

School District No. 74 (Gold Trail)

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School District No. 74 (Gold Trail)

2011 Carbon Neutral Action Report

Executive Summary

The Gold Trail School District continues to take positive steps toward our goals in carbon neutrality. Reductions in fuel consumption, electricity, paper and water are all areas of priority for this School District. We will continue to actively work towards reducing greenhouse gases. The Board encourages staff to be environmentally friendly in all areas of their day to day duties. Increased awareness of conserving energy, recycling and generally looking after our planet is evident in the classrooms.

2011 Greenhouse Gas Emissions & Offsets Applied to Become Carbon Neutral in 2011

Total emissions for 2011 were 1457 tonnes, in order to become carbon neutral School District No. 74 purchased a total of 1,017 offsets for a total investment of \$25,425. It was also determined that the total emissions for the 2010 calendar year were under reported by 73 tonnes and the difference in offsets required will be purchased and applied against our 2010 emissions.

Actions Taken to Reduce Greenhouse Gas Emissions in 2011

In 2011 major electrical retrofit projects took place at two of our secondary schools, all interior and exterior lighting was changed from T12 to T8 or T5. More efficient lighting and less power consumption will be obtained. We continue installing occupancy sensors throughout the district. Outdated boilers are being replaced with high efficient condensing units.

Plans to Continue Reducing Greenhouse Gas Emissions 2012 – 2014

We plan to replace outdated and inefficient boilers and rooftop units in the upcoming years. Plans for this summer do include further electrical upgrades at our largest secondary school.

