

<b>NHS Greater Glasgow and Clyde</b>	<b>Paper No. 26/43</b>
<b>Meeting:</b>	<b>NHSGGC Board Meeting</b>
<b>Meeting Date:</b>	<b>30 April 2026</b>
<b>Title:</b>	<b>Annual Climate Emergency and Sustainability Report 2024/25</b>
<b>Sponsoring Director:</b>	<b>Andrew Baillie, Assistant Director – Infrastructure Planning &amp; Delivery Keira McLuskey, Head of Sustainability</b>
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## 1. Purpose

**The purpose of the attached report is to:**

- Discharge a requirement of the Scottish Government's Policy for NHS Scotland on the Climate Emergency and Sustainable Development, where each Board must publish a report annually, summarising its progress against climate related aims and duties.
- Provide a transparent and comprehensive update on how NHSGGC is working to reduce its environmental impact, adapt to climate change, and achieve legally binding net-zero targets.

## 2. Executive Summary

**The report can be summarised as follows:**

- Total emissions fell by 3.6% in 2024/25, with major reductions from medical gases, inhalers, business travel and fleet, while building energy remained the largest emissions source.
- Energy and infrastructure progress included major LED upgrades, BEMS improvements, and planning for largescale heat pump and decarbonisation projects, supporting long-term net zero goals.
- Clinical sustainability advanced significantly, including removal of desflurane, ongoing nitrous oxide manifold decommissioning, inhaler switch programmes, and theatre efficiency measures such as HVAC optimisation.

- Greenspace, biodiversity, and community anchor activities expanded, with estate wide habitat surveys, new therapeutic gardens, tree planting, and strengthened employability, procurement, and community partnerships.
- Waste, procurement, and EMS work strengthened circularity and governance, with rising recycling, reuse via a Warp It scheme, new waste contracts, and ongoing development of an ISO14001 aligned EMS.
- Focus areas for the coming year include accelerating estate decarbonisation, developing climate adaptation plans, decreasing waste volumes and improving recycling rates.

### 3. Recommendations

It is recommended that the Board grant final approval, enabling the Chief Executive to sign the report before submission to the Scottish Government for publication.

### 4. Response Required

This paper is presented for **approval**.

### 5. Impact Assessment

The impact of this paper on NHSGGC's corporate aims, approach to equality and diversity and environmental impact are assessed as follows:

- |                        |                               |
|------------------------|-------------------------------|
| • Better Health        | <b><u>Neutral</u></b> impact  |
| • Better Care          | <b><u>Neutral</u></b> impact  |
| • Better Value         | <b><u>Neutral</u></b> impact  |
| • Better Workplace     | <b><u>Positive</u></b> impact |
| • Equality & Diversity | <b><u>Neutral</u></b> impact  |
| • Environment          | <b><u>Positive</u></b> impact |

### 6. Engagement & Communications

The issues addressed in this paper were subject to the following engagement and communications activity:

- Discussion with, and data collection from, individuals from the energy, procurement, transport, community wealth building and property and capital planning teams.
- Review with Assistant Directors.

### 7. Governance Route

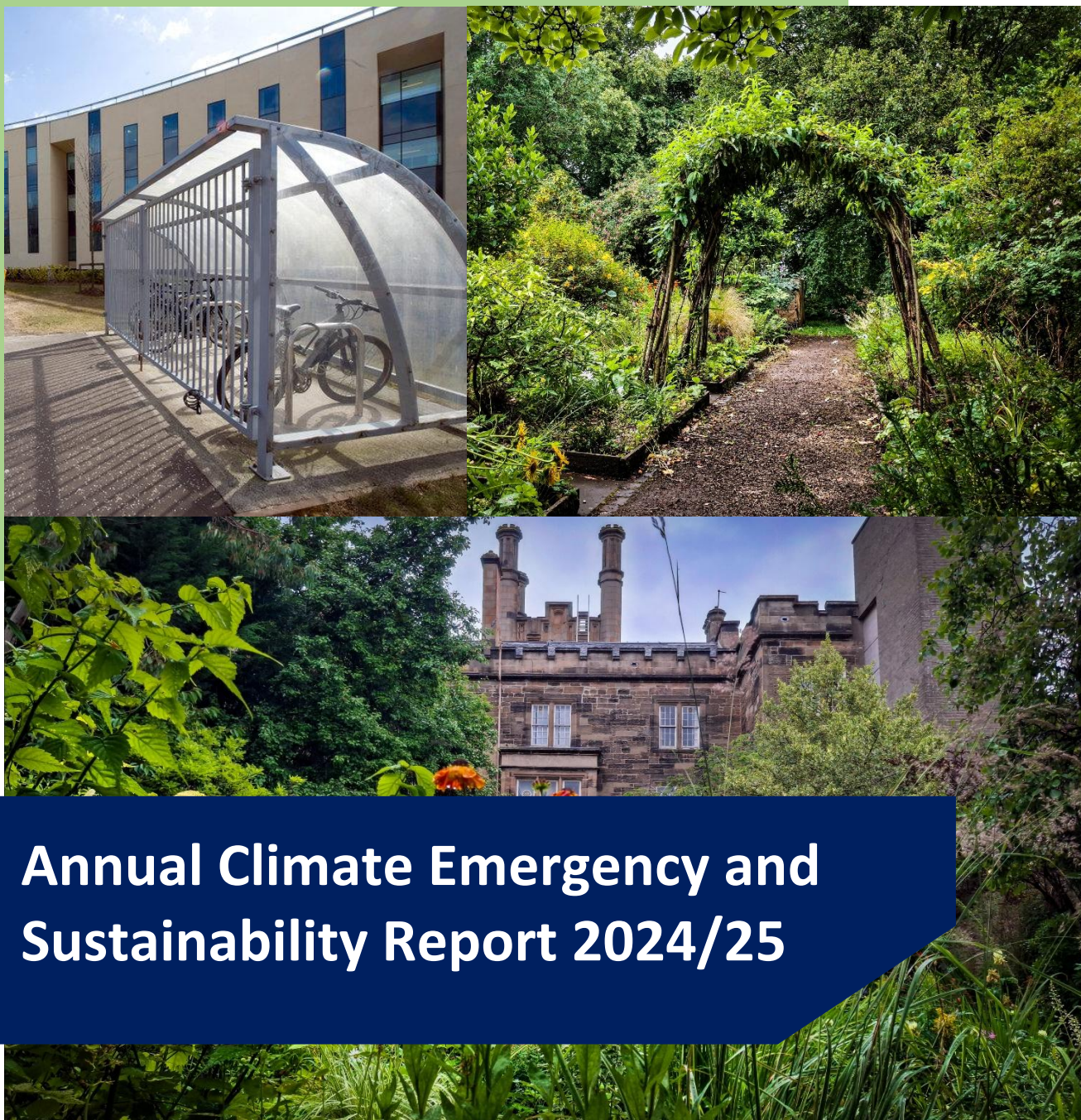
This paper has been previously considered by the following groups as part of its development:

- Sustainability Governance Group (SSG) – 14 January 2026.
- Estates & Facilities Senior Management Team (SMT) – 29 January 2026.
- Corporate Management Team (CMT) - 16 February 2026.
- Finance, Planning and Performance (FPP) Committee – 25 March 2026.

