



School District No. 5 (Southeast Kootenay)

2023 PSO Climate Change Accountability Report

Emissions Reduction Report

Declaration Statement

This PSO Climate Change Accountability Report (CCAR) for the period January 1, 2023 to December 31, 2023, 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 2023 to reduce the GHG emissions and the plans to continue reducing emissions in 2024 and beyond.

By June 30, 2024, 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.

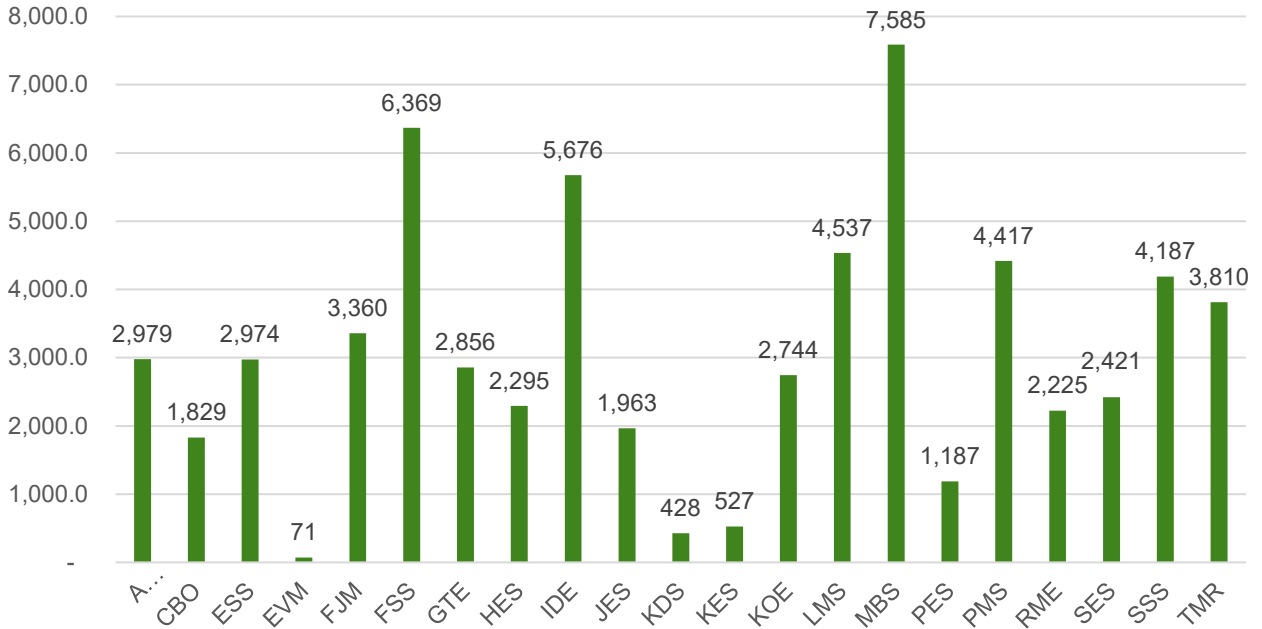
Technology

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

