School District 42
Maple Ridge & Pitt Meadows
Learning Today, Leading Tomorrow

CLIMATE CHANGE ACCOUNTABILITY REPORT

REPORTING YEAR: 2024

PRODUCED: MAY 2025

MAPLE RIDGE-PITT MEADOWS SCHOOL DISTRICT

EXECUTIVE SUMMARY

We respectfully acknowledge that the Maple Ridge – Pitt Meadows School District operates on the traditional and unceded territories of the Katzie First Nation and Kwantlen First Nation.

This Climate Change Accountability Report (CCAR) for the period from January 1 to December 31, 2024. It provides a summary of the district's greenhouse gas (GHG) emissions profile, outlines the carbon offsets required to achieve net-zero emissions, and details the initiatives undertaken in 2024 to reduce emissions. It also highlights planned actions to further support emission reductions in 2025 and beyond.

The 2024 CCAR will be posted on the district website by June 30, 2025, at https://www.sd42.ca/energy-environmental-sustainability/.

The Board of Education is committed to environmental sustainability and ensures that every effort is made to conserve energy and natural resources while exercising sound financial management. The district continues to fully support BC Climate Action Legislation and the targets established by the Climate Change Accountability Act. As part of this commitment, the school district has developed an Environmental Sustainability Policy (policy 6530 in the Board Policy Manual) that acknowledges sustainability and the joint responsibility of trustees, administrators, teachers, students, and support personnel to achieve goals identified under the policy. One of the key principles of this policy is to monitor the implementation of an environmental sustainability plan. A Environmental Sustainability Plan was created for the school district's Strategic Facilities Plan, which was approved by the Board of Education in 2022. This Environmental Sustainability Plan outlines capital investments that will reduce GHG emissions by 22% by 2026 compared to 2010 while improving building performance by 20%.

The district continues to pursue capital investments that will result in reducing the district's greenhouse gas emissions and support environmental sustainability education initiatives.

The district's sustainability mandate continues to be based on the guiding principles outlined in Policy 6530: Environmental Sustainability.

For the 2024 calendar year, the district's emissions have dropped by 5.2% from 3783 tonnes of carbon dioxide equivalent (tCO_2e) in 2023 to 3586 tCO_2e. The cost to purchase carbon offsets at $25 per tonne totaled $89,665, allowing the district to achieve carbon neutrality.

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INTRODUCTION

The Maple Ridge – Pitt Meadows School District acknowledges with respect and gratitude that we work, learn, and live on the traditional and unceded territory of the Katzie First Nation and Kwantlen First Nation. We are committed to engaging in climate action in a way that honours these lands and the Indigenous Peoples who have cared for them since time immemorial.

Maple Ridge – Pitt Meadows School District ("the district"), legally known as *The Board of Education of School District No. 42 (Maple Ridge-Pitt Meadows)*), owns and operates 34 facilities that serve over 17,000 students and nearly 2,500 employees. In 2024, the district's annual greenhouse gas (GHG) emissions were calculated at 3,586 tonnes of carbon dioxide equivalent (tCO_2e)—comparable to adding approximately 759[1] cars on the road each year. As an educational organization, the district has a unique opportunity to foster sustainability awareness and support environmental leadership for future generations.

Hydrofluorocarbon (HFC) emissions have always been in-scope under the Carbon Neutral Government Regulation (CNG Regulation) but have not always been significant. At the outset of the CNG program, most refrigerants being used were Ozone Depleting Substances (ODSs), which are not in the scope of the CNG Regulation. The implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer has led to ODSs being phased out as refrigerants. In addition to the transition from ODSs, use of HFCs and related emissions are growing because more air conditioning units and heat pumps, which often use HFCs, are being widely adopted. Since the Global warming potential of HFC is very high compared to other greenhouse gases, the Climate Action Secretariat requested reporting on HFC refrigerant this year. However, the Climate Action Secretariat acknowledges that the district may need time to adjust its reporting procedures to integrate refrigerants into its emissions reporting. Therefore, the district will start creating an approach to providing accurate data to the ministry and will begin reporting data in 2025.

Relative to emission levels in 2007, the Province of British Columbia is working towards reductions of 40% by 2030 for public sector buildings.

To achieve the greenhouse gas emission reduction targets and ensure the sustainable use of resources by the school district, a comprehensive environmental sustainability plan needs to be implemented to achieve the provincial targets.

The goals of the existing environmental sustainability plan are to reduce greenhouse gas emissions by 22% by 2026 and improve building performance by 20% by 2026.

[1] https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results

PART 1: LEGISLATIVE REPORTING REQUIREMENTS

1A. DECLARATION STATEMENT

This Climate Change Accountability Report for calendar 2024 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions taken in 2024 to reduce greenhouse gas (GHG) emissions, and plans to continue reducing emissions in 2025 and beyond.

