

## Carbon Neutral Action Report School district No. 81 (Fort Nelson)

### Executive Summary

School District #81 (Fort Nelson) has been active in reducing their carbon footprint for a number of years. The Board of Education is committed to promoting healthier school communities through encouragement of sustainable initiatives that represent a reduction in green house gas emissions often resulting in reduced operating costs as well.

In 2003 and 2004 windows were replaced at G.W. Carlson School in an attempt to save energy. All windows in all schools, that have a southern exposure, have window coverings.

In 2005 our district was chosen as a government solar pilot project in the north. This project has increased our awareness of energy consumption and has resulted in reduced energy costs with application of excess energy production, to the grid.

In 2005 we purchased an Echo car with the intention to reduce fuel costs and emissions.

In 2006, prior to the commitment to carbon neutral government, the district hosted a number of capital budget planning meetings. As a result of these meetings the district commenced a program to address the critical need to upgrade the heating and ventilation in all of their buildings. The program has continued into 2009. Careful planning continues to take place to identify appropriate energy efficient equipment that will meet the commitment of the Board of Education.

In 2006, at J.S. Clark School, we removed 5 - 60-70% mid efficient natural gas forced air furnaces and replaced them with 2 - 75-80% efficient natural gas boilers (hydro thermal) with five high velocity fan coil units. The 40 gallon natural gas hot water tank, with standing pilot was replaced with a 40 gallon electric hot water tank. Computer controlled night and weekend set backs were installed as well.

In 2007, at Fort Nelson Secondary School, we removed 6 - 60-70% efficient natural gas boilers and replaced them with 2 - 88% efficient natural gas boilers (thermo solutions).

School District #81 has participated in B.C. Hydro's light retrofit programs over the past three years and will continue to do so until all building needs have been addressed.

Individual schools have operated Green Clubs for a number of years. As well, our active Parent Advisory Groups have initiated a number of worthwhile recycling programs that extend into the community. As we have experienced a decline in enrolment an opportunity has been provided to these groups to use school space for the operation of their programs. These are valuable programs to attract the attention of students. Our challenge is to sustain such initiatives due to the distance to appropriate markets from our remote location.

At GW Carlson Elementary School the parent advisory has an Environmental Club that has collection boxes around the community to collect old cell phones and ink/laser cartridges. The Club members meet weekly to pack these items for shipment. Reduce, recycle, reuse is encouraged at the school. The students have participated in a play at the school, to promote green awareness. Cardboard and paper recycling is encouraged. Parent handbooks were provided on line this year with a savings of 5100 pieces of paper. Newsletters are slated to be produced similarly. Juice boxes are also recycled and individual teachers are using the BC. Hydro website for new ideas.

JS Clark Elementary School students are recycling juice boxes. This school plans an Earth Day Sale to recycle their used books, toys and games. Proceeds will go towards the purchase of recycle boxes.

Toad River School also recycles juice boxes. They are very conscientious about their paper usage and use recycled paper in their printer. They turn off their lights when sufficient natural light is available.

R.L. Angus Elementary School encourages recycling. They had a plastic bag presentation at their assembly and have signed up for the community pitch-in, cleanup campaign. They hope to start a composting project in April.

Fort Nelson Secondary has an active environmental club. They have hosted contests to encourage students to use reusable containers. They have had a plastic bag presentation during an assembly. The committee uses posters to create awareness and is planning a campaign to encourage the use of reusable bags, outside of the local Overwaitea.

One staff member has replaced paper towels with cloth towels and has reduced the paper consumption by 5 rolls per week in her art classroom. This school sends out their parent newsletters by email and hopes to do the same with their handbooks next year. The Leadership Club at the school has made an oilfield connection - the oilfield company recycles their cans through the school.

School District #81 (Fort Nelson) will continue to focus on initiatives that will lead to compliance with the B.C. government's commitment for public sector organizations to become carbon neutral beginning in 2010.

