2023 Climate Change Accountability Report

island health

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INTRODUCTORY NOTE

This Climate Change Accountability Report (CCAR) is Island Health's fourteenth annual report on our previous year's greenhouse gas (GHG) emissions. The CCAR details the steps Island Health has taken to achieve carbon neutrality and summarizes the organization's GHG emissions reduction efforts. Since our first iteration of carbon reporting in 2010, much has changed, including governments, executives, emissions targets, and even the Health Authority's name. Island Health's commitment to reduce GHG emissions and to adapt to the changing climate too has changed; it has become more emboldened and engrained within our operations and is a prominent component of our Strategic Framework and Organizational Goals.

This commitment is embedded in the organization's Strategic Energy Management Plan. However, achieving the target will take more than strategic planning. Externally, strong partnerships and funding support comes from the Ministry of Health by way of policies and carbon neutral capital funding, the Climate Action Secretariat which provides direction, education, awareness and research, and our utility partners BC Hydro and FortisBC who support our programs, staff, help to advance infrastructure development, rates, and provisions of low carbon energy. Internally, the increased capacity towards ongoing optimization of operations - led by Facilities Management - are supported by employees, many of whom are constantly adopting new behaviours, processes, and innovations to mitigate climate change. Support for and the ongoing commitment to Island Health's efforts are reflected in recent mandate letters, capital policy changes, and project funding increases.

The evolution of Island Heath's reporting practices and focus on reducing carbon emissions began in 2008 as energy and emissions reduction projects were included within the existing capital and operational boundaries of the Health Authority. In 2010, Island Health began tracking and reporting GHG emissions. By 2015, the Ministry of Health introduced the Carbon Neutral Capital Program (CNCP) to provide health authorities access to minor capital funding for projects focused on reducing emissions. Since the CNCP started, Island Health has invested over $12M in emissions reduction projects for existing facilities. However, reaching the 2030 emissions reduction target will require approximately $10-16M in annual capital upgrades for the next 7 years. These investments will need to be made in systems and equipment retrofits within existing facilities, as well as additional investments to electrify the fleet.

Healthcare demands have continued to rise. This pressure has resulted in an increase of facility space in our portfolio, much of which requires a high degree of energy and carbon intensity. The COVID-19 pandemic has also brought significant changes to how Island Health delivers care. Some of those changes, in the short-term, have favourably impacted GHG emissions, including remote work, the use of virtual care, and programs such as Hospital at Home. As we have emerged from the pandemic there will be lessons learned and innovations that will improve the delivery of care and reduce our environmental impacts. As we return to a semblance of operating as we previously did before the pandemic, we are seeing increases in fleet and paper use.

Climate change continues to be an increasing threat to the health and wellbeing of those within our facilities and throughout the communities in which we provide healthcare services. Island Health has already experienced the impacts of climate change in a multitude of ways and has identified the need to take measures to reduce risk. Recent policies from the Ministry of Health require healthcare organizations to consider future climate projections in all new capital expenditures. This aligns with Island Health's efforts and is supported by the completion of the Climate Resilience Guidelines for BC Health Facility

Planning Design. The guidelines were developed through a collaborative of the province's healthcare organizations, designers, and many other stakeholders.

Island Health continues to grow with several new major capital and construction projects in the process of development. New long-term care, hospital, and cancer centre construction projects must meet LEED Gold certification at a minimum and ensure they are as close to low carbon or net-zero carbon as feasible. With all the ongoing work to decarbonize our existing facilities and reach our 2030 and 2050 GHG emissions reduction targets, Island Health must ensure new facilities and major capital projects do not derail our progress.

Island Health also contributes to municipalities' and regional districts' development of climate change strategies. It is clear that preparing for climate change cannot happen in isolation. It requires the combined efforts of many stakeholders within Island Health and beyond. Together we can advance climate change action and resiliency, while continuing to provide excellent care for everyone, everywhere, every time.

Kim Kerrone
Vice President
Support Services & Chief Financial Officer
Island Health

TERRITORIAL ACKNOWLEDGEMENT

Before Canada and BC were formed, Indigenous peoples lived in balance and interconnectedness with the land and water in which the necessities of life are provided. Health disparities persist, which are due to the impacts of colonization and Indigenous-specific racism. Healthy lands, healthy people. Island Health acknowledges and recognizes these homelands and the stewardship of Indigenous peoples of this land; it is with humility we continue to work toward building our relationship.

We understand the lands and ecosystems within these territories are being adversely impacted by climate change and our team commits to reducing this impact by minimizing Island Health's energy use and carbon emissions and being more thoughtful in our use of all natural resources including water.

