

CARBON NEUTRAL ACTION REPORT





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Executive Summary

The Board of Education No. 61 (Greater Victoria) is pleased to submit our Carbon Neutral Action Plan for 2011. Our District continues to work diligently as we have for many years now to improve the learning environment for students and staff by demonstrating leadership in the reduction of our carbon footprint.

Our Board approved an Environmental Change Policy that continues to support the integration of environmentally sustainable considerations in all of our business decisions.

In addition to the numerous ongoing waste reduction, heating control upgrades, boiler replacement and window replacement projects, our District is excited to be exploring opportunities to collaborate with other government agencies in the development of innovative low carbon emitting and extremely cost efficient renewable energy systems. It is our goal to include this new technology in the design of our, soon to be constructed, new high school.

The recent completion of two major seismic projects has resulted in the elimination of old inefficient heating systems which we expect will further reduce our carbon footprint for 2012 and the future.

Our District continues to receive tremendous support from students, staff and parents for initiatives that embrace and model sustainability, social responsibility and reductions to our carbon footprint. Our District fully recognizes its role as a leader in environmental stewardship and will continue to support initiatives that will reduce energy consumption, reduce our impact on the environment and, in doing so, will facilitate a learning environment that embraces 21st Century learning.

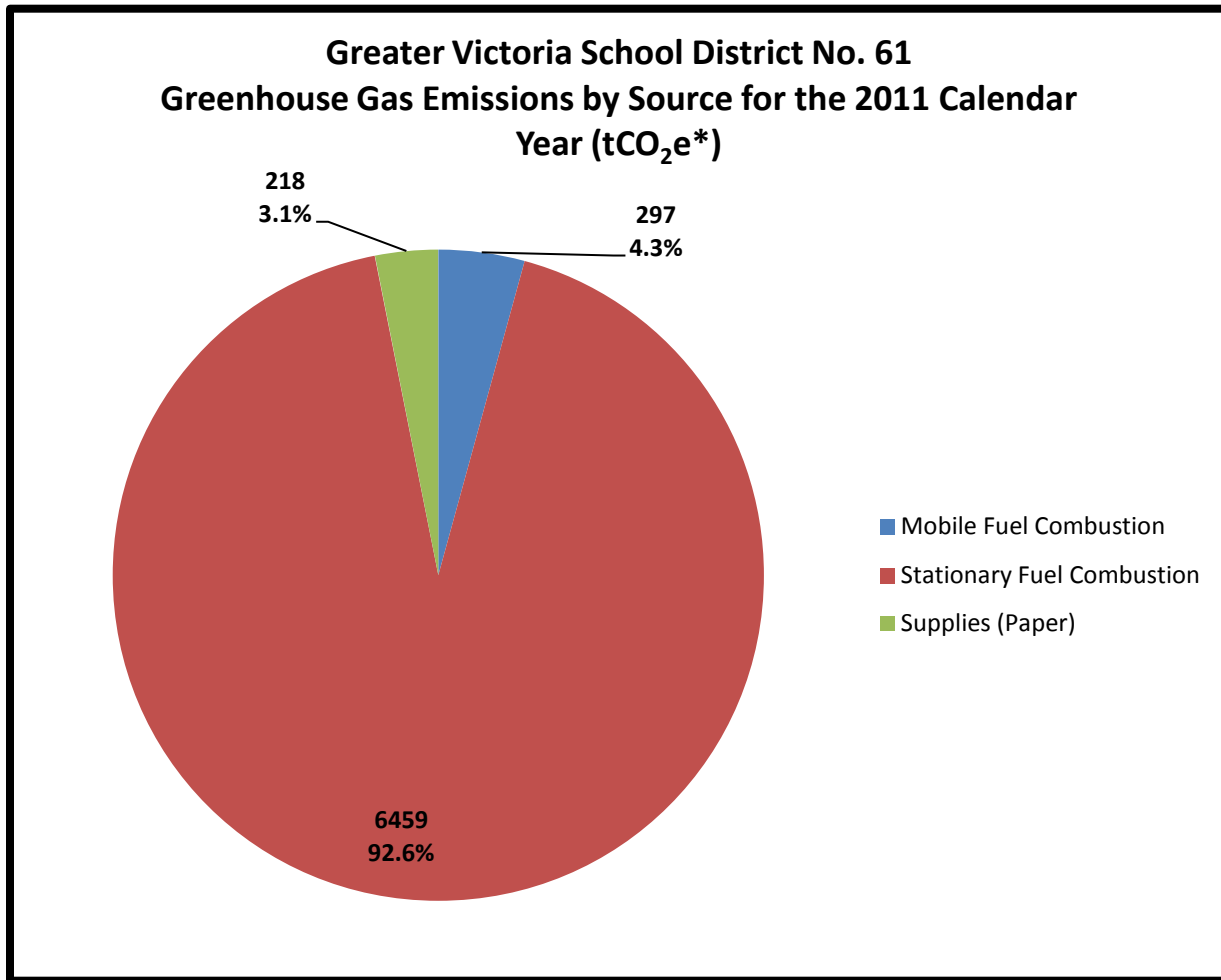
As directed we have captured all greenhouse gas emissions from the sources covered under the Greenhouse Gas Reduction Targets Act and as reported in Smarttool for the calendar year 2011, our District's total greenhouse gas emissions has been calculated at 6,974 tonnes. For the year ending Dec 31st 2011 we experienced a colder winter than the previous two years resulting in an unusually long heating season. This resulted in an increase in utility consumption which is reflected in the increase in our carbon footprint. Despite the increase, when taking the heating degree days into consideration, it is evident that we are continuing to reduce our overall carbon footprint. We remain committed to our energy saving programs and objectives and consider this a temporary glitch in our overall carbon footprint reduction plan. Finally, our Board has purchased offsets to obtain carbon neutrality as directed.

