



School District No. 5 (Southeast Kootenay)

2022 PSO Climate Change Accountability Report

Emissions Reduction Report

Declaration statement

This PSO Climate Change Accountability Report (CCAR) for the period January 1, 2022 to December 31, 2022, summarizes the greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions and the actions School District No. 5 (Southeast Kootenay) (the District) has taken in 2022 to reduce the GHG emissions and the plans to continue reducing emissions in 2023 and beyond.

By June 30, 2023, the District's final CCAR Report will be posted to the website at www.sd5.bc.ca

Overview

The District has continued to work towards reducing emissions this year. The District has been working towards the goal of carbon neutrality.

All departments continue to be in the mindset of reducing unnecessary emissions by removing inefficient printers and purchasing energy saving appliances. The District believes the goal of collaborating with staff and students to become more energy wise has paid off and will continue to pay off in the years to come.

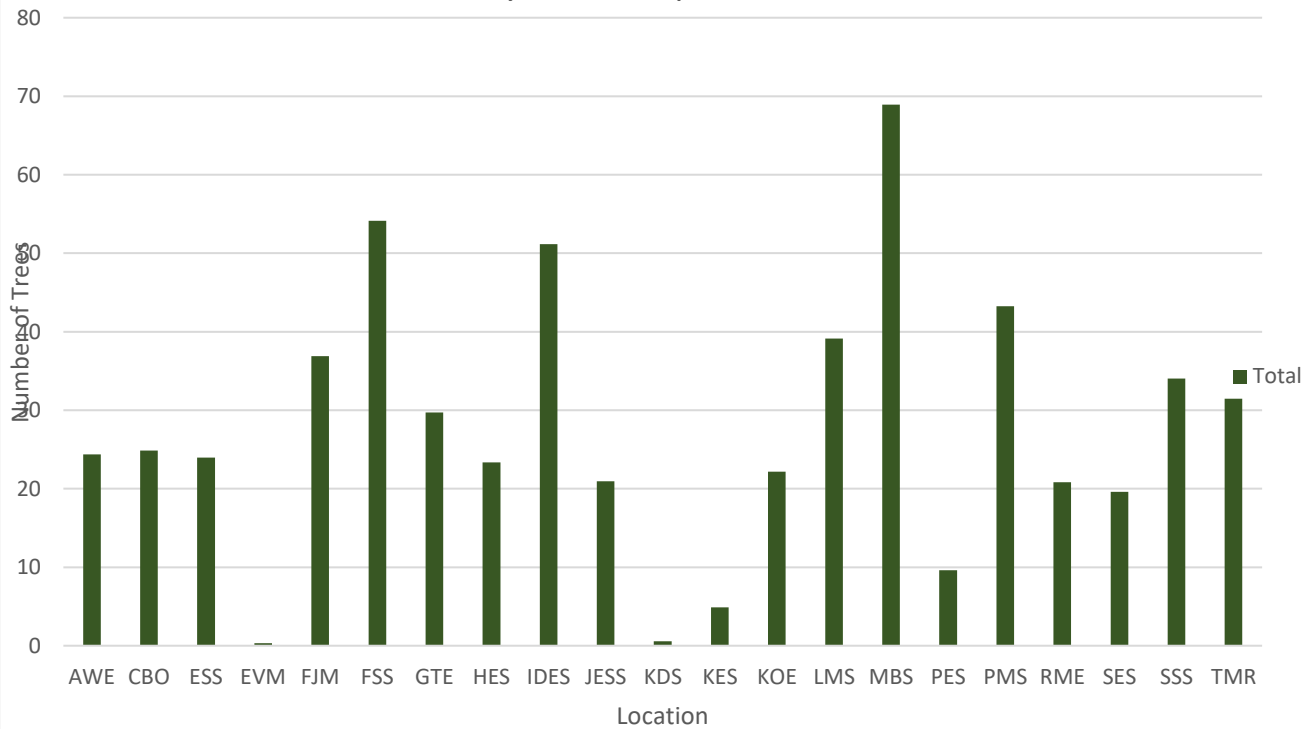
Technology

The District has now moved forward with the revised Five-Year Tech Plan. This plan involves replacing older computers and photocopiers with new ones.

