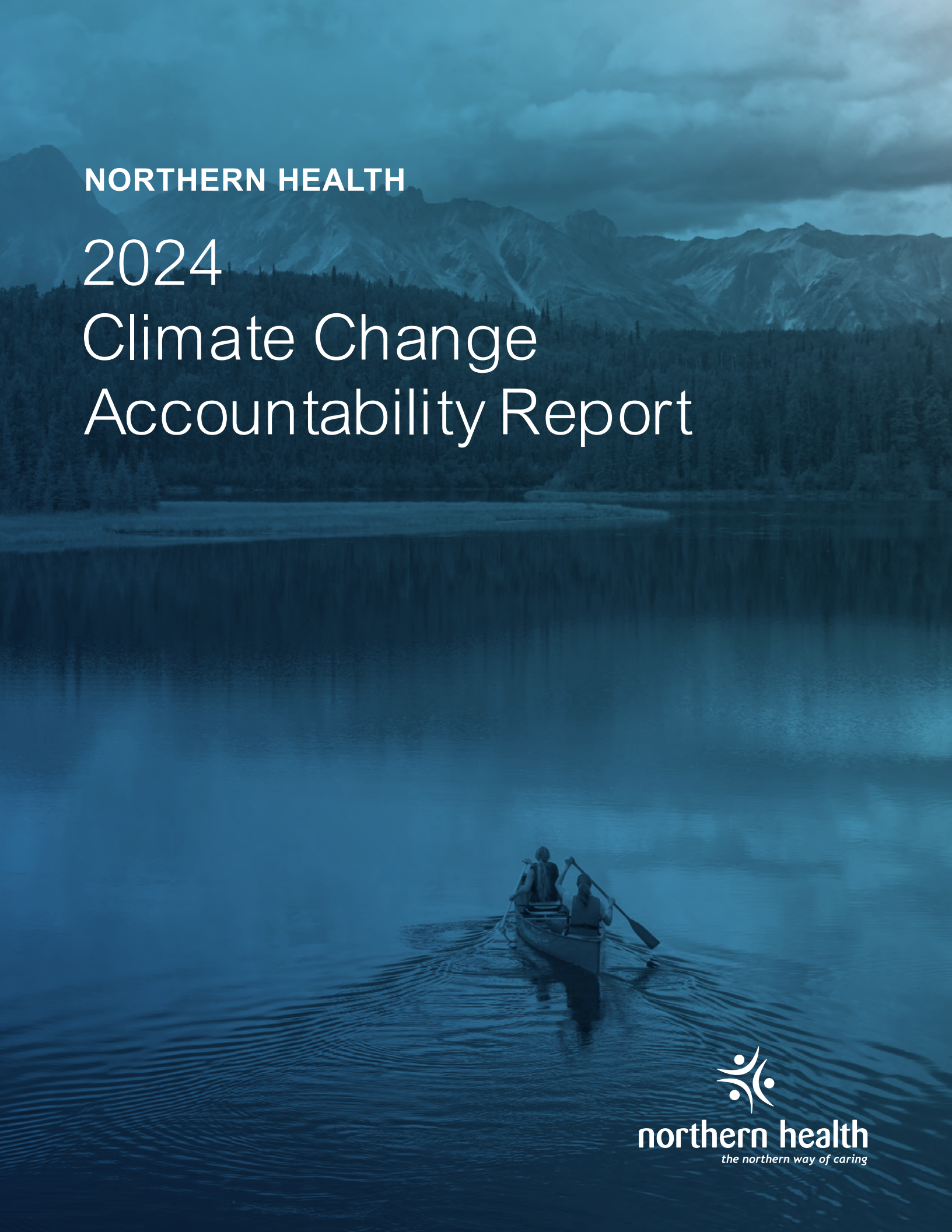


NORTHERN HEALTH

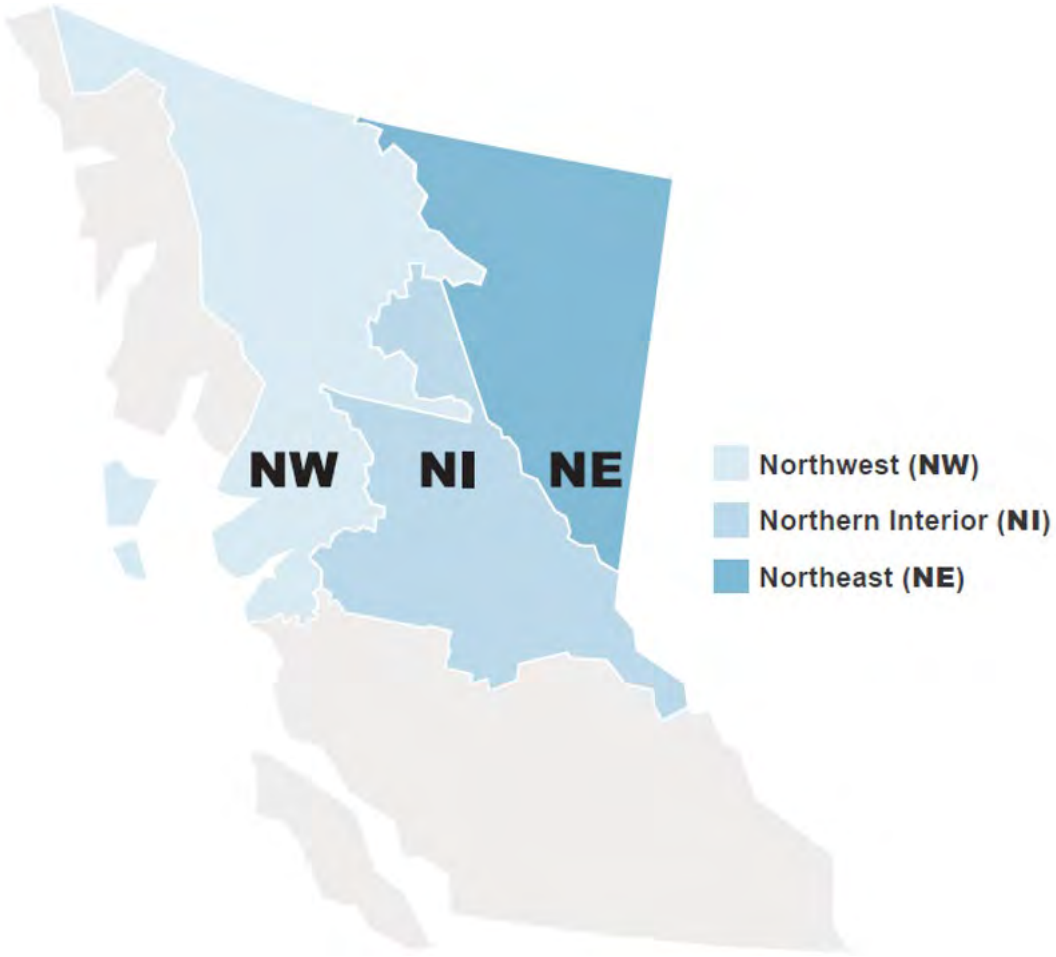
2024 Climate Change Accountability Report

northern health
the northern way of caring

Northern Health Region

Northern Health acknowledges with gratitude that our work takes place on the territories of the Tlingit, Tahltan, Nisga'a, Gitxsan, Tsimshian, Haisla, Haida, Wet'suwet'en, Carrier (Dakehl), Sekani (Tse'khene), Dane-zaa, Cree, Saulteau and Dene Peoples.

We respectfully acknowledge the 55 First Nations, the 11 Métis Chartered Communities across northern BC, and the Inuit, urban and away from home Indigenous Peoples on these lands. We are thankful for the continued opportunity to work together in partnership to uphold Indigenous rights to health and to optimize the health and well-being of the Indigenous people and communities we serve.



Northern Health is made up of approximately 9,500 health care professionals and support staff that provide care for over 300,000 people in the region. The NH region makes up almost two-thirds of BC's land mass.

