

2023 Provincial Health Services Authority Environmental Performance Accountability Report

Environmental sustainability is everyone's story.





Recognizing First Nations Title and Rights & Indigenous Human Rights

Provincial Health Services Authority (PHSA) recognizes the distinct cultures, self-determination, and the individual and collective rights of Indigenous Peoples, as well as the distinct Title and Rights of First Nations Peoples in what we now call British Columbia. As a provincial serving health authority, we further acknowledge the First Nations territories PHSA is situated and provides care on. PHSA acknowledges our corporate office operates from the traditional, ancestral and unceded territories of the xʷməθkʷəjəm (Musqueam), Sḵwxwú7mesh Úxwumixw (Squamish Nation) and səl ílwətaʔ (Tsleil-Waututh Nation).

PHSA is committed to eradicating Indigenous-specific racism and creating an equitable, anti-racist and culturally safe health system.

The foundational commitments in First Nations health transformation began with the First Nations Health Blueprint for British Columbia (2005) and the Transformative Change Accord: First Nations Health Plan (2006) which initiated improvements for the health and well-being of First Nations to close the health gap between First Nations and other British Columbians. Through mandate letters from the Ministry of Health, PHSA is required to implement the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the *B.C. Declaration on the Rights of Indigenous Peoples Act* and associated Action Plan.

PHSA is also responsible for implementing provincial commitments from various foundational reports, including the Truth and Reconciliation Commission of Canada: Calls to Action, the Calls for Justice of Reclaiming Power and Place: The Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls, and the implementing recommendations from other reports, such as In Plain Sight: Addressing Indigenous-specific Racism and Discrimination in B.C. Health Care and Remembering Keegan: A B.C. First Nation Case Study Reflection.

The above, as well as Indigenous thought leadership, ground the work of planetary health to ensure alignment with the guidance and leadership of the Title and Rights holders of the lands on which we serve.

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This report was written by Energy and Environmental Sustainability (EES), a regional collaboration team of four health organizations that works to drive change for environmentally sustainable and climate resilient care across planning, design, construction and operations. Housed within the Facilities Management department, the EES team cannot do this work alone, and works with diverse teams, departments, and health-care staff and medical staff across PHSA.

PURPOSE

The purpose of this report is to communicate commitments and progress, and to celebrate the good work accomplished, both independent of and in cross-disciplinary collaboration and partnership with EES. With a focus on actions and achievements in relation to low carbon resilience and environmental sustainability, we acknowledge that it does not include all of our partners' actions and achievements undertaken in the shared journey toward planetary health.

COLLABORATORS

In particular, we'd like to acknowledge the contributions of the PHSA Planetary Health team, Communications, Indigenous Health, Facilities Management, the BC Centre for Disease Control, Health Emergency Management BC, Food Services, Environmental Services, Integrated Protection Services, the BC Cancer Planetary Health Unit, Green+Leaders, Green Teams, and many others named throughout this report.



This is an interactive report. Easily navigate to different sections by **clicking** on the text headings, including those in the navigation bar to the left.

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Welcome to the 12th annual Environmental Performance Accountability Report (EPAR), which tracks the Provincial Health Services Authority’s (PHSA) progress in advancing environmental sustainability and climate resilience in the name of safeguarding planetary health for all.

Planetary health is a concept that recognizes the interdependent relationship between human health and the health of our planet. Within PHSA, where we are fortunate to have been gifted the wisdom of six Coast Salish teachings from Musqueam Knowledge Keeper Shane Pointe, Sulksun, we know this to be *Nuts ah maht*, the teaching that tells us “we are one”—that all living things are connected and that we need to be thankful for and take care of all things, including human beings, the water, the plants and animals, and the land that we occupy.

As we come to understand more about the significance of climate change and its impacts, we have an opportunity to be one in the good work we do, ready to think and act differently, and to face each day as *Eyhh slaxin*, as “good medicine”, for this generation and all those who follow us.

Adopting the latter mindset, we launched our Planetary Health program in January 2024. This program is designed to further support energy and environmental sustainability across PHSA as we continue to implement low carbon resilience solutions that positively impact communities, our workplaces and the planet.

In acknowledging the importance of Indigenous Peoples’ wisdom, perspectives and experience, the Planetary Health program, as part of PHSA, is prioritizing learning from First Nations and Indigenous people who have stewarded these lands for thousands of years. We are embracing two ways of knowing, humbly listening and paying attention as we learn how we can change our ways of working to incorporate a broader world view that centres around protecting the planet — and each other.

Our organization’s commitment to planetary health is showing up through the actions of individuals and teams working throughout the organization, all inspired to *Tee ma thit*, to do their very best. I am proud and also humbled by the efforts of our staff and medical staff supporting PHSA in becoming an energy and environmental stewardship leader. Of the many sustainability achievements this past year, highlights

include advancing climate resilience by screening 12 facilities for climate hazard exposure and prioritizing action; mentoring nurses on planetary health, through the first-of-its kind BC Cancer Planetary Health Nurse Internship Program; adding a dedicated sustainability lead within procurement; being recognized for energy and emissions reductions; and earning a Transit Friendly Employer Certificate for making employee travel easier, more affordable and climate resilient.

As an organization, we are committed, we are active and we are making progress in building and operating for low carbon resilience and environmental sustainability. This report captures our work today, along with where we can and must improve. Caring for our planet is caring for ourselves and those in the communities we serve. I’m excited to see how the changes we make today will advance care, well-being and better health, both now and in the future.



David Byres,
RN, DNP, FCAN, ICD.D, CHE

President and Chief Executive Officer
Provincial Health Services Authority



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1.1 Milestones and Achievements

First ever!



Developed the first-of-its kind **12-week Planetary Health Nursing Internship Program**, along with a full-time **Planetary Health Research Nurse role**, to provide BC Cancer direct-care nurses with education and mentorship in quality improvement, change management and planetary health



Created the **Sustainability Advisor role**, with the responsibilities of designing and leading initiatives to enhance the social and environmental benefits of procurement and contracts, and promoting environmental sustainability to our supplier community



Screened **12** PHSA facilities across the province for climate hazard exposure, **identifying areas of vulnerability and prioritizing actions**



Developed the **Inter- and Intra-Health Authority Relocation toolkit** to enhance the resilience and responsiveness of health services in B.C. during climate-related emergencies by facilitating complex evacuations and ensuring continuity of care

2023 highlights



Received the **FortisBC Efficiency in Action Award** in recognition of outstanding efforts in energy efficiency and emissions reduction



Received a **Transit Friendly Employer Certificate** for making employee travel easy, affordable and climate resilient



Achieved a **22%** reduction in **carbon emissions from buildings, fleet and paper** since the 2007 baseline. This is a decrease equivalent to the the annual emissions from **1,608** passenger vehicles.^A

BC Children's Hospital and BC Women's Hospital + Health Centre – Teck Acute Care Centre received the **Energy Efficiency Award** from the Canadian Coalition for Green Health Care



Launched the **Climate & Public Health Community Centre**, a digital platform providing technical expertise, capacity building, and coordination for climate-related public health efforts across B.C.



49 new PHSA **staff members** joined the Green+Leader program, for a total of 349



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2.1 PHSA's Commitment to Planetary Health

In 2023, PHSA identified planetary health as one of its six North Star priorities, which serve as guiding principles for our organization. These priorities help PHSA staff to understand how their roles and contributions align with our long-term goals and overarching vision. As a direct outcome, the Planetary Health program was established early in 2024 to deliver on this commitment.

Planetary health, a relatively new concept in Western discourse, acknowledges the interconnected relationship between human health and the health of our planet. This relationship has long been understood and honoured by the First Nations communities who have stewarded these lands for thousands of years. For First Nations, planetary health is not merely a concept but a fundamental way of life.

Under the leadership of Mark Goudsblom, the Planetary Health team will support PHSA programs in integrating and enhancing planetary health across all operations and service delivery. Through a solutions-based, action-oriented approach, the Planetary Health team will identify and address the impacts of PHSA's activities on Earth's natural life-giving systems, human health, and well-being.

Guided by the Coast Salish teachings gifted to PHSA by Knowledge Keeper Sulksun, Shane Pointe, a Planetary Health Strategy is also in development. This strategy will be rooted in First Nations knowledge, protocols, and leadership, as we pursue a sustainable

and healthy future for all. The main themes of the Planetary Health Strategy will explore and not be limited to:

- Reducing [Scope 1, 2 and 3](#) greenhouse gas emissions
- Promoting sustainable practices in both operations and clinical areas
- Mitigating organizational environmental impacts through projects, education and training
- Improving the social, structural and Indigenous determinants of health
- Supporting climate resilience work
- Supporting provincial planetary health initiatives

“

Our societies depend on human health, flourishing natural systems and the wise stewardship of natural resources. PHSA's Planetary Health Strategic Plan will be guided by our commitment to First Nations Peoples, who have been stewards of these lands for thousands of years, and in collaboration with PHSA's clinical, operational and program partners. We aim to create a framework to which everyone at PHSA can apply their service and clinical delivery through a planetary health lens. Together, we can work towards a sustainable state of health and well-being, now and for future generations, in the communities we serve and as part of the environment we depend on.