A handwritten signature in blue ink, appearing to read "George Ambeault".

George Ambeault
Secretary-Treasurer



Greenhouse Gas Emissions



Total Emissions: 6,974

Mobile Fuel Combustion (Fleet and other Mobile Equipment)

Stationary Fuel Combustion (Building Heating and Generators) and Electricity

Supplies (Paper)

*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.



Offsets Applied to Become Carbon Neutral in 2011

**Greater Victoria School District #61 offsets applied to become Carbon Neutral in
2011**

Total offsets required: **6,950**

Total offset investment: **\$173,750.00**

Emissions which do not required offsets: **23****

***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.*



Changes to Greenhouse Gas Emissions and Offsets Reporting from Previous Years

The colder winter this year combined with an unusually long heating season have resulted in an increase in utility consumption which is reflected in the 13% increase in our carbon footprint. For the year ending December 31 2011 when taking into consideration the heating degree days we did in fact achieve a carbon footprint reduction of over 5%.



Emissions Reduction Activities



Actions Taken to Reduce Greenhouse Gas Emissions in 2011

- ❖ Installation of new HVAC system at Braefoot Elementary
- ❖ Installation of high efficiency boilers at Campus View Elementary and Marigold Elementary
- ❖ Installation of new Energy Star windows at James Bay Elementary and Tillicum Elementary
- ❖ Installation of new heating controls at Victoria High Secondary and Central Middle
- ❖ Installation of low flush toilets at Lansdowne Middle
- ❖ Ongoing support for behavioural change program through staff and student education
- ❖ Further expansion of District waste reduction program with recycling of organics at 73% of schools resulting in a reduction in both the size and the frequency of the pickup of regular waste containers



Plans to Continue Reducing Greenhouse Gas Emissions 2012-2014

Continued commitment to energy savings through the upgrading and replacing of heating plants, heating control systems, window replacement and student and staff awareness and education training.

As a public sector organization our ability to continue to reduce greenhouse gas emissions is dependent of government funding. Our Board remains committed to supporting energy saving initiatives through Ministry of Education funding received for major capital improvements (5 year Capital Plan) and the Ministry of Education's Annual Facilities Grant (AFG).

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



Operational Changes in 2011

The major seismic upgrading of two schools has resulted in the introduction of new energy efficient heating systems with new heating controls and all new windows which we expect will have a significant impact on our greenhouse gas emissions at both locations which will be reflected in the 2012 report.



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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 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	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	Will replace/upgrade with more efficient vehicles as funding permits.	2009	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress			No new vehicles	Will replace/upgrade with more efficient vehicles as funding permits.	2009	No End Date (Continuous)
Perform regular fleet maintenance specifically to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	Regular maintenance and program in place.	Continuation of regular maintenance program.	2007	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	80	% of small maintenance vehicles are fuel-efficient	As funding permits.	As funding permits.	2007	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	50	% of current drivers are trained	Driver training provided.	Additional training planned.	2009	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	50	% Awareness Training	Anti-idling programs in place at various schools.	Ongoing awareness training.	2009	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Staff advised to 'buddy up' when working at the same location.	Ongoing awareness training.	2009	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	68	% of buildings have a real time metering system installed	New heating controls installed at Central Middle School, Victoria High Shop Addition, Campus View Elementary and Marigold Elementary.	Additional heating control upgrades as funding permits.	2010	No End Date (Continuous)
Owned buildings							
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	0	% of owned buildings are certified LEED NC Gold or LEED NC Platinum	Design underway for replacement school at LEED Gold Level.	Construction of new school beginning in 2013.	2009	No End Date (Continuous)
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress	1	% of buildings built or renovated since start year indicated used the integrated design process	Work closely with architects to ensure integrated design process is used.	Process will be included in all new and major renovations.	2009	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	35	% of owned buildings have undergone energy retrofits since start year indicated	Four schools have undergone energy upgrades.	Additional energy upgrades as funding permits.	2009	No End Date (Continuous)
Retrofitting owned buildings							