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1.0 Executive Summary

In 2024, Northern Health (NH) continued its commitment to reducing greenhouse gas (GHG) emissions and advancing sustainability initiatives. NH emitted a total of 22,962 tonnes of carbon dioxide equivalents (tCO2e) and purchased $570,575 in carbon offsets to meet carbon neutrality obligations. Significant projects were undertaken to minimize emissions from buildings, fleet, and paper consumption. These included recommissioning Gateway Lodge, upgrading cooling and heating systems at Bulkley Lodge and The Pines, and recommissioning Lakes District Hospital, with projected GHG reductions of 20-50%. Despite a temporary increase in gas-consuming vehicles, NH remains committed to reducing fleet emissions through strategic replacements and route optimizations. Additionally, NH introduced Sugar Sheets, a carbon-neutral paper made from agricultural waste, which has 80% less life cycle emissions compared to virgin bond paper.

NH also made progress in constructing new facilities designed to achieve Leadership in Energy and Environmental Design (LEED) Gold certification, such as the Dawson Creek Hospital Redevelopment and the new Ksyen Regional Hospital, which has received LEED Gold certification and is expected to emit significantly lower GHG emissions compared to the older buildings it replaces. Efforts to reduce unreported Scope 3 emissions included removing desflurane, a highly GHG-intensive anesthetic gas, from usage, and implementing energy-efficient systems and low-emitting materials in new hospitals. NH strengthened its operational capacity by transitioning climate and sustainability funding into base organizational funding and creating new positions focused on clinical sustainability.

Fort St. John, BC

2.0 Greenhouse Gas Emissions

2.1 EMISSIONS SCOPE

NH's reportable greenhouse gas (GHG) emissions fall into three categories – Scope 1, 2 and 3.

- Scope 1 emissions are those that physically occur at the location of NH assets.
- Scope 2 emissions are those that are released elsewhere but are directly associated with energy use of NH assets.
- Scope 3 emissions are those that are not directly tied to energy consumption of NH but are tied to life cycle emissions of the material consumed for NH operations.

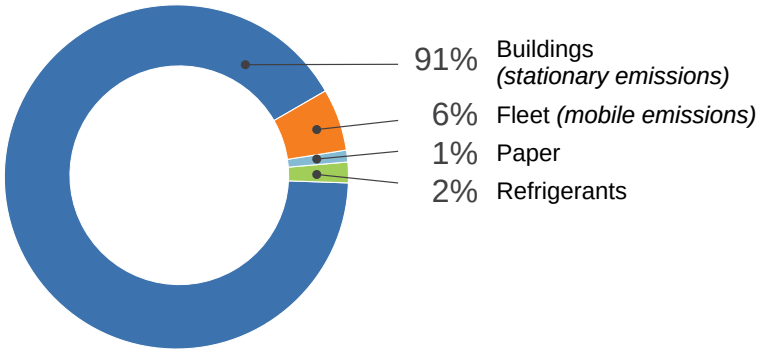
The breakdown of NH's emission sources under Scope 1, 2 and 3 emissions that are considered reportable emissions under the Climate Change Accountability Act and Carbon Neutral Government Regulation are summarized below in **blue**. It is recognized that there are many more Scope 3 emissions that are attributable to NH operations, and these are summarized in **orange**.

Note: these are examples and the lists are not exhaustive.

SCOPE 1 Direct emissions from sources owned or leased by NH	SCOPE 2 Indirect emissions from purchased electricity	SCOPE 3 Other indirect emissions
Building Heating – Natural gas, propane, diesel	Building heating and cooling – electricity	Paper consumption
Emergency power generation – Diesel	Other electricity use in buildings	Purchased goods and services – materials, medication, supplies, equipment, construction
NH Fleet vehicle fuel – gasoline, diesel, biofuels	Power supplied to electric vehicles from NH electrical services	Downstream transportation – patient transport, patient travel, staff travel, logistics and distribution

2.2 2024 EMISSION PROFILE

In 2023, 91% of NH's GHG emissions were produced from operating our buildings. Mobile emissions from our fleet contributed to 6%, refrigerants were 2% and paper consumption contributed 1%.



