



**School District 5**  
**Southeast Kootenay**

## **Carbon Neutral Action for 2018**

### **Emissions Reduction Report**

#### **Declaration statement**

This is the 2018 Carbon Neutral Action Report (CNAR) for School District No. 5. This report contains our 2018 emissions profile, offsets purchased, the actions we have taken this year to reduce our GHG emissions and our plans to continue reducing emissions in 2019 and beyond.

By June 30, 2019, School District No. 5 final CNAR Report will post to our website at  
[www.sd5.bc.ca](http://www.sd5.bc.ca)

#### **Overview**

School District No. 5 has continued to work towards reducing emissions this year. As you will read, we have been working towards our goal of carbon neutrality.

All of our departments continue to be in the mindset of reducing unnecessary emissions where they can. This is from removing inefficient printers to purchasing energy saving appliances. I believe our goal of working with staff and students to become more energy wise has paid off and will continue to pay off in the years to come.

School District No. 5 was one of five districts working with the Government and BC Hydro who have hired an Energy Manager who will be helping us to reduce our Carbon Footprint. I have included a number of our successes below.

**Technology:** We have now moved forward with our revised Five Year Tech Plan. Replacing older computers with new ones.

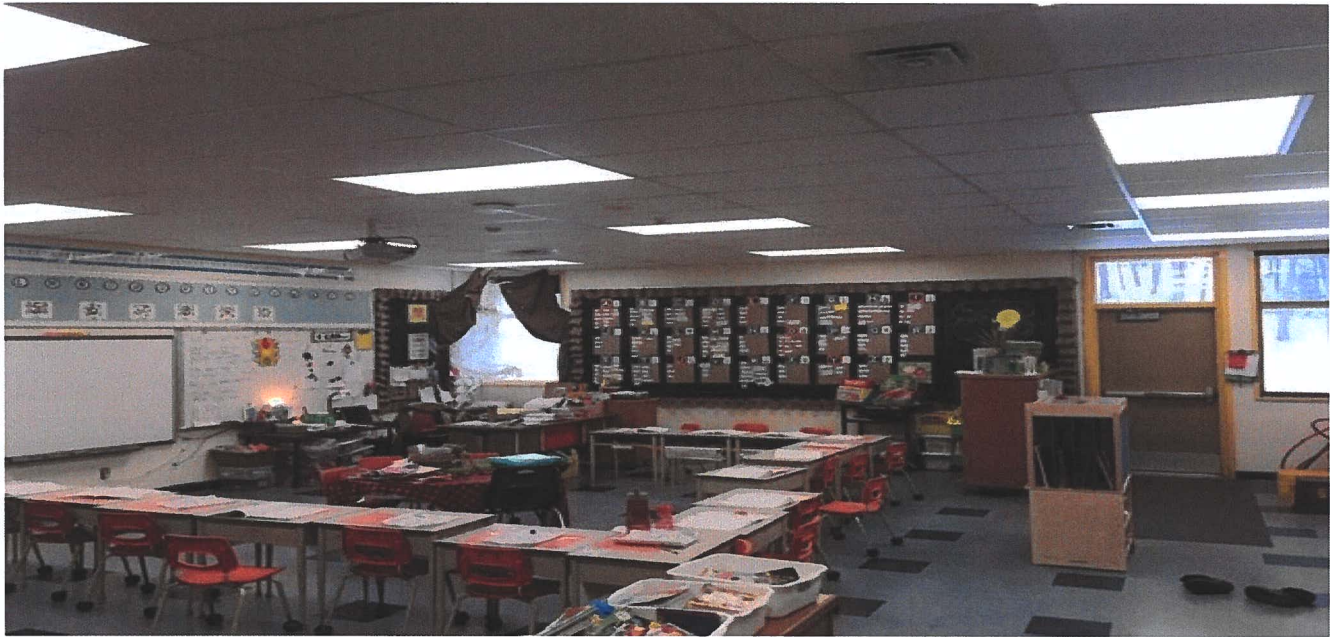
**Electrical:** Our district has been replacing older light fixtures with LED lights and kits where possible. This reduces the use of KWH by an average of 40 %.

- We have completed three (3) lighting upgrades this year.
- Changing to LED technology from older fluorescent lighting. With this change, we put in dimming switches in all the classrooms allowing the teachers to lower the light levels as needed.
- The response we received from the staff has been very positive as well as lowering our overall costs of energy.

