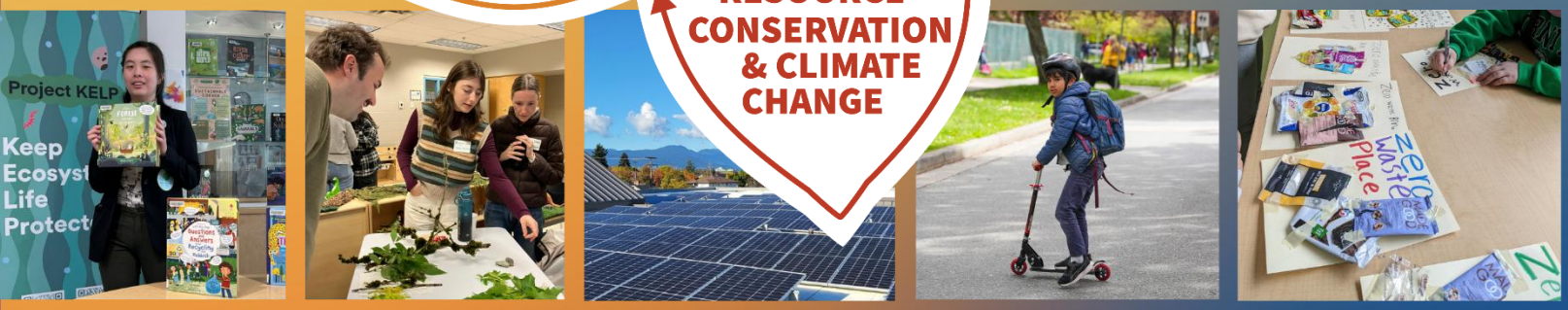
Vancouver School Board

Environmental Sustainability Plan

2026 - 2032



Acknowledgements

With deep gratitude and respect, we are honoured to be learning and unlearning on the ancestral and unceded lands of the xʷməθkʷəy̓əm (Musqueam), Sḵwxwú7mesh Úxwumixw (Squamish Nation) & səlilwətaɬ (Tsleil-Waututh Nation).

This plan was prepared by Jessie Gresley-Jones, Chris Lum, and Ashley Bangsund with invaluable contributions from the following:

Vancouver School Board

Board of Education

Business Development

Communications Department

Educators, Students and Families

Indigenous Education Department

Maintenance & Construction Department

Operations Department

Planning Department

Procurement Department

Senior Leadership Team

Sustainability Department

Vancouver Project Office

Inherent Rights Holders

xʷməθkʷəy̓əm (Musqueam)

Sḵwxwú7mesh Úxwumixw (Squamish Nation)

səlilwətaɬ (Tsleil-Waututh Nation)

Stakeholder Groups

District Parent Advisory Council (DPAC)

Professional & Administrative Staff Association (PASA)

Vancouver Association of Secondary School Administrators (VASSA)

Vancouver District Student Council (VDSC)

Vancouver Elementary and Adult Educators' Society (VEAES)

Vancouver Elementary Principals and Vice-Principals Association (VEPVPA)

Student Groups

VSB Sustainability Connection

Executive Summary

The Vancouver School Board (VSB) serves over 50,000 students across 107 schools. VSB plays a vital role in shaping sustainability and climate action. This Environmental Sustainability Plan (2026–2032) builds on the 2018 plan and incorporates input from formal stakeholders, inherent rights holders, educators, students and their families. It aligns with provincial GHG emissions reduction targets and VSB's Education Plan, ensuring our actions support both environmental stewardship and student learning. The updated plan is structured around five sustainability theme areas with updated objectives and actions that reflect current sustainability priorities at the VSB.

Five Theme Areas:

- **Leadership in Sustainability** – Embed sustainability in VSB's culture and decision-making, ensuring accountability and transparency.
- **Sustainability in Education** – Empower students and educators with hands-on sustainability learning and land-based education opportunities.
- **Green Spaces** – Enhance biodiversity and outdoor learning environments across school sites.
- **Sustainable Transportation** – Promote active travel and electrify fleet vehicles to reduce emissions.
- **Resource Conservation & Climate Action** – Reduce waste, cut greenhouse gas emissions, and improve efficiency in energy, water, and resource use while improving our schools' climate resilience.

Plan Highlights:

- The proposed capital investment strategy contained in the plan identifies 51 priority projects requiring approximately $1.4 billion in funding through major and minor capital programs. Full implementation of the plan would deliver significant sustainability outcomes, including an estimated reduction of 1,612 tCO_2e annually in building-related GHG emissions, and delivering annual energy cost savings of approximately $359K.
- By 2032, it is anticipated that most VSB schools will have improved access to nature, outdoor learning spaces, and receive biodiversity improvements through implementation of physical improvements facilitated by external grants.
- By 2030, electrifying 25% of eligible fleet vehicles is projected to reduce greenhouse gas emissions by approximately 100 tCO_2e annually. In addition, utilizing renewable fuels where feasible, such as 100% renewable diesel, will further decrease fleet-related emissions and advance our transition to a low-carbon transportation fleet.

Advancing Climate Action and Sustainability

The updated objectives and actions in this plan aim to create healthier schools, reduce environmental impact, and empower educators and students to lead sustainability efforts. It guides actions that combine operational improvements with educational benefits. Successful implementation of the plan relies on sustained capital and grant funding to ensure continuous progress and upholds VSB's commitment to providing safe, healthy, and climate-resilient learning environments.

Introduction

The Vancouver School Board (VSB) is an urban and diverse school district, serving approximately 50,000 students, including adult learners and students from Kindergarten to Grade 12 across 107 enrolling facilities. To continue to thrive, VSB's diverse student population needs safe, healthy, and climate-resilient learning environments. The VSB plays a critical role in advancing sustainability and climate action for future generations.

The Environmental Sustainability Plan 2026-2032 builds on the foundations of the 2018 Sustainability Plan, deepening VSB's commitment to climate leadership and environmental stewardship. This update aligns with VSB's core values, as outlined in VSB Education Plan 2026, which envisions students as well-educated, respectful and critical thinkers, leading them to become compassionate individuals who care for themselves, others and the planet.

Scope

This plan is applicable to all VSB-owned buildings and sites, including elementary and secondary schools and administrative facilities. Alongside improvements to facilities, the plan also aims to support students in becoming conscientious, engaged citizens who can make a positive impact beyond their time at VSB. The actions detailed in the plan focus on four priority areas:

1. **Adapting to Climate Change**
   Making changes to buildings and outdoor spaces to prepare for climate-related risks.
2. **Improving Operational Efficiency**
   Finding ways to better manage water, energy, and waste across our facilities.
3. **Supporting Sustainability Education**
   Helping educators and students lead school-based sustainability projects and learn about sustainability – connecting students to the natural world, empowering personal action, and building critical thinking skills in all our learners.
4. **Reducing Greenhouse Gas (GHG) emissions**
   Looking at ways to lower emissions from our buildings, vehicles, and paper use.

Developing Conscientious Citizens

In 2013, VSB conducted a sustainability audit to help assess our progress and identify opportunities for meaningful sustainability measures.

The audit identified a need for a strong focus on the educational aspects of sustainability – connecting students to the natural world, empowering personal action, and supporting critical thinking in all our learners. Student learning and the ability to help develop conscientious citizens continues to be relevant today, and a strength of VSB as an organization.

"…the VSB will address all its activities that directly and indirectly impact the environment. Our most significant opportunity is developing conscientious citizens."

Environmental sustainability often highlights important issues like waste, water use, air quality, and climate change. While these topics can inspire action, research shows that introducing serious environmental problems to children too early or in the wrong way can lead to stress and anxiety. This reaction is known as eco-anxiety or ecophobia — a fear of environmental disaster that may discourage children from engaging with nature.

To support student well-being, it is important to:

- Share age-appropriate information,
- Focus on positive, hopeful actions, and
- Encourage hands-on experiences with the natural world.

An effective approach begins with helping students understand their place within nature. Simple opportunities to explore and connect with the outdoors offer hands-on educational experiences. This land-based approach is grounded in Indigenous principles, allowing learners to reflect on their identities, their role in the environment, and their understanding of the world around them.

By fostering curiosity and connection, we can help students build a healthy relationship with nature and feel empowered to make a difference.

"If we want children to flourish, we need to give them time to connect with nature and love the Earth before we ask them to save it!"
David Sobel, "Beyond Ecophobia"

Context

Provincial Framework

The B.C. provincial government sets targets for public sector organizations to reduce overall Greenhouse Gas (GHG) emissions. B.C.'s Climate Change Accountability Act sets province-wide GHG reduction targets (based on 2007 emissions data):

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

According to the CleanBC Roadmap to 2030 plan, targets for public sector organizations (PSO) are defined as:

- 50% reduction below 2010 levels in building emissions by 2030
- 40% reduction below 2010 levels in fleet emissions by 2030

VSB's Greenhouse Gas Emissions

VSB has been tracking its GHG emissions annually since 2007, as shown in Figure 1. This is part of the annual reporting requirements of the British Columbia's Carbon Neutral Government Regulation, which mandates public sector organizations to measure, reduce and offset their emissions each year to achieve carbon neutrality. VSB has implemented initiatives to reduce its GHG emissions. These include upgrading boilers, adding heat pumps, and adjusting heating and cooling systems to operate more efficiently.

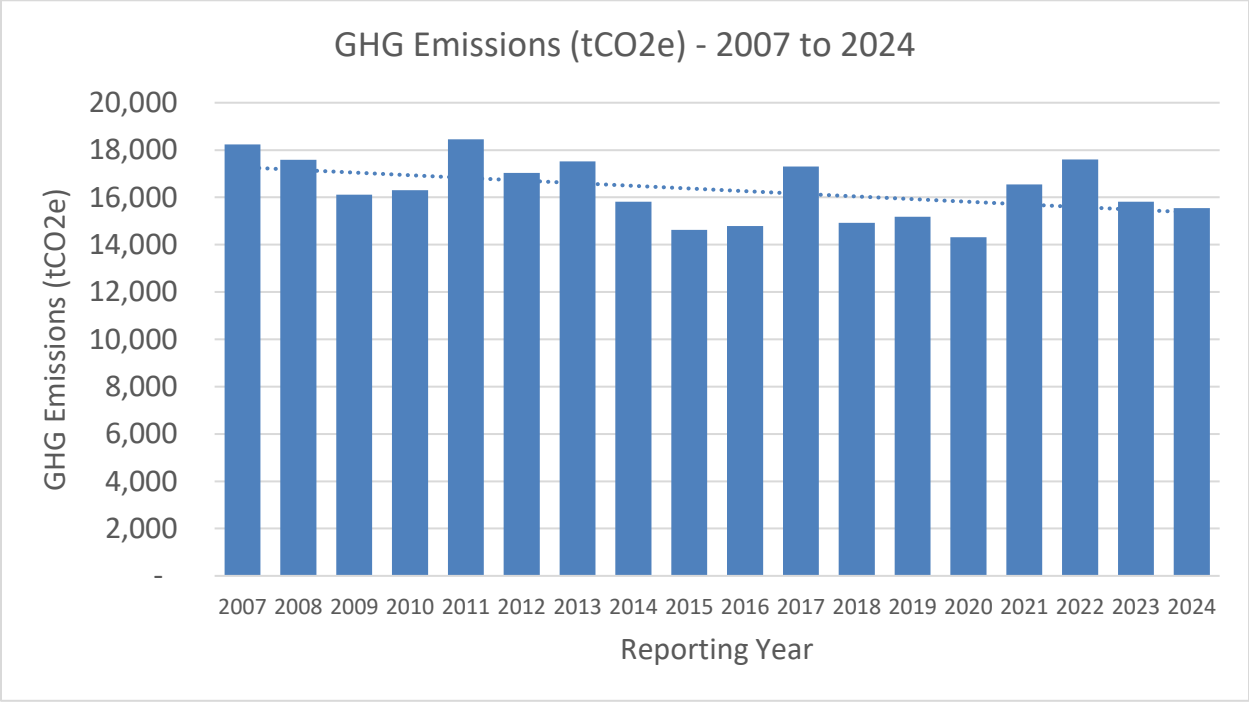


Figure 1: Historical VSB GHG Emissions (all reportable sources) in tonnes of carbon dioxide equivalent (tCO_2e)

In 2007, VSB's GHG emissions were 18,232 tCO_2e. By 2024, emissions lowered to 15,548 tCO_2e – representing a 15% decrease compared to the 2007 baseline.

Most of VSB's GHG emissions come from the natural gas used to heat buildings and hot water. This makes up 93% of all emissions. Using paper adds 4%, electricity adds 2%, and fleet vehicles add 1% (see Figure 2).