3.0 Actions Taken to Minimize Emissions

3.1 BUILDING EMISSIONS

Highlights of 2024 building emission reduction projects included:

Over **50%** **Emissions Cut**

Gateway Lodge Recommissioning - This project along with some other energy upgrades is projected to reduce GHG emissions of this assisted living and complex care building in Prince George by over 50%.

Almost **50%** **Emissions Cut**

Bulkley Lodge Cooling and Radiant Heating Upgrade - By using heat pumps to provide both heat recovery and cooling and upgrading the radiant heating at this long-term care facility in Smithers, it is estimated that there will be almost 50% GHG reductions for this building.

Almost **30%** **Emissions Cut**

The Pines Cooling and Domestic Hot Water Upgrade - This project was similar to the one at Bulkley Lodge except the domestic hot water system was upgraded rather than the radiant heating system. The impact of this project is estimated to reduce GHG emissions for this Burns Lake long term care facility by almost 30%.

Over **20%** **Emissions Cut**

Lakes District Hospital Recommissioning - This project along with some other energy upgrades is projected to reduce GHG emissions of this hospital in Burns Lake by over 20%.

Over **20%** **Emissions Cut**

Bulkley Valley District Hospital Cooling and Heat Recovery Upgrades - By fixing some heat recovery issues, along with adding heat pumps to provide cooling and additional heat recovery, this Smithers hospital is projected to reduce its emissions by over 20%.

Almost **20%** **Emissions Cut**

Prince Rupert Regional Hospital Boiler and Controls Upgrades - This project is estimated to reduce hospital emissions by almost 20%.

New Dawson Creek Hospital, Dawson Creek

New Hospital
50%
Larger

=

CO_2
Almost
25%
Emissions Cut

In 2024, the new Dawson Creek Hospital Redevelopment made great strides in construction with the building being sealed and closed at the end of the year. This hospital is being built to meet LEED Gold certification and compared to the old Dawson Creek Hospital; the new hospital will emit over 50% less GHG emissions per square meter. Even though the new hospital is over 50% larger than the old hospital, it will emit almost 25% less GHG emissions overall.

Highway to Altin, British Columbia

3.2 FLEET EMISSIONS

Compared to last year, there has been no change in diesel-consuming vehicles, but there is a 15% increase in gas consuming vehicles, from 34 to 39. This increase is due to the onboarding of one additional full time employee (FTE) and route, resulting in an additional 156,000 km travelled annually by staff, the replacement of aging vehicles with new ones, and awaiting lease expiration of aging vehicles before their return.

3.3 PAPER EMISSIONS

Sugar Sheets have been added to NH's Docusource portal for ordering copying paper. Compared to virgin bond paper made from trees, Sugar Sheets have 80% less life cycle emissions.

Sugar Sheet paper, carried by Staples, is a certified carbon neutral paper made from agricultural waste, called bagasse. It is derived from recycled sugar cane fibre and looks, performs, and can be recycled the same as virgin bond paper. The company that makes Sugar Sheet also pays for certified carbon offsets, meaning Sugar Sheet is carbon neutral. However, to be conservative, the offsetable emissions are included for comparison against virgin wood fibre paper.

Image taken from Social Print Paper™ depicting bagasse

Image taken from Social Print Paper™ depicting sugar canes

3.4 OUT OF SCOPE (UNREPORTED) EMISSIONS

Collectively, BC Health Authorities are working together to reduce out of scope (Scope 3) emissions by promoting behaviour changes through advocacy, raising awareness, and supporting community assets or infrastructure improvements that can reduce non-point source emissions. NH is also supporting efforts in the following areas, with examples including:

Medications

NH recognizes that reportable emissions make up a fraction of total healthcare emissions. In 2023 desflurane, a highly GHG intensive anesthetic gas, was removed from usage across the organization and swapped in less GHG intensive alternatives. Desflurane continues to remain off NH formulary.

Construction

The new Ksyen Regional Hospital achieved LEED Gold certification by reducing greenhouse gas emissions by at least 70% per square foot and 40% overall compared to the current facility. Energy efficiency was maximized through low-temperature heating systems that recycle heat and high-efficiency cooling systems using magnetic bearing chillers. Additionally, the hospital focused on building life cycle impact reduction and the use of low-emitting materials to achieve the certification.