1. Overview

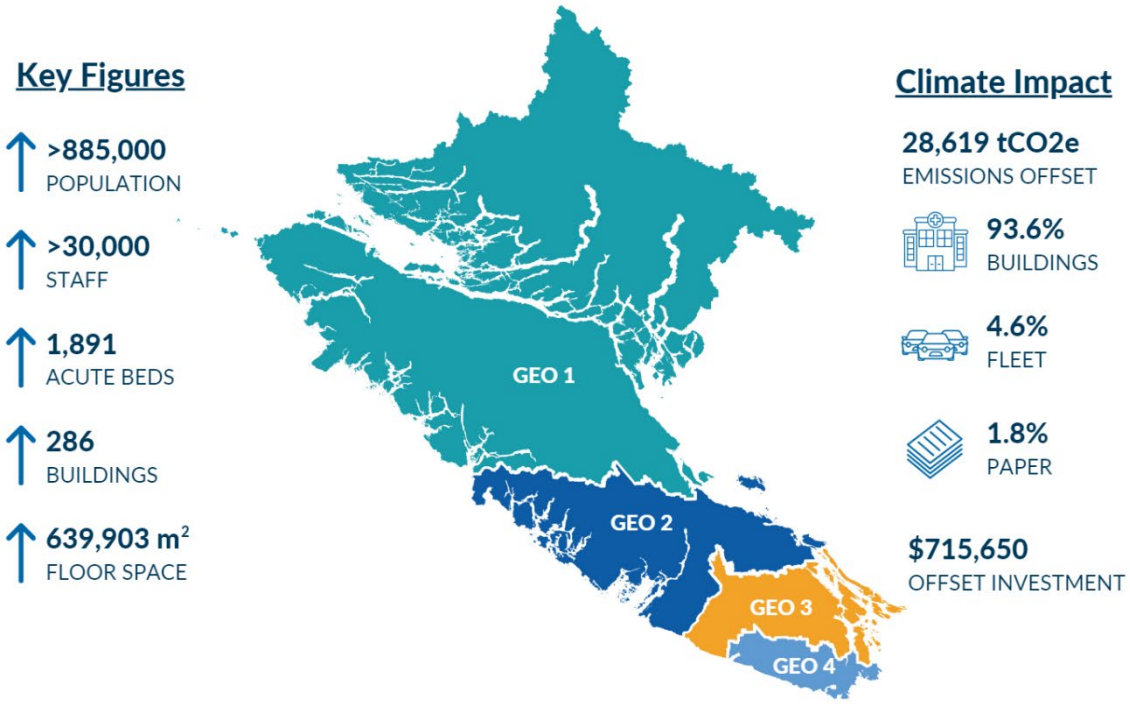
This Climate Change Accountability Report for the period January 1, 2023, to December 31, 2023, summarizes Island Health's greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions taken in 2023 to reduce our GHG emissions, and plans to further reduce emissions in 2024 and beyond.

By June 30, 2024, Island Health's final 2023 Climate Change Accountability Report will be posted to www.islandhealth.ca.

About Island Health

Currently, over 30,000 healthcare professionals, technicians and support staff at Island Health provide healthcare to more than 885,000 people on Vancouver Island, the islands in the Salish Sea and Johnstone Strait, and the mainland communities north of Powell River and south of Rivers Inlet.

Figure 1 Island Health 2023 Numbers at a Glance



Commitment

British Columbia's *Climate Change Accountability Act* introduced requirements for public sector organizations (PSOs) to minimize adverse environmental effects and to manage risks arising from a changing climate. The *Act* also requires PSOs to be carbon neutral and achieve prescribed targets.

The *CleanBC Report* (2018), *and CleanBC Roadmap to 2030* (2021) set out and refined a pathway towards achieving the prescribed emissions reduction targets. Relative to Island Health, PSO buildings have a target of a 50% reduction in GHG emissions from 2010 levels by 2030 and emissions from public sector vehicles will strive for a 40% reduction by the same year. Island Health has committed to reducing fleet and paper emissions by 50%.

Island Health has affirmed its commitment to being a positive contributor to environmental sustainability and the climate change response. The Health Authority strives to advance environmental stewardship best practices in its buildings, services, processes, and culture.

Accordingly, new infrastructure is designed and constructed to minimize adverse environmental effects, and, beginning in 2020, be resilient to future climate extremes. New construction projects will pursue LEED Gold certification, reduce GHG emissions by a further 50% relative to the LEED Gold baseline, and be adapted for the future climate.

2023 GHG Emissions and Offsets Summary Table

Table 1 Island Health's Greenhouse Has Emissions and Offsets for 2023

Island Health 2023 GHG Emissions and Offsets Summary	
Total Emissions (tCO_2e[1])	28,699.9
Total $BioCO_2$[2]	81.1
Total Offsets (tCO_2e)	28,618.8
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO_2e)	7.0
Grand Total Offsets for the 2023 Reporting Year	
Grand Total Offsets (tCO_2e) to be Retired for 2023 Reporting Year	28,626
Offset Investment ($25 per tCO_2e)	$715,650

To reduce its emissions to net-zero, Island Health invests in emissions reduction projects by purchasing BC-based offsets through the provincial government. The offset payments provide incentives to BC-based projects that reduce emissions through GHG removal or avoidance according to provincial regulations. These projects support British Columbia's green economy and provide social, environmental, and economic benefits to all British Columbians. The offset projects can be viewed on the BC Carbon Registry.

[1] Tonnes of carbon dioxide equivalent (tCO_2e) is a standard unit of measure in which all types of GHGs are expressed based on their global warming potential relative to carbon dioxide.