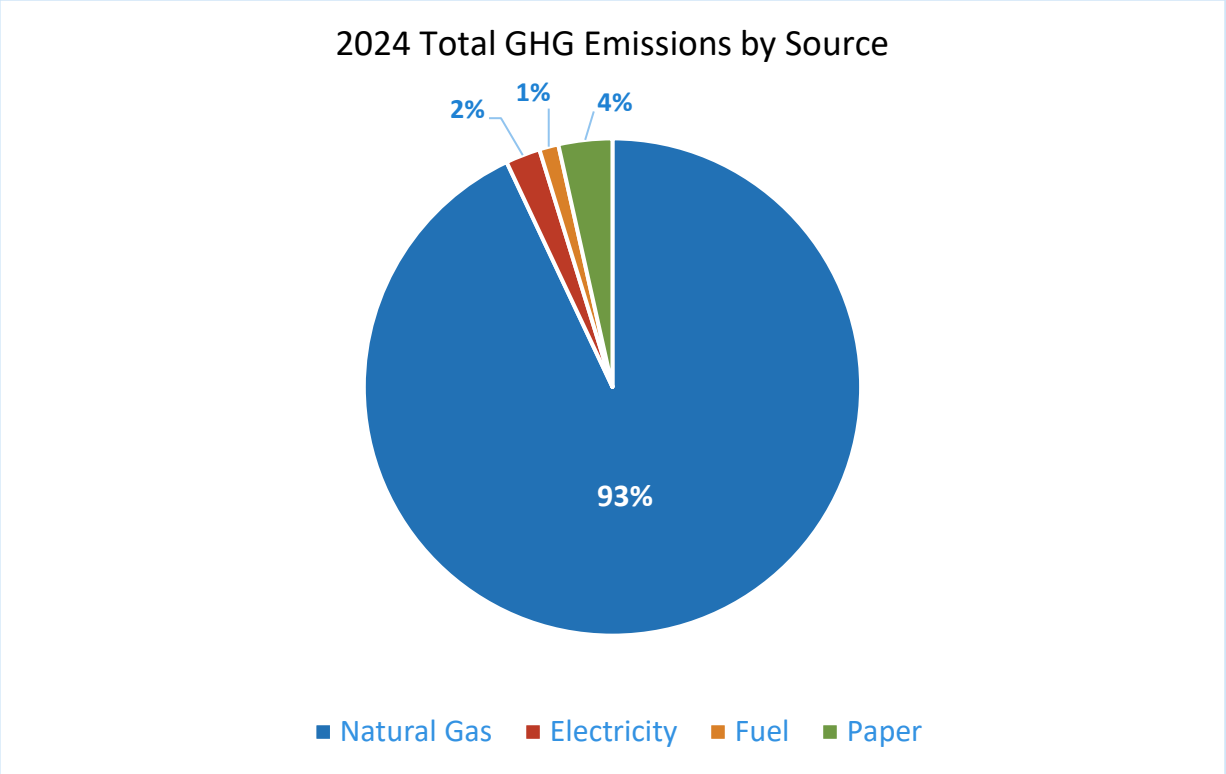


Figure 2: 2024 Total GHG emissions by reportable source

Our Plan and Approach

The Environmental Sustainability Plan 2026-2032 outlines VSB's next phase in advancing sustainability and climate action. Growing from the groundwork established by the 2018 Environmental Sustainability Plan, this updated version reflects an internal evaluation of progress to date, a renewed engagement process, and an action plan for the years ahead.

Internal Review

To help guide updates to the plan and subsequent actions, an internal review and evaluation of the progress made on the 2018 plan was completed. This review found that many sustainability initiatives were successfully completed at both the district and school levels. While much of the original plan is still relevant, new actions and initiatives to address emerging priorities are needed. Key findings include:

- Each of the plan's five theme areas has seen activity, which is carried out at all levels of the district in multiple departments.
- The breadth of the plan has allowed both planned and opportunistic activities, and the guiding principles have provided a focused way to evaluate activities as they arise.
- Guidelines for sustainability-related infrastructure and initiatives have been well received by schools and district departments and have made approval processes easier.
- Relationships with the City of Vancouver, post-secondary institutions, and not-for-profit organizations have contributed to the goals by increasing the number of opportunities and resources available to students and educators.
- VSB's sustainability goals and actions apply across all areas of VSB operations. Achieving them requires the committed participation of all district departments and stakeholders.

All 17 actions were evaluated to determine whether they had been completed, if they still have room for progress, or if they were no longer relevant. The five theme areas will remain consistent:

- Eight actions are advancing into the new plan with updated language to reflect the current context.
- Two actions will broaden to become objectives (formerly called goals).
- Four actions will be expanded to encompass more specific measures and initiatives.
- Two actions will be combined.
- Three actions will be updated and relocated into other themes.
- Two new objectives (formerly called goals) will be created, with one goal removed in favour of the new expanded objectives.

Further information about the plan's internal evaluation can be found on our website.

Engagement Summary

Engagement with inherent rights holders and stakeholder groups has helped shape this updated plan. The valuable insights helped to identify sustainability priorities across all five of VSB's sustainability themes. Engagement activities included two online surveys and three in-person sessions, as illustrated in Figure 3.

Figure 3: Engagement activities timeline

The Facilities Planning Committee was engaged at the outset of the process to provide guidance. The educator survey received 198 responses, while the families survey received 2,541 responses. The student engagement activity had approximately 42 participants, and the inherent rights holders and stakeholder workshop was attended by 10 representatives. Engagement activities were structured around the five theme areas to guide conversations, reflect on past work and develop future actions.

Key takeaways included:

Theme:	Key Takeaways:
Education	• Strong support for outdoor and nature-based learning – educators, families, students, inherent rights holders, and formal stakeholders all highly value hands-on, experiential, land-based learning. • Concerns about eco-anxiety highlight the need for age-appropriate, empowering education. • Students prefer to take a leadership role in their learning. • Students benefit from hands-on, solutions-oriented learning that fosters leadership and agency. • Students value everyday sustainability actions and prefer participating in them over studying them in depth. They see visible efforts, like walking or biking to school, as meaningful ways to make a difference.
Resource Conservation and Climate Action	• Climate-resilient infrastructure (e.g. heat pumps, insulation, solar panels) are seen as important. • Families and educators support practical sustainability actions like energy and water conservation. • Waste reduction, especially through expanded recycling and composting, is a strong priority.
Active Transportation	• Many staff and families live within walking or cycling distance, but bike infrastructure is lacking, not secure, and underutilized. • There is limited awareness of and participation in active transportation programs happening at schools.
Green Spaces	• Strong calls for more green spaces and covered areas to support outdoor learning.

	• Existing outdoor infrastructure is valued and utilized but could benefit from enhancements. • Equity concerns were raised by families about uneven access to green spaces and differences in school upgrades across neighborhoods.
Leadership	• Families want more communication and involvement opportunities in school sustainability efforts. • There is a call for demonstrable leadership in sustainability, including clearer sustainability directives, and equitable investment in infrastructure improvements. • High engagement with Indigenous education resources shows strong alignment with sustainability goals. • Intrinsic motivation and peer collaboration are key enablers of sustainability education. • Administrative support is helpful but secondary to educator initiative. • Sustainability efforts vary widely between schools, often depending on individual staff.

Further information about stakeholder engagement can be found on our website.

Environmental Sustainability Plan 2026-2032

Building on the insights gained through the internal evaluation of the 2018 Environmental Sustainability plan and engagement process, VSB's Environmental Sustainability Plan 2026-2032 reflects both continuity and alignment with the current context. The internal review confirmed the value of many existing actions while identifying opportunities to expand, refine, or reframe others. Engagement feedback added depth and clarity to VSB's sustainability priorities, ensuring the revised plan is responsive, inclusive, and forward-looking.

Guiding Principles

The following principles will help advance the objectives in the plan. They are built upon the values statement from the Education Plan, offer strategic alignment to the organization, and will guide sustainability efforts for the district.

1. Empowering our VSB community

The actions in this plan are shaped by the needs and interests of students, educators, and staff. We will support and facilitate the efforts of the many people across VSB who are already leading sustainability, while empowering others to join the effort.

2. Enhancing Learning through Sustainability

VSB's most unique opportunity to advance sustainability is through our mandate to help prepare students to be active, productive and socially responsible citizens. Sustainability initiatives should support student learning and be connected to the curriculum, enabling educators to bring these topics into the classroom.

3. Aligning Projects for Lasting Improvements

VSB will focus on projects that have the biggest impact. This includes work that supports climate goals and fits with long-term plans for building upgrades and safety improvements. Projects will be prioritized when they offer lasting benefits through the asset's useful life and align with other major initiatives.

Action Tables

To help navigate the plan, Figure 4 explains the purpose and structure of the **action tables**. Each table shows what is being worked on, who is responsible for coordinating efforts and highlights shared roles across teams, time commitments, and where funding is expected to come from. Point-form lists highlight more detailed actions; these are included to make the plan easier to follow and more transparent for all readers.

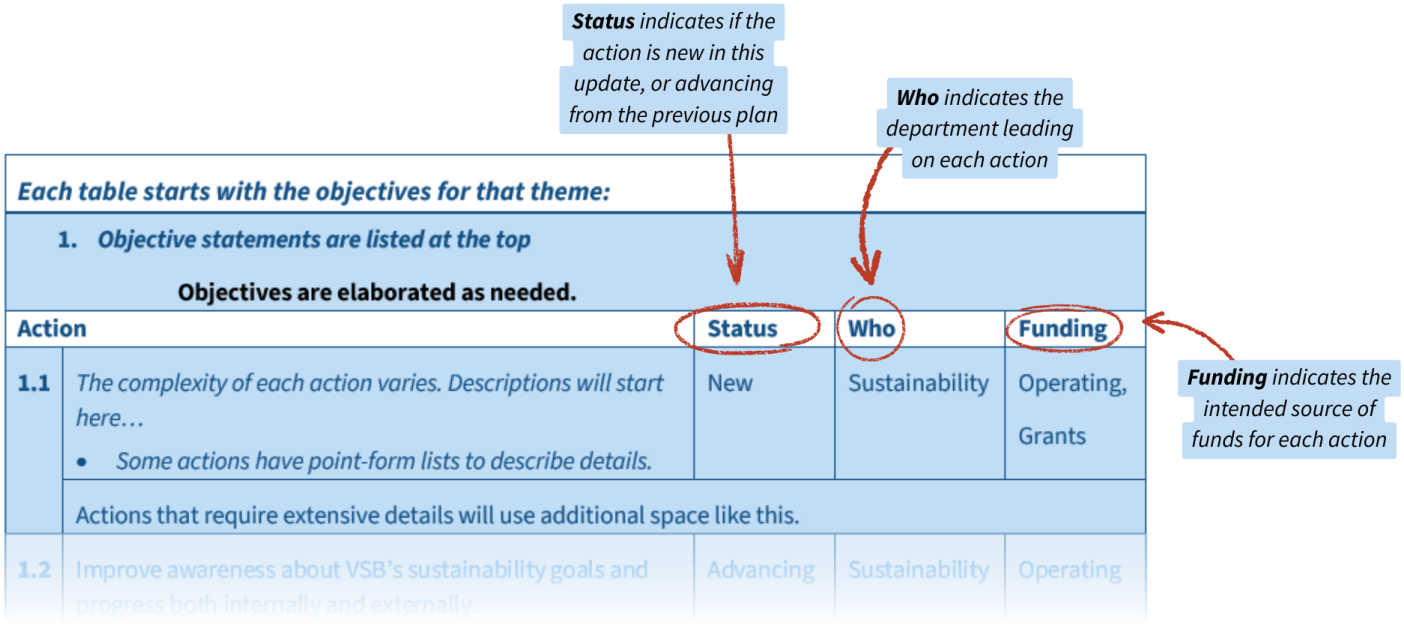


Figure 4: Example of an action table and how to interpret the information.

Theme 1: Leadership in Sustainability

Solar panels at wəḵʷaṅəs tə syaqʷəm Elementary

Creating a more sustainable future at VSB requires strong leadership and commitment from all departments and parts of the organization. Each action in the plan identifies a lead department to ensure this commitment is achieved. Continuous, step-by-step improvements in how the VSB operates will shift the culture to embed sustainability and help meet our climate goals. To track progress, VSB is committed to transparent and honest reporting through monitoring actions and sharing updates so our community can see how we are moving forward.

VSB is also positioned to lead and learn alongside other school districts. Many of the challenges we face, such as climate change and resource management, are shared across British Columbia. By working together, we can share solutions and build a stronger, more sustainable education system.

Objectives for Theme 1: Leadership in Sustainability

1. Foster sustainability in VSB's organizational culture
Meaningful progress in sustainability will require a concerted effort from all areas of the organization.

Action		Status	Who	Funding
1.1	Identify and advocate for funding and resources to implement the plan by ensuring actions are tangible, costed, and ready to advance if funding is available.	New	Sustainability	Minor Capital, Major Capital, AFG, External grants
1.2	Increase awareness about VSB's sustainability goals and progress, both internally and externally, by tapping into existing communications channels to share stories and updates.	New	Sustainability, Communications	Operating
1.3	Foster opportunities for collaboration to aid the expansion and adoption of sustainability practices across operations. • All teams within the organization will be included in advancing sustainability.	New	Sustainability	Operating
1.4	Implement a system to track, analyze, and report on school-based sustainability initiatives to recognize their contributions as part of the VSB sustainability plan. Gain further insight into "scope 3" emissions data, which includes sources of greenhouse gas related to schools that are not directly produced by school operations, such as waste collection and disposal, and commuting habits of families and staff to understand a more complete picture of ongoing impacts.	New	Sustainability	Operating
1.5	Share and exchange learnings and ideas with other school districts, local and regional governments, and other relevant agencies.	Advancing	Sustainability	Operating
1.6	Continue to engage in the learning standards of the BC curriculum at all grade levels that specifically support the skills and attitudes to foster sustainability including: • Student- and staff-led sustainability measures such as waste reduction, gardening, etc. • Teaching and learning initiatives such as land-based learning and climate action.	New	Sustainability	Operating
1.7	Review and update administrative procedure 546 to increase infrastructure and facilities support for land-based learning and student-led action projects. • Complete review and provide recommendations in 2026/27	New	Facilities	Operating

Theme 2: Sustainability in Education

VSB supports and encourages land-based learning in our schools and programs. Rooted in Indigenous ways of knowing and being, land-based learning recognizes the land as a teacher and emphasizes hands-on experiences outside the classroom. This approach helps students:

- Build a strong connection to nature and place
- Understand their role and responsibility in caring for the land
- Experience learning through reconciliation, respect, reciprocity, and stewardship

Land-based learning is more than spending time outdoors; it is about forming meaningful relationships with the natural world. It offers a broader and more positive scope for education than focusing solely on environmental problems. By exploring the interconnectedness of the biosphere, students gain a deeper understanding of themselves, their place in the world, and their ability to make a difference.

