Vancouver Coastal Health

2023 Public Sector Organization Climate Change Accountability Report

Vancouver Coastal Health

British Columbia
Supported by the Province of British Columbia

Carbon Neutral

GreenCare™

Declaration Statement

This Climate Change Accountability Report for the period January 1, 2023, to December 31, 2023, summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2023 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2024 and beyond.

By June 30, 2024, Vancouver Coastal Health's final Climate Change Accountability Report will be posted on the BC Government Carbon Neutral Government website to meet legislative requirements and to the GreenCare Community website at bcgreencare.ca

Retirement of Offsets

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, Vancouver Coastal Health (VCH) is responsible for arranging for the retirement of the offsets obligation reported above for the 2023 calendar year, together with any adjustments reported for past calendar years (if applicable). VCH hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy ensuring that these offsets are retired on the Organization's behalf, 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.

The cover photo is a stock image provided by the GreenCare team.

Executive Summary

Vivian Eliopoulos, President and Chief Executive Officer

I am pleased to present the Vancouver Coastal Health (VCH) 2023 Climate Change Accountability Report, which highlights our actions as we pursue carbon neutrality.

The health of our communities and the people we serve is inextricably linked to climate change and the health of our planet. VCH is adapting how we work so we can continue to deliver high-quality care through climate events, while reducing the health care system's environmental impact.

In January 2023, VCH expanded its strategic framework to encompass four pillars: Indigenous Cultural Safety, Equity, Diversity and Inclusion, Anti-Racism and Planetary Health. VCH has been working to integrate and embed planetary health principles and climate resilience in all that we do, from service design and delivery, to food and nutrition, to community mitigation and adaptation, to business practices and facility management. This work includes reducing energy consumption, water, waste and emissions throughout VCH sites, and designing, constructing and operating new low-carbon, climate-resilient and environmentally sustainable facilities.

In 2023, VCH's greenhouse gas emissions footprint was 43,513 tonnes of carbon dioxide equivalent (tCO2e) (or 10,190 homes' energy use for a year). This represents a 13 per cent emissions reduction since 2007. The decrease is significant since VCH has increased useable facility area by 27.9 per cent during this same period.

VCH began 26 energy and emission-related studies and projects in 2023, to reduce fossil gas consumption and improve energy efficiency in the region. This work includes investment-grade energy audits, low carbon option analysis and regional cooling strategies, as well as the delivery of energy management projects from metering upgrades to control system optimization.

I would like to thank staff, medical staff, volunteers and partners for their commitment and ongoing efforts to support this work. Together, we are making a difference for people and the planet.

As our work continues, I am committed to supporting innovative and collaborative approaches towards reducing VCH's environmental and carbon impact and building a sustainable, low-carbon and resilient health system.

Vivian Eliopoulos
President and Chief Executive Officer, Vancouver Coastal Health

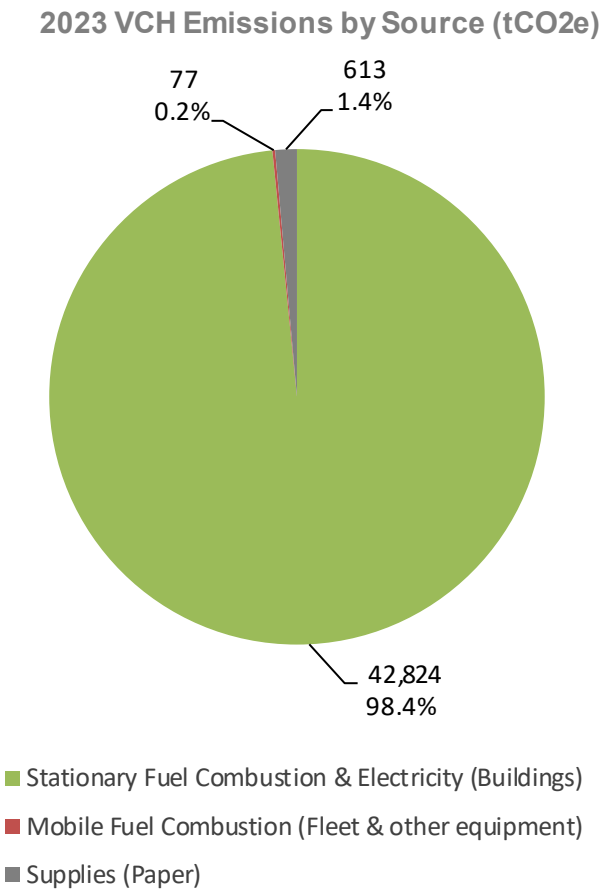
Our Emissions Profile

2023 GREENHOUSE GAS EMISSIONS BREAKDOWN

Vancouver Coastal Health reports its organizational carbon footprint based on guidelines provided by B.C.'s Climate Change Accountability Act (CCAA), Carbon Neutral Government Regulation (CNGR) and the Climate Action Secretariat (CAS). CAS is the central government agency responsible for leading and coordinating research, analysis, development and implementation of programs, policies and legislation enabling mitigation of, and adaptation to, climate change. CAS works collaboratively across the provincial public sector, other orders of government, research institutions, non-governmental organizations, and professional and industry associations to achieve provincial climate change goals.

