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# 2021 CLIMATE CHANGE ACCOUNTABILITY REPORT



## Introduction

The Vancouver School District - SD#39 has a long-standing commitment to sustainability. For many years, the District has implemented energy conservation activities and retrofits. In 2021, these have included retrofitting old lighting systems at many school sites, optimizing energy use through controls at schools, and installing new heating plants. These projects have decreased our carbon footprint, reduced our utility bills, and improved our operating practices and the comfort and learning environment.

Education is our organization's core function and our students and teachers connect sustainability to their learning experiences daily. Throughout the District, at dozens of schools, our community acts on sustainability - from waste reduction to food gardens to energy conservation and low carbon electrification.

## Provincial Policy

The Province enacted the Climate Change Accountability Act (CCAA) in 2007 (formerly the *Greenhouse Gas Reduction Targets Act* GGRTA 2007). The CCAA requires, among other things, that public sector organizations (PSOs) be carbon neutral beginning in 2010, and for each year thereafter. The District is subject to this requirement.

Being carbon neutral requires that an organization:

- Take action to reduce its Greenhouse Gas (GHG) emissions,
- Measure and report its carbon emissions (or carbon 'footprint'), and
- Purchase carbon offsets for any remaining emissions to effectively 'neutralize' the environmental impact of these emissions.

The Province has defined criteria for reporting and has developed a web-based system for tracking and reporting emissions.



*Solar Panels at Tupper Secondary School*

# Greenhouse Gas Emissions

## 2021 Emissions and Offsets

For the 2021 calendar year, our offset-requiring emissions were 16,160 tonnes of CO<sub>2</sub> equivalent.

As required, we purchase certified carbon credits to offset these emissions through the Ministry of Environment. Carbon offsets are currently priced at \$25 per tonne of CO<sub>2</sub> resulting in a cost of \$404,000 (+ GST).

<b>Greenhouse Gas Emissions and Offset Requirements for 2021 (tonnes of CO<sub>2</sub> equivalent)</b>	
<b>GHG Emissions created in Calendar Year 2021</b> [Notes 1, 2]	
Total Emissions of carbon (all types) (tCO <sub>2</sub> e) [Notes 3, 4]	16,366
Total BioCO <sub>2</sub>	206
Total Offsets (tCO <sub>2</sub> e)	16,160
<b>Adjustments to Offset Required GHG Emissions Reported in Prior Years</b>	
Total Offsets Adjustments (tCO <sub>2</sub> e)	0
<b>Grand Total Offset for the 2020 Reporting Year</b>	
Grand Total Offsets (tCO <sub>2</sub> e) to be Retired for 2021 Reporting Year	16,160
Total Offset Investment (\$25 per tCO <sub>2</sub> e) [Note 4]	\$404,000

Notes:

- [1] Greenhouse Gas (GHG) emissions are measured in tonnes of CO<sub>2</sub> 'equivalent' (t CO<sub>2</sub>e).
- [2] The table presentation format is per Provincial reporting requirements.
- [3] Total GHG emissions includes the emissions from the biofuel component of vehicle fuels - which do not require the purchase of offsets. Offsets are only purchased for the fossil fuel component of emissions.
- [4] There may be adjustments and corrections to utility bill statements that occur following the offset calculations for each calendar year. These are reported as adjustments in prior years.

# Emissions Reduction Activities 2021

## Actions to Reduce Reportable Emissions in 2021

Several actions were taken in 2021 to reduce energy use and GHG emissions, including:

- Upgraded lighting systems at four school sites.
- Audited 13 facilities to identify future lighting retrofit opportunities.
- Designed and replaced a heat plant at one elementary school.
- Installed high efficiency boilers at two elementary schools through the seismic mitigation project.
- Completed a ‘building energy tune-up’ at Magee Secondary and started the implementation of another one at Kitsilano Secondary through the BC Hydro Continuous Optimization program.
- Started the design of a solar panel installation at one elementary school.



*Before and After: Lighting retrofit at Bruce Elementary School*

The District has taken several steps to reduce emissions related to paper consumption, including:

- Reducing the availability of virgin paper by limiting the purchase of paper to 30%, 50% or 100% recycled content (from contracted suppliers).
- Reducing transport costs and emissions by limiting paper deliveries to district sites to once weekly.

Additionally, we have achieved the following conservation actions:

- Reduced or avoided electricity consumption of 300,000 kWh annually.