Educators, families, students, inherent rights holders and stakeholder groups across VSB value this experiential approach. It also helps address concerns about eco-anxiety, especially among younger learners. An experiential learning model supports a natural progression that ensures students engage with sustainability in age-appropriate, empowering ways — building confidence, curiosity, and care for the world around them:

- Primary years: discover and connect
- Intermediate years: grow awareness
- Secondary years: take informed action

Objectives for Theme 2: Sustainability in Education

1. **Foster connection to the natural world**
   Land-based learning provides opportunities for students to connect with their environment and embody Indigenous ways of knowing and being.
2. **Support learning initiatives that develop environmentally conscientious citizens**
   Following a strong connection to the natural world, students will be ready for deeper engagement with environmental issues that matter to them.

Action		Status	Who	Funding
2.1	Offer professional development opportunities for educators to build capacity for carrying out sustainability-focused learning including land-based learning and student-led action projects. • Offer at least one Pro-D session per year	Advancing	Sustainability and other VSB departments	Operating
2.2	Continue to provide support to school administrators to enable more land-based learning and student-led action projects.	New	Associate Superintendents and Directors of Instruction	Operating
2.3	Facilitate opportunities for peer mentorship and collaboration among educators in collaboration with the Environmental Educators Provincial Specialist Association (EEPSA).	Advancing	Sustainability	BCTF, Operating
2.4	Facilitate opportunities for student leadership, peer mentorship and collaboration among students. • Through the annual Sustainability Conference and other opportunities • Continue to encourage students to participate in the student leadership grant process through the VDSC • Seek out external grant opportunities as they arise	Advancing	Sustainability	Operating, External Grants
2.5	Create learning opportunities from sustainability actions in our facilities (for example, solar panels, passive house designs, energy conservation, etc.). • Highlight at least three features by 2030	Advancing	Sustainability	Operating

Theme 3: Green Spaces

VSB's school grounds offer valuable opportunities for learning, play, and environmental stewardship. These green spaces contribute to Vancouver's urban ecosystem by supporting biodiversity, improving air quality, managing rainwater, and helping cool the city.

Educators, families, and students are increasingly interested in using school grounds for learning through activities such as gardening, nature exploration, art projects, biodiversity improvements, and more. In addition, visits from Indigenous knowledge keepers help connect students to the land and enrich their educational experience.

We have a unique opportunity to make green spaces a central part of every school's learning environment. To do this, outdoor infrastructure must be:

- Durable, safe and resilient
- Accessible to all students
- Respectful of the past, present, and future of the land

Learning outdoors is not limited to school property. Local parks and regional resources also offer rich opportunities for students to explore, connect with nature, and deepen their understanding of sustainability.

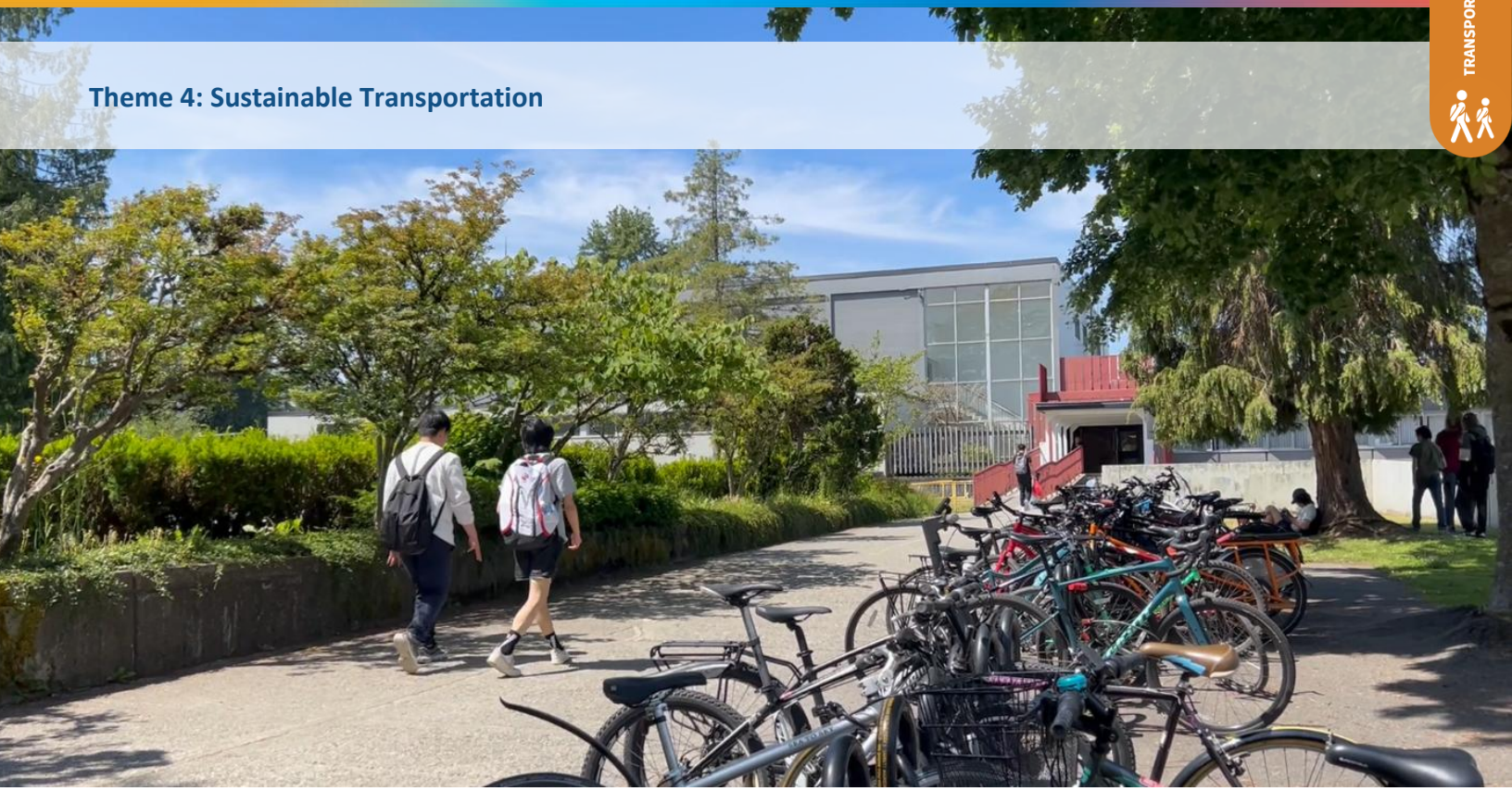
Objectives for Theme 3: Green Spaces

1. Support and improve outdoor focused spaces and activities at schools
Invest in the improvement and maintenance of our school grounds as extensions of the learning environment to empower educators and students to access and steward these places.

Action		Status	Who	Funding
3.1	Increase biodiversity at schools, prioritizing native and culturally significant plants wherever possible. • Improvement to approximately 10 sites per year • Targeted annual spending based on grant availability of approximately $30,000 • Students and educators will co-lead these improvements • Plant selection and maintenance procedures will be reviewed and adjusted • School-led gardens continue to be a high priority	New	Facilities	BC Parks Foundation Grants
	Increasing biodiversity means improving the variety of plants and organisms that live in our environment. This aids in pollinator habitat, rainwater management, air quality, soil quality, and access to nature. VSB aims to increase biodiversity at all sites through landscaping installation and maintenance practices (including trees). VSB continues to support and encourage schools to install, expand, and maintain raised garden beds for educational purposes. These gardens offer accessible and rich opportunities for cross-curricular hands-on learning. They also contribute greatly to the biodiversity on school grounds. In particular, native plant species attract beneficial insects and birds, are suited to local water/drought cycles, and offer opportunities for cultural learnings. To support this action, VSB is committed to the BC Parks Foundation Learning by Nature movement, which provides resources to improve access to nature across the province. By 2032, it is anticipated that many VSB schools will have received improvements through this program, which includes school-led initiatives, and Facilities-led projects.			
3.2	Improve outdoor infrastructure to enhance opportunities for accessible outdoor learning. • Improvements to approximately 4 sites per year based on available grant funding • Anticipated annual spending of approximately $400,000 • Students and staff will co-develop improvements wherever possible • Guidelines for changes and improvements will be developed, adjusted, and maintained as needed	New	Facilities	Grants, Minor Capital
	Outdoor infrastructure includes school gardens, outdoor learning areas, shade and shelter, fields, and other enhancements to the outdoor learning environment at schools. This action will be supported through the BC Parks Foundation Learning by Nature program, which provides limited, large grants to develop sustainable and functional areas for land-based learning at schools throughout BC.			

	These innovative projects will provide assets to encourage educators and students to bring learning outdoors without leaving the school grounds. This will reduce barriers and increase access to nature. Types of installations can include, but are not limited to: • Trees and groves • Lawn alternatives • Mud kitchens • Raised garden beds • Gathering spaces with seating • Pollinator meadows • Rainwater management solutions			
3.3	Engage with the not-for-profit sector to bring diverse outdoor learning activities to schools and to bring students to offsite outdoor learning places. • Track services provided by the not-for-profit sector	Advancing	Sustainability, Community Connections	Grants, Donations
3.4	Improve understanding of the connection between Indigenous principles of learning and environmental sustainability through outdoor land-based learning. • Increasing awareness, appreciation of, and respect for the oral traditions and living history of the land and environment of the school neighbourhoods and broader region supports VSB's journey of truth and reconciliation, while fostering ongoing environmental stewardship in our learners.	Advancing	Indigenous Education, Sustainability	Operating
3.5	Evaluate access to, and quality of green spaces across the VSB. • Identify priority areas for increased access and report on findings by 2028	New	Facilities	Operating
	In response to concerns about the distribution of green spaces across the district, VSB is committed to evaluating green assets at schools and identifying potential improvements. This assessment and evaluation will involve a review of VSB's outdoor infrastructure contextualized in the broader community. It is expected that a report will quantify the availability and access to nature that VSB students have, and where there are opportunities for VSB to improve upon inequities.			

Theme 4: Sustainable Transportation



Active transportation to-and-from school promotes physical activity, reduces greenhouse gas emissions, improves air quality, and eases vehicle traffic around schools. Many school catchments are well-suited for walking and biking. Where active transportation is not an option, we encourage the lowest carbon-emitting options for families and staff alike.

We are planning a range of strategic actions in collaboration with municipal partners, not-for-profit organizations, and regional authorities. These actions include maintaining key partnerships, enhancing infrastructure, promoting sustainable commuting for students and staff, and transitioning our fleet toward low-carbon alternatives. These efforts will help reduce transportation-related emissions, improve accessibility, and support vibrant, walkable school communities.

Objectives for Theme 4: Sustainable Transportation

1. **Support active transportation choices for school communities and staff**
   Empowering school communities to choose active transportation which supports healthier lifestyles, cleaner air, and more connected, vibrant neighbourhoods.
2. **Operate an efficient and low-carbon fleet**
   Transitioning to cleaner vehicles will build a fleet ready for a sustainable future.

