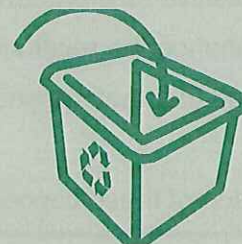




School District No.51 (Boundary)

2013 Carbon Neutral Action Report



2013 Carbon Neutral Action

Executive Summary

This is the 2013 Carbon Neutral Action Report for School District No. 51 (Boundary). This report contains our 2013 emissions profile, offsets purchased, the actions we have taken in 2013 to reduce our GHG emissions and our plans to continue reducing emissions in 2014 and beyond.

By June 30, 2014, School District 51's

final CNAR will be posted to our website at www.sd51.bc.ca.

This year's report once again demonstrates our commitment to reducing our greenhouse gas emissions. "School District No. 51 (Boundary) Board

of Education believes that the maintenance of our environment is necessary to the quality of our lives. Further, we believe that the District and its schools have the responsibility of fostering and reinforcing positive environmental concepts, that will enhance the relationship between living things and their natural and built surroundings.

The introduction of these concepts must

begin early in the life of each child in order to develop a responsible environment ethic which will be sustained throughout life."

Highlights for 2013 included:

- A reduction in our carbon footprint
- Performed energy retrofits on existing buildings
- Evaluation of the overall building energy usage at John A. Hutton Elementary
- Replacement of lighting in the School Board Office board room with more energy efficient lights
- Fleet upgrades with the purchase of 4 new buses and 1 new truck and a reduction in the overall fleet size
- Schools continued to educate students on environmental issues as well as model environmentally sound practices through recycling programs and the development of green teams. They partnered with their communities to foster a respect for the environment and to provide instruction on healthy alternatives.
- The District welcomed a new Health Promoting Schools Coordinator who worked with schools to implement paper towel recycling programs, smoking cessation

Special points of interest:

- Executive Summary
- Success Story
- Emissions and Offsets Summary/Report
- CNAR Survey Form

programs as well as applied for a grant with DASH BC to purchase water fountain/water bottle filling station so as to eliminate bottles of water from vending machines.

- The Sustainable Resources 12 class at Boundary Central Secondary School continued to progress in their actions and education in environmental issues. Please see page 4 for one of their success stories.

In 2014/2015, SD51 plans to continue to move forward in implementing energy saving upgrades. We are planning to replace the boilers and heat pumps at John A. Hutton Elementary and West Boundary Elementary Schools. The students at Hutton Elementary are also fundraising to install infrared fountains.

HVAC upgrades and replacement will continue throughout the District as necessary and financially feasible, along with weather stripping, and roof replacements. All these changes will promote further reduction of our carbon footprint for 2014 and the future.

Schools will continue to implement their very successful recycling programs and are committed to either the continuing or the forming of green teams. They will continue to incorporate curriculum that enlightens and educates our students to be more knowledgeable and responsible citizens.

**"In the end we will conserve only what
we love; we will love only what we
understand and we will understand only
what we are taught."
- Baba Dioum**



Growing Grass Seed



Laying Tarps



Amphibian Fence



Riparian Field Trip

SUSTAINABLE RESOURCES 12 CLASS

Boundary Central Secondary School

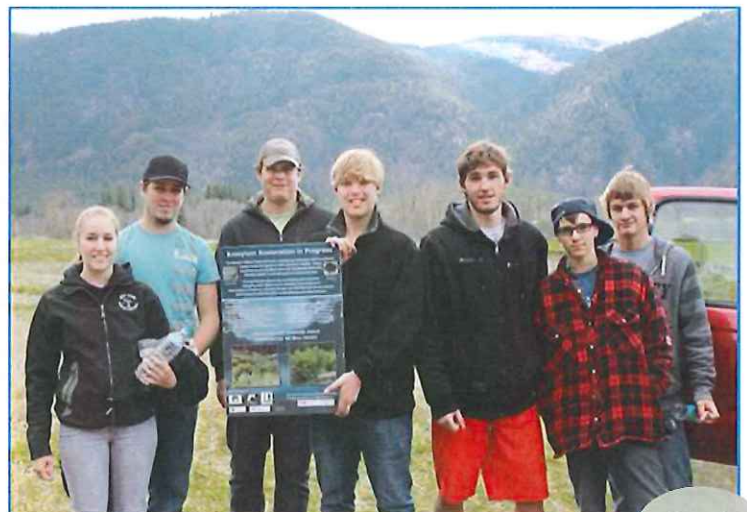
In 2013 the Sustainable Resources 12 class undertook the restoration of a riparian and natural grassland area along the Granby River. The area, referred to as "Boothman's Oxbow", was damaged over the years due to invasive alien weeds, pollution, loss of habitat, channelization, bank armoring and removal of vegetation. They worked with Barb Stewart (Boundary Weed Management) and Jenny Coleshill (Granby Wilderness Society), to help restore this area to its original, natural state to enhance the habitat values for Species at Risk and other wildlife in this area, over the next few years. The improvement of the riparian area should also have a very positive effect on the health of the Granby River.

