

## **2019 Carbon Neutral Action Report**

### **School District No. 8 - Kootenay Lake**

Prepared: May 29, 2020

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## DECLARATION STATEMENT

**Title:** 2019 Carbon Neutral Action Report

**Organization:** Board of Education of School District No. 8 (Kootenay Lake)

**Declaration Statement:** This Carbon Neutral Action Report for the period January 1, 2019 to December 31, 2019 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2019 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2020 and beyond.

By June 30, 2020 School District No. 8 - Kootenay Lake's final 2019 Carbon Neutral Action Report will be posted to our website at [www.sd8.bc.ca](http://www.sd8.bc.ca).

## OVERVIEW

### Actions taken in 2019 to minimize emissions:

- SD8's District-Wide efficient lighting project continued, with upgrades to LED fixtures now complete at approximately half of the sites in the District.
- Air Handling Unit (AHU) upgrades completed at Salmo Elementary and South Nelson Elementary.
- A major boiler upgrade was completed at Trafalgar Middle School.
- Performed a District-wide Direct Digital Control (DDC) audit, which improved our ability to monitor and control energy use. Based on the audit, DDC updates and replacements were completed and adjustments made.
- A furnace was replaced at Rosemont Elementary School.
- The Air Handling Unit (AHU) at Crawford Bay Elementary-Secondary School was upgraded.
- Initiated a new photocopy/printing agreement with usage monitoring and controls, to reduced GHGs and paper usage.
- A major windows & doors upgrade project was largely complete at Hume Elementary School to improve energy efficiency, with projection completion in 2020.

### Plans to continue reducing emissions in 2020 and beyond:

- An Employee EBike Purchase Program was launched in April, 2020.
- A major mechanical boiler upgrade at South Nelson to be completed by September 2020.
- Phase 1 of a planning development project for a boiler upgrade at Mount Sentinel Secondary School.
- Replacement of 4 furnaces at Rosemont Elementary.
- Replacement of 5 furnaces at Blewett Elementary.
- Replacement of 4 furnaces at Trafalgar Middle School.
- Continue upgrading lighting to LED fixtures throughout the District.
- Exploring the possibility of propane and/or electric busses.
- The next phase of our photocopy/printing software implementation is scheduled for September, 2020, from which we expect further GHG and paper use reductions.
- Electrical upgrade at Trafalgar.

### Success stories & initiatives:

- For a full listing of SD8's school and departmental GoGreen Initiatives, please visit <https://www.sd8.bc.ca/go-green>
- Adam Robertson Elementary School: Climate Chasers Club meets each Monday during Lunch recess. The club is coming up with ideas and initiatives to present to staff, PAC, and the students for ways that our school can "go green" and make positive impacts on our environment.
- Blewett Elementary School: Recycle bins in every room – recycled paper is used again.
- Brent Kennedy Elementary School: Piggieposts (Each classroom is collecting food waste in compost buckets. The compost buckets are collected by a Brent Kennedy family that is raising pigs with the food waste).
- Canyon-Lister Elementary School: Few single-use items provided at school meal events- all parents bring their own dishes for their family, and we provide a rinse basin so they can do a quick clean before taking their dishes home again.
- Crawford Bay Elementary-Secondary School: Paper towel recycling bins in each classroom and washroom - for the school compost
- Erickson Elementary: Compostable items going to wetland area developed for learning about the environment and caring for it.
- Hume Elementary: PAC purchased three water bottle filtration/ water fountains. Two are installed with one more to go. The current one says we've saved the equivalent of 54,000 water bottles since installation.
- JV Humphries Elementary-Secondary School: New Position of Special Responsibility - 'Greening JVH' Facilitators' This position is intended for two teachers to work collaboratively as leaders in our school and community in guiding and supporting students.
- Jewett Elementary School: Growing food, collecting & selling mulch, composting.
- LV Rogers Secondary School: Project to bring LVR rooftop solar panels online. Requires voltage inverters, some tech help, maintenance and operations. When these come online they will generate enough power to run our entire tech lab.
- Mt. Sentinel Secondary School: Have 3 thriving Bee Hives and 20+ student beekeepers & we produce approx. 200lbs of Honey a year that is rendered and sold locally.
- Prince Charles Secondary School: Extensive use of Google Classroom platform.
- Redfish Elementary School: Student led Environment Lunch Club - right now focused on reducing single use wrappers and containers.
- Rosemont Elementary School: Very little paper sent home, no newsletters, lots of digital communication.
- Salmo Elementary School: Recycling program, students regularly collect from classrooms.
- Salmo Secondary School: Reduction/elimination of dishes used in cafeteria program.
- South Nelson Elementary School: We have had a litterless lunch during Earth Day week.
- Trafalgar Middle School: We have a Green Thunder group which is becoming a LLE course focused on creating sustainable choices and changes within the building.
- WE Graham Elementary-Secondary School: Following last year's garbage inventory in the school we are working to reduce our garbage production by 20% by the end of the winter term. We now have Garbage Free Wednesdays where students bring garbage free snacks and lunches.

