



School District 5

Southeast Kootenay

Carbon Neutral Action for 2019

Emissions Reduction Report

Declaration statement

This is the 2019 Carbon Neutral Action Report (CNAR) for School District No. 5. This report contains our 2019 emissions profile, offsets purchased, the actions we have taken this year to reduce our GHG emissions and our plans to continue reducing emissions in 2020 and beyond.

By June 30, 2020, School District No. 5 final CNAR Report will post to our website at 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.

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

- Have invested in Paper Cut software to reduce the amount of printing and paper from all printers, and copiers in the district which helped with reduction of paper, ink and servicing of machines

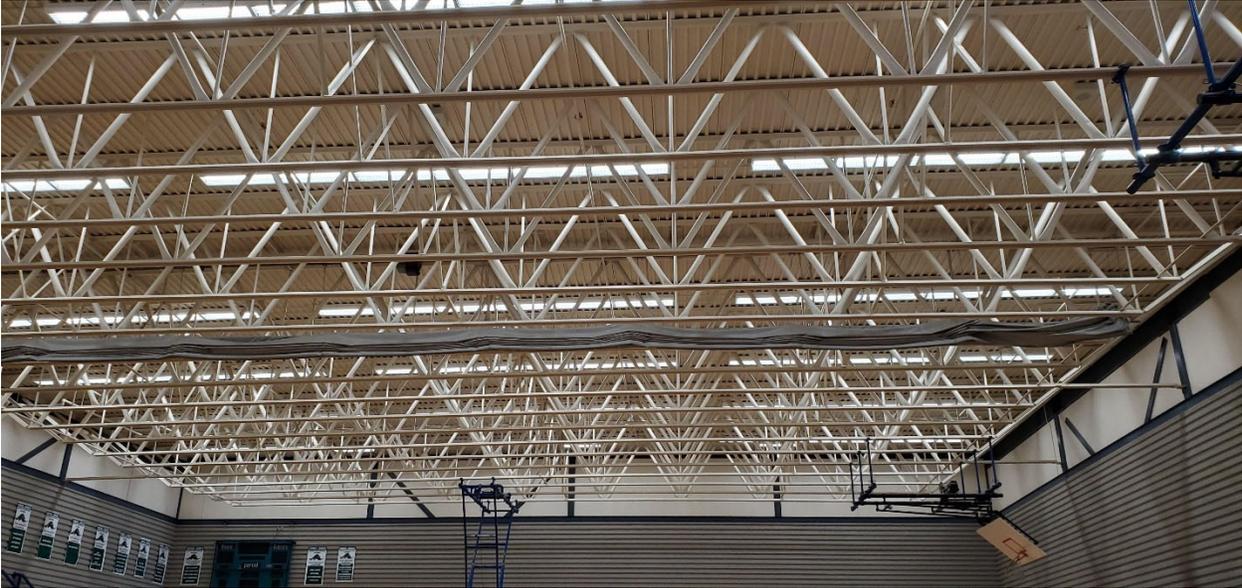
Electrical: Our district has been replacing older light fixtures with LED lights and kits where possible. This reduces the use of KWH by an average of 40 %.

- We have completed six (6) lighting upgrades this year. (IDES, TM, GTES, MBSS, FSS, JESS)
- 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.

Mount Baker Secondary School was the first to be completed from old lighting in the gym to



Fernie Secondary School was the next to be completed.



Jaffary Elementary Secondary School was the third school.



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

Isabella Dicken Elementary School was the fourth school.