They started with planting bunchgrass seed in the classroom and had over 1000 plugs of native grasses ready to plant in the riparian area in the fall.

They travelled to the restoration area by bus and helped to install amphibian fencing to keep the salamanders, toads and other amphibians out of the area, then they began laying tarps down in order to kill off the vegetation that is in the area now (mostly invasive weeds). They took cuttings of cottonwood, dogwood and willow trees and planted them through the tarps in the riparian area, as well as plantings of the three different native grasses grown.

In addition, they met with Fred Marshall and Graham Watt (Kettle River Watershed Management Project Coordinator) and toured the Boundary Creek to discuss problems and solutions for this watershed.

In 2013 they also built a large outside composter (as the vermiculture composters couldn't hold all the food they collect!). Their greenhouse was constructed again and they grew lettuce mix, tomatoes and cucumbers to supplement food to the nutrition room for students to use. They also designed and presented 70 minute seminars to the grade 8 and 9 students. The topics were: Factory Farming, Species at Risk and Sustainable Housing.



Emissions and Offsets Summary:

Organization School District No. 51 (Boundary)	
GHG Emissions and Offsets for 2013 (TCO2E)	
GHG Emissions created in calendar year 2013 (from SMARTTool Homepage)	
Total Emissions	1,093
Total Emissions for Offsets	840
Adjustments to GHG Emissions Reported in Previous Years (from SMARTTool Homepage)	
Total Emissions	-9
Total Emissions for Offsets	-9
Credit owing from PCT at end of 2012 reporting year (if applicable – from May 15 Invoice):	
Credit Owing	0
Total Emissions for Offsets for the 2013 Reporting Year (from Offset Invoice):	831

Signature

Date

Name (Please Print)

Title

2013 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

Created Thursday, February 20, 2014

Updated Friday, April 25, 2014

<https://fluidsurveys.com/surveys/cas-z/2013-cnar-form-bps-actions/c4f443c716f7c628a5a7a1e169c657c0/>

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Please complete the following sections of the 2013 Carbon Neutral Action Report form. Save your work frequently to prevent it from being lost. You can also save a copy for your own use as either a WORD or PDF file using the buttons at the bottom of each page.

This is Part 2 of the Carbon Neutral Action Report form. This section reports on actions taken to reduce emissions during the 2013 calendar year. This information will be included in your final Carbon Neutral Action Report posted on the Ministry of Environment website.

When the form is complete press the submit button on the last page to automatically submit the information to the Climate Action Secretariat (CAS). Do not press submit before you are ready – this may result in a loss of work.

In addition to completing this survey (Part 1 2), you are required to submit your completed Overview (Executive Summary) and Self-Certification Checklist. The 2013 Overview template was included in the email sent and can also be found on the LiveSmart leaders Community.

Please ensure you meet the following reporting deadlines:

A DRAFT 2013 CNAR is due to CAS by March 31, 2014. The draft is comprised of the Overview ONLY (no executive sign-off required).

The FINAL 2013 CNAR is due to CAS by May 30, 2014. The final 2013 CNAR includes Part 1 Part 2 survey form and Overview.

The Self-Certification Checklist is due to CAS by May 15, 2014.

For more information about the Carbon Neutral Government process, please refer to *Becoming Carbon Neutral 2013*, or should you have any questions please contact climateactionsecretariat@gov.bc.ca.