**8. Date Prepared & Issued**

**Prepared on: Oct-December 2025**

**Issued on: 22 April 2026**



# Annual Climate Emergency and Sustainability Report 2024/25

## NHS Greater Glasgow and Clyde

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# Contents

1. Introduction.....	2
2. Leadership and Governance.....	3
3. Summary of Impacts .....	4
<b>3.1. Greenhouse Gas Emissions .....</b>	<b>4</b>
<b>3.2. Resource Use .....</b>	<b>5</b>
<b>3.3. 2045 Greenhouse Gas Reduction Targets .....</b>	<b>5</b>
4. Climate Change Adaptation.....	6
5. Building Energy.....	9
6. Sustainable Care .....	11
<b>6.1. Anaesthesia and Surgery .....</b>	<b>11</b>
<b>6.2. Respiratory Medicine.....</b>	<b>12</b>
<b>6.3. Other sustainable care action .....</b>	<b>14</b>
7. Travel and Transport.....	0
8. Greenspace and Biodiversity.....	4
<b>8.1. Biodiversity .....</b>	<b>4</b>
<b>8.2. Greenspace .....</b>	<b>21</b>
9. Sustainable Procurement, Circular Economy and Waste .....	23
10. Environmental Stewardship .....	27
11. Sustainable Construction.....	30
12. Sustainable Communities.....	32
13. Conclusion.....	36

## 1. Introduction

The World Health Organization (WHO) identifies climate change as the greatest global health threat, and environmental risks are similarly prioritised in the World Economic Forum's Global Risks Report 2025<sup>1</sup>. NHS Greater Glasgow & Clyde (NHSGGC) has a clear responsibility to address both climate mitigation, by reducing greenhouse gas emissions and promoting sustainable practice, and climate adaptation, by ensuring its services, infrastructure, and communities are resilient to the growing impacts of climate change.

NHSGGC's vision is to build a resilient health service that is socially, economically, and environmentally sustainable, serving its communities now and in the future. Its buildings and services will act as welcoming, community-anchored places, supported by safe active-travel routes and well-connected to low-carbon transport networks across the city. The outdoor estate will provide safe, attractive green spaces that promote relaxation, exercise, and positive mental and physical wellbeing. NHSGGC aims to foster an environment in which patients, staff, and visitors can lead healthy, active lives, with access to the tools and resources required to deliver and receive high-quality care. This vision supports the development of an equal, prosperous, and healthy city region, with NHSGGC providing a resilient and sustainable health service for the communities it serves.

This NHSGGC Annual Climate Emergency and Sustainability Report outlines the organisation's key activities and environmental impacts for 2024/25 and sets out the actions we are taking to progress our transition to net-zero.

NHSGGC provides health care to the 1.2 million people who live in Greater Glasgow area, covering six joint integrated boards (Glasgow City, East Dunbartonshire, East Renfrewshire, Inverclyde, Renfrewshire, and West Dunbartonshire) employing over 46,000 people across a broad estate of:

- 35 Hospitals;
- 240 General Practitioner (GP) practices (in total around 790 GPs);
- 300 Community Pharmacies;
- 270 Dental practices;
- 180 Ophthalmic practices;

Service related statistics for April 2023-March 2024 include<sup>2</sup> :

- 130,000 emergency admissions;
- 14,500 births;
- 187,000 elective admissions;

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<sup>1</sup> [Global Risks Report 2025 | World Economic Forum](#)

<sup>2</sup> [NHS Greater Glasgow & Clyde – Who we are](#)

## 2. Leadership and Governance

NHSGGC has designated the following key Climate Change & Sustainability Strategy leadership roles:

- Michelle Wailes is our Board Non-Executive Sustainability Champion & Chair of the Audit & Risk Committee.
- Professor Tom Steele, Director of Estates & Facilities, is our Executive Sustainability Champion.

Progress and reporting is overseen by the Board's Sustainability Governance Group (SGG), which is chaired by William Hunter, Deputy Director Facilities and Corporate. SGG reports annual performance to the NHSGGC Board via the Corporate Management Team (CMT) and Financial Planning & Performance (FPP) Committee.

Figure 1 provides a visual representation of NHSGGC Sustainability Governance Structure.



Figure 1: NHSGGC Sustainability Governance Structure

## 3. Summary of Impacts

### 3.1. Greenhouse Gas Emissions

Table 1 sets out the tonnage of Greenhouse Gas (GHG) produced by NHSGGC annually since 2020/21. As monitoring measures improve, we have access to more accurate data sources which help inform our reporting and create targets.

**Table 1: 2040 Greenhouse Gas Tonnages**

2040 Net-Zero emissions	2020/21	2021/22	2022/23	2023/24	2024/25	Target (2024/25)
Carbon footprint (tCO <sub>2</sub> e)	128,636	147,635	143,050	145,261	140,057	N/A

NHSGGC aims to become a net-zero organisation by 2040 for the sources of greenhouse gas emissions set out in the table below. The table sets out the tonnage of greenhouse gas emissions produced annually by NHSGGC.

**Table 2: Greenhouse gas emissions 2023-2024 & 2024-2025, tonnes CO<sub>2</sub> equivalent (tCO<sub>2</sub>e)**

Greenhouse gas emissions 2023-2024 & 2024-2025, tonnes CO <sub>2</sub> equivalent (tCO <sub>2</sub> e)					
Source	2023/24 emissions (tCO <sub>2</sub> e)	2024/25 emissions (tCO <sub>2</sub> e)	Percentage change – 2023/24 to 2024/25	2024/25 – target emissions	Difference between actual and target emissions – 2024/25 (percentage)
Building energy	110,583	109,878	-0.64% ↓	N/A	N/A
Non-medical F-gas	933	926	-0.84% ↓	N/A	N/A
Medical gases	5,905	5,561	-5.81% ↓	N/A	N/A
Metered dose inhaler propellant	19,785	17,874	-9.66% ↓	N/A	N/A
NHS fleet travel	1,648	1,453	-11.88% ↓	N/A	N/A
Waste	2,008	1,763	-12.20% ↓	N/A	N/A
Water	363	361	-0.49% ↓	N/A	N/A
Business travel	4,035	2,242	-44.44% ↓	N/A	N/A
<b>Total emissions</b>	<b>145,261</b>	<b>140,057</b>	<b>-3.58% ↓</b>	N/A	N/A
Carbon sequestration	0	0	N/A	N/A	N/A
<b>GHG emissions minus carbon sequestration</b>	<b>145,261</b>	<b>140,057</b>	<b>-3.58% ↓</b>	N/A	N/A

\*Tonnes CO<sub>2</sub>e rounded to 0dp and percentages rounded to 2dp to provide effective comparison throughout document.



### 3.2. Resource Use

The table below sets out how much of key resources we used over the last two years.

**Table 3: Resource Usage**

Source	2023/24 Use	2024/25 Use	Percentage change – 2023/24 to 2024/25
Building energy (kWh)	480,673,847	479,799,537	-0.18% ↓
NHS fleet travel (km travelled)	7,783,516	7,097,879	-8.81% ↓
Waste (tonnes)	12,805	13,088	+2.21% ↑
Water (cubic metres)	2,522,469	2,915,433	+15.58% ↑
Business travel (km travelled)	19,652,742	10,628,909	-45.92% ↓

### 3.3. 2045 Greenhouse Gas Reduction Targets

We are working to support reductions to greenhouse gas emissions to net-zero by 2045 for sources of emissions over which we have less control and influence such as emissions from the production and supply of the goods and material we use, patient travel and staff commuting. The following table sets out the latest estimates we have for these emissions.

**Table 4: Emissions and Source**

Source	Latest estimate, Tco2e	Year of estimate
Supply chain	380,000	2022
Patient travel	N/A	N/A
Staff commuting	37,140	2025

## 4. Climate Change Adaptation

Climate change is amplifying existing health risks and creating new and emerging threats, including the spread of infectious diseases, increased frequency and severity of heatwaves, and more disruptive extreme weather events. These impacts pose significant risks to population health as well as to the continuity, safety, and reliability of healthcare assets and services. They are also unevenly distributed, with deprived and otherwise vulnerable communities experiencing the greatest exposure and the least capacity to adapt. As a critical public service, NHSGGC must be able to withstand and respond to these pressures by strengthening resilience across its infrastructure, operations, and models of care. It has a responsibility to develop climate-resilient health systems that protect the life and wellbeing of the communities it serves in an increasingly unpredictable environment.

