

# 2014 Carbon Neutral Action Report

## School District No. 48 (Sea to Sky)







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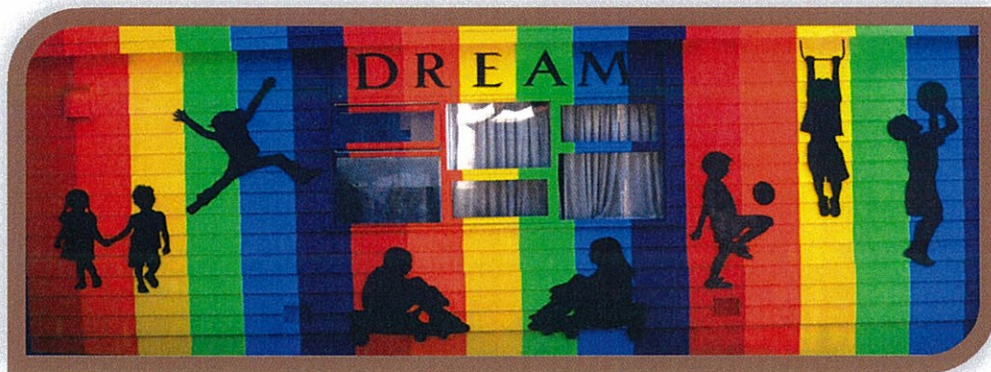
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## Declaration

This Carbon Neutral Action Report for the period January 1<sup>st</sup> to December 31<sup>st</sup>, 2014 summarizes our emissions profile, the amount of the offsets purchased to reach net zero emissions, the actions we have taken in 2014 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2015 and beyond.





## Overview

School District No.48 (Sea to Sky) has a growing student enrollment across three distinct communities. With the increased student enrollment and added staff, the demands and intensity of use in our buildings has been increasing. Information technology is developing at an astonishing rate and is playing a greater role in education and students have been at the forefront with technology as a critical component of their needs. All of these factors have had a growing impact on SD48's emission footprint.

In 2014, School District No. 48 (Sea to Sky) continued to demonstrate its ongoing commitment to sustainability by actively exploring greenhouse gas emission reduction opportunities, planning and implementing innovative strategies and technologies to increase overall sustainability and operating performance.

Policies, strategies and tactical plans were reviewed and revised where needed to enable, encourage and compel employees where appropriate to integrate leadership, education, sustainable business practices into schools and operations.

We evaluated overall building energy use in our buildings and installed power monitoring equipment in three high schools. We partnered with our utility vendors on Continuous Optimization Projects at two high schools and we invested in high efficiency boilers in one school.

Our educators have been working to raise student awareness of local environmental issues and is supporting them to be leaders and to take personal action to improve their sustainability practices. Programs in our schools include Green Teams activities and actions, participation in BC Hydro's Energy Ambassadors Program, Earth Kids Club activities, participation in BC Green Games, Earth Day, recycling and solid waste reduction programs and many others.



### **Greenhouse Gas Emissions**

The District's 2014 total greenhouse gas emissions from all sources covered by the Green House Gas Reductions Target Act is shown in the Emissions and Offsets Summary Table. It is estimated that the stationary fugitive emissions from cooling do not comprise more than 0.01% of the School District's total emissions and an ongoing effort to collect or estimate these emissions from this source would be disproportionately onerous. Thus these emissions meet both the requirements to be both below 1% of the School District's total emissions and the requirement to be onerous to collect. For this reason emissions from this source have been deemed out-of-scope and have not been included in the District's total greenhouse gas emission profile for 2014.

### **Offsets Applied to Become Carbon Neutral in 2014**

The District has applied tCO<sub>2</sub>e emission offsets for greenhouse gas emission from all sources covered by the Greenhouse Gas Reductions Target Act to become Carbon Neutral for 2014. As required for by section 5 of the Carbon Neutral Government Regulation, tCO<sub>2</sub>e emissions resulting from the operation of school buses were reported as part of our greenhouse gas emissions profile for 2014. However, they were not offset as they are out of scope under section 4 (2) of the Carbon Neutral Government Regulation.



## 2014 Changes to Greenhouse Gas Emissions and Offsets Reporting From 2013

Following public release of the School District No.48 (Sea to Sky) 2013 Carbon Neutral Action Report it was determined that the total emissions for the 2013 calendar year were under reported. The difference in offsets required have been purchased and applied against our 2014 emissions.

Total emissions for 2013 were 1,964 tCO<sub>2</sub>e and emission for offsets were 1,533 tCO<sub>2</sub>e and 2014 total emissions are 1,952 tCO<sub>2</sub>e which is a reduction of 12 tCO<sub>2</sub>e in 2014. Reductions were recorded for indirect energy emissions, office paper and biomass emissions and increases were recorded for our mobile fleet and stationary (building) emissions. Factors for these increases are a growing student enrollment, increased intensity of use in our facilities, student transportation and information technology.

### Emissions and Offsets Summary Table:

<b><i>School District No. 48 (Sea to Sky) GHG Emissions and Offsets for 2014</i></b>	
<b>(TCO<sub>2</sub>E)</b>	
<b>GHG Emissions created in Calendar Year 2014</b>	
Total Emissions (TCO <sub>2</sub> E)	1952
Total Offsets (TCO <sub>2</sub> E)	1580
<b>Adjustments to GHG Emissions Reported in Prior Years</b>	
Total Emissions (TCO <sub>2</sub> E)	69
Total Offsets (TCO <sub>2</sub> E)	72
<b>Total Emissions for Offset for the 2014 Reporting Year</b>	
Total Offsets (TCO <sub>2</sub> E)	1652

## Emission Reduction Activities

In 2014 the District continued with emission reduction and sustainability initiatives and measures to reduce carbon output.