**Highlands Elementary** was the first to be completed from old lighting in the gym to LED.

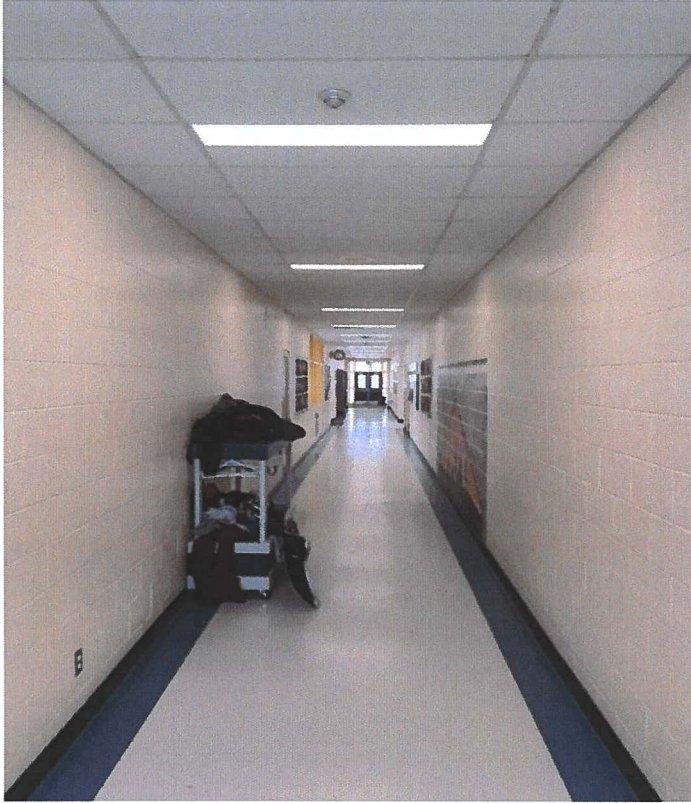


**Steeple Elementary** was the next to be completed.

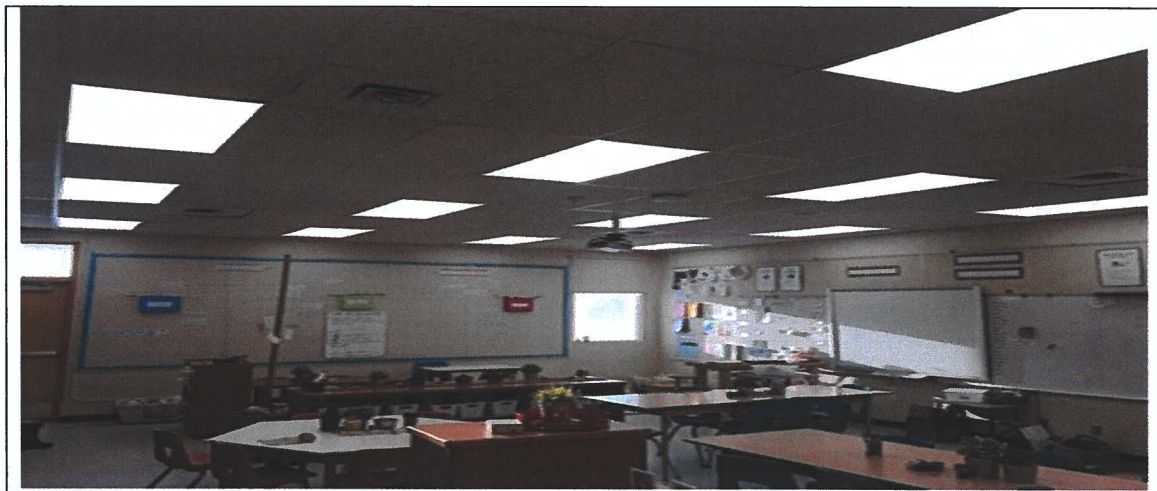




- The new lighting brightened up the rooms as well as the hallways.
- The staff tell us that not only does the lighting in the hallways allow the staff to see what is going on better but also seems that the students are better behaved.



**Pinewood Elementary** was the third school.



- The installation of LED lights in these schools went very well, and we are very happy with the results.

## HVAC:

We finished up a HVAC upgrade at Rocky Mountain Elementary School, where we removed 2 Weil-McLain Model LGB-12 and replaced them with 5 IBC Condensing Boilers.



Our 5-year plan will include more energy efficient boilers for schools with older systems. This coming year we will be upgrading Fernie Secondary School with the same kind of boilers and will be expecting similar results that we are now seeing at Rocky Mountain Elementary School.

