



2022 CLIMATE CHANGE ACCOUNTABILITY REPORT



Interior Health

Land Acknowledgement

Interior Health would like to recognize and acknowledge the traditional, ancestral, and unceded territories of the Dãkelh Dené, Ktunaxa, Nlaka'pamux, Secwépemc, St'át'imc, Syilx, and T̕silhqot'in Nations, where we live, learn, collaborate and work together.

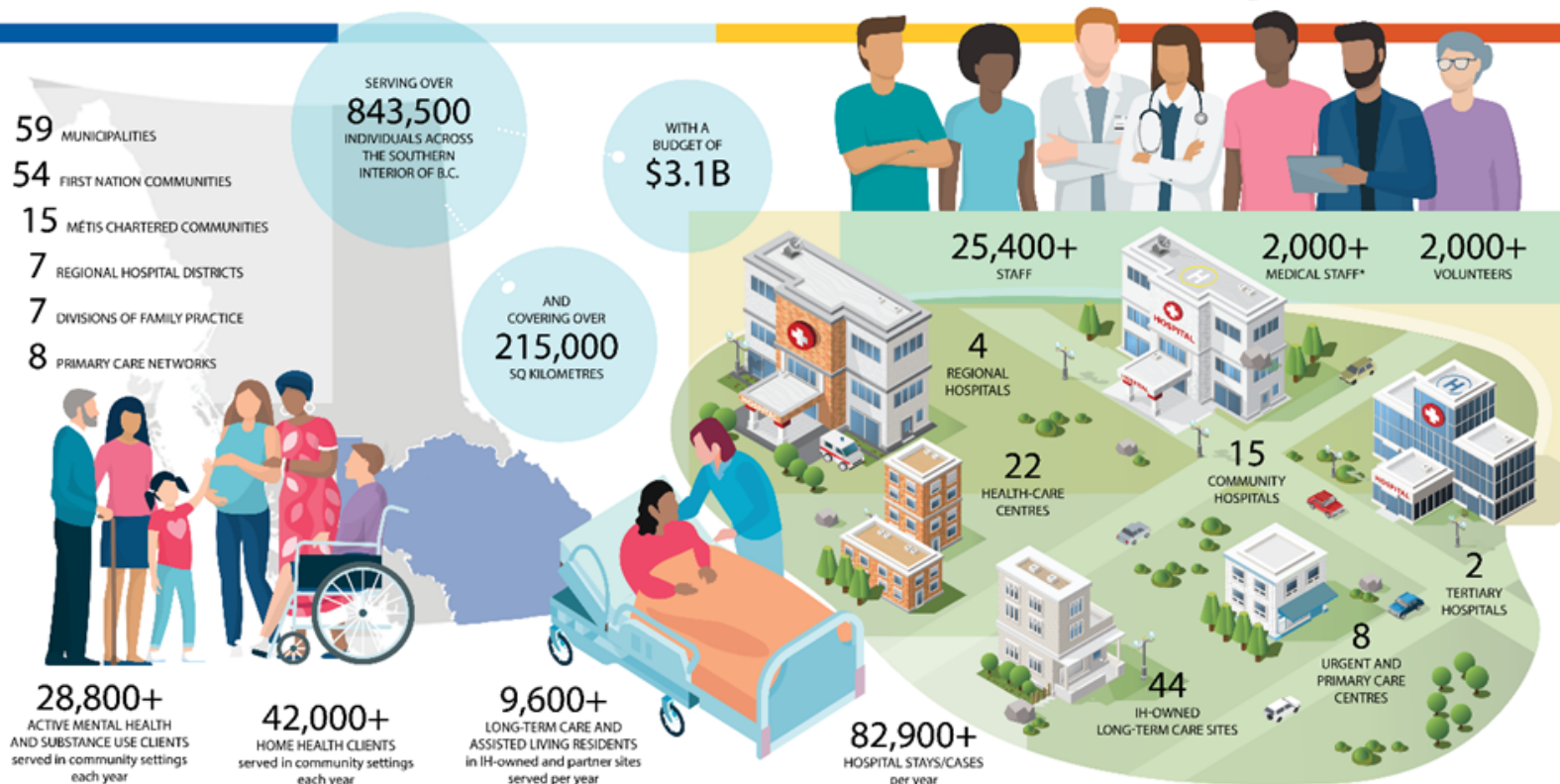
Our Approach



Interior Health (IH) is committed to improving the health and well-being of British Columbians. Our role is not only as a health provider, but also as a health promoter. We aspire for our communities to live long healthy lives, aided by the strategies IH puts in place to reduce environmental impacts in the communities in which we operate.

Interior Health serves a population of approximately 843,500 in the southern Interior of British Columbia, across seven regional hospital districts that includes 59 municipalities, 54 First Nation communities, and 15 Métis Chartered communities. The service area covers more than 215,000 square kilometres, and includes two tertiary hospitals, four regional hospitals, 15 community hospitals, eight urgent and primary care centres, 22 health care centres, and 44 IH-owned long-term care sites. IH has more than 25,400 employees, more than 2,000 medical staff and more than 2,000 volunteers providing health-care services to the people in the Interior.

2023 QUICK FACTS



*physicians, nurse practitioners, dentists and midwives

Message from our President and CEO, and our Executive Sponsor

Over the past few years, Interior Health has faced environmental and climate related challenges in ways we have never imagined. The 2021 heat dome, wildfires and flooding significantly impacted those living in the interior of British Columbia. This interdependence between health and the environment compels us to continue our work towards a low carbon future, beneficial for the environment and the health and well-being of all British Columbians.

Interior Health is taking several actions to mitigate, adapt and increase our resilience to the impacts of climate change. Along with our commitment to caring for our patients, we are committed to making investments to reduce our carbon footprint. We are proud of our climate resilience, energy reduction and environmental sustainability efforts in 2022, some highlights achieved include:

- Maintaining carbon neutral operations since 2010;
- Development of our organizational-wide strategy, the Climate Change and Sustainability Roadmap;
- Release of the 2022-2023 Strategic Energy Management Plan to meet our long-term greenhouse gas emissions reduction targets;
- We saw significant growth in staff engagement with five newly established sustainability committees, and;
- We became the first Health Authority in British Columbia to implement Anesthetic Gas Recovery Technology, reducing emissions associated with clinical services.

As a major employer, service provider and social influence within British Columbia, Interior Health has a key role to play in the collaboration and partnerships needed to support staff, patients and communities prepare for the impacts of climate change. This report provides an overview of our actions in 2022, along with our plans to minimize our carbon footprint and prepare for more frequent climate change related events in years to come.

Through 2023, we will continue to strive for meaningful environmental improvements as we embed sustainability across our operations, creating a healthier environment for the patients, staff and communities we serve.



Susan Brown
President and Chief
Executive Officer



Sylvia Weir
Vice President and
Chief Financial Officer

Declaration Statement

This Public Sector Organization Climate Change Accountability Report for the period January 1, 2022 to December 31, 2022 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach carbon neutrality, our actions taken in 2022, and our plans to continue reducing emissions in 2023 and beyond.

Carbon Neutral

2022 GHG Emissions and Offsets Summary Table

Interior Health 2022 GHG Emissions and Offsets Summary Table	
GHG emissions for the period Jan. 1 - Dec. 31, 2022	
Total BioCO ₂	1,160
Total Emissions (tCO ₂ e)	45,003
Total Offsets (tCO ₂ e)	43,843
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	150
Grand Total Offsets for the 2022 Reporting Year	
Grand Total Offsets to be Retired for 2022 Reporting Year (tCO ₂ e)	43,994
Offset Investment (\$25 per tCO ₂ e)	\$1,099,850 plus GST

Retirement of Offsets Statement

In accordance with the requirements of the *Climate Change Accountability Act* and *Carbon Neutral Government Regulation*, Interior Health (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2022 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (the Ministry) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

Executive Sign-off



May 31, 2023

Susan Brown

President & CEO

Signature

Date

Name

Title

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Overview of the Climate Change Accountability Report

Interior Health is committed to being a leader in initiating change towards a healthy and resilient health-care system that equitably contributes to the well-being of our populations, staff, communities, and the sustainability of our planet. It is a key element in proactively preparing for, adapting to and mitigating the impacts of a changing climate.

Actions outlined in Interior Health's Climate Change Accountability Report feed into collective action B.C. is taking to reduce emissions, build a cleaner economy, protect nature and prepare communities for future climate impacts. In alignment with the Government of British Columbia's CleanBC Roadmap to 2030¹, and the Climate Preparedness and Adaptation Strategy, Interior Health has detailed strategies and targets in place to reduce our greenhouse gas (GHG) emissions in years to come.