### **What are the main risks from climate change that the Health Board has identified through its Climate Change Risk Assessment?**

NHSGGC works with several key organisations, such as the Scottish Government, NHSAssure and has previously worked with Climate Ready Clyde to identify the impacts that climate change is likely to have on its assets and services and their magnitude. Through its climate change risk assessment NHSGGC have identified the following risks:

- Weather damage to buildings;
- Increased energy use associated with cooling or heating the healthcare environment; and
- Impacts on public health such as extreme weather events and the emergence of new diseases.

### **Does the Health Board have a plan to reduce those risks?**

NHSGGC is dedicated to preparing for the impacts of climate change and increasing the resilience of our healthcare assets and services through short, medium and long term Business Continuity Planning, which is a core theme of the Board's Moving Forward Together Strategy. Its approach, as outlined in the Board's Sustainability Strategy, emphasises a comprehensive, proactive framework to address climate-related challenges and ensure the sustainability and effectiveness of our healthcare infrastructure.

#### Sustainable Design and Construction

NHSGGC is embedding climate resilience into building designs and construction practices and looks to better align with the Sustainable Design and Construction (SDaC) Guidance<sup>3</sup> from NHS Scotland. This would include further adoption of sustainable design principles that account for extreme weather events, incorporating energy-efficient technologies, and selecting materials that enhance durability and reduce environmental impact.

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<sup>3</sup> [Sustainable Design and Construction \(SDaC\) Guidance from NHS Scotland](#), published August 2025

### Energy Efficiency and Decarbonisation

To support our net-zero targets, NHSGGC is investing and upgrading systems to maximise on energy efficiency i.e. lighting upgrades, variable speed drives, upgrades to building management systems and viability of more sustainable energy sources, such as District Heating Systems. Our aim is to reduce our carbon footprint and increase the resilience of our energy infrastructure. Decarbonisation plans are being developed for the acute hospitals across NHSGGC, which will allow a plan and pathway to progress. Please refer to Section 5 for further detail.

### Strategic Partnerships

NHSGGC is collaborating with industry experts in the Sustainable Glasgow Regional Group, including private industry, local authorities, academia and other public sector bodies that are working to develop a regional response to climate change adaptation. These partnerships will enable NHSGGC to understand best practice and identify areas for collaboration to improve the resilience of our healthcare infrastructure.

Our approach aims to ensure that NHSGGC plan appropriately for the impacts of climate change, whilst continuing to deliver high-quality, resilient healthcare services in the face of evolving environmental challenges.

Furthermore, NHSGGC have commenced work with Global Action Plan over a Clean Air project which looks to take a cross disciplinary approach to improve air quality at the QEUH and GRI, with the project set to end in March 2026.

### **What main actions has the health board taken to reduce those risks since the last report?**

The Board continues to take proactive steps to ensure that its systems and infrastructure can accommodate the impacts of climate change and the resulting impacts on healthcare delivery as follows:

NHSGGC has continued to increase and enhance the amount of greenspace within its estate through the development of garden and growing projects. Wherever possible, such projects incorporate increased shade and shelter and nature based solutions such as sustainable drainage systems. See Section 8: Greenspace for more information.

NHSGGC has undertaken several net-zero new build projects which have incorporated climate change adaptation and mitigation measures into the design, an example being the award winning Parkhead Hub project. NHSGGC continues to support the delivery plan objectives and those outlined within the NHSGGC Climate Change & Sustainability Strategy.

What main actions are going to be carried out to reduce those risks in future years?

NHSGGC has taken initial steps to integrate climate adaptation through strategic commitments and engagement with external stakeholders. Work is ongoing to develop published adaptation plans and risk assessments, and to establish a clear roadmap for action. There is an opportunity to collaborate with NHSAssure and NHS Scotland to develop a detailed Climate Adaptation and Resilience Strategy,

which will guide NHSGGC's planned actions and priorities in the coming years. Resource within the sustainability team will be identified and through the Board's partnership with Glasgow Caledonian University (GCU), a PhD student, focussed on climate adaptation has been secured. Engaging a PhD student to support with the production of a GGC Climate Adaptation and Resilience Strategy provides links to academic networks and resources as well as access to up-to-date, research-driven expertise at a relatively low cost. PhD students bring strong analytical and communication skills, familiarity with the latest tools and methods, and a fresh perspective that will enhance the plan's quality.

## 5. Building Energy

NHSGGC has a target to use renewable heat sources in all the buildings within its portfolio by 2038. The Board has 111 buildings, including Queen Elizabeth University Hospital, Glasgow Royal Infirmary and Gartnavel General & Royal Hospitals.

Table 5 and Table 6 provide a breakdown of emissions and energy use associated with buildings across NHGGC estate.

**Table 5: Building energy emissions, 2015/16, 2023-2024 & 2024-2025**

Building energy emissions, 2015/16, 2023-2024 & 2024-2025, tonnes CO2 equivalent (tCO2e)				
	2015/16	2023/24	2024/25	Percentage change 2015/16 to 2024/25
Building fossil fuel emissions	76,746	73,922	76,730	-0.02% ↓
District heat networks and biomass	5,558	10	18	-99.68% ↓
Grid electricity	94,454	36,651	33,130	-64.93% ↓
<b>Totals</b>	<b>176,759</b>	<b>110,583</b>	<b>109,878</b>	<b>-37.84% ↓</b>

**Table 6: Building energy use, 2015/16, 2023-2024 & 2024-2025**

Building energy use, 2015/16, 2023-2024 & 2024-2025, MWh				
	2015/16	2023/24	2024/25,	Percentage change 2015/16 to 2024/25
Building fossil fuel use	366,305	346,999	359,020	-1.99% ↓
District heat networks and biomass	28,051	208	364	-98.70% ↓
Grid electricity	161,185	133,345	120,376	-25.32% ↓
Renewable electricity	54	122	40	-25.87% ↓
<b>Totals</b>	<b>555,594</b>	<b>480,674</b>	<b>479,800</b>	<b>-13.64% ↓</b>

### Summary

- In 2024/25, **76,748** tonnes of CO2 equivalent were produced by NHSGGC in relation to heating for buildings. This was an increase of **2.55%** since the year before.
- In 2024/25, NHSGGC used **479,800** MWh of energy. This was a decrease of **0.18 %** since the year before.

**What did we do in 2024/25 to reduce emissions from building energy use?**



Projects progressed in 2024/25 to reduce emissions from building energy use are summarised in Table 7 below. These projects were funded by NHSGGC Capital finance and via Scottish Government funding.

**Table 7: Building Energy Projects**

Project description	Annual saving	
	CO2 (tonnes)	Energy (kwh)
<b>QEUH Office Block</b> - Installation of LEDs	98	492,073
<b>QEUH- RHC Corridors</b> - Installation of LEDs various areas	72	249,310
<b>QEUH</b> - Installation of LEDs corridors, Core & lift lobbies	68	279,503
<b>Stobhill Hospital</b> - Installation of LEDs various buildings	45	213,048
<b>Leverndale Hospital</b> - Upgrade BEMS	43	233,500
<b>Boardwide Theatre lights</b> - Installation of LEDS	40	190,094
<b>RAH Laboratory Block</b> - Installation of LEDs	37	179,094
<b>GGH Beatson</b> - VSDs, BEMS connection & monitoring	27	132,860
<b>GRI</b> – Installation of LEDS Wards 3, 14 & 25	10	53,477
<b>Total</b>	<b>440</b>	<b>2,022,959</b>

## What are we doing in 2025/26 and planning for the longer-term to reduce emissions from building energy use?

Projects that are being planned over the next few financial years to reduce emissions from building energy use are summarised in the table below.