## Our Schools

School	Contact	Carbon Footprint
Highlands Elementary	Bill Johnson	<ul style="list-style-type: none"> <li>• Recycling program for both refundable and non-refundable materials.</li> <li>• A garden, traditional and worm composting program.</li> <li>• Waste-less Wednesday with challenges for classes to bring no garbage (only reusable containers) for lunches and snacks.</li> <li>• Motion activated room lights.</li> <li>• Filtered water fountain (reduced use of plastic water bottles).</li> <li>• Idle-free zones.</li> <li>• Encourage students and staff to walk or bike to school.</li> </ul>
Mount Baker Secondary	Viveka Johnson	<ul style="list-style-type: none"> <li>• Recycling program.</li> <li>• Earth Day - cleaning garbage around the community.</li> <li>• Bee garden in our courtyard to encourage bees.</li> <li>• Ride your Bike to Work week.</li> <li>• Idle-free zones.</li> <li>• Leadership students are doing a reusable straw campaign.</li> </ul>
Sparwood Secondary	Jaslene Atwal	<ul style="list-style-type: none"> <li>• Earth Day - school yard cleanup.</li> <li>• Refundable and non-refundable recycling.</li> <li>• Computer recycling - students use the old computers for parts and create new desktop computers to donate back to those in need in the community.</li> <li>• Video game console recycling - refurbish and give to students in need.</li> <li>• Hydroponics - science students grow food for the foods classes.</li> <li>• Outdoor gardening.</li> <li>• Motion light sensors in classrooms.</li> <li>• Idle-free zones.</li> </ul>



Amy Woodland Elementary	Aaron Thorn	<ul style="list-style-type: none"> <li>• Recycling bins in the school hallways, classrooms and common spaces.</li> <li>• Grade 6 leadership group does all of the recycling.</li> <li>• Maximize the number of students on school bus trips.</li> <li>• Walk to swimming pool and skating rink (weather permitting).</li> </ul>
Laurie Middle	Michelle Sartorel	<ul style="list-style-type: none"> <li>• Recycling - early stages of greater buy in.</li> <li>• Cardboard, paper and plastics refundable - sold to support an African school project (Kimmi Toyota).</li> <li>• Composting - started last year - beginning stages of promoting awareness.</li> <li>• Battery recycling.</li> <li>• Stewardship grade 7 class - promoting reduction, social awareness, whole school buy in.</li> <li>• School yard clean up.</li> <li>• Garden boxes - herbs &amp; flowers.</li> <li>• LED low lighting pilot project.</li> </ul>
Fernie Secondary	Linda Christenson	<ul style="list-style-type: none"> <li>• Grade 7's are part of a composting project.</li> <li>• Grade 9 Science are looking at reducing one-use plastics. In conjunction with Wildsight's "Re-think Plastics."</li> <li>• Leadership Grade 8/9 are looking at a cigarette campaign in partnership with City of Fernie.</li> <li>• Staff usually does Ride your Bike to Work Week- May 28th- June 1st.</li> <li>• Students ride bikes daily.</li> <li>• Resource room students collect recyclable bottles on a daily basis. Bins are placed in hallway.</li> <li>• Earth Day – classes made reusable bags out of t-shirts. Community Clean Up.</li> <li>• Cafeteria uses all biodegradable one-use containers (will be exploring options in future).</li> </ul>

Fernie Secondary	Linda Christenson	<ul style="list-style-type: none"> <li>• District indicated FSS would have a lighting change this summer to reduce carbon footprint.</li> <li>• Filtered water fountains encourage bring your own bottle.</li> </ul>
Jaffray Elementary Junior Secondary	Erin Boehm	<ul style="list-style-type: none"> <li>• School wide recycling program.</li> <li>• Composting.</li> <li>• Boxed garden project.</li> </ul>
Pinewood Elementary	Judi Poole	<ul style="list-style-type: none"> <li>• Recycling program.</li> <li>• Filtered water fountains encourage bring your own bottle.</li> <li>• Idle-free zones.</li> </ul>
Gordon Terrace Elementary	Michelle Iacobucci	<ul style="list-style-type: none"> <li>• A recycling and composting program that the classes run.</li> <li>• Walking field trips as much as we can.</li> <li>• When busses are needed for field trips, we only book when we need and can fill them.</li> </ul>
FJ Mitchell Elementary	Lois Ehman	<ul style="list-style-type: none"> <li>• Paper recycling program.</li> <li>• Milk and juice container recycling program.</li> <li>• Recyclable containers in lunch kits which are sold at beginning of the year.</li> <li>• Foods to Farm program - each class puts food scraps in after lunch. Buckets are collected and sent off to a local farm to feed the animals.</li> <li>• Filtered water fountains.</li> <li>• Motion activated lights.</li> <li>• Ride your bike to school initiative.</li> <li>• Walk vs bus to swimming and skating (weather permitting).</li> </ul>