Action		Status	Who	Funding
4.1	Maintain and expand the "School Active Travel Program Partnership" agreement with the City of Vancouver's Transportation Department.	Advancing	Sustainability, Planning	Operating
	VSB works with the City of Vancouver's Transportation team to support and encourage active transportation initiatives and opportunities for school communities. The primary goal is to increase the number of families choosing active transportation to and from school. Initiatives to support this have included: • **School Streets** (and the National Active School Streets Initiative): Temporary street closures in front of schools to allow space for active arrival and pick-ups. • **Walk Bike Roll Mini Grants**: City of Vancouver has provided annual small-scale grants directly to schools to support active travel activities, celebrations, and incentives. • **Walking School Bus and Bike Bus**: A leader walks or rides a group of students to and from school on a predetermined route with scheduled meeting spots along the way like bus stops. • **Better Bike Parking Initiative**: City of Vancouver has provided funding for VSB to increase the number of bike parking spaces at numerous schools. • **Ride the Road Active Travel Program:** bike and pedestrian training program for grades 6 and 7: City of Vancouver provides bike proficiency and safe walking education for grades 6 and 7 annually. • **School Travel Planning Program**: City of Vancouver works with 3 to 6 school communities annually on this comprehensive process to improve active transportation safety for families.			
4.2	Continue to work with local not-for-profit groups, regional governments, and transit authorities to increase awareness of active travel resources and programs for families.	Advancing	Sustainability	Operating
	Many local organizations offer active travel programs and support that VSB school communities can pursue to increase active transportation choices and decrease reliance on cars. We endeavor to promote and encourage these opportunities. Examples include: • TransLink: Walking School Bus, Kids Ride Free • HUB Cycling: Bike Bus, Ride the Road, Bike to School Week • Vancouver Bike Share: Mobi Youth Community Pass			

4.3	Enhance and expand bike and scooter parking infrastructure to improve security and usability.	Advancing	Facilities	Grants
4.4	Explore incentive programs for staff to choose active and low carbon modes of travel for commuting to and from their place of work.	New	Sustainability, Employee Services	Grants
4.5	Promote the use of car- and bike-sharing services for staff trips, where practical.	Advancing	Sustainability	Operating
4.6	Replace 25% of eligible gasoline fleet vehicles with electric vehicle models by 2030. • Install electrical charging infrastructure • Apply for eligible rebates/incentives	New	Facilities	Local Capital, Grants

VSB is advancing an efficient and low carbon fleet, replacing existing gas-combustion vehicles with suitable electric vehicles where possible, and transitioning away from burning fossil fuels.

Current Fleet Overview

As of 2025, VSB operates a fleet of 77 vehicles, including 44 gasoline-powered, 32 diesel-powered and 1 electric vehicle (EV). Of the total fleet, 62 are leased and 15 are owned. Of the leased vehicles, 38 are committed for purchase in 2027/28 when their leases end. This leaves 24 vehicles (20 gasoline, 1 electric and 3 diesel) available for potential replacement with EVs. Electrification is most feasible for light-duty gasoline vehicles, as diesel vehicles already operate on a low-carbon fuel (i.e. 100% renewable diesel or R100) and suitable electric alternatives for these types are limited. See Table 1 for an inventory of fleet vehicles.

Subject to budget availability for new EVs and the electrical infrastructure provisions required, VSB can add up to 11 new EVs in 2025/26. In addition, based on existing lease agreements, the fleet could expand to as many as 21 additional EVs by 2026/27, representing approximately 25% of the total fleet.

Assuming an average light duty gasoline vehicle emits approximately 4-5 tCO_2e per year, the estimated annual GHG reduction from replacing 21 gasolines vehicles with EVs is approximately 100 tCO_2e per year or 0.60% of total emissions.

Fleet Inventory and Leases					
Vehicle Fuel Type	**Purchased Vehicles**	**Leased Vehicles**			**Total**
		Expiring 25/26	**Expiring 26/27**	**Expiring 27/28**	
Gasoline	2	7	13	22 *	**44**
Diesel	13	3	-	16 *	**32**
Electric	-	-	1	-	**1**
Total	**15**	**10**	**14**	**38**	**77**
Eligible EV replacements	-	7	14	N/A	21

Table 1: Fleet inventory and leases

** At the end of the lease, vehicles are committed to being purchased at their residual value*

	EV Charging Infrastructure To support the transition to EVs, capital investment in EV charging infrastructure is required. This ensures there is available charging capacity at overnight parking sites. Some locations may require electrical upgrades to accommodate the increased load requirements. Advancements in EV charger technology, such as power sharing or load management, can support up to 10 chargers on a single circuit – though charging times will take longer when multiple vehicles are actively charging at once. Preliminary assessments of electrical capacity at overnight parking sites at both the maintenance and grounds yards (where most fleet vehicles are stationed overnight) indicate that electrical service upgrades may be required to support full electrification of the fleet. A detailed electrical capacity assessment will need to be completed to align with the fleet renewal strategy – anticipated to be complete by 2026/2027.			
4.7	Purchase 100% renewable diesel or low carbon fuels for all eligible fleet vehicles where available.	New	Facilities	Operating
	As part of VSB's strategy to reduce GHG emissions from fleet operations, VSB will continue to purchase 100% renewable diesel (R100) for applicable diesel vehicles. R100 is produced from vegetable oils, contains no petroleum content, and offers significant emission reductions compared to conventional diesel. Unlike some biodiesel blends, R100 is certified to the same standard as petroleum diesel, allowing it to be used in existing diesel engines without any modifications. This makes it a practical and impactful solution for transitioning fleet operations toward low-carbon alternatives.			
4.8	Assess school facilities to identify opportunities to expand EV charging infrastructure through new construction or retrofit opportunities. • Collaborate with local utilities and municipalities to coordinate opportunities to enhance EV infrastructure for the public where feasible	New	Sustainability	Grants, Major Capital
4.9	Conduct an annual review of EV charging rates to ensure they reflect current market rates.	New	Sustainability	Operating
4.10	Explore bike and scooter parking solutions at school sites that encourage sustainable transportation choices and reduce vehicle congestion at schools.	New	Sustainability, Business Development	AFG, External Grants

Theme 5: Resource Conservation and Climate Action

VSB is uniquely positioned to build a more sustainable school district by managing our resources, reducing waste, and responding to climate change. In 2026, we are increasing focus on reducing carbon emissions and adapting to climate risks, guided by data and aligned with available budgets.

Efforts will focus on:

- Reducing greenhouse gas emissions, especially from natural gas use (93% of our total emissions)
- Improving operational efficiency in energy, water, and waste
- Supporting climate literacy through staff training and student learning
- Planning for long-term emission reductions, including costed pathways for future decision-making

Success will be measured by:

- Tracking and reporting annual GHG emissions
- Benchmarking progress against provincial climate targets
- Engaging school communities in sustainability initiatives
- Demonstrating reductions in emissions from key sources like heating, paper use, and fleet vehicles

By combining operational improvements with meaningful education, VSB is preparing for a low-carbon, climate-resilient future.

Objectives for Theme 5: Resource Conservation

1. Reduce waste and consumption of resources
Improve resource consumption and expand waste reduction initiatives throughout VSB

Action		Status	Who	Funding
5.1	Maintain an active energy management and conservation program, leveraging the funding opportunities available from FortisBC and BC Hydro. • Participate in at least two energy efficiency programs per year that aim to improve building efficiency and performance	Advancing	Sustainability	Grants, Rebates
	VSB has been an active participant in the BC Hydro Energy Manager program since 2009. Participation in the program provides support and training for energy efficiency initiatives and exclusive access to rebates and incentives. VSB will continue to maintain its partnership with BC Hydro and participate in commercially available programs that support improving building energy performance, including BC Hydro's Custom Program and Continuous Optimization Program.			
5.2	Determine whether expanding recycling systems and waste diversion programs can be achieved with a target for improvements by 2030 • Determine the feasibility of launching a long-term flexible plastic collection program • Improve recovery of refundable containers from the Food4Schools program	Advancing	Sustainability, Food Services, Operations	Operating
5.3	Upgrade district facilities with efficient low-flow water fixtures and infrastructure by 2030 • Apply for applicable grants and rebate programs	Advancing	Maintenance	AFG
5.4	Review purchasing guidelines to reduce the availability of non-recycled paper (i.e. limiting the purchase of paper to 30%, 50% or 100% recycled content when available). • Seek opportunities to explore alternative fibres	Advancing	Sustainability, Procurement	Operating
	Paper consumption is the VSB's second largest source of reportable GHG emissions. VSB is exploring ways to reduce the environmental impact of paper use across schools and offices, where possible. This includes: **Increasing Digitization** Reduce paper use by shifting more processes and communications to digital formats where possible. This includes online forms, digital learning materials, and electronic record-keeping. **Using More Recycled Content** Increase the amount of recycled content in the paper we purchase. This helps lessen the environmental impact of the paper we do use for our operations and reduces the cost of carbon offset purchases.			

Exploring Alternative Fibres

Explore the feasibility of paper made from alternative sources such as sugarcane bagasse, a byproduct of sugar production. These fibres offer a more sustainable option compared to traditional wood-based paper and can help reduce deforestation and carbon emissions.

Track the impacts of utilizing VSB Printshop

Centralize printing through the VSB Printshop, may help reduce misprints, printing errors, paper and toner waste. This facility is operated by trained staff who use efficient equipment and processes that can optimize layouts to minimize excess pages and offer various sustainable paper options. Establish reporting metrics on printshop use and the impacts on paper use, cost and overall efficiency.

By combining these strategies, VSB is committed to making paper use more sustainable while supporting learning and administrative needs.

Figure 5 illustrates that in 2024, there were more than 43 million paper sheets purchased at the VSB, with elementary schools as the largest consumers using more than 23 million sheets (54%), followed by secondary schools consuming more than 16 million sheets (38%) and administrative offices consuming 3.6 million sheets (8%).

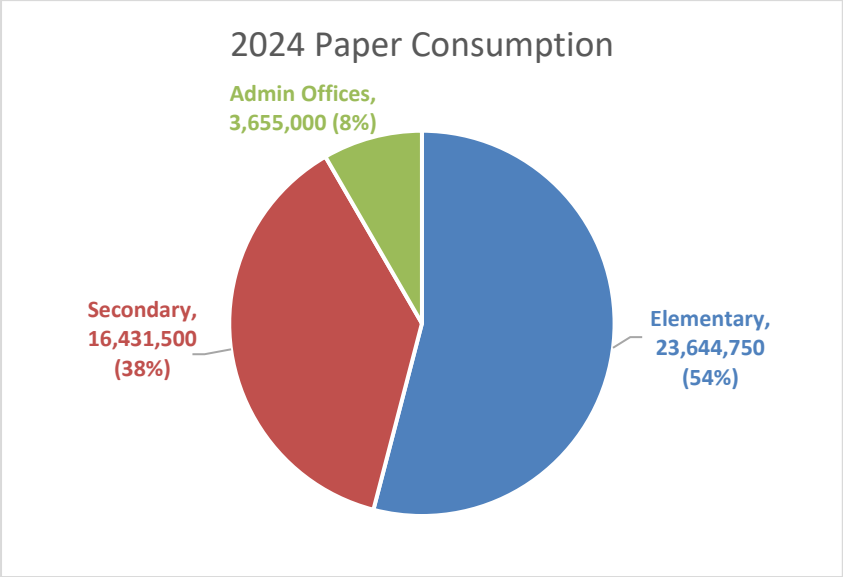


Figure 5: 2024 paper consumption breakdown

Objectives for Theme 5: Climate Action				
2. Prepare for climate change and its impacts *Prepare facilities and outdoor spaces to adapt to climate-related risks, and support climate education for students*				
Action		**Status**	**Who**	**Funding**
5.5	Develop a climate readiness plan that identifies climate preparedness and response mitigation measures by 2030. • High level assessment of vulnerabilities • Targeted building-level assessments • Integrate measures into facilities planning processes	Advancing	Sustainability	Grants & Operating
	This plan will outline how the VSB can prepare for and respond to the current and future impacts of climate change. This includes improving resiliency to climate related risks to its facilities such as extreme heat, drought and increased rainfall events.			
5.6	Review and update VSB building design standards to ensure new and replacement facilities are designed and constructed to include low-carbon heating/cooling systems and climate-resilient materials. • Climate risk assessments will be considered for new and replacement seismic projects	Advancing	Vancouver Project Office	Major or Minor Capital
5.7	Identify curriculum opportunities and develop ready-to-use resources to increase education and awareness about the impacts of climate change.	Advancing	Sustainability	Operating
Objectives for Theme 5: Climate Action – GHG Emissions				
3. Reduce energy consumption and GHG emissions *Focusing on energy efficiency and carbon reduction will advance our progress towards provincial targets*				
Action		**Status**	**Who**	**Funding**
5.8	Develop a **strategic framework for reducing GHG emissions** and advancing the use of clean and renewable energy by 2030. Explore renewable natural gas (RNG) investment as an option to achieve GHG reduction targets	New	Sustainability	Operating
	This framework outlines how the VSB can manage its energy use (and its associated GHG emissions) to support provincial climate goals and GHG reduction targets. It includes a structured approach to advancing GHG reduction targets through a *capital investment strategy (see 5.7.2)* as well as *supplementary measures (see 5.7.3)*, including phasing in renewable fuels, such as renewable natural gas (RNG), over time. **The framework is outlined on pages 27-37.**			
5.9	Prioritize projects that directly contribute to GHG reduction and climate change preparedness, including adaptations to HVAC systems, operational efficiencies, innovative technologies Target a minimum GHG reduction of 5% by 2030	Advancing	Sustainability, Maintenance, Operations	AFG
5.10	Replace at least 50% of all eligible gasoline-powered tools with electric alternatives by 2030, where feasible	New	Grounds	Operating

Strategic Framework for Reducing GHG Emissions

5.8.1 History of Projects and Work to date

VSB has implemented numerous HVAC projects that aim to reduce energy consumption and to improve building performance. From building control measures to infrastructure upgrades, VSB has participated in energy management initiatives, minor capital, and major capital programs offered through the Ministry of Education and Child Care and Ministry of Infrastructure.

Energy Management Projects

In 2009, VSB joined the BC Hydro Energy Manager program and implemented numerous energy management and conservation projects, leveraging utility incentives to make these projects more cost-effective. A summary of the projects implemented since 2014 is shown in Table 2 below. Total energy savings of $1.1 million can be attributable to the Energy Management Program.