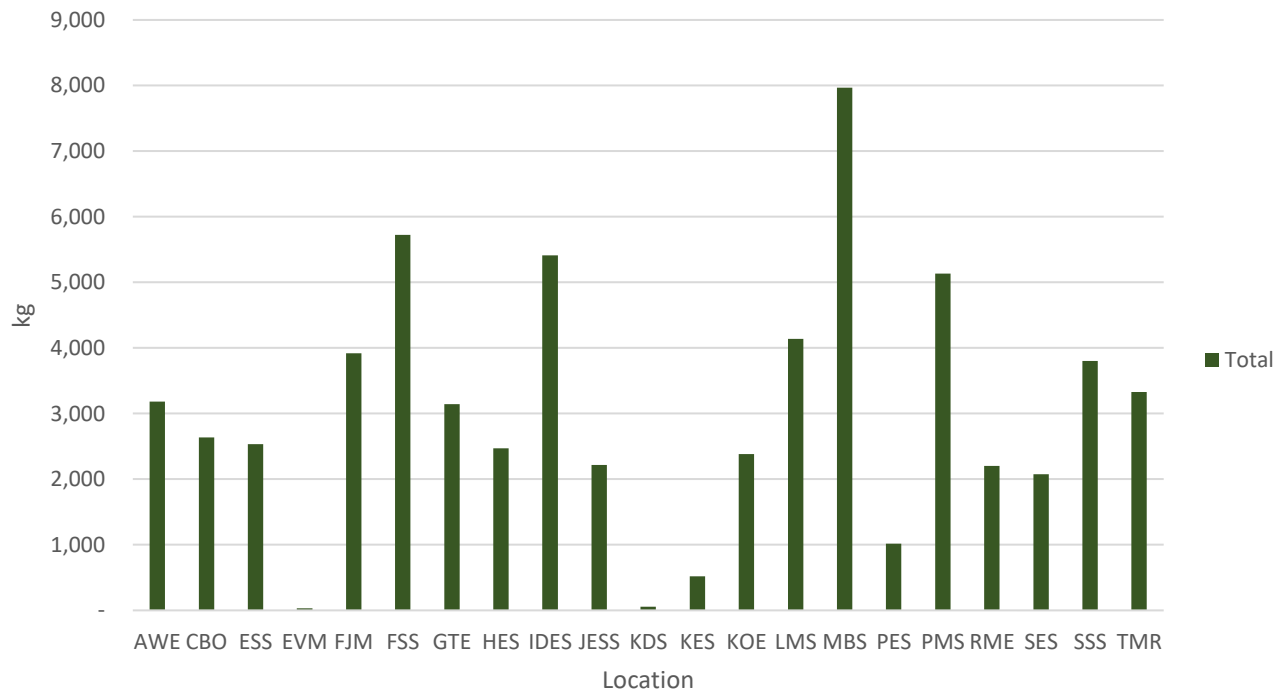
- The District is using Paper Cut software to reduce the amount of printing and paper output.
- The District is using on-line forms to reduce paper sent home to families.

The following charts summarize the District printer environmental impact:

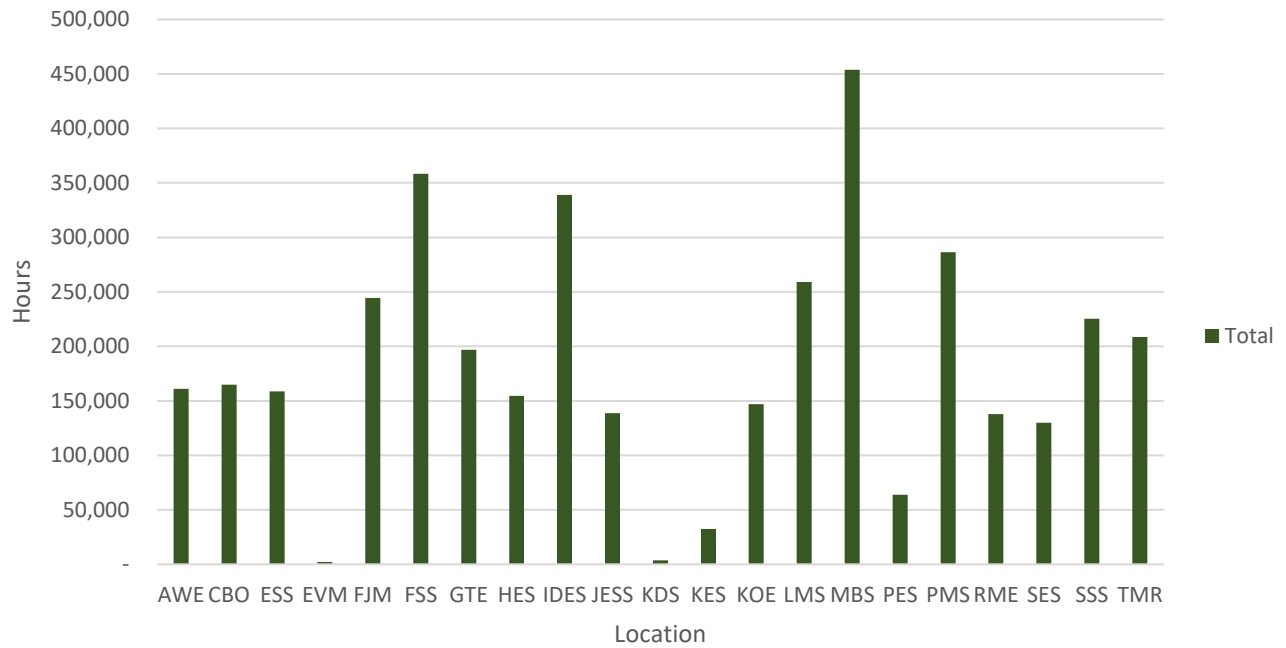
Total Trees Consumed by Location
July 1, 2022-April 28, 2023



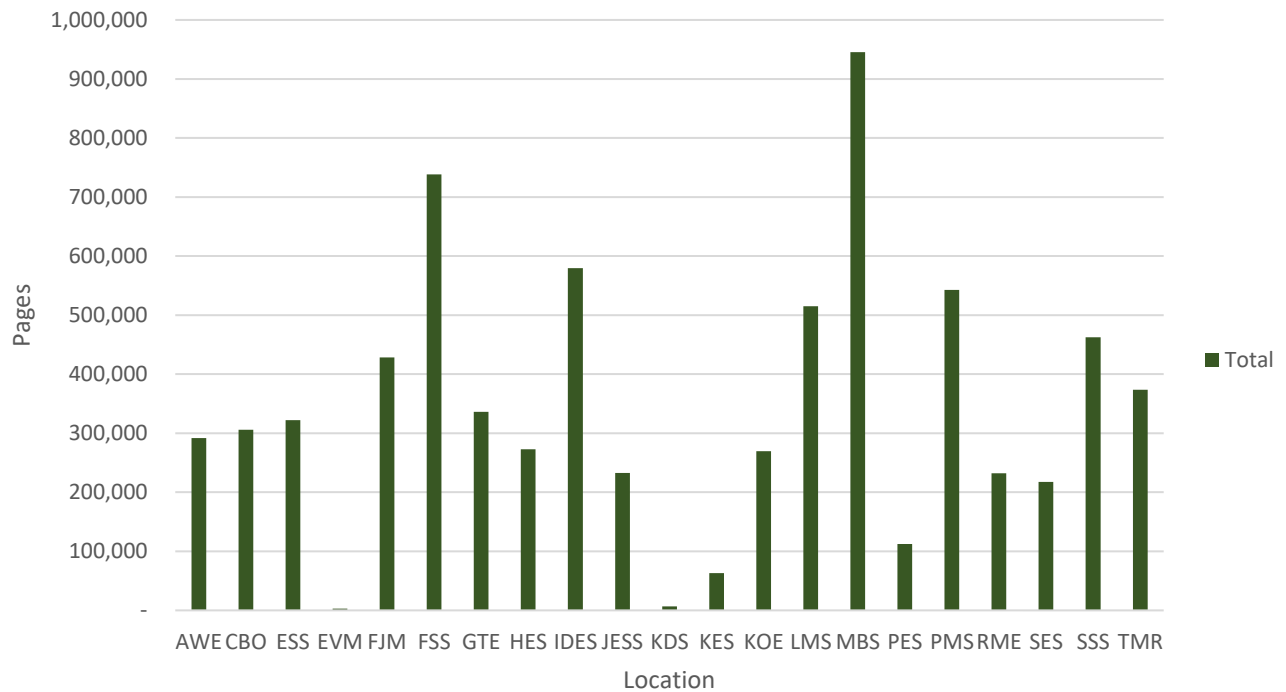
Total CO₂ Produced by Location
July 1, 2022-April 28, 2023