CAS uses various elements of reporting, based on the Methodology for Quantifying Greenhouse Gas Emissions[1], which has classified carbon reporting into three main groupings: Stationary Fuel Combustion and Electricity (Buildings), Mobile Fuel Combustion (Fleet and other equipment), and Supplies (Paper). Vancouver Coastal Health's carbon footprint is comprised of six different greenhouse gases, which are converted into 43,513 tonnes of carbon dioxide equivalent (tCO_2e).

As shown in the chart on the right, 98 per cent of Vancouver Coastal Health's in-scope emissions are attributed to Stationary Fuel Combustion and Electricity (Buildings) which at VCH can be attributed to VCH's owned and leased buildings and their use of electricity; this is where we focus our mitigation efforts.



Vancouver Coastal Health's 2023 carbon emissions were 43,513 tCO_2e. To become carbon neutral in 2023, Vancouver Coastal Health purchased carbon offsets from the Ministry of Environment at a total cost $1,140,930 including GST.

[1] https://www2.gov.bc.ca/assets/gov/environment/climate-hange/cng/methodology/2023_pso_methodology_for_quantifying_greenhouse_gas_emissions.pdf

CHANGES TO VANCOUVER COASTAL HEALTH'S PORTFOLIO

Vancouver Coastal Health has been able to maintain significant energy and GHG reductions while increasing our portfolio and expanding our services to serve our growing regional population. This success has largely been due to the energy retrofit and conservation programs in our existing buildings, and the integration of energy efficiency guidelines in new buildings.

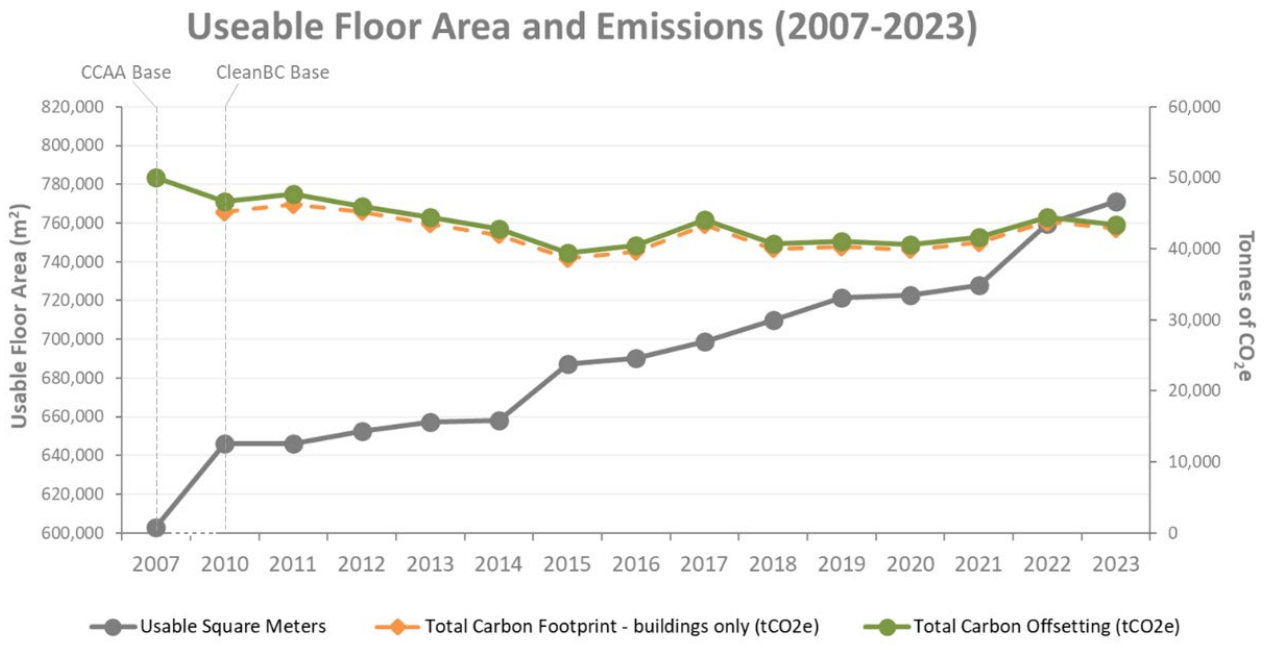
In 2023, Vancouver Coastal Health had a staff population of 20,727 full-time equivalent (FTE) staff, a 10.7 per cent increase from the previous year as shown in the table below. The FTE count has been growing steadily over the last decade; compared to 2007 there has been an FTE increase of 62.7 per cent.