Investments in energy efficient lighting, boiler upgrades and building envelope upgrades continued in 2014. The Facilities Department closely monitored and evaluated utility consumption trends and responded to variances promptly to conserve energy and emissions. The Facilities Department worked in the classrooms with teachers and students to support sustainability awareness, actions and activities. Initiatives to promote emission reductions and sustainable practices continued to expand. Schools worked with students to expand recycling and waste reduction programs in schools.

In the mobile fuel category we continued to improve fuel efficiency with preventative maintenance programs and driver training programs. Carpooling was encouraged and busing was provided for transportation to employee training when practical and cost effective.

The stationary energy (buildings) category we evaluated overall building energy use in our buildings and installed power monitoring equipment in three high schools. We partnered with our utility vendors on Continuous Optimization Projects at two high schools and installed high efficiency boilers in one school.

The education, awareness and engagement category our educators have been working to raise student awareness of local environmental issues and support them to be leaders and to take personal action to improve their sustainability practices. Programs in our schools include Green Teams activities, participation in BC Hydro's Energy Ambassadors Program, Earth Kids Club activities, participation in BC Green Games, Earth Day, recycling and solid waste reduction programs.

Policies and regulations are in place to support sustainable operations and business practices including green procurement practices for purchasing supplies and when maintaining, constructing and renovating our facilities.

## Executive Sign-off

Executive Sign-off Signature

May 27/2015

Date

Rick Price

Name (please print)

SP 48 Board Chair

Title

# 2014 Carbon Neutral Action Report (CNAR)

## - Part 2 ACTIONS

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### Organization Name

School District No. 48 (Sea to Sky)

### Actions Taken to Reduce Emissions

#### 1) Stationary Fuel Combustion, Electricity (Buildings): Indicate which actions were taken in 2014:

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:

- Completed one heating boiler retrofit
- Fostered and supported student sustainable school awareness and actions activities, programs and contests
- install power monitoring software in two high schools and started the investigation phase of a Continuous Optimization Program at both schools
- upgraded roof insulation on targeted roof areas at two schools
- reminders to staff to shut off computers, power bars, lights when not in use
- reminders to staff to shut blinds at the end of the work day to reduce heating and cooling requirements
- continued to complete preventive maintenance on building systems to improve energy efficiency



- continue to provide professional development to staff on latest energy saving opportunities and technologies

**2) Mobile Fleet Combustion (Fleet and other vehicles):Indicate which actions were taken in 2014:**

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

No

Took steps to drive less than last year

Yes

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

- continue to provide driver training to reduce fuel use to bus drivers
- continue to enforce anti-idling program on District property
- applied right sizing principles when purchase new vehicles
- performed regular fleet maintenance to improve fuel efficiency

### **3) Supplies (Paper): Indicate which actions were taken in 2014:**

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:

- continue to encourage paperless meetings and presentations
- continue to expand use of collaborative software
- continue to utilize electronic document libraries
- continue to encourage double sided document printing

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### **Actions Taken to Reduce Emissions - continued**

Explain how you plan to continue minimizing emissions in 2015 and future years:

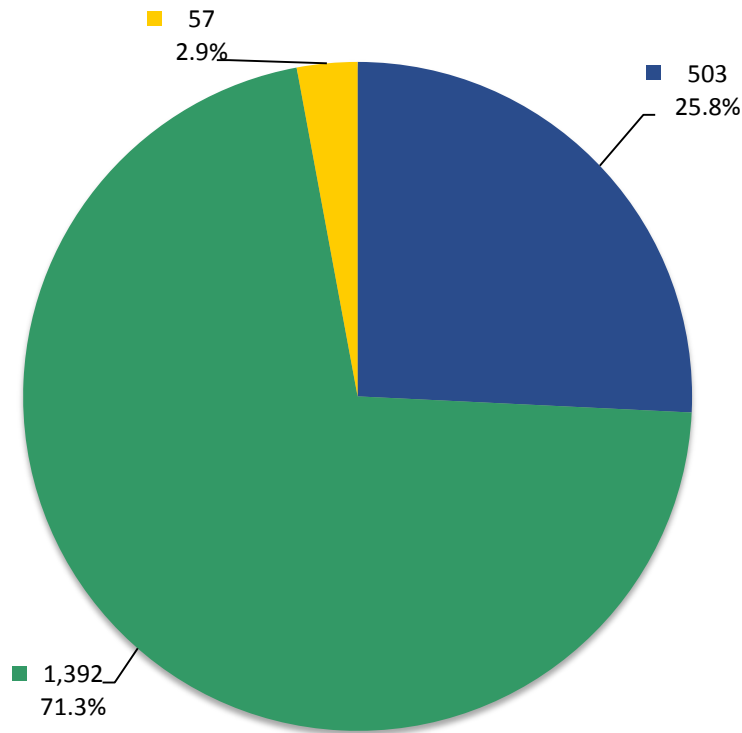
- Develop and updated Sustainable Energy Management Plan
- Maintain GHG emissions inventory and forecasts
- set emission reduction targets
- develop tactical plans
- monitor progress and report results



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

No

**School District 48 - Sea to Sky  
Greenhouse Gas Emissions by Source  
for the 2014 Calendar Year (tCO<sub>2</sub>e\*)**



**Total Emissions: 1,952**

- 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 2014 (Generated June 23, 2015 2:41 PM)**

Total offsets required: **1,580**. Total offset investment: **\$39,500**. Emissions which do not require offsets: **371** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) 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.