



# The Board of Education of School District No. 83 (North Okanagan-Shuswap)

## 2009 Carbon Neutral Action Report

### Executive Summary

The Board of Education has been proactive in planning for and addressing the goal of Green House Gas reductions. An Energy Manager was hired in 2009 with the mandate and focus to guide the organization in green house reduction and strategies. This position was funded in partnership with BC Hydro.

A comprehensive review of energy consumption was undertaken, and “green” initiative policy and targets were established for energy reduction over a five (5) year period.

### Overviews

#### **Actions Taken to Reduce Greenhouse Gas Emissions in 2009**

##### **Actions Toward Carbon Neutrality:**

The Board implemented a new Policy in respect to Energy Management Conservation and set progressive reduction targets. The new policy identifies responsibilities within the organization for Green House Gas reduction.

#### **Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012**

The District is commencing a number of multi year initiatives to reduce green house gas emissions:

- Create “green Teams” at each Middle and Secondary School
- Created a new Energy Manager position to focus on reduction strategies
- Carry out technical audits to optimize HVAC equipment and programming
- Replace HVAC and lighting equipment with more energy efficient equipment

# The Board of Education of School District No. 83 (North Okanagan-Shuswap) - 2009 Carbon Neutral Action Report

## 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 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
<b>Mobile Fuel Combustion (Fleet and other mobile equipment)</b>							
<b>Vehicle fuel efficiency</b>							
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Complete	20	% of vehicles down-sized since start year indicated	We sold off our 10 most inefficient buses and replaced with buses that are 38% cheaper to maintain, and have 42% better fuel economy.	We will continue to update our fleet with more fuel efficient buses as replacements are brought in.	2009	2009
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	Our entire fleet is involved in a comprehensive preventative maintenance program with the focus on safety and efficiency.	Ongoing	1999	No End Date (Continuous)
<b>Behavior change program</b>							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	50	% of current drivers are trained	Our Transportation department undergoes refresher training annually on fuel efficient driving.	Ongoing	2005	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			Our Transportation Department has been actively involved in an anti-idling campaign. This involves signage across the district, education, and using GPS technology to monitor success.	Ongoing	2005	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Complete			The Facilities Department has instructed its maintenance department to pool its vehicles if multiple trades are going to the same building. The trades are encouraged to work together to provide joint cooperation and lower the annual fuel cost in the maintenance department.		2009	2009
<b>Other Mobile Fuel Combustion Actions</b>							
Expansion of the GPS vehicle tracking systems into all of our service trucks.	Ongoing/In Progress			Installation of GPS vehicle tracking systems in the majority of our service trucks. This technology discourages and tracks excessive idling, speeding, and tracks maintenance issues.	Completion of installation of GPS on all remaining school district vehicles.	2009	2010
Create Staggered Start and Finish times of Schools to reduce number of busses.	Complete			By strategically changing the start and finish time for schools, it has lengthened the available window to transport students between home and school. This has resulted in the permanent reduction of six buses from our fleet.		2009	2009
Replace the rear engine pusher transit style bus with conventional type buses.	Complete			Internal district audits have shown that conventional front engine commercial diesel busses are more efficient than diesel pushers' by 35 percent. We have removed all the pushers' busses from our bus fleet.		2009	2009
Improvement of our transportation department recycling program.	Ongoing/In Progress			We have a collection program to store lead acid batteries, used oil, anti-freeze, metal parts, containers, plastic jugs, and tires, all for recycling. Tires have been retreaded and we have been able to get up to 5 uses from a single tire carcass.	We will continue to stay informed on any additional expansion on recyclable products in our regional district to deflect as much as possible from going into our landfill.	2007	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Planning/management</b>							