**Table 8: Building Energy Projects**

Project description	Cost (£)	Annual saving	
		CO2 (tonnes)	Cost (£)
<b>GRI</b> - replace and downsize 2 steam boilers	£1,200,000	2,130	£74,952
<b>GGH</b> - upgrade to existing steam network: new hotwell & replacement main	£400,000	216	£70,000
<b>GGH</b> BEMS upgrade- T Wheldon & Labs Block. Replacement of legacy system.	£400,000	£58	£20,100
<b>LED</b> upgrade- 4 sites	£247,770	£39	£49,472
<b>VSD</b> install- RAH Wards 36 & 37 AHUs	£16,313	4	£5,134
<b>GGH</b> - campus decarbonisation plan	£200,000	-	-
<b>QEUH</b> - feasibility & design to extend existing heat network to Maternity & Neonatal buildings.	£150,000	-	-
<b>GRI</b> - feasibility and design for chiller replacement in 3 buildings	£86,000	-	-
<b>GGH</b> - feasibility and design for chiller replacement in BOC	£59,000	-	-

<b>Total</b>	<b>£2,759,083</b>	<b>2,447</b>	<b>£219,658</b>
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**Table 9: Planned Building Energy Projects**

Project description	Annual saving	
	CO2 (tonnes)	(£)
<b>QEUH</b> - installation of Simultaneous Heat Pump	3,200	£180,000
<b>QEUH</b> - extension of heat network to Maternity & Neonatal	640	£240,000
<b>BEMS upgrade</b> - GGH, GDH, QEUH & health centres (selected sites)	423	£134,700
<b>GRI</b> - replacement of chillers in PRM, Jubilee & MacEwen Buildings	107	£87,000
<b>GGH</b> - BOC replacement of chillers	103	£65,000
<b>LED upgrade</b> - Dumbarton HC & Old Johnstone Clinic	57	£54,450
<b>VoL Hospital</b> - feasibility & design to de-steam heating system*	-	-
<b>Total</b>	<b>4,530</b>	<b>£761,150</b>

\*Proposed savings for the VoL Hospital project will not be available until feasibility study is complete.

## 6. Sustainable Care

The National Green Theatres Programme (NGTP) is a central element of NHSGGC's sustainability strategy. Developed from frontline innovation and the Green Theatre Project at Raigmore Hospital (NHS Highland), the programme provides a suite of clinical sustainability actions issued by the Centre for Sustainable Development (CfSD). These actions support Boards across Scotland in progressing toward net-zero targets while delivering both environmental and financial benefits. Oversight is provided by the Board's Clinical Sustainability Group, which monitors implementation and performance. The figures in this section are sourced from the Centre for Sustainable Delivery.

### 6.1. Anaesthesia and Surgery

Anaesthetic gases used for pain relief are potent greenhouse gases. These gases include nitrous oxide, Entonox (a mixture of oxygen and nitrous oxide) and 'volatile gases' - desflurane, sevoflurane and isoflurane. Through the elimination of desflurane and decommissioning of central pipeline nitrous oxide manifolds, NHSGGC is reducing the impact of these emissions sources.

- As detailed in Table 9 and Table 10, NHSGGC's total emissions from these gases in 2024/25 were **5561 tCO2e**, a decrease of **5.81%** from the year before.

**Table 10: Nitrous oxide and Entonox emissions, 2018/19, 2023-2024 & 2024-2025**

Nitrous oxide and Entonox emissions, 2018/19, 2023-2024 & 2024-2025, tonnes CO2 equivalent (tCO2e)*				
Source	2018/19 (baseline year)	2023/24	2024/25	Percentage change 2018/19 to 2024/25
Piped nitrous oxide	2,509	1,701	1,576	-37.19% ↓
Portable nitrous oxide	67	119	143	+113.59% ↑
Piped Entonox	3,502	3,287	3,011	-14.01% ↓
Portable Entonox	370	408	438	+18.25% ↑
<b>Total</b>	<b>6448</b>	<b>5515</b>	<b>5168</b>	<b>-19.85% ↓</b>

\*Note that the information used here is provided by Centre for Sustainable Delivery (CfSD).

**Table 11: Volatile medical gas emissions, 2018/19, 2023-2024 & 2024-2025**

Volatile medical gas emissions, 2018/19, 2023-2024 & 2024-2025, tonnes CO2 equivalent (tCO2e)				
Source	2018/19 (baseline year)	2023/24	2024/25	Percentage change 2018/19 to 2024/25
Desflurane	2,499	73	16	-99.36% ↓
Isoflurane	11	2	14	+26.58% ↑
Sevoflurane	376	315	363	-3.28% ↓
<b>Total</b>	<b>2,886</b>	<b>390</b>	<b>394</b>	<b>-86.36% ↓</b>

### What did we do in 2024/25 to reduce emissions from anaesthetic gases?

The central pipeline nitrous oxide manifold at Stobhill Hospital site was decommissioned. NHSGGC has now decommissioned central N2O manifolds across five of its eight hospital sites, resulting in a decrease in emissions from piped nitrous oxide.

### What are we doing in 2025/26 to reduce emissions from anaesthetic gases?

- Continuing with decommissioning remaining N2O piped systems across remaining sites; and
- Developing a decommissioning plan for piped Entonox across our hospitals for 2026-2027.

A National Green Theatres Programme was officially launched in 2023 to help reduce the carbon footprint of theatres across NHS Scotland and enable more environmentally sustainable care by:

- Working with clinicians and professionals to develop actions that reduce carbon emissions, waste and resource use and
- Supporting Boards to implement, measure and report on these improvements.

## 6.2. Respiratory Medicine

Greenhouse gases are used as propellants in metered-dose inhalers for asthma and Chronic Obstructive Pulmonary Disease (COPD), with most emissions arising from reliever inhalers (Short-Acting Beta Agonists, or SABAs). Improving condition management can both enhance patient care and lower these emissions. Where clinically appropriate, lower-carbon alternatives such as dry-powder inhalers can also be prescribed.

In 2024/2025 emissions from inhalers in NHSGGC **were 17,874 tonnes** of CO<sub>2</sub> equivalent. The Table 11 provides a breakdown.

**Table 12: Inhaler propellant emissions, 2018/19, 2023-2024 & 2024-2025**

Inhaler propellant emissions, 2018/19, 2023-2024 & 2024-2025, tonnes CO <sub>2</sub> equivalent (tCO <sub>2</sub> e)				
Source	2018/19 (baseline year)	2023/24	2024/25	Percentage change 2018/19 to 2024/25
Primary care	18,054	19,112	17,188	-4.80% ↓
Secondary care	631	673	686	8.72% ↑
<b>Total</b>	<b>18,685</b>	<b>19,785</b>	<b>17,874</b>	<b>4.34% ↓</b>

### What did we do in 2024/25 to reduce emissions from inhalers?

A major intervention was the Metered Dose Inhalers (MDI) to Dry Powder Inhaler (DPI) switch pilot, involving 18 GP practices in North-West Glasgow. This targeted patients who had been dispensed more than six short-acting reliever inhalers annually.

Key outcomes included:

- Clinical reviews to assess suitability for switching to DPIs;
- 87% of patients reviewed were suitable and willing to switch;
- Improved disease control and reduced overuse of SABAs (Short-Acting Beta Agonists); and
- Environmental awareness raised among patients.

These reviews were supported with the following resources:

- A Prescribing Audit Toolkit was developed to monitor progress, quantify emissions reductions, and support asthma/COPD reviews;
- Inhaler Device Guides (IDGs) were updated to include a traffic light system to highlight carbon footprint levels, promoting low-carbon alternatives;
- Medication reviews of respiratory inhalers were undertaken within GP practices to address;
- Inhaler emissions reduction framed as an environmental initiative and as a sustainable respiratory quality improvement programme, with a focus on reducing overuse of Short-Acting Beta Agonists (SABAs);

- Reduce overuse of bronchodilator inhalers;
- Consolidate multiple inhalers into single combination devices; and
- Ensure patients are on the most clinically and environmentally appropriate treatments.