A. EMISSIONS REDUCTIONS: ACTIONS AND PLANS

Maple Ridge-Pitt Meadows School District has developed an environmental sustainability policy that highlights the Board's commitment to cultivating a sustainable school district that provides safe and secure environments for the effective delivery of educational services. This commitment forms the basis for the district to undertake actions and create plans to reduce emissions, meet provincial GHG emissions targets, and have a positive impact on schools through the creation of sustainable learning spaces. The district's actions and plans to reduce emissions can be segregated and understood the through following three sections:

a. Stationary Sources (Building/Heating Plants)

The district's buildings are getting older, and so are assets such as boilers, Domestic Hot Water (DHW) heaters, unit ventilators (UVs), rooftop units (RTUs), Air Handling Units (AHUs), and Direct Digital Control (DDC) systems. The district recognizes this and continuously upgrades its buildings based on needs and funding availability. Energy projects are aligned with the district's facility plans and planned capital upgrades to ensure a synchronized approach to achieving emission reduction goals. The district continues to undertake the following capital upgrades to reduce emissions:

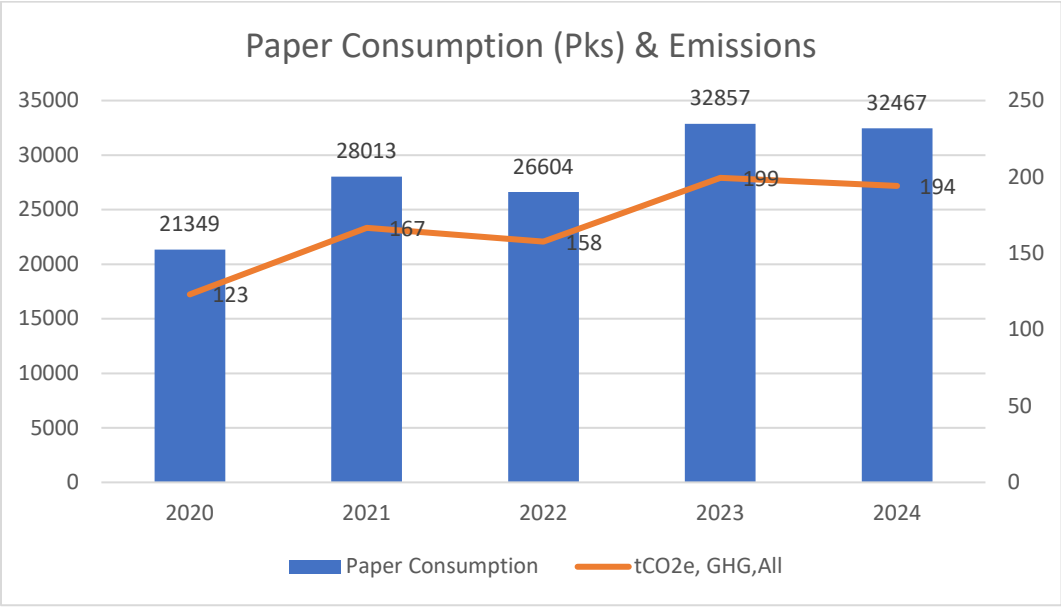
1. DDC upgrades to improve the operations of equipment in schools and enhance the equipment life while reducing energy costs.
2. Recommissioning (RCx) of the existing heating plants with a focus on reducing gas consumption and, therefore, reducing GHG Emissions.
3. Fuel-switching technologies that help reduce GHG emissions and meet the requirements of BC Hydro (BCH) and FortisBC.
4. DHW upgrades by replacing existing DHW tanks with tankless water heaters to reduce our gas consumption.

b. Mobile Sources (Fleet)

1. In August 2024, the district signed an agreement with the Association of School Transportation Services of BC to act as the aggregator and sell these credits in the future. All the credits have been transferred to ASTSBC for sale.
2. In 2025, the district will install two more EV chargers at Edith McDermott Elementary to expand the charging network to both cities. This location was selected based on its proximity to a shared-use facility.

c. Paper Consumption:

Conventional paper (i.e. traditional wood-pulp-based paper) is the second most significant contributor to the district's emissions profile. The district is in the process of finding ways to reduce paper consumption. For the last five years, the district has been using PaperCut software to sensitize users about their paper consumption. The district's paper consumption has increased over the previous four years with a slight recent decrease in 2024. The district plans to reduce paper consumption by encouraging staff to go paperless, using digital signing as a norm, and having double-sided printing as the default setting on all printers.



As outlined in the 2025/26 Preliminary budget, the district will require schools to purchase 8.5" to 11" white Sugar Sheet paper, which accounts for approximately 89% of the district's total paper use. This shift is estimated to reduce annual GHG emissions by up to 65 tonnes[2] and generate net annual savings of up to $26,000[3].

1B. EMISSIONS AND OFFSET SUMMARY TABLE 2024

For the year 2024, the district's total emissions were 3,605 tCO_2e. Of those emissions, 18.6 tCO_2e were from low-carbon biogenic mobile equipment fuels, which do not require an offset payment. Therefore, the total offsets needed to be retired to become carbon neutral for 2024 are 3,586.4 tCO_2e. An offset summary of the district's GHG Emissions for 2024 is tabulated below:

Maple Ridge-Pitt Meadows School District 2024 GHG Emissions and Offsets Summary	
GHG Emissions for the period January 1 to December 31, 2024	
Total $BioCO_2$ (tCO_2e)	**18.6**
Total Emissions(tCO_2e)	**3,605.0**
Total Offsets (tCO_2e)	**3,586.4**
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets (tCO_2e)	**0**
Grand Total Offsets for the 2024 Reporting Year	
Grand Total Offsets to be Retired for 2024 Reporting Year (tCO_2e)	**3,586.4**
Offset Investment (Grand Total Offsets to be Retired for 2024 Reporting Year X $25/$tCO_2e$)	**$ 89,650**

1C. RETIREMENT OF OFFSETS

In accordance with Climate Change Accountability Act and the Carbon Neutral Government Regulation requirements, School District No. 42 (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2024 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.

[2] Estimated based on 2012 emission factors provided by CAS for paper emissions.
[3] Estimated based on rate of $55 per box if schools order a pallet of 40 boxes.