Energy Management Projects				
Year	Electricity Conservation Projects		Natural Gas Conservation Projects	
	Project Locations (number)	Total Electricity Savings (kWh/ year)	Project Locations (number)	Total Natural Gas Savings (GJ / year)
2014/15	8	495,000	8	1,470
2015/16	7	536,000	15	0
2016/17	18	662,000	2	4,500
2017/18	13	1,302,000	2	9,500
2018/19	7	587,000	1	1,175
2019/20	14	709,000	4	6,880
2020/21	6	455,000	5	3,300
2021/22	5	341,000	2	1,200
2022/23	10	325,000	9	4,500
2023/24	12	412,000	6	5,696
2024/25	8	317,668	3	2,000
Totals	**108**	**6,141,668**	**57**	**40,221**
Annual Utility Savings		**$ 698,000**		**$ 458,000**
Total (Electricity and Gas savings)		**$1,156,000**		

Table 2: Energy Management Projects

Carbon Reduction achieved through Minor Capital Projects

Over the past decade, VSB has upgraded its mechanical systems and heating plants through the Carbon Neutral Capital Program (CNCP). CNCP is a program that provides capital funding specifically for projects that improve overall energy efficiency and reduce GHG emissions. The benefits of this capital funding include operational cost savings, reduced facility condition index, renewed infrastructure, and potential to supplement funding to major capital programs. A summary of the projects implemented since 2017 is shown in Table 3 below. The impacts of these projects on GHG emissions varies. Since 2017, seven heating plant upgrades were completed, achieving a net GHG reduction of 42 tCO_2e (representing a 6% reduction).

Minor Capital Program – Completed Projects							
Year	Type	School	Funding Program	GHG Emissions Before (tCO_2e)	GHG Emissions After (tCO_2e)	GHG Change (tCO_2e)	% change
2017	Elementary	McBride	AFG	105	59	(45)	(43)%
2019	Elementary	Roberts	CNCP	141	126	(14)	(10)%
2020	Elementary	Hastings	CNCP	153	113	(40)	(26)%
2020	Elementary	Selkirk	CNCP	115	133	18	15%
2021	Elementary	Norquay	CNCP	119	161	42	35%
2022	Elementary	MacCorkindale	CNCP	76	75	(1)	(1)%
2024	Elementary	Beaconsfield	AFG	-	-	-	-
2024	Elementary	Britannia	CNCP	-	-	-	-
2024	Secondary	Magee	CNCP	-	-	-	-
			TOTAL	**709**	**667**	**(42)**	**(6)%**

Table 3: Projects completed through the Minor Capital Program

Carbon Reduction achieved through Major Capital Projects

The Seismic Mitigation Program (SMP) has delivered seismically safe facilities while improving infrastructure, energy efficiency and reducing overall GHG Emissions. A summary of the projects implemented since 2016 is shown in Table 4 below. The impacts of these projects on GHG emissions varies. Since 2016, twenty-three SMP projects have been completed, achieving a net GHG reduction of 703 tCO_2e (representing a 26% reduction).

Seismic Mitigation Program – Completed Projects								
Year	Type	School	Heat Pump	Project Type	GHG emissions Before(tCO2e)	GHG Emissions After(tCO2e)	GHG Change (tCO2e)	% change
2016	Elementary	Queen Mary	-	Partial	171	72	(99)	(58)%
2016	Elementary	Gordon	Yes	Replacement	115	25	(90)	(78)%
2016	Elementary	L'Ecole Bilingue	-	Replacement	110	48	(62)	(57)%
2017	Secondary	Kitsilano	Yes	Replacement	475	240	(236)	(50)%
2017	Elementary	Strathcona	-	Upgrade	332	345	14	4%
2018	Elementary	Jamieson	-	Upgrade	87	70	(17)	(20)%
2018	Elementary	Kingsford-Smith	-	Upgrade	74	85	11	16%
2019	Elementary	Nelson	-	Replacement	101	69	(32)	(32)%
2020	Elementary	Maple Grove	Yes	Replacement	108	41	(67)	(62)%
2020	Elementary	Fleming	-	Replacement	76	52	(24)	(32)%
2020	Elementary	Tennyson	-	Replacement	78	70	(7)	(9)%
2021	Secondary	Byng	-	Upgrade	293	305	12	4%
2021	Elementary	Maquinna	-	Upgrade	47	93	46	96%
2021	Elementary	Selkirk	-	Upgrade	121	133	12	10%
2021	Elementary	Wolfe	-	Upgrade	86	85	(1)	(1)%
2022	Elementary	Weir	Yes	Partial	58	13	(45)	(78)%
2022	Elementary	wək ʷaʔəs tə syaqʷəm	-	Replacement	81	39	(42)	(52)%
2023	Elementary	Bayview	Yes	Replacement	69	22	(47)	(68)%
2023	Elementary	Lloyd George	-	Replacement	103	66	(37)	(36)%
2023	Elementary	Cavell	-	Upgrade	77	77	0	0%
2023	Elementary	Livingstone	-	Upgrade	57	66	9	16%
2024	Secondary	Hamber	Yes	Replacement	--	--	--	--
2024	Elementary	Hudson	Yes	Replacement	--	--	--	--
Total					**2,719**	**2,015**	**(703)**	**(26)%**

Table 4: Projects completed through the SMP
Note: Totals do not include recent projects that do not have post-project data (i.e. Hamber and Hudson).

5.8.2 Capital Investment Strategy

This investment plan outlines a prioritized list of 51 projects aimed at advancing energy efficiency and GHG reduction through the renewal of aging heating, cooling, and ventilation (HVAC) systems, integration of low carbon technology and high efficiency equipment in new construction and retrofit opportunities.

The prioritization process was guided by a set of criteria to ensure alignment with organizational and operational needs:

- Alignment with the 2026/27 Major and Minor Capital Plan priorities
- Renewal of appliances and equipment at, or reaching end of service life
- Energy Management Score rank higher than the median of 57

The Energy Management (EM) Score allows for a high-level comparative assessment through a ranking system using defined weighted criteria. The system provides each building with an EM Score and respective ranking from 1 to 113 – where 1 is the best performing school overall and 113 being the poorest performing overall. See Appendix A for EM scores.

The factors and their weighted criteria in determining scores are shown in Table 5 below.

Energy Management Score Factors	
Factor	**Weight**
Facility Condition Index (FCI)	0.4
Energy Use Intensity (EUI)	0.25
Energy-related GHG emissions	0.35
Total	**1**

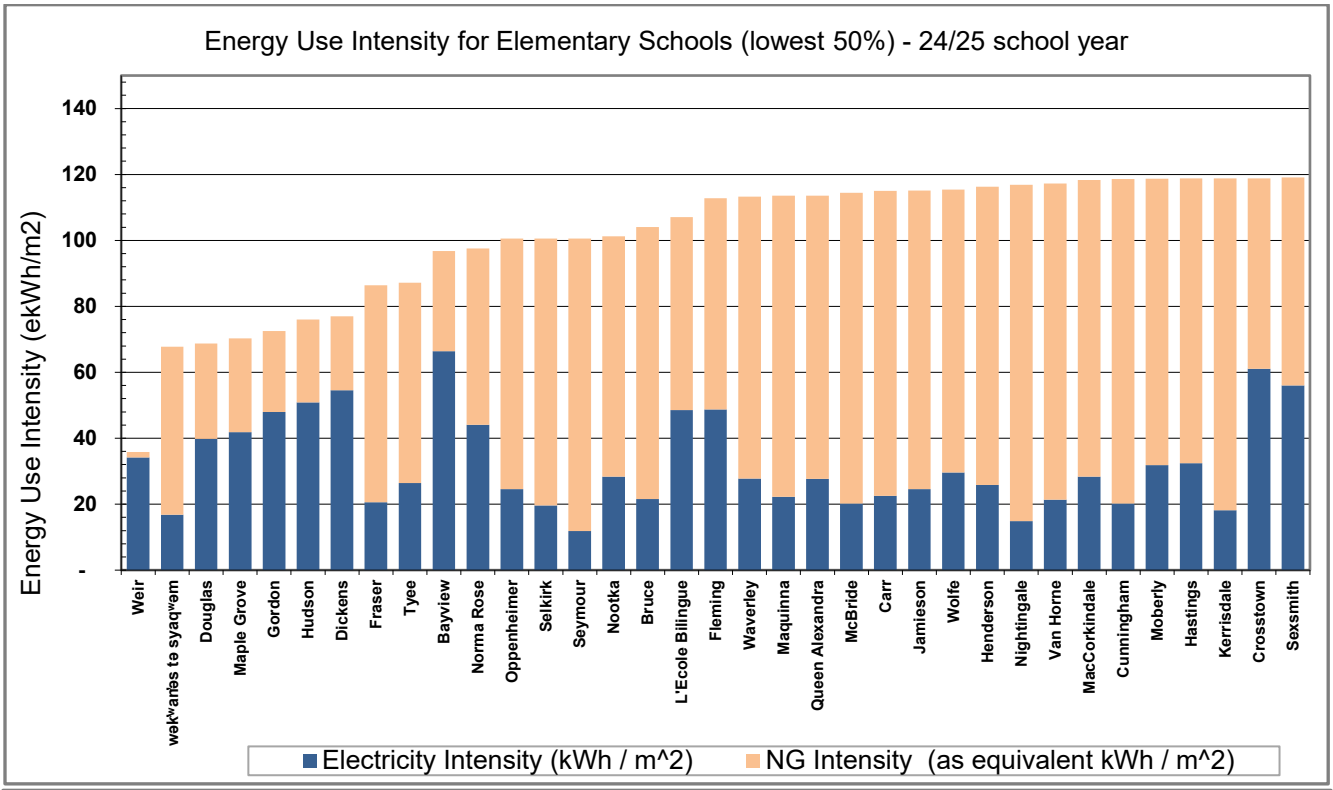
Table 5: Energy Management Score factors

Energy Use Intensity

As buildings represent such a significant portion of VSB's emissions, it is important to understand where opportunities exist. Energy Use Intensity (EUI) is a metric that measures a building's energy performance. It represents the amount of energy consumed per unit of floor area – to allow for fair comparisons between buildings. For context, a typical older mechanical system such as an inefficient gas boiler might correspond to an EUI of approximately 150 - 300 ekWh/m² per year, whereas a modern high-efficiency system or heat pump system can achieve EUIs closer to 50 - 150 ekWh/m² per year. This comparison highlights the potential for significant reductions in energy use and emissions through system upgrades.

Energy Use Intensity: Elementary Schools

VSB operates 89 elementary schools, each averaging 4,700 m^2 in floor area. Figure 6a and 6b below shows total EUI values range between 34 to 250 ekWh/m^2, with an average EUI of 128 ekWh/m^2 across all elementary schools. Note: due to page size constraints, the figure is split into two parts: 6a shows the lowest 50% of EUIs, while 6b shows the highest 50% of EUIs - both share axis and color schemes to maintain comparability.



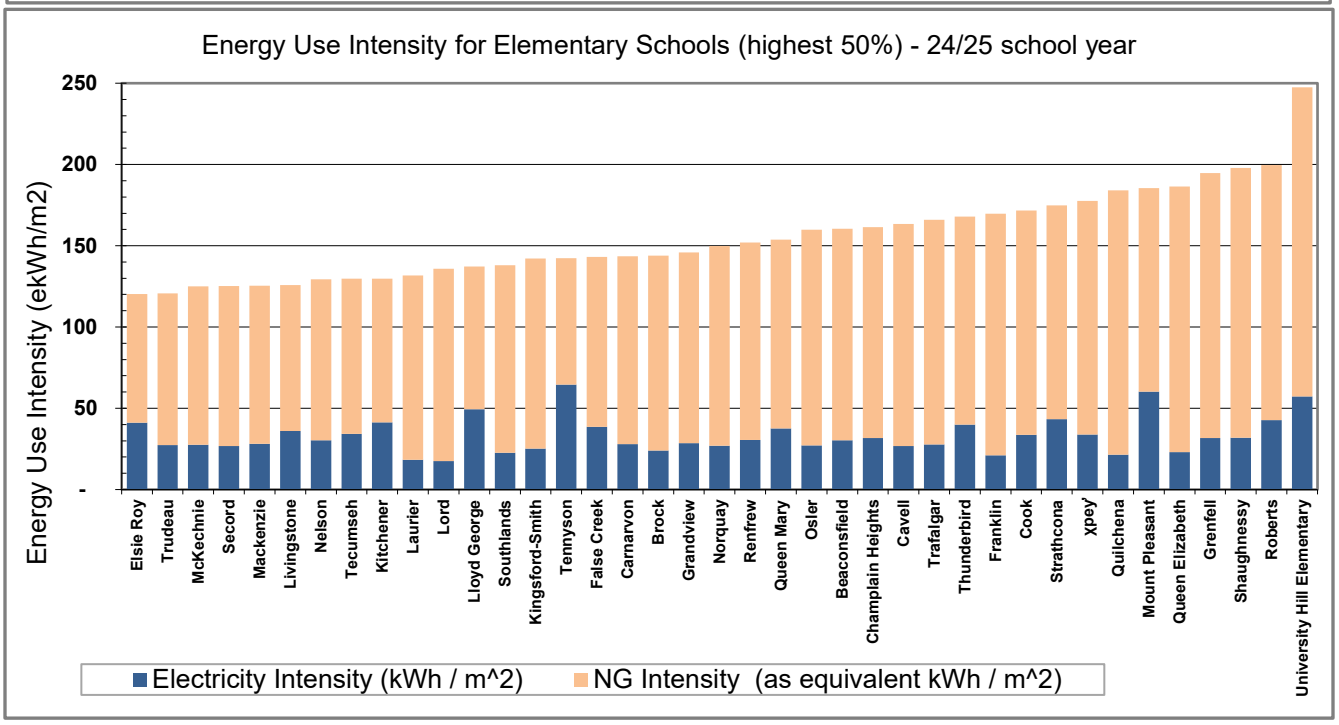


Figure 6a & 6b: Energy Use Intensity – Lowest and Highest 50% of Elementary Schools.
Note: Energy data for Britannia Elementary is not known due to insufficient sub-metering within the Britannia School and Community Center Complex.