### **What are we doing to raise awareness with staff and patients, including primary care?**

Efforts are being made both locally by NHSGGC and through wider national work to increase awareness of sustainable care through staff education and training and patient awareness campaigns.

Prescribing Support Teams have delivered targeted education to primary care staff, including:

- Training on the environmental impact of pressurised metered dose inhalers (pMDIs), which use hydrofluoroalkane propellants with high global warming potential;
- Use of updated Inhaler Device Guides (IDGs) with a traffic light system to highlight carbon footprint levels and promote low-carbon alternatives; and
- Resources such as the GP toolkit, asthma education videos, and links to Greener Practice and PrescQIPP.

Staff training sessions have also included:

- Facilitated prescribing education with the “3S Check” (Stop, Side Effects, Simplify) to encourage medication reviews and patient engagement; and
- Pharmacy team training presentations linking climate change to prescribing practices and highlighting NHS Scotland’s net-zero commitment.

Patient awareness campaigns have focussed on:

- Face-to-face reviews and letters explaining the rationale for switching to lower carbon inhalers;
- Education on proper inhaler use and disposal, with follow-ups confirming improved habits; and
- Messaging that frames inhaler use in terms of both individual health and environmental impact.

The Pharmacy Communications Plan is a multi-stage campaign including:

- Video content explaining medicine ordering, shortages, and disposal; and
- Text message surveys to evaluate patient understanding and behaviour change.

## **6.3. Other sustainable care action**

### **What else did we do in 2024/25 to make care more sustainable?**

In 2024/25, NHSGGC continued its programme to optimise Heating, Ventilation and Air Conditioning (HVAC) controls in operating theatres, recognising that theatre ventilation systems are highly energy



intensive.<sup>4</sup> To support progress towards a net-zero Scottish NHS, the Board is implementing a Modified Ventilation Control Strategy that places suitable theatres into setback or shut down modes during out of hours periods.

NHSGGC Sector Delivery Groups worked across various clinical sustainability projects such as:

#### Rub not Scrub

In this initiative, traditional scrub solutions are replaced with Alcohol Based Hand Rubs (ABHR) within surgical environments, reducing water waste in surgical settings. This was implemented initially across theatres at Queen Elizabeth University Hospital and the Royal Hospital for Children. Other theatres across NHSGGC have adopted the 'Rub not Scrub' campaign which is promoted through practice education and visual prompts such as posters.

#### Rationalising fluid giving sets and warming devices;

The clinical lead at Royal Alexandra Hospital established a Standard Operating Procedure for how fluid giving and warming sets should be used in theatres. This procedure has been shared widely across NHSGGC theatres teams, and where appropriate, has been adopted in practice by clinical teams.

#### Reducing the Use of Battery-Operated Pulse Lavage

A selection of NHSGGC Orthopaedic Surgeons and theatres staff worked to lessen the use of disposable single-use AA battery operated Pulse Lavage Systems across NHSGGC by identifying an alternative, more environmentally friendly system to use when undertaking procedures where preparation of bone is required before cementation. This will reduce the number of batteries being sent into the waste stream.

#### Surgical fluid collection and disposal systems

NHSGGC have worked with suppliers to use alternative equipment used within theatres for surgical suction to decrease the use and disposal of single use suction containers. The installation and implementation of the Neptune collection and disposal system trialled at QEUH will help eliminate the need for single use suction containers and their disposal within the clinical waste stream. This alternative system allows surgical fluid to be collected, filtered and discharged through the wastewater system, a process which reduces the environmental impact of managing clinical waste. Initial feedback from theatre staff has been incredibly positive on its use in theatres.

#### Gloves off Campaign

NHSGGC run a campaign to inform all staff that overuse of non-sterile gloves can increase transmission of pathogens, cross contamination, and lead to a reduction in hand washing. This initiative was promoted across the Board in an effort to reduce the unnecessary use of non-sterile gloves across service areas. An information leaflet was produced and disseminated in collaboration with Infection Prevention and Control, Acute Nursing, Clinical Corporate Communications colleagues. This action will lead to a reduction in the procurement and use of non-sterile gloves across the Board whilst reducing the costs and environmental impacts of discarding through the clinical waste stream.

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<sup>4</sup> [Automated switch off out of hours Heating Ventilation Air Conditioning \(HVAC\) within operating theatres - Opportunity for Change Revised: October 2024](#)

### **What else are we doing in 2025/26 to make care more sustainable?**

NHSGGC will continue to work with internal and external stakeholders locally and nationally to progress actions arising from the National Green Theatres Programme and other clinical sustainability initiatives. In addition, we will share experiences and learning with other Boards and Organisations to raise the profile of our work to reduce the environmental footprint of healthcare.

NHSGCC will:

- Aim to progress with the HVAC project in theatres across all sites where applicable;
- Invite keynote speakers to present to the Clinical Sustainability Group on other sustainable health care initiatives and share learning across the Board;
- Develop and assess whether we can move from central piped Entonox to portable Entonox devices;
- Pilot the use of reusable surgical caps in theatres;
- Work with clinicians/theatres staff and procurement to lean surgical trays where feasible;
- Report to the Board through the Sustainability/Clinical Governance Structures on progress made against the Delivery Plan;
- Support community health care through the Primary Care Sustainability Delivery Group;
- Continue meeting with NHSGGC Clinical Sustainability Sector Delivery Groups;
- Progress actions released through the National Green Theatres Strategic Development Group;
- Reduce material waste in operating theatres through the analyses of high-volume items that are frequently opened but unused in theatres; and
- Transition from single use mattresses to reusable air mattresses to reduce the environmental impact associated with single-use devices.

In addition, NHSGGC plans to continue to:

- Share learning from clinical sustainability projects through hosting a series of multi – disciplinary webinars and guest presentations at the Clinical Sustainability Group Meetings;
- Continue to monitor and review emerging technologies within clinical care to help progress NHSGGC's clinical sustainability journey;
- Continue to promote all things sustainable through pop up events, webinars and learning resources;
- Continue to work in partnership and in collaborations with stakeholders and the Scottish Government to work towards a net-zero NHS Scotland;
- Hold Patient Awareness Campaigns; and
- Embed sustainability as custom and practice.

## 7. Travel and Transport

Domestic transport (not including international aviation and shipping) produced 28.3% of Scotland's greenhouse gas emissions in 2022. Car travel is the mode which contributes the most to those emissions.

NHS Scotland is supporting a shift to a healthier and more sustainable transport system where active travel and public transport are prioritised.

### **What did we do in 2024/25 to reduce the need to travel?**

NHSGGC continued the promotion and adaptation of the NHSGGC Business Travel Policy using the Transport Scotland Sustainable Travel and the National Transport Strategy<sup>5</sup> travel hierarchy to promote active and sustainable travel.

### **What did we do in 2024/25 to improve active travel?**

Funding was received from "Paths for All" to supplement our Travel Plan Office with two additional Full Time Equivalent (FTE) to increase staff engagement events and Dr Bike maintenance sessions across our acute sites, this was match funded by NHSGGC and greatly increased the promotion of active and sustainable travel to staff.

Cycling UK provided funding for the purchase of an e cargo bike which is now used to transport staff and associated equipment to many staff engagement events, reducing the need to use a car.

Demand for NHSGGCs cycle to work scheme has continued to grow. Staff now have the option to opt for tax free loans for up to £4000 with repayment options over 6, 12, 18 or 24 months for the purchase of bikes and equipment.

### **What did we do in 2024/25 to improve public and community transport links to NHS sites and services?**

In partnership with Glasgow City Council and Strathclyde Partnership for Transport (SPT) NHSGGC worked to install real time bus information displays at Gartnavel General, Glasgow Royal Infirmary, New Victoria, Queen Elizabeth University Hospitals (2) and Stobhill Hospital to improve access to bus information for patients, staff and visitors. See [Transport advice in real time for NHSGGC patients, visitors and staff - NHSGGC](#) for more information.