Mark Goudsblom

Executive Director, Planetary Health, PHSA

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2.2 Building and Operating for Low Carbon Resilience and Environmental Sustainability

In operating our current facilities, and in the design and construction of new facilities, PHSA is working towards the highest level of human and environmental health and well-being by:

- ▶ Evaluating and reducing the impacts of climate change on a facility and the surrounding community (e.g. wildfires, extreme heat, floods and storms)
- ▶ Assessing how the design, construction and operation strategies of a facility will impact the environment and human health
- ▶ Drawing on credible evidence that links health outcomes to planning and design of the built environment
- ▶ Collaborating with project compliance teams to ensure energy and carbon performance targets are embedded into design and construction agreements
- ▶ Implementing low carbon resilience and environmental-sustainability strategies
- ▶ Achieving a recommended green building standard such as LEED certification (a globally recognized green-building rating system administered by the Canadian Green Building Council)
- ▶ Meeting and exceeding environmental and climate change legislation

Our buildings

495,281 m²

usable facility space^B

87

distinct buildings^B

14,796

full-time equivalent staff^C

101,813 m²

LEED Gold-certified facility space^D

Our LEED projects

LEED certification is a globally recognized symbol of sustainability achievement and leadership.

To learn more about PHSA'S LEED projects, click [here](#).



Red Fish Healing Centre for Mental Health and Addiction in Coquitlam, B.C.

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3.1 The 2023 Dashboard

Setting targets helps us all to recognize achievements and act to transform our health-care system toward environmentally sustainable and climate resilient care. A target may be provincially mandated, or be PHSA-developed and based on past trends and current resourcing.

Measuring results

The 2023 dashboard captures 11 key performance indicators (KPIs). It is a snapshot in time of our progress and, this year, includes links to trends in previous years and how we plan to meet our targets.

However, the dashboard alone doesn't tell the entire story. Environmental sustainability is a journey, and there are many process-related KPIs and qualitative efforts that are not included in this dashboard. In addition, active work continues to take place to identify the current situation and collaborate on the development of performance targets. To learn more, see [4.0 Our Actions: Finding Solutions Together](#).

Regulatory guidance

The [Climate Change Accountability Act](#) (CCAA) has set ambitious greenhouse gas (GHG) emissions reduction targets for public sector organizations:

40% by 2030
(from the 2007 baseline)

60% by 2040
(from the 2007 baseline)

80% by 2050
(from the 2007 baseline)

These targets include emissions from owned and leased buildings, and from the use of fleet vehicles and paper consumption. For reference, in 2023, 95% of our emissions come from buildings, while the rest come from fleet and paper.

The government's [CleanBC plan and Roadmap](#) is the pathway to achieve these targets and has set even more aggressive targets:

50% reduction in emissions for public sector buildings by 2030
(from the 2010 baseline)

40% reduction in fleet vehicle emissions by 2030

+ Visit the Methodology and Context for Calculating KPIs



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Energy and Carbon

Goal: Reduce our carbon footprint by increasing energy efficiency and reducing reliance on fossil fuels.

Key Performance Indicator (Metric)	2023 Results*	2025 Target	2030 Target	
Regulatory guidance	To meet the CCAA target, decrease total GHG emissions from owned and leased buildings, fleet vehicles and paper use from 2007 levels (% change of tCO ₂ e/year)	22%	16%	40%
	To meet the CleanBC target, decrease total GHG emissions from owned and leased buildings from 2010 levels (% change of tCO ₂ e/year)	13%	16%	50%
Decrease the amount of GHG emissions generated per floor area of owned and leased buildings from 2010 levels (% change of tCO ₂ e/m ² /year)	32%	35%	50%	
Decrease the amount of energy used per floor area of owned buildings [‡] from 2007 levels (% change of ekWh/m ² /year)	26%	25%	30%	

GO TO GRAPHS

How we will reach our targets

- ▶ Partnering with Facilities Maintenance & Operations teams presents an opportunity to identify ways to integrate energy and emissions reduction strategies and support optimization and renewal of infrastructure and equipment.
- ▶ In collaboration with internal and external partners, we are seeking and implementing a combination of low emission designs for new construction and aggressive energy retrofits to existing facilities.
- ▶ As we renew our energy infrastructure and assets, we have the opportunity to make system-level changes and shift to lower-impact facilities.
- ▶ Developing a low carbon resilience roadmap will inform decision-making processes for lowering carbon emissions while enhancing resilience to climate risks and the quality of indoor environment for staff and patients.

- On track to meet target
- Minimal or slow progress towards target
- Behind schedule to meet target, and requires attention

* BC Emergency Health Services is not included in this dashboard, and reports their emissions results separately.

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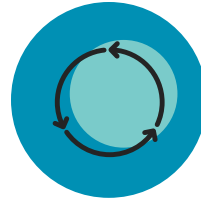
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Materials

Goal: Choose materials and products that contribute to human and environmental health, while avoiding waste and unnecessary chemicals.

Key Performance Indicator (Metric)*	2023 Results	2025 Target	2030 Target
Increase waste recycled or composted in acute care owned sites ^F (% recycled, annual average)	27%	28%	40%
Increase waste recycled or composted in non-acute care owned sites ^G (% recycled, annual average)	52%	45%	60%
Decrease waste generated per floor area in acute care owned sites (kg/m ² /year)	4.9	4.2	3.8
Decrease waste generated per floor area in non-acute care owned sites (kg/m ² /year)	5.5	4.0	3.6

GO TO GRAPHS

- On track to meet target
- Minimal or slow progress towards target
- Behind schedule to meet target, and requires attention

* Does not apply to leased buildings because waste management is the responsibility of the property manager and out of the hands of PHSA.



Recycling has not yet reached pre-2020 service levels at all facilities, and the numbers and traffic lights here are based on staff-sorting of recyclables only.

How we will reach our targets

- Identifying pathways to get the few remaining sites back to full recycling services is actively underway, including prioritizing staff and visitor education, waste composition audits and exploration of waste management innovations.
- A shift away from recycling alone and toward overall waste reduction is required, including choosing reusables over disposables and exploring ways to share or donate usable items to prevent them from going into landfill. Collaboration and close partnership with clinical and procurement staff will be key ingredients in this journey.
- Collaborating with waste haulers and contract managers to review metrics and reporting will ensure quality and transparency.

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Transportation

Goal: Increase access to and use of transportation modes that reduce negative environmental impacts and benefit human health and wellness.

Key Performance Indicator (Metric)	2023 Results	2025 Target	2030 Target
Increase the proportion of self-reported ^H commutes staff make by cycling, walking and rolling* (% commutes, annual average)	19%	25% ◆	30% ◆
Increase the proportion of self-reported commutes staff make by hybrid and electric vehicles, public transit, carshare, carpool and hospital shuttle (% commutes, annual average)	38%	35% ■	45% ■

+ GO TO GRAPHS

- On track to meet target
- ◆ Minimal or slow progress towards target
- Behind schedule to meet target, and requires attention

* E.g. wheelchair, seated electric scooter

i
Increasing sustainable transportation will amplify efforts to reduce green house gas emissions.

How we will reach our targets

- ▶ Continuing to work collaboratively across the health system with internal and external partners will enable us to strategically develop and prioritize efforts that increase cycling and electric vehicle (EV) infrastructure, including bicycle storage, showers and change rooms, and EV charging stations.
- ▶ Continuing to work collaboratively with municipal and regional organizations will allow us to increase sustainable transportation infrastructure.
- ▶ Promoting and facilitating car share, car pooling, public transit, walking and cycling will engage and empower staff to choose active and clean transportation to commute for work travel.

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Water




Goal: Minimize water consumption to reduce demand on natural resources and impact on our living environments.

Key Performance Indicator (Metric)	2023 Results*	2025 Target	2030 Target
Decrease the amount of water used per floor area in owned ¹ buildings from 2010 levels (m ³ /m ² /year)	38%	35% 	40% 

 [GO TO GRAPHS](#)

How we will reach our targets

- ▶ Working collaboratively across health-system departments to enhance our understanding of water usage and saving opportunities at PHSA facilities will support our strategy to prioritize water management planning efforts and allocation of resources.
- ▶ A new regional resource starting in summer 2024 will support actions focusing on water conservation and acknowledge synergies with strategies for climate resilience and energy conservation.

-  On track to meet target
-  Minimal or slow progress towards target
-  Behind schedule to meet target, and requires attention

* 2023 results used the average of 2021, 2022 and 2023 water consumption data for BC Children's Hospital and BC Women's Hospital + Health Centre due to water metering inaccuracies that are currently under investigation.

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4.0 Our Actions: Finding Solutions Together