- Reduced or avoided utility bill spending of over \$75,000 annually – which will continue for many years to come.
- Improved occupancy/building comfort.
- Improved lighting within upgraded classrooms.
- Improved seismic restraint of lighting fixtures within the District.

### **Actions to Reduce Out-of-Scope (non-District) GHG Emissions in 2021**

The District has participated in several activities that reduce GHG emissions in the community that are not specifically “in scope” for our carbon neutral required reporting. These typically focus on active transportation such as bike to school week events, corporate membership in Vancouver’s bike share program, and supporting schools on school active travel planning to reduce congestion and improve active commuting to and from school sites.



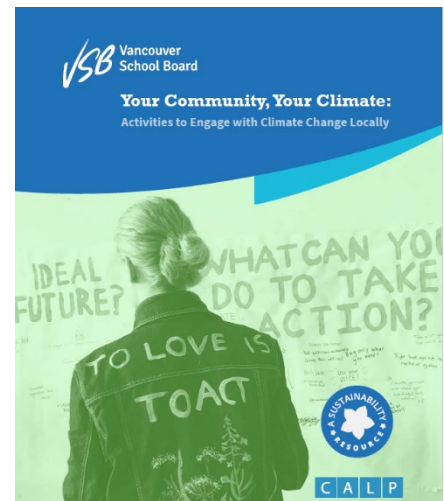
*New boilers at Norquay Elementary School*

### **Actions to Enhance Overall Sustainability in 2021**

The District has taken actions that improve the overall sustainability of our schools and community.

These include:

- Launched and delivered the professional development program for teachers who want to support student engagement with climate change locally.
- Ongoing installation of outdoor learning areas and green infrastructure enhancements on various school sites.
- Developed guidelines for schools to plant new trees on school sites.
- Provided sustainability grants to 37 elementary and 14 secondary schools to support student and educator-led initiatives at school.
- Continued supporting students to organize the District-wide Sustainability Conference (VSBSC) to network with each other and learn from leading sustainability thinkers.
- Facilitated numerous non-profit environmental organizations in offering their programs to students and teachers throughout the District.



*Resource guide for climate change pro-d*

## Future Activities

In 2022 and beyond, numerous activities are underway to continue to reduce our energy use and carbon emissions, and to improve the overall sustainability of our District.

### Actions to Reduce Reportable Greenhouse Gas Emissions in 2022

Actions planned for 2022 include:

- Replacing inefficient lighting systems at several schools.
- Upgrading the heating plant at one site.
- Completing the optimization of energy efficiency at another large consumption secondary school.
- Continuing with new facility design to ensure low carbon, low cost, and low energy facilities become the standard for the VBE.
- Upgrading school control systems to improve building efficiency and occupant comfort.



*Students enjoy a School Street*

### Actions to Reduce Out-of-Scope GHG Emissions in 2022 and Onward

Several activities help reduce carbon emissions in our community that are not considered 'in scope' for our carbon neutral reporting requirements. These include:

- Promoting active transportation initiatives like 'Bike to School/Work Week', 'Walking School Bus', 'School Streets', and cycling and pedestrian education programming.
- Supporting schools in school active travel planning to increase understanding of travel options for students and make infrastructure improvements.

### Actions to Enhance Overall Sustainability in 2022

Our efforts will continue in 2022. Specific actions include:

- Continuing to implement the Environmental Sustainability Plan.
- Continuing to support student- and teacher- led sustainability initiatives.
- Developing further resources for schools to take steps towards sustainability.

## Closing

The District is proud to maintain its commitment to promoting sustainability within our schools and our community. We are working to reduce energy use and our GHG emissions. We continue to build on past efforts and work to incorporate sustainability into all aspects of our operations.

### Declaration Statement:

In accordance with the requirements of the BC Climate Change Accountability Act (CCAA) Reduction Targets Act and Carbon Neutral Government Regulations, the VBE makes the following declaration,

*This Climate Change Accountability Report for the period January 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2021 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2022 and beyond.*

### Retirement of Offsets:

In accordance with the requirements of the Climate Action Accountability Act and Carbon Neutral Government Regulations, VBE is responsible for arranging for the retirement of the offsets obligation reported above for the 2021 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 (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.



Superintendent Helen McGregor at ƆƆƆƆƆƆƆƆƆƆƆƆ Crosstown Elementary

### Executive sign-off:

Signature

May 26, 2022

Date

Helen McGregor

Name (please print)

Superintendent / CEO

Title



WE WILL  
GET THERE,  
**TOGETHER.**

LET'S BE THE  
**GREENEST**  
SCHOOL  
DISTRICT.

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