Through the carbon neutral government program, legislated under the *Climate Change Accountability Act*² (CCAA), Interior Health has achieved carbon neutral operations since 2010. All public sector organizations (PSOs) achieve carbon neutrality by:

1. Measuring GHG emissions from buildings, vehicles and paper use;
2. Reducing emissions as much as possible by conserving electricity and fossil fuels;
3. Offsetting remaining emissions by purchasing an equivalent amount of high-quality, made-in-B.C. carbon offsets;
4. Reporting annually on progress through the Climate Change Accountability Report (CCAR);
5. Verifying data and emissions.

In addition to reporting our GHG emissions associated with our buildings, mobile sources and paper, this report details the progress made in the management of climate risks, discusses environmental sustainability success stories and features some of the dedicated staff working hard to transform our health-care system.

In the preparation of this report, Interior Health has included a Concordance Table to ensure we are meeting all legislative and reporting requirements, as detailed in Appendix A.

[1] To learn more about how British Columbia is taking action on Climate Change see <https://cleanbc.gov.bc.ca/>

[2] For more information on the Climate Change Accountability Act, refer to https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/07042_01

Energy and Carbon 2

Interior Health aligns our strategies and targets for reducing GHG emissions and moving towards a low carbon economy with the Government of B.C.'s CleanBC climate action plan. The provincial CleanBC plan sets a path and includes a wide range of actions and targets to reduce emissions for Public Sector Organizations including:

Our Targets

- A building emissions reduction target of 50% by the year 2030, from 2007 levels,
- For fleet vehicles, an emissions reduction target of 40% by the year 2030, from 2010 levels.

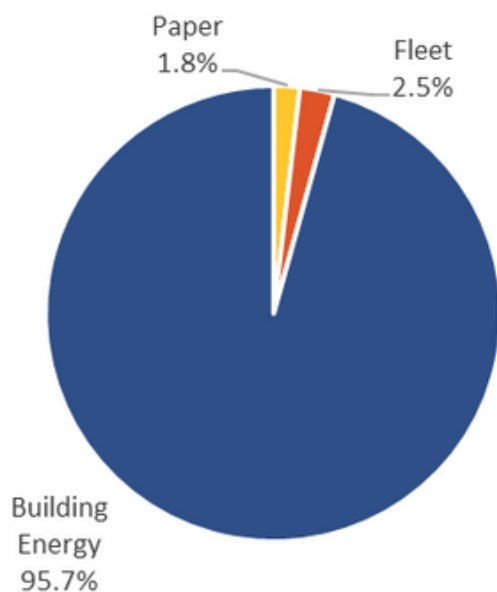


Figure 1 - Greenhouse gas emissions totals for 2022

2022 Emissions Profile

Health-care facilities are significant consumers of energy, paper, water, and are a major producer of waste. These facilities also have a substantial carbon footprint when it comes to service delivery. Energy use from our facilities accounts for approximately 95.7% of our reportable GHG emissions, whereas fleet fuel use accounts for almost 2.5%, and paper use accounts for the remaining 1.8% (Figure 1).

Our building energy use, also known through the CleanBC program as stationary emissions, accounts for the majority of our reportable GHG emissions. As a result, a significant focus on emissions reductions is within the energy management portfolio. To guide investments and meet our long-term GHG emissions reduction targets, Interior Health has a Strategic Energy Management Plan.

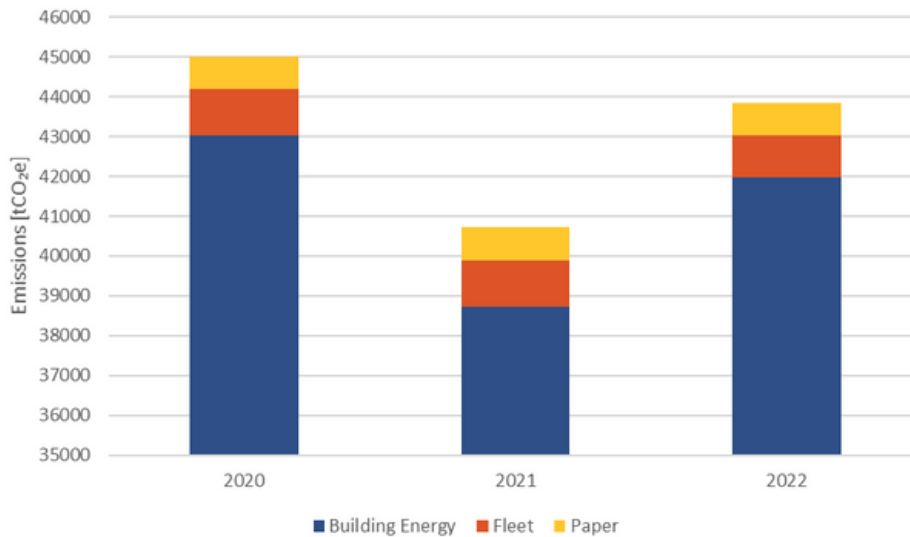
Interior Health's emissions from the energy used in our buildings, the fuel used by our fleet and our paper use are quantified and reported annually using the B.C. Provincial Government's Clean Government Reporting Tool (CGRT).

Emissions Trending

Compared to the emissions reported in 2021³, GHG emissions from our:

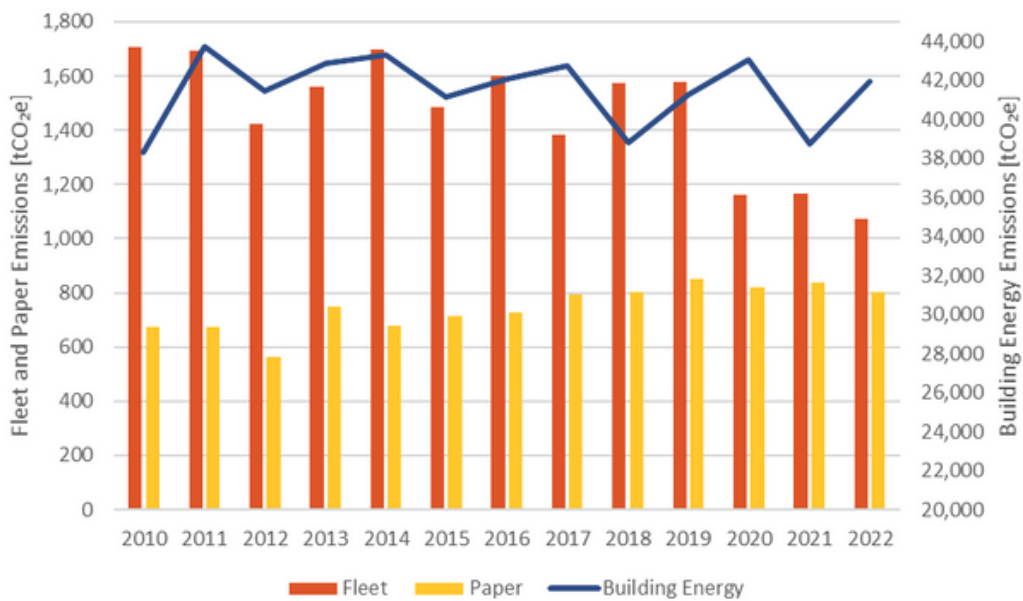
- buildings increased by 8.4% (3,249 tCO₂e)
- fleet decreased by 8.0% (94 tCO₂e)
- paper decreased by 4.5% (38 tCO₂e)

See Graph 1 for a comparison of adjusted 2020, 2021 and 2022 emissions.