Organization Name

School District No. 51 (Boundary)

Actions Taken to Reduce Emissions

1) Stationary Fuel Combustion, Electricity (Buildings):

Indicate which actions were taken in 2013:

Performed energy retrofits on existing buildings

Yes

Built or are building new LEED Gold or other "Green" buildings.

No

Undertook an evaluation of overall building energy use.

Yes

Please list any other actions taken to reduce emissions from Buildings:

Replaced 3 photocopiers with more energy efficient models.

Conserved energy by closing 3 unused classrooms and 2 washrooms.

Installed energy efficient lighting in School Board Office Board Room.

Installed a Smart Board and gotomeeting capabilities at the Board Office and gotomeeting at Boundary Central Secondary School.

2) Mobile Fleet Combustion (Fleet and other vehicles):

Indicate which actions were taken in 2013:

Do you have a fleet?

Yes

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)

Yes

Replaced existing vehicles with hybrid or electric vehicles

No

Reduced the overall number of fleet vehicles

Yes

Took steps to drive less than last year

Yes

Please list any other actions taken to reduce emission from fleet:

Continued with anti-idling practices.

3) Supplies (Paper):

Indicate which actions were taken in 2013:

Used less paper than previous year

Yes

Used only 100% recycled paper

No

Used some recycled paper

Yes

Used alternate source paper (Bamboo, hemp, etc.)

No

Please list any other actions taken to reduce emissions from paper use:

Replaced 3 old photocopiers with more efficient copier/scanner/printer models. Scanned forms and other documents school to school or school to Board Office rather than printing and sending paper copies via mail.

Actions Taken to Reduce Emissions - continued

Explain how you plan to continue minimizing emissions in 2014 and future years:

Will be continuing HVAC upgrades in existing facilities.

Will continue to replace our aging fleet as needed and financially able. Will continue to try to reduce our fleet.

Will continue energy evaluations and updating of buildings as necessary and as financially able.

Will continue to encourage reduction in paper usage as well as continue to assess the financial feasibility of ordering more recycled paper products.

Plan to replace boilers at Hutton Elementary and West Boundary Elementary Schools.

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

Yes

Actions to Promote Sustainability and Conservation - Optional

The following are actions that fall outside the scope of the *Carbon Neutral Government Regulation*, but which many organizations still undertake and may wish to report on. This section is optional for reporting.

Business Travel

Created a low-carbon travel policy or travel reduction goal (Low-carbon: Lowest emission of greenhouse gases per kilometre per passenger)

No

Virtual Meeting Technology

Installed web-conferencing software (e.g., Live Meeting, Elluminate, etc.)

Yes

Made desktop web-cameras available to staff

No

Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)

Yes

Encourage carpooling to meetings

Yes

Education and Awareness

Have created Green, Sustainability, Energy Conservation, or Climate Action Teams.

Yes

Provided resources and/or dedicated staff to support these teams

Yes

Provided behaviour change education/training for these teams (e.g., community-based social marketing)

Yes

Established a sustainability/green awards or recognition program

Yes

Support green professional development (e.g., workshops, conferences, training)

No

Planning for Climate Change

Have assessed whether extreme weather events and/or long term changes in climate will affect our organization's business areas

No

Long term changes in climate have been incorporated into our organization's decision making.

No

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Actions to Promote Sustainability and Conservation - Optional (continued)

Staff Awareness and Education

Provided education to staff about the science of climate change

Yes

Provided education to staff about the conservation of water, energy, and raw materials

Yes

Provided green tips on staff website or in newsletters

Yes

Alternate Work/Commuting Options

Allow for telework/working from home

Yes

Staff have the option of a compressed work week

Yes

Commuting by foot, bicycle, carpool or public transit is encouraged

Yes

Shower or locker facilities are provided for staff/students who commute by foot or by bicycle

No

Secure bicycle storage is provided

No

Other Sustainability Actions

Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models

Yes

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

No

Have put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities

No

Have implemented a hazardous waste reduction and disposal strategy (Hazardous Waste: E.g., electronics including computer parts and monitors, batteries, paints, fluorescent bulbs)

Yes

Have incorporated minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)

No

Established green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)