- Wildflower Creston School: Regular bottle drives throughout the year.
- Wildflower Nelson School: Several classrooms throughout the years have had thematic projects relating to natural resources, alternative energies, and social action projects.
- Winlaw Elementary School: Have completed a no plastic in lunches initiatives where every student was given a reusable lunch bag. Prizes were given to students who brought in plastic free lunches
- Board Office: Commitment to use more online forms and resources to reduce printing, and online meeting platforms to reduce emissions due to driving.

### EMISSIONS AND OFFSET SUMMARY TABLE

| School District No. 8 (Kootenay Lake)'s GHG Emissions and Offsets for 2019  |          |
|---|----------|
| As per the <u>Directive</u> issued March 31, 2020, each PSO will use their 2018 GHG Emissions as a placeholder for the purposes of their 2019 CNAR. |          |
| Total Emissions (tCO <sub>2</sub> e)  | 3,216    |
| Total BioCO <sub>2</sub>  | 37.6     |
| Total Offsets (tCO <sub>2</sub> e)  | 2,348    |
| Offset Investment (\$25 per tCO <sub>2</sub> e)   | \$58,700 |

### RETIREMENT OF OFFSETS STATEMENT

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, School District No. 8 – Kootenay Lake (**the Organization**) is responsible for arranging for the retirement of the offsets obligation reported above for the 2019 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (**the Ministry**) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, 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 29, 2020

Date

Dr. Christine Perkins

Name

Superintendent & Chief Executive Officer

Title

**Confirmation number:** 00C0ED46

**Submitted date:** 2020-05-29 15:50:53 Pacific Daylight Time

# Carbon Neutral Action Report Survey - 2019

Public sector organizations (PSOs) are required to complete this survey, in addition to a Carbon Neutral Action Report (CNAR) as mandated by BC's [Climate Change Accountability Act](#) and the [Carbon Neutral Government Regulation](#).

Due to the COVID-19 pandemic, the following [Directive](#) was issued on March 31, 2020. Certain deadlines were also extended for the 2019 reporting year (see below).

## **March 31, 2020 Directive:**

*Under my authority as the Director for the purposes of the Act, and under the authority delegated to me in Section 6 of the Carbon Neutral Government Regulation, I hereby direct that all ministries and Public Sector Organizations covered by the Carbon Neutral Government requirement shall use their 2018 GHG emissions as a temporary estimate for their actual 2019 GHG emissions, for the purposes of the 2019 Carbon Neutral Action Reports and 2019 Carbon Neutral Government reporting required under the Climate Change Accountability Act.*

Neil Dobson, Executive Director, Clean BC Implementation  
Climate Action Secretariat

Although 2018 emissions data will be used as a placeholder for 2019, **all other (qualitative) components of the CNAR and CNAR Survey are to be completed with information from 2019 (e.g., actions taken or planned to reduce emissions)**. The only change to the survey is that the deadline was extended by one month to June 30, 2020.

This survey is divided into two parts:

**Part 1** - Will be made public on the Climate Action Secretariat (CAS) [website](#) after June 30, 2020; however, it will not be appended directly to each individual PSO CNAR as was done in previous years. This section collects details about actions taken or planned to reduce emissions and is intended to supplement the legislative requirements in your CNAR.