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Enroll in a building energy benchmarking program (e.g., GREEN UP)	In Development	193	eKwh/sqm average equivalent energy intensity of all facilities.	Creating an equivalent energy intensity building registry for all facility types in K-12 sector with BC Hydro Sponsored Energy Managers. Submitted preliminary data in November 2009.	Creating a criteria format for equivalent energy intensity so data is comparable. Data to be submitted in Spring 2010.	2009	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	In Development			Evaluating real time metering system from ACR Systems. Applied for 5 pulse BC Hydro Meters in our largest schools.	Purchase 3 metering systems from ACR Systems. Circulate RFP with service providers as part of acceptance for BC Hydro Pulse Meters.	2009	2012
<b>Owned buildings</b>							
Establish energy performance baseline for owned buildings	Ongoing/In Progress	100	% of owned buildings have an established energy performance baseline	Have baseline established for all facility based on 2008 consumption figures. Work with facilities Department to take measures to lower higher then average exceptions.	Calculate energy intensities for all facilities based on 2009 consumptions. Take corrective actions for higher then average exceptions.	2009	No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress			Planning new Elementary School in Enderby to be built to LEED Gold Standards. A new 3000SqM facility will have enough space for all the existing students, and will replace the existing aging 5060SqM facility.	New School to be tendered in Spring of 2010.	2009	2011
Incorporate integrated design process into new construction or during renovations of owned buildings	In Development			All stakeholders are involved to ensure efficient use of building space.	Formulate best build plan to involve all stakeholders.	2009	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress			Continuous tweaking of work order system to automatically create maintenance requests at scheduled intervals.	Evaluation of Systems and checking performance is within expectations.	2007	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress			Due to fiscal restraints total building retrofits were not an option.	Continuous evaluation of building performance to determine if a retrofit is viable.	2005	No End Date (Continuous)
<b>Retrofitting owned buildings</b>							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			We did a complete HVAC and BAS upgrade at Silver Creek Elementary. RTU's were energy efficient electric Heat pumps.	HVAC upgrades are planned for Falkland Elementary in 2010 and Hillcrest Elementary in 2011. Smaller upgrades are planned for inefficient boilers at various sites.	2009	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	95	% of retrofits (captured above) had lighting systems upgrades	We have adopted a dark school program on outside lighting between 12:00am and 6:00am. 70% of all schools have had efficient outside lights installed and dark school controls. All of our indoor fluorescent fixtures have been changed to T8 technology with electronic ballasts at all facilities.	We have tendered a contact for an additional 15% of facilities for outside light upgrades and are in the design process for the last 15%.	2000	2011
Upgrade/adjust control systems during retrofits	Ongoing/In Progress			Installations of building automation systems have been a priority in remote facilities. Adjustments can be made remotely without travelling to the site.	Expansion of DDC system at Falkland Elementary in 2010.	2000	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			Additional insulation is added where warranted during scheduled reroofing. Single pane windows are typically replaced with double pane glass when renovations are done.	Continual upgrade of roof insulation during reroofing. Targeted replacement of single pane windows in facilities with a poor building performance index.	2000	No End Date (Continuous)
Install an on-site renewable energy demonstration project	Ongoing/In Progress			Cost analysis and performance study of solar heating for Domestic Hot Water, and solar generation of electricity.	Solar Projects are cost prohibitive and not proven technology for this area. Consideration will be given if additional funding or grants become available which will pay for the majority of the installation and purchasing of a system.	2009	No End Date (Continuous)

