2018 Carbon Neutral Action Report
North Vancouver School District

Declaration Statement: This Carbon Neutral Action Report for the period January 1, 2018 to December 31, 2018 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2018 to reduce our greenhouse gas emissions, and our plans to continue reducing emissions in 2019 and beyond.

By June 30, 2019 **North Vancouver School District's** final *Carbon Neutral Action Report* will be posted to our website at **www.sd44.ca**

2018 Overview: Several key initiatives in 2018 contributed to our ongoing efforts to reduce GHG emissions.

- Braemar Elementary and Ross Road Elementary underwent boiler plant upgrades that included the installation of new high efficiency condensing boilers and "smart" heating water distribution pumps.
- Enhancements to the building control systems were made at the Cheakamus Environmental Learning Centre.
- LED lighting retrofits and controls upgrades were completed at 6 elementary schools: Lynn Valley, Sherwood Park, Cleveland, Capilano, Braemar, and Cove Cliff.
- The BC Hydro Continuous Optimization (C-Op) program was completed at Arglye Secondary School.
- A low-carbon heating system was incorporated into the design of the Handsworth Secondary school replacement project.

2019 Overview: A number of initiatives are underway, or have been planned for execution, in 2019:

- LED lighting retrofits and controls upgrades were completed at 6 elementary schools: Upper Lynn, Carisbrooke, Montroyal, Eastview, Norgate, and Boundary.
- An electric vehicle was purchased for the NVSD maintenance fleet.
- LED lighting and control upgrade solutions will be designed for Seycove Secondary and Windsor Secondary.
- Capilano Elementary will undergo boiler plant and HVAC upgrades.
- A ventilation upgrade will be completed at Upper Lynn Elementary.
- Building envelope upgrade projects will be completed at Capilano Elementary and Eastview Elementary.
- Enhancements to the exiting building control systems will be made at the Education Services Centre.
- A low-carbon heating system retrofit will be explored for Norgate Elementary.

Emissions and Offset Summary Table:

North Vancouver School District GHG Emissions and Offset for 2018 (tCO_2e)	
GHG Emissions created in Calendar Year 2018	
Total Emissions (tCO_2e)	3,569
Total Offsets (tCO_2e)	3,496
Adjustments to GHG Emissions Reported in Prior Years	
Total Emissions (tCO_2e)	-642
Total Offsets (tCO_2e)	-642
Grand Total Offsets for the 2018 Reporting Year	
Grand Total Offsets (tCO_2e)	2,854

Retirement of Offsets: In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, ***North Vancouver School District*** is responsible for arranging for the retirement of the offsets obligation reported above for the 2018 calendar year, together with any adjustments reported for past calendar years. The Organization hereby agrees that, in exchange for the Ministry of Environment ensuring that these offsets are retired on the Organization's behalf, the Organization will pay the associated invoice to be issued by the Ministry in an amount equal to $25 per tonne of offsets retired on its behalf plus GST.

Executive Sign-off:

Signature

May 30, 2019
Date

Georgia Allison
Name (please print)

Secretary Treasurer
Title

Part 1: CNAR Survey

1. General Information

Name: Luke Smeaton

Contact Email: lsmeaton@sd44.ca

Organization Name: North Vancouver School District

Role - Please select your role(s) below.
If more than one individual completed the survey, multiple categories may be selected:

Energy Manager: Yes

Sustainability Coordinator: No

Administrative Assistant: No

Facilities/Operations Manager/Coordinator: No

CEO/President/Exec Director: No

Treasurer/Accounting: No

Superintendent: No

A. Stationary Sources (e.g. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

1. Actions taken by your organization in 2018 to support emissions reductions from buildings.

a) Do you have a strategy to reduce emissions from stationary sources?

Yes

If yes above, what are the main goals?: Improving efficiency of natural gas heating systems.

b) Whether you have a strategy or not (1.a), briefly describe your organization's plans to continue reducing emissions from stationary sources:

I. Over the medium-term term (1-5 years)

Boiler retrofits
Operational optimization

II. Over the long term (6-10 years)

Electrification

d) Please describe your strategy's goals (if any) related to building retrofits.