[2] "Biogenic" portion ($BioCO_2$) of the emissions from biomass, renewable natural gas and biofuels are not required to be offset due to their renewable source.

Retirement of Offsets

In accordance with the requirements of the *Climate Change Accountability Act* and *Carbon Neutral Government Regulation*, Island Health (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2023 calendar year, together with any adjustments reported for past calendar years (if applicable). 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.

2. Strategies to Reduce Emissions

Stationary Sources

Emissions from stationary sources decreased by 3.8% in 2023 compared to 2022. Natural gas used for space heating, service water heating, sterilization and humidification represents the largest source of GHG emissions. To achieve the Province's public sector target for 2030, emissions from stationary sources will need to decrease significantly over the next few years. Since 2010, progress towards the provincial targets has been slow, despite efforts from various departments including Energy, Environment and Climate Change (EECC), Facilities, Maintenance and Operations (FMO) and Facilities Design & Construction (FDC).

Looking ahead, Island Health's strategy for achieving the 2030 reduction target is going to require a multi-pronged approach as follows:

- Reduce heating demand and eliminate wasteful energy use through continuous optimization of existing assets.
- Implement capital infrastructure renewal & GHG reduction projects at five of our largest facilities.
    a. Building Automation System upgrades at Royal Jubilee Hospital, Victoria General Hospital and West Coast General Hospital.
    b. Heat Recovery Chillers at Nanaimo Regional General Hospital Rehab Building.
    c. Mechanical System Retrofits at West Coast General Hospital to increase heat recovery.
- Retrofit existing buildings to reduce heating demand from fossil fuels. Fossil fuel use would be for peaking and redundancy. Any residual natural gas consumption would be met by purchasing renewable natural gas.
- Design new buildings to use low temperature heating (e.g., ambient temperature hydronics, ground or air source heat pumps, utilize waste heat recovery from building or other process loads).

In 2023 we initiated development of a Low Carbon Resilience Roadmap in partnership with BC Hydro and FortisBC. The roadmap is a shared vision across Island Health for prioritizing future capital projects based on technical viability and cost effectiveness, to create a viable path to a minimum 50% reduction in GHG emissions by 2030, with considerations for our future 2050 target of 80% emissions reductions.

Mobile Sources

Island Health is targeting emissions reductions by introducing zero-emission vehicles and improving fuel efficiency. The Health Authority is committed to the *CleanBC* provincial mandate by making 10% of light-duty vehicle replacements zero-emission vehicles.

Previous zero-emission vehicle procurement utilized CNCP funding for two battery electric vehicles (BEVs) and two Level 2 charging stations to support fleet electrification in the North Island region (Geo 1).

Additionally, Island Health also purchased three plug-in hybrid electric vehicles (PHEVs), providing these multi-passenger vans to several outreach programs. Two Level 2 charging stations were installed in Duncan to support these PHEVs. Further, two Level 2 stations were installed at Royal Jubilee Hospital's loading dock to support the transport fleet.

The fleet emissions profile has changed significantly from a significant decline during the COVID-19 pandemic to a sharp return to the pre-pandemic baseline, and a further uptick in emissions in 2023. This most recent 42% rise in fleet emissions was a result of bringing courier services in-house. The emissions associated with the courier service was external to Island Health with another entity. Now, those GHG emissions have been brought into our scope. Further, a significant portion of mobile emissions is from diesel heavy-duty trucks (HDTs). Options for HDTs have been reviewed, but no suitable zero-emission alternative has been found to meet the needs of the organization.

Significant planning, resourcing, and investment is required to reduce fleet emissions as the expansion of vehicles within the fleet has contributed further to rising emissions. Funding to support a fleet electrification plan remains the largest challenge to achieving *CleanBC*'s 2030 emission reduction target of a 40% reduction, from 2010 levels for public sector fleets. Despite federal and provincial rebates, electric vehicles are more expensive to purchase and require charging equipment that can be costly to install, depending on existing parking layouts and electrical service locations. There are further challenges associated with installing charging infrastructure in older facilities and leased buildings, which can lack electrical capacity. Regardless, Island Health's Fleet Services, Parking Services, and the Energy, Environment & Climate Change Dept. continue to collaborate on identifying opportunities and optimal locations for charging infrastructure and approaches to electrifying the fleet.

Paper Consumption

Emissions from office paper account for 1.8% of Island Health's 2023 emissions; a 19% reduction from the 2022 reporting year. Since 2019, Island Health has been using paper made from sugarcane fibre as its standard letter-sized office sheet. This paper is produced from the residual waste of sugar production, and its GHG emissions factor is considered the same as 100% recycled wood fibre-based paper. Paper made from 100% recycled fibre has 37% lower emissions than paper made from virgin wood fibre. Further opportunities for emissions reduction involve exploring alternative paper sources for other paper sizes, as well as reducing paper use through behaviour change and digitization.

3. Out-of-Scope Emissions

Island Health's climate impact extends beyond the in-scope, or legislatively required reported emissions sources of fuels from buildings, fleet vehicles, and office paper purchases. Consequently, the organization is monitoring GHG emissions from out-of-scope sources, such as business travel, direct clinical emissions (anesthetic gases and metered dose inhalers), and solid waste. Out-of-scope emissions sources are not included in the *Carbon Neutral Government Regulation* and are thus not formally reported. Out-of-scope emissions do not require legislated carbon offsets, but they still emit harmful GHGs further exacerbating the impacts of climate change.

