

Carbon Neutral Action Report School District No. 35 (Langley)

Executive Summary

School District #35(Langley) is progressive in its' endeavour to create a sustainable school environment. With the assistance of BC Hydro this District has, since 2002, worked on energy conservation by retrofitting schools with current, more efficient lighting. Langley has also worked with other Government organizations to enhance indoor air quality to create a healthy learning environment. All mechanical upgrades, including Domestic Hot Water, have had conservation in mind right from the planning stage.

Langley School District has both implemented @ supported the Product Review Committee. While the mandate of the committee group was to eliminate exposure to harmful chemicals by custodians, it has since, with the inclusion of policy, been able to expand to include other stakeholder groups such as Trades and Teaching staff. It is now the Districts agent in all things pertaining to environmental issues.

The Grounds department has, for the last 3 years, followed the Integrated Pest Management control program. All use of herbicides and pesticides have stopped. Drought resistant grass is planted and proper fertilization, lime use and topdressing ensures that weeding and maintenance is minimal.

Our technologies department is constantly finding ways to reduce energy use as are all areas of facilities. Our next challenge is to educate staff, students and parents.

Objectives

Promoting healthier citizen's and workplace

financial responsibility - reducing operating costs through energy conservation and behaviour change

Part 1: Actions Taken to Reduce Greenhouse Gas Emissions in 2008

Overview

In 2008 this District completed two seismic upgrades. Langley Fine Arts K-12 school received, in conjunction with building envelope enhancements, a lighting upgrade. Ft. Langley K-7 received new rooftop units and both schools had asbestos abatement done where construction was in progress. RE Mountain Secondary Schools received approval from PSECA and BC Hydro for lighting upgrade which will be completed by March 31st, 2009. 4-Elementary school lighting upgrades approved and partially funded by BC Hydro to be completed in 2009.

Washroom upgrades are done each year at various sites as required. Each upgrade provides installation of low flush and water saving fixtures as well as lighting upgrade if required.

1.1 Mobile Fuel Combustion

In 2008 this District has installed 2 crankcase and 6 muffler emission control devices on our bus fleet.

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	in progress	District initiative to replace older fleet vans/buses with new vehicles with current emission standards.	The District has decommissioned 2 cargo vans from the 80's & replaced with 2009 models. We are in the process of replacing 2 cube vans (delivery trucks to schools) with 2009 models. We are adding 2 new Special needs buses (2009 models) with the intent of decommissioning 2 older models. One Cube Van (Delivery Truck) to be decommissioned in 2009
Provided driver training to reduce fuel use	in progress	Train remainder of Transportation staff in operating their bus with fuel efficiency measures. 2 staff trained to be trainers.	This training will be completed at the May 1st Pro D in 2009.
Initiated new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	completed	Replaced 6 bus fleet mufflers with new emission control mufflers as well as retrofitted 2 buses with new crankcase emission controls.	Ministry initiative to reduce carbon emissions from older fleet buses.
Established anti-idling behaviour change program (e.g. signs, stickers, messages)	completed	District Policy in place and enforced to prevent vehicle idling with our fleet.	
Encouraged car pooling in fleet vehicles	completed	by trade	when possible the District requires 2 workers per vehicle.

1.2 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Supplied power bars – to turn off power to non-essential items when not in use (e.g. phone chargers)	in progress	New Energy efficient power bars being introduced through Purchasing Department	available to all staff to purchase through our stationary provider.
Undertaken Monitor turn-off challenge	in progress	60% use power save features that puts monitor on standby. Some monitors don't comply & will slowly be replaced	using the built in xp or Mac os to put monitors on standby when not in use.
Replaced # computers with EnergyStar models	in progress	60% complete	energy efficiency is part of our evaluation criteria
Asked staff to close blinds daily	in progress	District Wide close blinds/drop shutters	custodial staff are responsible for closing all blinds as part of our security/environmental practices.

Encouraged staff to use stairs	complete	In schools only Special Needs or custodial moving equipment use elevators. Key to operate are held by Administration	
Turned off lights in unused rooms	in progress	District Wide	Part of the custodial daily responsibilities is to turn off lights in unoccupied rooms. Occupancy sensors are part of all lighting upgrades.
Replaced Refrigerators (EnergyStar rated appliance)	in progress	District wide	Part of the purchasing criteria replacement units must have Energy Star rating.
Replaced other appliances (with EnergyStar rated appliance)	in progress	District Wide	Inventory being taken of all unnecessary appliances. Those that are in use, Purchasing will replace with Energy Star as the existing appliance wears out.
Installed multi-function devices (and removed stand-alone printers/faxes)	in progress	District wide	Purchasing looking for a print management solution next contract 2012.
Replaced standard bulbs with CFLs	in progress	Distinct wide	Lighting retro-fits may include some CFL applications.
Installed motion activated lights	in progress	District Wide	all lighting upgrades involve occupancy sensors wherever possible.
Undertaken lighting retrofit	in progress	RE Mountain Secondary	completion in 2009 with 4 other schools following behind for retrofits.
Implemented server virtualization	in progress	using 5% of servers	not ready to implement yet. Still under investigation
Utilized desk-top power management settings on computer	completed	District Wide	Built in power management of Windows & Mac OS used. Computers shut down at 5pm.
Unplugged unused equipment	in progress	Seasonal	When and where possible. Schools vending machines& office equipment.
Undertaken building energy audit at LOCATION(s)	completed	Energy audits done at: Alex Hope, Nicomekl, North Otter & Uplands.	Audits are complete and upgrades will commence in 2009.

