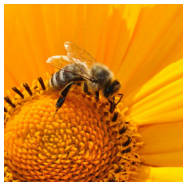
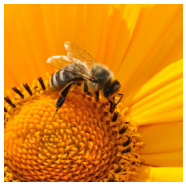
# 2024 CLIMATE CHANGE ACCOUNTABILITY REPORT FOR SURREY SCHOOLS

Surrey Schools
LEADERSHIP IN LEARNING



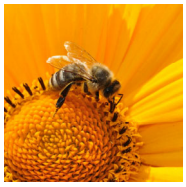
# TABLE OF CONTENTS



# DECLARATION STATEMENT

This Climate Change Accountability Report for the period January 1st to December 31st, 2024 summarizes Surrey Schools' greenhouse gas (GHG) emissions profile, the offsets purchased to achieve carbon neutrality, and the actions taken to mitigate climate change impacts from our operations.

By June 30, 2025 Surrey Schools' final Climate Change Accountability Report will be posted to the website www.surreyschools.ca



# EXECUTIVE SUMMARY

On behalf of Surrey Schools, we are pleased to submit our Climate Change Accountability Report for 2024. Surrey Schools is committed to reducing greenhouse gas emissions to protect the environment for the future of our students and in 2024, the Board of Education declared a climate emergency.

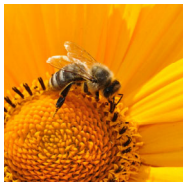
The majority of reportable greenhouse gas emissions arise from the heating of buildings with natural gas while fleet fuel consumption and paper used for printing contribute a minority of the emissions. Annual weather variation has an influence on emissions and the increasing student population has seen a growth in the building portfolio, but a focus on reducing building energy use has contributed to a reduction in emissions that saw the District to exceed the province's 2025, interim greenhouse gas target of a 16% reduction compared to the 2010 baseline. The next provincial target is a 40% reduction by 2030.

A large building portfolio requires a strategic approach to asset and energy management and this informs the District's plans and projects to manage utility costs, increase energy efficiency, and reduce emissions. These efforts include engagement across key departments, ongoing monitoring of energy consumption, targeted energy studies, and long-term project planning.

In 2024 a number of lighting, HVAC equipment, and building envelope upgrades were completed and contributed to improving learning conditions, accruing environmental benefits, and cost savings.

Mark Pearmain
Superintendent of Schools

Ray Velestuk
Secretary-Treasurer



# ABOUT SURREY SCHOOLS

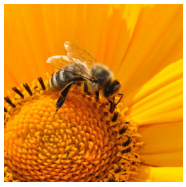
The Surrey School District was formed in 1906 and is the largest of 60 school districts in the province of British Columbia. Surrey Schools is governed by an elected board of seven trustees.

There are 135 sites and 6,700 teachers dedicated to educating kindergarten to Grade 12 students in Surrey, White Rock, and Barnston Island. In order to service the growing population, the District has responded with new schools, additions, and portables.

## Surrey Schools

## 2024 Quick Facts

- Almost 80,000 students
- 13,000 staff and teachers
- Building area of 761,000 m2
- 103 elementary schools
- 21 secondary schools
- 5 learning centres
- 3 adult education centres
- 3 administration buildings
- Over 380 portables
- School populations ranging from 70 to 1,880 students



# GREENHOUSE GAS TARGETS

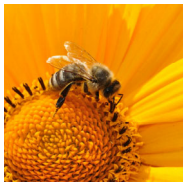
B.C.'s Climate Change Accountability Act (formerly the Greenhouse Gas Reduction Targets Act) specifies targets and the province has identified these overall greenhouse gas reduction targets for the province compared to a 2007 baseline:

- 16% reduction by 2025
- 40% reduction by 2030
- 60% reduction by 2040
- 80% reduction by 2050

The province's *CleanBC Roadmap* indicates more specific targets against a 2010 baseline for public service organizations, including schools, as follows:

- 50% reduction in building emissions by 2030
- 40% reduction in fleet emissions by 2030

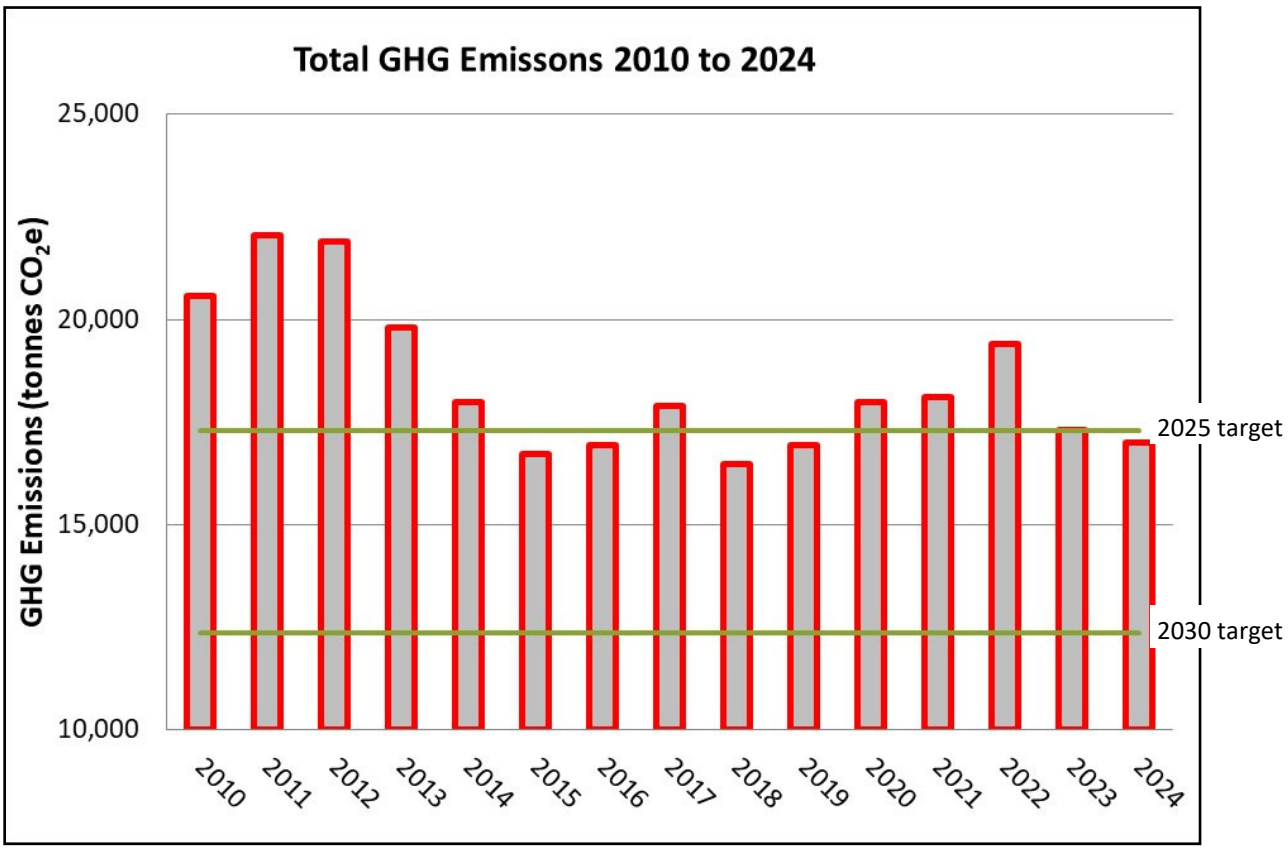
While overall provincial targets reference a 2007 baseline, specific targets for public service organizations reference a 2010 baseline with the latter corresponding to when greenhouse gas reporting began in BC. For Surrey Schools the 2007 quantities for paper and fleet are estimated but the baseline emissions for 2007 and 2010 are actually similar. As a public service organization, we reference actual 2010 emissions baseline for target tracking.