PART 2: PUBLIC SECTOR LEADERSHIP

As a signatory to the climate action charter, the Maple Ridge – Pitt Meadows School District is committed to supporting continued planning for emission reduction and climate change adaptation initiatives across its operated schools. As part of this commitment, the district has undertaken several initiatives mentioned below.

2A: CLIMATE RISK MANAGEMENT

The district acknowledges the importance of environmental sustainability (Policy 6530) and focuses on business and individual practices that minimize energy and water consumption and maximize waste diversion resulting in utility cost savings and a smaller carbon footprint. One of the key important aspects of this policy is to monitor the implementation of the district's Environmental Sustainability Plan.

The existing Environmental Sustainability Plan (2022-2026) focuses on reducing GHG emissions by 22% by 2026 and improving building efficiency by 20% compared to the baseline of 2007.

2B: OTHER SUSTAINABILITY INITIATIVES

The energy and environmental sustainability department has introduced several sustainable initiatives to engage students and staff across the district. These initiatives are listed below:

1. **Holiday Shutdown Campaign**
   The district organized a spring break holiday shutdown campaign to raise awareness and prompt behavioral change. Impactful posters and shutdown checklists were distributed throughout the school district. Participating schools were asked to complete checklists for their school and submit behavioral action photos. The winners of this campaign were Davie Jones Elementary and Harry Hooge Elementary.

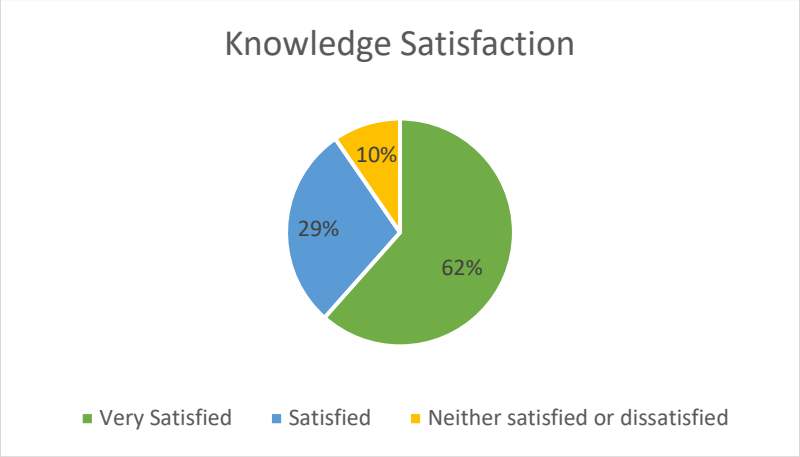
Spring Holiday
Shutdown Campaign

2. **Training for Heating, Ventilation and Air-Conditioning (HVAC) trades team**
   The district partnered with two service providers to deliver training sessions on the basics of HVAC controls and identify energy savings and optimization opportunities. The training occurred over

four days (July 22, 23, 29, and 31, 2024). BC Hydro and FortisBC funded the online training sessions.

To maximize the impact of this training, we invited other districts to participate. SD36 (Surrey), SD38 (Richmond), SD41 (Burnaby), and SD43 (Coquitlam) also took part. Thirty participants from various school districts attended the online training session.

Following the training session, attendees were surveyed on their level of knowledge satisfaction. Over four days, 52 responses were received.



According to the feedback gathered from the survey, the event was a great success. As shown in the chart above, out of 32 respondents, 62% of the attendees were “very satisfied” with the training and felt confident in making energy-saving changes to their organizations.

3. **Sustainability Stickers for Students to celebrate Earth Day**

To appreciate and celebrate Earth Day and sensitize staff and students about energy conservation and sustainability, the district issued Energy Star and Energy Leaders stickers for students of all ages and schools. More than 4000 stickers were distributed across 11 locations to celebrate the day.

4. **Energy Catalyst Newsletter**

The district launched a newsletter to share its sustainability initiatives with the community. Since its initiation, three editions have been published on the district’s website at www.sd42.ca/energy-environmental-sustainability. The idea is to bring forward sustainability stories that happen throughout the district.

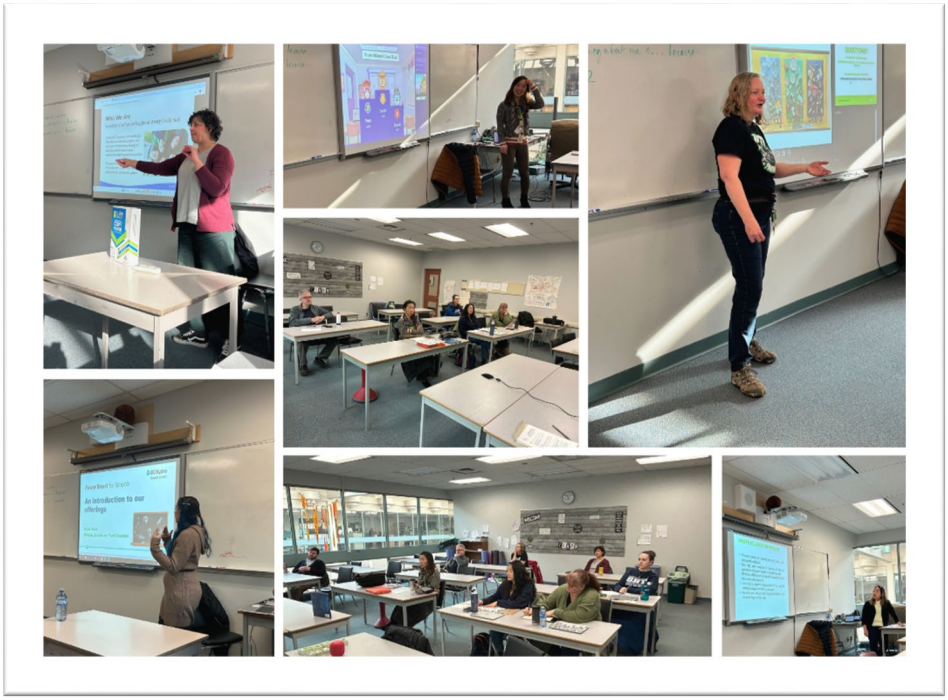
5. **Tree Plantation Drive at Alexander Robinson Elementary**
   As a joint effort, the City of Maple Ridge and the district planted nearly a dozen trees next to the school as part of a planting drive through a BC Hydro regreening grant. This was an excellent opportunity for students to learn about the importance of planting trees and their benefits to the community.