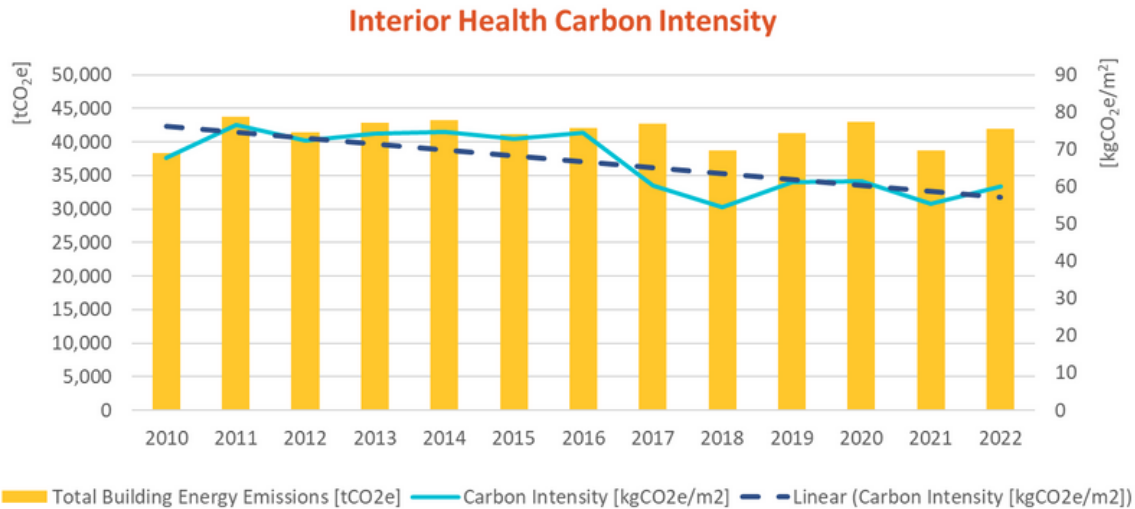
Graph 1 - Comparison of adjusted 2020, 2021 and 2022 emissions

Interior Health’s portfolio of buildings have increased in floor area by 24% from our 2010 baseline. An increase in floor space, increases the amount of energy consumed, resulting in an increase in total GHG emissions.



Graph 2 - Total GHG emissions trending

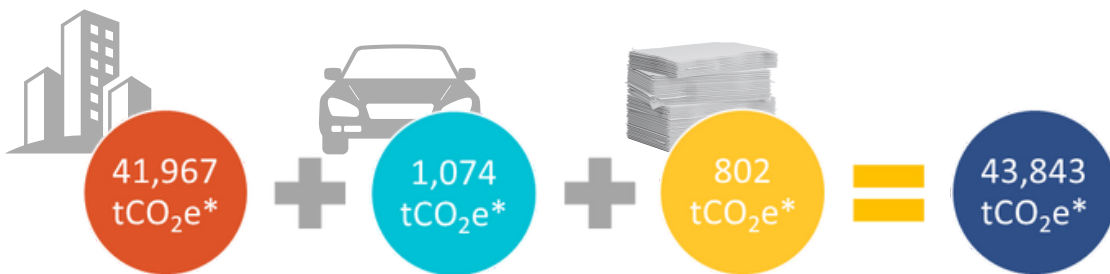
[3] Emissions adjustments are made throughout the next years reporting cycle. This is due to changes in data, which includes emission factor changes and additional data received by IH.



Graph 3 - Building emissions carbon intensity

Even with a larger floor area, the amount of carbon emissions per unit of floor area (carbon intensity) in our facilities is decreasing. Measuring our carbon intensity demonstrates a complete picture of the efficiency of our facilities, rather than the overall consumption. Factoring in carbon emissions with the overall floor space of our facilities highlights the changes implemented to increase efficient energy usage.

2022 Emission Totals



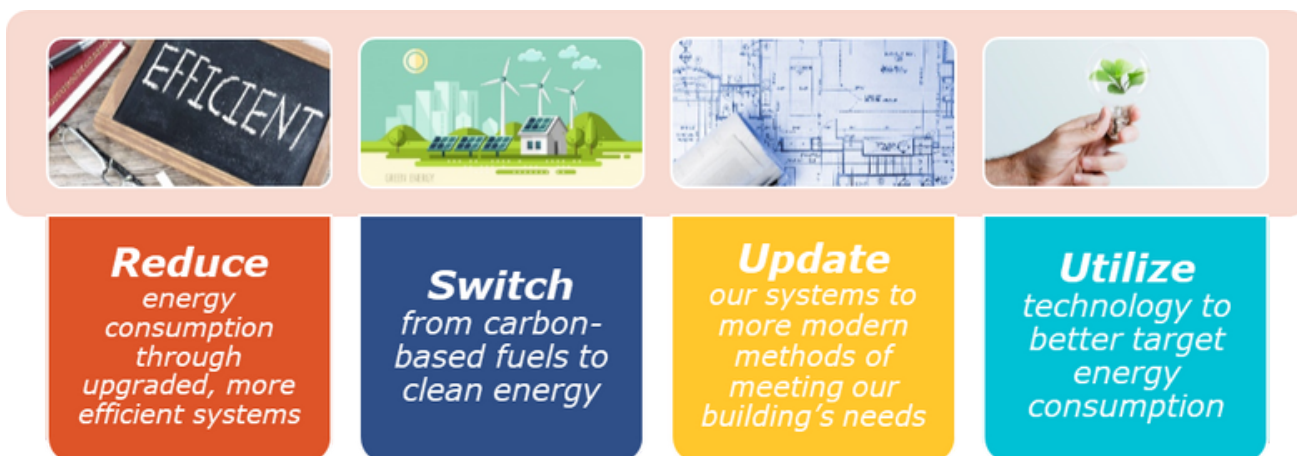
* tonnes of carbon dioxide equivalent

Building Emissions, Energy Conservation and Management

Stationary sources of emissions include IH’s owned buildings and leased facilities. Our building emissions account for 95.7% of our total emissions. The 2022 building emissions are 41,967 tCO₂e. This equates to an 8.4% increase in building emissions compared to the adjusted emissions from 2021.

To provide necessary health-care services, energy, fuel, materials and equipment are required to operate our facilities. While providing these essential services, it is of the utmost importance to reduce our environmental impact, minimizing GHG emissions and understand how the decisions we are making today will impact our patients, communities and staff in the future.

Interior Health continues to reduce emissions from stationary sources by aligning with infrastructure renewal plans for existing buildings, optimizing opportunities for upcoming capital projects, maximizing utility partner incentive programs, and conducting annual prioritization reviews to ensure effective energy management of our resources. We use a multi-pronged approach as outlined in the image below to target energy and emission reductions, and work together with our partners.



Current and future projects are outlined in the Strategic Energy Management Plan (SEMP)⁴. This report is produced by IH's Energy Management team, and is updated on an annual basis. The SEMP outlines our plan to work towards our long-term GHG emissions reduction targets, while minimizing costs for infrastructure replacement and energy utilities. Co-benefits include improved indoor air quality and increased resiliency to a changing climate. Effective energy management, targeting emissions reduction, and working together with our partners to achieve co-benefits, is core to Interior Health's overall strategic priorities.

The energy projects implemented in 2021, with realized cost savings and GHG emission reductions in 2022, are highlighted in this report, from recommissioning projects to conservation measures it often takes a full year long cycle to see results.

Energy Studies

To assist with project prioritization, and to make informed decisions, energy studies are essential in identifying the best opportunities for our facilities to reduce emissions and optimize energy performance. Energy studies are conducted at facilities to identify energy conservation measures (ECMs).

[4] For more information, access IH's Strategic Energy Management Plan <https://www.interiorhealth.ca/sites/default/files/PDFS/interior-health-authority-2022-2023-strategic-energy-management-plan.pdf>

IH conducts targeted energy studies for equipment reaching its end of life, and prioritizes replacing equipment with the most effective energy options to improve system performance. Energy studies can vary in scope from small scale to large capital upgrades. Some example studies conducted in 2022 include at Ashcroft Urgent and Primary Care Centre, a continuous optimization study was conducted to ensure ongoing energy efficiency of operations. In addition, under the guidelines and standards for energy audits set by the American Society of Heating, Refrigeration and Air-Conditioning Engineers, a Level 1 audit was conducted for Penticton Regional Hospital and a Level 2 audit for the Gateby Care Facility. In 2022, 12 energy studies were conducted at the following sites:

- Ashcroft Urgent and Primary Care Centre
- Overlander Extended Care
- Queen Victoria Hospital
- The Gateby Care Facility
- Kelowna General Hospital
- Kootenay Boundary Hospital
- Kootenay Lake Hospital
- Penticton Regional Hospital
- Royal Inland Hospital
- Summerland Health Centre
- Vernon Jubilee Hospital

In Cranbrook, East Kootenay Regional Hospital has been working with an energy performance contractor to implement a number of upgrades to building systems as the end of useful service life was reached. Upon implementation of these ECMs, the contractor estimates a 23% reduction on GHG emissions, and energy savings of 19%.

IH's Energy Management Team has also been piloting portfolio-wide evaluations of specific technologies (e.g., heat recovery chillers) to realize cost effective solutions for multiple facilities with similar characteristics. Several of these projects will phase into the implementation stage over the next few years and the energy savings will be realized soon after.