T.M. Roberts Elementary	Carissa Hart	<ul style="list-style-type: none"> <li>• Composting program at our school.</li> <li>• Our Ab Ed Support worker takes compost away weekly for her goats and chickens.</li> <li>• Grade 5 students do the refund-it recycling program. The funds raised support their classroom learning.</li> <li>• Library teacher re-uses photo copy paper that has one side blank for her library club.</li> <li>• For pancake breakfasts, students are asked to bring in their own plates and cutlery.</li> <li>• We're proud of our school garden and want to add garden beds to it so that students can grow their own food.</li> <li>• Grade 6's held a litterless lunch for Earth Day. We encourage families to continue to decrease their garbage.</li> <li>• Many teachers teach students to plant food.</li> <li>• Grade 2/3 class is growing tomatoes and just finished growing beans.</li> <li>• French K class is learning about different ways to grow food. They have already used seeds and now they're learning to separate mint roots to grow more mint.</li> <li>• Initiatives like Bike to Work week.</li> <li>• Looking to start recycling our brown paper towel.</li> <li>• Looking for a fundraiser that sells eco-friendly lunch gear.</li> </ul>
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## Conclusion

School District No. 5 is working to reduce our use of energy and save resources where possible. In the future, we will become more energy efficient to reduce our consumption even more.

### Emissions and Offset Summary Table

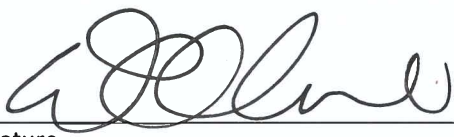
<b>School District No.5 GHG Emissions and Offset for 2018 (tCO<sub>2</sub>e)</b>	
<b>GHG Emissions created in Calendar Year 2018:</b>	
Total Emissions (tCO <sub>2</sub> e)	3,055
Total Offsets (tCO <sub>2</sub> e)	2,436
<b>Adjustments to GHG Emissions Reported in Prior Years:</b>	
Total Emissions (tCO <sub>2</sub> e)	N/A
Total Offsets (tCO <sub>2</sub> e)	N/A
<b>Grand Total Offsets for the 2018 Reporting Year:</b>	
Grand Total Offsets (tCO <sub>2</sub> e)	2,436

### Retirement of Offsets

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District No. 5 (Southeast Kootenay) 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 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

	May 17, 2019
Signature	Date
D Alan Rice	Secretary-Treasurer
Name (please print)	Title

# Part 1: CNAR Survey

## 1. General Information

**Name:** Joe Tank

**Contact Email:** Joe.tank@sd5.bc.ca

**Organization Name:** School District No.5

**Sector:** School District

**Role** - Please select your role(s) below.

*If more than one individual completed the survey, multiple categories may be selected:*

Energy Manager: No

Sustainability Coordinator: No

Administrative Assistant: No

Facilities/Operations Manager/Coordinator: Yes

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?: To reduce the amount of Natural gas and Electricity our School District uses.

##### 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)

We are working towards getting more efficient boilers put into our schools. We are also changing most of our lighting to LED.

We will start to look at electric vehicles and electrical Filling stations.

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

Look in to Thermal heating

##### c) Please describe your strategy's goals (if any) related to [energy audits](#).

We have our engineering company go through our facilities each year and review a strategy with them.

I. What % on average of your building portfolio has an energy audit completed each year (if any)?: 35



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

Bring down the usage of energy in all of our buildings.

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.) (%): 10

Major retrofits (e.g., replacing windows and doors, equipment replacement such as boilers, etc.) (%): 5

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.) (%): 5

I. What % on average of your building portfolio do you recommission each year?: 0

**f) Do you keep records of Refrigerant gases category and refilling volumes?**

No

**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

II. Please explain why LEED Gold certification was not obtained.

We did not have any new construction

**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)

We will be looking at moving towards electric vehicles.

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

We will look at electric vehicles.

**c) 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: 2

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

We have a very cold climate and feel at the time of purchase the alternative vehicles would not meet our needs. We are reevaluation our thinking and we will look at these options in the future.

**d) 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: 0

How many level 3 stations (if any) are specifically for your fleet vehicles: 0

**e) How many EV charging station(s) did you install in 2018 in each category:**

level 2: 0

level 3: 0

How many level 2 stations (if any) were installed specifically for your fleet vehicles: 0

How many level 3 stations (if any) were installed specifically for your fleet vehicles: 0

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

We are just beginning to look into these.

**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: 7

**b) Light duty trucks (LDTs)**

Gas/diesel: 14

**c) Heavy duty vehicles (HDV)**

Gas/diesel: 9

**5. Please indicate the number of the vehicles you plan to replace in your fleet:**

How much do you budget per LDV?: 30000

How many LDVs do you plan to procure annually over the next 5 years?: 2

How much do you budget per LDT?: 35000

How many LDTs do you plan to replace annually over the next 5 years?: 2

How much do you plan to spend per HDV?: 40000

How many HDVs do you plan to replace annually over the next 5 years?: 2

## **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?**

No

#### **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)**

We encourage staff to print as little as possible.

We have set the default on all printers to print double sided.

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

Look at a document storage strategy to help reduce printing.

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

No

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

No