

# **School District No. 78 (Fraser Cascade) – 2009 Carbon Neutral Action Report**

## **Executive Summary**

School District No. 78 (Fraser Cascade) is proud of the work that we have done and are continuing to do in order to work toward the Provincial goal of Carbon Neutrality. Our District is committed to providing environmental leadership by sharing knowledge and best practices around environmental sustainability with our staff students and public. The District has continued with initiatives both at a facility level and at the employee and student level. At the facility level, in the last ten years all of our schools have been upgraded with DDC systems for heating and air-conditioning. We have retro-fitted most of our schools lighting to T8 and newer technology and we have switched to green cleaning products. . This summer we will be completing our lighting and some plumbing retro-fits in schools. We will also be replacing some older furnaces to newer technology. We have also been working with our students on Destination Conservation activities to teach students about conservation and sustainability.

## **Overviews**

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

In the current year, we have replaced one of our buses with a newer more efficient model, as well as replacing a full size van with a new smaller model. Schools have continued with their green initiatives including recycling paper, garbage and cans, as well as planting gardens and conserving electricity and water. This is the second year that the District has participated in Destination Conservation to expose and teach our students and staff how to make significant in-roads in how we create a more sustainable environment. Specifically our focus this year is on water conservation. We have had three days of conservation awareness thus far and are planning for a third. Our maintenance staff is a part of these meetings as well as having their own meeting.

We have also provided education to our bus drivers, on bus driving technologies to both reduce emissions and improve the performance of our buses. We intend to make this an annual event to maintain the awareness of these important changes. We are continuing to promote car-pooling and teleconferencing over face to face meetings. We have cut our Board meetings from once every two weeks to once every three weeks to assist in conservation efforts.

In addition our grant writer is continuing to work on a proposal to retro-fit one of our propane furnaces with a more energy efficient form of heating. In the last two years we have cut out two bus runs and have cut back on double runs. We are also working with one of our municipal partners to assist each other to minimize our duplication of purchasing of equipment and efficient use of current resources

Our District Policy on the Environment has been updated and all our work is now being considered in view of carbon neutrality.

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

The School District is continuing with its organizational commitment to and practice of sustainability. The areas we are concentrating on are our curriculum, operations, staff development and capital projects. Energy management and energy efficiency are key elements in our operations goal to reduce our carbon emissions, as well as staff commitment and student involvement. We are working on all these areas.

We will be adding replacement of our oldest and least efficient heating system to our minor capital plan in the hopes of obtaining funding for an upgrade to a greener more energy efficient heating system. Over the next few years we will come up with a further plan for the rest of our heating systems.

The District will be a key contributor in leading through teaching our students about the importance of environmental sustainability and resource management. These efforts will be an investment into sustained change into the future. Student understanding will assist in educating the public on the need to change. We see School District No. 78 as a key contributor in this process.



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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 12/31/09)	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 vehicles with more fuel-efficient models	Ongoing/In Progress	15	% of vehicles are fuel- efficient models	For one staff member, their van was replaced by a small car	This is something we will be doing more as leases come up	2006	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	10	% of vehicles down-sized since start year indicated	For one staff member, their van was replaced by a small car	This is something we will be doing more as leases come up	2007	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 are maintained regularly in house	Will continue with this practice	1990	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	The Transportation Supervisor and Mechanic attended train the trainer workshop. Provided training to drivers this year	Workshops at Pro-D Days regarding this in future	2009	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Complete	100	% of current drivers are trained	Signs were installed at all school locations and bus stops		2008	2009
Encourage carpooling in fleet vehicles	Ongoing/In Progress			This is not easily accomplished as we have a small number of staff and a large district geographically speaking.	We are looking at purchasing 2 hybrid vehicles for educational staff to cut down on emissions and hopefully recover costs over time	2006	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Retrofitting owned buildings</b>							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	70	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	Mechanical done on all facilities except three small buildings	Continuing to look for grant funding to replace our propane heat	2000	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	85	% of retrofits (captured above) had lighting systems upgrades	Lighting done on all facilities except three small buildings	Will finish replacing t-12's this summer	2000	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	90	% of retrofits (captured above) had control system upgrades or adjustments	In most facilities	Remaining facilities will be reviewed	2000	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	0	% of retrofits (captured above) had insulation improvements	Only one seismic upgrade and we replaced some leaky windows only	Continue with this practice	2000	No End Date (Continuous)
<b>IT power management</b>							
Install power management software which shuts down computers outside of regular business hours	In Development			Have installed more deep freeze software	Continue with this practice	2007	No End Date (Continuous)