Energy Use Intensity: Annexes

Annexes average 1,758 m^2 in floor area. Figure 7 shows total EUI's range between 103 to 177 ekWh/m^2, with an average EUI of 131 ekWh/m^2 across all annexes.

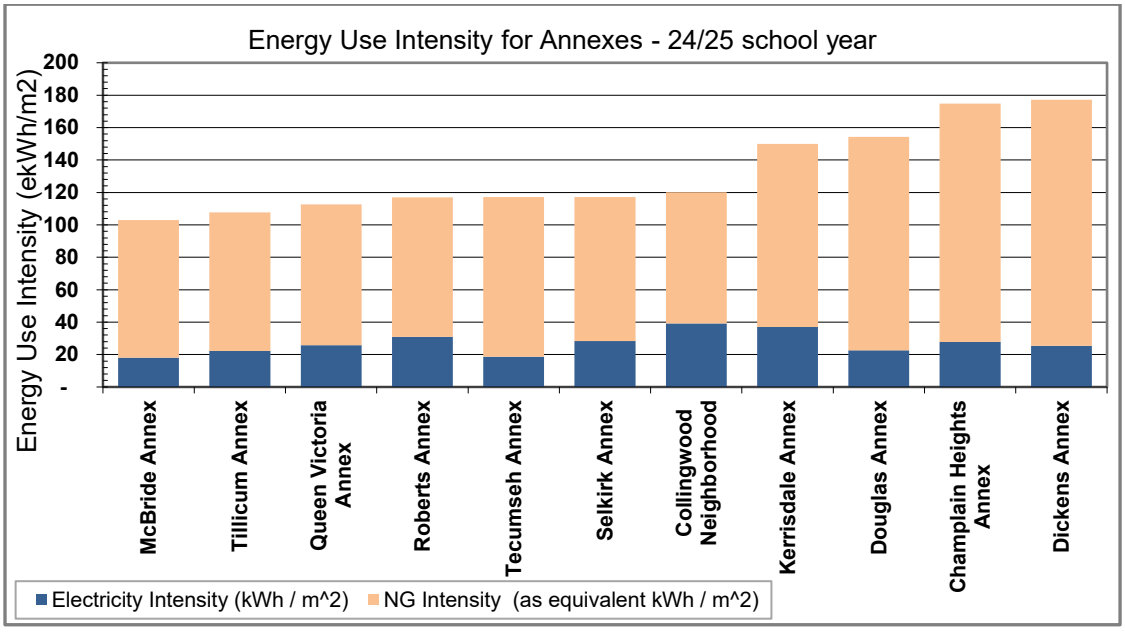


Figure 7: Energy Use Intensity – Annexes

Energy Use Intensity: Secondary Schools

VSB operates 18 secondary schools, each averaging 19,000 m^2 in floor area. Figure 8 shows total EUI's range between 89 to 188 ekWh/m^2, with an average EUI of 132 ekWh/m^2 across all secondary schools.

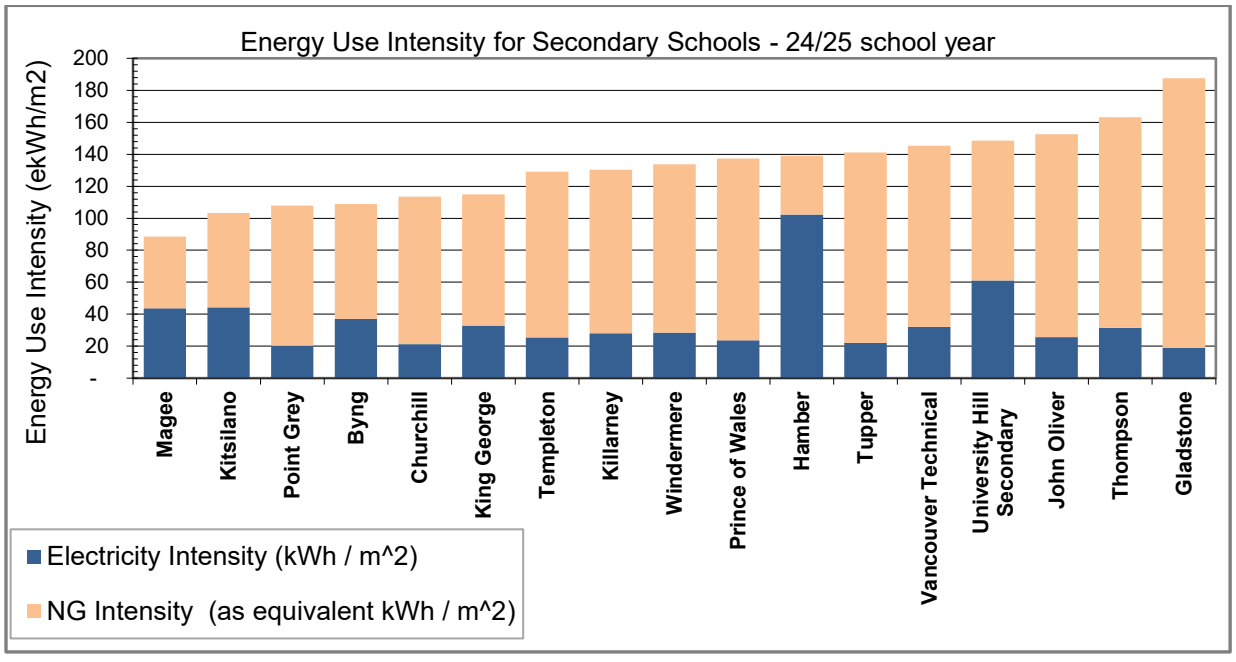


Figure 8: Energy Use Intensity – Secondary schools
Note: Energy data for Britannia Secondary is not known due to insufficient sub-metering within the Britannia School and Community center complex.

Energy Use Intensity: Other Buildings

Other buildings comprise of district facilities, closed sites (i.e. Carleton, Lloyd George), and sites used as Swing Spaces (i.e. wəl̓ƙʷaṅəs tə syaqʷəm, Hamber, Maple Grove, South Hill). These buildings average 4,912 m^2 in floor area. Figure 9 shows total EUI's range between 49 to 247 ekWh/m^2, with an average EUI of 131 ekWh/m^2.

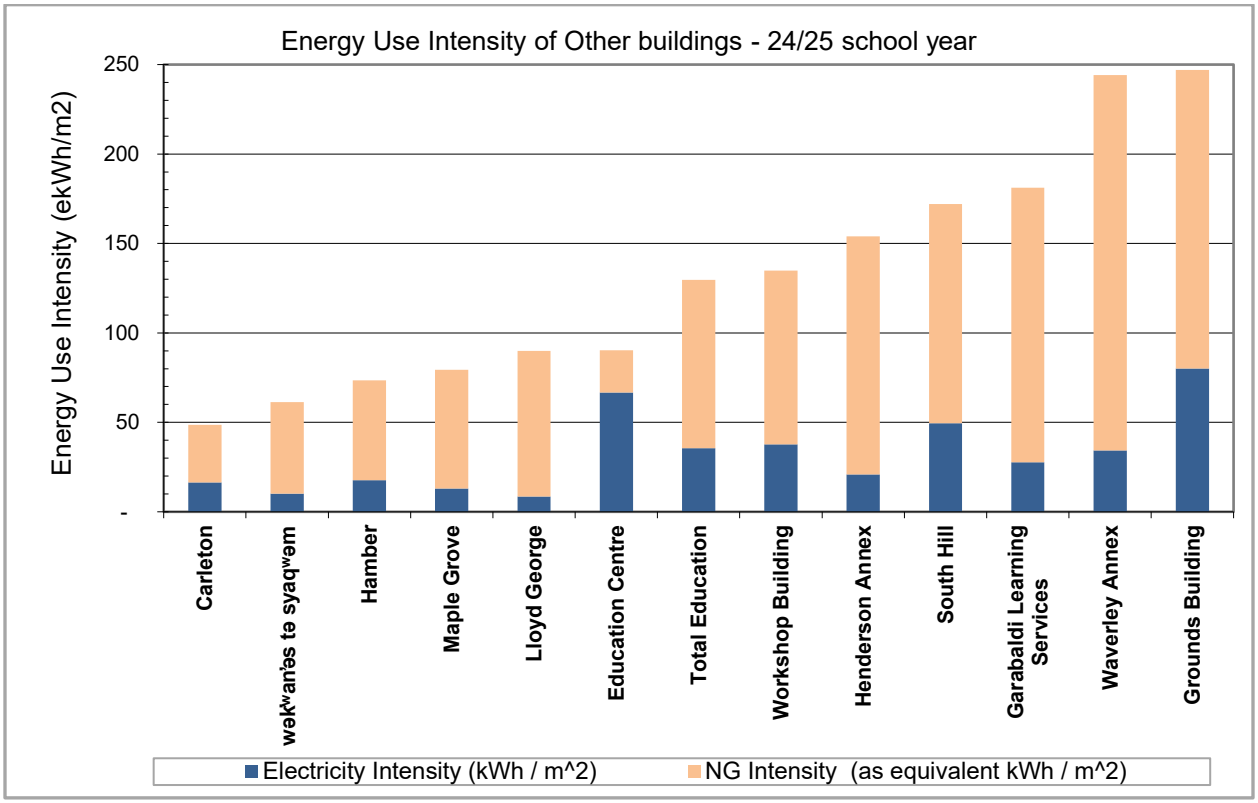


Figure 9: Energy Use Intensity – Other Buildings
Note: Leased sites are excluded as utility data is available for some, but not all locations.

Project Priorities

The projects fall into the following categories:

- HVAC upgrades
- major capital projects
- efficient lighting upgrades
- building controls optimization

The project list below comprises of various project types, many of which are anticipated to be funded through different sources including: Major Capital programs - including the SMP and School Expansion Program (EXP), Minor Capital programs including CNCP, AFG or School Enhancement Program (SEP). These funding sources are administered by the Ministry of Infrastructure and the completion of these projects relies on their sustained funding. Note that the project list may evolve over the course of the plan as priorities shift.

The project list has identified 51 projects that have the potential to achieve total GHG reductions of 1,612 tCO_2e annually, $359K annual energy savings, requiring total capital funding of approximately $1.4 billion.

Project Priorities: HVAC Upgrades

Many existing school facilities operate ageing and inefficient HVAC equipment, resulting in higher energy consumption, increased GHG emissions and rising operation and maintenance costs. HVAC upgrades included in this plan are selected based on the urgency of the need, focusing on systems that have reached end of service life, as well as critical systems required for core functionality of the facilities. All boiler upgrade projects listed have an end-of-life heating plant which is the primary factor determining their timing. Table 6 shows there are 25 opportunities identified requiring approximately $15 million in funding, total GHG reductions of 315 tCO_2e annually and $68K annual energy savings.