Business Travel

In early 2024, Island Health began tracking business travel emissions resulting from a larger number of transportation modes back to 2010. Most of Island Health's business travel today occurs in fossil fuel combustion vehicles, including cars, taxis/ridesharing, ferries, airplanes, buses, and trains. Given the data we were able to collect, we can report emissions from the following modes of transportation:

- Reimbursed employee vehicle milage (distance-based method)
- Taxis/rideshare (spend-based method)
- Car rentals (spend-based method)
- Air travel (spend-based method)
- Ferry travel (spend-based method)
- Bus travel (spend-based method)

For the spend-based modes of transportation, we attained anonymized data from employee expense claim reports and Procurement Card purchase reports.

In 2023, Island Health's annual business travel emissions were 3,173 tCO_2e, which represents a 6% increase from 2022. Employee vehicle mileage contributed over 99% of total business travel emissions. The increase in business travel emissions coincided with a 5% increase in FTEs during the same period, and a continued return to normal business following the COVID-19 pandemic.

Personal vehicle business travel also accounts for considerably more distance travelled than in-scope fleet vehicles. In recent years, Island Health has taken steps to offer more pool vehicles at sites across the Island, in place of personal vehicles. This initiative provides lower-carbon vehicle options and reduces costs for the Health Authority; however, it also increases the number of vehicles in the fleet. When staff use their personal vehicles for travel, the emissions are not included in the organization's total reported GHG impact. Therefore, expanding access to pool vehicles will raise reported in-scope fleet emissions, but is expected to offset less efficient personal vehicle travel. With several zero-emission vehicles and hybrids, Island Health's fleet is aiming to be more efficient than the average passenger vehicle.

Refrigerants (Fugitive Emissions)

Fugitive emissions are from the leakage and loss of HFC and PFC based refrigerants from cooling equipment. Island Health applies the 1% rule to fugitive emissions from refrigerants, which states:

"An emission source estimated to total less than 1% of a PSO's overall emissions may be deemed out-of-scope if the effort to collect or estimate emissions is disproportionately onerous. The estimated cumulative sum of emissions exempted under this rule for a PSO should not be greater than 1% of that PSO's total emissions."

While fugitive emissions are within the scope of the *Carbon Neutral Government Regulation*, it is estimated that leakage of refrigerants account for less than 1% of Island Health's total in-scope emissions.

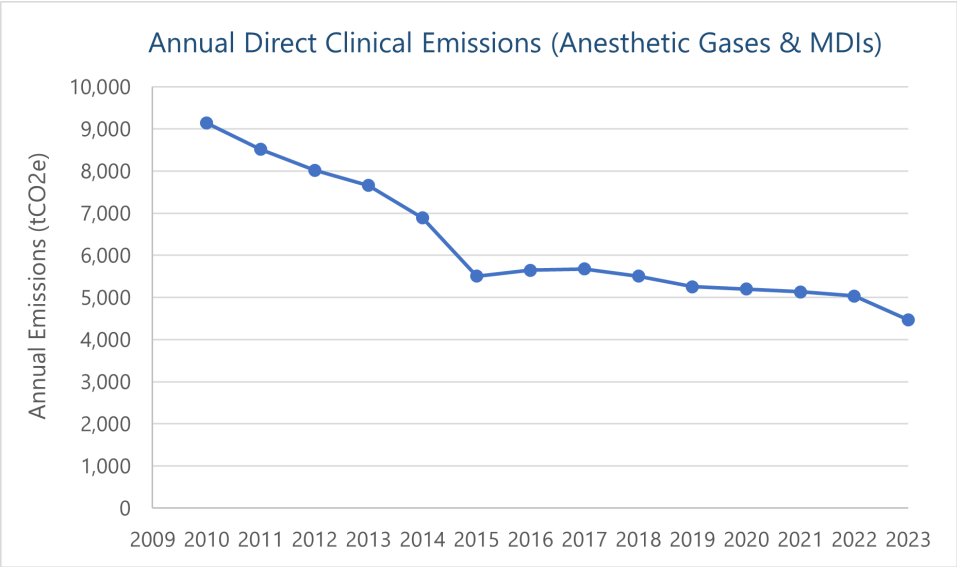
In 2023 Island Health participated in the *Carbon Neutral Government Refrigerants Pilot* to investigate this GHG emission source and determine available documentation or processes to support reporting. Island Health will develop a program to measure and report GHG emissions from fugitive sources in the next reporting year. Next steps are to seek opportunities to use less global warming intensive refrigerants when new equipment is purchased.

Direct Clinical Emissions

In 2024, increased GHG emissions reporting capacity allowed for the creation of a new emissions category: direct clinical emissions. Direct clinical emissions are the sum of anesthetic gas (desflurane, sevoflurane, and nitrous oxide) and metered dose inhaler (MDIs) emissions directly released into the atmosphere from Island Health's direct control.