"SAY TREES"

6. **Waste Audits**
   The district undertook a waste audit with support from GFL at four locations. The idea was to disseminate knowledge about waste management through the school. The schools were selected based on waste diversion rates observed over the last 2 years. The audit took place over 2 days, and a final report with a summary of observations was shared with all the schools. The district recently developed a video called "Waste Sorting: Know where it goes, think before you throw" published on our webpage https://www.sd42.ca/waste-collection-program/

7. **Teacher training on sustainability, climate change, and waste management**
   The district undertook a professional development day training program to help teachers gain tools focused on sustainability, climate change, and waste management. This training was organized under the BC Hydro Energy Wise Network Program. The idea is to bring energy conservation and sustainability to the classroom and offer teachers tools.

   The agenda included include talks on climate change, lesson plans offered by BC Hydro PowerSmart for schools and eco-schools, waste management in schools, alternative paper, and reducing the use of single-use plastic in schools through innovative solutions offered by Friendlier Plastics. The workshop was concluded with a survey asking teachers to commit to undertaking at least one initiative this year at their school.



2C: SUCCESS STORIES

This year, the district successfully undertook fuel switching projects to convert gas heating systems to electricity by replacing natural gas-fired rooftop units with heat pumps at Garibaldi Secondary and Laity View Elementary. These upgrades will help ensure that our buildings are more resilient in the face of our future climate.

EXECUTIVE SIGN OFF

Richard Rennie

Digitally signed by Richard Rennie
Date: 2025.05.14 20:50:10 -07'00'

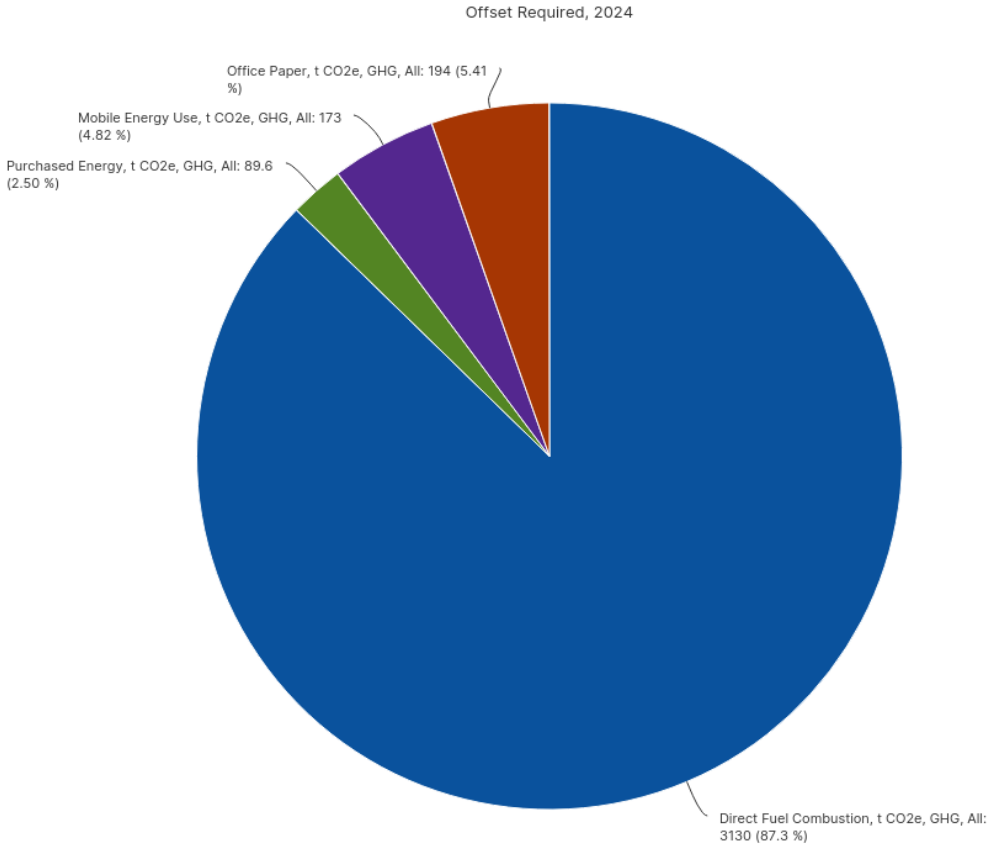
Signature	Date
Richard Rennie	Title: Secretary Treasurer

*Signature by a senior official such as CEO, COO, Secretary Treasurer, or Superintendent

GREENHOUSE GAS EMISSIONS SOURCE BREAKDOWN

The chart below shows the breakdown of Greenhouse Gas Emissions by source in 2024.