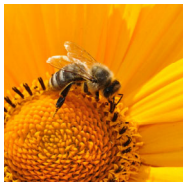


# GREENHOUSE GAS TRACKING

Reportable greenhouse gases are based on the annual measured consumption of energy in buildings, office paper, and fuel for fleet vehicles.

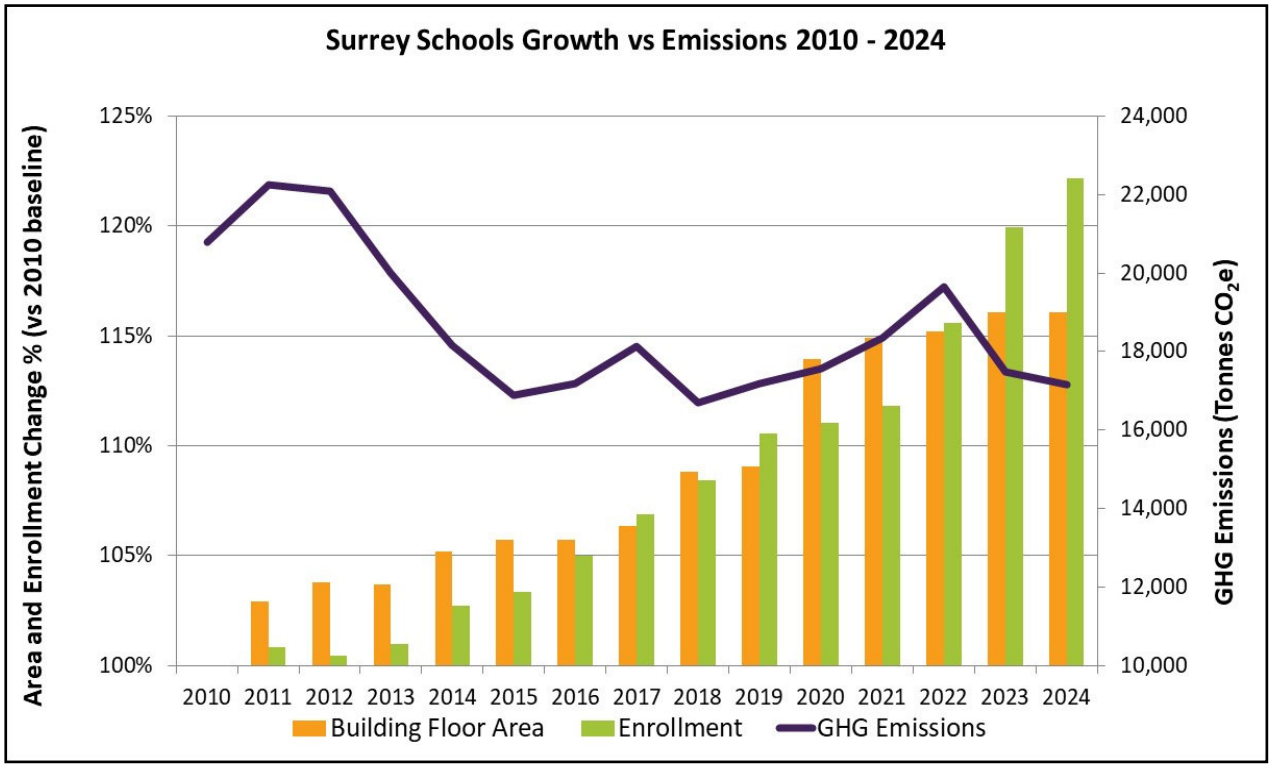
Continual efforts have helped lower emissions with 2024 being 17% below the 2010 baseline.

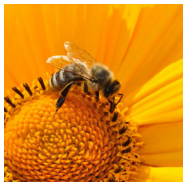




# DISTRICT GROWTH

Surrey Schools has been growing to provide services for an increasing student population. Since 2010, Surrey Schools' portfolio area has grown with new buildings, additions, and portables. Despite these demands, energy management efforts have reduced greenhouse gas emissions compared to the 2010 baseline year.