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 12/31/11)	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	40	% of vehicles are fuel- efficient models	no new vehicles of this type were purchased in 2011	replace vehicles with fuel efficient ones when necessary	2007	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress			a new 1-ton diesel pickup was purchased to replace our old dump truck	replace maintenance vehicles with smaller, more fuel efficient, when replacement necessary	2007	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	continue with regularly scheduled maintenance program	have preventive maintenance program in place already and will continue with this program	Started before 1995	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress			did not replace any small vehicles in 2011	if it is necessary to replace any, they will be replaced with fuel efficient ones	2007	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	100	% of current drivers are trained	continue to train new hires	continue to provide training for new drivers	2007	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	100		posters and brochures are provided to our drivers and staff	continue with providing information on anti-idling and other smart driver tips	2007	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			car-pooling has always been encouraged as a money-saving as well as environmentally friendly concept in our rural district.	continue to encourage carpooling, when possible	Started before 1995	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Reduce office space (square meters) per employee	Ongoing/In Progress			classrooms have been closed where not needed and hvac setbacks are in place	continue to close classrooms if not needed and use setbacks	2007	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress			lighting retrofits completed in two secondary schools - interior and exterior lights changed T12's down to T8 & T5	will complete another school this summer	2009	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			a high efficient, condensing hot water boiler installed at one school as part of retrofit	will complete more as funding permits	2011	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress			extensive lighting retrofit at two schools this past summer, interior and exterior lighting upgraded from T12 to T8 and T5. Motion sensors also installed in these two schools.	will complete another school this summer	2011	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress			all HVAC is on DDC	ongoing process and will modify & adjust controls as needed	Started before 1995	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			when windows need to be replaced, they are replaced with energy star compliant windows	will do more, as necessary	2005	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
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	80	% of computers shut down automatically outside of regular business hours	deep freeze shuts down student machines at 5:00 pm daily and staff machines at 8:00 pm	looking at earlier shutdown times	2010	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	60	% of servers have been virtualized since start year indicated	moved 3 more servers to virtualization	increase to 80%	2009	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	90	% of computers have auto-sleep settings applied	ensuring that auto-sleep is on	continue with past practise of making sure auto-sleep is on	2006	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress			multi-function machines already in place	continue with lease on multi-function units	2007	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	85	% of devices have auto-sleep settings applied	all the new machines have this function operational	continue with same practise	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	95	% of computers are ENERGY STAR rated	each new machine is energy star rated	continue to replace with only energy star	2006	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	75	% of fridges are ENERGY STAR rated	any replacements purchased are always the more efficient Energy Star rated	will continue to replace, when necessary with Energy Star	2005	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 above, replacements when necessary, are with Energy Star	as above	2005	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress			reminder to all workers to unplug and turning items devices off when not in use	continue to remind employees	2007	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Have been encouraging this behaviour for a long time	will continue with this practise	2005	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			As window blinds need to be replaced we are purchasing blinds that remain down at all times	will continue with this practise	2009	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			No new dishwashers were purchased this year	continue with asking staff to use air dry settings	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			Heating and cooling systems are on auto set-back for after hours, weekends and holidays	continue with have heating and cooling systems on auto setbacks	1995	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			Elevators in our schools are for physically handicapped persons only. A key from the office is required in order to be able to use elevator	continue with this practise, those able must use stairs	Started before 1995	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Posters, stickers, etc. are provided to schools as reminders	continue to remind staff and students to conserve energy	2007	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Continue to replace hot water tanks, when necessary with more efficient ones. Thermostats on the tanks have been turned to a lower temperature	continue with the practise of using less hot water	2005	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
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	100	% of total paper purchased contains 30% recycled content	Have been purchasing paper with at least 30% recycle content for a number of years now.	continue with purchasing paper that has at least 30% recycle content	2005	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress			Looking for paper with a greater recycle contact	as above	2010	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	25	% of network printers or photocopiers are set to automatic double-sided	Purchase and/or recommendation of printers that have duplex capabilities	Limit printing based on users; eliminate non-duplex printers; apply automatic double-sided printing to additional printers and photocopiers	2012	No End Date (Continuous)
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	In Development	0	% of network printers have 'print and hold' settings applied		Will be re-evaluating printer/copier purchases to determine 'green' possibilities in setup	2012	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	Increased use of online collaboration tools (eg Moodle)	Installation of Sharepoint in the district	2010	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	20		Laserfiche Document Management System used for Administrative Offices	Continued and expanded use of Laserfiche Document management system	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress	65		School newsletters, board news, etc all posted on the district website or school websites	Continuation and expansion of online materials	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress	100		started this practise in 2007 and added some accounts payable vendors in 2011	continue to add vendors when able to	2007	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	70	% of staff currently have received collaborative software training	Continued collaboration between staff members on the use of Moodle (online classroom management system)	Move to Sharepoint/Portal system for online collaboration, classroom management, communication, etc.	2009	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			All Board of Education meetings are held through an online meeting tool.	Encourage staff to use the new Sharepoint/Portal for meetings and collaboration	2008	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			have been re-using paper for years	continue to use paper that is still good on one side for	Started before 1995	No End Date (Continuous)

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Actions to Reduce Provincial Emissions and Improve Sustainability