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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
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	100	% of computers have auto-sleep settings applied	This is on-going as we get new equipment	Continue with this practice	2006	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	5	% reduction in printers, copiers, and/or fax machines since start year indicated	This is on-going as we get new equipment	Continue with this practice. We are looking at Telus supplied solution to replace fax machines so faxes come direct to desktop.	2007	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	50	% of devices have auto-sleep settings applied	This is on-going as we get new equipment	Continue with this practice	2006	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	75	% of computers are ENERGY STAR rated	As units are replaced, they are replaced with Energy Star models	As units are replaced, they will be replaced with Energy Star models	2005	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	90	% of fridges are ENERGY STAR rated	We put in a new dishwasher with Energy star rating	Will continue to replace appliances with Energy Star	2005	No End Date (Continuous)
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			This is on-going as we get new equipment	Continue with this practice	2009	No End Date (Continuous)
<b>Behaviour change program</b>							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	50	% of current staff have completed a workstation tune-up	Our small tech department ensures that there is a power down "sleep mode" on all desktops	Will continue to review use of "Deep freeze"	2005	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Complete			Custodians looking at end of day		2009	2010
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Complete			Custodians looking at end of day		2009	2010
Encourage staff to use air dry setting on dishwashers	Complete			Done		2009	2010
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Staff often ensure temp. levels at reasonable levels and lights are turned off	Continue with our education. Had a session on District Pro-D.	2005	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Many schools have signs up and are monitoring consumption. When rooms are not in use lights are out.	Will ask staff to put up more signage	2005	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Destination Conservation focussed on water this year	Continue to look after leaks and water consumption	2006	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	Complete	95	% of total paper purchased contains 30% recycled content	All paper purchased is a certain percentage of post-consumer recycled paper. We also purchase FSC certified paper where possible.		2003	2009
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	75	% of network printers or photocopiers are set to automatic double-sided	Our IT department has been asked to configure the photocopier settings. Staff is making their print settings double-sided.	The IT department will have this completed at all locations.	2006	No End Date (Continuous)

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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
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Ongoing/In Progress	50	% of network printers have 'print and hold' settings applied	Some staff use this function.	Staff will show those who don't know how this function works to do so.	2008	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Post materials online that were previously printed	Ongoing/In Progress			Meeting Agenda and Minutes are placed on our website. Forms & Publications are placed on shared drives for all employees to view.	More information will be available from the website.	2008	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			Pay stubs are emailed to School District employees.		2007	2009
<b>Behaviour change program</b>							
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			At some meetings, there have been motions to go paperless.	All meetings will be paperless with the document being presented on a projector screen.	2009	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Most staff re-use scrap paper.	All staff will re-use scrap paper	2006	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 12/31/09)	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>Policy and budgeting</b>						
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress		In the transportation policy, carpooling is encouraged.	Carpooling is still encouraged.	2009	No End Date (Continuous)
<b>Behaviour change program</b>						
Train staff in web-conferencing	Ongoing/In Progress		Use it for training of staff and trustees instead of meeting face to face. Installed our new accounting system this way	Continue to use this method of professional development	2008	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress	75	% of staff are trained in video-conferencing or have access to technical support 75% of our staff have used video conferencing at some point	Continue to use this method of professional development	2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		Through new software programs, the staff does attend training/events where possible	More staff will attend training/events through virtual	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress		Staff carpools to some meetings.	More staff will be encouraged to carpool to meetings	2003	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress		This is done where possible. While small, our district is very spread out, and does not have a public transit system.	It will be encouraged where possible.	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	In Development		Schools all have green teams with on-going District wide meetings	Continue to meet to ensure exposure to green initiatives	2008	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development		We are looking at ways to support an Energy manager	Would like to share a position with SD50	2010	No End Date (Continuous)
<b>Awards/Recognition</b>						
Establish a sustainability/green awards or recognition program	Ongoing/In Progress		Destination Conservation was used and awards where given to locations.	Recognition will continue for those schools who are successful in lowering their carbon footprint.	2009	No End Date (Continuous)
<b>Staff Professional Development</b>						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		Workshops and training are being provided to all levels of staff (custodial, maintenance, etc.)	More training and workshops will be attended by staff in the district.	2007	No End Date (Continuous)
<b>Staff awareness/education</b>						
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		Custodial and maintenance staff attended water and energy conservation training.	More training to those specific staff, and others will continue to be provided.	2008	No End Date (Continuous)
Provide green tips on staff website or in newsletters	In Development		Discussion has been made about doing this.	Will have tips and tricks provided on School District website	2010	No End Date (Continuous)
<b>Client/public awareness/education</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
Provide education to clients/public about the science of climate change	Ongoing/In Progress		This is part of the curriculum in the schools.	This will continue to be a big part of the curriculum in schools of all levels.	1990	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		This is part of the curriculum in the schools.	This is part of the curriculum in the schools.	1990	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	In Development		Discussion has been made about doing this.	Will have tips and tricks provided on School District website	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	In Development		Destination Conservation	Destination Conservation	2008	2010
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		Renovations involved toilet upgrades. Timers are used on the sprinkler system.	Continue replacement of toilets as needed	2006	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		All facilities have recycling programs	More recycle dumpsters to be provided	2000	No End Date (Continuous)
<b>Procurement (non-paper supplies)</b>						
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		More of our flooring is made from organic substances	No purchases planned	2006	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Complete		Most custodial supplies, cleaners and bags are green seal		2004	2009
<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		No policy in effect but we do this anyway	Continue to reuse and recycle. Keep lots of unused furniture. Send old computers to other countries for re-use	1990	No End Date (Continuous)
<b>Indoor air quality</b>						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		Policy set, and signs are posted in prominent area of schools	Complete	2000	No End Date (Continuous)
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		Maintenance is using paints and finishes that are low VOC	Will continue in this effort in next purchases	2008	No End Date (Continuous)
<b>Commuting to and from home</b>						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Have tried walking school bus and encourage biking ensuring bike racks are available	Continue with walking school bus and encouraging biking	2008	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		Bike racks were made available at all locations	Maintain bike racks	2008	No End Date (Continuous)