# ACHIEVING CARBON NEUTRALITY

As of 2010, provincial legislation has required that provincial entities, including school boards, be carbon neutral each year and also issue a public report detailing their greenhouse gas emissions inventory and progress in reducing their emissions.

In order to achieve annual carbon neutrality, it is necessary to purchase carbon offsets equivalent to the annual quantity of reported greenhouse gas (GHG) emissions. The money collected by the provincial government for carbon offsets is invested in certified, emissions-reducing projects.

At $25 per tonne, Surrey Schools' cost to offset the 2024 emissions is $431,875 plus GST

# 2024 REPORTED EMISSIONS & OFFSET SUMMARY

| School District #36 (Surrey) GHG Emissions and Offset for **2024** ($tCO_2e$) | |
|---|---|
| **GHG Emissions created in calendar year 2024:** | |
| Total $BioCO_2$ * | 88 |
| Total Emissions ($tCO_2e$) ** | 17,519 |
| Total Offsets ($tCO_2e$) *** | 17,275 |
| **Adjustments to GHG Emissions Reported in Previous Years:** | |
| Total Offsets ($tCO_2e$) | 0 |
| **Grand Total Offsets for the 2024 Reporting Year :** | |
| Grand Total Offsets Required ($tCO_2e$) | 17,275 |
| Total Offset Investment (excludes GST) | $431,875 |

* the portion of biodiesel and renewable natural gas that do not require offsets

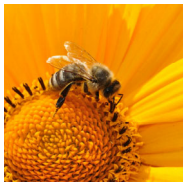
** excludes $BioCO_2$ but for tracking purposes, includes 156 t of emissions from school bus diesel though it is exempt from offset requirements

*** amount tracked for targets

**Retirement of Offsets:**

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District #36 (Surrey) (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. 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,

| | |
|---|---|
| Signature | May 31, 2025 |
| | Date |
| Ray Velestuk | Secretary -Treasurer |
| Name | Title |



# 2024 GREENHOUSE GAS EMISSIONS SOURCES

Buildings

Emissions from energy to heat, cool, ventilate, and power district operated buildings. This also includes small quantities of emissions from leased buildings.

Office Paper

There are emissions from the production of printer paper and the consumption across all schools is tracked.

Fleet

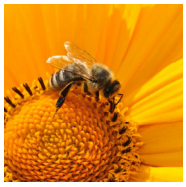
Fleet emissions primarily arise from the use of fossil fuels in the vehicle fleet that is comprised mainly of maintenance vehicles and school buses. Fuel for school buses is excluded from offset calculations but included for tracking purposes.

Refrigerant Emissions

This is the first year of recording the fugitive emissions that arise from escape of refrigeration chemicals. These were not included in the original baseline but at 101 tonnes, they are a small portion of 2024's total emissions.