Vancouver Coastal Health Portfolio Overview

	CCAA Base Year	CleanBC Base Year				
BUILDINGS, FTE AND WEATHER	**2007**	**2010**	**2020**	**2021**	**2022**	**2023**
Distinct VCH Health Buildings	n/a	203	176	184	188	192
% Owned	84%	85%	86%	85%	84%	85%
% Leased	16%	15%	14%	15%	16%	15%
Usable Square Meters[1]	602,766	645,957	722,622	728,050	759,719	771,016
Full-Time Employee Equivalents[2]	12,738	14,272	16,718	17,949	18,729	20,727
Weather (Heating Degree Days)[3]	2,870	2,621	2,754	2,875	2,927	2,629

1. Usable area excludes roof tops, interstitial spaces, and parking areas.
2. Full-Time Employee data was provided by Health Employers Association of B.C. Full-Time Employee data include all designated groups reported in HSCIS and exclude affiliate employers and BCEHS employees. Full-Time Employee calculations are based on 1950 annual hours.
3. Heating Degree Days (HDD's) are based on YVR Airport data from Environment Canada and are intended to reflect the demand for heating.

Vancouver Coastal Health has increased its useable facility area by 27.9 per cent since 2007 (the base year for CCAA); with 19.4 per cent of that growth occurring since 2010 (the base year for CleanBC). This trend, as shown in the graph below, demonstrates the challenge of reducing absolute emissions while the portfolio is growing to meet the regional health service needs.



Natural gas is the predominant fossil fuel used for space heating, hot water and process loads. The carbon emissions associated with our natural gas use is approximately 97 per cent of total building emissions. Although our priority mitigation efforts are focused on natural gas combustion, there are many drivers in use to continue reducing the use of electricity/purchased energy.

We have achieved a 13 per cent decrease in the carbon footprint since 2007, as shown in the table below. It should be noted that with absolute emissions there is no consideration of weather impacts or other external drivers that affect emissions. Depending on these independent variables, the year-over-year change in emissions may not fully reflect the effects of our mitigation efforts, emission avoidance projects and initiatives across the portfolio.

Vancouver Coastal Health Portfolio Overview

	CCAA Base Year	CleanBC Base Year				
Our Carbon Footprint (in tCO_2e)	**2007**	**2010** [3]	**2020**	**2021**	**2022**	**2023**
Mobile Fuel Combustion (Fleet)	104	108	83	82	78	77
Stationary Fuel Combustion & Electricity (Buildings)	48,536	45,160	39,867	40,842	43,806	42,824
Supplies (Paper)	1,402	1402	724	817	680	613
Total Carbon Footprint (tCO_2e)	**50,042**	**46,669**	**40,674**	**41,742**	**44,563**	**43,513**
Total BioCO2 Emissions (No Offsets Required)[1,2]	-19	-20	-24	-36	-57	-49
Purchased Carbon Offsets	$ -	$ 1,147,124	$ 1,025,925	$1,042,650	$ 1,112,675	$ 1,086,600
Purchased Carbon Offsets + HST/GST	$ -	$ 1,284,779	$ 1,077,221	$1,094,783	$ 1,168,309	$ 1,140,930
Emissions per Full-Time Employee	3.93	3.27	2.43	2.32	2.38	2.10
Emissions per Meter Square Facility Space	0.083	0.072	0.056	0.057	0.059	0.056

[1] As outlined in the Carbon Neutral Government Regulation of the Climate Change Accountability Act, some emissions do not require offsets.

[2] It was estimated that Fugitive Emissions from cooling equipment comprise less than 0.01 per cent of VCH's total emissions and for this reason, emissions from this source have been deemed out-of-scope and have not been included in our total greenhouse gas emissions profile.

[3] Carbon Footprint adjusted for 2010 due to building data corrections from the Climate Action Secretariat.

Carbon emissions reported in the table above are not normalized for annual weather fluctuations. The use of Heating Degree Days (HDD) is a metric designed to reflect the demand for energy required to heat a building. The HDDs for 2023 were 10.2 per cent lower than those recorded in 2022, therefore, natural gas and resultant emissions were influenced in part by HDD. Heating Degree Days are the number of degrees that a day's average temperature is below the baseline temperature.

As this report is prepared in response to CCAA, 2007 (the base year for CCAA) has been used as the base year in our progress calculations (for example when presenting percentage of decrease in buildings emissions per HDD). Please note that for measuring our progress towards CleanBC targets applicable to public sector buildings emissions reduction, 2010 shall be used as the base year. As of 2023, VCH's buildings emissions has decreased 5.2% since 2010, the base year for CleanBC.

Part 1. Legislative Reporting Requirements

Stationary Fuel Combustion and Electricity (Buildings)

2023 Decarbonization Actions

In 2023, Vancouver Coastal Health initiated 26 studies and projects across the portfolio which will result in a over 650,000 kilowatt-hour reduction in electricity and over 10,000 giga-joules of fossil gas. This work includes investment-grade energy audits, low carbon option analysis, and regional cooling strategies as well as the delivery of energy management projects from metering upgrades to control system optimization. This work is providing direction and prioritization of the next actions to pursue, in alignment with the VCH Planetary Health low carbon facility goals.