Operating Projects

Interior Health implements smaller scale maintenance improvement projects with budgets typically less than \$100,000. These operating projects have a shorter payback period and focus on recommissioning of heating, ventilation and air conditioning (HVAC) systems that can be replicated across our sites, with proven success. **"Recommissioning Projects"** as outlined in Table 1, use a systematic process of ensuring that a building performs in accordance with the design intent, contract documents, and our operational needs.

Operating projects also include **“Continuous Optimization”** projects which are designed to help tune-up our buildings, in addition to:

- Finding new ways to save energy without investing in expensive new equipment, and
- Learning how to maintain those energy savings over time.

To improve the efficiency of the most energy intensive building systems such as HVAC, conducting Continuous Optimization is essential. It allows system improvements to be implemented without requiring major capital investment. All projects take place over two years, with an investigation taking place in the first year and then approved measures being implemented in the second year. In 2023, these projects are estimated to reduce emissions comparable to the same emissions as **76 passenger vehicles driven for one year.**

Table 1 - 2022 Recommissioning Projects

Facility	Project Description
Golden and District Hospital	HVAC Recommissioning
Invermere and District Hospital	HVAC Recommissioning
Lillooet Hospital & Health Centre	HVAC Recommissioning
Nicola Valley Hospital	Hydronic Valves Recommissioning
Victorian Community Health Centre	HVAC Recommissioning

Note: Recommissioning is a “systematic process of ensuring that a building performs in accordance with the design intent, contract documents, and the owner’s operational needs”

Capital Projects

To achieve the greatest energy savings and GHG emission reductions we invest in large scale capital projects with budgets greater than \$100,000. The capital that is invested in these projects have a longer payback period and higher GHG abatement cost (\$ per tCO₂e). Building retrofits that are major or deep in scale support multiple energy upgrades simultaneously. When successful, these upgrades and innovations can be implemented at other sites. These projects are undertaken when existing equipment or systems are reaching the end of their useful life and need to be replaced.

Our larger capital projects that are underway in 2022-2023 include:

- Dr. Helmcken Memorial Hospital & Health Centre – Renewable Energy Upgrade
- Kootenay Boundary Regional Hospital – Steam Plant Retrofits
- Summerland Memorial Health Centre – High Efficiency Heating Plant Replacement
- Creston Valley Hospital – High Efficiency Condensing Boilers

Public-Private-Partnership (P3) Operations

Our hospitals in Kamloops, Kelowna, Penticton and Vernon are operated through a public-private-partnership (P3) arrangement. In those partnerships, the P3 project company designs and constructs its new facilities to meet or exceed an agreed upon design and construction energy target. After the design and construction target is reconciled; our P3 partners are then financially incentivized to maintain and operate the new building in an energy efficient manner.

Royal Inland Hospital

In Kamloops, Royal Inland Hospital (RIH) has implemented various ECMs to reduce emissions. By creating an enhanced building envelope, we are estimated to conserve energy and increase occupant (staff and patient) comfort. Capitalizing on new construction incentive programs administered by BC Hydro and FortisBC, Interior Health was able to identify significant energy savings and emission reduction targets by implementing heat recovery wheels and chillers.

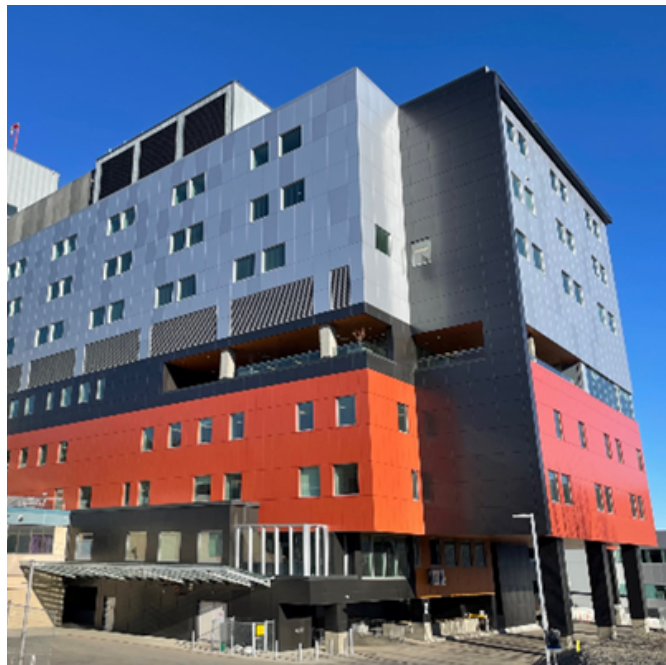


Photo 1 - The new Phil & Jennie Gaglardi Tower at Royal Inland Hospital in Kamloops

Kelowna General Hospital

Our partners at Infusion Health have been working with our Energy Management Team, and FortisBC to take advantage of periods where energy can be conserved in the operating room by limiting the operating hours of the heating, ventilation, and air conditioning system. Operating rooms have significant HVAC standards and operating requirements. When operating rooms are only in use during the day, it results in significant amounts of energy being used during unoccupied periods. By employing setback strategies, which reduce the amount of air being supplied to the rooms if they are unoccupied, it is estimated 39 tonnes of CO₂e will be reduced annually – that's equivalent to the energy use of nine homes in one year!

Energy Wise Campaign

Engaging with staff has been an effective strategy for improving energy performance. BC Hydro, in partnership with FortisBC, offer support for organizations to engage with their staff around energy management. The Energy Wise Network is a community of leaders who are passionate about sustainability and engaging people at their organization to reduce energy and use resources wisely. The Energy Wise program helps with campaigns to encourage people to reduce energy use by offering a variety of tools, resources and ideas. Organizations have access to training, networking opportunities, campaign toolkits, customized coaching and incentive funding.

In 2022, Interior Health led an Energy Wise Campaign focused on developing a procedure to help standardize the approach in how facilities staff investigate and track repairs. The Plant Services team piloted the procedure to utilize the building automation system to identify energy wasting devices within the facility and track the repairs. Devices such as control valves and control dampers were reviewed for operation, and HVAC coils were checked for cleanliness and identified for cleaning as required. These two actions are known to improve system efficiencies in buildings by keeping building occupants happy and comfortable, and improve air flow throughout the building.

Plans for the Future

The energy management program will continue to deliver best possible results that aim to save energy costs, and reduce building emissions on two fronts. First, by utilizing the confirmed funding available on prioritized projects identified by the Strategic Energy Management Plan and energy conservation measures for long-term investments. Second, if additional funding is provided, a plan of action has been developed which would support:

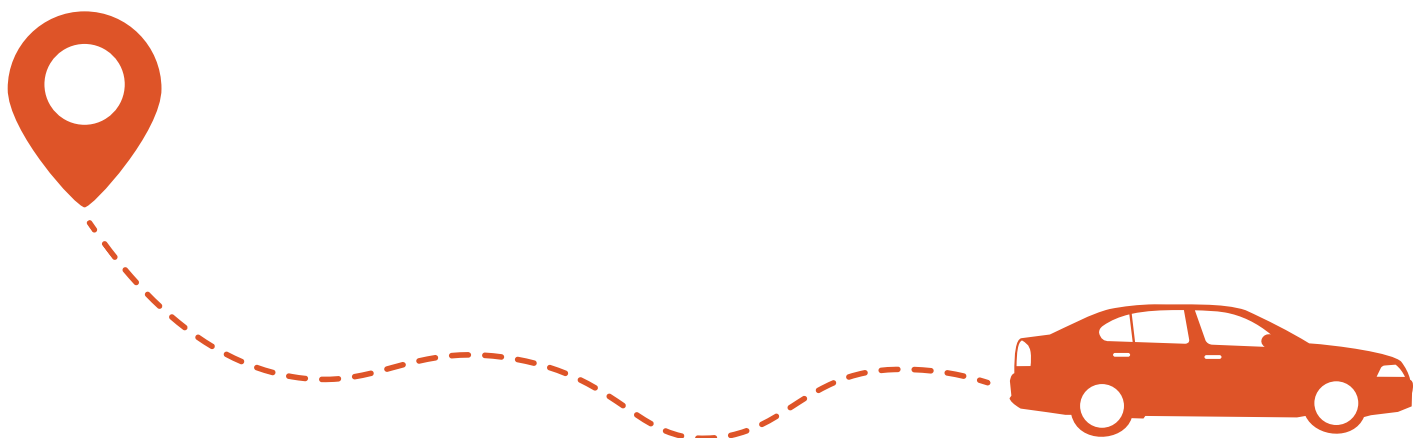
- Hiring of additional staff,
- Increasing and completing the amount of energy studies being conducted, and
- Implement more energy conservation opportunities.