HVAC Upgrades							
Year	Facility/Site	Project Type	Total Project Cost (Estimated)	Annual Energy Savings	Payback (years)	Annual GHG Reduction (tCO_2e)	Anticipated Funding Source
2026	Education Centre	Chiller Upgrade	$903,700	$1,500	> equipment life	1	AFG
2026	Grounds Building	Furnace Upgrade	$15,000	$480	31	2	AFG
2026	Xpeẏ Elementary	Furnace Upgrade	$15,000	$720	21	3	AFG
2026	Queen Alexander Elementary	Furnace Upgrade	$15,000	$480	31	2	AFG
2026	Kerrisdale Annex	Boiler Upgrade	$420,000	$2,784	> equipment life	12	AFG
2026	Waverly Annex	Boiler Upgrade	$210,000	$2,400	> equipment life	10	AFG
2026	Brock Elementary (Frame)	Boiler Upgrade	$460,000	$480	> equipment life	2	Minor Capital
2026	Cavell Elementary	Boiler Upgrade	$630,000	$4,320	> equipment life	18	Minor Capital
2027	Crosstown Elementary (Phase 1 & 2)*	HVAC Upgrade	$2,820,000	N/A	N/A	N/A	Minor Capital
2027	Kingsford Smith Elementary	Steam to Hot Water Conversion	$1,600,000	$2,988	> equipment life	12	Minor Capital
2027	Shaughnessy Elementary	Boiler Upgrade	$800,000	$7,200	> equipment life	36	AFG
2027	Dickens Annex	Boiler Upgrade	$450,000	$1,872	> equipment life	15	Minor Capital
2028	Nootka Elementary	Boiler Upgrade	$420,000	$2,280	> equipment life	15	Minor Capital
2028	Tillicum Annex	Boiler Upgrade	$350,000	$2,400	> equipment life	15	AFG
2028	Queen Elizabeth Elementary	Boiler Upgrade	$560,000	$4,800	> equipment life	20	AFG
2029	South Hill Education Centre	Boiler Upgrade	$700,000	$7,200	> equipment life	30	AFG
2029	Jamieson Elementary	Steam to Hot Water Conversion	$1,600,000	$2,592	> equipment life	11	Minor Capital
2030	Carnarvon Elementary	Boiler Upgrade	$560,000	$4,116	> equipment life	17	AFG
2030	McBride Annex	Boiler Upgrade	$280,000	$2,400	> equipment life	16	AFG
2030	Queen Victoria Elementary	Boiler Upgrade	$560,000	$4,800	> equipment life	20	Minor Capital
2030	Selkirk Annex	Boiler Upgrade	$420,000	$2,400	> equipment life	16	AFG
2031	Douglas Annex	Boiler Upgrade	$420,000	$2,400	> equipment life	10	AFG
2031	Garibaldi Annex	Boiler Upgrade	$280,000	$2,400	> equipment life	10	Minor Capital
2032	Champlain Heights Annex	Boiler Upgrade	$560,000	$2,400	> equipment life	10	AFG
2032	Maquinna Elementary	Boiler Upgrade	$560,000	$2,600	> equipment life	12	Minor Capital
Total			**$15,608,700**	**$68,012**	-	**315**	

Table 6: HVAC projects (2026 – 2032)
**Funding Approved*

Project Priorities: Major Capital

Each year, VSB prepares and submits a five-year major capital plan to the provincial government for funding consideration. Table 7 below shows the capital plan priorities, forecasting 14 projects requiring approximately $1.3 Billion in funding, total GHG reductions of 1,173 tCO_2e annually, and $213K in annual energy savings.

Note: Seismic mitigation replacement projects are assumed to include mechanical system provisions and low carbon infrastructure, as implementation of such projects have typically included heat pumps and high efficiency heating plant upgrades.

Major Capital						
Year	**Facility/Site**	**Project Type**	**Total Project Cost (Estimated)**	**Annual Energy Savings**	**Annual GHG Reduction (tCO2e)**	**Anticipated Funding Source**
2026	Seaside cə̓was Ch'elxwá7elch Skwuláẇtxw Elementary *	New School	$42,000,000	N/A	(5)	Various
2026	Grenfell Elementary *	Upgrade	$29,200,000	$2,400	10	SMP
2029	Olympic Village Elementary *	New School	$150,607,519	N/A	(10)	EXP
2029	Mackenzie Elementary	Replacement	$49,599,313	$18,960	79	SMP
2029	Renfrew Elementary	Replacement	$51,838,315	$20,800	145	SMP
2030	Thompson Secondary	Upgrade	$153,806,841	$5,060	23	SMP
2030	Killarney Secondary	Upgrade	$164,640,000	$9,680	44	SMP
2030	Carr Elementary	Replacement	$33,898,845	$13,680	57	SMP, EXP
2030	Waverley Elementary	Replacement	$43,035,291	$14,880	62	SMP
2030	Nightingale Elementary	Replacement	$37,886,380	$19,440	81	SMP
2030	King George Secondary	Replacement	$99,750,785	$17,760	74	SMP, EXP
2032	Roberts Annex	Replacement	$194,164,993	$6,960	29	EXP
2032	Churchill Secondary	Replacement	$180,777,273	$36,540	257	SMP
2032	John Oliver Secondary	Replacement	$167,203,776	$46,940	327	SMP
Total			**$1,398,409,331**	**$213,100**	**1,173**	

Table 7: Major Capital Projects (2026 - 2032)
**Funding Approved*

Project Priorities: Lighting Upgrades

Lighting retrofit opportunities at VSB are nearing completion. However, some facilities remain that operate inefficient lighting technologies. Upgrading to modern lighting solutions, such as LED technology, offers significant energy savings and operational improvements. Additionally, lighting upgrades typically involve ceiling access, creating a strategic opportunity to address seismic safety requirements for overhead lighting components. Table 8 below shows there are 6 identified lighting upgrades requiring approximately $550K in funding, total GHG reductions of 8.5 tCO_2e annually and $52K annual energy savings.

Lighting Upgrades							
Year	Facility/Site	Project Type	Total Project Cost (Estimated)	Annual Energy Savings	Payback (years)	Annual GHG Reduction (tCO2e)	Anticipated Funding Source
2026	Norquay Elementary	LED upgrade	$50,000	$7,500	7	1	AFG
2027	Hastings Elementary	LED upgrade	$50,000	$7,500	7	1	AFG
2028	Elsie Roy Elementary	LED upgrade	$50,000	$7,500	7	1	AFG
2029	Kerrisdale Elementary	LED upgrade	$50,000	$7,500	7	1	AFG
2030	McKechnie Elementary	LED upgrade	$50,000	$7,500	7	1.5	AFG
2031	Killarney Secondary	LED upgrade	$300,000	$15,000	21	3	AFG
Total			**$550,000**	**$52,500**	**10**	**8.5**	

Table 8: Lighting Upgrades (2026 – 2032)

Project Priorities: Building Controls Optimization

Building controls optimization, also known as building tune-ups, is the process of systematically inspecting, testing, and adjusting an existing building's systems to ensure they operate as intended and at optimal efficiency. Table 9 below shows there are 6 building tune-ups identified requiring approximately $45K in funding, total GHG reductions of 115 tCO_2e annually and $25K annual energy savings.

Building Controls Optimization							
Year	Facility/Site	Project Type	Total Project Cost (Estimated)	Annual Energy Savings	Payback (years)	Annual GHG Reduction (tCO2e)	Anticipated Funding Source
2026	Tennyson Elementary	Controls Optimization	$8,760	$4,960	1	12	AFG
2026	L'ecole Bilingue Elementary	Controls Optimization	$7,309	$3,570	2	7	AFG
2027	Norma Rose Elementary	Controls Optimization	$3,102	$5,383	1	65	AFG
2028	Gordon Elementary	Controls Optimization	$3,309	$3,900	1	10	AFG
2029	Queen Mary Elementary	Controls Optimization	$13,155	$4,170	3	11	AFG
2031	Secord Elementary	Controls Optimization	$10,000	$4,000	2	10	AFG
Total			**$45,635**	**$25,983**	**2**	**115**	
Total (All Projects 2026 – 2032)			**$1,414,613,666**	**$359,595**	**-**	**1,612**	

Table 9: Building Controls Optimization Projects (2026 - 2032)

Capital Investment Outlook

The 2030 provincial GHG reduction target aims for a 40% reduction from the 2007 baseline (VSB's emissions were 18,232 tCO_2e in 2007). In 2024, VSB has successfully reduced overall emissions (2024 emissions were 15,548 tCO_2e), however, emissions must decrease to 10,939 tCO_2e to meet the 2030 target.

If the proposed plan is fully funded and implemented, including the completion of all planned seismic mitigation projects and HVAC upgrades, it could achieve an estimated annual reduction of 972 tCO_2e - lowering total emissions to 14,576 tCO_2e by 2030, representing a 20% decrease from the 2007 baseline. This leaves a remaining gap of 3,637 tCO_2e, a shortfall of approximately 20% from the 2030 target. Figure 10 presents a modelled projection of this outlook, highlighting that despite the proposed completion of all planned projects, additional measures will be needed to fully meet the target.

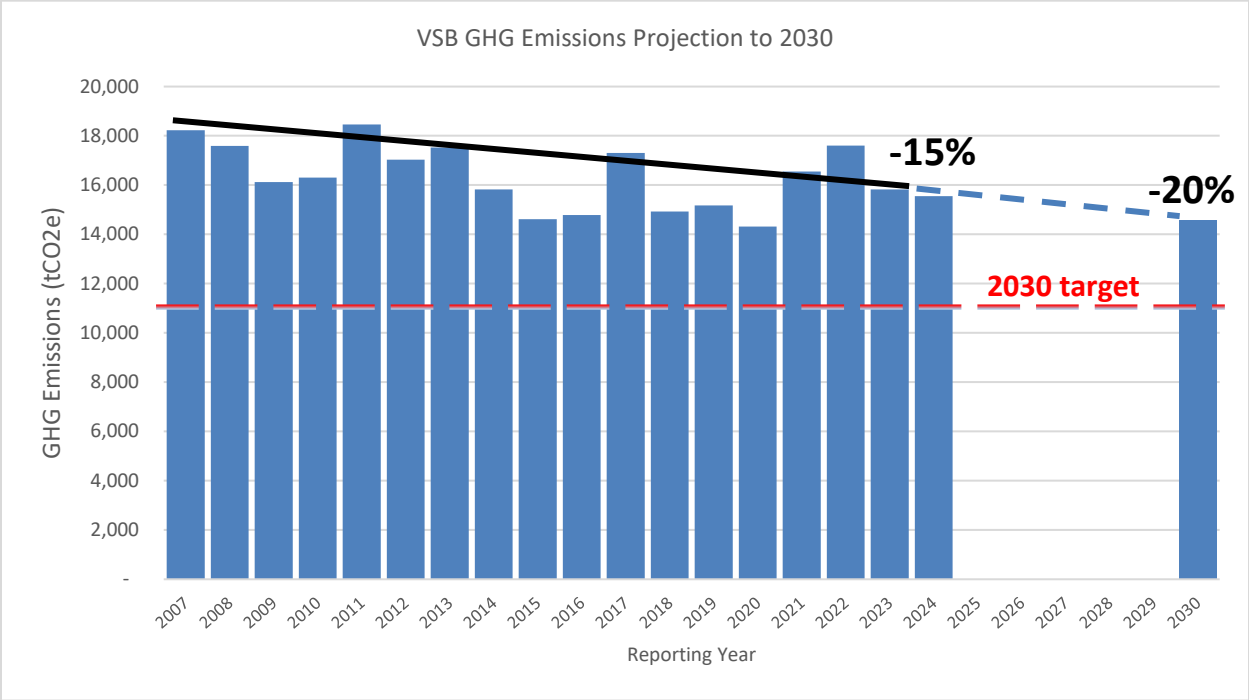


Figure 10: VSB GHG Emissions Projection to 2030

Additional efforts are needed to close the gap to meet the 2030 provincial target. VSB is exploring other strategies to improve progress towards these targets, such as evaluating alternative fuel blends with renewable components for both fleet vehicles and building heating systems.

5.8.3 Supplemental Strategies

Renewable Natural Gas

Renewable Natural Gas (RNG) is a low carbon alternative to conventional natural gas and can serve as a pathway to reducing GHG emissions in buildings, particularly when fuel-switching to clean electricity is technically challenging or cost-prohibitive. Produced from organic waste sources, such as food scraps, RNG can be seamlessly integrated into existing natural gas infrastructure. VSB currently buys natural gas from FortisBC, which includes 2% RNG as part of its standard gas supply. This percentage is expected to grow as more RNG supply becomes available over time.

As of July 2025, VSB can elect to purchase additional RNG at a premium – roughly four times the cost of conventional natural gas. However, because RNG is considered a low carbon fuel, purchasing RNG avoids the requirement to purchase carbon offsets for the proportion of RNG used.

As outlined in section 5.7.2, even with full funding and implementation of the plan, a gap remains in meeting the 2030 GHG reduction target. RNG presents a strategy to help address this gap, especially where upgrading heating systems cannot be achieved. Addressing this gap with RNG is estimated to cost approximately $650K annually, while saving approximately $100K annually in carbon offset costs. Although purchasing RNG can lead to significant emissions reductions, the cost far exceeds the offset savings and represents a negative-value investment strategy. Full adoption of RNG would cost millions annually, therefore only a partial strategy is financially prudent.

Figure 11 below illustrates the projected GHG emissions in 2030 and how various initiatives contribute to closing the gap toward the 2030 emissions reduction target. It also highlights the remaining shortfall, and illustrates the proportion of RNG that could be utilized to meet the 2030 target.