1.3 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Committed to use 100% recycled paper	in progress	effective 30/12/09	awaiting purchasing cooperative contract. It will then be offered out to schools.
Initiated automatic double sided printing	in progress	School Board Office Print Shop	Central print shop prints 2 pages on 11x17 then cuts & uses double side where possible.
Committed to hold paperless meetings	in progress	20% incorporated	trying to promote the use of First class and other conferencing software.
Developed document library (online and one printed copy) for large documents	in progress	District website	All District documents available to staff and public are posted on SharePoint or First class
Used collaborative software to edit on-line	in progress	20% Using First class collaboration software or Google docs.	Using the document management and collaboration features of First class
Re-used non-confidential scrap paper	in progress	District wide	available through District Print shop
Used laptops/tablets	in progress	Elementary schools	Using laptops at elementary schools for labs and staff. Slowly eliminating desktop labs. Using laptops for all mobile workers.
Restructured a process to use less paper	in progress	District wide	Increased use of MFDs through Print Shop
Actions on non-paper related supplies:			
Encouraged re-use of furniture and equipment	in progress	District wide	two storage sites in District for used furniture

1.4 Travel

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Trained staff in the use of Live Meeting (or other desktop collaborative software)	in progress	10% using the software breeze, first class and other remote connectivity tools	we try to use the said software whenever possible.
Installed Video Conferencing facilities	completed		5school board office only
Other	in progress	External conferences District wide being done on webcasts or webinars	Each year more conference are held by webinar. Includes use of speaker phones & computer -reduction of travel.
	in progress	District wide	Blogs/emails reduce face time meetings

1.5 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided conservation education	in progress	Training of Director of Environment	Government Resources & BC Hydro Instruction to Director. Intent is for the Director to engage staff throughout the District in conservation education.
Developed Green Teams	completed	Product Review Committee - original intent to eliminate hazardous cleaning chemicals but group has expanded.	Committee is now expanding to include Facility Trades and Teaching staff, intent is to find less hazardous/environmental friendly products.
Provided green tips	in progress	Product Review Committee minutes	Minutes are distributed to schools to update them on discussions at the table.
Supported professional development	in progress	3 Professional Development days provided to staff each year.	Each Pro D contains information on safe alternative products, training on Asbestos recognition and energy conservation
Added green work goal to performance management	in progress	Preventative Maintenance Programs - Trades	Each trade has Preventative Maintenance directives issued on a regular basis to ensure that all District Facilities are monitored and risk to malfunction or failures are mitigated.

1.6 Sustainability Actions (others)

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Took water conservation measures – low flow showers or toilets, fix leaks	in progress	District practice is to upgrade all washroom appliances to energy/conservation models	Low flow showers, toilets installed when upgrades are done.
Ran dishwasher only when full	in progress	Both centralized locations - Maintenance & SBO have filtered tap water	
Used re-usable dishes	in progress	All facilities have dishes/cutlery in use for their lunchrooms	
Purchased green cleaning products	completed	District wide products for cleaning are all green seal/clean products	
Used green (low-e paints)	in progress	Low VOC paints used in schools	set number of schools are done every year - all with low VOC emissions.
Supported sustainable procurement practices	in progress	Grounds department - no use of pesticides or herbicides in this District	Grounds plant drought resistant grass, do not use chemicals. Weed by hand and use sustainable grounds procedures.

Adopted low-carbon contracting practices	in progress	Purchasing department reworking tender process	Developing language to control products used by contractors at our sites.
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Part 2: Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011

Overview	Langley School District has still many things that can be accomplished. From lighting& mechanical upgrades to Employee/Student education. Sustainability is the goal and achieving this will take constant review as well as bringing forward innovative ideas.		
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2.1 Mobile Fuel Combustion

	The Ministry recognizes the emissions of older bus fleet vehicles and promotes upgrades on an annual basis. Last year 8 of our fleet were upgraded and it is anticipated that we will have more done in 2009. Fuel additives to reduce engine emissions are under review but in most cases, at present, they have been found to reduce efficiency as well.		
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Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Replace # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	in progress	2009 Local Capital request submission	request replacement of 3 vehicles. Tender to include costing for hybrid vehicle replacement.	2009
Provide driver training to reduce fuel use	in progress	2 staff trained to be instructors	2009 will see all bus drivers educated in Smart Driver Program.	2009
Initiate new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	complete	Fleet Maintenance Program in place	District has a Preventative Maintenance Program that has been in place for a number of years	
Establish anti-idling behaviour change program (e.g. signs, stickers, messages)	complete	signage in place at all schools	notice provided to fleet drivers on periodic basis.	
Encourage car pooling in fleet vehicles	in progress	fleet vans	trades are encourage to ride together if going to the same destination. Summer staff will drive directly to sites to reduce travel time.	