In partnership with Energy and Environmental Sustainability, VCH Finance and the Facilities and Real-estate teams, the 2023 Carbon Neutral Capital Program funding enabled building emissions reduction of over 500 tCO_2e.

A regional Electric Vehicle (EV) Program started in 2023, continuing in 2024, which will drive down air pollution and reduce over 1660 tCO_2e of transportation emission in our communities.

Vancouver Coastal Health continues to embed environmental sustainability across the organization by supporting staff initiatives. In 2023, we continued to promote energy conservation, GHG emissions reduction and other aspects of environmental sustainability and climate adaptation and resilience through raising awareness, education and partnerships that lead to behavior change and system change.

2024 and Beyond Decarbonization Plans

Optimize our existing buildings

- Implement energy efficiency and carbon emissions reduction retrofit projects in our existing building portfolio by utilizing the Carbon Neutral Capital Program (CNCP) as our primary funding source.
- Increasing our metering and building control systems data analytics is helping VCH identify several paths forward for prioritizing energy, emission, and maintenance efficiency improvements.

Low carbon and energy efficient development

- Developing project-specific targets and key performance indicators focused on energy use and carbon emissions to ensure that our new buildings are low carbon and energy efficient.
- Aligning with the provincial Environmental, Social, Governance Framework for Capital and Ministry of Health Capital Policy Manual requires low carbon and climate resilient design and construction of new facilities.
- Collaboration between VCH clinical and facilities leadership to embed low carbon and climate resilient language, and metrics, in high level master plans, health campus strategies and visions, to ensure a climate action lens is applied.

Systemic change

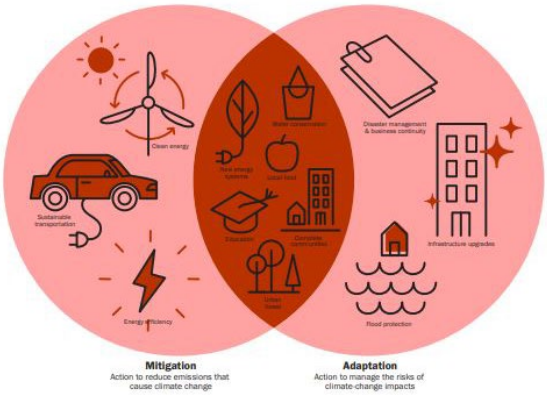
- Developing and continuously improving standards, guidelines and processes to embed low carbon resilience and environmental sustainability principles further into standard operations at VCH.
- In 2024, VCH will initiate a Low Carbon Resilience working group to better coordinate and amplify our collective facilities response to climate action. This group will inform and advise on the priorities of each community of care and identify opportunities for climate action.

Strategic planning

- Continue to develop cooling system infrastructure plans until we have full coverage of all core VCH facilities. This novel planning process identifies opportunities for reducing emission through heat recovery and efficiency gains and climate risks by projecting cooling demands and enabling infrastructure for future climate conditions.
- VCH is mapping a process to develop regional low carbon resilience plans for each community of care and plan to initiate the first strategy in 2024.

Behavioral change and staff engagement

- Continue to promote energy conservation, GHG emissions reduction and other aspects of environmental sustainability and climate adaptation and resilience through raising awareness, education, staff engagement and partnerships that lead to behavior change and system change.



Planetary Health Integration

- Continue to align the energy and emission program with the organizational planetary health strategy. Advocate and achieve low carbon resilience and environmental sustainability innovations and operational changes that result in tangible environmental and health outcomes.
- VCH will engage in a collaborative approach and build partnerships that help achieving the ultimate goal of restoring and regenerating the interdependent health of people, place and planet — now and for future generations.

Innovation and demonstration

- Using Green Revolving Fund and incentive opportunities offered by the utilities companies to support ongoing investment in studies, investigations and operating projects focused on carbon reduction and energy efficiency.

- In addition, learning about new standards, guidelines, technologies and building design principles relevant to low carbon resilience and environmental sustainability and introducing them to sites and staff. As well as identifying opportunities for implementing and demonstrating innovation that bring value to the organization.

Mobile Fuel Combustion (Fleet)

2023 Decarbonization Actions

In 2023, VCH's Transportation program lead, in coordination with the VCH Healthy Transportation team, has worked to improve, promote and establish alternative transportation opportunities for staff and medical staff. This includes improving cycling infrastructure, carpooling coordination and public transport options. Currently VCH has one electric vehicle in our fleet with more planned.

Active planning to build out a regional electric vehicle infrastructure program has been initiated to enable future fleet conversion to low carbon electricity and to ensure our patients, staff and visitors have the opportunity use electric vehicles to travel to our facilities.

VCH will continue to be actively involved in developing a Regional Electric Vehicle Framework in collaboration with our partners in the Regional Electric Vehicle Steering Committee.