Interior Health will leverage the following opportunities in 2023 and beyond:

- Identify projects to support Capital Planning in the development of climate resilient buildings, and
- Foster partnerships with BC Hydro, FortisBC and other partners to optimize access to incentives and rebate programs.

Fleet Emissions

The emissions from our fleet vehicles account for 2.5% of our total emissions. The 2021 fleet emissions were adjusted to 1,168 tCO₂e (from 1,068 tCO₂e). This adjustment is due to updated emission factors and additional data received from our vendors after the reporting period closed. At the time of reporting, the 2022 fleet emissions are 1,074 tCO₂e. Although there has been an increase in travel, our fleet has been operating at an increased fuel efficiency by 7%.

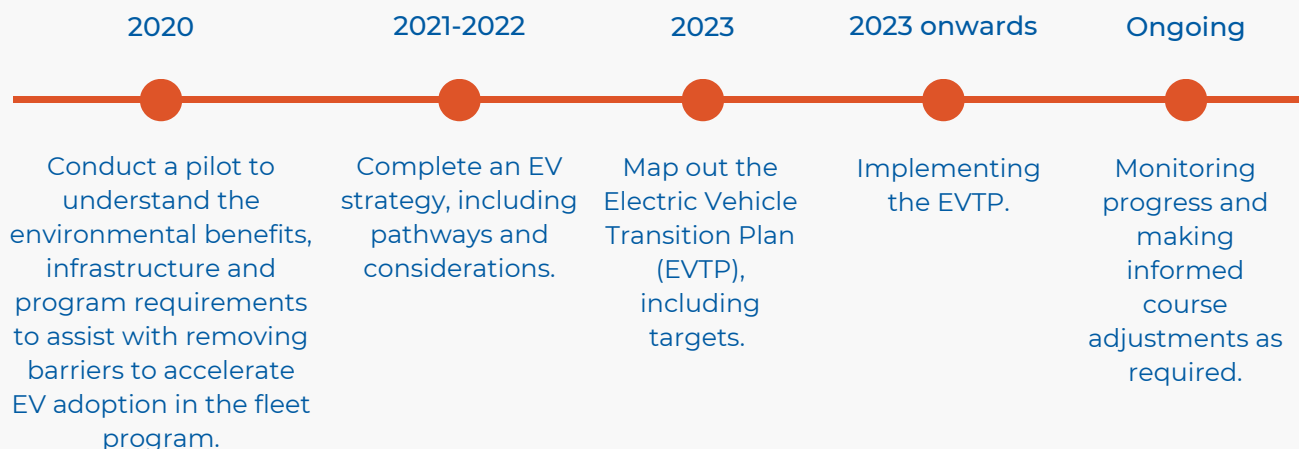


Fleet Electric Vehicle Strategy

In 2022, we completed the Electric Vehicle (EV) strategy which prioritizes the transition of IH's fleet. Under the right applications, transitioning our fleet to EVs lower operating costs, minimize maintenance, require fewer moving parts and perform well. The pathway forward to transition our fleet aligns with several commitments:

- the B.C. government mandate requires Public Sector Organizations to contribute to the shared target of a 40% reduction in fleet GHG emissions by 2030;
- the Climate Action Secretariat (CAS) requires core government ministries transition 10% of their fleet to EVs by 2030;
- a commitment to the West Coast Electric Fleet as an 'On-Ramp' partner, where we have committed to evaluating our fleet vehicle procurements appropriate for an EV-transition.

A timeline of our approach to enable the transition of internal combustion engine vehicles to EVs:



Electric Vehicles and Infrastructure



Photo 2 - Reserved parking for EVs at Vernon Jubilee Hospital

Interior Health now has 68 Level 1 and Level 2 EV charging stations that are available for staff or public parking. Stalls are available at Royal Inland Hospital, Kelowna General Hospital, Penticton Regional Hospital, and Vernon Jubilee Hospital. The Parking Services team is working with Capital Planning to identify opportunities in new builds or retrofits for new EV-infrastructure.

Paper Emissions

The emissions from our paper use accounts for 1.8% of our total emissions. The 2022 paper emissions are 802 tCO₂e. This equates to a 4.5% decrease in paper emissions compared to the adjusted emissions from 2021.

The decline in paper use can be attributed to many employees working remotely with less printing. IH will continue to look for opportunities to reduce paper, with a focus on digitizing processes with electronic workflows. Sustainability Committees throughout the Interior are continuing to promote paper reduction through behavioural changes. Informational campaigns have been implemented to encourage online collaboration methods and sharing of agendas, and removing automatic printing. All IH workstations are able to communicate with each other to collaboratively share, and edit documents electronically.

Sugar Sheets

Our partnership with Royal Printers, a B.C. based clean energy print shop with zero-emission wind power and zero-emission landfill natural gas, has increased the sustainability of IH's printing at no additional cost. Whether it is a form for a surgery patient, envelopes for necessary reminders, or a clinic poster to be hung up in a unit, Royal Printers prints on Sugar Sheet™ paper whenever possible, which is made from 100% sugar cane residue fibre. For 2022, we have saved 324 trees and 20,423.6 kg of CO₂.

Royal Inland Hospital is ACE-ing it!

Through the advancing care electronically (ACE) project, RIH has become IH's first integrated digital health system. With the support of leading-edge technology, such as workstations on wheels, tap-and-go desktops and hand-held devices, clinicians and staff at RIH are able to enhance patient safety and quality. Moving away from paper-based charting we can improve health outcomes, improve information access and sharing across the continuum of care and leverage data to improve decision making at all levels of care.



Climate Leadership

3

Climate Risk Management, Adaptation and Resilience

Interior Health has experienced first-hand the impacts of extreme weather events becoming more common especially in the past five years, culminating in 2021 to the heat dome, flooding and wildfires in our region. The linkage between these events and how our buildings and services need to change in order to effectively respond to what is occurring more often, is becoming increasingly clear.

Along with our commitment to mitigate GHG emissions and support a low-carbon economy, we recognize climate action also includes climate risk and resilience efforts. This is because climate change has the potential to impact human health, health-care infrastructure and health-care operations. With that in mind, Interior Health is concurrently preparing for a changing climate.

As Interior Health's infrastructure is aging and many building components are at the end of their life, when rebuilding, replacing or retrofitting we assess the opportunity to not only upgrade our systems, but to create proactive plans to minimize climate risk, and design future facilities with a low carbon lens. To be well-prepared, we are assessing, identifying vulnerabilities and working to build resilience.

Climate Risk Assessment

Climate Risk Assessments are an essential tool for achieving climate change resilience in building projects. A risk assessment is important for understanding the likelihood of a given hazard impacting a building or a building component combined with the consequence should the hazard occur. In 2020, the B.C. Health Authorities released the *Climate Resilience Guidelines for BC Health Facility Planning and Design*. As included in the Ministry of Health Capital Policies, this process requires Health Authorities to:

- Align the project delivery lifecycle with Provincial policy and legislation;
- Meet directives to “align operations with targets and strategies for minimizing GHG emissions and managing climate change risk”; and,
- Demonstrate public sector leadership in a dynamic context with inherent uncertainty, whether increasing climate shocks and stresses, or evolving policy and regulations.

In 2023, the Climate Action Secretariat released the *Climate Resilience Framework and Standards for Public Sector Buildings*. The framework document provides minimum climate resilience standards that all public sector buildings will have to achieve for climate resiliency while lowering GHG emissions. By applying the new standards, GHG emission reductions are met and adaptation measures incorporated into all new buildings and major renewals. By assessing climate risks to our facilities, we are working towards reducing overall organization-wide risk, reducing long-term operational and maintenance costs, aligning with GHG emission reduction strategies provincially and maintaining service delivery standards.

