

School District No. 20 Kootenay Columbia – 2011 Carbon Neutral Action Report

Executive Summary

School District No. 20 is committed to continuing on the path of implementing changes to our stationary buildings, our mobile fleet, our procurement and delivery of supplies and services which will reduce our carbon emissions and our energy consumption.

As an educational leader in our area of the province, we wish to lead by example by modeling a sustainable lifestyle and teaching our students and staff how sustainability can be achieved in all aspects of our lives.

We fully expect the results of our efforts will help to maintain and improve our beautiful local environment and improve the service we provide to our students by reducing utility and carbon offset costs which will free up funds that may be redirected to support student achievement.

2011 Greenhouse Gas Emissions

School District No 20's total GHG emissions from all sources for 2011 are 2519 tonnes

Offsets Applied to Become Carbon Neutral in 2011

Total emission offsets of 2073 tonnes have been applied to become carbon neutral for 2011.

As required by section 5 of the Carbon Neutral Government regulation 446 tonnes of CO₂e of emissions resulting from the operation of school buses were reported as part of our greenhouse gas emissions profile in 2011. However, they were not offset as they are out-of-scope under section 4(2)(c) of the Carbon Neutral Government Regulation.

Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2011

- We purchased only paper that had recycled content.
- We surveyed our automated Heating Ventilation and Air Conditioning controls and made adjustments to reduce our emissions and utility costs.
- We reinforced our anti idling campaign.

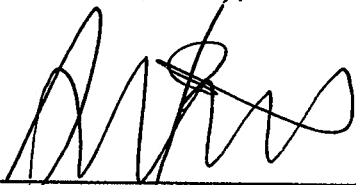
-We worked to streamline our school bus runs to reduce the daily kilometres travelled in order to reduce fuel use and emissions.

Plans to Continue Reducing Greenhouse Gas Emissions 2012-2014

Our School District plans to continue with the initiatives already in place and to focus more closely on sustainable lifestyles and practices by implementing a program such as Destination Conservation to help educate and encourage our students and staff towards further conservation practices that can be used in the district and elsewhere. We will also be focusing on reducing our stationary and Mobile emissions by working on updating our District Energy Management Action Plan of 2006 to identify energy use and GHG emission areas of priority for improvements and purchasing and implementing a school bus routing software program to more efficiently deploy our fleet.



CNAR Report Prepared by Director of Operations Steve Morissette



CNAR Report Approved by Superintendent Greg Luterbach

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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	25	% of vehicles are fuel- efficient models	As budget allows, not able to do any in 2011 due to budget restraint.	If budget allows older equipment will be replaced with down sized and/or more fuel efficient vehicles	2009	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 budget allows, not able to do any in 2011 due to budget restraint.	If budget allows older equipment will be replaced with down sized and/or more fuel efficient vehicles	2009	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	30	% of small maintenance vehicles are fuel-efficient	As budget allows, not able to do any in 2011 due to budget restraint.	If budget allows older equipment will be replaced with down sized and/or more fuel efficient vehicles	2009	No End Date (Continuous)
Behaviour change program							
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Continue to encourage workers to carpool where able	Encourage pre-planning trips to facilitate car-pooling	2009	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Reduce office space (square meters) per employee	Ongoing/In Progress			Board of Education is engaged in a Planning for the Future facilities evaluation	Plan to make some space reductions/consolidations	2011	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	In Development				Energy Study/Planning report update to identify priority energy retro-fit projects throughout the district	2012	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	In Development				Energy Study/Planning report update to identify priority energy retro-fit projects throughout the district	2012	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	In Development				Will be part of any future retro-fits	2012	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	In Development				Will be part of any future retro-fits	2012	No End Date (Continuous)
Install an on-site renewable energy demonstration project	In Development				Will be considered as part of any future retro-fits	2012	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Completed in 2011	100	% of computers shut down automatically outside of regular business hours	Completed		2009	2011
Implement server virtualization	Ongoing/In Progress	25	% of servers have been virtualized since start year indicated	Continuing upgrades	Ongoing	2009	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
Apply auto-sleep settings on computer monitors and CPUs	Completed in 2011	100	% of computers have auto-sleep settings applied	Completed		2009	2011
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	35	% reduction in printers, copiers, and/or fax machines since start year indicated	Continue to reduce where able	Ongoing	2009	2014
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	Continue the program	Ongoing	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	Continue the program	Ongoing	2009	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	50	% of fridges are ENERGY STAR rated	All new purchases are Energy Star models	Continue with Energy Star replacement	2009	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 models	Continue with Energy Star replacement	2009	No End Date (Continuous)
Behaviour change program							
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Some switches have stickers/signs applied	Continue with program	2009	No End Date (Continuous)
Promote hot water conservation	In Development				Start awareness program	2009	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Completed in 2011	100	% of total paper purchased contains 30% recycled content	100% of paper purchase contained 30% recycled content.		2011	No End Date (Continuous)
Electronic media in place of paper							
Use electronic document library for filing common documents	Ongoing/In Progress			Ongoing	Continue	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Ongoing	Continue	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed in 2011			Completed		2010	2011
Behaviour change program							
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Ongoing	Continue	2009	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Ongoing	Continue	2009	No End Date (Continuous)