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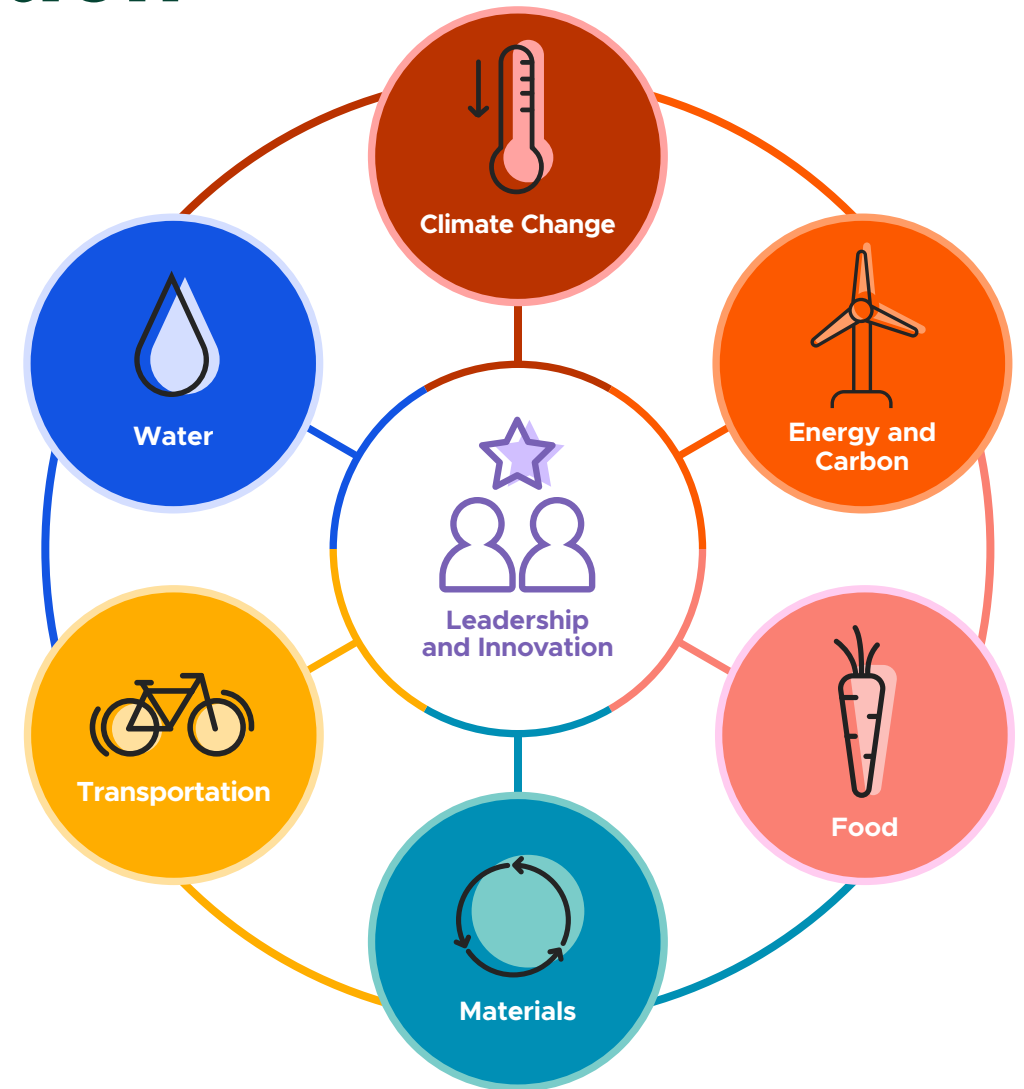
- PHSA Climate Change
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4.1 Collaborative and Integrated Action

Efforts to advance environmentally sustainable and climate resilient health care can be categorized into six Focus Areas, which, just like the connections between human and environmental health, are interrelated in that efforts and progress made in one will impact the others.

In working together to find solutions that restore and regenerate planetary health, it is important to note that leadership and innovation are essential elements for meaningful transformation of the health-care system, particularly in driving engagement, education and action at the departmental and team level. As we all move along our low carbon resilience and environmental sustainability journey, Leadership and Innovation efforts will intersect with and impact all of the Focus Areas.

The selection of actions, achievements and stories in each Focus Area on the right represents the work of multiple departments and diverse teams. For a full list of partners working towards planetary health at PHSA, see [Appendix A](#).



Want to read stories or find information and resources related to these Focus Areas?
Visit [here](#).

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Leadership and Innovation

Our goal: Collaboratively foster a culture of transformative leadership and innovation for environmental sustainability in health care.

Select 2023 actions and achievements



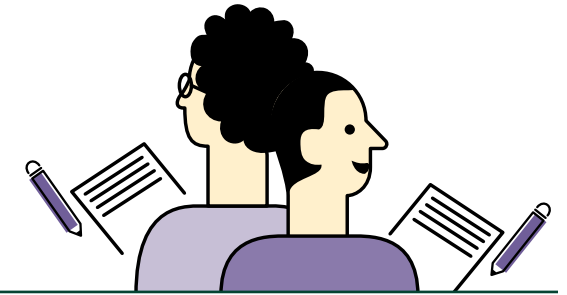
Planning, design and procurement

- ▶ Added low carbon resilience and environmental sustainability planning and design strategies to major capital projects: the BC Children's and BC Women's Hospital and Health Care Centre High Level Master Plan, the Slocan Redevelopment and the Red Fish Healing Centre for Mental Health and Addiction expansion
- ▶ Added environmental and social impact questions for suppliers to our procurement process, which help to identify products and services that meet our planetary health objectives



Education and engagement

- ▶ Developed the first-of-its kind 12-week Planetary Health Nursing Internship Program, along with a full-time Planetary Health Research Nurse role, to provide BC Cancer direct-care nurses with education and mentorship in quality improvement, change management and planetary health
- ▶ Established a new BC Children's and Women's Hospital Medical Staff Association (MSA) Planetary Health Committee to advocate for global climate health within the MSA, with projects including calculating GHG emissions from patient travel for cardiac care pre- and post-pandemic, and real-time monitoring of high-GHG-emitting gases used in anesthesia
- ▶ 49 new PHSA staff members joined the Green+Leaders program,¹ for a total of 349
- ▶ Co-hosted 100+ sustainability advocates from B.C. health organizations at the Green+Leaders Recognition Event, which featured workshops on change management and the circular economy, networking opportunities, and success stories
- ▶ Co-created the new GreenCare Lunch & Learn working group, which plans events that inform, educate and spread innovative ideas related to climate resilient and environmentally sustainable care across B.C. health organizations
- ▶ 158 staff and medical staff were members of the GreenCare Network,² receiving quarterly environmental sustainability news, education, resources and engagement opportunities



Research and grants

- ▶ Funded projects in Radiation Oncology and Medical Oncology as part of the Sustainable QI program's efforts to deliver the best possible health outcomes with minimum financial and environmental costs and maximum social value
- ▶ Awarded a Doctors of BC grant to model and action CT scanner power-down during non-operational hours across the Lower Mainland, supporting energy reduction target
- ▶ Awarded 8 grants of approximately \$8,000 through the Health Promotion Fund – Sustainability Stream, which funded 8 sustainability projects by Green+Leaders

The **2023 Green+Leaders Annual Report** recognizes all staff and medical staff working to decrease the environmental footprint of their workplaces and health systems.

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OUR STORY

Playing together to cut carbon

BC Cancer's Clinical Informatics team formed a group dedicated to reducing their carbon footprint. They devised a 12-week game in which participants earned points for making sustainable choices, which contributed to a 10 per cent reduction in their collective carbon emissions.

[Read more ►](#)

“
**We wanted to show
that even in our daily
lives, we can make a
meaningful difference
for the environment.**

Tanis Wong

Senior Project Manager - Clinical Lead
and Green+Leader

Strategic Planning and Capital Redevelopment



Clinical Informatics team members at BC Cancer who participated in the carbon footprint game:
Amanda Harder, Rajwant Hallan, Liz Santos and Jenny Soo.

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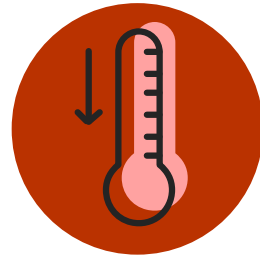
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1. Climate Change

Our goal: Move toward a climate resilient health system in facility design and operations.

Select 2023 actions and achievements

Policies and guidelines

- Updated the Climate Resilience Guidelines for BC Health Facility Planning & Design to Version 2.0, aligning with new standards for public sector buildings and incorporating 4 years of lessons learned
- Participated in the Canadian Standards Association (CSA) committee to embed climate risk into the CSA Z8000 Canadian Healthcare Standard

Capital projects and studies

- Screened 12 PHSA facilities across the province for climate hazard exposure, identifying areas of vulnerability and prioritizing actions
- Embedded climate resilience planning and design strategies into the Slocan Site Redevelopment Project and the BC Children's Hospital and Women's Hospital + Health Centre High Level Master Plan
- Included future climate projections into energy studies for BC Cancer – Prince George, BC Cancer – Vancouver, and 5 buildings at the BC Children's Hospital and BC Women's Hospital + Health Centre

Education and engagement

- Established the Climate Preparedness & Adaptation Program (CPAP) at the BCCDC to serve as a centralized hub of technical expertise, capacity building and coordination for climate change and public health activities in B.C.
- Established the BC Centre for Disease Control Strategic Priorities Working Group, which developed a set of goals, objectives, actions and outcomes to elevate and action climate adaptation as an organizational strategic priority
- Coordinated seasonal readiness planning activities for communications and actions before, during and after extreme weather events
- Developed the Inter- and Intra-Health Authority Relocation toolkit to enhance the resilience and responsiveness of health services in B.C. during climate-related emergencies by facilitating complex evacuations and ensuring continuity of care

- Participated in the BC Health Effects of Anomalous Temperatures (BC HEAT) Coordinating Committee to support planning and response efforts related to the public health impacts of significant heat events in B.C.

What do PHSA staff have to say about the impact of extreme climate events on their job duties?

In the GreenCare Survey^H, 549 responses indicated **the most common impacts on job duties were:**

- Inability to physically get to the place of work
- Impacts to physical health or mental well-being of staff and/or family members
- Interruption to care or patient surges due to the weather events
- Supply chain disruptions

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Platform for preparedness

At the BC Centre for Disease Control (BCCDC), the Climate Preparedness & Adaptation Program (CPAP) team launched the Climate & Public Health Community Centre, an online platform that provides access to a wealth of resources on climate adaptation and public health. In its first year, it welcomed 160 individuals from across the B.C. health system.

[Read more ►](#)

“
**The Community Centre
provides a gathering
place for public health
professionals who
are working towards
a common goal.**

Angela Yao

Senior Scientist

Climate Preparedness & Adaptation Program



Image of a plant sprouting in parched soil

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2. Energy and Carbon

Our goal: Reduce our carbon footprint by increasing energy efficiency and reducing reliance on fossil fuels.