Emissions Tracking

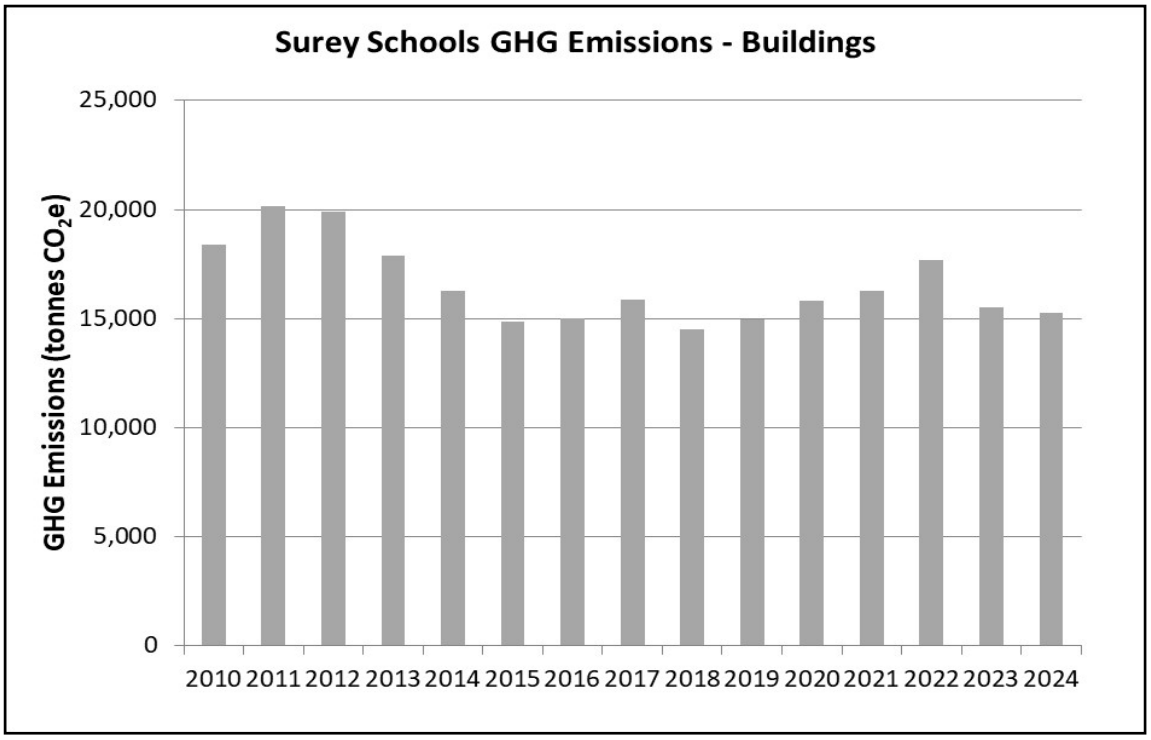
The following pages display the main trends in GHG emissions compared to the 2010 baseline.



# 2024 GHGs - BUILDINGS

## Buildings

Buildings account for the majority of the district's emissions as the natural gas used for heating is a potent source of global warming. Similar winter temperatures and improved equipment, saw a small reduction in building emissions from 2023 to 2024. 2024 emissions were down 16 percent compared to the 2010 baseline.



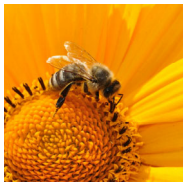

## 2024 Actions

Several energy upgrade projects were completed including:

- Electrification of natural gas domestic hot water systems at one site
- Boiler upgrades to more efficient models at four schools
- Building controls tune-ups and upgrades at several schools