2024 and Beyond Decarbonization Plans

By the end of 2024, VCH will have 96 electric vehicle chargers that will provide charging infrastructure for future electric fleet conversions. We acknowledge that the emissions associated with our fleet portfolio is a relatively small portion of our carbon footprint (e.g., 1.4 per cent of our 2023 emissions offset). That said, we believe a future clean fleet plan will inform purchasing and operations related decisions bringing value to the organization.

Office Supplies (Paper)

2023 Decarbonization Actions

In 2023, VCH continued the process of deploying the Clinical and Systems Transformation (CST) project. This multi-year project designed to improve the safety, quality, and consistency of patient care throughout VCH supports establishing common clinical and process standards, including workflows, order sets, clinical guidelines, integrated plans of care and a common electronic health record. One benefit of CST deployment is reducing paper use which was further achieved in 2023 thanks to the completion of CST project in multiple key VCH sites.

2024 and Beyond Decarbonization Plans

In partnership with other B.C. health authorities, VCH identified the benefits of purchasing post-consumer recycled (PCR) paper as opposed to virgin paper with the aim of reducing environmental impacts such as carbon emissions, water consumption and air pollution associated with paper supplies. VCH continues to work with suppliers and vendors to identify PCR paper options at reasonable prices and identify ways to formally increase the volume of PCR paper in inventory. Engaging relevant departments across the health organization is one of the identified ways to act toward formally increasing the volume of PCR paper in inventory.

VCH will continue to work with partner health organizations in B.C., on a provincial effort to switch from virgin copy paper to a more sustainable paper type, Sugar Sheet. Sugar Sheet paper is a certified carbon neutral paper made from agricultural waste. It is estimated that by switching paper purchases to Sugar Sheet, the health organizations can reduce carbon emissions from paper by 80 per cent.

2023 Green House Gas (GHG) Emissions and Offsets Summary Table

The table below represents the breakdown of emissions and offsets for the 2023 calendar year. BioCO2 is included in total emissions but not total offsets since international protocols require the separate reporting of biogenic emissions from combustion. The CO2 emissions from the biofuel component (Bio CO2) must be calculated and reported separately from those of the fossil fuel component.

Vancouver Coastal Health 2023 GHG Emissions and Offsets Summary	
GHG emissions for the period January 1 - December 31, 2023	
Total BioCO_2[1]	49.2
Total Emissions (tCO_2e)	43,513
Total Offsets (tCO_2e)	43,464
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO_2e)	0
Grand Total Offsets for the 2023 Reporting Year	
Grand Total Offsets to be Retired for 2022 -Reporting Year (tCO_2e)[2]	43,464
Offset Investment ($25 per tCO_2e)[3]	$ 1,086,600 $ 1,140,930 (Including GST)

Notes provided by the Climate Action Secretariat:

- BioCO2 is included in Total Emissions but not Total Offsets.
- You must round "Grand Total Offsets to be Retired" to a whole number (no decimal places) before multiplying by $25
- Emissions and offset investment amounts will be validated by CAS prior to distributing invoices.

PART 2. Public Sector Climate Leadership

2A. Climate Risk Management

Climate Risk and Resilience Leadership

- Launched the Planetary Health Strategy for Vancouver Coastal Health, outlining three goals for the organization, including making a climate resilient health system able to withstand acute shocks and chronic stressors.
- Released the VCH Chief Medical Health Officer Report 2023: Protecting Population Health in a Climate Emergency. This report examines the impacts of climate change on population health in the region, documents work already underway, and includes evidence-based recommendations to guide adaptation.
- Updated the Climate Resilience Guidelines for BC Health Facility Planning & Design to Version 2.0, ensuring alignment with new provincial releases and incorporating valuable lessons learned.
- Integrated climate resilience principles into ongoing major capital projects, offering guidance and assistance to project teams and consultants, including those for the Heiltsuk Hospital, Richmond Hospital Redevelopment, and several long-term care facilities.
- Conducted a portfolio-level climate hazard exposure assessment for 47 facilities across VCH communities of care to identify areas of vulnerability and prioritize resilience efforts.
- At Sechelt Hospital, completed an audit of water use and began to design a water reservoir for water storage at the site.
- At UBC Hospital, initiated analysis of electrical system capacity and metering to better understand energy demand and improve resilience to power outages.
- Through Public Health, advocated for policies that ensure safer indoor temperatures, such as updates to the Vancouver Building By-law that require cooling in new buildings and promotion of denser tree canopies in urban areas.
- Through Public Health, expanded community air quality monitoring by distributing free air quality monitors and provided support for analysis, thereby enabling communities to better understand and adapt to their local air quality.
- Through Public Health, released a Climate Adaptation Health Promotion grant to fund community-based initiatives aligned with the recommendations in the 2023 Chief Medical Health Officer report. These grants are open to non-profits and First Nations across the VCH region and typically range from $100 to $15,000 with an average grant amount of $10,000.
- Through partnership with facilities staff, public health teams, and Health Emergency Management BC (HEMBC), coordinated seasonal readiness planning activities for communications and actions before, during, and after extreme weather events.
- Through HEMBC, developed the (Inter- and Intra-Health Authority Relocation (IIHAR) toolkit to enhance the resilience and responsiveness of health services in British Columbia during climate-

related emergencies. This toolkit proved effective during the 2023 wildfire season by facilitating complex evacuations and ensuring continuity of care.