**Part 2** - Will NOT be made public. Information you provide in this section is important and will be used internally to help CAS staff with planning for emissions reduction and climate change adaptation initiatives. Although not required, PSOs are highly encouraged to complete Part 2.

**Note:** Survey progress can be saved at any time by clicking the "Save and continue later" button at the bottom of each page. A new window will open and you will be asked to provide your name and email. An email will be sent to you from [Carbon.Neutral@gov.bc.ca](mailto:Carbon.Neutral@gov.bc.ca) with the subject line: "Questionnaire Link", which will include a hyperlink for the "Project: Carbon Neutral Action Report Survey – Broader Public Sector 2019". You can then continue responding at another time or email the hyperlink to a colleague to complete remaining section(s).

|                |   |
|----------------|---|
| May 29, 2020   | <ul style="list-style-type: none"><li>The final, signed version of the <b>CNAR</b> (or Small Emitters Form) must be submitted by email to: <a href="mailto:Carbon.Neutral@gov.bc.ca">Carbon.Neutral@gov.bc.ca</a></li></ul>   |
| June 30, 2020* | <ul style="list-style-type: none"><li>Ministry of Environment and Climate Change Strategy must post a final CNAR for each organization on the BC Government's CNG <a href="#">website</a> and each PSO is encouraged to post the report on their website.</li><li>The <b>CNAR Survey</b> (optional for Small Emitters) must be completed and submitted online.<br/>*Deadline extended from May 29, 2020.</li><li><u>All offset invoice payments must be submitted to CAS.</u></li></ul> |
| Sept 30, 2020* | <ul style="list-style-type: none"><li><b>Clean Government Reporting Tool (CGRT) Data Entry</b> must be completed for the 2019 reporting year.</li></ul>   |

|               |  |
|---------------|--|
|               | *Deadline extended from April 30, 2020.  |
| Oct 15, 2020* | <ul style="list-style-type: none"> <li>• <b>Self-Certification checklist</b> must be completed, signed and submitted by email to: <a href="mailto:Carbon.Neutral@gov.bc.ca">Carbon.Neutral@gov.bc.ca</a>.</li> </ul> *Deadline extended from May 15, 2020. |

\*See the [Carbon Neutral Government – Program Requirements website](#) for more information on program requirements, timelines and templates.

## PART 1 - Included as part of your public CNAR report.

Reminder that Part 1 will be made public on the CAS [website](#).

|  |  |
|--|--|
| <b>Contact Name:</b>   | <i>Bruce MacLean</i>                             |
| <b>Contact Email:</b>  | <i>bmaclean@sd8.bc.ca</i>                        |
| <b>Organization Name:</b>  | <i>School District No. 8 (Kootenay Lake)</i>     |
| <b>Role – Please select the best category for your current role with your organization. If more than one individual completed the survey, multiple categories may be selected:</b> | <i>Facilities/Operations Manager/Coordinator</i> |
| <b>Please select your sector:</b>  | <i>School District (SD)</i>                      |

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

Actions taken by your organization in 2019 to support emissions reductions from buildings

|  |            |
|--|------------|
| <b>Do you have a strategy to reduce emissions from stationary sources?</b> | <i>Yes</i> |
|--|------------|

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

|   |  |
|---|--|
| <b>Over the medium-term term (1-5 years)</b>                                    | <i>Boiler/mechanical upgrades, furnace replacements, electrical upgrades including automation, lighting upgrades to LED fixtures, and employee EBike purchase program.</i> |
| <b>Over the long term (6-10 years)</b>  | <i>Major mechanical upgrade and facilities turnover/upgrades under our long-range facilities planning, which includes energy efficiency considerations.</i>                |
| <b>Please describe your strategy's goals (if any) related to energy audits.</b> | <i>To methodically and comprehensively identify deficiencies in potential efficiencies.</i>  |

What % on average of your building portfolio has an energy audit completed each year (if any)?

100%

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

*As funding is available SD8 is modernizing its buildings including mechanical building envelope efficiencies.*

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

2%

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

NA

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

*We do major projects at 3-5 out of our 35 building annually.*

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.)