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<b>Leased buildings</b>							
Establish energy performance baseline for leased buildings	Complete	100	% of leased buildings have an established energy performance baseline	Have baseline established for all leased buildings based on 2008 consumption figures. Comparison has been made to similar type facilities to ensure as end user we are using energy responsibly.		2009	2009
<b>IT power management</b>							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	90	% of computers shut down automatically outside of regular business hours	2 Hour auto shutdown installed in School Facilities March 2009. Program updated to majority of computers August 2009. Additional feature allowed teachers ability to turn off all computers in their room from their PC.	Tighten up 2 hour inactivity auto shutdown to 1 hour.	2009	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress			Virtualized 6 schools consolidating 3 servers to one at each site. Board Office is next priority and to be completed by Sept 2010. This will virtualized 8 servers to one.	Implement and install virtual servers in the rest of the schools	2008	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress			Evaluating /data gathering/analyzing ramifications of implementation for end users	Present a plan to review board for approval/policy creation	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	100	% of devices have auto-sleep settings applied	Ensuring new equipment has this setting enabled. Constant review of sleep settings ensuring compliance	Continuous review and compliance checks	2006	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	0	% of computers are ENERGY STAR rated	Evaluating budget pressures to purchase new computers that have ENERGY STAR ratings	Evaluate availability of ENERGY STAR rated machines	2009	No End Date (Continuous)
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	10	% of fridges are ENERGY STAR rated	All Purchases go to the purchasing department who have been directed to purchase energy star fridges whenever possible.	Continue purchasing energy star appliances and sourcing rebates from various sources to offset costs.	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			Energy Star Consideration is always given to appliances and electronic equipment. Budget constraints will factor into purchases if there are large discrepancies in pricing.	Working with vendors to express desire to purchase energy efficient products in hope of improving pricing and being kept apprised of any new innovations.	2009	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			We are working towards the direction of eliminating all incandescent bulbs throughout the district.	Looking at even more energy efficient technologies such as LED lighting for personal workspace illumination.	2009	No End Date (Continuous)
<b>Behavior change program</b>							
Help staff reduce personal energy use through "workstation tune-ups"	In Development			Did an equipment audit and survey in the summer to get an understanding of workspace equipment, layouts, and end user work habits.	Working on a workplace conservation awareness pilot as a joint venture with BC Hydro to raise awareness of efficient energy use.	2009	2011
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development			Did an equipment audit and survey in the summer to get an understanding of workspace equipment, layouts, and end user work habits.	Working on a workplace conservation awareness pilot as a joint venture with BC Hydro to raise awareness of efficient energy use.	2009	2011
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Reminder to staff of Central Staff Memorandum about use of blinds for energy conservation and security after hours.	Working on a workplace conservation awareness pilot as a joint venture with BC Hydro to raise awareness of efficient energy use.	2008	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			We provide tips for energy conservation tips in the weekly District news letter "On the Fly"	Working on a workplace conservation awareness pilot as a joint venture with BC Hydro to raise awareness of efficient energy use.	2009	2011

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Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress		Staff is encouraged to use HVAC overrides minimally and turn them back to unoccupied when they leave. Use multilevel lighting switches to minimize the number lights that are on.	Working on a workplace conservation awareness pilot as a joint venture with BC Hydro to raise awareness of efficient energy use.	2009	2011
Encourage use of stairs instead of elevators	Complete		Elevators are to be reserved for use by Handicapped individuals whenever possible. Stairs are encouraged for all healthy individuals.		2000	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress		Since 2002 the district has been actively engaging students to participate in energy reduction strategies. There a several reminders around the district about energy conservation.	We have sent in a request to BC Hydro to get more stickers about energy conservation. The message will be expanded to include computers, monitors, and lighting.	2002	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress		Staffs encouraged to run dishwashers only when full, wash laundry in cold water, and custodians are to do routine floor care with cold water.	We are investigating adding controls to Domestic Hot Water systems to reduce the heat loss in the systems. Controls will limit cycle time of circulation pumps or operation of HW Tanks.	2005	No End Date (Continuous)
<b>Other Stationary Fuel Combustion and Electricity Actions</b>						
Planning lights out for an hour or Dark afternoons as an awareness campaign.	Ongoing/In Progress		As a pilot at Pleasant Valley Senior Secondary, they are having the occasional dark afternoon on Wednesdays and then quantifying the savings by utilizing the real time meters at that facility.	Provide measurement and verification on reduction of electricity at multiple sites during lights out campaigns. With measured results we hope that this will encourage turning off lights in vacant rooms.	2008	2011
Recommission the HVAC equipment on our largest five schools	Ongoing/In Progress		Have secured sponsorship from BC Hydro for Recommission Project. Recommissioning will place emphases on building energy efficiencies with regards to minimizing occupant discomfort.	We will hire a consultant to oversee the recommissioning project and commence with gathering data to formulate a strategy for energy saving. In 2012 we will implement the recommendations of findings on our equipment.	2009	No End Date (Continuous)
Replace all incandescent bulb score clocks.	Complete		Replace all incandescent bulb score clocks with energy efficient LED illuminated clocks. This reduced maintenance costs and energy cost substantially.		2005	2009
Expansion of summer vacant building equipment shutdown list.	Ongoing/In Progress		Existing summer vacant building equipment shutdown procedures expanded to include Hot Water Tanks, Domestic Circulation Pumps and Refrigerators. We audited all facilities to verify compliance and achieved substantial savings in gas and electricity consumption.	Provide training to onsite personal to enable them to have the understanding to do all the shutdown procedures within their buildings, rather then getting assistance from the maintenance department.	2009	No End Date (Continuous)
Establish a relamping program for indoor fluorescent lights	Complete		Start a relamping program for indoor fluorescent lights in all of our facilities based on a four year rotation. This has reduced maintenance costs and improved lighting levels throughout the rotation period.		2006	No End Date (Continuous)
Shut down outside lights during periods with no occupancy from users.	Ongoing/In Progress		Implemented Dark Schools, shutting off out side lights from 12:00am until 6:00am. This has resulted in extended life of bulbs, reduced vandalism, and lower electrical consumption by 40%.	We have added controls and upgraded outside lights since 2006 to implement dark schools. Doing facilities in blocks of five or six we are working on the second to last group and will plan and complete the last group in 2010.	2006	2010
Reduce lighting levels in hallways during class time.	In Development		Started feasibility study of having reduced lighting levels in hallways during class time.	If costing is not excessive the hall lights will be interconnected to the class bell schedule to drop lighting levels in the hallways during class time. Studies have shown this will have a calming effect on students and will have savings in electricity and maintenance. The pilot projects are to be at Sullivan Campus and JL Jackson Campus.	2009	2010