Select 2023 actions and achievements

Targets surpassed and awards

- ▶ Achieved a 22% reduction in carbon emissions from buildings, fleet and paper since the 2007 baseline, surpassing our 2025 target. This is a decrease of 5,248 tonnes of carbon dioxide equivalent, or the emissions from 1,608 passenger vehicles^A
- ▶ PHSA received the FortisBC Efficiency in Action Award in recognition of outstanding efforts in energy efficiency and emissions reduction
- ▶ BC Children's Hospital and BC Women's Hospital + Health Centre – Teck Acute Care Centre received the Energy Efficiency Award in its peer category from the Canadian Coalition for Green Health Care

Energy and emissions reduction projects initiated or continued

- ▶ Upgrades to the BC Children's Hospital and BC Women's Hospital + Health Centre lighting systems and added insulation to steam infrastructure, which is anticipated to result in a more than 294 tCO₂e/year carbon emissions reduction, 5,878 GJ/year in natural gas savings and 141,849 kWh/year electricity savings

- ▶ Upgrades to the BC Cancer – Vancouver heating, ventilation and cooling system, anticipated to result in a more than 656 tCO₂e/year carbon emissions reduction while improving climate resilience

30+ studies initiated or continued

- ▶ Innovative studies on storing energy on site in order to reduce demand during peak hours and reducing fossil fuels used by heating, ventilation and cooling equipment, and battery storage for EV charging infrastructure
- ▶ A collaborative study with the BC Cancer Breast Screening program, looking for opportunities to reduce fossil fuel-fed generators used by vehicles in the Mobile Mammography Service to enhance the quality of environment for staff/patients and reduce emissions

Funding and investments

- ▶ ~\$470,000 million invested in energy and carbon studies and initiatives from the Green Revolving Fund
- ▶ \$3.5 million invested in four energy and carbon emissions reduction projects initiated and continued in 2023 from CNCP funding and utilities incentives

The PHSA Climate Change Accountability Report

Each year, along with all public sector organizations, B.C.'s health organizations submit a Climate Change Accountability Report to the Climate Action Secretariat of the provincial government. This is a mandated reporting of GHG emissions and other data, and current and planned actions to reduce GHG emissions.

[Download the PHSA Climate Change
Accountability Report](#)

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Receiving the FortisBC Efficiency in Action Award: Danielle Wensink, FortisBC; Shubhkarm Sidhu, PHSA; Elizabeth Manhas, FortisBC; Ghazal Ebrahimi, PHSA; Cathy McDonald, PHSA; Mohammed Abdelaziz, formerly PHSA (currently Fraser Health); Hana Nguyen, PHSA; Joe Mazza, FortisBC.

OUR STORY

PHSA receives FortisBC Efficiency in Action Award

PHSA won the FortisBC Efficiency in Action Award in recognition of its outstanding efforts in and consistent commitment to energy efficiency, low carbon resilience and environmental stewardship over the years. It especially stood out due to its leadership, innovation, and dedication to sustainability.

[Read more ▶](#)

“

We're always looking for energy efficiency and carbon emission reduction opportunities across our building portfolio [... which] can only be done through collaborative efforts and making meaningful partnerships.

Ghazal Ebrahimi

Energy and Carbon Emissions Manager

Energy and Environmental Sustainability Team

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Reducing carbon emissions through collaborative care

While the health-care sector is dedicated to promoting health and well-being, globally it contributes up to five per cent of GHG emissions. Recognizing the urgent need to reduce this, B.C.'s Low-Carbon, High-Quality Care Collaborative is tackling emissions with a focus on perioperative care and respiratory medicine. Led by Health Quality BC (HQBC), in partnership with CASCADES Canada, Vancouver Coastal Health's Planetary Health Department and several B.C. health organizations, this initiative aims to lower the carbon impact of health care while improving patient care. [Learn more.](#)

Low-Carbon High-Quality Care Collaborative PHSA team members: Kynna Sorg, Carmina Gogal, Stephanie Harding



At PHSA, several clinical teams at BC Children's Hospital are implementing changes to reduce emissions and enhance the quality of patient care.

One multidisciplinary team — comprising respiratory therapists, nurses, physicians and pharmacists from the pediatric ICU and emergency departments — is focusing on **reducing unnecessary use of metered-dose inhalers (MDIs)**, which have a high carbon footprint. They are using patient labels to ensure that inhalers remain with the patients throughout their hospital stay, and collaborating with the pharmacy to monitor progress. Their efforts also include an education and awareness campaign to highlight the importance of reducing MDI use and loss, while monitoring the impact on asthma-related emergency visits.

In the perioperative setting, another team at BC Children's Hospital is working to **cut down on waste, and thereby emissions, by transitioning from single-use items to reusable alternatives.** They are evaluating reusable items, such as light handle covers and sterile wraps, and assessing their impacts on workload, costs and clinical care. This initiative involves a collaborative effort from nurses, quality and safety leads, educators, and program managers, all dedicated to integrating environmental sustainability into their practice.

As the project heads towards its conclusion in November 2024, the focus will shift to the tangible results and future possibilities of this climate-conscious approach to health care. This initiative will serve as a blueprint for sustainable clinical practices across Canada and beyond.

Low-Carbon High-Quality Care Collaborative PHSA team members: Samantha Thompson, Lesley Martinez and Drea Newman



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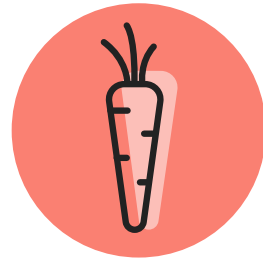
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3. Food

Our goal: Develop plant-rich, local, culturally relevant and equitable food service to advance food as medicine.

Select 2023 actions and achievements

Projects

- ▶ Developed a [CASCADES](#) playbook on Food Infrastructures for Planetary Health, which aims to support informed decision-making throughout the planning, design, construction and ongoing operation of health-care facilities. See the playbook [here](#)
- ▶ Reduced waste from Food Services operations, which is expected to result in 138,000 fewer coffee lids per year and approximately 44% less paper plates

Education and engagement

- ▶ Selected to participate in the [2023-2025 Nourish Leadership cohort](#) working on:
 - Bringing the concept of food into healing
 - Improving patient and staff food experience
 - Establishing planetary health menus
 - Advancing sustainable purchasing

- ▶ Provided education opportunities and funding for staff-led projects that create the conditions for sustainable food at our sites while reducing waste and GHG emissions
- ▶ Established partnerships with groups like Patient Experience and Indigenous Health to increase sustainable and traditional food options for Indigenous patients

The GreenCare Survey^H results show that

61% of 507 staff surveyed are “**extremely willing**” or “**very willing**” to try sustainable plant-based food at health-care cafeterias.



Volunteer Simran helping create the herb and tea garden for the Sibling Support Centre on the Children’s Hospital and Women’s Hospital + Health Centre campus

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OUR STORY

Coffee, cups and cutting waste

Simply by moving a coffee machine, our Food Services team at Brock Fahrni, a long-term care facility at the BC Children’s Hospital and BC Women’s Hospital + Health Centre, eliminated the use of approximately 138,000 disposable coffee lids annually – reducing waste and saving up to \$2,400 per year!

[Read more ►](#)

“It’s all about taking a good look at what we do and finding better ways to do it. We’re exploring new ideas all the time that help us work smarter and take better care of our patients.”

Jonathan Ampana

Production and Quality Control Manager
Patient Food Services



Lid-free reusable coffee mugs in the dining area

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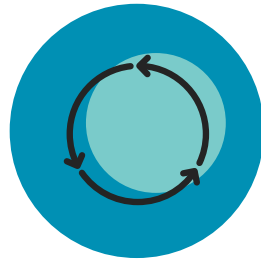
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4. Materials

Our goal: Choose materials and products that contribute to human and environmental health while avoiding waste and unnecessary chemicals.

Select 2023 actions and achievements

Environmentally preferable purchasing

- ▶ New Sustainability Advisor role created with the responsibilities of designing and leading sustainability initiatives into procurement and contracts, and promoting environmental sustainability to our supplier community
- ▶ Increased membership in the provincial Sustainable Procurement Innovation Group to 26. The Group consists of diverse procurement and sustainability roles and aims to identify new opportunities to reduce the environmental impact of B.C. health care and to improve social and reconciliation efforts with Indigenous peoples
- ▶ Participated in a newly formed provincial Waste Management Services Technical team to undertake a collaborative approach to monitor and evaluate Waste Management Services, with the vision of providing industry leadership in the provision and promotion of high-quality waste management at all health-care facilities across B.C.

- ▶ Collaborated on 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 to identify the processes that will support this change

Waste reduction and recycling

- ▶ Implemented the Bring Your Own Bag initiative in BC Children's Hospital Surgical and Anesthesia departments, decreasing the amount of plastic bags used for storing patient belongings by 92%
- ▶ Compiled results of the elimination of exam table paper in BC Cancer outpatient clinics, with the purpose of publishing a paper on waste reduction
- ▶ Launched a personal protective equipment (PPE) recycling trial at BC Children's Hospital and Women's Hospital + Health Centre, with plans to scale it up across BC in 2024

- ▶ BC Cancer Surrey piloted a nitrile glove recycling and reduction project with the aim of educating staff on safe and appropriate use of gloves; 37,000 gloves were diverted from landfill
- ▶ BC Children's Hospital Procedures and Surgical Services, Anesthetic Care Unit, joined an existing program which collects medical devices for reprocessing to divert waste from the landfill, increasing the program's diversion rate by 25% over a six-month period
- ▶ Recycled leftover IV contrast in CT scanners and CT SIM across B.C., returning 115 kg of iodine to the manufacturer in the first five months

Education

- ▶ 896 staff and medical staff increased their knowledge on workplace recycling practices, an increase of 19% from 2022. Health-care staff can take the course on the Learning Hub [here](#).