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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	21	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	Upgrades complete at four schools.	Additional energy upgrades as funding permits.	2009	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	10	% of retrofits since start year indicated had control system upgrades or adjustments	Controls upgrades at four locations.	Submit for funding to Ministry for additional upgrades.	2009	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	8	% of retrofits since start year indicated had insulation improvements	New Energy Star windows replaced at two schools.	Ongoing upgrade of windows throughout the District as funding permits.	2008	No End Date (Continuous)
IT power management							
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	50	% reduction in printers, copiers, and/or fax machines since start year indicated	Installed multi-function devices in every school.	Replaced fax machines with multi-function devices; still need to assess stand-alone printers - schools are individually responsible for their printers.	2011	2012
Replace computers with ENERGY STAR models during regular computer upgrades	In Development	50	% of computers are ENERGY STAR rated		Many of the computers that come from Computers For Schools- Most computers now come with Energy Star ratings although not all.	2010	2012
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			All new purchases are Energy Star.	Ongoing replacement with more energy efficient equipment.	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			All new purchases are Energy Star.	Ongoing replacement with more energy efficient equipment.	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			All new purchases are Energy Star.	Ongoing replacement with more energy efficient equipment.	2009	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			Reminder to staff.	Ongoing education.	2008	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Reminder to staff.	Ongoing education.	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			School elevators at the Elementary and Middle school level are typically reserved for special needs students.	Continued practice.	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Reminder to staff.	Ongoing education.	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Reminder to staff.	Ongoing education.	2008	No End Date (Continuous)
Supplies (Paper)							
Paper Type							

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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	48	% of total paper purchased contains 30% recycled content	Schools mandated to use paper with some recycled content.	Continue to monitor usage reports from paper supplier and remind non conforming schools of recycled content mandate.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	41	% of total paper purchased contains 100% recycled content	Schools mandated to use paper with some recycled content.	Continue to monitor usage reports from paper supplier and remind non conforming schools of recycled content mandate.	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development	100	% of staff workstations with software installed		District has collaboration through SharePoint but only in its infancy. Will require much more work.	2006	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Making staff more aware of District website and forms.	Human Resources is overseeing forms management.	2006	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development				District has collaboration through SharePoint but only in its infancy. Will require much more work.	2006	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Use of technology over paper.	Continue practice.	2007	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Students and staff reuse handouts, envelopes, etc.	Continue practice.	2007	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 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	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	73	% of schools have green teams. (31 schools)	Seven additional schools created green teams and joined the waste management program.	Have remaining teams join program.	2009	2013
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			Resources available through District website: http://www.sd61.bc.ca/green/default.aspx	Continue to expand and shape information.	2009	No End Date (Continuous)
Awards/Recognition							
Establish a sustainability/green awards or recognition program	Ongoing/In Progress	10	% Board recognition of individual teams.	Invited to share their experiences, ongoing support and recognition at public Board Meeting.	Recognition at future Board Meetings.	2010	No End Date (Continuous)
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress			Staff are encouraged to attend where possible.	Ongoing support.	2008	No End Date (Continuous)
Staff awareness/education							
Provide education to staff about the science of climate change	Ongoing/In Progress			District Website available. Website has been expanded: http://www.sd61.bc.ca/green/default.aspx	Further expansion of website.	2009	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress			District Website available. Website has been expanded: http://www.sd61.bc.ca/green/default.aspx	Further expansion of website.	2009	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress			District Website available. Website expanded and notices to staff.	Ongoing.	2009	No End Date (Continuous)
Client/public awareness/education							
Provide green tips on client/public website or in newsletters	Ongoing/In Progress			Tips provided on District green website. Continued support for and updating of Green Website.	Further expansion of District website.	2009	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			Two additional schools.	Continue with strategy as funding allows.	2007	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Completed in 2011			No further expansion.	No further expansion planned at this time.	2008	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	73%	No Policy, however, 73% of schools are on Recycling Program	Eight more schools have joined Recycling Program.	Further expansion.	2008	No End Date (Continuous)

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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		Adhere to Purchasing procedures.	Continued commitment to Green Products.	2008	No End Date (Continuous)
Procurement (non-paper supplies)						
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Ongoing/In Progress		All new flooring installed using natural products.	Flooring removed will be replaced with a natural product.	2008	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Biodegradable trash bags being evaluated.	Possible implementation of Biodegradable Bag Program.	2009	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		Demolition of one building followed recycling procedures.	Recycling procedures to be followed that supports diversion of waste.	2009	No End Date (Continuous)
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Many staff and students commute by bicycle or on foot. Encouragement for healthy choices.	Ongoing encouragement.	2008	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		When renovating, shower facilities are included. Provision made at renovated schools.	Continue to expand program.	2009	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		Bike racks at majority of schools. District has worked with schools to provide additional storage.	Continued support.	2009	No End Date (Continuous)