To calculate emissions from anesthetic gases, we used purchase data that provides the various gas products, their sizes/weights, quantities purchased, purchase dates, and the site each product was shipped to. They do not account for the upstream life-cycle emissions associated with anesthetic gas/MDI manufacture, packaging, or transportation to/from Island Health's organizational boundary.

Figure 2 Island Health's direct clinical emissions from 2010-2023



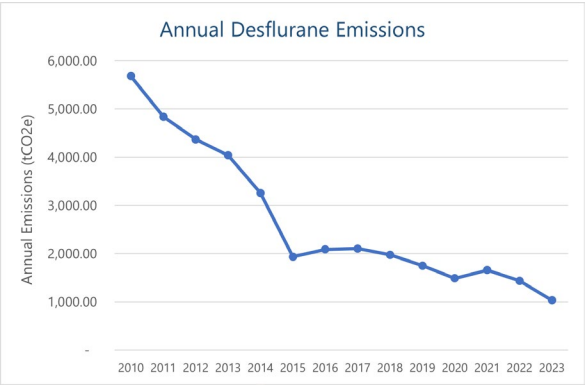
Island Health's direct clinical emissions declined from 9,143 tCO2e in 2010 to 4,463 tCO2e in 2023 – a 48% reduction.

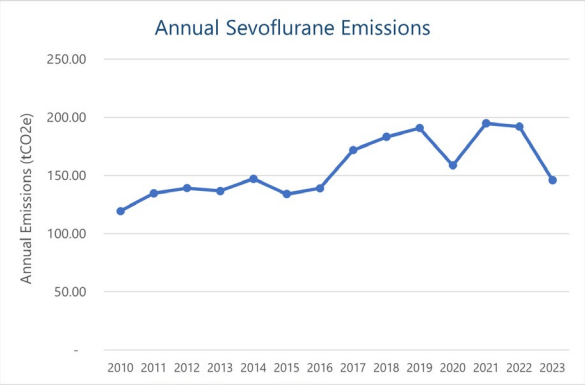
Anesthetic Gases: Desflurane, Sevoflurane, and Nitrous Oxide

The direct clinical emissions reductions seen from 2010-2023 are attributable to significantly reduced usage of desflurane, a potent greenhouse gas with a 100-year global warming potential (GWP) of 2,540. The 2010-2023 period saw a corresponding slight increase in emissions from sevoflurane, another anesthetic gas, with a significantly lower GWP of 130.

Reduction of potent GHGs like desflurane are an important strategy for emissions reduction in healthcare. To provide leadership to the broader healthcare sector, an Island Health physician and medical student conducted a quality assurance project in 2020 to raise awareness on the carbon footprint of anesthetic gas usage in British Columbia, published in the BC Medical Journal.

Figure 3 Annual Emissions from Desflurane (GWP 2,540) and Sevoflurane (GWP: 130)





To account for nitrous oxide emissions, we retrospectively projected our historical emissions back to 2010 using a linear regression based on a semi-complete dataset. We retrospectively projected a peak of 3,214 tCO2e in 2010 and a gradual reduction to 2,871 tCO2e by 2023. The decrease in nitrous oxide emissions may be attributable to reduced clinical usage of nitrous oxide and improved clinical application techniques, such as using lower flow rates.

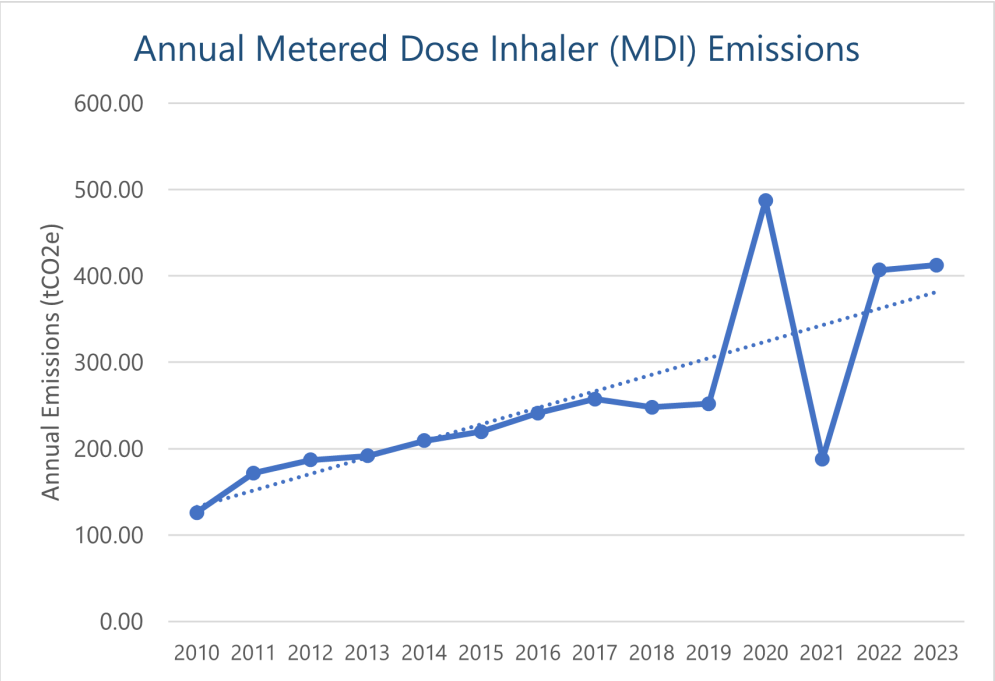
Numerous studies have found large discrepancies between nitrous oxide procurement and actual clinical usage of the gas. Further research found that a significant amount of nitrous oxide is lost prior to use, due to leakage from central piped manifold systems in hospitals. Today, the best practice is to transition away from central piped systems to using smaller portable cylinders at the point of use, decommissioning central piped nitrous oxide systems from existing hospitals, and not building nitrous oxide manifolds in new hospitals. Island Health has not formally quantified the amount of nitrous oxide lost in piped manifolds. However, the Health Authority has begun work to significantly reduce nitrous oxide waste at key acute care sites.