New Construction

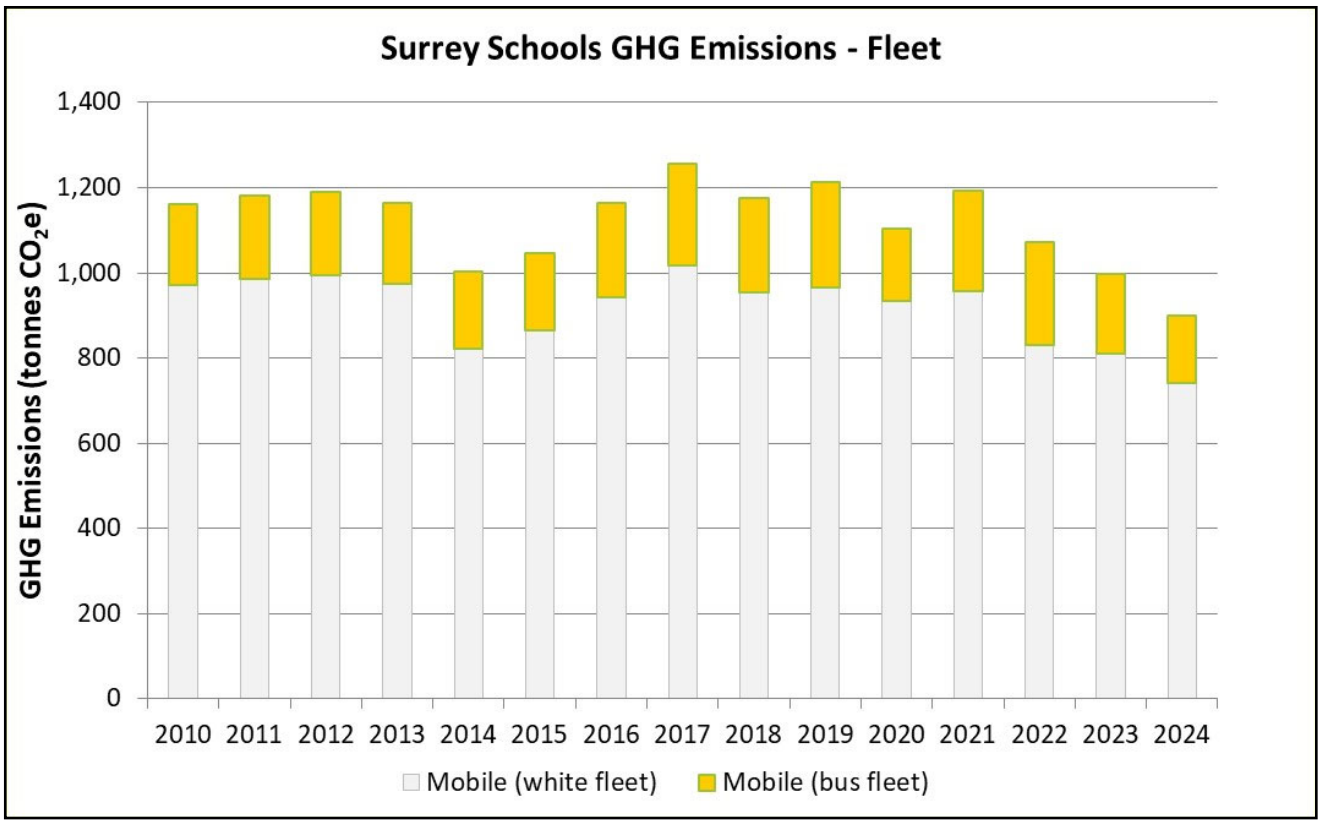
- Where possible the district taps into program incentives offered by the utility companies
- Since 2010, new construction projects have referenced the LEED V4 Gold standard and have typically included a better building envelope and lower-carbon heating systems.



# 2024 GHGs - VEHICLE FLEET

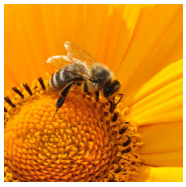
## Fleet

Fleet emissions come from burning of fossil fuels, with annual consumption variations being influenced by improved vehicle fuel economy, vehicle electrification, extra winter operations from snow clearing, and expanding service needs for a growing number of schools. Both the white and bus fleet emissions are down from 2023 and down 9 and 23 percent respectively, compared to the baseline. The data excludes a small amount of biogenic (carbon neutral) emissions.