<b>Objectives</b>	<ul style="list-style-type: none"> <li>* social responsibility - we will continue to support our parent advisories and staff endeavours with recycling programs including a recycling opportunity for cell phones, telephone books, and ink/laser cartridges - this opportunity extends into the community where collection boxes are located in various locations-students meet once a week to assist with packing the items for shipment; we will continue to encourage good practices for our environment including no idling and turning off the lights</li> <li>* financial responsibility - we will continue to identify projects that reduce our overall operating costs through energy conservation such as the lighting retrofit programs and turn off the lights initiatives</li> <li>* sustainability - we will encourage our town to find markets that will provide economically sound locations to transport our recyclables to ensure sustainability of these programs</li> <li>* employee engagement - we will create a green committee to encourage employee participation and commitment to reduce greenhouse gas emissions</li> </ul>
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**Part 1: Actions Taken to Reduce Greenhouse Gas Emissions in 2008**

<b>Overview</b>	<p>From January 1, 2008 through to December 31, 2008 our district focus was on providing a healthy environment for staff and students through upgrading to address our aging heating and ventilation systems.</p> <p>At G.W. Carlson School we removed 3 - 60-70% mid efficient natural gas boilers, replacing them with 2 - 95% high efficient, condensing natural gas boilers. At the same time we replaced a 40 gallon natural gas standing pilot hot water tank with a 40 gallon natural gas energy saver hot water tank.</p> <p>At Fort Nelson Secondary School we removed 8 - 60-70% efficient natural gas boilers, replacing them with 4 - 88% efficient natural gas boilers (thermo solutions). As well, a 40 gallon electric hot water tank was installed to be used when the boilers are shut down for non-heating months. Computer controlled night and weekend heat set backs were also installed.</p> <p>At R.L. Angus School 20 mid-efficient natural gas forced air furnaces were replaced with 2 - 88% natural gas boilers (thermo solutions) and 20 high velocity fan coil units. As well, a 40 gallon natural gas with standing pilot hot water tank was replaced with a 40 gallon electric hot water tank. Computer controlled night and weekend heat set backs were installed as well .</p> <p>A light retrofit program took place at R.L. Angus School.</p>
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**1.1 Mobile Fuel Combustion**

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Encouraged car pooling in fleet vehicles	complete		

**1.2 Stationary fuel combustion and electricity**

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced Refrigerators (EnergyStar rated appliance)	complete		
Installed multi-function devices (and removed stand-alone printers/faxes)	complete		
Replaced standard bulbs with CFLs	complete		
Undertaken lighting retrofit	in progress		
Utilized desk-top power management settings on computer	complete		
Replaced mid-efficient natural gas boilers	complete		
replaced natural gas hot water tanks	complete		
installed computer heat set backs	complete		

**Part 2: Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011**

**Overview**

School District #81 will continue with their ventilation and lighting retrofit projects. A green committee meeting has been held to establish policy and celebrate ongoing green initiatives with the intention to implement new practices district wide. Investigation has commenced into green janitorial products. Anti idling signs are to be purchased and installed. Training will be provided to staff regarding the use of features on photocopiers that will represent reduced paper usage. As well, discussion is taking place to set targets to reduce paper usage district wide. Support will continue to be given to school based green awareness initiatives. Investigation is taking place with respect to complete computer shut down nightly. Janitor contracts have been written to encourage shutting off lights in rooms not being cleaned.

Toad River School will have contracted generator power changed to Hydro generated power on the grid. Discussions are taking place to determine an appropriate method of disposing of our old computers.

**2.1 Mobile Fuel Combustion**

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Replace # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	planned			Jan-09
Establish anti-idling behaviour change program (e.g. signs, stickers, messages)	planned			May-09

**2.2 Stationary Fuel Combustion (including electricity)**

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Ask staff to close blinds daily	in progress			Apr-09
Turn off lights in unused rooms	in progress			Apr-09
Undertake lighting retrofit	planned			Jul-09
Initiate corporate computer shut-down/wake-up for maintenance	planned			Jul-09
Undertake building energy audit at LOCATION(s)	planned			Jun-09

**2.3 Supplies**

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Initiate automatic double sided printing	planned			Jun-09
Commit to hold paperless meetings	in progress			Mar-09
<b>Actions on non-paper related supplies:</b>				
Choose "Green" items from Distribution Centre	planned			Jul-09
Encourage re-use of furniture and equipment	planned			Jan-09

**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)	in progress			Feb-09

**2.5 Employee Engagement**

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide climate change education	planned			Sep-09
Provide conservation education	planned			Sep-09
Hold contests to change behaviour/make pledge	planned			Sep-09
Hold contests/support to generate ideas	;planned			Sep-09
Develop Green Teams	in progress			Mar-09
Support Green Teams (resources)	in progress			Sep-09
Provide green tips	in progress			Sep-09
Support professional development	in progress			Sep-09

**2.6 Sustainability Actions (others)**

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Improve recycling measures	in progress			May-09
Support composting	planned			May-09
Use re-usable dishes	in progress			May-09
Purchase green cleaning products	planned			May-09
Support sustainable procurement practices	planned			May-09