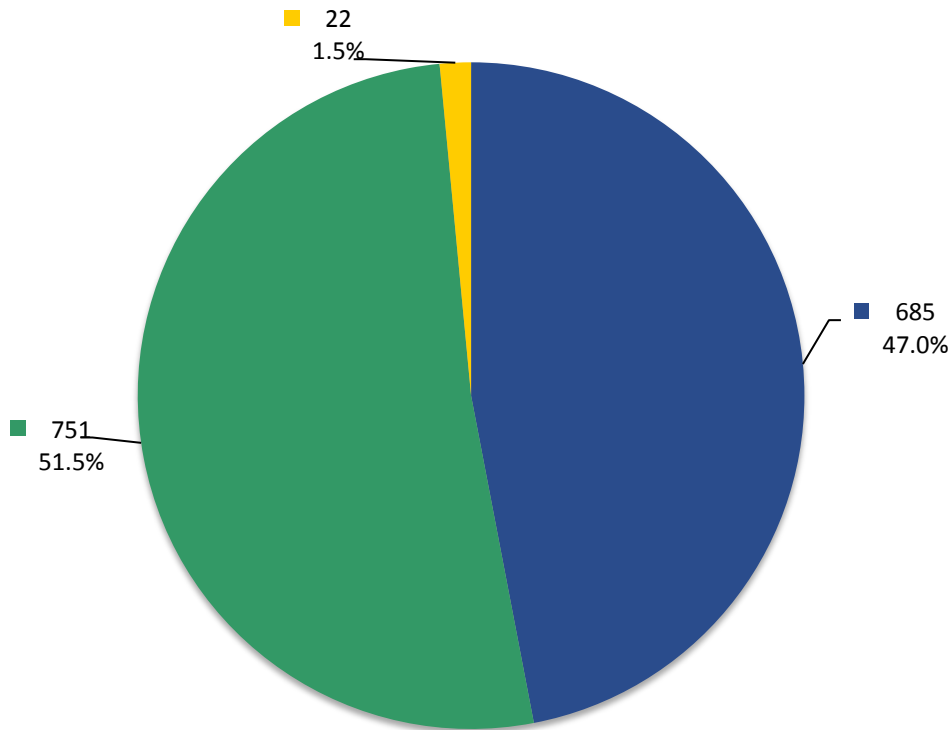
The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act*. Public sector organizations can optionally use this section to 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							
Policy and budgeting							
Create a low-carbon travel policy or travel reduction goal	In Development						
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	100	% of computers have web-conferencing software installed	Elluminate Live is being used throughout the district; free to K-12 schools/districts; no software installation required.	Will continue to use Elluminate Live web conferencing software when possible	2007	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	85	% of staff have access to a desktop web-camera	Laptops, with built in web cams, are the recommended purchase for all staff	Will continue to recommend and/or provide staff with laptops with built in web cameras.	2010	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	50	% of meeting rooms have access to video-conferencing equipment	Each school site as well as the District Board office have access to permanently built in video conferencing equipment. All sites also have access to mobile video conferencing software.	Expand the use of video conferencing for meetings and classes	2007	No End Date (Continuous)
Behaviour change program							
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress	50	% of staff are trained in video-conferencing or have access to technical support	Provide collaboration time for staff around the use of video conferencing	Expand training around the use of video conferencing	2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	In Development				Will evaluate potential for 'online' events	2012	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			The district has always encouraged carpooling to meetings (is recommended on the District Travel Expense Form)	Continue to encourage carpooling when possible	2007	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			when fixtures are required to be replaced, they are replaced with more efficient models, ie. automatic taps, low flush toilets, etc.	carry on replacing with more efficient models	2005	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			recycling programs are in place in our district	paper, plastic, tin items are taken to our recycling depots	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress			we do not take hazardous materials to the landfill, they are picked up by contractors for safe disposal	continue with this practise	1995	No End Date (Continuous)
Procurement (non-paper supplies)							
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Ongoing/In Progress			all operations staff are encouraged to exercise their knowledge of purchasing products that fall within the Green Standards	continue with this practise	2007	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
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		as above	as above	2007	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		using green label cleaning products and recycled paper and plastic products	continue with this practise	2005	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		When possible, we recycle materials for doing repairs and re-modeling	Continue with this practise	2002	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		This practise has been in place at most sites for quite some time as we have students and staff members with allergies	Continue with this practise	2000	No End Date (Continuous)
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		Only low VOC paints are used, carpets are being replaced with marmoleum	continue with this practise	2006	No End Date (Continuous)
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Where possible walking is encouraged but we live in a rural area no this not very possible. We have no public transit.	not very possible, but encouraged if it can be done	Started before 1995	No End Date (Continuous)

**School District 74 - Gold Trail
Greenhouse Gas Emissions by Source
for the 2011 Calendar Year (tCO₂e*)**



Total Emissions: 1,457

- 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 12:33 PM)

Total offsets required: **1,017**. Total offset investment: **\$25,425**. Emissions which do not require offsets: **441** **

*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.