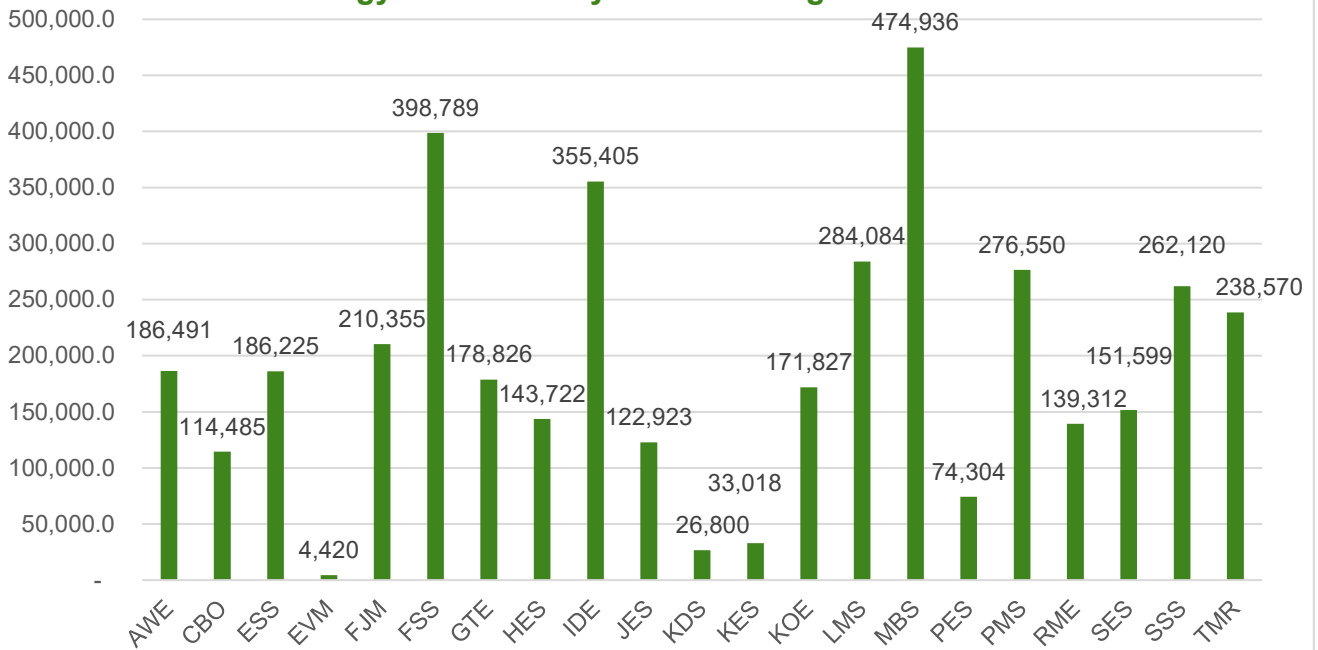
-  The District is using Paper Cut software to reduce the amount of printing and paper output.
-  The District is using on-line forms to reduce paper sent home to families.
-  The District is also encouraging online meetings with platforms such as Teams to cut down on travel emissions.

The following charts summarize the District printer environmental impact:

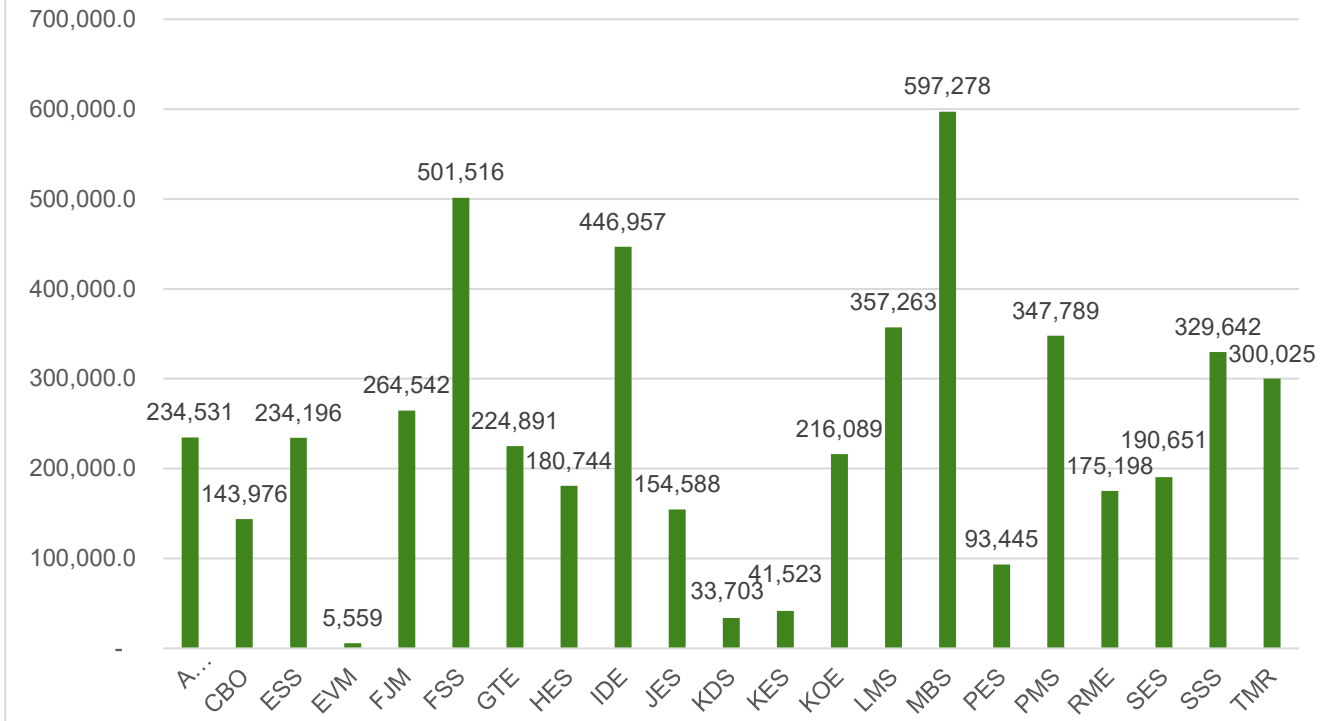
C0₂ Produced
(September 1, 2023 to May 13, 2024)
The amount of greenhouse gases releed in the production
of the paper