NHSGGC continue to provide options for staff to purchase annual season tickets for First Bus, ScotRail and SPT ZoneCard. Annual season tickets for Glasgow Tripper multi operator bus ticket were added in 2024.

### **What are we going to do in 2025/26 to reduce the need to travel?**

NHSGGC will continue promotion and awareness of our Business Travel Policy and flexible working, where possible through the Blended Working Guide<sup>6</sup>.

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<sup>5</sup> [Transport Scotland Sustainable Travel and the National Transport Strategy](#)

<sup>6</sup> [Blended Working Guide](#).

### What are we going to do in 2025/26 to improve active travel?

NHSGGC will continue to seek funding opportunities to review cycle storage capacity across our sites. Paths for All funding programme was replaced with SPT People and Places Programme.

Funding has been received to continue with one additional FTE to support the Travel Plan Office to promote active and sustainable travel through staff engagement events.

### What are we going to do in 2025/26 to improve public and community transport links to NHS sites and services?

The Travel Plan Office will continue to liaise and work in partnership with SPT and relevant local authorities and aim to introduce annual season ticket options for McGill's Buses.

### Fleet and Business Travel

The table below provides details of our greenhouse gas emissions associated with fleet and business travel. Fleet emissions are calculated using data on fuel usage provided by NHSGGC transport team and business travel is estimated based on fuel cards and mileage claims. As of March 2025, NHSGGC has a fleet of 372 vehicles, with 99 of these zero % tailpipe emission vehicles.

**Table 13: Fleet and Business Travel GHG emissions**

Greenhouse gas emissions, tCO <sub>2</sub> e	2023/24	2024/25	Percentage change
Fleet emissions	1,648	1,237	-24.99% ↓
Business Travel	4,035	2,242	-44.44% ↓

NHSGGC are working to remove all petrol and diesel fuelled vehicles from our fleet to meet the targets set out in NHS Scotland Climate Emergency & Sustainability Strategy 2022-2026 <sup>7</sup>. The following table sets out how many renewable powered and fossil fuel vehicles were in NHSGGC fleet at the end of March 2024 and March 2025.

<sup>7</sup> [NHS Scotland Climate Emergency and Sustainability Strategy 2022 - 2026](#)

**Table 14: Vehicle data and associated emissions 2024/25**

	March 2024		March 2025		Difference in % zero tailpipe emissions vehicles
	Total vehicles	% Zero tailpipe emissions vehicles	Total vehicles	% Zero tailpipe emissions vehicles	
Cars	102	41%	102	49%	8%
Light commercial vehicles	251	59%	248	19%	-40%
Heavy vehicles	18	11%	18	11%	0%
Specialist vehicles	No info provided	N/A	4	0	N/A

The following table sets out how many bicycles and eBikes were in NHSGGC's fleet at the end of March 2024 and March 2025.

**Table 15: Bicycle and eBike data 2024/25**

	March 2024	March 2025	Percentage change
Bicycles	0	0	N/A
eBikes*	1	1	N/A

\*eCargo bike utilised by active travel team to deliver sessions across Greater Glasgow and Clyde

The following table sets out the distance travelled by our cars, vans and heavy vehicles in 2024/25

**Table 16: distance travelled by our cars, vans and heavy vehicles in 2024/25**

Distance travelled (kms)	Cars	Light commercial vehicles	Heavy vehicles	Specialist vehicles	Total
2023/24	N/A	N/A	N/A	N/A	7,783,516
2024/25	N/A	N/A	N/A	N/A	7,792,959
Percentage change	N/A	N/A	N/A	N/A	0.12%

\*Telematics data not available in report year to give breakdown of vehicle type.

Business travel is staff travelling as part of their work in either their own vehicles or public transport. It covers travel costs which are reimbursable and doesn't cover commuting to and from work. The table below shows our emissions from business travel by transport type.



**Table 17: Business Travel Emissions**

Business travel emissions (tCO <sub>2</sub> e)	Cars	Public transport	Flights	Total
2023/24	4035	N/A	N/A	4035
2024/25	2171	60	8	2239
Percentage change	-46.19% ↓	N/A	N/A	-44.51% ↓

## 8. Greenspace and Biodiversity

### 8.1. Biodiversity

Biodiversity, or the wide variety of living organisms within an environment, has declined at a rapid rate in the last 50 years. Evidence demonstrates that these trends are attributed to human activities, such as land use change, habitat degradation and fragmentation, pollution, and the impacts of climate change. The State of Nature Report<sup>8</sup> published in 2023 has highlighted the decline of nature across Scotland, with 11% of species now classed as threatened with extinction.

Public bodies in Scotland have a duty under the Nature Conservation Scotland Act 2004<sup>9</sup> to further the conservation of biodiversity, taking care of nature all around us. Furthermore, the Wildlife and Natural Environment Scotland Act 2011<sup>10</sup> requires every public body to summarise their activities to meet this duty, through the production of a publicly available report.

#### **What actions have been taken to identify, protect and enhance biodiversity across your organisation?**

NHSGGC has worked with NatureScot to carry out UK Habitat Classification (UKHABs) surveys across its estate and now have a breakdown of the different habitat types present on sites with greenspace greater than 0.2 hectares. This information forms an integral part of the wider mapping exercise being undertaken, which aims to provide better baseline information about the natural value and diversity of the land NHSGGC owns. In turn, this will be used to identify areas in need of protection and enhancement and those with potential to contribute to wider natural networks. Building upon the UKHABs survey work, the Sustainability Team is in the early stages of developing a Biodiversity Action Plan (BAP) for NHSGGC. This will provide a framework for conserving and enhancing the Board's biodiversity and will set out a range of objectives, based on identified biodiversity priorities.

Internally, NHSGGC has improved partnership working on greenspace and biodiversity by enhancing the role of the Greenspace and Biodiversity Working Group. This group actively promotes greenspace and biodiversity projects across different sites and departments and plays an important role in allocating dedicated funding for these projects.

Externally, NHSGGC is working with key partners and stakeholders to protect and enhance biodiversity across the city region and beyond. This includes active participation in local and national initiatives, such as the Sustainable Glasgow Greening the City Hub and the National Greenspace and Biodiversity Group. We are also working to identify partnership projects with local authorities, community groups and other relevant parties. For example, we are currently working with the third sector at Shields Health Centre to promote the development of community gardens on the site and to increase participation in therapeutic gardening and food growing activities. NHSGGC is also working with Glasgow Caledonian University (GCU) on a research collaboration that will identify how NHSGGC can

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<sup>8</sup> [State of Nature 2023 - report on the UK's current biodiversity](#)

<sup>9</sup> [Nature Conservation Scotland Act 2004](#)

<sup>10</sup> [Wildlife and Natural Environment Scotland Act 2011](#)

improve its approach in key areas such as renewable energy generation, climate change adaptation and sustainable procurement practices, all of which have an impact on greenspace and biodiversity at the local and global levels.

**What actions have been taken to contribute to the NHSScotland Estate Mapping programme, or to develop an internal mapping programme?**

NHSGGC has completed its contribution to the NHS Scotland estate mapping programme working with Public Health Scotland to confirm the boundaries of NHSGGC's outdoor estate. As part of this exercise Public Health Scotland also calculated the percentage of our overall estate which is green and open space. This was verified at 62%, which is the second highest in Scotland. We are now working with Public Health Scotland and other bodies to enhance this information and apply it to our greenspace and biodiversity strategy and development, as detailed above.

A key element of this development work is NHSGGC's membership of the short life working group on the integration of greenspace data with the asset management (SAMS) system. This group was established to investigate the potential for adding greenspace data to property information on the SAMS system as a means to both recording and tracking greenspace resources and raising awareness of higher value greenspace in the management of the Board's estate.