The manufacturing energy used to produce the paper, represented
as the energy consumed by a standard light bulb in hours
July 1, 2022-April 28, 2023



Total Pages Printed
July 1, 2022-April 28, 2023



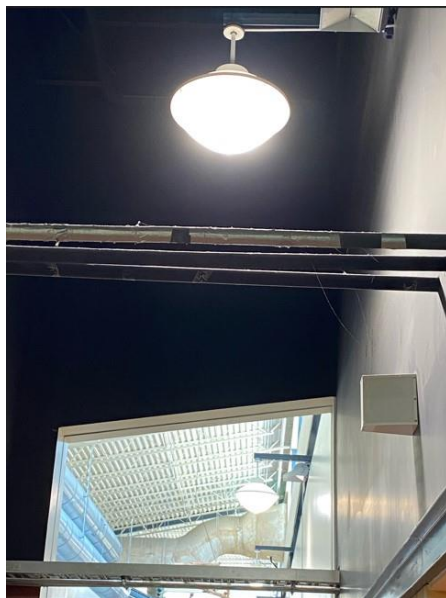
Electrical

The District has been replacing older light fixtures with LED lights and kits. This reduces the use of KWH by an average of 40%.

Fernie Secondary School

- Completed 85% lighting upgrade this year at Fernie Secondary School. (FSS)
- Changed to LED technology from older fluorescent lighting. The LED technology includes 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 positive as well as lowering the overall energy costs.

Pictured below are images of the new lighting:



- The new lighting brightened up the rooms and the hallways.
- The new lighting allows staff to see students better and encourages better behaviour.

Rocky Elementary School

Last year, the District started to upgrade the lighting in the gym at Rocky Mountain Elementary School. The District changed the ballasts and put in LED tubing and has now received capital money to finish the rest of the school. This will be completing this over the summer.

Pictured below are images of the new lighting:



HVAC

We had no major HVAC upgrades this last year.

Transportation

The District purchased a second Electric bus this past year. It has been placed on the Gold Creek West run which about 83 km total each day. The District's bus drivers do a great job of using the power regenerative features of the buses.



For the electric bus, the District installed a DC charging station in last year and now have two Flo chargers.



Five Year Plan

The District's five-year plan will include more energy efficient boilers for schools with older systems. The District will continue to replace older light fixtures with LED lights and kits in schools and offices. This project will be completed by the end of the summer (2023).

The District continues to use an energy monitoring company to watch over the use of the energy systems. Prism Engineering provides an overview for year-to-date performance immediately through a customizable dashboard. This can clearly identify utility spending and savings among multiple sites.

The District is investing more in technology:






















- 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.































The District is looking into Geo-fields at Highland Elementary School and at Kootenay Orchard Elementary School. We are also looking into some solar initiatives.

