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OUR STORY

From plastic to pillowcases

At the Gynecology Surgical Suites, an ambulatory surgical unit at BC Women's Hospital, medical staff launched the Gyne Green Bag Project to replace single-use plastic bags with pillowcases to store patients' belongings during their stay. This has not only diverted waste from the landfill, it has created real cost savings too.

[Read more ▶](#)

“
This move shows patients and staff that PHSA cares about sustainability and is taking steps to reduce [its] carbon footprint where [it] can.

Rebecca Struvig de Groot

Registered Nurse and Green+Leader
Gyne Surgical Services

LESLIE, LAURI + JILL DIAMOND

BC Women's Surgical Suites



Rebecca Struvig de Groot showing off the new reusable patient garment bag

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5. Transportation

Our goal: Increase access to and use of transportation modes that reduce negative environmental impacts and benefit human health and wellness.

Select 2023 actions and achievements

Award and incentives

- ▶ Received a Transit Friendly Employer Certificate for making employee travel easy, affordable and climate resilient
- ▶ Continued to provide a 50% transit incentive for staff using TransLink, with an average of 2,691 staff participating monthly

Commuting

- ▶ Added a second shuttle between BC Children's and BC Women's Hospital + Health Centre and the Canada Line King Edward station
- ▶ Staff took 100,630 shuttle rides between health-care sites and transit hubs in 2023, a 91% increase over 2022
- ▶ Hosted GoByBike Celebration stations in the spring and fall at BC Children's and BC Women's Hospital + Health Centre that received 119 visitors

Education and resources

- ▶ Launched a sustainable travel education program across BC Cancer to encourage virtual/hybrid meetings to reduce emissions

- ▶ Updated bike infrastructure guidelines for new and existing health-care facilities to increase support for e-bikes
- ▶ Collaborated on a regional electric vehicle framework to support everything from requests for electric vehicles to feasibility studies, infrastructure specifications and operations

What do PHSA staff surveyed have to say about EVs?

Based on GreenCare Survey^H results:

- ▶ **13%** of 511 staff surveyed currently own an EV.
- ▶ **33%** of 439 staff surveyed plan to own an EV in the next five years.

Electric vehicle charging station at Red Fish Healing Centre for Mental Health and Addiction



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OUR STORY

From commute to community

Keen to promote active transportation among BC Cancer staff, members of the Planetary Health Unit created the BC Cancer Cycle with Your Colleagues campaign. In encouraging staff new to commuting by bike to join Go by Bike week, the campaign launched a challenge with prizes provided by the BC Cancer Foundation, which got staff on their bikes and recognized new cyclists in Kelowna, Surrey, Victoria and Vancouver.

[Read more ►](#)

“**We now have 49 cyclists who have been active with the team in the past year, and are always happy to have more join us! This past October, our teammates cycled 2,914 kilometres, saving 632 kilograms of GHGs.**”

Sheri Grahame

Resource Radiation Therapist and Go By Bike Team Lead
B.C. Cancer Vancouver



Laura Oliveira and Adrian White, members of the BC Cancer – Surrey Go By Bike team

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6. Water

Our goal: Minimize water consumption to reduce demand on natural resources and impact on our living environments.

Select 2023 actions and achievements

- ▶ 2 energy-saving projects that contribute to water savings were initiated or continued
- ▶ 1 acute care site worked towards a five-year Pollution Prevention Plan to improve and reduce wastewater effluent, in compliance with Metro Vancouver bylaws
- ▶ Slokan site redevelopment embedded water savings strategies in its design
- ▶ Investigated and continued to monitor water use at BC Children's and Women's Hospital and Health Care Centre, working with the City of Vancouver to check the accuracy and performance of the water meter



Rendering of Teck Acute Care Centre at BC Children's Hospital

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Slocan Site Redevelopment rendering. Credit: Arcadis Architecture (Canada) Inc.

OUR STORY

A Refreshing Change

The historic "Slocan Site" in Vancouver is being transformed into the BC Children's Hospital Centre for Health Complexity, opening in 2028 to serve children with complex health needs. This facility will achieve LEED Gold Certification by integrating advanced water efficiency measures and sustainable practices, honouring the site's legacy and setting a new standard for environmentally conscious health care.

[Read more ▶](#)

“
The Slocan Site will be home to the first hybrid mass timber health-care facility. I'm very proud we're using this material as a low-carbon solution.

Juan Jose Cruz Martinez

Senior Director

Major Capital Projects

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5.0 Writing the Story We Want, Now and in the Future

Thank you for your ongoing support.

Given our climate reality and the urgency of restoring planetary health, it's clear that environmental sustainability is everyone's story. If we are to continue to offer staff, volunteers and patients the very best quality of life and care possible, and support the health and well-being of our families and communities, we must all take responsibility for the environment.

As the many achievements at PHSA demonstrate, much is already being done by so many. But as this report also shows, much more remains to be done. We invite the whole health-care community to take actions that will restore and regenerate the interdependent health of people, place and planet — now and for future generations.

MAKE A DIFFERENCE.

Learn more about climate change and sustainability in B.C. health care:

Subscribe to the [GreenCare Network](#) for updates and newsletters, or visit bcgreencare.ca for more information.

Get involved in sustainability activities in your health organization:

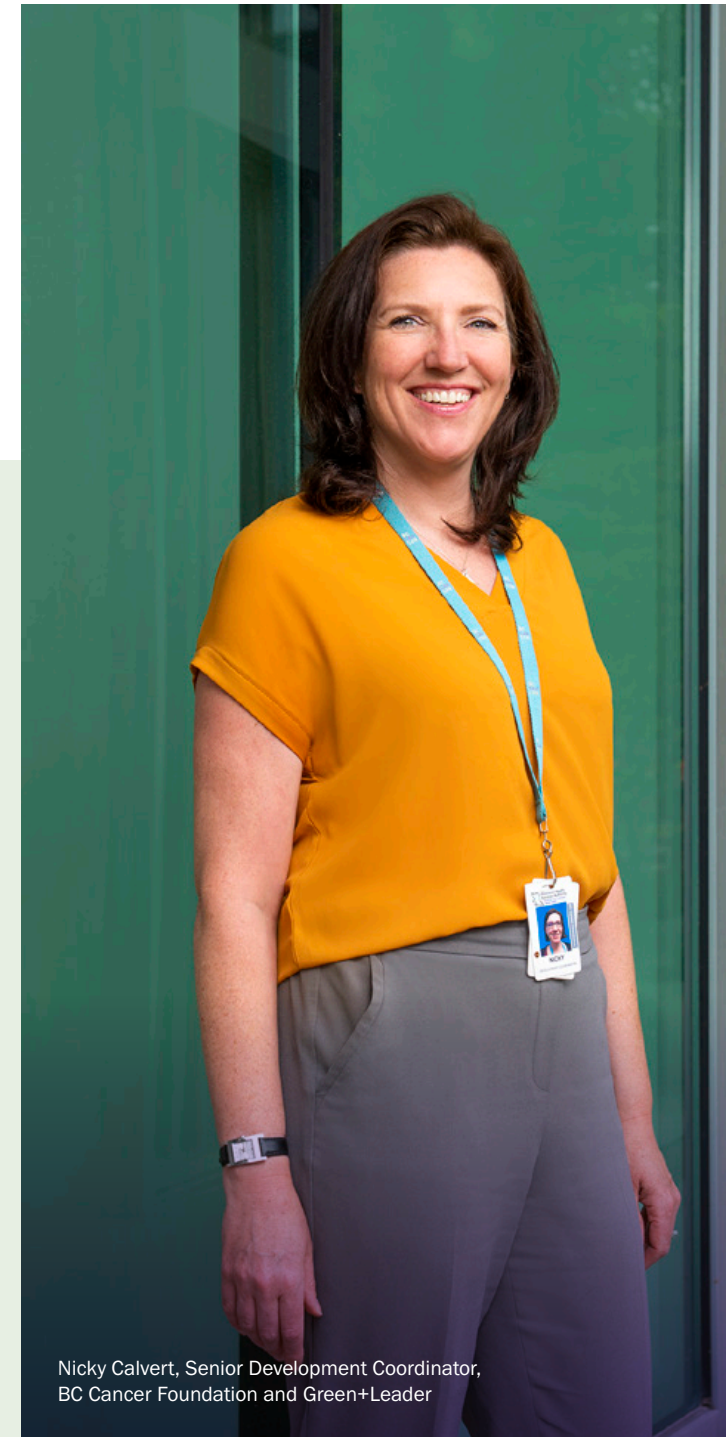
Join the [Green+Leaders](#) community and make a difference in your workplace.

Transform our processes and health system away from business as usual:

Access [toolkits and resources](#) to engage your team in discussion and action toward environmentally sustainable practices for your department.

Inspire:

Share your environmental sustainability story [here](#).



