



2020 CLIMATE CHANGE ACCOUNTABILITY REPORT

Prepared May 2021 in accordance with British Columbia's Climate Change Accountability Act and the Carbon Neutral Government Regulations.

Introduction

The Vancouver Board of Education (VBE) - SD#39 has a long-standing commitment to sustainability. For many years, the Vancouver Board of Education (VBE) has implemented energy conservation activities and retrofits. In 2020, these have included retrofitting old lighting systems at several school sites, optimizing energy use at one high school, and installing new heating plants at two elementary schools. 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.

Provincial Policy

In 2007 the Province enacted what is now known as the Climate Change Accountability Act CCAA (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 VBE is subject to this requirement.

Being carbon neutral requires that an organization:

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

The Province has defined criteria for reporting and has developed an internet-based system for tracking and reporting emissions.



Greenhouse Gas Emissions

2020 Emissions and Offsets

For the 2020 calendar year, our offset-requiring emissions were 14,245 tonnes of CO₂ 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 CO₂ resulting in a cost of \$362,350 (+ GST).

VBE Greenhouse Gas Emissions and Offset Requirements for 2020 (tonnes of CO₂ equivalent)

GHG Emissions created in Calendar Year 2020	
	[Notes 1, 2]
Total Emissions of carbon (all types) (tCO ₂ e) [Notes 3, 4]	14,449
Total BioCO ₂	204
Total Offsets (tCO ₂ e)	14,245
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustments (tCO ₂ e)	249
Grand Total Offset for the 2020 Reporting Year	
Grand Total Offsets (tCO ₂ e) to be Retired for 2020 Reporting Year	14,494
Total Offset (\$25 per tCO ₂ e) Investment [Note 4]	\$362,350

Notes:

- [1] Greenhouse Gas (GHG) emissions are measured in tonnes of CO₂ 'equivalent' (t CO₂e).
- [2] The table presentation format is as 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 2020

Actions to Reduce Reportable Emissions in 2020

Several actions were taken in 2020 to reduce energy use and GHG emissions, including:

- Upgrading lighting systems at 4 school sites.
- Auditing 6 facilities to identify future lighting retrofit opportunities.
- Designing and replacing heat plant replacements for two elementary schools.
- Installing high efficiency boilers in two new elementary schools through the seismic mitigation project.
- Implementing a 'building energy tune-up' at Magee secondary schools through the BC Hydro Continuous Optimization program.
- Completed a solar panel expansion at Tupper Secondary.



New LED lighting installed at a high school saves energy and improves the learning environment.

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-VBE) GHG Emissions in 2020

The VBE 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.



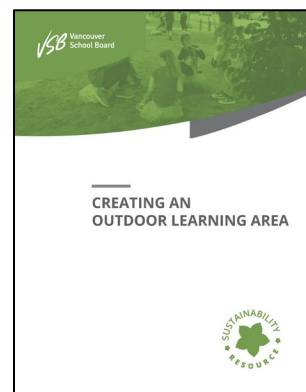
A new outdoor learning area installed at McKechnie Elementary

Actions to Enhance Overall Sustainability in 2020

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

These include:

- Developed and launched a teacher professional development (Pro-D) program addressing climate change.
- Developed guidelines for schools to plan and install outdoor learning areas.
- Launched two virtual teacher networks to facilitate connections across the District regarding outdoor learning at all grades, and sustainability in secondary schools.
- 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.



VSB Outdoor Learning Area Installation Guide

Future Activities

In 2021 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 2021

Actions planned for 2021 include:

- Replacing more old lighting systems at several schools.
- Conducting further lighting audits to evaluate opportunities for future lighting projects.
- Upgrading the heating plant at an elementary school.
- Optimizing 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.

Actions to Reduce Out-of-Scope GHG Emissions in 2021 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.’
- Supporting schools on school active travel planning to increase understanding of travel options for students, and make infrastructure improvements.



Teachers at a VSB garden Pro-D event

Actions to Enhance Overall Sustainability in 2021

Our efforts will continue in 2021. 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 VBE is proud to maintain its commitment to promoting sustainability within the District 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 1st, 2020 to December 31st, 2020 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2020 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2021 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 2020 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 Suzanne Hoffman with students at Nootka Elementary

Executive sign-off:

Signature

May 19, 2021

Date

Suzanne Hoffman

Name (please print)

Superintendent / CEO

Title