Metered Dose Inhalers (MDIs)

Pressurized metered dose inhalers (MDIs) are a direct contributor to Island Health's GHG emissions. MDIs contain hydrofluoroalkane (HFA) propellants which are potent GHGs. The most common HFA, HFA134a, has a GWP 1,300 times higher than CO_2.

To calculate emissions from MDI use, MDI purchase data is used. Inhaler purchase data is multiplied by a unique product-specific emission factor that represents the emissions associated with the use of a particular inhaler product. Emission factors for each MDI were provided by the CASCADES Sustainable Inhalers Community of Practice.

Figure 4 Emissions from metered dose inhalers (MDIs) from 2010-2023



Data anomalies in 2020 and 2021 reflect a surge during the COVID-19 pandemic, as the Health Authority moved away from nebulized medications. This led to an over-purchasing of inhalers in 2020 and subsequent lower purchases in 2021.

Island Health's Dr. Valeria Stoynova and Dr. Celia Culley have led research into sustainable pharmacy and prescribing practices through the Critical Air Project. The Critical Air Project was started in 2022. This inpatient climate-conscious medication initiative uses a quality improvement lens to decrease inhaler-related GHG emissions through policy interventions, operational interventions, and a widespread education campaign. The Critical Air Project has been recognized as a national innovation in partnership with the CASCADES network and continues to spread climate-conscious prescribing approaches at hospitals across the country.

4. Climate Change Adaptation & Resilience

Climate change continues to present risks for the health of our communities, healthcare operations and facility infrastructure. While Island Health strives to minimize its climate impact, the Health Authority recognizes that building resilience within facilities is critical for maintaining health services as the climate changes. In 2020, the organization advanced resiliency by incorporating climate change risk assessment into new construction and renovations and increasing climate change awareness. In 2021 these assessments became ingrained in project design stakeholder meetings, and annual facility reviews conducted by FMO managers in all Island Health geographic zones.

Organizational Risk

In 2019, Island Health identified lack of resilience to the changing climate as a top risk for the Health Authority, which resulted in the development of a risk profile in 2020. As climate change is an unfolding event over a long period there will be many controls required to reduce impacts. The main control identified at this time involves targeting new construction, so all facilities are developed to withstand climate extremes over their life span. It is also important to increase awareness about climate change impacts, so staff and communities can take preventative actions and incorporate climate change into decision-making. Recent presentations to the Island Health Board of Directors detailed Island Health's key activities related to climate change, and the associated enterprise risks, including Energy and Emissions; Adaptation to Climate Change, Business Continuity, and Emergency Preparedness; Health Impacts, and Environmental Sustainability.

New Construction

New construction and renovations provide an excellent opportunity to incorporate climate change resiliency measures into design. Facilities are typically designed based on historical weather data, but this is not representative of the climate new facilities will operate in. This has led to the development of requirements for consulting engineers and architects to use future climate data to inform the design of building systems, with an addendum to their standard contracts. Also, an extreme event screening tool was created as a means for early screening of projects' climate hazards and impacts. This tool was used to screen projects and adjust the scope of work to include climate resilience measures.

Healthcare facilities need to be resilient to the impacts of a changing climate, to be built and operated with reduced GHG emissions, and to have reduced negative impacts on long-term human and environmental health and wellness. In order to achieve this, design teams follow the Low Carbon Resilience and Environmental Sustainability Guidelines for Healthcare New Construction (the LCRES Guidelines) to inform the design of long-term care facilities from the planning stage onward. These guidelines include three pillars:

- Low Carbon - Low carbon design indicates a shift away from conventional fossil fuel-supplied energy systems to incorporate alternatives such as electrification, renewable fuels, and low carbon district energy.
- Environmental Sustainability - Environmentally sustainable healthcare systems improve, maintain, or restore health outcomes, while minimizing negative impacts on the environment.

- Climate Resilience - Climate resilient healthcare facilities are able to anticipate, respond to, cope with, recover from and adapt to climate-related shocks and stresses to bring ongoing and sustained healthcare to their target populations.