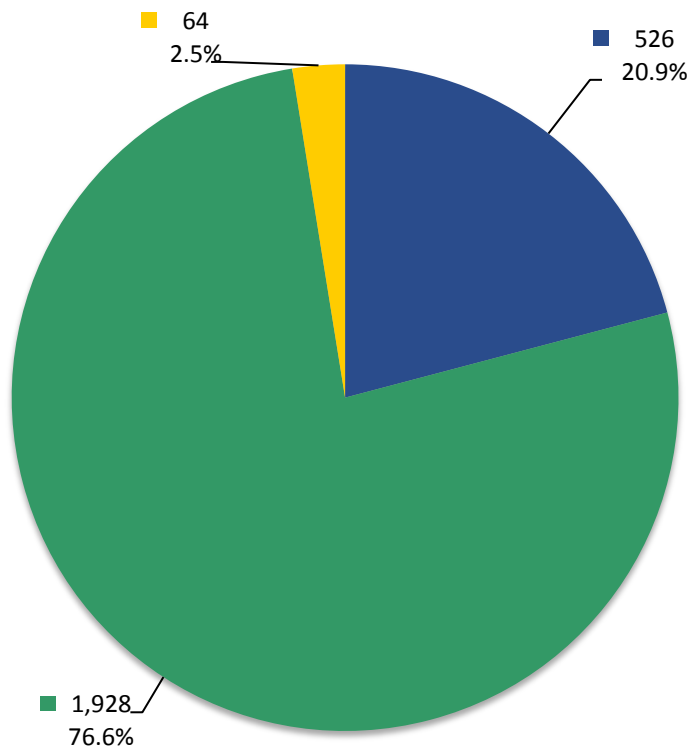
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Actions to Reduce Provincial Emissions and Improve Sustainability

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
Business Travel						
Virtual meeting technology						
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress		Used this technology wherever possible	Continued use	2009	No End Date (Continuous)
Behaviour change program						
Train staff in web-conferencing	In Development			No training but many staff use	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	In Development			No training but many staff use	2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	In Development			No training but many staff use	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress		Encouraged	Continue to support	2009	No End Date (Continuous)
Other Sustainability Actions						
Procurement (non-paper supplies)						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		We purchase only sustainable, green custodial products	Continue	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		All electronic equipment such as computers, audio equipment etc are recycled as well as any scrap metal.	Continue	2009	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		This is in effect at many of our sites	Continue	2009	No End Date (Continuous)
Commuting to and from home						
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Completed in 2011		All sites have shower facilities except the Board Office		Started before 1995	2011

**School District 20 - Kootenay-Columbia
Greenhouse Gas Emissions by Source
for the 2011 Calendar Year (tCO₂e*)**



Total Emissions: 2,519

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2011 (Generated May 18, 2012 11:57 AM)

Total offsets required: **2,073**. Total offset investment: **\$51,825**. Emissions which do not require offsets: **446** **

*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.

** 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.