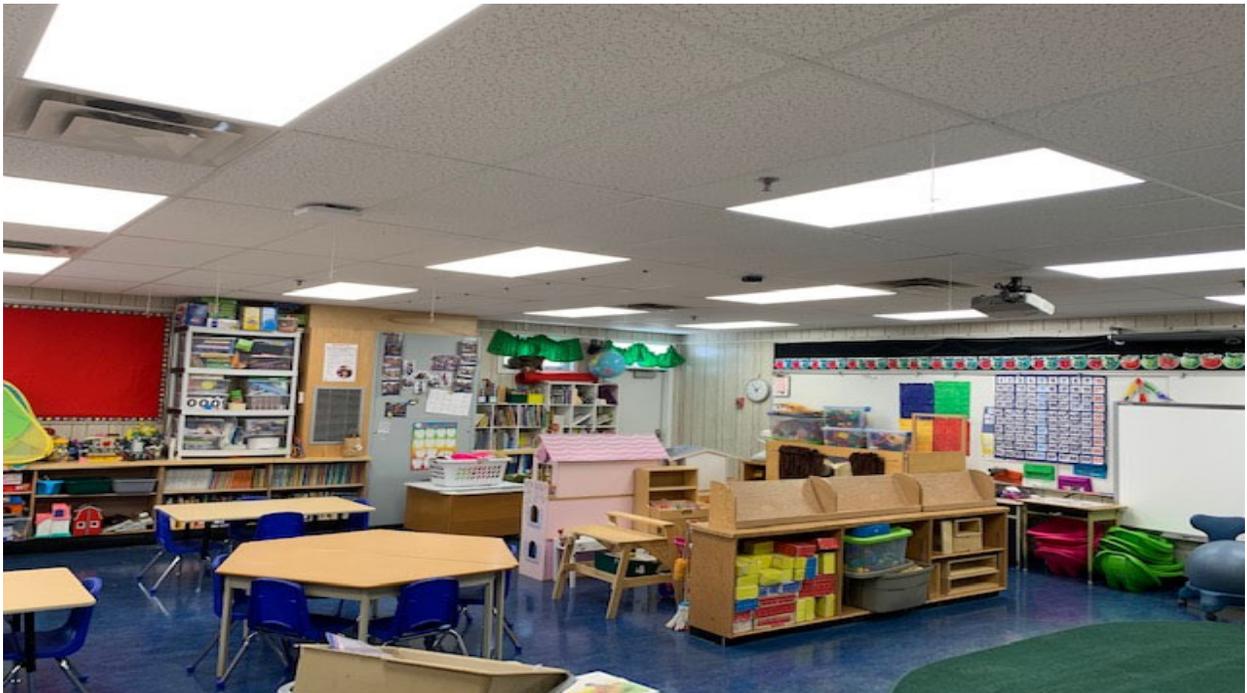
T.M. Roberts Elementary School was the fifth school.





Gordon Terrace Elementary School was the sixth school.





- 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.

HVAC:

Fernie Secondary School: We finished up a HVAC upgrade at, where we removed 8 Weil-McLain Model LGB-12 and replaced them with 10 IBC Condensing Boilers.



Fernie Secondary School: We replaced hot water tanks as well.



FJ Mitchell Elementary School: We upgraded six (6) furnaces at and one furnace at the Maintenance shop.





Elkford Secondary School: We upgraded energy efficient hot water tanks at the school.



Five Year Plan

Our 5-year plan will include more energy efficient boilers for schools with older systems. We will be continuing with replacing older light fixtures with LED lights and kits in other schools and offices.

This coming year we will be upgrading Mount Baker Secondary School gym with the same kind of boilers and will be expecting similar results that we are now seeing at Rocky Mountain Elementary School and Fernie Secondary School.

We have already put in an order for an electric school bus which will be put in use in 20/21 school year.

We are investing more in technology as well:

- Investing in School Messenger for increased digital newsletters and digital field trip forms, etc. This will help reduce paper, copying and time in delivery to parents;
- More video conferencing via Zoom and Teams helping to decrease mileage and travel cost throughout the District.
- Share-Ed Remote Resources will increase remote learning resources helping to decrease the need for paper based resources and transportation of physical resources.

We are also looking into Geo-fields at Mount Baker Secondary School and at Kootenay Orchard Elementary School.

Our Schools

School	Contact	Carbon Footprint
Amy Woodland Elementary	Aaron Thorn	<ul style="list-style-type: none">  Recycling bins in the school hallways, classrooms and common spaces.  Grade 6 leadership group does all of the recycling  Maximize the number of students on school bus trips.  Walk to swimming pool and skating rink {weather permitting)
Fernie Secondary	Erin Hay	<ul style="list-style-type: none">  Ongoing Environmental awareness campaign by student council  Staff usually does Ride your Bike to Work Week- May 28th- June 1st  Students ride bikes daily  Resource room students collect recyclable bottles on a daily basis. Bins are placed in hallway.  Earth Day - classes made reusable bags out of off-shirts. Community Clean Up.  Cafeteria uses all biodegradable one-use containers {will be exploring options in future)  Lights in Traynor Hall and gym have been changed to LED  Disposed old, inefficient refrigerators  Filtered water fountains encourage students to bring their own bottles
FJ Mitchell Elementary	Lois Ehman	<ul style="list-style-type: none">  Paper recycling program  Milk and juice container recycling program  Recyclable containers in lunch kits which are sold at beginning of the year  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  Filtered water fountains  Motion activated lights  Ride your bike to school initiative  Walk vs bus to swimming and skating (weather permitting)
Gordon Terrace Elementary	David Martin	<ul style="list-style-type: none">  A recycling and composting program that the classes run  Walking field trips as much as we can  When busses are needed for field trips, we only book when we need and can fill them

