

## **School District No. 53 (Okanagan Similkameen)**

### **2011 Carbon Neutral Action Report**

#### **Executive Summary**

School District No. 53 is committed to the environment and to reducing its carbon footprint. School District No. 53 believes in the future of its children which includes leaving a clean environment for future generations. We have continued with our goal to become carbon neutral in the future. Past accomplishments include: Environmental Excellence Award by PowerSense (FortisBC 2004), DDC in all facilities, mechanical upgrades.

As an educational organization and members of society, we realize the importance of caring for the planet. Our students benefit greatly by the increased awareness around climate and other environmental issues. The modeling that government is using today will shape the attitudes and responses of today's students when they are charged with leading families and communities in environmentally sound behaviour. Education and awareness will be the focus for the district in the coming years.

#### **Overview**

##### **2011 Greenhouse Gas Emissions and Offsets Applied to Become Carbon Neutral in 2012**

School District No. 53 had offset investments made to Pacific Carbon Trust of 1099 tonnes, and an offset of 712 tonnes. Also, School District No. 53 also had a credit of 199 tonnes carried over from 2010.

##### **Actions Taken to Reduce Greenhouse Gas Emissions in 2011**

Actions taken in 2011 include:

1. replaced numerous RTU units with heat pumps;
2. Construction of Geothermal Field
3. Installation of Solar panels on roof of school
4. implemented DDC for better temperature monitoring;
5. continue to car pool where possible;
6. continue paper purchase of recycled paper;
7. default on all our multi-functional devices to double-sided copies ;
8. a wind turbine at SOSS, primarily to educate the students, but one which will also provide a small amount of electricity;

9. Oliver Elementary School and SOSS will have installed water solar panels at the school to utilize and obtain environmental benefits from the sun;
10. SOSS will be installing photovoltaic panels to produce electricity;
11. Meetings via webcasting.

**Plans to Continue Reducing Greenhouse Gas Emissions 2012 – 2014**

Our biggest reductions in greenhouse gases will be through the development of:

1. a continuing effort to replace heating units with more energy efficient models
2. Purchase of software to monitor and reduce photocopy paper use
3. Education and awareness.



Bev Young, Superintendent of Schools

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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
<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	95	% of vehicles are fuel- efficient models	Most vehicles are 2006 or newer	As funding allows us to replace vehicles we will look at more fuel efficient vehicles	2005	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress			In some cases we have increased vehicle capacity which reduced the number of vehicles on the road	We will review the "right size" when we are replacing vehicle	2005	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	All vehicles have regular maintenance done on them	Continue providing ongoing servicing and maintenance	2005	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress			As vehicles become obsolete they will be replaced with more fuel efficient models	As vehicles become obsolete they will be replaced with more fuel efficient models	2005	No End Date (Continuous)
<b>Behaviour change program</b>							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	100	% of current drivers are trained	Drive Smart Training provided to all drivers	Ensure any new drivers are given this training and refresh older employees periodically	2006	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	100	% We have always encouraged vehicle pooling where possible	Example - Grounds people often vehicle pool and will utilize a crew cab so more workers can be transported in one vehicle	Continue with our precedures re-car pooling	2007	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Owned buildings</b>							
Establish energy performance baseline for owned buildings	Ongoing/In Progress	100	% of owned buildings have an established energy performance baseline	Continue our ongoing review of costs	Continue our ongoing review of costs	2008	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress			Replacement of RTU with heat pumps	Continue with improvements as funding allows	2009	No End Date (Continuous)
<b>Retrofitting owned buildings</b>							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			SOSS and OES upgrades Completed	Replacing old RTU to energy efficient air to air roof tops	2009	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			Upgrade as funding provides for these efficiencies	For any retrofits that suggested improvements will occur	2006	No End Date (Continuous)
Install an on-site renewable energy demonstration project	In Development			SOSS project will utilize wind, be geothermal and have solar panels installed	The public will see the completed SOSS project. As other projects con on board we will build using renewable energy resources to the maximum possible assuming ongoing costs savings are there.	2011	No End Date (Continuous)
<b>Appliances and electronic devices</b>							