School District 42 – Maple Ridge-Pitt Meadows
Greenhouse Gas Emissions by Source
for the 2024 Calendar Year (tCO_2e*)



Total Emissions: 3,586 tCO_2e**

Offsets Applied to Become Carbon Neutral in 2024 (Generated on April 28rd , 2025 3:00 PM)

*Tonnes of carbon dioxide equivalent (tCO_2e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

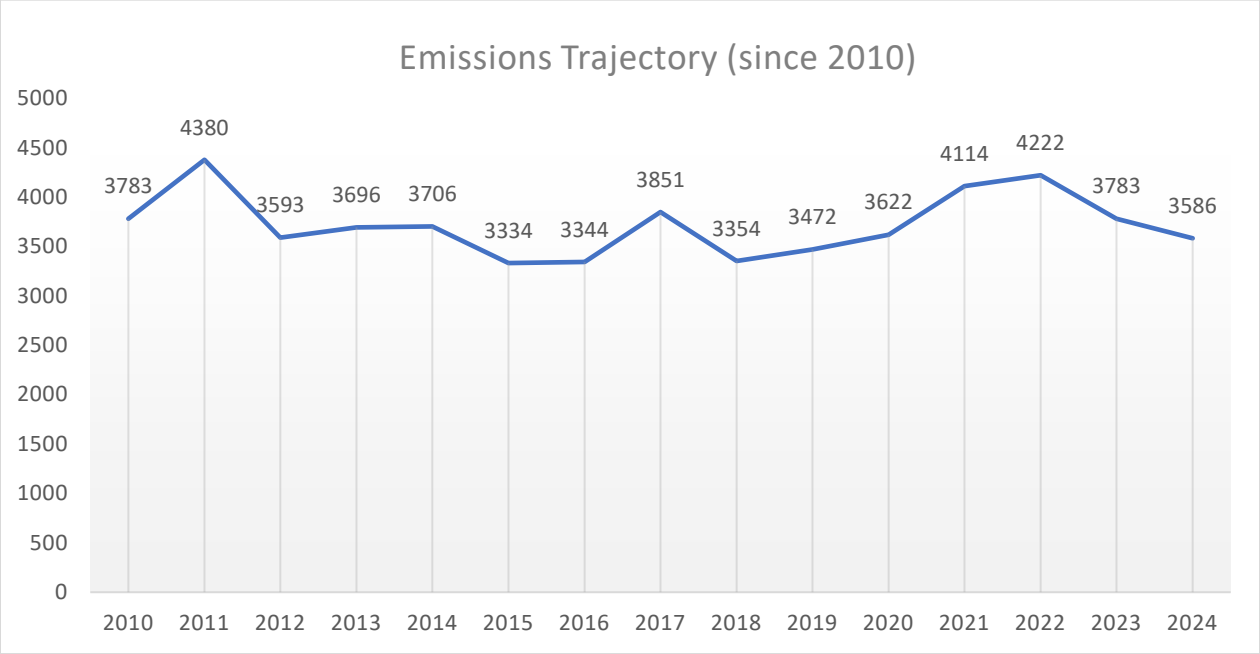
** Under the *Carbon Neutral Government Regulation* of the *Climate Change Accountability Act,* all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions, such as biogenic emissions) do not require offsets.

OFFSETS APPLIED TO BECOME CARBON NEUTRAL IN 2024

The total offsets required for 2024, including adjustments, are 3586 tCO_2e. At the government offset price of \$25/tCO_2e, the total offset investment is \$89,650, which allows the district to achieve carbon neutrality for 2024.

ANNUAL EMISSIONS YEAR OVER YEAR

Since 2010, the district has been tracking its carbon emissions and has been focusing its efforts at the strategic and operational levels to achieve carbon neutrality. The graph below shows the district's annual carbon emissions.



Key observations and considerations:

1. The trajectory delineates the importance of an energy management program in the district and how it can help achieve success in meeting the provincial reduction targets.
2. Despite increasing enrolment, building expansions, and the addition of new portables, the district's overall emissions have remained relatively stable, demonstrating the success of the district's ongoing emissions reduction initiatives.
3. With approximately 87% of emissions coming from natural gas use, the district will continue to prioritize GHG reduction strategies. These include projects such as Continuous Optimization, Direct Digital Control (DDC) upgrades, operating schedule reviews, boiler plant upgrades, and the installation of heat pumps where feasible all critical steps in preparing schools for a low-carbon future.

ACTIONS TAKEN TO REDUCE GREENHOUSE GAS EMISSIONS IN 2024

The district has been a Power Smart Partner with BC Hydro since 2010, employing a Manager of Energy and Environmental Sustainability and engaging in the BC Hydro (BCH) Energy Manager Program. The district's energy and environmental sustainability department works within the facilities department, providing resources to develop various carbon reduction initiatives such as lighting retrofits, HVAC upgrades, DDC improvements, and building energy studies. The Manager also works with students and staff on numerous behavioral and educational initiatives to further the organization's and the community's understanding and adoption of sustainability and reducing our carbon footprint to mitigate climate change. In the future, the focus will be on leveraging both FortisBC and BCH programs to support business cases to reduce emissions in the district.

HEATING PLANT UPGRADES

In 2024, much as in almost all other years, approximately 87% of greenhouse gas emissions were from the combustion of natural gas for heating. This is one of the key drivers to retrofitting heating systems by replacing mid-efficiency plants with high-efficiency condensing boilers, installing variable frequency drives, changing over to electrification through heat pumps, and improving DDC controls and scheduling. These projects have multiple benefits, including increased energy efficiency, a high turn-down rate, and a far greater ability to meet building loads. All these measures reduce natural gas consumption and, in turn, reduce GHG emissions. To maximize the incentive inflow from FortisBC and BCH, the school district aligns energy studies and projects with planned capital projects. This measure helps the district achieve additional energy conservation measures while undertaking necessary capital upgrades.

