

School District No. 53 (Okanagan Similkameen)

2010 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, and roof insulation upgrades.

The district has committed to and implemented driver training and an anti-idling policy. Bus routes have been reduced. Our greatest leap forward will be the renovation of Southern Okanagan Secondary School (SOSS). The renovation has given the district a great opportunity to install a geothermal field that will benefit both SOSS and Oliver Elementary School, and will greatly reduce energy consumption for both schools. Once completed, SOSS will be LEED gold certified. Another initiative is the installation of solar panels on the roof of Oliver Elementary School that will generate energy and lower electrical consumption.

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

2010 Greenhouse Gas Emissions and Offsets Applied to Become Carbon Neutral in 2010

School District No. 53 purchased 871.58 tonnes of CO₂. This resulted in an offset investment of \$ 21,789.50 by the district in 2010.

Actions Taken to Reduce Greenhouse Gas Emissions in 2010

Actions taken in 2010 include:

1. replaced numerous RTU units with heat pumps;
2. implemented DDC for better temperature monitoring;
3. continue to car pool where possible;
4. continue paper purchase practice with other districts and purchase recycled paper;
5. default on all our multi-functional devices to double-sided copies ;
6. meetings via webcasting.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2013

The continued construction and renovation of SOSS and continued replacement of aging and inefficient roof top units. The SOSS project presents many opportunities as it will be built to LEED gold standard. Our biggest reductions in greenhouse gases will be through the development of:

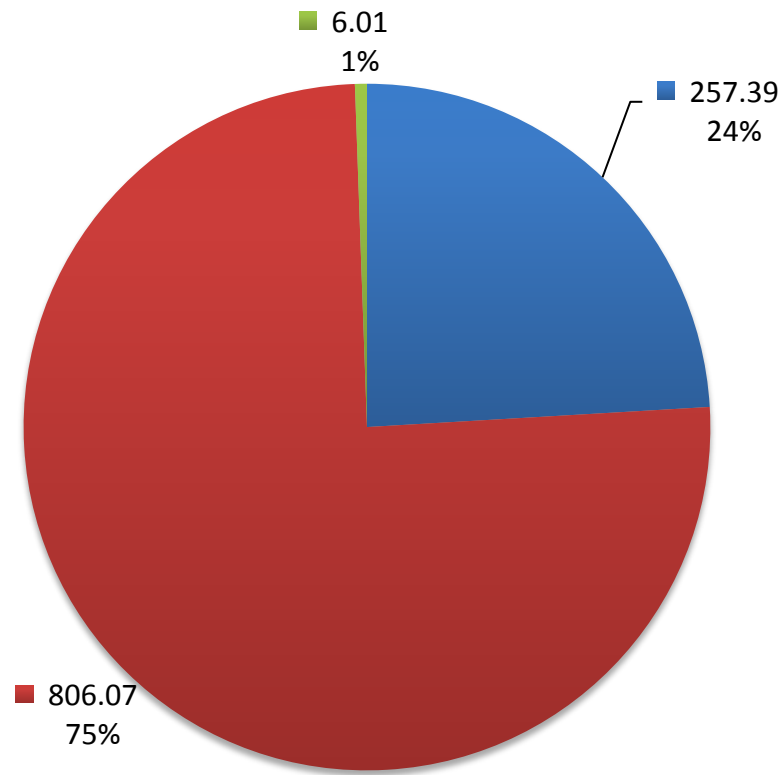
1. a geo-thermal field that will be used to heat both SOSS and Oliver Elementary School;
2. a wind turbine at SOSS, primarily to educate the students, but one which will also provide a small amount of electricity;
3. Oliver Elementary School and SOSS will have installed water solar panels at the school to utilize and obtain environmental benefits from the sun;
4. SOSS will be installing photovoltaic panels to produce electricity;
5. continued replacements of old roof top units to new air source heat pumps;
6. education and awareness.

A handwritten signature in black ink, appearing to read 'Bev Young', is written over a horizontal line.

Bev Young, Superintendent of Schools

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Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e*)



Total Emissions: 1069.47

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion and Electricity (Buildings)
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: **871.58**. Total offset investment: **\$21,789.50**. Emissions which do not require offsets: **197.89** **

*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.

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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 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	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	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 for reduction of number of vehicles on the road	we will review the "right size" when we are replacing a vehicle	2005	No End Date (Continuous)
Perform regular fleet maintenance 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)
Behaviour change program							
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 procedures re-car pooling	2007	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
no action taken at this time with respect to hybrids or alternate fuels	In Development				we will review our needs and the applicable funding to see if there is a fit.	2010	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Owned buildings							
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)
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Ongoing/In Progress	0	% of owned buildings have operations and maintenance labelling/certification	SOSS school renovations will be to Leed Gold standard	no plans to spend money on existing buildings for certification unless funded.	2010	2012
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Ongoing/In Progress	0	% of commercial interiors in owned buildings have labelling	SOSS school renovations will be to Leed Gold standard	very little "commercial facing" in our district. SOSS will have a Neighbourhood's of Learning which will be built to Leed Gold standards	2012	2013
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	We only have one project and it will be certified.	SOSS Certification 2013	2011	2013

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress	0	% of buildings built or renovated since start year indicated used the integrated design process	Construction begins May 2010	ongoing with SOSS and other construction projects that may materialize	2010	2012
Complete 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)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			SOSS and OES upgrades	high ticket items require considerable funding...as funding allows we will upgrade.	2009	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			as funds are provided for these efficiency	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. If other projects come on board we will build using renewable energy resources to the maximum possible assuming ongoing costs savings are there.	2012	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			will purchase newer energy efficient equipment once old equipment has been retired	will purchase newer 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			will purchase newer energy efficient equipment once old equipment has been retired	will purchase newer energy efficient equipment once old equipment has been retired	2009	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	In Development			review done. To make sure staff turn off lights.	Continuous encouragement 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)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	20	% of total paper purchased contains 30% recycled content	we purchase paper as part of a consortium of several districts and recycled paper is ordered as much as possible	Consortium will review green paper choices	2006	No End Date (Continuous)

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Purchase 100% post-consumer recycled paper	Ongoing/In Progress		we purchase paper as part of a consortium of several districts and recycled paper is ordered as much as possible	as above	2006	No End Date (Continuous)
Printer/document settings						
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	2009	No End Date (Continuous)
Electronic media in place of paper						
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)
Behaviour change program						
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 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Business Travel						
Policy and budgeting						
Create a low-carbon travel policy or travel reduction goal	In Development			Under review	2010	No End Date (Continuous)
Virtual meeting technology						
Make desktop web-cameras available to staff	Ongoing/In Progress		Some staff now have camera's for online conferencing	Refresh of all desktops with newer desktops	2011	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Completed in 2010		Have installed video conferencing		2009	2010
Behaviour change program						
Train staff in web-conferencing	Ongoing/In Progress		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 video 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 meeting	2010	No End Date (Continuous)
Education, Awareness, and Engagement						
Team-building						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	In Development			Reviewing process	2010	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development			Reviewing process	2010	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	In Development			Reviewing process	2010	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		Began 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 renovation of 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	Looked at establishing a community garden	2010	No End Date (Continuous)
Waste reduction/diversion						

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	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)
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.)	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		Began Farm to School program	Healthy meals and Farm to School programs purchase food from organic farmers locally	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		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)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		Under review	Have brought in formal policy	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)
Commuting to and from home						
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		Showers located at school	Showers located at school	2010	2013