## 2024 Actions

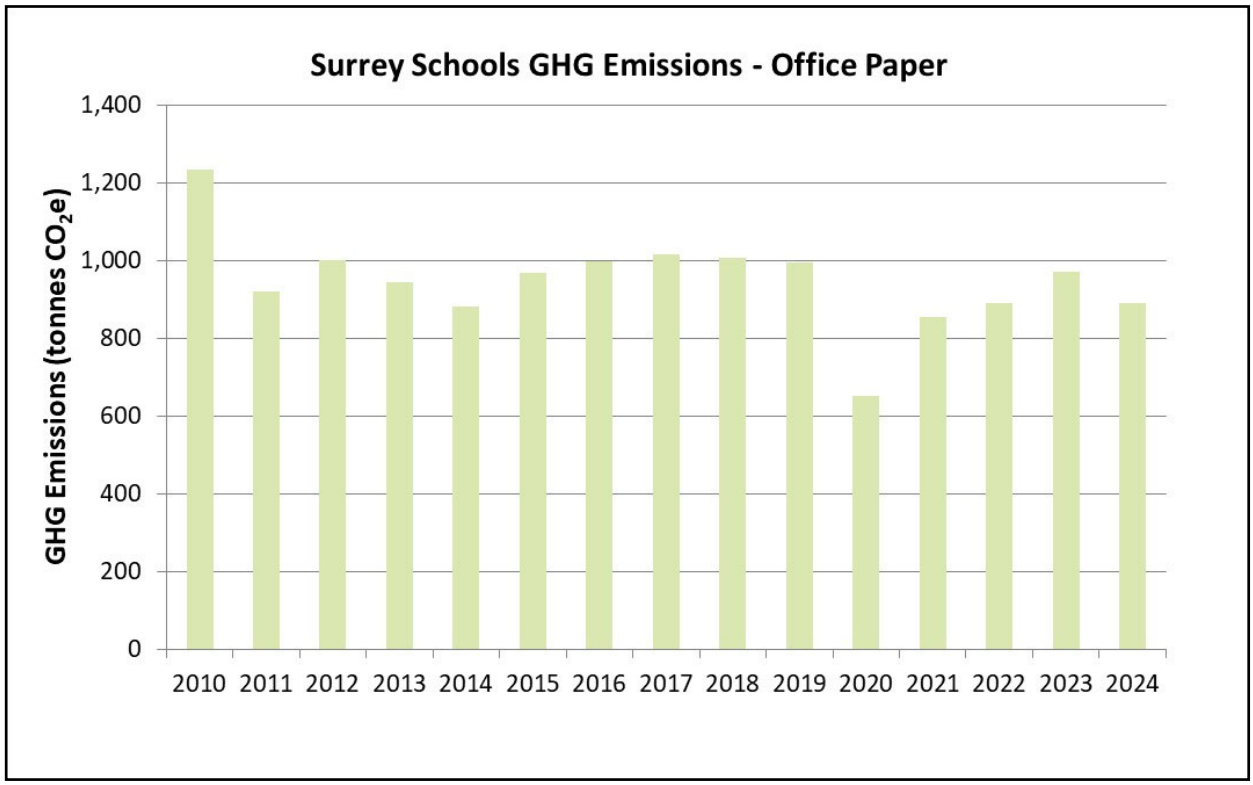
- Addition of two electric school buses and chargers for a total of four
- Moved electric van to a function that sees more driving and therefore greater displacement of gas



# 2024 GHGs - PAPER CONSUMPTION

Paper

2024 paper use was 5 percent lower than 2023 and 28 percent below the baseline. The timing of bulk paper purchases during a year and the printing behaviours of the many users, sees variations between the years but despite growth, consumption is slowly dropping. The adoption of paperless teaching practices and digital tools adopted during COVID may be contributing to reduced paper use.




2024 Actions

- The district continued to encourage purchase of paper with 30% recycled content to lower GHG emissions

# ONGOING EFFORTS TO REDUCE EMISSIONS

Surrey Schools' GHG initiatives will continue to be focused on energy conservation and electrifying fossil fuel technologies as it is the greatest source of greenhouse gas emissions. Surrey Schools is actively pursuing both low-carbon and more efficient technologies in new construction projects as it essential to limit emissions from growth as existing buildings are slowly retrofitted.

In any large organization planning is essential in reaching targets and goals and Surrey Schools will continue to track consumption and maintain a strategic plans to tackle climate change.

Upcoming  energy efficiency and electrification projects planned for 2025 include:

- Ongoing building controls recommissioning
- LED lighting retrofits
- Upgrading to more efficient boiler plants
- Targeted energy efficiency studies
- Addition of white fleet electric vehicle and charger

Beyond 2025, Surrey Schools will continue to evaluate and implement efficient technologies but also focus on reducing energy use and costs in existing buildings by optimizing the control systems.