This year, the district completed boiler plant upgrades at Laity View Elementary and the Maintenance office.

SCHOOL	PROJECT SCOPE	STATUS	FUNDING SOURCE	COST	ENERGY CONSERVATION SAVINGS **(GJ/kWh)
Laity View Elementary	Boiler Plant Upgrade: Replace existing boilers with 3x399 MBH IBC boilers	Completed	Annual Facilities Grant (2024)	$230,877	145 GJ
Maintenance Facility	Boiler Plant Upgrade: Replace existing boilers with 4x399 MBH IBC boilers	Completed	Annual Facilities Grant (2024)	$151,803	169 GJ

**Estimated

The district is also completing a boiler plant upgrade at Edith McDermott Elementary and replacing a cooling only unit, with a heat pump to provide electrical heating and cooling support. This will reduce natural gas use. The project includes other energy conservation measures like variable speed drives and rebalancing and recommissioning.

DIRECT DIGITAL CONTROLS (DDC) UPGRADES

The district will also undertake the following DDC upgrades to improve the operational performance of existing buildings. This year, the district undertook DDC upgrades at Alexander Robinson Elementary, Samuel Robertson Technical Secondary School, the Maintenance facility, and Riverside Centre.

LIGHTING UPGRADES

Every year, the district undertakes several lighting upgrade projects with funding support from BC Hydro to reduce energy consumption and improve learning spaces. These upgrade projects include changing from existing high-intensity discharge, incandescent, and fluorescent lights to LEDs. In 2024, the district completed a BC Hydro-funded feasibility study on lighting upgrades for six schools. We observed that most of the lighting was fluorescent and needed to be upgraded to LED.

We plan to undertake at least one lighting upgrade in the upcoming year. The table below shows the schools up for lighting and low voltage controls installation as follows:

School	Energy Savings (kWh/year)	Budget Cost ($)
Glenwood Elementary	25,178	$90,000
Webster's Corners Elementary	19,728	$75,000
Maple Ridge Secondary Annex	24,551	$85,000
Yennadon Elementary	23,032	$100,000
Samuel Robertson Technical	81,751	$250,000
Thomas Haney Secondary	117,896	$525,000

OTHER UPGRADES FOCUSED ON REDUCTION OF ENERGY CONSUMPTION

The district has been upgrading aged terminal units to improve occupant comfort while reducing energy consumption.

Laity View Elementary's project scope was to replace one 7.5-ton gas-fired rooftop unit with one new air-to-air heat pump with gas-fired backup, new duct distribution, air balancing, and direct digital controls. The heat pump will be able to provide partial mechanical cooling in summer and partial heating in winter, which will be especially important to ensure the building is more resilient in the face of our future climate.

Before Upgrade

After Upgrade

CONTINOUS OPTIMIZATION (C.OP.) STUDIES

As buildings and systems age, their performance deviates from the required levels and their energy consumption increases, requiring a focused review and correction. BCH offers a continuous optimization program that provides funding to help improve the efficiency of energy-intensive systems such as HVAC. Through a retro-commissioning or recommissioning process, the focus is first identifying opportunities and then implementing simple, low-cost solutions without a significant capital investment. In 2024, the district completed three C.Op. studies and is in the process of implementing the following energy conservation measures:

Westview Secondary

- RTU gas lock-out based on variance from setpoint
- Allow RTU outdoor air damper to modulate based on CO2 sensor
- Re-enable RTU occupancy sensors
- Rectify RTU-18 compressor operation
- Control destratification fans with reverse action thermostat

Electrical Savings (KWh/yr)	Fuel Savings (GJ/year)	Cost Savings ($)	Emission Reduction (tCO2e)
9,752	208	$ 3,721	10.5

Maple Ridge Elementary

- Implement optimal starts
- Install motion sensors in the gym and multi-purpose room
- Obtain feedback from corridors

Electrical Savings (KWh/yr)	Fuel Savings (GJ/year)	Cost Savings ($)	Emission Reduction (tCO2e)
34,447	568	$ 33,400	28.7

Yennadon Elementary

- Improve optimal start and align DDC schedules with occupancy
- Optimize outdoor air flow rates

Electrical Savings (KWh/yr)	Fuel Savings (GJ/year)	Cost Savings ($)	Emission Reduction (tCO2e)
5,188	90	2,300	5.6

ELECTRIC VEHICLE (EV) CHARGERS

In 2021, the district began gradually implementing EV chargers at selected sites. Through various incentive programs, four EV chargers were installed at two locations: c̓əsqənelə Elementary and the District Education Office. In 2024, four new chargers were installed at the Maintenance office. The district now has eight EV chargers in total.

EV Chargers at c̓əsqənelə Elementary

With the idea of gradually electrifying its fleet, the district purchased its first EV fleet vehicle, an electric Ford Transit, in 2023. Depending on financial feasibility, the district will continue to expand its fleet of electric vehicles (EVs) and install EV charging infrastructure at its locations.

In 2024, the district installed four new EV chargers at the Maintenance facility to service the new Maintenance EV and future EVs; the district now has eight EV chargers in total.

The district also earns carbon credits as a Part-3 Fuel supplier under the Low Carbon Fuel Standard by offering EV charging facilities to employees. To date, the district has accumulated 17 credits, which are saleable in the market. In August, the district signed an agreement with the Association of School Transportation Services of BC to act as the aggregator and sell these credits.

