

School District 69 (Qualicum)  
2009 Carbon Neutral Action Report

Executive Summary:

During the 2007/08 school year, our School District embarked upon an appreciative inquiry process to develop the Board's vision, mission statement and District strategic plan. One of the key priorities from that process was environmental sustainability:

- coherent approach to planning and learning that engages all members of the school district community and enables us to act upon our shared responsibility for environmental sustainability
- consider projects and initiatives addressing energy conservation, greenhouse gas reduction and climate change for our facilities

Like most school districts, we have been pursuing conservation issues for a number of years. We have been a PowerSmart partner since 1993. The objective is to both conserve energy and reduce costs.

Actions taken in 2009:

In 2009, the District completed lighting retrofits on six of its fourteen schools. The genesis of these projects came from the work done by a group of students at Kwalikum Secondary School, with the assistance of one of the District's electricians. With funding from the Ministry and BC Hydro, the District was able to conduct lighting retrofits, not just in Kwalikum Secondary School, but five of its other schools.

The lighting retrofit program has two schools remaining to be upgraded.

In the summer of 2009, the District replaced two boilers at one of its secondary schools. The boilers were replaced with units that provide 95% efficiency.

Going forward:

To the extent that it is financially possible, the District will continue to embark on projects in support of the Board's goal for environmental sustainability. One of the main objectives for the next two years will be employee education regarding the positive effect that an individual's behaviour can have on our environment.

Mrs. Bernice Hannam  
Secretary-Treasurer

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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
<b>Mobile Fuel Combustion (Fleet and other mobile equipment)</b>							
<b>Vehicle fuel efficiency</b>							
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	10	% of vehicles are fuel- efficient models	Replaced one diesel bus with propane unit	Continue replacing diesel busses with propane busses	2005	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	Replaced 84 passenger bus with 72 passenger bus	Continue to replace 84 passenger with 72 passenger busses	2009	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Complete	100	% of vehicles are subject to regular maintenance for fuel efficiency	B service at 5,000 km; A service at 10,000 km on all vehicles, both fleet and busses (practise in place long before 1990, as shown as the start year)		1990	No End Date (Continuous)
<b>Behaviour change program</b>							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress			SmartFleet booklets available to staff	Recommend to CUPE pro-d committee	2008	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Complete			Signs erected at all school sites		2008	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Planning/management</b>							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress			upgrades completed on 4 schools; have been a PowerSmart member since 1993	complete upgrades on remaining 2 schools	2007	2011
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Complete	100	% of buildings have a real time metering system installed	DDC controls in all locations. This program has been in place for many years		1990	No End Date (Continuous)
<b>Owned buildings</b>							
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	In Development			Part of planning for construction of Family Place, a joint project with the School District, Ministry of Children and Families and Vancouver Island Health Authority	Completion of facility design	2010	2012
Incorporate integrated design process into new construction or during renovations of owned buildings	In Development			Part of planning for construction of Family Place, a joint project with the School District, Ministry of Children and Families and Vancouver Island Health Authority	Completion of facility design	2010	2012
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	26	% of owned buildings have undergone energy retrofits since start year indicated	upgrades completed on 4 schools;	complete upgrades on remaining 2 schools	2009	No End Date (Continuous)
<b>Retrofitting owned buildings</b>							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	14	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	Replace boilers in 2 schools; achieving 95% efficiency	Solar hot water for 1 small elementary; ongoing review of mechanical systems	2009	2012

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Upgrade lighting systems during retrofits	Ongoing/In Progress	29	% of retrofits (captured above) had lighting systems upgrades	upgrades completed on 4 schools;	complete upgrades on remaining 2 schools	2009	2012
Upgrade/adjust control systems during retrofits	Ongoing/In Progress			Timer installation at 2 schools	Ongoing review and maintenance	2009	No End Date (Continuous)
Install an on-site renewable energy demonstration project	In Development				Solar hot water for 1 small elementary	2010	2011
<b>IT power management</b>							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	70	% of computers shut down automatically outside of regular business hours	Installation of ghost software	completion	2008	2010
Implement server virtualization	Complete	10	% of servers have been virtualized since start year indicated	No further plans, insufficient density		2008	2009
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	100	% of computers have auto-sleep settings applied	100% of software installed	Increase of number of components utilized	2010	2009
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	In Development			Printer survey being conducted	Work on recommendations from printer study	2010	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	50	% of devices have auto-sleep settings applied	Established this as a standard	Replacement machines will include this feature	2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	50	% of computers are ENERGY STAR rated	Ongoing program	Ongoing program	2008	No End Date (Continuous)
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	75	% of fridges are ENERGY STAR rated	Replacements will include this feature	Ongoing program	2007	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			Replacements will include this feature	Ongoing program	2007	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			Limited number of desk lamps. District purchases CFC bulbs only	District will continue to purchase only CFC bulbs	2009	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	In Development				Study being conducted	2010	2011
Purchase 100% post-consumer recycled paper	In Development				Study being conducted	2010	2011
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	10	% of network printers or photocopiers are set to automatic double-sided	Print study being conducted	Share study results	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
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	Ongoing/In Progress	10	Implemented by installing Office 2007	Implemented by installing Office 2007	Installation of Office 2007 complete by 2010	2009	2010
<b>Electronic media in place of paper</b>							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	100	% of staff workstations with software installed	Sharepoint installed throughout district	Assessment of and training for shared use of files	2007	2012
Use electronic document library for filing common documents	In Development			More extensive use of Sharepoint	Consideration of other document management systems	2008	2012
Post materials online that were previously printed	Ongoing/In Progress			Expanded use of District portal	Continued use of Sharepoint	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress			New employees receive notification electronically	System wide implementation	2009	2010
<b>Behaviour change program</b>							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	20	% of staff currently have received collaborative software training	Part of implementation of Sharepoint	Continued use of Sharepoint	2009	2012
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development				Assessment of where this may be feasible	2010	2012
Encourage re-use of scrap paper	Ongoing/In Progress			Heightened awareness of paper use	Ongoing education	2008	No End Date (Continuous)