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Use multi-level lighting controls to its maximum potential.	Ongoing/In Progress			Develop an awareness campaign on the proper use of manual switching for multi-level lighting levels.	Implementing an awareness campaign on the proper use of manual switching for multi-level lighting levels in classrooms. Focus will be given to middle and secondary schools and then expansion to elementary schools in future years.	2009	2012
Create new Indoor temperature cooling strategy for district.	Ongoing/In Progress			Create dual cooling set points in our facilities. Room will be cooled to 23C if cool outside air is available for cooling. When mechanical cooling is required rooms will be cooled to 25C.	We have implemented the dual cooling set points at a few schools in 2009, and will continue to reprogram sites as time and manpower permits.	2009	2012
Create a registry of the number and size of single pane glass windows in the district.	Ongoing/In Progress			As funds are available we will replace single pane windows with more efficient sealed units.	Continuation of replacement of windows as planned upgrades or when single panes are broke.	2008	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	Due to differences in price, paper which had no recyclable content was substantially cheaper than that containing 30%. Budget consideration dictated purchasing 0% recyclable content.	In consideration of the carbon neutral legislation more emphasis will be given to recyclable content as a way of lowering our carbon footprint. We will compare the cost of Carbon Offsets to validate purchasing paper with higher recyclable content.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	0	% of total paper purchased contains 100% recycled content	Due to differences in price, paper which had no recyclable content was substantially cheaper than that containing 30%. Budget consideration dictated purchasing 0% recyclable content.	In consideration of the carbon neutral legislation more emphasis will be given to recyclable content as a way of lowering our carbon footprint. We will compare the cost of Carbon Offsets to validate purchasing paper with higher recyclable content.	2009	No End Date (Continuous)
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress			Not Automatic, but staffs encouraged to use this feature whenever possible.	Continual education to remind staff to use double sided feature on printers.	2008	No End Date (Continuous)
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Ongoing/In Progress			Print and hold feature not used, but photocopiers which are the preferred method to be used as shared networked printers have codes to stop unauthorized use of the photocopier.	Reduction of personal desktop printers throughout the district to encourage printing to larger more efficient networked photocopiers.	2005	No End Date (Continuous)
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	Ongoing/In Progress			Encourage staff to use print preview feature on their documents to ensure number of pages needed to print is minimized.	Continual education to remind staff to use best printing practices in the workplace.	2008	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			Installation of First Class Email system in September 2007. Gradual introduction of all features to encourage staff to use it for posting messages, scheduling meetings etcetera.	Continue to encourage memo communication through email.	2007	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress			These are all features in First Class, which all staff is encouraged to use.	Publication of features of First Class in "On the Fly" or in Tips of the Week during staff meetings to keep staff aware of improvements.	2007	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Access to current MSDS sheets were posted online through Fetch. Information such as bookings or floor plans of our facilities is available online through First Class.	Post additional resources and material in First Class as it is deemed appropriate.	2007	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete	100		All paystubs are sent electronically to the First Class Email System for all employees.		2009	2009
<b>Behavior change program</b>							