- Through collaboration with health agencies across the province, participated in the BC Health Effects of Anomalous Temperatures Coordinating Committee (BC HEAT Committee) to support planning and response efforts related to the public health impacts of significant heat events in British Columbia.
- Collaborated with the Canadian Standards Association (CSA) to integrate climate risk considerations into the CSA Z8000 Canadian Healthcare Standard.

2B. Sustainability Initiatives

Environmentally Sustainable Leadership

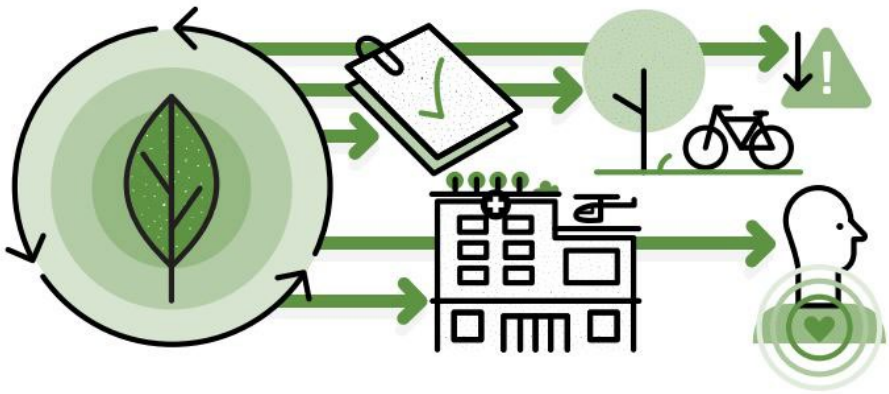
- The Green+ Leaders program is a community of health-care staff and medical staff who are engaged in advancing sustainability practices at VCH. In 2023, 20 new staff registered for the program, bringing the total number of Green+Leaders at Vancouver Coastal to 200 that have joined the program since 2009.
- VCH continues to support workplace leadership opportunities that motivate and empower staff to take action. In 2023, the Green+Leaders program facilitated five orientation sessions, where 13 new VCH Green+Leaders received education, resources and tools to take sustainable action.
- Two Green+Leaders were granted the educational opportunity to participate in the Zero Waste Conference.
- VCH has developed the 2023 Green+ Leaders Annual Report showcasing program achievements and notable successes in driving workplace sustainability initiatives forward.
- The Green+ Leaders Recognition Event brought together over 100 sustainability advocates from B.C. health authorities, featuring workshops on change management and the circular economy, along with networking opportunities and sharing success stories, leaving participants inspired to advance their journey towards sustainable health care.
- 208 VCH staff and medical staff are registered members of the GreenCare network and receive planetary health news, organizational updates, opportunities to get involved, and access to resources. 2023 highlights include a full year of communications through seven GreenCare newsletters as well as the creation of a new GreenCare Lunch and Learn working group, co-founded with PHSA staff, to guide awareness and education events for inter-institutional learning across B.C. health organizations.
- The GreenCare website provides VCH staff and medical staff with tools and resources to make environmental improvements at their worksite and contribute to health and wellness in several areas. Success stories are also shared, as inspiration for other staff. In 2023, we shared 13 stories about individual and team action for workplace sustainability, impactful projects and regional collaborations.
- In alignment and active collaboration with the VCH communications team, GreenCare and Green+Leaders resources and stories are also shared via VCH's internal communication channels. These efforts continue to advance sustainability practices and celebrate VCH staff and medical staff successes.
- The Energy and Environmental Sustainability team expanded their VCH support capacity with the creation of two new energy & emissions project manager roles. This enabled a restructure of the VCH Energy and Emission Management team to meet the growing role in strategic planning and project support.
- In 2023, the Energy and Environmental Sustainability team expanded and updated the design

guidelines for health care new construction projects, to be in alignment with BC's Environmental, Social and Governance Framework for Capital. The Low Carbon Resilience and Environmental Sustainability Guidelines for Health-Care New Construction (LCRES), provide guidance and resources to project teams and consultants to help meet Vancouver Coastal and CleanBC sustainability targets, while enabling the highest standard of human and environmental health within health-care facilities.

- New content in the LCRES Guidelines includes the requirement for 25 per cent of parking to have electric vehicle ready infrastructure, to conduct a Life Cycle Assessment for embodied carbon (greenhouse gas emissions caused primarily by facility construction), the new provincial minimum PSO standards for climate resilience measures, and flexibility to choose additional, or equivalent accreditation standards to LEED Gold.