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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
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	80	% of fridges are ENERGY STAR rated	Will purchase newer energy efficient equipment once old equipment has been retired	Will purchase new energy efficient equipment once old equipment has been retired	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	80	% of Lap tops and Desktop computers are Energy Efficient	Will purchase newer energy efficient equipment once old equipment has been retired	Will purchase new energy efficient equipment once old equipment has been retired	2009	No End Date (Continuous)
<b>Behaviour change program</b>							
Help staff reduce personal energy use through "workstation tune-ups"	In Development			Review done. To make sure staff turn off lights	Continuous encouragment of staff to turn off lights	2009	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Continuous Process	Continuous Process	2009	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			Continuous Process	Continuous Process	2009	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Continuous Process	Continuous Process	2009	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			Continuous Process	Continuous Process	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Continuous Process	Continuous Process	2009	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Continuous Process	Continuous Process	2009	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	0	% of total paper purchased contains 30% recycled content	We purchase paper in May for the following year and try and get the best price	Will review Green paper choices	2006	No End Date (Continuous)
Purchase 40% post-consumer recycled paper	Ongoing/In Progress	0	% of total paper purchased contains 40% recycled content	We purchase paper in May for the following year and try and get the best price	Will review Green paper choices	2006	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	20	% of total paper purchased contains 100% recycled content	We purchase paper in May for the following year and try and get the best price	Will review Green paper choices	2006	No End Date (Continuous)
<b>Printer/document settings</b>							
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	Ongoing/In Progress			Accounting report margins have been changed to reduce paper	Reviewing reports. Default of all printers is to double sided printing	2009	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Use electronic document library for filing common documents	Ongoing/In Progress			Working on building document library	Working on building document library	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Board Minutes posted	Monthly Financial reports viewed using internet.	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
<b>Behaviour change program</b>							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	5	% of staff currently have received collaborative software training	Use SharePoint to file some Government reports	Continue to expand use of SharePoint	2011	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Agenda's for Board meetings sent by e-mail	Setting up more meetings using computers	2009	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Remind staff to re-use scrap paper	Remind staff to re-use scrap paper	2009	No End Date (Continuous)

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### Actions to Reduce Provincial Emissions and Improve Sustainability