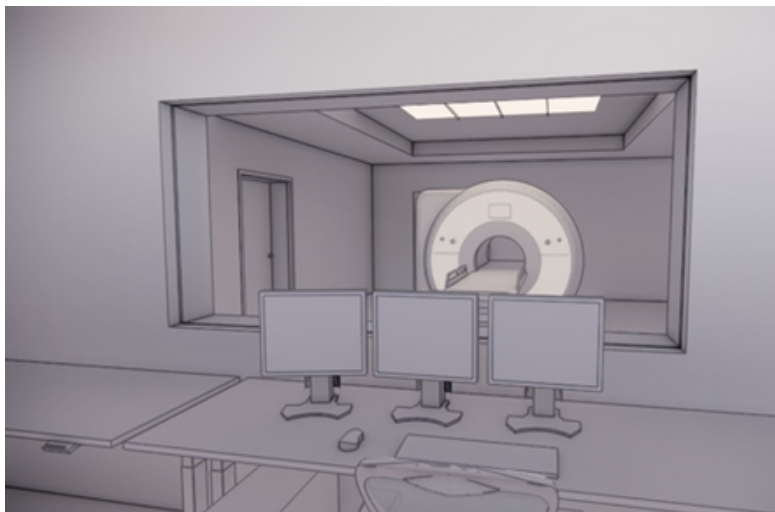


Photo 3 - Interior Health used the Climate Resilience Framework and Standards for Public Sector Buildings to complete a climate risk assessment for KBH's MRI Addition

To understand our organization's risk exposure, Interior Health has conducted several climate risk assessments. Our Environmental Sustainability team works alongside the Capital Planning and consultant teams to identify climate risks and adaptation measures in our new builds, additions and renovated facilities. In 2022, climate risk assessments were conducted at East Kootenay Regional Hospital in Cranbrook and Kootenay Boundary Hospital in Trail. A climate risk assessment is underway for Shuswap Lake Hospital in Salmon Arm.

Climate Profiles and Projections

Interior Health uses climate profiles to illustrate climate trends occurring in recent history (i.e., over the last 30 years or longer), and projected future climate conditions to help inform design and climate adaptation actions. Historical climate records, usually in the form of meteorological data measured at weather stations, are used to describe the historical climate trends for an area. Future climate projections are determined using global climate models (GCMs). Environment and Climate Change Canada (ECCC) has taken a subset of 26 of these models to produce reliable, high-resolution downscaled climate projections localized to specific areas of interest in Canada.

In addition to the physics of the GCMs, global progress towards meeting GHG emissions targets is also a large source of uncertainty in future climate projections. We maintain best practices for planning in this dynamic field to determine how to best future-proof our facilities.

Adaptation Measures

Following the completion of climate risk assessments, specific operational and infrastructure changes are made in the design of our facilities to prepare for future climate impacts. Recommended adaptation measures are made by qualified professionals for mechanical, electrical, structural, enclosure and civil infrastructure categories. Specific recommendations for modifying design criteria to address risks are incorporated into future designs to ensure facilities are resilient to climate change and extreme weather. Some examples of adaptation measures (Figure 2) incorporated into our projects in 2022 include:

- Increasing the capacity and size of HVAC systems to account for increasing temperatures and rising relative humidity levels in the future, and ability for motors to work under heavier filtration in place for wildfire smoke.
- Installation of passive solar shades on exterior of building to reduce impact of UV radiation and heat on south facing portions of building.

In addition to the adaptation strategies provided, it should be noted many risks can be efficiently and effectively addressed and reduced through operations and maintenance (O&M) policy considerations and procedures. An example adaptation strategy would include updating an O&M policy to inspect and unblock stormwater drains and ditches following rain-on-snow event.

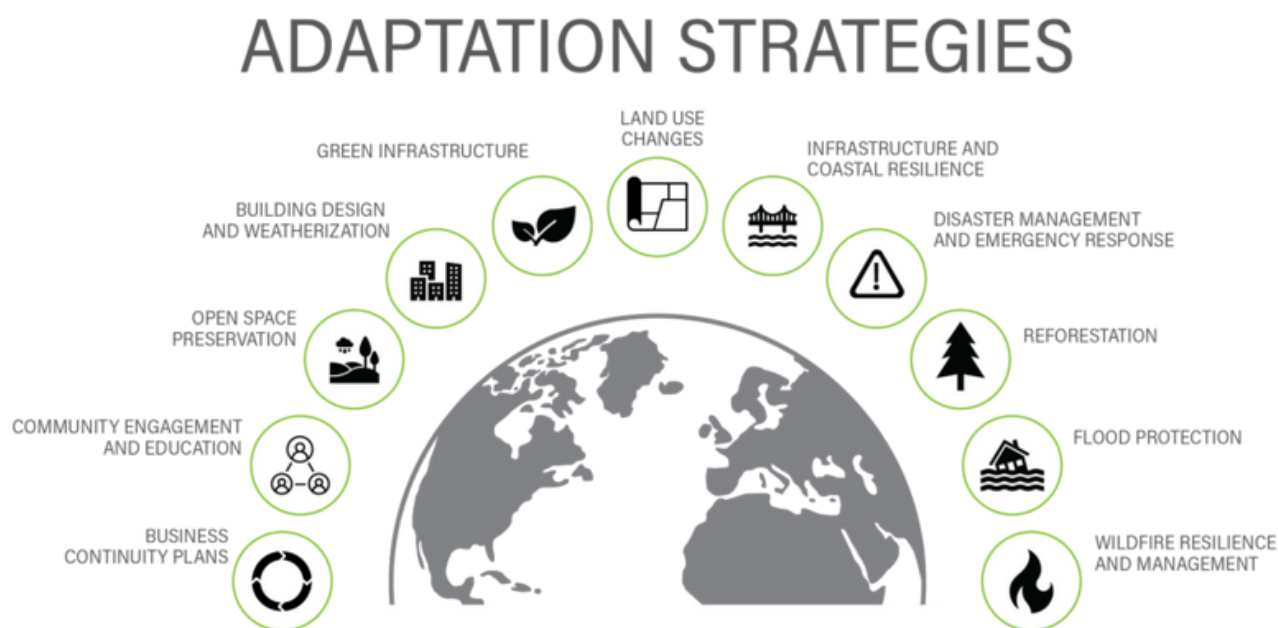


Figure 2 - Example adaptation strategies

Interior Health is also incorporating on the grounds around our facilities the planting of indigenous wildflower gardens that can be used for on-site access to indigenous flora for smudging ceremonies and planting fire and drought resilient plants. As captured below, the new Cariboo Memorial Hospital (CMH) project will incorporate traditional flora in landscaping to allow for traditional cultural and healing practices. As part of the Province's commitment to environmental sustainability and green buildings, the addition at CMH will be designed and constructed to achieve Leadership in Energy and Environmental Design (LEED) Gold certification.

Climate Change and Health

Climate change is changing our environment, and our health along with it. B.C. is expected to see an increase in climate related events from heat events, poor air quality, flooding, and other extreme weather events over the next decade. These events affect the physical, mental, and social health of residents living in the region served by IH. In 2022, a new lead position was created at Interior Health to develop climate change strategies in health-care.



Figure 3 - Rendering of the new Cariboo Memorial Hospital Project.



Kady Hunter, Climate Change and Health Lead

Interior Health's Climate Change and Health Lead, is part of the Chief Medical Health Officer and Population & Public Health teams and works to support Aboriginal health and community partners to address the impacts and adapt to the ongoing challenges of climate change on the overall health of communities.

Working at the intersection of climate change and health, Kady leads the implementation initiatives through the planning, implementation, monitoring, reporting and evaluation of activities related to climate change adaptation and mitigation projects from a population health perspective. This includes considering climate projections, health impacts, and adaptation options to ensure best practices are being implemented.

Heat, Vulnerability and Community Health

Interior Health is invested in collaborating with our local, and provincial partners to ensure our communities have the tools they need to stay safe during heat events. The province launched the B.C. Heat Alert and Response System⁵ which includes two categories of heat events: heat warnings and extreme heat emergencies. In the event of a heat warning or extreme heat emergency, the provincial government and local authorities will take appropriate actions based on their individual heat plans and processes.

Communities in the Interior Region can be inequitably impacted by climate change. To

increase awareness of the causes of these inequities and the associated negative health outcomes, IH created the Community Health and Climate Change Maps⁶. Using census data, vulnerability scores based on a population's risk to exposure, sensitivity and adaptive capacity we have identified sub-regions that may need more resources or support to help cope with current and future climate-related stresses and shocks. Community Health & Climate Change Maps offer users with a starting point for discussion when it comes to planning for the health impacts of the four hazards they address. Within IH, they will be incorporated into larger climate change adaptation planning activities that will ensure services continue to protect the health of the population well into the future.