Like Ksyen Regional Hospital, The New Stuart Lake hospital has implemented several measures, including active heat recovery systems, high-efficiency condensing boilers, enhanced refrigerant management, and the use of low-emitting materials during construction.

Patient and staff travel

NH worked on the development of a Service Distances Dashboard to provide information on the distance travelled for service by NH residents to NH facilities (not including data from the First Nations Health Authority or travel outside of NH). The amount of travel done by patients in NH is ~54 million km in travel for fiscal year 2023/24.

Refrigerant emissions (chillers, heat pumps, and AC)

NH has actively started tracking emissions from major HVAC equipments that include Chillers, Heat Pumps, Roof Top Units, Air Conditioners. NH has further refined the tracking by adding smaller units like freezers, refrigerators and coolers.

Clinical Sustainability Capacity Building

In the fall of 2024 NH created an additional fulltime position, Climate Change and Health Lead with a focus on clinical sustainability. This position is in the Climate Change and Health team under the Population and Public Health portfolio and works closely with the Energy and Environmental Services division.

This position is working alongside the Climate Change and Health team while beginning to address Scope 3 emissions and supporting coordination efforts between NH Green Teams as well as other related duties tied to emissions reduction and resiliency in a changing climate.

4.0 Plans to Continue Reducing Emissions

4.1 BUILDING EMISSIONS

NH recognizes the value in recommissioning our older buildings to help achieve GHG emission reductions goals. Recommissioning has proven to be a very cost effective and impactful way to reduce building GHG emissions will be a focus for 2025 and beyond. Additionally, as long-term care facilities and the new patient care tower at UHNBC are being designed in the coming years, these projects will incorporate energy efficiency and low carbon measures.

4.2 FLEET EMISSIONS

NH remains committed to reducing fleet emissions. While we have seen a temporary increase in gas-consuming vehicles due to necessary replacements and additional routes, we are forecasting a decrease in the total number of gas vehicles next year as leases expire and are returned. Additionally, the elimination of one courier in the NI region and the expected reduction in courier use in the NW region, following the activation of the new Terrace hospital, will further support our efforts. These efforts reflect NH's dedication to reducing environmental impact and sustainable practices.

4.3 PAPER EMISSIONS

In partnership with Provincial Health Services Authority, the health sector continues to work with suppliers and vendors to identify reasonably priced post-consumer recycled paper. Sugar Sheets have been added to NH's Docusource portal for ordering copying paper. Compared to virgin bond paper made from trees, Sugar Sheets have 80% less life cycle emissions.

4.4 OUT OF SCOPE (UNREPORTED) EMISSIONS

NH continues efforts to address unreported emissions; medications, supplies, materials, construction, and patient/staff travel. For instance, working alongside the BC Ministry of Health staff from the Climate Change and Health and the Energy and Environmental Sustainability teams are beginning work to better identify unreported emissions through across agency collaboration that includes regular communication and coordination with other BC health authorities.

5.0 Public Sector Leadership

In the face of escalating climate challenges, the public sector plays a pivotal role in driving transformative change. This section highlights key initiatives and strategic plans that underscore the commitment to climate accountability and resilience.

BC Climate Preparedness and Adaptation Strategy (2022-2025)