No

Incorporated lifecycle costing into new construction or renovations

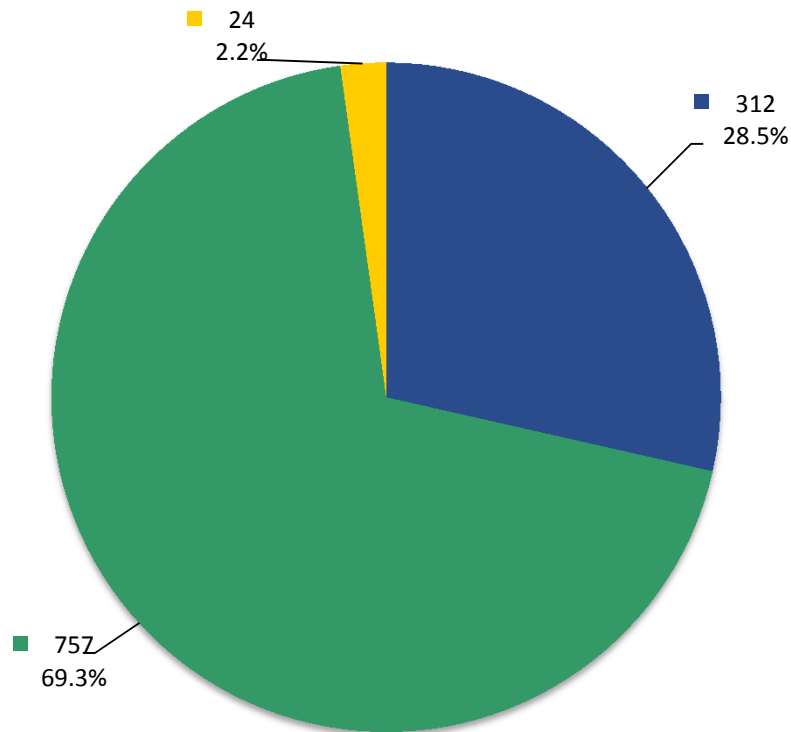
No

Please list and other sustainability actions you wish to report not included in the previous list.

In 2013 the schools of our District continued to run proactive and successful recycle programs as well as healthy eating initiatives. Students composted, recycled and actively participated in the care and development of their greenspaces. Several schools coordinated with the Health Promoting School Coordinator in the development and implementing of current and future outcomes, and schools strove to purchase sustainable and/or organic food and beverages. Environmental studies and green tips were included in classroom curriculum and some schools shared green tips on their websites and in newsletters. Some of the school highlights are as follow: During 2013 Greenwood Elementary School received a grant from WWF-Canada Green CommUnity School Grants Program. They constructed solar ovens, built 17 birdhouses, made eco-friendly paint out of milk and earth pigments, added composters and more recycle bins as well as planted 5 new trees in the front schoolyard.

At Boundary Central Secondary the Sustainable Resources teacher, Lisa Baia, maintained connection with several environmental groups operating in the Boundary and in Grand Forks (Granby Wilderness Society) and updated information for staff as well as kept current with local issues. Ms. Baia also connected with Graham Watt who is involved in the Stakeholder Advisory Group for the Kettle River. The Sustainable Resources 12 class was involved in water conservation and water environmental protection programs provided by the "Sustaining the Flow" committee. This school also ran a very successful recycle and composting program, incorporating student education opportunities. They recycled bottles, cans and paper on a weekly basis which also went to earn points for House Teams. Special Ed students collected paper for recycling, weighed it and maintained a bulletin board in the commons area where student awareness was raised by the weekly weight of recycled paper posted on a comparative bar graph. The Sustainable Class grade 12 students designed and presented 70 minute seminars to the grade 8 and 9 students. The topics were Factory Farming, Species at Risk and Sustainable Housing. BCSS also has a cafeteria which cooked and sold only healthy foods and beverages. The manager of this cafeteria met with the District Healthy Schools coordinator to go over protocols and requirements regarding healthy food offerings. BCSS also connected to the program which donates fruit and vegetables to their School Nutrition program (BC Agriculture in the Classroom). They made parents aware of green initiatives in their bi-weekly newsletter.

School District 51 - Boundary Greenhouse Gas Emissions by Source for the 2013 Calendar Year (tCO₂e*)



Total Emissions: 1,093

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2013 (Generated May 21, 2014 3:50 PM)

Total offsets required: **840**. Total offset investment: **\$21,000**. Emissions which do not require offsets: **253** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.