[5] To learn more about how British Columbia is preparing for Heat Events see <http://www.cdc.ca/health-info/prevention-public-health/preparing-for-heat-events>

[6] For more information on Community Health and Climate Change Maps, refer to <https://www.interiorhealth.ca/sites/default/files/PDFS/IH-maps-communication-tool-final.pdf> or <https://www.interiorhealth.ca/about-ih/climate-resiliency-and-planning>

Health-care Transformation 4

Interior Health has implemented many initiatives in 2022 to transform our health-care system. Changes, both big and small, reduce our impact on the environment. We are committed to fostering an environment of learning and innovation as we work towards reducing our carbon footprint.

Climate Change and Sustainability Roadmap

Interior Health recognizes the link between the health and well-being of British Columbians and the health and well-being of the environment. It is within this context that Interior Health’s executive leadership team looked to develop a guiding document to create a clear, organized, and actionable strategy for the organization’s climate change and sustainability efforts in years to come.

In 2023, Interior Health developed the **Climate Change and Sustainability Roadmap**. The Roadmap is a strategic document that provides an overarching strategy to help guide Interior Health towards a more sustainable future as an organization, health-care provider, and key community member. This document is the product of many years of interest and shared effort across the organization to advance sustainability. Some of the specific actions include the development of a sustainable procurement policy, programs to facilitate the reduction and diversion of building occupant waste and developing a comprehensive indicator program to monitor and evaluate climate change and sustainability action. The document, alongside a fulsome list of goals and actions for the organization, will be released in the summer of 2023.



Planetary Health

In 2015, The Rockefeller Foundation–Lancet Commission on Planetary Health⁷ defined the concept as:

“the achievement of the highest attainable standard of health, wellbeing, and equity worldwide through judicious attention to the human systems—political, economic, and social—that shape the future of humanity and the Earth’s natural systems that define the safe environmental limits within which humanity can flourish. Put simply, planetary health is the health of human civilization and the state of the natural systems on which it depends”.

In British Columbia, health organizations have begun to integrate planetary health considerations into planning for sustainable action and climate change adaptation and mitigation. In the health-care context, planetary health is a lens through which it is possible to explore the linkages between the function of natural systems, the operation of health-care systems and the delivery of services, and the overall impact on human health.

With support from Doctors of B.C., in 2022 a **Regional Planetary Health Physician Table** was launched comprised of Medical Staff Association members and Interior Health participants. This table will support the facilitation of a physician-led approach to planetary health initiatives within Interior Health and in collaboration with health authority partners.



[7] For more information, access Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health
[http://dx.doi.org/10.1016/S0140-6736\(15\)60901-1](http://dx.doi.org/10.1016/S0140-6736(15)60901-1)



Dr. Ilona Hale, Family Physician, and Amanda McKenzie, Environmental Sustainability Manager

Dr. Ilona Hale is a rural family physician, clinical researcher, and passionate environmentalist from who believes in the importance of addressing upstream social and environmental determinants of health.

In 2022-2023, Dr. Ilona Hale developed a guide for incorporating the principles of planetary health into clinical practice in primary care, focusing on four principles: prevention, patient self-care, lean service delivery, and low carbon alternatives. Dr. Hale stated:

“This is a critical time. We all need to seize opportunities to make changes, at every level, to ensure a healthier, more sustainable and resilient health system for our children.”

Amanda McKenzie, Interior Health’s Environmental Sustainability Manager, was the dyad partner to Dr. Hale for the 2022-2023 Cohort for Physician Quality Improvement (PQI) at Interior Health. Their project focused on incorporating environmental sustainability into the PQI methodology for past, present and future projects at Interior Health.

Sustainability Engagement Program

Interior Health leads a staff engagement program – the **Sustainability Engagement**

Program, responsible for the implementation of grassroots environmental initiatives at our facilities. The program enhances a culture of sustainability through transparency, communication and understanding that individuals can and do make a difference by establishing regional committees across our sites.

Staff in the Sustainability Engagement Program lead site-specific sustainability committees, influence culture change and undertake projects with positive co-benefits to the environment. Once ready, these projects are shared and replicated at other sites.

There are now five Environmental Sustainability Committees established at Interior Health including:

- Central Okanagan and Kelowna General Hospital
- Invermere and District Hospital
- Vernon Jubilee Hospital
- Shuswap Lake General Hospital
- Penticton Regional Hospital and Penticton Health Centre

Environmental Sustainability Committees have taken on projects to enhance patient care initiatives by reducing the demand of health services, through health promotion, prevention and management while simultaneously reducing emissions from the same services. Kelowna General Hospital's Environmental Sustainability Committee launched an operating room setback project that optimizes energy consumption through temperature control settings. Invermere's Sustainability Committee planted a Wildflower garden to reduce water use, increase fire-resistance and provide a healing space for patients.



Transforming Service Design and Delivery

Anesthetic Gas Emissions

For several decades, anesthetic gases have greatly enhanced the comfort and outcome for patients during surgery. The benefits of these agents have heavily outweighed the risks. In recent years, the attention towards their overall contribution to global climate change and the environment has increased. Currently, the three most commonly used halogenated inhalational anesthetics used for surgery—isoﬂurane, sevoflurane, and desflurane—are recognized GHGs.

During surgery, less than 5% of administered inhaled anesthetic gases are metabolized in the patient. The remaining 95% of gases are exhaled and released directly into the environment as potent GHG emissions. In 2022, Interior Health became the first health authority in B.C. to recover waste anesthetic gases (WAGs) from ORs. We have installed and piloted a WAG recovery technology at Royal Inland Hospital. For Interior Health, recovering WAGs from RIH's 11 operating rooms is the equivalent of taking 221 to 280 passenger vehicles off the road a year. Put another way, it's the equivalent of IH's total vehicle fleet emissions for all of 2021.

Lorne Sisley, Corporate Director, Facilities Management and Operations for Interior Health stated:

“Until the anesthetic gas recovery project, our emissions reduction strategy had been focused primarily on our buildings’ systems. But when we started looking more closely at emissions from our operations, we noted anesthetic gases have a disproportionately high greenhouse gas emissions level. This new recovery technology will be one more step toward reducing our overall carbon footprint.”



Figure 4 - Training Session with staff at RIH for the Anesthetic Gas Recovery Technology



*Dr. Kyle Merritt, Dr. Jim Wiedrick,
and Dr. Lee MacKay*

Physicians at Kootenay Lake Hospital are leading the removal of desflurane.

In 2022, Kootenay Lake Hospital (KLH) made a substantial change to their hospital's anesthetic gas usage by removing desflurane from 75% of hospital procedures requiring anesthesia. Desflurane has been identified as thirteen times more troublesome to the environment than sevoflurane when comparing the gases' global warming potential. This change in practice has resulted in a 31% decrease in desflurane use in comparison to 2021 quantities.

Food

Food plays a prominent role in our health-care experience. Nutritious and healthy meals that offer patients comfort and choice can improve quality of care and patient experience during a time of healing and recovery.

In 2022, almost 28% of IH's food spend was from local B.C. producers. The COVID-19 pandemic greatly limited IH's ability to

procure local food due to short-term closures of local processing facilities that supply IH's production kitchens.

Despite the challenges presented, IH's regional menu continued to feature entrees produced in our own production kitchens using local ingredients as much as possible. In the future, IH is working towards offering more traditional foods from B.C., including game meat, for Indigenous patients and residents.

National Indigenous Peoples Day

Aboriginal Peoples Day on June 21, 2022, patients, residents and visitors to hospitals and long-term care sites were offered bison stew, bison burgers, three-sister salads and bannock inspired by the seven First Nations of the Interior Region: Dākelh Dené, St'át'imc, Syilx, Tšilhqot'in, Ktunaxa, Secwépemc and Nlaka'pamux Nations. This event required the coordination and engagement of various collaborators across the Interior to identify, source, prepare and provide this meal. This is a part of the ongoing work we are doing with the First Nations of the Interior Region, the Ministry and other health authorities to further incorporate traditional Indigenous foods and local Indigenous producers into the health-care food system.

Waste and Materials

In 2022, Interior Health diverted a total of 2,512 tonnes of waste from landfills – that’s approximately **18 blue whales** or the approximate waste produced by **31,800 Canadians** in a year! Minimizing waste requires collaboration with various partners and departments including clinical operations, procurement, support services and contractors.

In 2022, a Biomedical Waste Opportunity Investigation was implemented to improve biomedical waste segregation knowledge amongst clinical staff. The overall goal was to better manage biomedical waste at each of our facilities to generate beneficial downstream effects with respect to health and safety, overall costs, and environmental impacts. The staff education program was led at Kelowna General Hospital, Vernon Jubilee Hospital and Royal Inland Hospital. Through the program, these facilities diverted ~86,500 kg of plastic from landfills in 2022 from choosing reusable waste containers and transitioning from single-use containers such as yellow pails or 45L sharps containers.