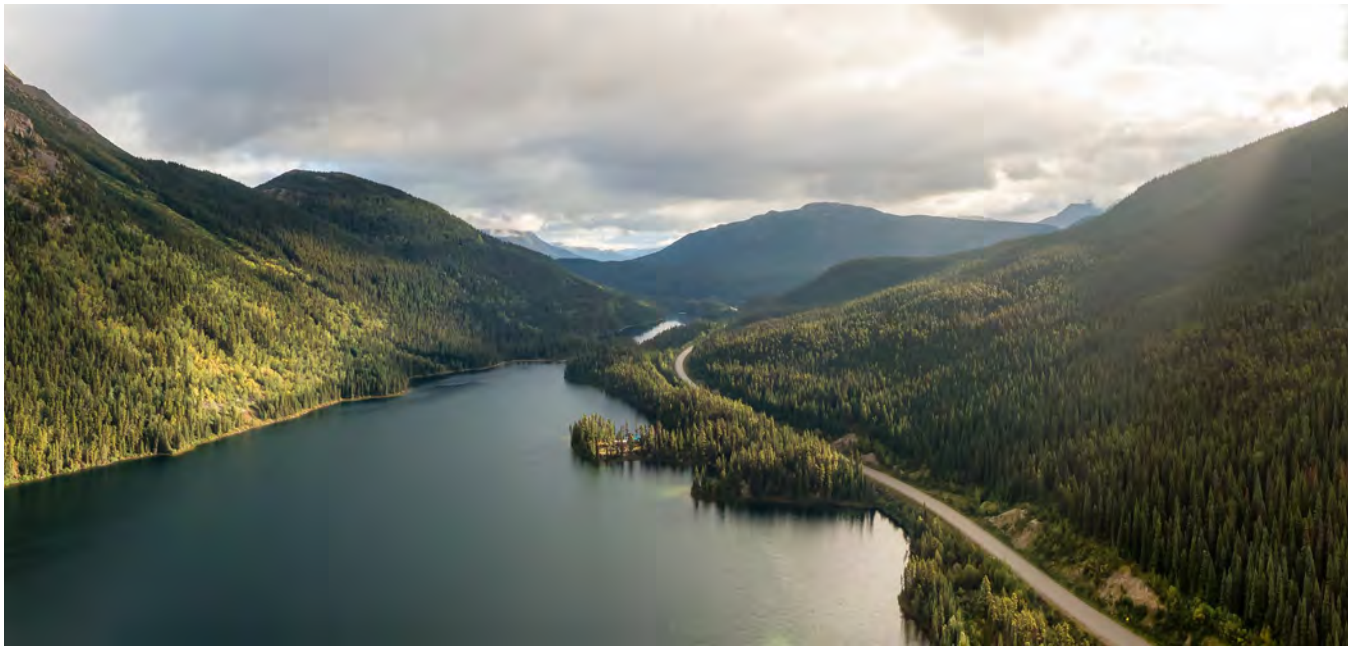
The BC Climate Preparedness and Adaptation Strategy (CPAS) is guiding us in NH climate resilience efforts. CPAS outlines comprehensive measures to prepare for and adapt to the impacts of climate change, ensuring that communities are equipped to handle climate-related risks.
To support climate preparedness planning and initial actions, the BC Ministry of Health as part of the BC Climate Preparedness and Adaptation Strategy has targeted funding to the Population and Public Health team, complementing sustainability priorities led through the Facilities and Capital Planning teams.

NH Strategic Plan (2023-2025)

This work is reflected in NH's strategic plan under the Healthy People in Healthy Communities priority. In particular, "building a climate-resilient health system" is named in the NH Strategic Plan (2023) which is integral to safeguarding population health and the health system in an era of climate uncertainty. The strategic plan emphasizes the development of health systems that can withstand climate-related shocks while minimizing our carbon footprint.

NH Climate and Sustainability Roadmap (under development)

To achieve this goal, in 2024, NH committed to developing a Climate and Sustainability Roadmap. This Roadmap is an organizational-wide, public-facing 5-year strategy that articulates goals, priorities, and actions to coordinate effective organizational action. It aims to minimize the environmental impact of operations and support adaptation to a changing climate. The NH Roadmap is built on best practices, evidence, and staff engagement, and is modeled after Interior Health's approach, which includes their Climate Change and Sustainability Roadmap (2023-2028).



Steward Cassiar Highway, British Columbia

5.1 KEY ACTIONS, CHANGES AND PROGRESS

In our ongoing commitment to addressing climate change and enhancing sustainability, we have made significant strides in strengthening our operational capacity and fostering valuable partnerships.

Strengthened operational capacity

Climate and sustainability funding from the CPAS has transitioned into base organizational funding rather than being limited to targeted one-time annual funding. This shift ensures a more stable and continuous investment in climate initiatives. To bolster our efforts, additional positions have been created, including a Climate & Health Scientist and an additional Climate Change & Health Lead position with a focus on Clinical Sustainability. These roles are crucial in driving forward our climate and health agenda.