Equivalent Bulb Hours
(September 1, 2023 to May 13, 2024)
The manufacturing energy used to produce the paper, represented as
the energy consumed by a standard light bulb in hours






Total Pages Printed (September 1, 2023 to May 13, 2024)



Electrical

The District has now completed the replacement of older light fixtures with LED lights and kits in all of the schools. This reduces the use of KWH by an average of 40%.

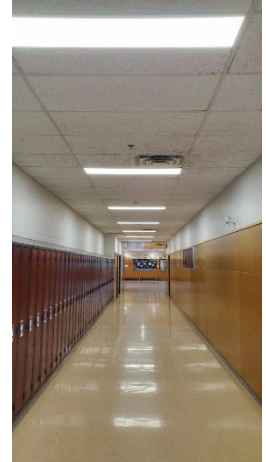
Fernie Secondary School

-  Fernie Secondary School. (FSS) lighting replacement has now been completed.
-  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.
 - 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

The District has now completed changing the ballasts and putting in LED tubing throughout the entire school.

Pictured below are images of the new lighting:



HVAC

We had no major HVAC upgrades this last year.

Transportation

The District continues to use our two electric buses on daily bus routes to reduce diesel emissions. The district saved 11,991 litres of diesel, and 41,788 kg of CO2 by using these two electric buses in place of combustible engines.

The District has received capital funds to support an electrical infrastructure upgrade to accommodate future charging stations and electric vehicles in our fleet. The district commissioned Prism Engineering Limited (Prism) to assess the district's current fleet, identify fleet electrification options and develop an Electric Vehicle Ready Fleet Plan. This plan can be used to help guide future vehicle purchasing decisions and facilitate strategic electric vehicle selection and fleet decarbonization efforts.



The following chart summarizes the environmental impact of electric buses in the District:

Year	Month	Number of buses	Total Distance Travelled (km)	GHG emissions - Diesel Bus Equivalent (kg CO2-e)
2023	January	2	1,900	2,850.30
2023	February	2	1,871	2,806.65
2023	March	2	1,362	2,043.15
2023	April	2	2,238	3,356.25
2023	May	2	2,605	3,907.50
2023	June	2	1,485	2,227.20
2023	July	1	0	N/A
2023	August	1	0	N/A
2023	September	2	4,281	6,420.90
2023	October	2	3,491	5,235.90
2023	November	2	5,005	7,507.50
2023	December	2	3,622	5,433.00
2023	Total		27,859	41,788.35

The District has engaged a consultant to review the Transportation Department and provide recommendations for improving overall efficiency. Following this review, the District has purchased new transportation software which will be implemented in the next school year. The goal is to enhance the efficiency of bus routes and reduce fossil fuel emissions.

Five Year Plan



The District's five-year plan will include continued replacement of older boiler systems within the schools. The new boiler systems are more energy efficient.

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 continues to explore Geo-field. We are also looking into some solar initiatives and considering heat pumps wherever possible.

The District continues to consider electric vehicle options when replacing aging fleet vehicles.

The District is investing more in technology:









-  More video conferencing using 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.





































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	<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)  Motion sensor light switches have been added
Elkford Secondary	Thomas Skelton	<ul style="list-style-type: none">  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  Go by Bike days
Fernie Secondary	Nicole Neufeld	<ul style="list-style-type: none">  Students ride bikes daily  Resource room students collect recyclable bottles on a daily basis. Bins are placed in hallway  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)  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	<ul style="list-style-type: none">  Paper/cardboard recycling program  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 and dimmer switches  Ride your bike or walk to school initiative (active transportation) – many students bike, walk or scooter to school  Staff carpool  Encourage students to bring own refillable water bottles  Walk vs bus to swimming and skating (weather permitting)  Marker recycling program  Promotion of garbage free lunches  Participation in Community clean-up  Growing own plants that students take home over the summer  Battery recycling
Gordon Terrace Elementary	David Martin	<ul style="list-style-type: none">  A recycling program for both refundable and non-refundable materials  Composting program that grade 3 is responsible to manage  School Garden that we harvest and make soup/meals  Many students bike to school  Recycling bins in all classrooms  Idle Free signs /zones  Marker recycling program  Battery recycling program  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	Kaley Wasylowich	<ul style="list-style-type: none">  Maximize the number of students on school bus trips  Multiple garbage pickup days throughout the year.  Rotary “We Bike” participation  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  Scrap paper re-use bins.  Walking field trips to Idlewild and Community Forest  Greenhouse in the courtyard.  BC Agriculture Harvest Bin participation  Recycling bins in school hallways, classrooms, and common spaces