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Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	98	% of staff currently have received collaborative software training	Working knowledge of First Class is Imperative at SD83, so training and demonstrations are offered continuously throughout the year.	Continual Training and addressing of any issues or problems that are encountered as we move forward.	2007	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			There have been several purchases of projectors which have been installed throughout the district. At meetings the projectors are used to display PowerPoint's or web based media. If the document is to be shared amongst the attendees it is preferred that it is done electronically rather than through printed media.	Continue to encourage memo communication through email and reduce the requirements to print.	2008	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Employees are encouraged to use scrap paper whenever possible. Non Confidential materials are often available in containers throughout the district in the shredding rooms for use by staff.	Continual expansion of encouragement to recycle and reuse paper products as much as possible.	2008	No End Date (Continuous)
<b>Other Paper Supplies Actions</b>							
Provide all staff with access to the First Class Email system.	Complete			All staff members have been given passwords and training on First Class Email system. The features include Email, calendars, staff directories, and general information. This will help cut back on paper use and improve communication through out the district.		2009	2009
Eliminate paper paystubs and email statements to all employees.	Complete			Paystubs and T-4 slips are emailed to all employees with the issuance of an email address and access given to the district email system to all staff.		2009	2009
Developing centralized on-line professional development registration system.	Complete			Staffs are informed of Pro-D opportunities on the First Class Email System. Registration can also be done online making the professional development registration system completely paperless.		2009	2009

# The Board of Education of School District No. 83 (North Okanagan-Shuswap) - 2009 Carbon Neutral Action Report

## 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 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
<b>Business Travel</b>						
<b>Virtual meeting technology</b>						
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress		The BC Government has given the district access to Elluminate. We also you Micro Soft Live Meeting on occasion. Both Medias are available on the internet so programs are loaded on an as need basis with support and assistance from the technology department.	If as a result of carbon footprint reduction initiatives it becomes apparent the need for more web-conferencing software then installations will become standard in district computers. This will also result in the need for more training.	2009	No End Date (Continuous)
Make desktop web-cameras available to staff	In Development		We have discouraged the use of cameras on computers. We need to establish a policy of appropriate behavior and content for camera's prior to allowing cameras on are network.	If web-conferencing becomes a standard practice to doing business, then a policy will be created for camera use and then cameras will become part of the media sites available to staff.	2008	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress		The majority of all our facilities typically have access to a common area where web-conferencing can occur. We currently do not allow camera's for video-conferencing.	If video-conferencing becomes a standard practice to doing business, then a policy will be created for camera use and then cameras will become part of the web-conferencing available to staff.	2008	No End Date (Continuous)
<b>Behavior change program</b>						
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress		The Technology Department has a help desk and personal to provide support when web –conferencing is needed for our staff. This is done on an as needed basis rather than training as a district policy.	If web-conferencing becomes a standard practice to doing business and if training requests continue to rise then training would become part of a Pro-D for District training.	2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		Department Heads and Central Staff are encouraged to try and promote their staff to use virtual attendance wherever possible to reduce costs and lower our carbon footprint.	If Virtual Attendance becomes more popular then increased access to web-conferencing equipment and will occur along with more training for staff.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress		It is common practice to encourage carpooling to meetings whenever possible. Since approval must be given prior to attendance of a meeting carpooling is part of the criteria for being given approval.	Continued vigilance in carpooling to meetings. Since travel should be reduced with web-conferencing there is no consideration for policy of carpooling at this time.	2005	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress		Alternate travel methods are encouraged wherever possible and practical. We have encouraged walking to extracurricular activities of our students for years and are trying to get staff to set a good example as well.	Continued vigilance in using alternate transportation for staff. As a responsible corporate component in our community we want to set a good example.	2009	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	Ongoing/In Progress		Continued evolution of the District Wide Green Committee with Sponsorship of our Assistant Superintendent, Dave Witt.	We will be focusing on our largest Schools at the Secondary and Middle School type. We will get a champion from each facility to act as a mentor for each site.	2005	No End Date (Continuous)