2.2 Stationary Fuel Combustion (including electricity)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Undertake workstation tune-ups to help staff understand what they can do to reduce personal energy use	in progress	Energy Manager now in place-District policy being written on Energy conservation	Information taken to Senior Management on Energy Conservation. Policy is being written to enforce and support behavioural change	
Supply power bars – to turn off power to non-essential items when not in use (e.g. phone chargers)	complete	now available District wide	Purchasing has product on supplies order sheets	

Undertaken Monitor turn-off challenge	planned	60% use power save features that puts monitor on standby. Some monitors don't comply and will be slowly replaced.	using the built in XP or Mac OS to put monitors by 2011 on standby when not in use.
Replace # computers with EnergyStar models	in progress	60% complete	energy efficiency is part of our evaluation criteria
Ask staff to close blinds daily	complete	in effect District wide	part of security procedure
Install multi-function devices (and remove stand-alone printers/faxes)	in progress	at present the District is doing a feasibility study	Print Manager software to evaluate where waste is happening.
Replace standard bulbs with CFLs	in progress	where applicable	where possible, this is done throughout the District
Install motion activated lights	in progress	Occupancy sensors are included with all lighting retrofits	in some applications CO2 sensors are also included in the ventilation system for more control.
Undertake lighting retrofit	in progress	RE Mountain Secondary	to be completed in March 2009
Utilize desk-top power management settings on computer	completed	District wide	Built in power management of Windows & Mac OS used. Computers shut down at 5pm
	planned	education campaign blitz	Enhancing education of staff and students in a District wide campaign 2009

2.3 Supplies

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Commit to use 30% recycled paper	in progress		continue & expand on existing policy	
Commit to hold paperless meetings			Hard to change old habits. This is being promoted whenever possible.	2015
Develop document library (online and one printed copy) for large documents	in progress		All district documents are available to staff and public when posted on SharePoint or First Class	
Use collaborative software to edit on-line	in progress	20% Using First class Collaboration software or Google docs.	Using the document management and collaboration features of First Class	2012
Re-use non-confidential scrap paper	in progress	school board office Print shop	continue and expand	
Use laptops/tablets	in progress		will purchase laptops for all staff	2012
Actions on non-paper related supplies:				
Purchase cradle to cradle goods	in progress	Distribution centre	logistically or economically efficient	
Choose "Green" items from Distribution Centre	in progress	Product Review committee	currently in place and expanding throughout different stakeholders	
Encourage re-use of furniture and equipment	in progress	storage of property from closed schools to be reused in other facilities as demand requires	This has been in place for some time and will continue. Small budgets encourage use of all items.	

2.4 Travel				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Train staff in the use of Live Meeting (or other desktop collaborative software)	planned		exploring software like Live Meeting to be hosted centrally	2011
2.5 Employee Engagement				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide conservation education	in progress	Part of the Energy Managers portfolio will be educating staff on environmental/energy issues	Professional Development day will have a portion of the day dedicated to environmental issues	
Develop Green Teams	in progress	Product Review Committee is in existence	Product Review is expanding to include other District stakeholders	2009
Support Green Teams (resources)	completed	District has policy in place for Product Review Committee	Policy provides the committee with power to enforce behavioural changes in our schools	2008
Provide green tips	in progress	Product Review Minutes	Minutes sent out to schools to keep them abreast of current issues and options available to them.	2008
Support professional development	in progress	District provides funding to support 3 District wide Professional Development days per schools term	This has been in place and will continue for the foreseeable future. Each staff member is provided \$50/yr in funding to their pro-d account. If funds not used, then they are carried forward to the next fiscal year.	
2.6 Sustainability Actions (others)				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Take water conservation measures – low flow showers or toilets, fix leaks	in progress	Water conservation is a part of every retrofit or upgrade done in this District	Latest conservation devices are investigated and installed at every opportunity	
Run dishwasher only when full	in progress	Campaign to flood District with information on how to conserve energy in various forms.	Some schools but not all do practice this process. At the school Board Office where many functions run annually, this practice is in place.	2009
Use green (low-e paints)	in progress	Low VOC paint is used on all interior painting throughout the District	This practice has been and will continue to be in place. Wording is being reviewed in our exterior contracting to ensure green measures are in place.	2009
ADDITIONAL ACTIONS TAKEN OR PLANNED	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
			network with other Districts to co-operation initiatives.	2009