Isabella Dicken Elementary	Janet Kuijt	<ul style="list-style-type: none">  Yearlong Recycling Program – grade six  Yearlong Composting Program - grade four  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 grade 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 grade six students)  Planting more trees in the playground
Jaffray Elementary Junior Secondary	Bill Johnson	<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  Concession – no single use plastics  Motion activated room lights  Filtered Water Fountains  Reuseable lunch bags distributed at Earth Day
Kootenay Orchards Elementary	Judi Poole	<ul style="list-style-type: none">  Composting for the school garden · students gather compostable materials weekly in buckets  Encourage biking to school (participate in “WE Bike” yearly)  Encourage walking to field trips  Filtered water fountains  Grade six 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	<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)  Composting - started last year -beginning stages of promoting awareness  Battery recycling

		<ul style="list-style-type: none">  Career Ed and Science 7 classes – 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 neighborhood clean up  Ride Your Bike to Work Week  Increasing classroom recycling
Mount Baker Secondary	Dave Hill	<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
Parkland Middle	Brenda Tyson	<ul style="list-style-type: none">  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  Hot Lunch – no single use plates or cutlery  Solar power feasibility study
Pinewood Elementary	Jill Carley	<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  Pen recycling  Battery recycling  Composting
Rocky Mountain Elementary	Jennifer Adams	<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

		<ul style="list-style-type: none">  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)  Greenhouse  Earth Day school yard clean up days  Idle free zones  Many classes grow plants  Many staff and students ride bikes or walk when possible  LED lights installed
Sparwood Secondary	Erin Hay	<ul style="list-style-type: none">  Earth Day – school yard clean up  Refundable and non-refundable recycling  Hydroponics - science students grow food for the foods classes  Recycling toner cartridges for photocopier  Avoiding single use cutlery and dishes with staff events  Teachers carpool to work  Motion light sensors in classrooms.  Changing lights to LED  Walking to the swimming pool and skating rink  Bring your own water bottle  Water-bottle filling station to reduce single use water bottles  Hot meals lunch program to reduce food packaging waste  Bus sharing for trips with Elkford and Fernie  Earth Science 11  New energy efficient appliances
Steeple Elementary	Erin Boehm	<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  Non-food/drink product recycling bins in classrooms and common spaces
TM Roberts Elementary	Carlene Lochrie	<ul style="list-style-type: none">  Reuse scrap paper  Earth Day clean-up  Garden beds for food; expansion of garden  Some classes do composting  Cardboard and Paper Recycling and recycling bins in common spaces and classrooms  Garden Club, to teach students how to grow their own food  Students ride bikes, scooters, and walk daily  Many teachers teach students to plant food

		<ul style="list-style-type: none">  Students encouraged to bring water bottles and use the filtered water refilling stations and drinking fountain  Students discouraged from bringing juice boxes  Kindergarten learning about different ways to grow food  Ink cartridge, pen and battery recycling  Walking for field trips when possible  Motion-activated, LED lighting  Filtered water fountain refilling stations
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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.

School District No. 5 (Southeast Kootenay) 2023 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, 2023 to December 31, 2023	
Total BioCO ₂	19.9
Total Emissions (tCO ₂ e)	3,081
Total Offsets (tCO ₂ e)	3,101
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 2023 Reporting Year (tCO ₂ e)	2,637
Offset Investment (\$)	2,637 x \$25 = \$65,925






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 2023 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 efficiency and reduction in GHG emissions. The District also plans to start electrical infrastructure upgrades to accommodate future charging stations and electric vehicles in our fleet.
-  The District now has an Electric Vehicle Ready Fleet Plan
-  In 2021 the region was slightly impacted by the heat wave. Not enough for the District to incur any extra costs or update the services being delivered to students and staff.

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:
 -  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 2023, the District has 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

May 28, 2024

Name: Nick Taylor

Title: Secretary Treasurer