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Provide resources and/or dedicated staff to support teams	Ongoing/In Progress		We have obtained BC Hydro as a resource for corporate sponsorship of our Green Team. We are formulating a plan which will be implemented in our Secondary and Middle Schools.	Will have our champions from our target group of schools working with our executive sponsorship on the best way to proceed with our green initiatives with our primary goal to reduce the energy consumption in the buildings of our focus group.	2009	2011
Providing behavior change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress		We are working with the BC Hydro School Programs department developing a workplace Awareness Program to raise awareness for energy use behavior.	We will have our Green Team implementing the behavior program in our target schools. We will report current baseline energy use and then any subsequent changes in Energy use as a result of behavior change.	2009	2011
<b>Awards/Recognition</b>						
Establish a sustainability/green awards or recognition program	In Development		As a joint strategy between our Secretary Treasurer and our Assistant Superintendent we are creating an approach for providing motivation and acknowledgment for our behavior program.	Implementation of the rewards program for our behavior program.	2009	2011
<b>Staff Professional Development</b>						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		We will have meetings as required to have joint discussion of our sponsors and champions to finalize a strategy for behavior change. A launch of the program will occur early in the spring of 2010 and we begin the formal implementation of the pilot.	We will monitor and measure the success of the behavior pilot and tweak it as necessary and then begin introducing it into our other schools in 2012.	2009	No End Date (Continuous)
<b>Staff awareness/education</b>						
Provide education to staff about the science of climate change	Ongoing/In Progress		Climate Change is a topic is brought up during many district education seminars. Awareness focus's on behavior which will lower energy dependency and reduce the impact on climate change.	Monitoring the effects of Climate Change and the magnitude public opinion attach importance to this topic to increase or decrease education.	2008	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		Awareness of our water shed was raised and a group of concerned staff and students was formed.	A workshop to develop action plans to protect our Shuswap Watershed will be held in early 2010. The plans will be from restoring riverbanks to educating others about the importance of the watershed. The plans will be implemented during Shuswap Watershed Week April 19-22, 2010.	2008	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		Energy tips from our Technology Department or from our Energy Manager are often put in our district news letter, "On the Fly". Tips are periodically included in the agenda of meeting with the staff across our district.	Frequencies of energy tips are to be increased to the point that they become a regular scheduled component of our news letter.	2007	No End Date (Continuous)
<b>Other Education, Awareness, and Engagement Actions</b>						
In tribute of Earth Day several schools do "earth friendly" projects across the district for a whole week.	Ongoing/In Progress		Guest speakers were brought into several schools to discuss environmental issues. Many schools are involved in tree planting initiatives. Other schools have anti litter campaigns and have students cleaning the community streets of trash.	Continued engagement with the students on climate care. Many secondary schools take part in Earth Day, an expansion of earth day, where they participate in a conference where guest speakers are brought in to discuss topic ranging from sustainable agricultural practices to the use of geothermal technology for heating.	2007	No End Date (Continuous)
Reduction in use of small desktop printers.	Ongoing/In Progress		Staff is encouraged to use more efficient shared photocopier units rather than desktop printers when printing documents.	Actual elimination of many desktop printers in the district. The large networked photocopiers will also be replaced as budget permits with more efficient energy star rated equipment.	2008	No End Date (Continuous)