*We do major projects at 1-2 out of our 35 building annually.*

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

NA

What % on average of your building portfolio do you recommission each year?

0%

Do you keep records of Refrigerant gases<sup>1</sup> category and refilling volumes?

[1] Fugitive emissions from stationary cooling equipment are attributed to the leakage and loss of HFC and PFC based coolants from air conditioning and commercial type refrigeration systems. Coolant loss can occur during the manufacturing, operation, and disposal of such equipment. Gases that may be reported via CGRT include HFC R-134, HFC R-134a, HFC R-404a, HFC R-407c, HFC R-410a.

No

What, if any, mitigation approaches have been considered? Please describe.

NA

How many newly constructed buildings received at least LEED Gold certification in 2019?

NA

How many newly constructed buildings did not receive LEED Gold certification?

NA

Please explain why LEED Gold certification was not obtained for those new buildings.

NA

Other actions? Please describe briefly:

NA

## Mobile Sources (Fleet Vehicles, Off-road/portable Equipment): Fuel Combustion:

Actions taken by your organization in 2019 to support emissions reductions from mobile sources?

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

Yes

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

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

*Employee EBike purchase program. In fleet vehicles efficiency is a purchase decision factor.*

Over the long term (6-10 years)

*Employee EBike purchase program. In fleet vehicles efficiency is a purchase decision factor.*

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

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

0

“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

50

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

*For school buses we follow Ministry of Education recommendations. We are reviewing propane and electrical buses options.*

Actions taken by your organization in 2019 to support emissions reductions from mobile sources? (Continued)

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

Level 2?

0

Level 3?

0

How many level 2 stations (if any) are specifically for your fleet vehicles?  
As defined as Level 2 stations only your organization's fleet vehicles may use

0

How many level 3 stations (if any) are specifically for your fleet vehicles?  
As defined as Level 3 stations only your organization's fleet vehicles may use

0

How many EV charging station(s) did you install in 2019 in each category:

Level 2?

0

Level 3?

0

How many level 2 stations (if any) were installed specifically for your fleet vehicles?  
As defined in the previous section

0

How many level 3 stations (if any) were installed specifically for your fleet vehicles?  
As defined in the previous section

0

Please briefly describe any other related actions, (e.g. charging station feasibility studies, electrical panel upgrades, etc.)

NA

Please indicate the total number of the vehicles in the following vehicle classes that are in your current fleet

**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)

Light duty vehicles (LDVs)

Electric Vehicles – EV - (e.g., Nissan Leaf, Chevy Bolt)

0

“Plug In” Electric Vehicle – PHEV -- (e.g., plug-in Prius, Chevy Volt)

0

Hybrid vehicles – HEV – (e.g., non “Plug In”- older Toyota Prius, Toyota Camry hybrid)

0

Hydrogen fuel cell vehicles

0

Natural gas/propane

0

Gas/diesel

0

#### Light duty trucks (LDTs)

Electric Vehicles – EV

0

“Plug In” Electric Vehicle – PHEV

0

Hybrid vehicles – HEV – (e.g., non “Plug In”- older Ford Escape Hybrid, older Chevrolet Silverado pickup hybrid, etc)

0

Hydrogen fuel cell vehicles

0

Natural Gas/propane

0

Gas/diesel

25

#### Heavy duty vehicles (HDV)

Electric Vehicles – EV

0

“Plug In” Electric Vehicle – PHEV

0

Hybrid vehicles – HEV – (e.g., non “Plug In”)

0

Hydrogen fuel cell vehicles

0

Natural Gas/propane

0

Gas/diesel

5

Actions taken by your organization in 2019 to support emissions reductions from paper supplies.

Briefly describe your organization's plans to continue reducing emissions from paper use:

Over the medium-term (1-5 years)

*Launched a new photocopy/printing agreement with usage monitoring. Implementing the next phase of our photocopy/printing software to lead to greater paper use reductions.*

Over the long term (6-10 years)

*Commitment to use more online forms and resources to reduce printing at Schools and Board Office. Continued use of online meeting platforms to reduce emissions due to driving.*

Do you have an awareness campaign focused on reducing office paper use?

Yes

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

No

Other 2019 actions, please specify

NA