Highlands Elementary	Bill Johnson	<ul style="list-style-type: none">  Recycling program for both refundable and non-refundable materials  A garden, traditional and worm composting program.  Waste-less Wednesday with challenges for classes to bring no garbage (only reusable containers) for lunches and snacks.  Motion activated room lights  Filtered water fountain (reduced use of plastic water bottles)  Idle-free zones  Encourage students and staff to walk or bike to school  LED lighting installed
Isabella Dicken Elementary	Janet Kuijt	<ul style="list-style-type: none">  Yearlong Recycling Program - Gr 6's  Yearlong Composting Program - Gr 4's  Earth Day "Remote" Clean Up's - promoted by teachers for interested families  School yard Clean Up - April (and yearlong with various classes)  Water Walker Protectors Project- Ms. Murray's Gr 2 class  Filtered water fountain stations  Encouraging personal water bottles vs single use in all classes (has created a significant reduction in bottle recycling according to Gr 6 classes!)  Many grades walk to outings (swimming pool, skating, library, arts station)  Garden Boxes made from school recycled stairs wood & grew pumpkins (that were ready last fall!!)  Many classes grow plants from seeds for family gifts  Lots of staff bike & walk to school (especially during Bike to Work Week... this year is a bit different but lots of "Green" commuting to work)  Bike Road-rodeo & biking activities (ex: to tennis courts for Gr 6's)
Jaffray Elementary Secondary	Erin Boehm	<ul style="list-style-type: none">  School wide recycling program  Composting grade 3/4  Boxed garden project  Earth Day - school yard and community cleanup  Recycling bins in the school hallways, classrooms and common spaces  Grade 5 Eco Team – various projects  Grade 6 – Beyond Recycling  Concession – no single use plastics  Motion activated room lights

Laurie Middle	Michelle Sartorel	<ul style="list-style-type: none">  Recycling - early stages of greater buy in  Cardboard, paper and plastics refundable -sold to support an African school project (Kimmi Toyota)  Composting - started last year -beginning stages of promoting awareness  Battery recycling  Stewardship grade 7 class – promoting reduction, social awareness, whole school buy in  Garden boxes - herbs & flowers  LED low lighting pilot project  Band class Community Garbage Clean-Up in conjunction with Tim Hortons – garbage trucks are called in to deal with the waste from this neighbourhood clean up  Compass Class  Increasing classroom recycling
Mount Baker Secondary	Viveka Johnson	<ul style="list-style-type: none">  Earth Day - cleaning garbage around the community.  Bee garden in our courtyard to encourage bees.  Ride your Bike to Work week.  Idle-free zones.  Leadership students are doing a reusable straw campaign  Green Alliance Club  Mason Bees and our indigenous pollinator garden
Pinewood Elementary	Judi Poole	<ul style="list-style-type: none">  Recycling program  Filtered water fountains encourage bring your own bottle  Idle-free zones  School yard and community clean up – Earth Day
Rocky Mountain Elementary	Laura Lee Phillips	<ul style="list-style-type: none">  Paper recycling program  Milk and juice container recycling program encourage bring your own bottle-do not sell juice boxes for events  Filtered water fountains  Motion activated lights  composting program that the classes run  Walking field trips as much as we can  When busses are needed for field trips, we only book when we need and can fill them  Greenhouse  Earth Day clean up days  Idle free zones  Recycling bins in the school hallways, classrooms and common spaces.  Recycling bins in the school hallways, classrooms and common spaces