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Take part in an international exchange program on exchanging sustainable mutual concerns for the environment.	Ongoing/In Progress		We are part of the Hokkaido-Armstrong exchange happening every two years that focuses on global stewardship using salmon as the “keystone species” for our joint studies. Many of our elementary schools raise salmon fry (from eggs to fry) and then let them go in local “salmon habitable” streams.	Continued participation in the Hokkaido-Armstrong exchange program.	2002	No End Date (Continuous)
Improve LAN infrastructure to improve speed and reduce physical number of servers.	Ongoing/In Progress		Installed fiber optic cable to physically link schools in close proximity and consolidate servers. This has meant a reduction in servers, the space needed to accommodate and cool the equipment, and a reduction in energy consumption.	As budgets permit we will continue to network schools together with fiber optic cable. Faster, larger, and more energy efficient servers will be purchased to replace aging and inefficient servers throughout the district.	2008	No End Date (Continuous)
Create recycle program for woodworking and metalwork assignments.	Ongoing/In Progress		Metal and woodwork programs are soliciting local businesses for scraps of metal and wood. This has reduced the materials going to our landfills and lowered the costs of materials for student based projects.	Continued expansion of recycling program to ensure community familiarity of the agenda to minimize reusable materials going into the landfill.	2005	No End Date (Continuous)
Create program to use eco-friendly whiteboard markers.	Ongoing/In Progress		We are encouraging staff to use eco-friendly whiteboard markers. This pen can be refilled and tips replaced. It doesn’t use toxic chemicals and eliminates discarding the pens into the landfill.	The Purchasing Department will gradually phase out the non-reusable whiteboard pens and will create an exchange program so the staff does not have to refill the pens themselves.	2008	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		Purchases of fixtures through the Facilities Department are purchased with water conservation in mind. Water Faucets are of the restricted type and water closets are mid flow variety.	Working with vendors to ensure we can purchase water conserving fixtures at a competitive price.	2006	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		Programming has been incorporated into cooling towers to minimize evaporation of water. Toilets fixtures are replaced as needed with mid flow types. Ornamental landscaping is designed using arid resistant plants and considered to minimize labor for upkeep and watering.	Future planning for retrofits in buildings or upgrades will have more considerations given into water management strategies.	2006	No End Date (Continuous)
Introduce a storm water management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress		We have used bioswales at Shuswap Middle School to remove excess water from the fields and direct the water into a natural wet land area.	Future planning for site upgrades and improvements will have more considerations given into storm water management.	2007	No End Date (Continuous)
<b>Waste reduction/diversion</b>						
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress		Most of our schools have a recycling program and a large number of schools have started a composting program. The student green teams have posters providing types on what to recycle and how to reduce and reuse.	Working through our Purchasing Department and Vendors we will continue to try to reduce waste. Buying things with less packaging. Possibly purchasing more containers for containment of items which have been identified as being recyclable.	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		Lead Acid Batteries and used motor oil are collected in the Transportation Department for recycling. Many schools and the Facilities Department save small alkaline batteries for disposal in the annual hazardous waste disposal and collection drive. Also collected is hazardous waste such as mercury is also picked up once a year. Fluorescent tubes are stored and brought to the regional district when they have the “bulb eater” in operation. Obsolete computers are centrally stored at the tech center and put on pallets for recycling pickup. Our Painting Sector tints their own paints and have standard colors which all but eliminates waste paint.	Devise a strategy that will reduce purchases of hazardous products whenever it is possible. If the product is not bought, there is no need to dispose of it when it fails, wears out or is beyond its designed end of life.	2005	No End Date (Continuous)