Nicky Calvert, Senior Development Coordinator,
BC Cancer Foundation and Green+Leader

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BC Cancer Planetary Health Nurse Internship Program

BC Cancer Planetary Health Unit

BC Centre for Disease Control

BC Children's Hospital and Women's Hospital +
Health Centre Medical Staff Association Planetary
Health Committee

BC Children's Hospital Green Surgical Initiative

BC Emergency Health Services

BC Housing

BC Hydro

BC Ministry of Energy, Mines and Low
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BC Ministry of Environment and Climate
Change Strategy

BC Ministry of Health

BC Patient Safety & Quality Council

BC Renal

Business Initiatives Support Services

C

Canadian Coalition for Green Health Care

CASCADES Canada

Clinical and non-clinical direct-care staff

Clinical dietitians

Communications

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F

Facilities Management

Finance

First Nations Health Authority

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FortisBC

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Health Emergency Management BC

Health Quality BC

I

Indigenous Health

Infection Prevention and Control

Integrated Protection Services, Commuter Services

Interior Health

Island Health

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National Research Council of Canada

Northern Health

Nourish Leadership

Nursing and Allied Health Research and
Knowledge Translation

P

Pacific Climate Impacts Consortium

People and Culture

PHSA Procurement

PHSA Supply Chain

Planetary Health team

Population and Public Health

Projects & Planning teams

Provincial Nursing Skin and Wound Committee

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Visit the Methodology and
Context for Calculating KPIs

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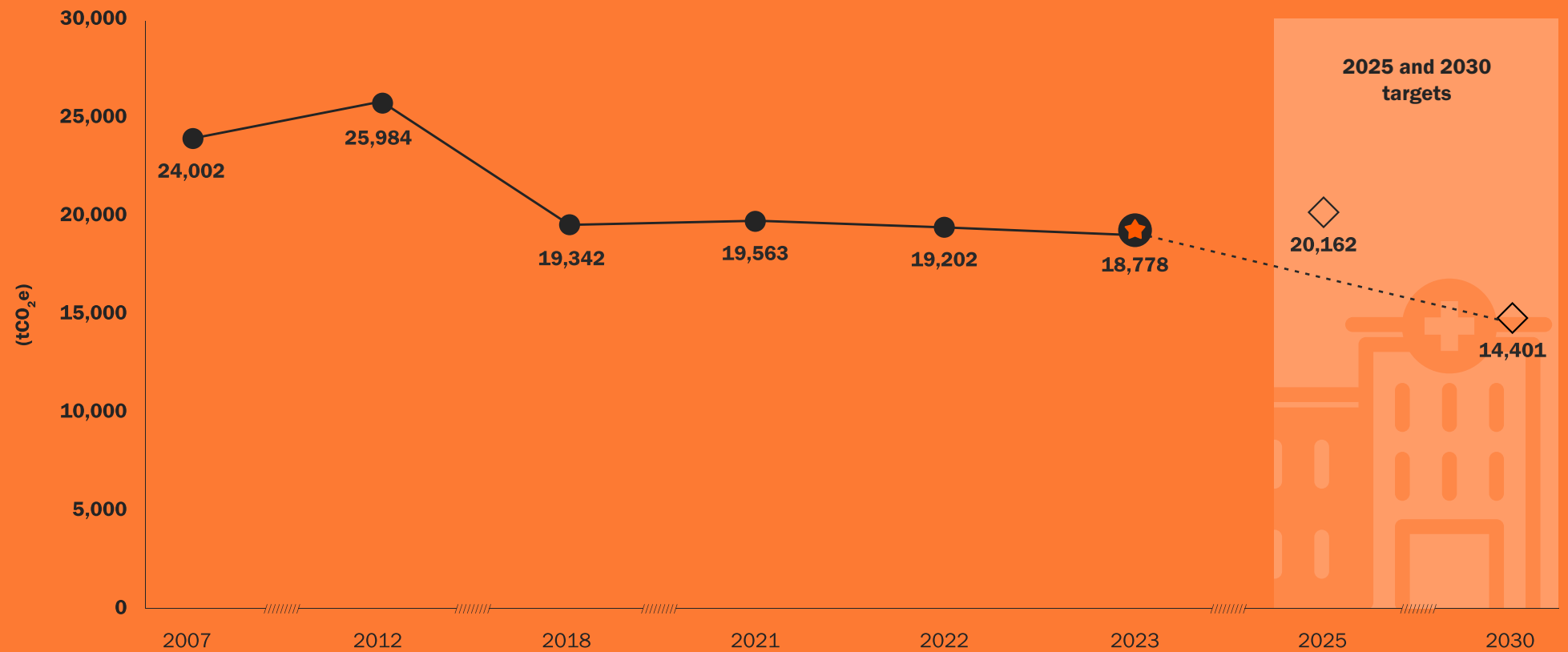
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Greenhouse Gas Emissions (Owned and Leased Buildings, Fleet, and Paper)



GHG emissions have **decreased by 22%** since 2007, surpassing our **2025 target**.



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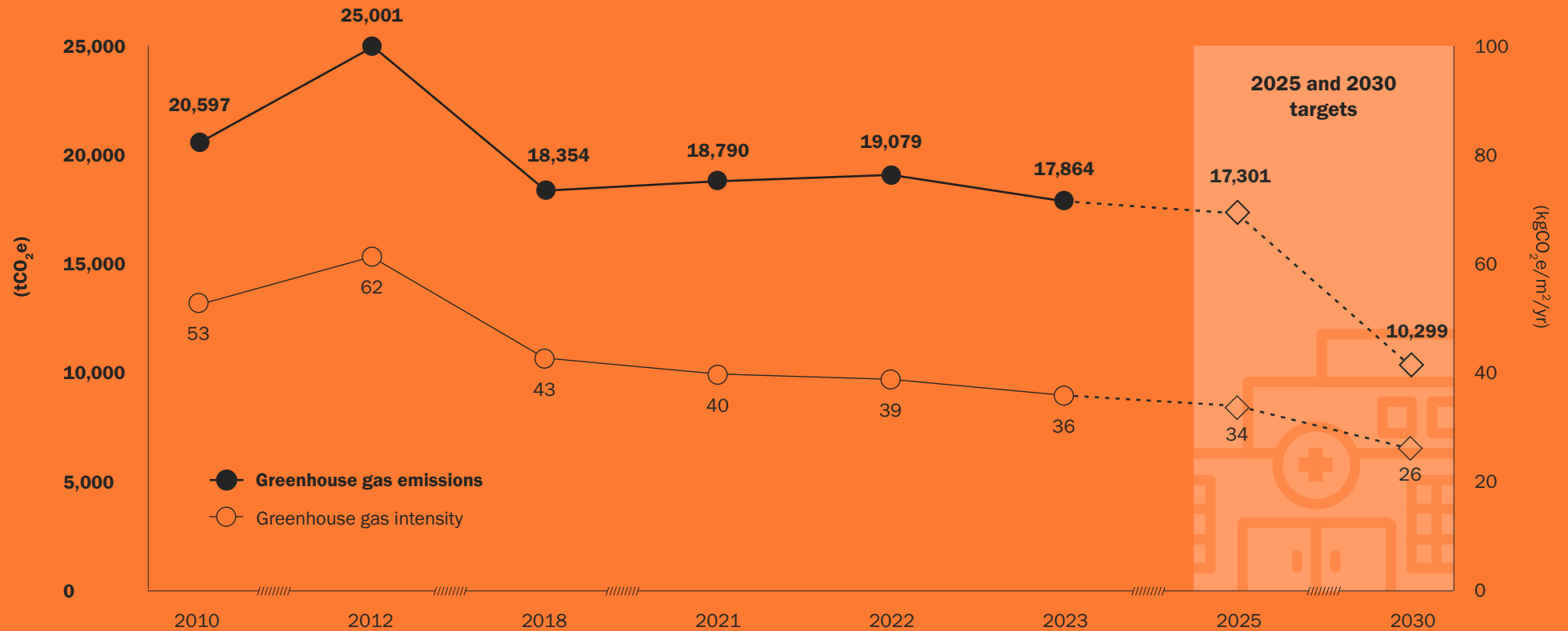
[PHSA Climate Change Accountability Report](#)

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Greenhouse Gas Emissions and Intensity (Owned and Leased Buildings Only)

GHG emissions from buildings have **decreased by 13%** since 2010.

GHG emissions generated per floor area have **decreased by 32%** since 2010.



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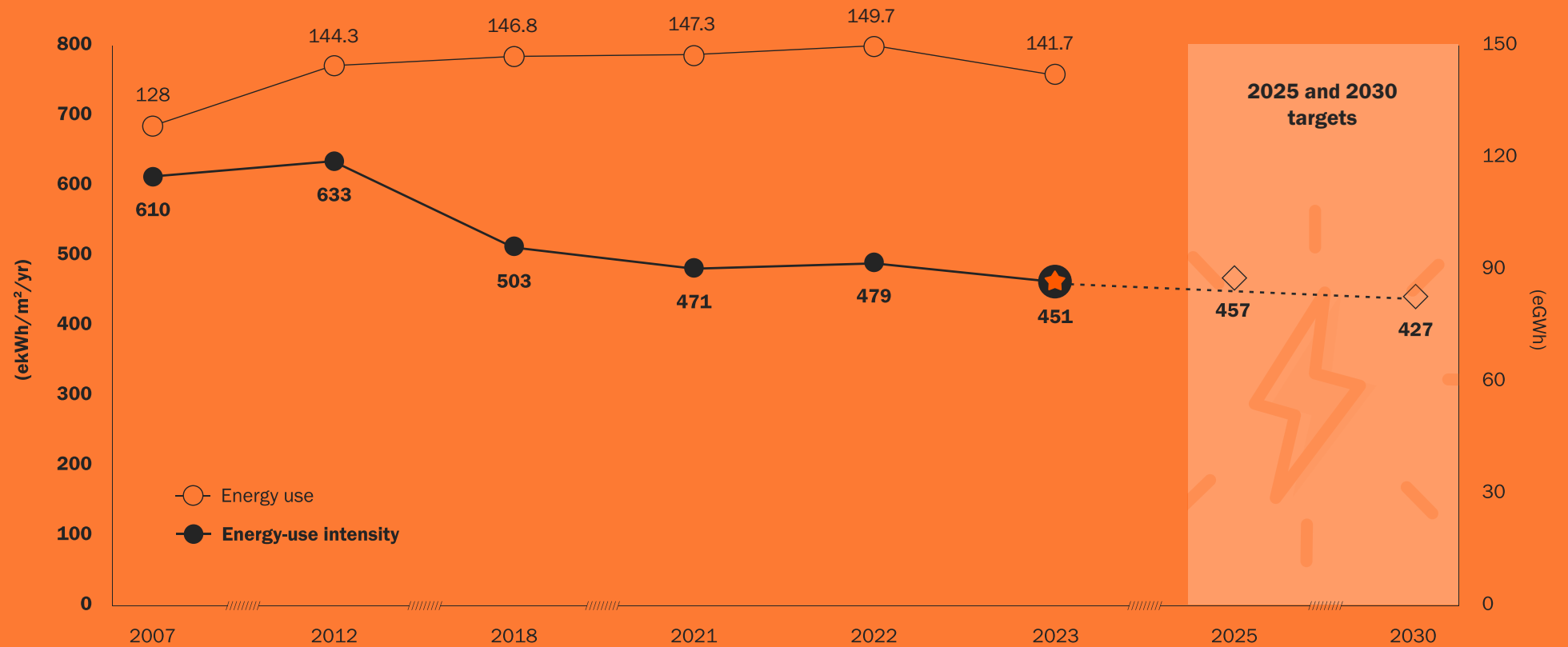
PHSA Climate Change Accountability Report