Existing Facilities

Existing facilities remain the largest floor area within Island Health's building stock. The age of the facilities increases the likelihood for poor resilience to a changing climate. Based on prior assessments and recent experience, the short-term impacts of climate change are from extreme heat, wildfire smoke, flooding, and extreme wind events. Facility operators have started taking measures to address these concerns by stocking specialized air filters to be used on ventilation equipment during wildfire smoke events. Additionally, expanding cooling capacity and availability is a priority for long-term care facilities. This provides an opportunity to use heat pumps, which can also reduce GHG emissions.

Public Education & Awareness

The Environmental Health Office's Regional Built Environment Team supports municipalities and regional districts as they develop climate resiliency plans, to ensure health impacts are considered along with infrastructure vulnerabilities. This team also reviews and comments on Official Community Plans that are in review due to the declaration of climate emergencies in various communities.

Future Climate Resilience Tasks:

- Support climate change risk and resilience for all capital projects
- Monitor and develop guidelines for wildfire smoke events
- Review Official Community Plans, due to declarations of climate emergencies
- Participate in municipal and regional district climate action planning
- Support governance structure development
- Development of a Climate Change & Planetary Health Strategy for Island Health
- Community & Climate Resilience group in development

5. Sustainability Initiatives

In 2022, the Energy, Environment & Climate Change department was formed, which included a team dedicated to leading environmental sustainability initiatives. The Environmental Sustainability Program's mission is to lead, inspire, and support an environmentally sustainable healthcare system through effective organizational, clinical, and operational practices. The team serves as a central entity that collects information, coordinates action, and collaborates with the numerous departments that are actively taking measures to achieve greater efficiency and minimize adverse environmental impacts. Below are highlights of these activities in 2023.

Water Conservation

All new buildings are constructed with high water efficiency goals through LEED certification. Two North Island Hospital campuses have the lowest water usage per square metre.

Island Health set the goal to reduce the Water Use Index (m^3/m^2) by 20% by 2030 from 2015 levels. At the end of 2021 water consumption had already been reduced by 21.4% from 2015 levels, exceeding the 2030 target 9 years in advance. Planned for 2024 is a revamped process of collecting and analyzing water data and developing a more aggressive 2030 target to promote further improvements in water efficiency.

Waste Reduction

Island Health is advancing sustainability best practices by increasing the landfill diversion rate and reducing the volume and environmental impact of materials coming into the organization through improved procurement practices. This is reflected in the recent addition to Organization Goal 22 of not only reducing GHG emissions but also increasing waste diversion rates. In 2023, Environmental Support Services created two new Utilization and Resource Coordinator roles to support waste initiatives. Island Health is developing a Sustainable Office Supplies Purchasing Guide to be published in 2024 and is also collaborating with other BC regional health authorities and PHSA Supply Chain to embed environmental sustainability into procurement processes.

There have been many waste reduction initiatives throughout Island Health. Waste audits and assessments were conducted to gain a better understanding of current waste disposal practices and infrastructure. As a result of the assessments, standardized waste stations have been implemented in the public areas of acute and long-term care facilities making it easier and more convenient for waste generators to recycle.

Usage of single-use personal protective equipment (PPE) has remained elevated since the pandemic. To address this, a new PPE recycling program is being implemented in acute care sites in June 2024. Additionally, small scale projects and pilots have been rolled out to increase soft plastic recycling and composting with plans for expansion currently being investigated.

In addition to these ongoing projects and pilots, further waste disposal education for clinical staff is in the works to improve current waste segregation practices within units.