**What actions have been taken to mainstream biodiversity across the organisation?**

As noted above, following the UK Habitat Classification survey work that has been undertaken, NHSGGC is working in partnership to identify sites within our ownership that could be strategically important in terms of grassland and woodland networks around Greater Glasgow. This information, along with the habitat survey data and our own estate mapping, will be used to inform decisions about which biodiversity and greenspace interventions are most appropriate and where these might have the greatest impact. The development of a BAP for NHSGGC will also play an important role in this process, as outlined above.

NHSGGC has developed a Climate Change and Sustainability Strategy 2023 – 2028. This provides a framework for mainstreaming sustainability, including biodiversity issues, into the policies and actions of the Board. Greenspace and biodiversity targets are now also included as core activities within the NHSGGC Annual Delivery Plan, meaning that NHSGGC are required to report on progress in meeting these targets on an annual basis.

**How have nature-based solutions been utilised to address the climate and biodiversity emergencies?**

NHSGGC Endowments block grant funding has been made available specifically for green and open space projects across the Board. Funding decisions are made based on several criteria, including how the project proposal will preserve or enhance biodiversity. Examples of funded projects include tree and bulb planting, the inclusion of wildflower and pollinator friendly species within garden projects and the development of new and biodiverse green spaces on sites that were previously hard landscaped or species poor. The introduction of this block grant has raised awareness of the benefits

of greenspace across clinical and non-clinical areas and has increased the number of greenspace projects undertaken.

Elsewhere in the Board estate, the Estates and Facilities Directorate has used Sustainable Urban Drainage Systems (SUDs), such as the attenuation pond at the Queen Elizabeth University Hospital, to help address climate change related flooding.

As noted above, one focus of the research collaboration with GCU will be to assist with the development of the Board's approach to climate change adaptation. It is anticipated that further expansion of green and open space project activity across the Board's estate will be an important part of this, together with a review of opportunities for nature-based solutions within NHSGGC's estate.

### **What actions have been undertaken to raise awareness, engagement and understanding of biodiversity and nature?**

The Sustainability Team have engaged directly with NHSGGC's Communications Office to develop a Communications Delivery Plan and to raise awareness of greenspace and biodiversity projects across the Board area. Some examples of these projects are given in the greenspace table below. NHSGGC also makes use of the staff intranet and website to raise awareness of national and international campaigns such as Love Parks Week, Climate Week and Earth Day.

Volunteers within NHSGGC are engaged in several greenspace and biodiversity roles, including maintenance and development of garden areas and food growing initiatives. This provides invaluable knowledge and experience for the volunteers and helps to raise awareness of greenspace and biodiversity issues amongst patients, staff, and visitors, through contact with the spaces and the volunteers that work there.

### **What surveys, monitoring or assessment of biodiversity have been undertaken? If you have – have systems been developed to continue monitoring long-term?**

In addition to the survey work mentioned above and progress with the BAP, NHSGGC is currently undertaking a high-level assessment of the carbon sequestration potential of our greenspaces. This data will be used to support the development and preservation of greenspace and biodiversity projects across our estate. NHSGGC has also identified a need to quantify progress in improving biodiversity through monitoring of, for example, hectares of quality greenspace across the board and numbers of species before and after the implementation of projects or policies. SMART (Specific, Measurable, Achievable, Relevant, Timed) objectives will be developed in this respect, once a more detailed picture is provided of quantity, quality, and variety in the NHSGGC outdoor estate. The Board intends to work in partnership with others to complete the mapping process and to develop appropriate monitoring targets and tools.

## 8.2. Greenspace

The design and management of the NHSScotland green estate for human and planetary health, offers an opportunity to deliver a range of mutually beneficial outcomes. These include action on climate change (both mitigation and adaptation), biodiversity, health and wellbeing for patients and staff, community resilience building and active travel.

The table 17 outlines NHSGGC's key greenspace projects and their benefits.

**Table 18: NHSGGC Greenspace Projects**

Project name/location	Benefits of project	Details of project
RHC (Royal Hospital for Children) – Elsewhere Garden	<ul style="list-style-type: none"> <li>• Climate change adaptation</li> <li>• Climate change mitigation</li> <li>• Biodiversity</li> <li>• Health and wellbeing</li> </ul>	Royal Hospital for Children, Teapot Trust, and Semple Begg Designers collaborated to relocate the Elsewhere Garden from Chelsea Flower Show to the RHC children's play area to enhance the area for patient and family respite
Leverndale Hospital - Phase 2	<ul style="list-style-type: none"> <li>• Climate change adaptation</li> <li>• Climate change mitigation</li> <li>• Biodiversity</li> <li>• Health and wellbeing</li> </ul>	Phase 2 of Design in the Vale where access to improved outdoor space, greenspace and artwork benefit patients and staff
QEUH - AMB Gro Garden	<ul style="list-style-type: none"> <li>• Climate change adaptation</li> <li>• Climate change mitigation</li> <li>• Biodiversity</li> </ul>	Semi-permanent structures created with wildflower meadows on brownfield land to encourage access to a relaxing outdoor space on a bustling site. Promoting a quiet and reflective space to practice mindfulness and decompress through for staff, patients, and visitors



	<ul style="list-style-type: none"> <li>• Health and wellbeing</li> </ul>	
GRI Medicinal Garden/Biodiversity Garden	<ul style="list-style-type: none"> <li>• Climate change adaptation</li> <li>• Climate change mitigation</li> <li>• Biodiversity</li> <li>• Health and wellbeing</li> </ul>	Small garden areas at GRI that offer sensory stimulation and quiet contact with nature amongst the medicinal plants and small wildflower meadow.
Leverndale - Food growing	<ul style="list-style-type: none"> <li>• Climate change adaptation</li> <li>• Climate change mitigation</li> <li>• Biodiversity</li> <li>• Health and wellbeing</li> </ul>	Polycrub (polytunnel) to be installed to encourage local food growing and green prescribing on site
Inverclyde Royal Hospital	<ul style="list-style-type: none"> <li>• Biodiversity</li> <li>• Climate change mitigation</li> <li>• Health and wellbeing</li> </ul>	Refurbishment of the garden space at the Langhill ward to encourage more active use of the garden and to develop a more stimulating and biodiverse environment for patients, staff, and visitors.
RAH – NHS Forest and spring bulb planting	<ul style="list-style-type: none"> <li>• Climate change adaptation</li> <li>• Climate change mitigation</li> <li>• Biodiversity</li> <li>• Health and wellbeing</li> </ul>	<p>Planting of 300 saplings and 17,000 bulbs (native species) around the grounds at RAH. This will enhance biodiversity on the site and improve the external environment of the hospital for the benefit of patients, staff and visitors.</p> <p>Planting trees and bulbs can have a positive impact on soil structure and fertility and may help to bind soil during the increased levels of rainfall expected as the climate changes.</p>

## 9. Sustainable Procurement, Circular Economy and Waste

In 2022, an assessment was undertaken using CO2A Analysis Tool which noted the greenhouse gases produced in creating the goods and materials used by NHSGGC are estimated to be **380,000** tonnes of CO2 equivalent every year.

NHSGGC aim to reduce the impact that our use of resources has on the environment through adopting circular economy principles, fostering a culture of stewardship and working with other UK health services to maximise our contribution to reducing supply chain emissions to net-zero by 2045.

### **What did we do in 2024/25 to reduce the environmental impact of and the quantity of the goods and services we buy?**

NHSGGC embedded sustainability within local tendering activity by ensuring; sustainability requirements are built into contract selection and/or award criteria, whole lifecycle costing methodology is used in commercial criteria where appropriate and maximised the use of sustainability aspects within tender scoring criteria where appropriate.

Procurement Officers within Procurement and devolved Departments have undertaken Procurement Climate Literacy Training and are aware of Scottish Government Sustainable Procurement Tools. NHSGGC also participated in the National Green Theatres Programme Team, blending output into ongoing activity, such as the reduction of wastage from incorrect Medical Examination Glove usage.