Green+Leaders Annual Report

Energy Use and Intensity

Energy-use has **increased by 11%** since 2007.

Energy use per floor area has **decreased by 26%** since 2007.



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Recycling Rates

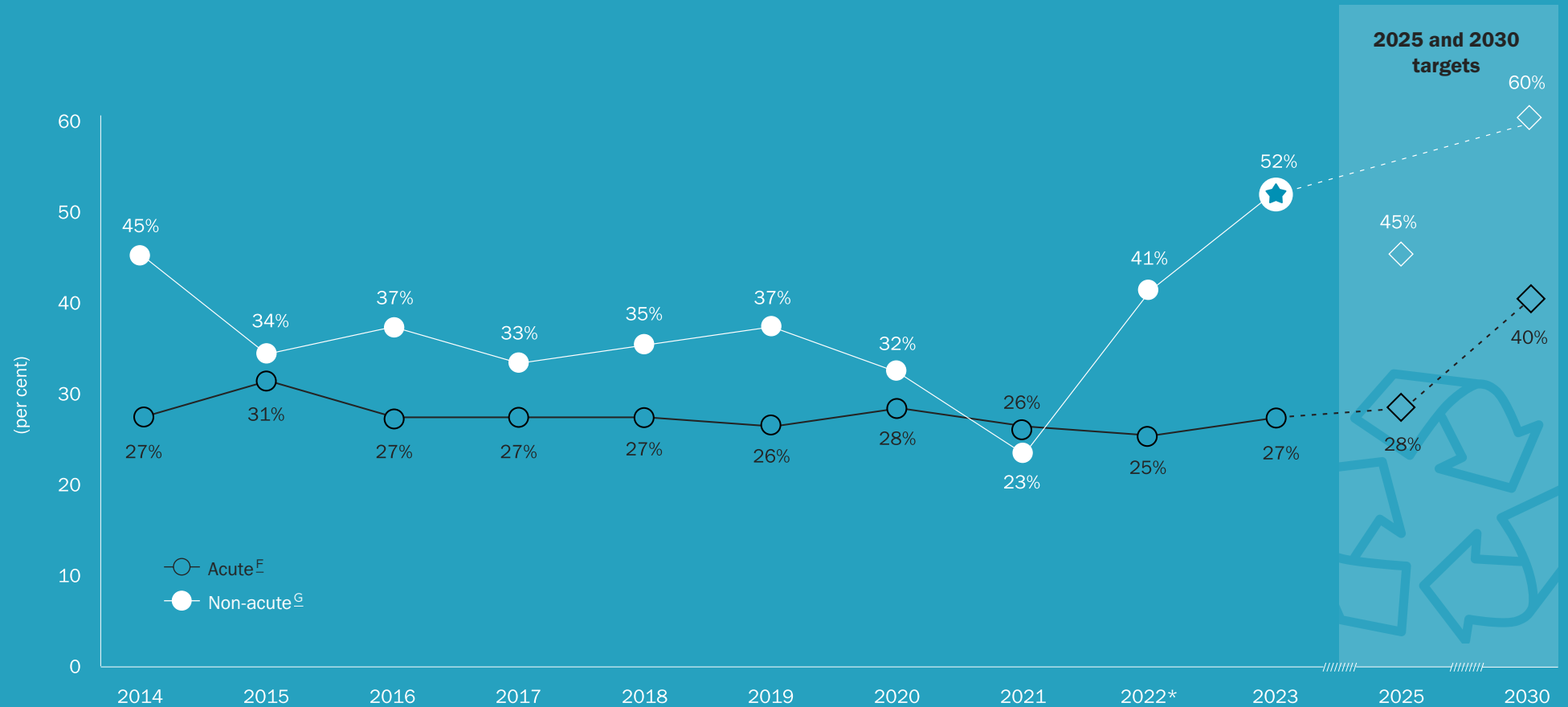
At **acute** care sites, we are

13% away from our **2030 target**.



At **non-acute** sites, we are

8% away from our **2030 target**, and have surpassed our **2025 target**.



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* In 2022, recycling bins were returned to patient care areas after a pause during the pandemic. While recycling is back to full capacity in non-acute care sites in 2023, some acute care sites are still not back to pre-2020 service levels.

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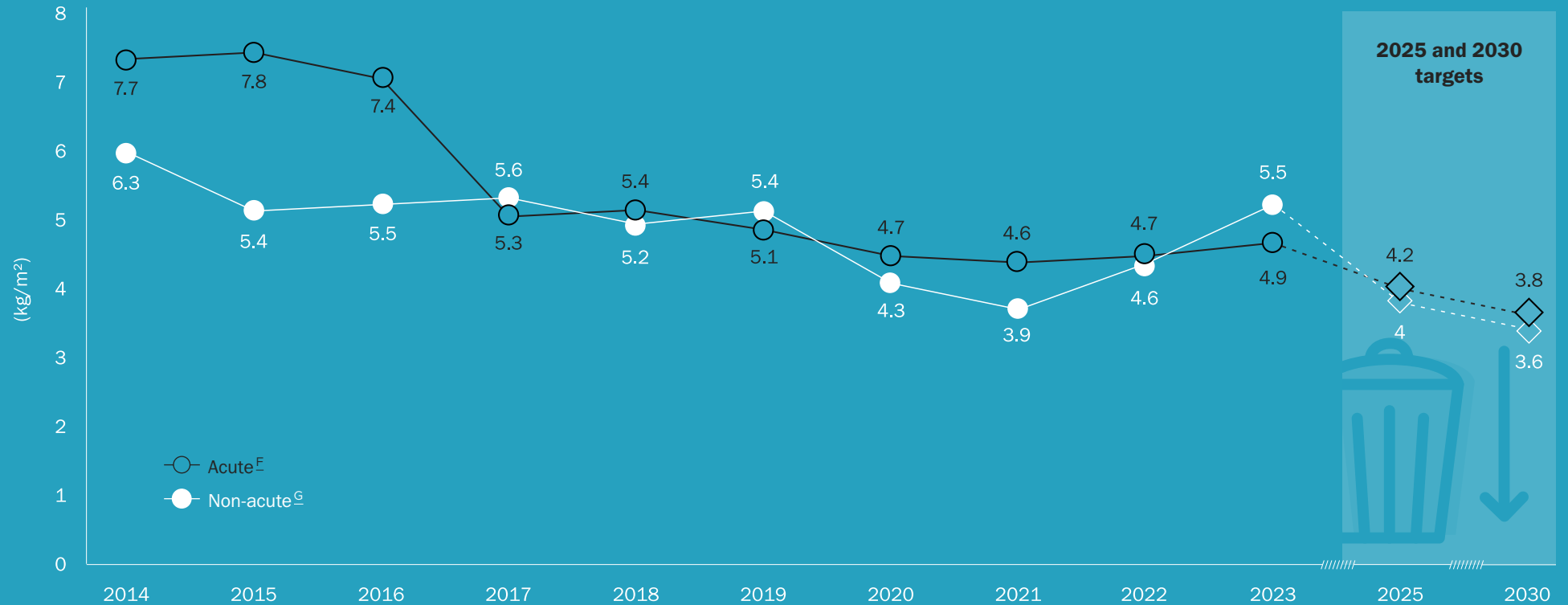
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Waste Generation Per Floor Area

At **acute** care sites, we are **22%** away from our **2030 target**.

At **non-acute** sites, we are **34%** away from our **2030 target**.