Continue to combine energy retrofits with lifecycle renewal projects, e.g. envelope upgrades, boiler replacements

I. What % on average of your building portfolio is retrofitted each year in the following categories (if any) - click here for further information:

Minor retrofits (e.g., low cost, easy to implement measures including caulking, lighting, adding roof insulation, etc.) (%): 5

Major retrofits (e.g., replacing windows and doors, equipment replacement such as boilers, etc.) (%): 3

Deep retrofits (e.g., replacing roof, replacing the heating, ventilation and air-conditioning system with a renewable technology like a ground-source heat pump, etc.) (%): 1

e) Please describe your strategy's re/retro-commissioning goals (if any)?

Continue to monitor performance of buildings that have been through the BC Hydro Continuous Optimization Program.

I. What % on average of your building portfolio do you recommission each year?: 5

g) How many newly constructed buildings received at least LEED Gold certification in 2018: 0

I. How many newly constructed buildings did not receive LEED Gold certification?: 0

B. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

3. Actions taken by your organization in 2018 to support emissions reductions from mobile sources.

a) Do you have a strategy to reduce emissions from mobile sources?

No

b) Whether you have a strategy or not (3.a), briefly describe your organization's plans to continue reducing emissions from mobile sources:

I. Over the medium-term term (1-5 years)

Continue to explore the feasibility of electric fleet vehicles

c) How many fleet vehicles did you purchase from the following categories:

Electric Vehicle – EV - (e.g., Nissan Leaf, Chevy Bolt): 1

"Plug In" Electric Vehicle – PHEV (e.g., plug-in Prius, Chevy Volt): 0

Hybrid vehicle – HEV – non "Plug In"- (e.g., Toyota Highlander Hybrid): 0

Hydrogen fuel cell vehicle : 0

Natural gas/propane: 0

Gas/diesel vehicle: 3

I. If you purchased new gas/diesel vehicles, can you briefly explain why vehicles from the other categories were not chosen?

No suitable vehicles available.

d) How many existing EV charging stations does your organization have in each category:

level 2: 4

How many level 2 stations (if any) are specifically for your fleet vehicles: 1

f) Other actions, please describe briefly (e.g. charging station feasibility studies, electrical panel upgrades, etc.)

Incorporating EV charging infrastructure into the designs for seismic replacements.

4. Please indicate the number of the vehicles in the following vehicle classes that are in your current fleet (including any purchased in 2018):

Definitions:

• Light duty vehicles (LDVs) are designated primarily for transport of passengers <13 and GVWR<3900kg
• Light duty trucks (LDTs) are designated primarily for transport of light-weight cargo or that are equipped with special features such as four-wheel drive for off-road operation (include SUVs, vans, trucks with a GVWR<3,900kg)
• Heavy duty vehicles (HDV) includes vehicles with a GVWR>3,900 kg (e.g. ¾ tonne pick-up truck, transport trucks)

a) Light duty vehicles (LDVs)

Gas/diesel: 1

b) Light duty trucks (LDTs)

Gas/diesel: 2

c) Heavy duty vehicles (HDV)

Gas/diesel: 1

C. Office Paper: Indicate which actions your PSO took in 2018:

6. Actions taken by your organization in 2018 to support emissions reductions from paper supplies.

a) Do you have an Office Paper strategy?

Yes

I. If yes, what are its goals?

Benchmark school paper consumption
Provide staff with their paper consumption data
Highlight best practices for paper reduction

b) Whether you have a strategy or not (6.a), briefly describe your organization's plans to continue reducing emissions from paper use:

I. Over the medium-term (1-5 years)

Benchmark school paper consumption
Provide staff with their paper consumption data
Highlight best practices for paper reduction

II. Over the long term (6-10 years)

Encourage digital teaching methods

c) Have an awareness campaign focused on reducing office paper use

Yes

d) Purchased alternate source paper (bamboo, hemp, wheat, etc.)

No