We also continue to partner with academic institutions and to work with researchers, students, and interns. These collaborations have been instrumental in supporting the early development of the Climate Change & Health Vulnerability Adaptation Assessment (CCHVAA). Several student projects have contributed to this effort, including:

- **Adaptive capacity:** Projects to better understand the adaptive capacity of our health system to be better prepared and adapt to a changing climate, particularly within our public health program.
- **Research and engagement:** To increase our understanding on how communities in northern BC are responding, adapting, and developing concrete actions (plans and policies) to environmental changes.

Supporting community climate action

Our commitment to community climate action is reflected in various initiatives aimed at fostering healthier and more resilient communities. Key efforts include:

- **Environmental health guidance**: The integration and connection between facilities and environmental health teams to ensure safety and resiliency are paramount, such as support for the water treatment upgrades at Prince Rupert Hospital.
- **Health in climate policy**: Programs that support community-driven projects promoting health and well-being, for instance engaging on the City of Prince Rupert's Climate Action Plan.
- **Indigenous food action work**: Providing grant funding to support community-led efforts to strengthen food security and sovereignty in Indigenous communities, e.g., Tea Creek.
- **Collaboration with partners**: Working with partners through NorthCAN (Climate Action Network) and the Northeast Climate Resilience Network (NECRN) to support health-climate capacity building efforts and ensuring that work is grounded in the impacts and adaptations underway within and guided by community partners.

Building capacity and preparedness

Our efforts to build capacity and preparedness are exemplified by innovative projects and collaborations. One such project is our recent research initiative:

- **DIY air cleaners workshops:** In collaboration we co-hosted two pilot workshops in Prince George. These workshops taught community members how to make Do-it-Yourself (DIY) Air Cleaners, which have been shown to improve indoor air quality, especially during wildfire smoke events. This was the first time these workshops were delivered in northern BC.

5.2 CLIMATE RISK MANAGEMENT

To better understand and address the risks from climate change, NHis actively engaged in several initiatives aimed at mitigating risks and enhancing resilience.
These efforts include:

- **Climate projections for NH technical report:** This report provides climate projections data for the 2050s and 2080s, covering temperature and precipitation indicators for 18 communities with hospitals in NH. This report is supporting health authority planning by summarizing climate projections data to move facilities towards climate resilience as well as support critical understanding of impacts at the community level to inform the CCHVAA.
- **Real-time air quality control and monitoring in long-term care facilities:** This pilot project funded by the BC Ministry of Health in 2024 will aim to detect and manage indoor air contamination from wildfires, specific to fine particulate matter, and environmental conditions. It provides real-time data and detection to care staff, integrate with existing facility equipment, and allows care staff to make informed decisions and follow appropriate clinical processes. The project involves a multidisciplinary approach to demonstrate the ability to support manual and semi-automated mitigation strategies.

Telegraph Creek, British Columbia

6.0 2024 GHG Emissions and Offset Summary Table

6.1 DECLARATION STATEMENT

NH's Climate Change Accountability Report for the period January 1, 2024, to December 31, 2024, summarizes our GHG emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2024 to reduce our GHG emissions, and our plans to continue reducing emissions in 2025 and beyond.

6.2 RETIREMENT OF OFFSETS

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, NH (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2024 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.

NH 2023 GHG EMISSIONS AND OFFSETS SUMMARY	
GHG emissions for the period January 1 - December 31, 2024	
Total BioCO2	140
Total Emissions (tCO2e)	22,962
Total Offsets (tCO2e)	22,823
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO2e)	0
Grand Total Offsets for the 2024 Reporting Year	
Grand Total Offsets to be Retired for 2024 Reporting Year (tCO2e)	22,823
Offset Investment ($)	570,575

7.0 Executive Sign-off

Signature

June 17, 2025

Date

Ciro Panessa

Name

President and Chief Executive Officer

Title

#HealthyNorth

northernhealth.ca