PPE Recycling Project

In 2022, Interior Health in collaboration with the Ministry of Health and Providence Health Care, launched a PPE recycling pilot at Kootenay Boundary Regional Hospital. During the pilot, over 37% of masks issued to the hospital were recovered, which is estimated to weigh close to 137 kg. As a result of the successful pilot, the Ministry of Health and other B.C. health authorities are working together to expand PPE recycling for all B.C. health systems.

Removal of Single Use Plastics

With the Federal *Single-use Plastics Prohibition Regulations*⁸ coming into effect we are working to remove problematic plastics and styrofoam from our supply chain by the end of 2023. This work supports our Earth Day 2022 commitment of eliminating Styrofoam from our food services. This includes problematic plastics used for checkout bags, cutlery, stir sticks, and plastic foodservice ware from our services. Working with our vendors and the Provincial Health Services Authority, we are actively identifying alternatives that maintain the quality and standards for patient care and safety.

^[8] For more information, access the Federal Single-use Plastics Prohibition Regulations here: [Single-use Plastics Prohibitions Regulations Technical Guidelines - Canada.ca](https://www.canada.ca/en/government/public/government-prohibitions-regulations-technical-guidelines)

Focused on our Future 5

The exemplary leadership, and actions taken by our staff, from front line staff to senior leadership in planning, mitigating and adapting to a low carbon, energy efficient and sustainable health system speaks to the importance of how sustainability is embedded in our organization.

Moving into 2023-2024, we will utilize the recently developed Climate Change and Sustainability Roadmap as our overarching strategy. We are working on expanding environmentally sustainable practices in our operations, focusing on four principles of sustainable practice: prevention, patient self-care, lean service delivery, and low carbon alternatives. We will continue to annually update the Strategic Energy Management Plan that outlines how we will meet our long-term energy and greenhouse gas emissions reduction targets. While also considering the co-benefits of our renewal processes to consider the adaptation measures needed to create a resilient health-care system.

Through our Sustainability Engagement Program, and regional Environmental Sustainability Committees across our sites, we will continue to implement grassroots environmental initiatives at our facilities. As we take this opportunity to build interest and engage our coworkers in the values related to environmental sustainability, we will raise awareness and provide education on environmental issues that impact our communities.

Moving into 2023 and beyond, we will continue to enhance a culture of sustainability through transparency, communication and understanding that individuals can and do make a difference. We will continue to implement strategies and tactics to realize these commitments and ensure we consider our roles as an organization, health-care provider and key community member.

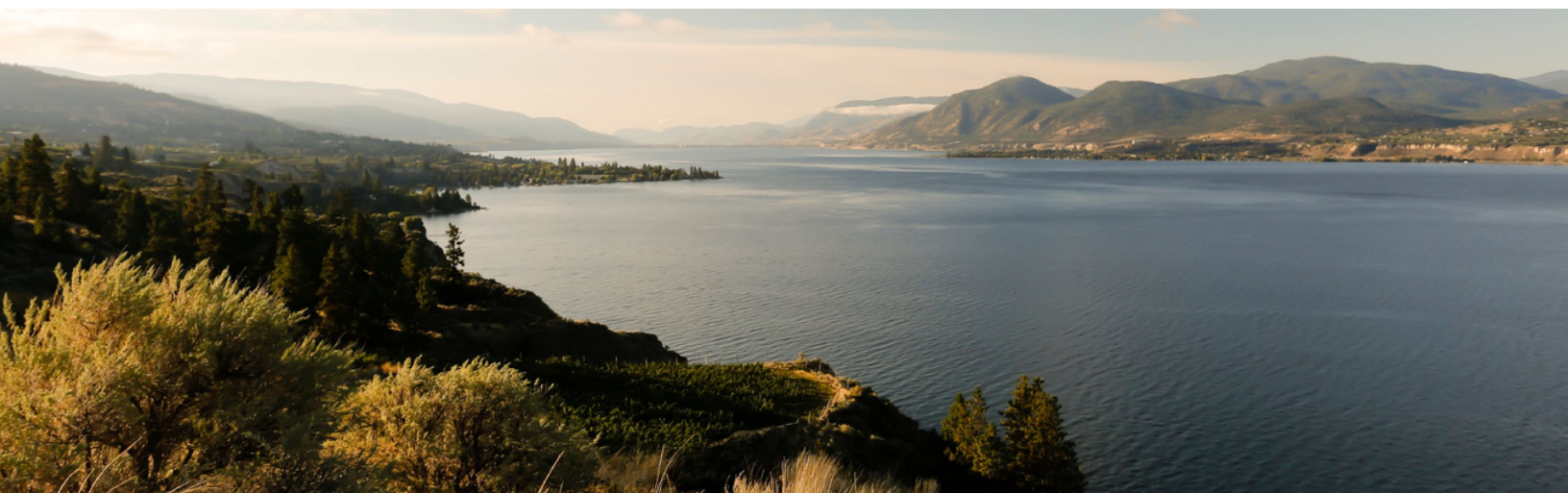


Table 2: Concordance Table

Reporting Requirements, in accordance with the <i>Climate Change Accountability Act (CCAA)</i> , section 8.1 and the <i>Carbon Neutral Government Regulation (CNGR)</i> .			Interior Health's Report
Required Section	Title	Description	Section
Title	2022 PSO Climate Change Accountability Report		Cover page, Climate Action Secretariat approved title alteration
Organization	Organization Name		Cover page
	Declaration Statement	This PSO Climate Change Accountability Report for the period Jan. 1, 2022 to Dec. 31, 2022 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2022 to minimize our GHG emissions, and our plans to continue reducing emissions in 2023 and beyond.	Declaration Statement, page 5
	Emissions Reductions Actions & Plans	Describe the actions taken by your organization in the 2022 calendar year to minimize emissions and your plans to continue reducing emissions in future years.	Energy and Carbon, page 8 - 18
Part 1. A	Stationary Sources (e.g., buildings, power generation)	Please describe actions taken by your organization in 2022 to minimize emission reductions from stationary sources and plans to continue reducing those emissions in 2023 and beyond.	Energy Conservation and Management, page 8 - 15
		Describe plans to continue reducing those [stationary source] emissions in 2022 and beyond.	Energy Conservation and Management, page 8 - 15
Part 1. B	Mobile Sources (e.g., fleet vehicles, off road/portable equipment)	Describe actions taken by your organization in 2022 to support emission reductions from mobile sources and plans to continue reducing those emissions in 2023 and beyond.	Fleet Emissions, page 16 - 17
		Clean Fleet Plan: If your organization has a Clean Fleet Plan, please provide a high-level summary and indicate if you have provided (or intend to provide) a copy of it to the Clean Government team at CAS, through your 2022 PSCL Survey or otherwise. A Clean Fleet Plan is an actionable, multi-year plan that outlines how organizations will transition their light duty vehicle fleets to cleaner options and align charging and refueling infrastructure deployment.	Fleet Electric Vehicle Strategy, page 16 - 17
Part 1. C	Paper Consumption	Describe actions taken by your organization in 2022 to support emission reductions from paper supplies.	Paper Emissions, page 17 - 18
		Describe plans to continue reducing those [paper] emissions in 2023 and beyond.	Paper Emissions, page 17 - 18
2022 GHG Emissions Offsets Summary Table	[Organization name] 2022 GHG Emissions and Offsets Summary Table	Complete table per CGRT and include table from template in report	Interior Health 2022 GHG Emissions and Offsets Summary Table, page 5
	Retirement of Offsets Statement	In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, [Interior Health] (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2022 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (the Ministry) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.	Retirement of Offsets Statement, page 5
Part 2. A	Climate Risk Management	Describe actions taken by your organization in 2022 to manage risk related to the changing climate and plans to continue managing those risks in 2023 and beyond	Climate Risk Management, Adaptation and Resilience page 19 - 23
Part 2. B	Other Sustainability Initiatives	Describe any other initiatives in your organization that support sustainability in general.	Health-care Transformation, page 24 - 30
Part 2. C	Success Stories	Describe any success stories that your organization would like to highlight whether related to reducing emissions or preparing for/adapting to a changing climate.	Health-care Transformation, page 23 - 30
Executive Sign-Off	Executive Sign-Off	Signature by a senior official such as CEO, COO or Superintendent	Executive Sign-Off, page 5