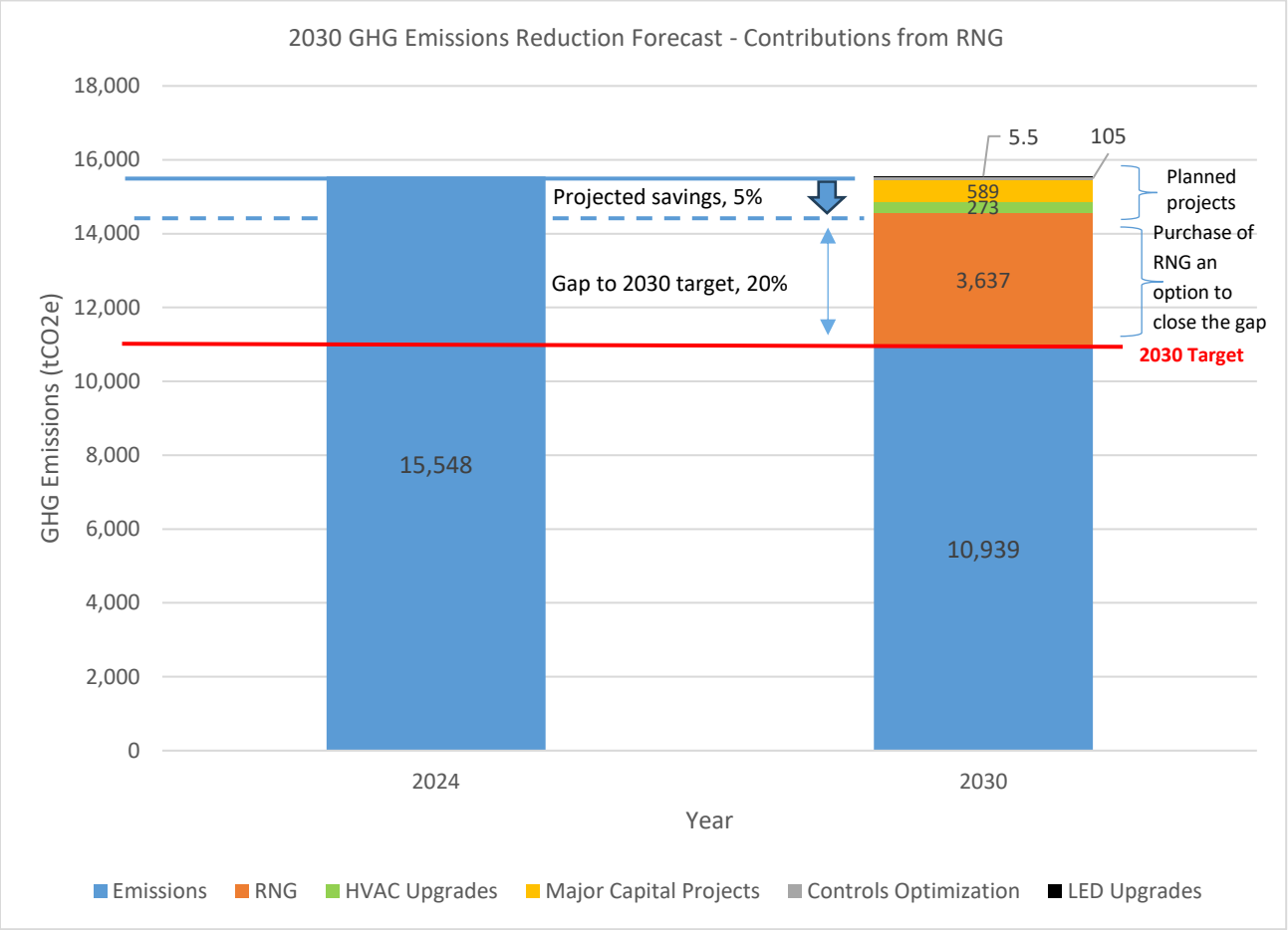


Figure 11: 2030 GHG Emissions Reduction Forecast – Contributions from Renewable Natural Gas (RNG)

Implementation

Risk Assessment

The following challenges may impact the plan's implementation:

- **Uncertain funding:**
  We rely on capital funding from the province and others to complete many of our projects. Insufficient funding may prevent us from completing enough projects to meet greenhouse gas (GHG) reduction goals.
- **Building performance of new schools:**
  New schools are designed to be energy-efficient, but their actual performance may differ from what was predicted. This could lead to lower GHG emission reductions than planned.
- **Competing priorities for heating and cooling upgrades**:
  Although the plan lists HVAC upgrades by year, projects may proceed based on operational needs, even if they do not offer the largest GHG reductions.
- **Environmental conditions**:
  Changes in climate and other environmental factors may affect how buildings perform and how much energy they use, which could impact our ability to reduce emissions.

Funding the Plan

To carry out this plan successfully, funding is essential for all identified project activities. At present, VSB relies on external grants and provincial funding. These funding sources will continue to support our work, but consistent multi-year funding will better allow us to achieve our sustainability goals. We will continue to advocate for stable funding, both internally and externally, to support:

- Upgrades to buildings and equipment that help reduce greenhouse gas emissions.
- Expanded services to save energy, water, and reduce waste.
- More green spaces that support learning and help the environment.
- Educational tools to support sustainability learning in classrooms.
- Sustainability department to lead initiatives, track progress, and share regular reporting.

This will be achieved by maintaining a costed Capital Investment Strategy that enables clear decision making and an ability to clearly articulate trade-offs, while advocating for multi-year funding commitments, identify recurring grant programs and build reserve funds where possible.

Monitoring and Evaluation

Progress on the Sustainability Plan will be monitored and evaluated on an ongoing basis by the sustainability department. Updates on key initiatives, milestones, and performance metrics will be reported quarterly to senior leadership.

An annual progress report and review of the Environmental Sustainability Plan, including achievements, challenges, and future priorities, will be prepared by the sustainability department and reported through the Facilities Planning Committee to the Board.

Glossary of Terms

AFG (Annual Facilities Grant) – A provincial grant provided to school boards to help maintain and extend the life of school buildings.

CNCP (Carbon Neutral Capital Program) – A provincial grant available to school boards that help reduce carbon emissions and improve energy efficiency.

EUI (Energy Use Intensity) – A measure of the energy used by a building on a "per floor area" basis (typically kWh/m²).

EXP (School Expansion Program) – A provincial grant which funds site acquisition, construction of new schools, and additions to existing facilities.

FCI (Facility Condition Index) – A measure of a building's physical condition relative to its replacement cost.

GHG (Greenhouse Gas) – Heat-trapping gases contributing to climate change; VSB tracks emissions from reportable sources including natural gas, electricity, fleet vehicles, and paper use.

GJ (Giga Joule) – A unit of energy most commonly used in the context of natural gas consumed over time.

HVAC (Heating, Ventilation, and Air Conditioning) – Systems responsible for indoor climate control

kWh (Kilowatt-hour) – A unit of energy most commonly used in the context of electricity consumed over time.

Land-Based Learning – Experiential education rooted in Indigenous knowledge, emphasizing connection to nature and stewardship.

Major Capital – Funding for large-scale projects that involve seismic upgrades and school expansions/additions.

Minor Capital – Funding for smaller-scale infrastructure upgrades, such as HVAC improvements.

Operating Budget – The portion of a school district's annual financial plan allocated for recurring expenses such as salaries, supplies, etc. It excludes major capital projects and is intended to cover day-to-day operational costs.

R100 (Renewable Diesel) – A 100% renewable fuel that is an alternative to petroleum diesel compatible with existing diesel engines.

RNG (Renewable Natural Gas) – A low-carbon alternative to conventional natural gas, produced from organic waste.

SEP (School Enhancement Program) – A provincial program that supports targeted upgrades in existing schools, including roofing, safety improvements, and other critical infrastructure.

SMP (Seismic Mitigation Program) – A provincial program that ensures public K–12 schools are protected against earthquakes and meet life-safety standards.

tCO_2e (tonnes of carbon dioxide equivalent) – A standard unit for measuring greenhouse gas emissions by converting different sources into the equivalent amount of CO_2.

Appendix A: VSB Energy Management Scores

The energy management (EM) scores for VSB facilities are shown in Table 10 below. Buildings with an EM score between 56 to 113 could benefit from a detailed energy assessment during the development of any capital projects that have the potential to impact their energy use and GHG emissions. Facility Condition Index (FCI) data was sourced from the BC Ministry of Education and Child Care's VFA database (2025), while energy use intensity (EUI) and GHG emissions data reflects the 2024/25 school year.

Building	FCI Rank	EUI Rank	GHG Emissions Rank	EM Score	EM Score Rank
Gladstone Secondary	104	107	113	108	113
John Oliver Secondary	90	86	112	97	112
Thompson Secondary	90	91	107	96	111
Workshop Building	93	77	94	89	110
South Hill Education Centre	93	96	77	88	109
Champlain Heights Annex	93	90	81	88	108
Queen Elizabeth Elementary	66	106	99	88	107
Prince of Wales Secondary	82	68	103	86	106
Windermere Secondary	81	65	104	85	105
Kerrisdale Elementary	102	48	92	85	104
Lord Elementary	112	66	67	85	103
Carnarvon Elementary	105	75	68	85	102
Quilchena Elementary	62	104	88	82	101
Waverley Annex	98	111	37	80	100
Tupper Secondary	62	71	106	80	99
Cook Elementary	70	97	78	80	98
Templeton Secondary	66	59	105	78	97
Grenfell Elementary	60	108	76	78	96
Britannia Secondary	44	82	111	77	95
Churchill Secondary	78	30	108	77	94
Killarney Secondary	56	63	109	76	93
Osler Elementary	72	88	71	76	92
Vancouver Technical Secondary	44	78	110	76	91
Garibaldi Learning Services	86	103	39	74	90
Xpey̓ Elementary	106	102	15	73	89
University Hill Elementary	34	112	90	73	88
Renfrew Elementary	42	85	98	72	87
Brock Elementary	72	76	70	72	86
Van Horne Elementary	93	43	69	72	85
Douglas Annex	87	100	34	72	84
Strathcona Elementary	28	99	102	72	83
Grounds Building	98	113	11	71	82
Franklin Elementary	47	95	82	71	81
Shaughnessy Elementary	30	109	91	71	80

Building	FCI Rank	EUI Rank	GHG Emissions Rank	EM Score	EM Score Rank
Tecumseh Elementary	84	61	63	71	79
MacCorkindale Elementary	106	44	48	70	78
Laurier Elementary	79	64	62	69	77
King George Secondary	87	34	74	69	76
Henderson Elementary	98	38	57	69	74
Thunderbird Elementary	28	94	97	69	74
Waverley Elementary	98	29	61	68	73
Mackenzie Elementary	62	56	80	67	72
Trafalgar Elementary	32	93	87	67	71
Mount Pleasant Elementary	27	105	84	66	70
Total Education	111	58	18	65	69
Carr Elementary	90	35	58	65	68
False Creek Elementary	72	74	50	65	66
Grandview Elementary	40	79	83	65	66
Seymour Elementary	82	17	75	63	65
Roberts Elementary	44	110	51	63	64
Beaconsfield Elementary	26	89	86	63	63
Nightingale Elementary	62	39	79	62	62
Selkirk Annex	109	42	23	62	61
Kerrisdale Annex	87	84	16	61	59
Point Grey Secondary	51	24	100	61	59
McKechnie Elementary	84	54	40	61	58
Queen Victoria Annex	113	27	25	61	57
Roberts Annex	110	40	17	60	56
Kingsford-Smith Elementary	47	72	65	60	55
Queen Mary Elementary	20	87	85	60	54
Cavell Elementary	70	92	24	59	53
University Hill Secondary	16	80	93	59	52
Norquay Elementary	72	81	28	59	51
Cunningham Elementary	55	45	73	59	50
Nootka Elementary	102	18	36	58	49
Britannia Elementary	39	82	59	57	48
Byng Secondary	36	26	101	56	47
Southlands Elementary	40	69	64	56	46
Champlain Heights Elementary	51	98	29	55	45
Hastings Elementary	47	47	66	54	44
Secord Elementary	21	55	89	53	43
Hamber Secondary	1	70	95	51	42
Magee Secondary	37	11	96	51	41
Queen Alexandra Elementary	56	32	54	49	40
Dickens Elementary	30	100	35	49	39

Building	FCI Rank	EUI Rank	GHG Emissions Rank	EM Score	EM Score Rank
Dickens Annex	106	8	13	49	38
McBride Elementary	97	33	5	49	37
Maquinna Elementary	54	31	55	49	36
Trudeau Elementary	51	53	42	48	35
Oppenheimer Elementary	66	15	52	48	34
Jamieson Elementary	42	36	56	45	33
Moberly Elementary	47	46	41	45	32
Wolfe Elementary	60	37	31	44	31
Tillicum Community Annex	72	23	21	42	30
Livingstone Elementary	56	57	14	42	29
Carleton (closed facility)	72	2	33	41	28
Tyee Elementary	79	10	9	37	27
Bruce Community Elementary	32	21	53	37	26
Lloyd George Elementary	8	67	47	36	25
Elsie Roy Elementary	24	52	38	36	24
Fraser Elementary	66	9	19	35	23
Education Centre	37	12	49	35	22
Quesnel Elementary	18	25	59	34	21
Selkirk Elementary	34	16	45	33	20
Kitchener Elementary	6	62	44	33	19
Sexsmith Elementary	14	50	43	33	18
McBride Annex	59	19	12	33	17
Norma Rose Point Elementary	8	14	72	32	16
Tecumseh Annex	25	41	27	30	15
Collingwood Neighbourhood School	21	51	20	28	14
Nelson Elementary	19	60	8	25	13
Crosstown Elementary	6	49	30	25	12
Douglas Elementary	15	4	46	23	11
Tennyson Elementary	5	73	7	23	10
Fleming Elementary	23	28	3	17	9
L'Ecole Bilingue Elementary	1	22	32	17	8
Maple Grove Elementary	8	5	22	12	7
wək ʷaʔəs tə syaqʷəm Elementary	1	3	26	10	6
Kitsilano Secondary	8	20	4	10	5
Weir Elementary	17	1	1	7	4
Bayview Elementary	8	13	2	7	3
Hudson Elementary	8	7	6	7	2
Gordon Elementary	4	6	10	7	1

Table 10: Energy Management Scores

Note: Leased and Swing sites (temporary school locations used when existing school facilities are undergoing major renovations) are not included in this scoring assessment.