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Staff Commuting

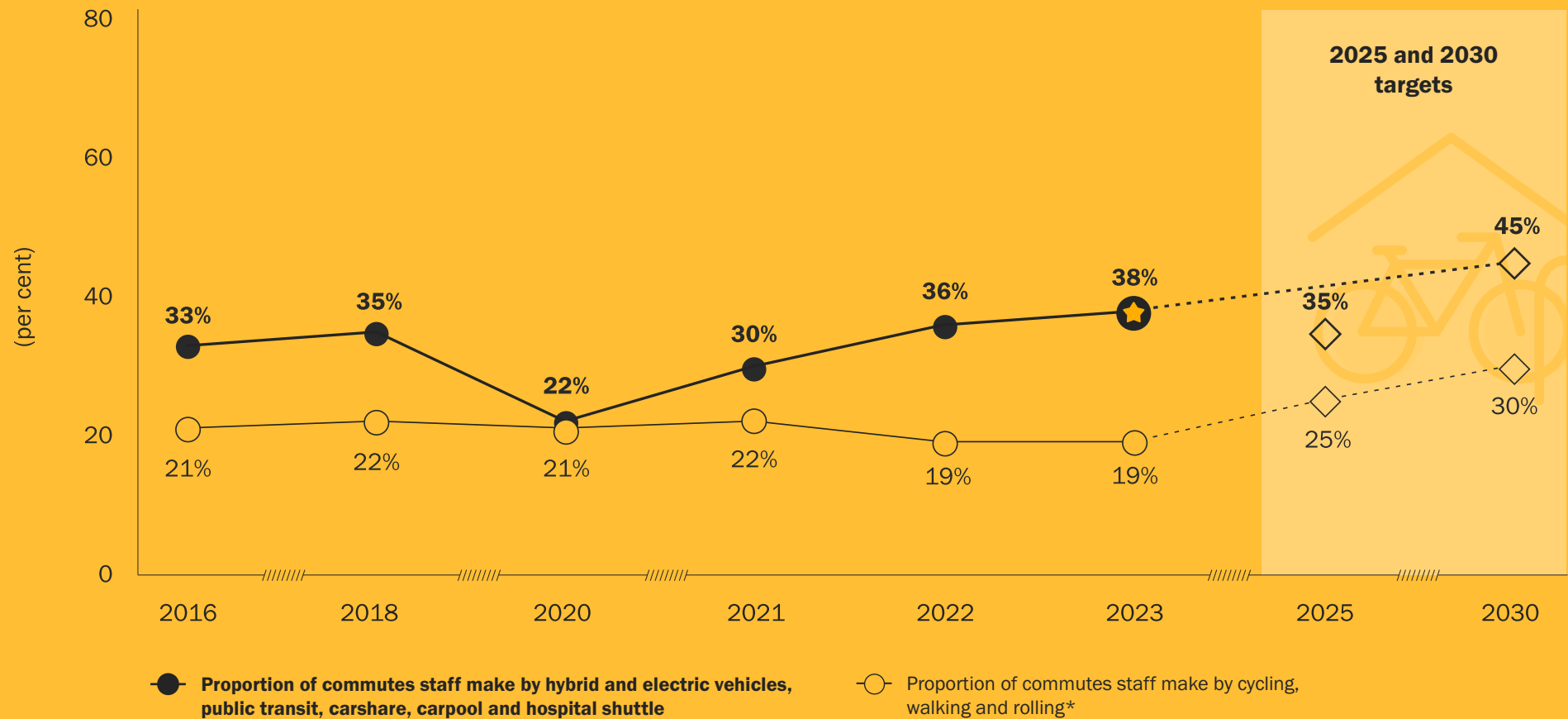
Staff commuting by cycling, walking and rolling is

11% away from the **2030 target.**



Staff commuting by hybrid and electric vehicles, public transit, car share, carpool and hospital shuttle is

7% away from the **2030 target,** and has surpassed our **2025 target.**



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* E.g. wheelchair, seated electric scooter

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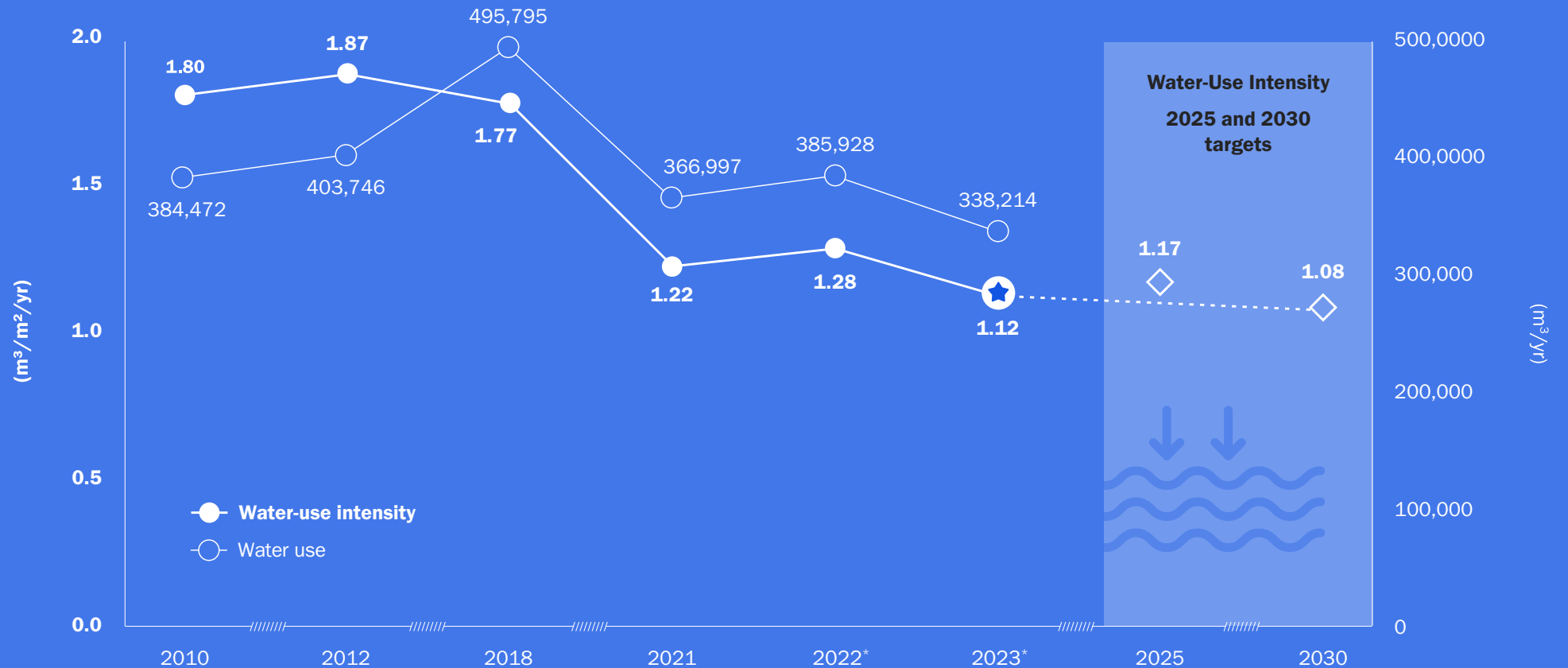
- PHSA Climate Change Accountability Report
- Green+Leaders Annual Report

Water Use and Intensity



Water use has **decreased by 12%** surpassing our **2025 target**.

Water-use intensity has **decreased by 38%** since 2010.



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* Data for this year is based on a three-year average (2020-2022 and 2021-2023, respectively) at the BC Children's Hospital and Women's Hospital + Health Centre site, due to water metering inaccuracies which are currently being investigated.

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- A** Natural Resources Canada - Office of Energy Efficiency - Demand Policy and Analysis Division. Greenhouse gas equivalencies calculator [Internet]. Government of Canada; 2017 [cited 2024 June 8]. Available from: <https://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/calculator/ghg-calculator.cfm#results>
- B** Information sources for buildings: ARCHIBUS and PHSA Real Estate Team
- C** Full-time equivalent staff includes all designated groups reported in the Health Sector Compensation Information System (HSCIS). This includes physicians (doctors on staff), executive/excluded, and non-union and bargaining unit employees. It excludes affiliate employers and BC Emergency Health Services (BCEHS) employees. (Source: Health Employers Association of BC)
- D** Information sources for LEED: [Canadian Green Building Council project database](#)
- E** In 2023, PHSA-owned facilities included in energy metering were:
- 2340 Richmond Road, Victoria
 - BC Cancer Centre for the North
 - BC Cancer Research Centre
 - BC Children's and BC Women's Hospital + Health Centre
 - Fraser Valley Cancer Centre
 - Red Fish Healing Centre for Mental Health and Addiction
 - Slocan Site
 - Vancouver Cancer Centre
 - Vancouver Island Cancer Centre
- F** PHSA acute care sites included in waste-related key performance indicators are (* denotes facilities

that are still working on returning to pre-2020 recycling service levels):

- BC Children's Hospital*
- BC Women's Hospital + Health Centre*

G PHSA non-acute sites included in waste-related key performance indicators are:

- BC Cancer – Vancouver
- BC Cancer Research Centre
- Red Fish Healing Centre for Mental Health and Addiction

H The GreenCare survey is an annual survey (biennial prior to 2020) for all staff working within Fraser Health, Providence Health Care, Provincial Health Services Authority and Vancouver Coastal Health. The survey collects information on staff perspectives, familiarity with, and actions related to planetary health, climate change and environmental sustainability efforts in areas such as transportation and food. The data is used to measure trends and progress, and develop programs that will meet staff needs.

I In 2023, PHSA-owned facilities included in water metering were:

- 2340 Richmond Road, Victoria
- BC Cancer Centre for the North
- BC Cancer Research Centre
- BCCA – Centre for the South Interior
- BC Children's and BC Women's Hospital + Health Centre
- Red Fish Healing Centre for Mental Health and Addiction
- Slocan Site
- Vancouver Cancer Centre

- J** The Green+Leaders program is a community of health-care staff who are engaged in advancing sustainability practices within the health system. Green+Leaders are change agents who encourage environmentally sustainable behaviour, improve existing processes, and help to create an overall culture of environmental health and wellness inside and outside of the workplace.
- K** GreenCare is a network that unites efforts across B.C. health-care organizations to advance our health-care system toward environmentally sustainable and resilient care for the health of people, place and planet.

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This report has been compiled by Be the Change Group for the Energy and Environmental Sustainability team.

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