to expand communication and awareness of energy conservation through Sustainability Committee.	2005	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			Elevator usage is restricted by key.	Continue to restrict elevator access by key.	2005	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Continued to encourage staff to reduce energy consumption.	Continue to encourage staff to reduce energy consumption. Expecting to expand communication and awareness of energy conservation through Sustainability Committee.	2005	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Continued to encourage staff to reduce energy consumption in balance with promotion of proper hand washing.	Continue to encourage staff to reduce energy consumption in balance with promotion of proper hand washing. Expecting to expand communication and awareness of energy conservation through Sustainability Committee.	2005	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	In Development			Considering new policies to support increased use of recycled paper products.	Update purchasing guidelines for recycled paper content according to Sustainability Policy and Plan.	2010	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	In Development			Considering new policies to support increased use of recycled paper products.	Update purchasing guidelines for recycled paper content according to Sustainability Policy and Plan.	2010	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	In Development			Considering new policies to support actions to reduce paper consumption.	Update copying and printing guidelines according to Sustainability Policy and Plan.	2010	No End Date (Continuous)
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	In Development			Considering new policies to support actions to reduce paper consumption.	Update copying and printing guidelines according to Sustainability Policy and Plan.	2010	No End Date (Continuous)
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	In Development			Considering new policies to support actions to reduce paper consumption.	Update copying and printing guidelines according to Sustainability Policy and Plan.	2010	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	100	% of staff workstations with software installed	All staff workstations have access to collaborative software.	Encourage staff to utilize collaborative software available.	2009	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	100	% of staff workstations with software installed	All staff workstations have access to common drives and shared electronic folders and document libraries.	Encourage staff to utilize common drives, shared electronic folders and document libraries.	2005	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress	100	% of staff workstations with software installed	All staff workstations have access to common drives and shared electronic folders and document libraries.	Encourage staff to utilize common drives, shared electronic folders and document libraries.	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
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress	15	% of staff payroll notifications are electronic	Staff payroll notifications expanded to larger employee group.	Continued expansion of electronic payroll notifications.	2008	2011
Behavior change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	2	% of staff currently have received collaborative software training	Staff trainers at each school have received training.	Continue to expand staff training in this area as the demand for this software increases.	2009	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development			Considering new policies to support increased practice of paperless meetings and presentations.	Update paper use printing guidelines according to Sustainability Policy and Plan.	2010	No End Date (Continuous)
Encourage re-use of scrap paper	In Development			Considering new policies and guidelines to support increased use of non-confidential scrap paper.	Update paper uses guidelines according to Sustainability Policy and Plan.	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							
Make desktop web-cameras available to staff	Ongoing/In Progress	100	% of staff have access to a desktop web-camera	Desktop cameras are available to staff upon request and subject to funding within their operating budgets to cover the costs.	Continued support for desktop cameras.	2008	No End Date (Continuous)
Behavior change program							
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Virtual attendance is encouraged whenever possible to maximize funding available for business travel. All business travel expense requests are reviewed and approved by senior management in advance.	Consider new guidelines to support lower carbon output related to business travel.	2008	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Group travel is often provided and/or encouraged to meetings. Considering new policies that will support actions to increase sustainability and to lower carbon output.	Consider new guidelines to support lower carbon output related to travel to meetings.	2008	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Alternate forms of travel to meetings is encouraged. Considering new policies that will support actions to increase sustainability and to lower carbon output.	Consider new guidelines to support lower carbon output related to travel to meetings.	2008	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			Developed Sustainable Policy and draft Plan. Submitted Policy for impact feedback and preliminary approvals.	Sustainability Policy approvals and appointment of a Sustainability Committee. Sustainability Committee to promote and form action teams to support sustainability and lower carbon output.	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			Considering new policies and appointment of a Sustainability Committee.	Sustainability Policy approvals and appointment of a Sustainability Committee. Sustainability Committee to review and recommend staff resources to support actions increase sustainability and to lower carbon output.	2009	No End Date (Continuous)
Providing behavior change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress			Considering new policies and appointment of a Sustainability Committee.	Sustainability Policy approvals and appointment of a Sustainability Committee. Sustainability Committee to promote, review and recommend staff training and programs to support actions to increase sustainability and lower carbon output.	2009	No End Date (Continuous)
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress			Hosted several sustainability workshops and key staff attended other green workshops and seminars during 2009.	Sustainability Policy approvals and appointment of a Sustainability Committee. Sustainability Committee to promote, review and recommend staff training and programs to support actions to increase sustainability and lower carbon output.	2009	No End Date (Continuous)
Staff awareness/education							

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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
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		Continuing to educate staff and promote awareness through discussion, workshops, involvement in Sustainability Policy development.	Sustainability Policy approvals and appointment of a Sustainability Committee. Sustainability Committee to promote, review and recommend staff training and programs to support actions to increase sustainability and lower carbon output.	2009	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		Participation in BC Hydro Energy Ambassador Program.	Continued support to for sustainable programs in the schools for students.	2005	No End Date (Continuous)
Other Sustainability Actions						
Waste reduction/diversion						
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	In Development		Created new Sustainability Policy and submitted to Policy Committee for District approvals. This policy will support and encourage waste reduction and recycling programs.	Through our Sustainable Committee develop new guidelines to promote and expand existing waste reduction and recycling programs.	2009	No End Date (Continuous)
Procurement (non-paper supplies)						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Continued to expand use of green seal cleaning products, paper products and trash bags.	Continue to expand use of green seal cleaning products, paper products and trash bags.	2007	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	Ongoing/In Progress		Continued to utilize ecological sensitive paint products for all maintenance projects.	Continue to use low-e paint products for all maintenance work. Consider new policies and guidelines for procuring replacement furniture, finishes and equipment.	2007	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		Acquired bike rack for District Administration office.	Install bike rack for District Administration Office and through the Sustainability Committee promote expansion of facilities to promote commuting by foot and bicycle.	1995	No End Date (Continuous)