Public Electric Vehicle Charging Stations

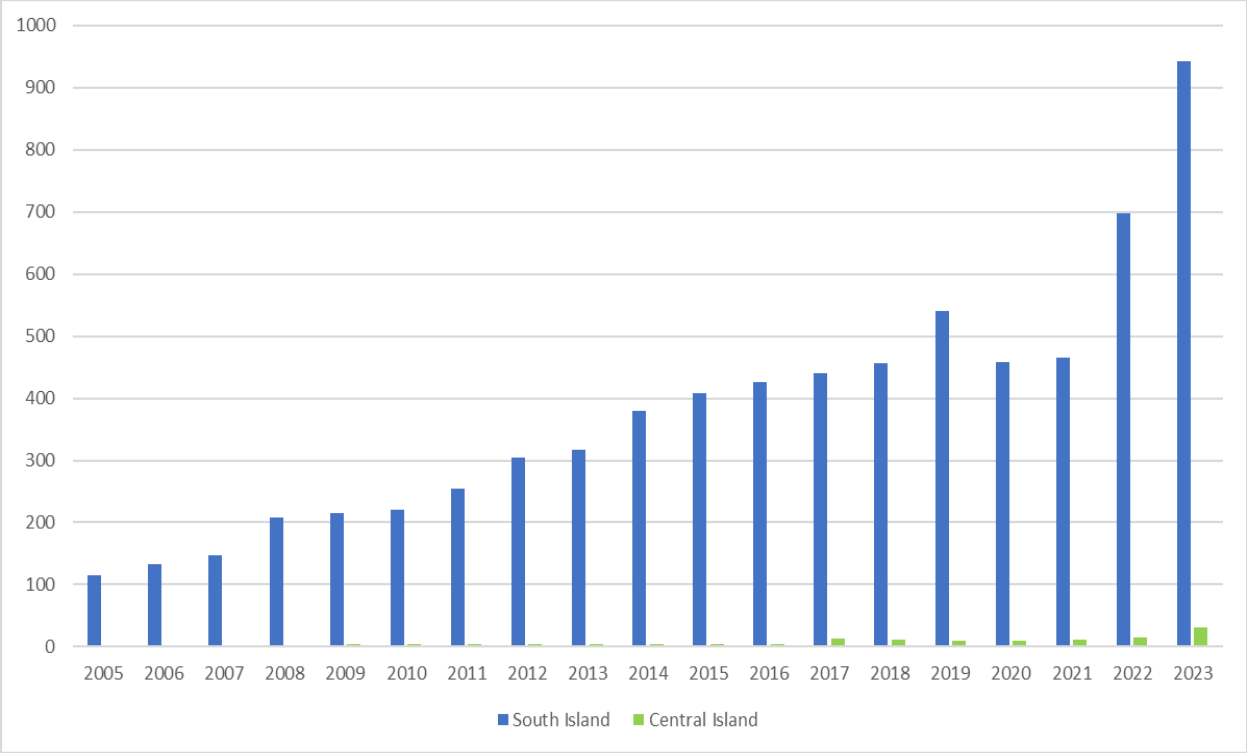
Emissions from public vehicles are out-of-scope; however, the Health Authority recognizes the negative health impacts associated with vehicle pollution. Island Health has Level 2 electric vehicle charging stations at multiple sites to serve the public. Installing public charging infrastructure has challenges associated with high costs of equipment, limited parking space availability and electrical capacity requirements. By 2040, 100% of new light-duty vehicles sales and leases will be zero emissions vehicles, as set out in the Province's *Zero Emissions Vehicle Act*. Currently, Island Health primarily provides public charging to meet municipal requirements or achieve LEED points for new construction. Island Health owns and operates 27 Level 2 charging stations.

Transportation Demand Management

Parking Services promotes initiatives for decreasing single-occupancy vehicle traffic and demand for parking at Island Health sites. Through transportation demand management planning, Parking Services supports employees in optimizing their use of local transportation resources and Island Health programs.

By getting people out of single-occupancy vehicles and into more efficient modes of commuting, the Health Authority reduces parking congestion and its associated climate impact. Initiatives to support transportation demand management include participation in the annual Go By Bike Week, providing bike storage, offering employees subsidized BC Transit ProPASS enrollment, and providing access to a ridesharing platform to connect employees to a central online commuting hub. After a decline in ProPASS enrollment was observed in 2021, ridership increased by 30% in 2022 and continues to do so. The program saw a 35% increase in ridership in 2023 compared to 2022.

Figure 5 Island Health's BC Transit ProPASS Enrollment



End of report.

Appendix A GHG Emission Details

Reporting Year	Fleet [tCO_2e]	Office Paper [tCO_2e]	Buildings [tCO_2e]	Total Emissions [tCO_2e]	Exempt Emissions [tCO_2e]	Emissions for Offsetting [tCO_2e]	Offset Cost [tCO_2e]	Emissions per FTE [tCO_2e/ FTE]	Emissions Intensity [tCO_2e/m^2]
2010	893	831	32,129	33,914	61	33,853	$823,025	2.98	0.065
2011	871	747	35,124	36,800	58	36,742	$880,125	3.19	0.070
2012	850	717	34,116	35,734	51	35,683	$855,025	2.97	0.065
2013	862	714	32,427	34,056	53	34,003	$801,025	2.83	0.062
2014	881	691	32,092	33,720	55	33,665	$774,850	2.77	0.061
2015	859	706	28,848	31,279	866	30,413	$702,275	2.37	0.055
2016	837	677	28,836	31,224	874	30,350	$706,925	2.28	0.056
2017	952	687	31,502	34,011	869	33,142	$775,875	2.42	0.055
2018	645	724	29,246	31,476	861	30,615	$723,425	2.12	0.050
2019	878	627	31,283	33,338	551	32,788	$764,425	2.16	0.053
2020	601	547	32,574	33,773	52	33,722	$755,775	2.06	0.054
2021	505	608	28,367	29,534	54	29,480	$732,325	1.67	0.047
2022	919	651	27,867	29,501	65	29,437	$738,025	1.63	0.046
2023	1,307	527	26,866	28,700	81	28,619	$715,475	0.95	0.045

Exempt Emissions

From 2015-2019, Island Health purchased a small amount of renewable natural gas, for which the biogenic portion was exempt from offset purchases. In August 2019, FortisBC curtailed the sale of renewable natural gas to the Health Authority due to supply constraints. As a result of the curtailment, almost 500 tonnes of exempt GHG emissions from renewable natural gas was substituted with standard natural gas in 2020.

Adjustments

In 2023 the *B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions* was updated which affects current and historical emissions reporting. Adjustments were made to Natural Gas emission factors and retroactive to 2010, due to a greater understanding of the composition of natural gas in pipelines. Annual adjustment of Electricity Emissions Factors (EEFs) for B.C.'s electricity grid was completed to reflect the carbon intensity of electricity consumed in B.C. For the 2023 Reporting Year the EEF is 11.3 tCO_2e/GWH.