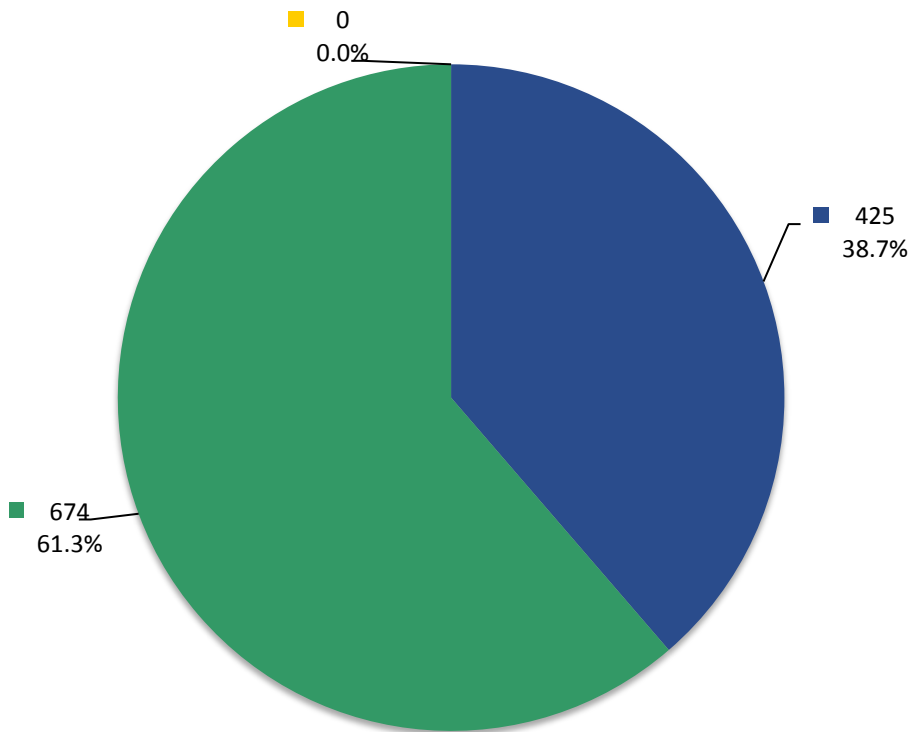
The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act*. Public sector organizations can optionally use this section to 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
<b>Business Travel</b>							
<b>Policy and budgeting</b>							
Create a low-carbon travel policy or travel reduction goal	In Development			Under review	Under review	2010	No End Date (Continuous)
<b>Virtual meeting technology</b>							
Make desktop web-cameras available to staff	Ongoing/In Progress	20	% of staff have access to a desktop web-camera	Some staff now have camera's for online conferencing	Refresh of all desktops with newer desktops	2011	No End Date (Continuous)
<b>Behaviour change program</b>							
Train staff in web-conferencing	Ongoing/In Progress	20	% of staff are trained web-conferencing	Staff being trained or have been trained in web-conferencing	Have used web-conferencing for meetings	2010	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress			On going training on Video conferencing	Have used web-conferencing for meetings	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	In Development			Have used for Board Meetings	Have used for Board meetings	2010	No End Date (Continuous)
<b>Education, Awareness, and Engagement</b>							
<b>Team-building</b>							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	In Development			Reviewing process	Reviewing process	2010	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development			Reviewing process	Reviewing process	2010	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	In Development			Reviewing process	Reviewing process	2010	No End Date (Continuous)
<b>Other Sustainability Actions</b>							
<b>Water conservation</b>							
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress			Continued changing water fixtures	Replace old equipment with newer equipment that are low flow models	2009	No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Ongoing/In Progress			Began changing water fixtures. Part of upgrade of schools	Part of the renovation of the school	2009	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress			reviewing policy	Look at establishing a community garden	2010	No End Date (Continuous)
<b>Waste reduction/diversion</b>							

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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
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress			Recycle program. Recycle bottles, cardboard, paper	Continue program	2009	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress			reviewing policy	Reviewing policy	2009	No End Date (Continuous)
<b>Procurement (non-paper supplies)</b>							
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	In Development				Beginning Development	2010	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress			purchase of green products	Purchase products that cause the least damage to the environment	2009	No End Date (Continuous)
Require a minimum purchase of sustainable, and organic food and beverages supplied by contracted food suppliers or caterers	Ongoing/In Progress	20	% of the combined total food and beverage purchase (in cost) meets these requirements	Farm to School and Community Food action committee programs	Healthy meals and Farn to School programs purchase food from organic farmers locally	2009	No End Date (Continuous)
<b>Building construction, renovation, and leasing</b>							
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress			Under review	Under review	2010	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Ongoing/In Progress			Under review	Under review	2010	No End Date (Continuous)
<b>Indoor air quality</b>							
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress			Under review	Under review	2010	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			Under review	Under review	2010	No End Date (Continuous)
<b>Commuting to and from home</b>							
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress			Showers located at Schools	Showers located at schools	2010	2013

**School District 53 - Okanagan Similkameen  
Greenhouse Gas Emissions by Source  
for the 2011 Calendar Year (tCO<sub>2</sub>e\*)**



**Total Emissions: 1,099**

- 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 12:18 PM)**

Total offsets required: **712**. Total offset investment: **\$17,800**. Emissions which do not require offsets: **388** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) 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.