Planetary Health

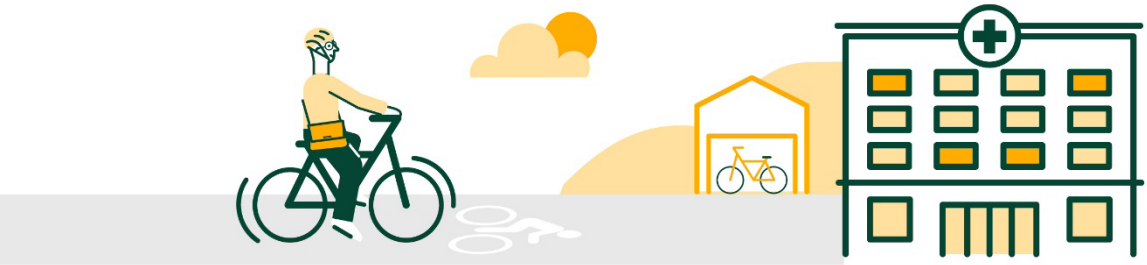
- The strategic framework at Vancouver Coastal Health has expanded to include a pillar on planetary health – Inspiring people to create, restore, steward and conserve healthy ecosystems. In 2024, collective work to develop and embed a planetary health strategy throughout the organization will continue.
- VCH committed additional human resources and created new teams that increased staff and medical staff capacity for planetary health action including dedicated system level coordination.
- Raised awareness about planetary health, including through presentations to the VCH Board, staff and medical staff, and Facilities Management capital project managers and planners.



Transportation

- VCH staff from Planning & Projects, Energy and Environmental Sustainability and Transportation Services joined others in a regional steering committee supporting the development of an electric vehicle charging stations framework.
- Free shuttle services are available for staff, medical staff, patients and visitors between several acute care sites. In 2023, a total of 50,973 rides were taken on shuttles connecting four VCH sites. A pilot project of extended hours to cover 17:00 - 19:35, ran from Sept. 5 to Dec. 22, 2023, for VGH to UBC. The aim was to test if the extend hours would support staff and medical staff in accessing the UBC campus. It was done in support of the UBC Transportation Implementation Plan Project investigation ways to support staff in accessing UBC Hospital.
- In 2023, an average of 2,012 VCH employees participated in/benefited from the Transit Incentive Program subsidy program, every month. The program increased the subsidy to 25 per cent, 50 per cent, or 75 per cent, depending on number of zones covered in commute, in September 2023

- The WALK30 Challenge encouraged VCH staff and medical staff to walk for 30 minutes a day, and in 2023 had 1,380 registrations.
- VCH employees have access to infrastructure and educational resources to support active modes of transportation, such as cycling.
- At the VGH Jim Pattison Pavilion, 55 new bike racks were added in 2023.
- VGH has a cycling center to support cyclists with amenities when they bike to work. There were 249 members of the Cycling Center. In 2023, graphics were added to the cycling centre, including cyclist photos and maps of Vancouver cycling routes. This has improved the aesthetic of the cycling center and provides information on routes.
- VCH won the "Go By Bike Week Champion Award" as part of HUB Cycling's 11th Annual Bike Awards. In total, there were 460 VCH staff that attended two Go by Bike Week events, one on the Spring and another in Fall.
- VCH staff have access to Sustainable Transportation education and resources opportunities, through the Sustainable Transportation Series, and through transportation resources available on the GreenCare Website.
- A total of 553 VCH staff and medical staff engaged with sustainability by taking the annual GreenCare Survey that seeks to understand staff perspectives, familiarity with, and actions related to planetary health, climate change, and environmental sustainability. We learned about staff transportation in 2023:
  - 13 per cent of VCH staff own an electric vehicle.
  - 29 per cent of VCH staff reported that they plan to own an EV within the next 5 years.
  - There was a 4 per cent increase in public transit commuting compared to 2022 survey data.
  - There was an overall 1 per cent increase in active commuting options.
  - There was an overall 5 per cent increase in clean commuting options.
  - There was a 6 per cent decrease in commuting by single occupancy gas or diesel vehicles compared to 2022 survey data.



Materials

Health care will always produce some waste since biomedical waste is unavoidable in the provision of health-care services and some non-hazardous waste cannot be recycled due to infection prevention and control guidelines and patient care priorities. The vision is zero avoidable and unnecessary waste in all areas of health care. To move toward the vision of zero avoidable and unnecessary waste, we look to the guiding principle of a circular economy, in which we do not rely on extraction of raw resources, but first use what already exists. Examples of how we are working towards this in VCH include:

- Undertook a 'Reusables First' project to identify opportunities where single-use plastic items that generate high waste volumes could be safely switched to reusable alternatives and the processes that would support this change. With participation from the Contract Management Office, PHSA Procurement, Sustainable Clinical Services, opportunities are currently being reviewed and a roadmap

for implementation is underway.