The district will install two more EV chargers at Edith McDermott Elementary to expand the charging network to both cities. This location was selected because it is near a shared-use facility with the city of Pitt Meadows.

BEHAVIOURAL PROGRAMS

Student engagement is the key to the success of sustainability and behavioral programs. Refer to 2B: OTHER SUSTAINABILITY INITIATIVES earlier in this report to see all the district's behavioral programs.

PLANS TO CONTINUE REDUCING GREENHOUSE GAS EMISSIONS IN 2025

The district has prioritized energy management and environmental sustainability as part of its overall strategy to reduce its GHG emissions. Facilities and maintenance departments will continue with HVAC and lighting upgrades to contribute to more energy-efficient buildings and better learning and working environments for students and staff. As part of the design process for new schools, the district will also continue to consult with energy modelers to ensure that all new buildings perform at optimal levels of energy efficiency.

To prepare the district for 2027 and beyond, the existing plan will be converted into a Low Carbon Strategic Action Plan (LCSAP) with a focus on promoting energy management, sustainability, and climate change and create pillars and action plan items that focus on meeting GHG emission reduction targets set by the provincial government based on funding availability within the district.

In 2025, the following projects will take place:

MECHANICAL UPGRADES

Edith McDermott Elementary Boiler Plant Upgrade

- Replace existing boilers with 3x 399 MBH IBC boilers.
- Replace existing (Direct Hot Water Heaters) DHWs with tankless instantaneous Water Heaters
- Replace the existing DX unit with a heat pump for electric heating and cooling.
- The project was funded for Fiscal 2024-25 and will be completed Mid 2025.
- Estimated Energy savings: 300 GJ/year

Golden Ears Elementary Boiler Plant Upgrade

- Replace existing boilers with 4x399 MBH boilers
- Replace existing DHWs with tankless instantaneous Water Heaters
- Variable Frequency drives, CO2, and occupancy sensors for Air Handling Units
- Expected Energy savings: 115 GJ/year

Highland Park Elementary

- Replace Unit Ventilators in Classroom 1 to 10 along with sensors and controls.
- Expected Energy Savings: 88 GJ/year

DIRECT DIGITAL CONTROL (DDC) UPGRADES

The district will also undertake the following DDC upgrades to improve the operational performance of existing buildings.

In 2025, a controls upgrade is planned for Thomas Haney Secondary to address ongoing HVAC control issues. The project scope includes the installation of new controllers, variable air volume boxes, and sensors to enhance HVAC system efficiency and responsiveness. The estimated project cost is $512,500 with anticipated energy savings of 982 GJ per year.

More broadly, the district continues to assess HVAC control systems across its facilities to identify and address performance issues, supporting energy efficiency and occupant comfort.

LIGHTING UPGRADES

The district will continue to invest in lighting upgrades to convert existing lights to LED fixtures with low-voltage controls, including occupancy sensors and dimmers. For 2025, it is considering the feasibility of undertaking lighting upgrades for the following locations:

- **Glenwood Elementary.** Upgrade school lighting and install low-voltage controls
- **Expected Energy Savings:** 25,178 kWh/91 GJ

ELECTRIC VEHICLES AND CHARGING INFRASTRUCTURE

The district plans to install 1 EV charger and purchase an EV for the Riverside Centre food delivery program. The district also plans to buy a new fleet EV (Ford F-150 Lightning) for our grounds crew.

CONTINUOUS OPTIMIZATION (C.OP.) STUDIES

The district continues to review its facilities to improve overall building performance and reduce GHG emissions. In 2025, we will be completing C.Op studies at the following schools:

- Pitt Meadows Elementary
- Davie Jones Elementary
- Kanaka Creek Elementary

In 2026, the district will be undertaking C.Op. reviews of Blue Mountain Elementary and Webster's Corners Elementary.

BEHAVIOURAL CAMPAIGNS

For 2025, the district has planned the following campaigns:

- **Training on sustainability, climate change, and waste management for custodial staff:**
  This training will be undertaken on a professional development day to help custodial staff understand why sustainability, climate change, and waste management are essential to the district.

- **Initiate a school sustainability leaders' program:**
  The facilities department will work with the school sustainability contacts to initiate a school sustainability leaders' program wherein schoolteachers and students will meet once a month to discuss common interests, goals, and programs.

- **Summer Holiday Shutdown Campaign**:
  The Holiday Shutdown Campaign for summer 2025 focuses on teaching students about unplugging switches and lamps before going to summer break.

- **Tree Planting Drive and Outdoor Learning Spaces:**
  The district plans to continue working with the city of Maple Ridge to provide schools with an opportunity to participate in a tree plantation drive that will focus on the importance of trees, maintaining a balanced environment, and the effects and remedies for climate change.

- **Eco-Challenge Competition:**
  This year, under the Energy Wise Network Campaign, the district will again undertake an Eco-Challenge Competition to promote energy conservation and sustainable practices through schools. The Eco-Challenge will comprise of 4 individual days and themes (1 per day):
    - **Monday** – Electricity reduction
    - **Tuesday** – Gas Reduction
    - **Wednesday** – Waste Reduction
    - **Thursday** – Declaration – Sign a declaration of what you can do to help fight Climate Change.

CONCLUSION

The district continues to invest in emission reduction technologies and focus on creating energy-efficient and sustainable buildings. It strives to reduce energy consumption and emissions across its portfolio through a combination of technical and behavioral projects.

With sustained executive support and the enthusiasm of students and educators, the district will continue to focus efforts required to meet its GHG reduction goals set by the province.