Our Schools






































The District has invested in a Foodcycler (indoor composter that works overnight) for the Board Office and a few pilot schools across the district to reduce food waste volume. The District is supporting schools with garden beds, greenhouse projects and planting of trees to reduce environmental impacts.


































The following are some of the initiatives the schools have taken during the year:

School	Contact	Carbon Footprint
Amy Woodland Elementary	Scott Holt	 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)
Elkford Secondary	Thomas Skelton	 Recycling bins in the school hallways, classrooms and common spaces  Maximize the number of students on school bus trips  Students ride bikes daily  Earth Day – students participated in garbage clean up  Filtered water fountains to encourage students to bring their own bottles  Motion activated lights  Idle Free Zones  Scrap paper re-use programs  Walk to School days
Fernie Secondary	Erin Hay	 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 (limited options during COVID)  Earth Day – Community Clean Up, school awareness and recognition, classroom resources provided.  Cafeteria uses all biodegradable one-use containers (will be exploring options in future)  Lights in Traynor Hall and gym have been changed to LED  Motion activated lights and heat  Disposed old, inefficient refrigerators  Filtered water fountains encourage students to bring their own bottles  Paper recycling  Pencil/pen recycling program (Staples)  Walking field trips all over the community  Gardening and food security program  Hydroponics systems for Science and foods using LED lights  Environmental Science Education for Grade 11
FJ Mitchell Elementary	Renee MacCormack	 Paper/cardboard recycling program  Foods to Farm program – students put 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 and dimmer switches

		 Ride your bike or walk to school initiative (active transportation)  Walk to swimming and skating (weather permitting) - walking field trips as much as possible  Marker recycling program  Promotion of garbage free lunches  Participation in Community clean-up for Earth Day – coordinated by a class  Composting program with Breakfast Club and at lunch  Staff carpool  Purchased a water bottle for every student to reduce single use plastics
Gordon Terrace Elementary	David Martin	 A recycling and composting program that the classes run  Walking field trips as much as possible  When busses are needed for field trips, we only book when we need and can fill them
Highlands Elementary	Chris Catherall	 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	Laura-Lee Phillips	 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)  Planting more trees in the playground  Recycling bins in all classrooms  Bottle & Juice recycling (raises funds for groups)  Idle Free signs /zones  Marker recycling program  Gr 5/ Gr 2 led plastics recycling project
Jaffray Elementary Secondary	Bill Johnson	 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  Reusable lunch bags distributed at Earth Day  Concession – no single use plastics  Motion activated room lights
Kootenay Orchards Elementary	Judi Poole	 Composting for the school garden  Encourage biking to school (participate in “WE Bike” yearly)  Encourage walking to field trips  Filtered water fountains  Gr. 6 recycling program  LED lighting installed  Participate in Earth Day – ‘Spring Spruce Up’ the community  School garden  Use of water bottles  Classroom recycling
Laurie Middle	Aaron Thorn	 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	Dave Hill	 Earth Day - cleaning garbage around the community.  Bee garden in our courtyard to encourage bees.

		 Ride your Bike to Work week.  Idle-free zones.  Green house and planter boxes in courtyard. Green Alliance Club  Mason Bees and our Indigenous pollinator garden  Mason Bees and our indigenous pollinator garden
Parkland Middle	Brenda Tyson	 Recycling bins in the school hallways, classrooms and common spaces.  Recycling program for both refundable and non-refundable materials  Food-Savers in 3 locations to collect and compost food waste/scraps  Students ride bikes, scooters, and walk daily  Students use public transportation system  Ride your bike to school initiative  Filtered water fountains encourage students to bring their own bottles  LED lighting installed  Motion activated lights  Battery recycling  Used pen, highlighter, white board marker recycling  Spring Spruce Up – neighbourhood clean up  Concession – no single use plastics  Salad Bar- no single use plates or cutlery
Pinewood Elementary	David Standing	 Recycling program  Filtered water fountains encourage bring your own bottle  Idle-free zones  School yard and community clean up – Earth Day
Rocky Mountain Elementary	Jennifer Adams	 Paper recycling program  Milk and juice container recycling program  Filtered water fountains  Motion activated lights  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 (with cohorts)  Earth Day school yard clean up days  Idle free zones  Many classes grow plants  Many staff and students ride bikes or walk when possible
Sparwood Secondary	Michael Kelly	 Earth Day - school yard cleanup  Refundable and non-refundable recycling  Hydroponics - science students grow food for the Foods classes  Motion light sensors in classrooms.