- VCH is working with Cerner Benefits Realization team to measure the planetary health impacts of a shift to a digital system. Exploration of changes to processes and clinical practices for future benefits are being reviewed to reduce paper consumption and laboratory testing.
- The Planetary Health Inpatient Food Project was awarded $200,000 from VCH Innovation, the VGH & UBC Foundation and the Boehringer Ingelheim Collaboration Innovation Fund in 2023. This funding will be utilized to roll out a culturally diverse, Low-Carbon menu at VGH over fall 2024.
- Championed 'Gloves Aren't Magic' campaign to raise awareness of the correct moments to utilize non-sterile gloves. This campaign aimed to reduce waste by reducing unnecessary glove consumption.
- From January 1, 2023, to December 31, 2023, a total of 1,175 VCH staff completed the online Waste Management Basics Learning Module available on the Learning Hub. This module familiarizes learners with the impacts of improper waste management and how to discard different types of waste appropriately.
- VCH facilities comply with a standardized recycling program[1] which includes mixed containers, mixed paper, organic waste and batteries. Depending on collection logistics, some sites may also participate in recycling programs for expanded polystyrene, pallet wrap, printer cartridges, and mattresses, scrap metal, lighting and other materials. Acute care facilities have a target of reaching 40 per cent waste diversion by 2030 and non-acute care facilities have a target of 60 per cent.

2C. Success Story

Portfolio-Level Climate Hazard Exposure Screen

Moving VCH Towards Low Carbon Resilience

Amidst soaring temperatures, rampant wildfires, and a surge in extreme weather events, B.C.'s health-care facilities stand at the frontline of an escalating crisis. Faced with this urgent reality, health authorities in B.C. have launched a bold initiative to confront the looming risks and challenges posed by a rapidly changing climate.

In 2023, the Energy and Environmental Sustainability (EES) team, alongside engineering and design consultants, spearheaded the Portfolio-Level Climate Hazard Exposure Screen for Lower Mainland Health Facilities project. This ambitious endeavor involved conducting simultaneous climate hazard exposure screens for 96 hospitals, long-term care facilities, and clinics across Fraser Health, Providence Health Care, the PHSA, and VCH. The analysis also identified sites with higher vulnerability, based on sensitivity to hazards and capacity to respond.

The results of this project include individual climate hazard exposure screens for 47 VCH sites. A list of common impacts was generated to articulate the expected impact associated with 20 climate hazards of relevance to these sites. Lastly, a recommended framework for completing future building-level vulnerability assessments lays the groundwork for future site-specific projects.

Aligned with the BC Climate Resilience Framework and Standards for Public Sector Buildings, which requires organizations to integrate climate risks into their planning and design processes, this project represents a proactive response to the pressing need for climate resilience in health-care infrastructure.

As VCH develops low carbon and climate resilient infrastructure strategies - a holistic climate action approach that coordinates and mainstreams adaptation, mitigation, and co-benefits in institutional planning and decision-making processes – the Portfolio-Level Climate Hazard Exposure Screen will inform and expand the decarbonization planning into an integrated climate action approach.

By leveraging the outcomes of the exposure screens, health-care organizations are not only equipped to meet regulatory requirements but also empowered to conduct more thorough climate risk assessments, prioritize adaptation efforts, and undertake future evaluations. Since release, the exposure screen project has also inspired similar projects at the other health

authorities and been used in emergency response.

The exposure screen provided evidence for why extreme heat, wildfire smoke, and flooding are among the most critical hazards of concern across VCH facilities. Through this project, VCH will be able to maintain a role in public sector leadership and enable the following next steps:

- Use the results of the portfolio-level exposure screen to fulfill the exposure screen component required by the BC Climate Resilience Framework and Standards for Public Sector Buildings for any new construction or major renewal project at any of the included sites.
- Use the list of common climate impacts as a starting place to conduct climate risk assessments by identifying which impacts may be relevant and of highest risk to projects.
- Leverage the results of the high-level vulnerability assessment to assist in prioritizing sites for future adaptation efforts, beginning with the most vulnerable sites.
- Use the recommendations for building-level vulnerability assessment to further develop a framework for completing building-level assessments that can help guide site-specific decisions.
- Collaborate with facility interest holders to further develop a consistent framework for building-level vulnerability assessments. Undertake a pilot assessment for one or more sites to validate the approach.
- Use the recommendations to inform decisions related to facility renewals and new land acquisitions.

What is Low Carbon Resilience?

Low Carbon Resilience is a holistic climate action approach that coordinates and mainstreams adaptation, mitigation, and co-benefits in institutional planning and decision-making processes.

CLIMATE CHANGE MITIGATION can slow the pace of climate change and minimize future impacts on health. This requires drastically reducing greenhouse gas emissions to limit the speed and extent of climate change.

CLIMATE CHANGE ADAPTATION will protect populations from the hazards of climate change, which are already occurring in VCH. Populations and communities in the region will be more resilient with planning and preparation for both gradual changes and extreme events.