ANNEXURES: EXTRACT FROM PORTAL FOR REPORTING

ANNEXURE - A: CCAR REPORT

CCAR Total GHG & Bio GHG

	School District 42 - Maple Ridge 2024
t Bio CO2e, GHG, All	
GHG Inventory Activity Data	18.6
GHG Inventory Estimates	
Total	18.6
t CO2e, GHG, All	
GHG Inventory Activity Data	3,586
GHG Inventory Estimates	
Total	3,586
Total	3,605

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CCAR Total Offsets

CCAR Total Offsets

	2024 Offset Required t CO2e, GHG, All
GHG Inventory Activity Data	3,586
GHG Inventory Estimates	
Total	3,586

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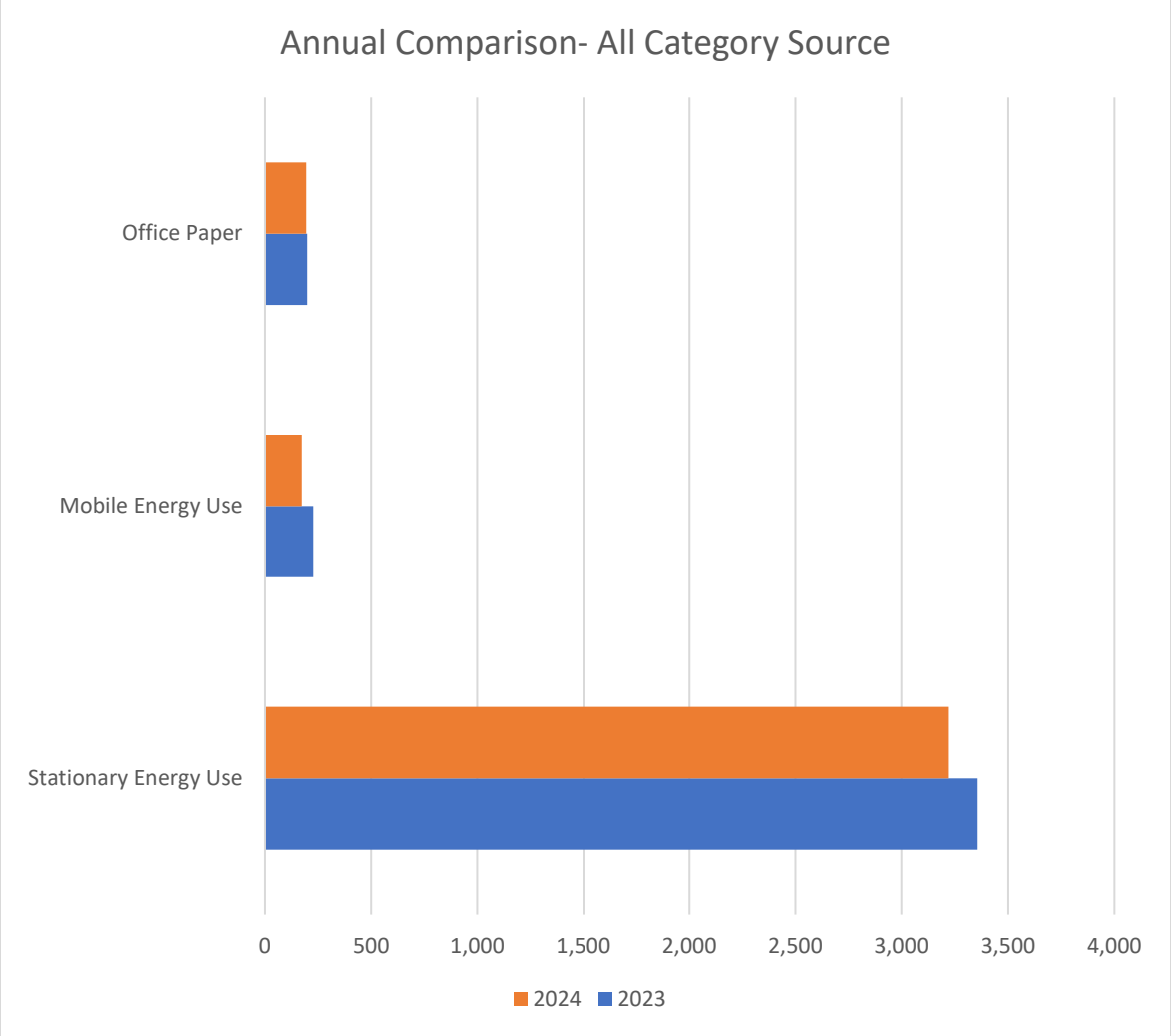
ANNUAL COMPARISON ORG - ALL CATEGORY SOURCES

	t CO2e, GHG, All	
	2023	2024
School District 42 - Maple Ridge		
Stationary Energy Use	3,355	3,220
Mobile Energy Use	228	173
Office Paper	199	194



ANNEXURE - B. GHG EMISSION SOURCE DETAILS REPORT FOR 2024

	2024				
	GJ	kg	Unit (PKs)	l	t CO2e, GHG, All
Direct Fuel Combustion					
Offset Exempt					
Offset Required	62,497	5,701		1,601,394,902	3,130
Total	62,497	5,701		1,601,394,902	3,130
Purchased Energy					
Offset Exempt					
Offset Required	32,573				89.6
Total	32,573				89.6
Mobile Energy Use					
Offset Exempt					
Offset Required				66,336	173
Total				66,336	173
Office Paper					
Offset Exempt					
Offset Required			32,467		194
Total			32,467		194
Fugitive Emissions					
Offset Exempt					
Offset Required					
Total					
Total	**95,069**	**5,701**	**32,467**	**1,601,461,238**	**3,586**