<p>Sparwood Secondary</p>	<p>Jaslene Atwal</p>	<ul style="list-style-type: none">  Earth Day - school yard cleanup  Refundable and non-refundable recycling  Computer recycling - students use the old computers for parts and create new desktop computers to donate back to those in need in the community  Video game console recycling - refurbish and give to students in need  Hydroponics - science students grow food for the foods classes  Outdoor gardening  Motion light sensors in classrooms.  Walking to the swimming pool and skating rink  Worm Composting  Battery recycling  Bring your own water bottle  Bus sharing for trips with Elkford and Fernie  Idle-free zones
<p>Steeple Elementary</p>	<p>Chris Catherall</p>	<ul style="list-style-type: none">  "Keepers of the Earth" (on-going school grounds clean-up)  Battery recycling  Photocopier supplies recycling  Walking to fieldtrips/events whenever possible  Recycling program for both refundable and non-refundable items  Courtyard garden  Worm composting  Motion-activated, LED lighting  Filtered water fountain  Recycling bins in classrooms and common spaces
<p>TM Roberts Elementary</p>	<p>Carissa Hart</p>	<ul style="list-style-type: none">  Library teacher re-uses photo copy paper that has one side blank for her library club  For pancake breakfasts and movie nights, students are asked to bring in their own plates and cutlery  Garden beds for food  Garden Club, to teach students how to grow their own  Participates in the refund-it program  Many teachers teach students to plant food  Students encouraged to fill water bottles  Students discouraged from bringing juice boxes and sugary drinks  French K class is learning about different ways to grow food

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

<i>School District No.5 GHG Emissions and Offset for 2018 (tCO₂e)</i>	
GHG Emissions created in Calendar Year 2018:	
Total Emissions (tCO ₂ e)	3,055
Total Offsets (tCO ₂ e)	2,436
Adjustments to GHG Emissions Reported in Prior Years:	
Total Emissions (tCO ₂ e)	N/A
Total Offsets (tCO ₂ e)	N/A
Grand Total Offsets for the 2018 Reporting Year:	
Grand Total Offsets (tCO ₂ 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 2019 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 27, 2020

Signature

Date

Name: Alan Rice

Title: Secretary Treasurer

Confirmation number: 00C55418

Submitted date: 2020-06-26 10:33:05 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 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">The final, signed version of the CNAR (or Small Emitters Form) must be submitted by email to: Carbon.Neutral@gov.bc.ca
June 30, 2020*	<ul style="list-style-type: none">Ministry of Environment and Climate Change Strategy must post a final CNAR for each organization on the BC Government's CNG website and each PSO is encouraged to post the report on their website.The CNAR Survey (optional for Small Emitters) must be completed and submitted online. *Deadline extended from May 29, 2020.<u>All offset invoice payments must be submitted to CAS.</u>
Sept 30, 2020*	<ul style="list-style-type: none">Clean Government Reporting Tool (CGRT) Data Entry must be completed for the 2019 reporting year.

	*Deadline extended from April 30, 2020.
Oct 15, 2020*	<ul style="list-style-type: none"> • Self-Certification checklist must be completed, signed and submitted by email to: Carbon.Neutral@gov.bc.ca. *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](#).

Contact Name:	Vintee Kaushal
Contact Email:	vintee.kaushal@sd5.bc.ca
Organization Name:	School District 5 (Southeast Kootenay)
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:	Treasurer/Accounting
Please select your sector:	School District (SD)

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

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

Over the medium-term term (1-5 years)	<p><i>We have now moved forward with our revised Five Year Tech Plan. Replacing older computers with new ones.</i></p> <p><i>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 %.</i></p> <p><i>We finished up a HVAC upgrade at, where we removed 8 Weil / McLain Model LGB#12 and replaced them with 10 IBC Condensing Boilers.</i></p> <p><i>We are purchasing an electric bus in the coming fiscal year.</i></p>
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Over the long term (6-10 years)

*Continue with our strategy from 1-5 years.
We are also looking into Geo fields at Mount Baker Secondary School and at Kootenay Orchard Elementary School.*

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

We had Falcons Engineering do our energy audits and we are working through the findings of those audits.

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

10

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

We replaced old lighting with new LEDs

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

10

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

Change Lighting to LED lights

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

Upgraded boiler at FSS

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.)

None

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

None

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

None

Do you keep records of Refrigerant gases¹ 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.

We hire professional contractors to do this work

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

None

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

None

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

None

Other actions? Please describe briefly:

None

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)

Purchase atleast one electric bus per year for the next five years

Over the long term (6-10 years)

*To continue buying electric buses and then invest in electric service vehicles.
We are also looking into purchasing electric LDV.*

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

3

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

*One diesel bus was purchased, because electric wasn't in our budget.
Two service vehicles were purchased as there was no electric option.*

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.)

N/A

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

2

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

0

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)

*We encouraged staff to print less and make use of pdf documents.
We are investing in Papercut software in the next fiscal year to help minimize the paper usage*

Over the long term (6-10 years)

Continue with the above strategy.

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

None