		 Changing lights to LED  Walking to the swimming pool and skating rink  Bring your own water bottle  Hot meals lunch program to reduce food packaging waste  Bus sharing for trips with Elkford and Fernie  Idle-free zones  Earth Science 11  New energy efficient appliances
Steeple Elementary	Erin Boehm	 “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  Non-food/drink product recycling bins in classrooms and common spaces
TM Roberts Elementary	Michelle Sartorel	 Library teacher re-uses photocopy paper that has one side blank for her libraryclub  Garden beds for food; expansion of garden  Composting  In-class composters  Garden Club, to teach students how to grow their own food  Many teachers teach students to plant food  Students discouraged from bringing juice boxes  Kindergarten learning about different ways to grow food  Pen recycling  Battery recycling  Ink cartridge recycling  Motion-activated LED lighting  Students encouraged to bring water bottles and use the filtered water refilling stations and drinking fountain  Recycling bins in classrooms and common spaces  Outdoor walking field trips

Conclusion

The District is working to reduce the use of energy and save resources where possible. In the future, the District will become more energy efficient to reduce our consumption even more.

SD5 2022 GHG Emissions and Offset Summary Table

School District No. 5 (Southeast Kootenay) 2022 GHG Emissions and Offsets Summary	
GHG emissions for the period January 1 - December 31, 2022	
Total BioCO ₂	20.9
Total Emissions (tCO ₂ e)	3,363
Total Offsets (tCO ₂ e)	2,864
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	0
Grand Total Offsets for the 2022 Reporting Year	
Grand Total Offsets to be Retired for 2022 Reporting Year (tCO ₂ e)	2,864
Offset Investment (\$)	2,864 x \$25 = \$71,600

Retirement of Offsets

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, the District is responsible for arranging for the retirement of the offsets obligation reported above for the 2022 calendar year, together with any adjustments reported for past calendar years.

The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy 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.

Public Sector Leadership

Climate Risk Management

- Currently the District has not engaged in conducting a climate risk assessment to understand the organization's risk exposure. We are looking at forming a committee in the coming years.
- The District is investigating future opportunities to invest in thermal and solar energy.
- In terms of operational and infrastructure changes in preparation for future climate impacts, the District has been investing in energy efficient boilers and hot water tanks in older schools to improve the efficiency and reduction in GHG emissions.
- In 2021 the region was slightly impacted by the heat wave. Not enough for the District to incur any extra costs or make changes to services being delivered to students and staff. For communities in the District that are not zoned for air conditioning, we are now investigating opportunities to install air conditioning;

Other Sustainability Initiatives

- As indicated in the report above, the District has small sustainability initiatives in the District schools and at the board office. These initiatives include the following:
 - Zoom/Teams meetings rather than travelling;
 - Carpooling when travelling for meetings;
 - Placement of recycling bins in classrooms and common areas;
 - Using reusable water bottles and lunch bags;
 - Walking/cycling for field trips;
 - Using E-forms and E-Docs to reduce paper printing;
 - Continuing to investigate utilizing hybrid and electric vehicles for the white fleet.
- By the end of 2022, the District completed most of the lighting projects in various schools and at the board office. The new energy saving lighting helped with decreasing wattage use. The staff also feel that the lighting in the hallways encourages students to be better behaved.

Executive sign-off

Signature:

Date



Name: Nick Taylor
Title: Secretary Treasurer

June 13, 2023