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<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.)	Ongoing/In Progress		School District 83 sources suppliers which refill toners eliminating the need to dispose of spent cartridges. Preference is given to consumables with a recycled content if the purchase price is similar to products with no recyclables.	Continued research and awareness of consumables whose manufacturing does not present a negative impact on the environment.	2008	No End Date (Continuous)
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		It is preferred that furnishings are custom built in our Millwork Department where real wood and quality material provides a long lasting product. We are using carpet tiles on test projects which have substantially less waste on installation. The product is easier to clean and damaged areas can be replaced by tile rather than in totality.	Continued research and awareness of products used in facilities which reduce time in maintaining, do not negatively impact the environment during use or in disposal. Preference will be given to products which have a long life cycle.	2007	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		The Custodial Department sources cleaning products which are environmentally friendly, poses minimal health risks with long term exposure to the users, and performs well in cold water. Our Commercial Kitchen Program has switched to deposable plates and cutlery which are biodegradable and are approved for composting.	The Purchasing Department is sourcing biodegradable garbage bags at a competitive price in hope of using them exclusively throughout the district. Purchasing is also corresponding with schools trying to get combined orders to reduce the cost of biodegradable disposable plates and cutlery to the price of standard paper plates.	2005	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		Every effort is made to divert material from going into the landfills. Office furnishings, shelving units, etcetera, if it can't be used within the district is taken to auction houses for resale. During larger demolition projects, preference is given to competitively priced contractors which provide salvage services. Demolition occurs only after the district retrieve items that can be reused within our system.	Demolition will occur when we replace the old MV Beattie Elementary with a new energy efficient school. Attention will be paid to keep as much of the debris as possible out of the landfill.	2005	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Ongoing/In Progress		SD83 philosophy is attention to lifecycle costs is a prudent thing in long term building management. Purchasing equipment with long serviceability, low maintenance, and high energy efficient is fiscally responsible and better for the environment.	Continued research and awareness of products used in facilities which are innovative, energy efficient and do not negatively impact the environment during its life cycle.	2007	No End Date (Continuous)
<b>Indoor air quality</b>						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		SD83 is creating policy, "Allergies & Anaphylaxis" which will address the use of strong perfumes and deodorants within the district. It will focus on the expectations of schools to reasonably accommodate staff and students with life threatening allergies and will have a response plan should an allergic situation arise.	The "Allergies & Anaphylaxis" policy will go through the policy procedure and it will be adopted in 2010. In conjunction with the implementation of the policy an information brochure will be available to all staff to enlighten individuals of the seriousness of living with life threatening allergies.	2009	2010
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		In recognition of staff and students with possible asthmatic conditions the Facilities Department sources products with low VOC's when upgrading rooms. This includes the exclusive use of water based glues. The painting department has used water based paints and clear coats for years to minimize smells and lower irritation to occupants.	We are reducing our use of carpeting and escalating the use of hard surfaces such as linoleum. This allows better cleaning of the coverings, provides lower VOC's and improves the interior air quality of the space.	2005	No End Date (Continuous)
<b>Commuting to and from home</b>						

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Offer staff a compressed work week	Ongoing/In Progress		The Systems Department has been offered a compressed work week which allows for 80hrs of work to be completed in 9 days instead of the typical 10. This has resulted in a reduction of 10% in maintenance vehicle use and has allowed more time to complete jobs in a single day in distant facilities.	Evaluation of the compressed work week to see if it is feasible to expand into other departments. With schools having staggered start and finish times there is benefits to having employees having a longer workday. These benefits could be outweighed by providing adequate coverage when employees have a workday off. There is a 10% reduction in maintenance vehicle use and it is a good way to free up vehicles for schedule maintenance.	2007	No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Many schools have included cycling as part of their fitness curriculum. This predicates that the students and supervision staff ride their bikes to school for use during fitness. Students are encouraged to walk to extracurricular activities but if distances require the use of transportation we schedule our own school buses to reduce the amount of vehicles required shuttling staff and students.	It is hopeful that cycling will become part of the fitness program at all schools.	2005	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Complete		Being a school district we have staff and student showers at most facilities. Gymnasiums are typically amongst the first areas opened each morning and are accessible for use by anyone at that building.		2005	2009
Provide secure bicycle storage	Complete		All schools have outdoor bicycle racks with attachment points for locks. Administration typically provides secure indoor storage for staff who requests it. Rural students participating in fitness programs that can not commute with their bike are also given secure indoor storage for their equipment.		2005	2009