NHSGGC works in conjunction with National Procurement to ensure key environmental strategies are implemented through contract implementation and activity. For example, in Quarter 3 of 2025 implementation of the Healthcare Waste (Sharps bins) contract will yield a 20% reduction in plastic usage in this high volume usage area, with all bins made from a minimum of 40% recycled content.

The Key Supplier Management programme undertaken by the procurement department's commercial teams allows additional engagement with all key providers on a quarterly basis. Sustainability is embedded into the standard agenda of the meeting, where packaging reduction promote key supplier alignment with the Health Boards 5 year Sustainability Strategy (2023- 2028) and allows procurement officers to work in conjunction with the key supply base to ensure partnership working on key measurable outcomes.

The Warp-It service is run by the Procurement team, allowing the re-use of surplus and donated equipment as opposed to buying new. The Table 18 below illustrates the management information from the system shows activity over the last 3 year period which can fluctuate based on donations and internal demand.

**Table 19: Warp-It Benefits**

Benefit	2022/23	2023/24	2024/25
Financial Avoided Cost	£164,506	£187,045	£132,160
Carbon Saving	74,522kg	64,524kg	56,356kg
Total Waste Saved	22,500kg	22,047kg	19,356kg
Cars Off The Road	9	11	8
Trees Equivalent	37	55	32

### What are we doing in 2025/26 to reduce the environmental impact of the goods and services we buy?

Key national medical contracts for Medical Examination Gloves and Walking Aids will be implemented to increase resource efficiency. The deposit return of walking aids- crutches, zimmers etc. will be reintroduced after being halted due to the risks of the covid pandemic.

The Key Supplier Management process will be developed with regular reviews taking place of its sustainability initiatives and tracking of owners/progress.

Cross collaborative work will be encouraged with sustainability leads attending key supplier meetings where sustainable activity is critical.

Significant relationship building has occurred on the General Waste GGC contract- collaborative work with National Procurement and GGC Sustainability leads will continue and help achieve the Health Boards sustainability objectives.

GGC aims to reduce the amount of waste it produces and increase how much of it is recycled. Table 19 sets out information on the waste produced and how it was managed, for the last four years.

**Table 20: Waste Production**

Type	2021/22 (tonnes)	2022/23 (tonnes)	2023/24 (tonnes)	2024/25 (tonnes)	Percentage change – 2021/22 to 2024/25
Waste to Landfill	0	0	0	0	0
Waste to incineration	5,255	5,048	5,221	5,298	+0.82% ↑
Recycled waste	916	971	1,148	1,229	+34.17% ↑
Food waste	385	280	329	328	-14.70% ↓
Clinical waste	5,915	5,530	6,107	6,232	+5.31% ↑

Targets have been set to reduce the amount of waste produced and the tables below provide information on NHSGGCs performance against those targets.

**Table 21: Domestic Waste Targets**

<b>Reduce domestic waste by a minimum of 15%, and greater where possible compared to 2012/2013 – by 2025</b>	
Target – reduce domestic waste by	1,052 (tonnes)
Performance – domestic waste reduced by	1,628 (tonnes)
Outcome	ACHIEVED
Further reduction required	N/A
<b>Ensure that no more than 5%, and less where possible, of all domestic waste is sent to landfill – by 2025</b>	
Target – reduce waste sent to landfill by	343 tonnes
Performance – waste sent to landfill reduced by	0
Outcome	ACHIEVED
Further reduction required	N/A

**Table 22: Food Waste Targets**

<b>Reduce the food waste produced by 33% compared to 2015/16 – by 2025</b>	
<b>*No baseline data for 2015/16 was available. Earliest baseline available was established at 359 tonnes in 2020/21</b>	
Target – reduce food waste by	118 (tonnes)
Performance – food waste reduced by	35 (tonnes)
Outcome	NOT ACHIEVED YET
Further reduction required	83 (tonnes)

**Table 23: Domestic Recyclable Waste Targets**

<b>Ensure that 70% of all domestic waste is recycled or composted – by 2025</b>	
Target – recycle or compost	4,799 (tonnes)
Performance – recycled or composted	1,557 (tonnes)
Outcome	NOT ACHIEVED YET
Further increase required	3,241 (tonnes)

## **What did we do in 2024/25 to reduce our waste?**

We continued with our Waste Champions programme. These champions play a key role in promoting effective waste management by leading change on the ground. They help colleagues understand and follow correct disposal practices, reduce contamination, and encourage sustainable habits. Acting as a link between front line colleagues and the sustainability team, they share feedback and practical solutions, supporting both environmental and financial goals. By turning policy into everyday action, Waste Champions make waste reduction more effective and sustainable.

Recycling in theatres and renal departments was expanded to allow capture of High-Density Polyethylene (HDPE) plastics, where previously these would be part of the clinical waste stream. They are segregated at ward level then transported to the waste yard where they get collected by contractors generating revenue. In FY 24-25, 5 tonnes of HDPE bottles were diverted from clinical waste bags, saving c£3k and avoiding 1.4 tonnes of CO<sub>2</sub>e emission.

A procurement exercise was run to secure a new Residual Waste and Recycling Contract; we explored market options and stipulated contractual conditions which would enable NHSGGC to expand recycling throughout the board.

Pre-acceptance audits help identify clinical waste areas with poor segregation and highlight opportunities for improvement.

The Watch Your Waste campaign educated our staff on the importance of proper waste management and segregation.

A dashboard was created showing real-time waste data for all sites, empowering managers to take ownership of waste and drive improvements on their sites.

## **What are we doing in 2025/26 to reduce our waste?**

NHSGGC has started a new residual waste and recycling contract. This marks a significant shift from the previous contractor's zero-tolerance policy, which had been a barrier to improving recycling rates. To take advantage of the favourable contract conditions, we are rolling out Dry Mixed Recyclate infrastructure throughout our sites.

The Waste Team is working closely with site Facilities to improve the logistics of transporting waste from buildings to service yards to improve recycling efficiency and to reduce associated costs.

A Standard Operating Procedure (SOP) is being developed to provide clearer guidance to external contractors on waste segregation, ensuring compliance and minimising risks.

With the new Sustainability and Environmental Manager starting in June 2025, progress has been made in developing an Environmental Management System (EMS), which will be crucial for managing waste and meeting statutory audit requirements set by SEPA.

We continue to deliver training to both clinical and non-clinical staff, enhancing waste management practices across the Board. This programme continues to run, introducing and reinforcing best practice waste management. We will continue to promote waste reduction through our Communications Delivery Plan and work with the comms team to promote good practice and awareness events such as Recycle Week and Climate Week.

## 10. Environmental Stewardship

Environmental stewardship refers to the responsible use and protection of the natural environment through sustainable practices. NHSGGC intends to take proactive, accountable actions to safeguard the environment while balancing social and economic needs.

This includes managing any activities which may adversely impact on land, air and water, either through the unsustainable use of resources or the generation of waste and pollution. Having an Environmental Management System (EMS) in place provides a framework that helps to achieve environmental goals through consistent review, evaluation, and improvement of our environmental performance.

### **What steps did we take in 2024/25 to develop and implement our EMS?**

Progress in developing and implementing the EMS during 2024/25 was limited; however, the Sustainability Team delivered improvements where possible. The team migrated EMS documentation from a local network drive to SharePoint to enable better document organisation and strengthen document control. A comprehensive GAP analysis and SWOT analysis were completed to identify weaknesses in the existing EMS and prioritise areas for development.

The team also introduced Q-Pulse software to support EMS delivery by providing stronger document control and improved tracking of audit actions and reporting requirements. Persistent software issues throughout 2023/24, however, prevented full implementation across the directorate, and alternative solutions are now being explored.

### **We have fully implemented EMS to ISO14001 standard at the following sites:**

NHSGGC's EMS has been established, aligned to ISO14001. The Sustainability Team is now working to fully implement the EMS, across all NHSGGC acute sites. It had not been implemented in full, at any of the acute sites in 2024/2025.

### **What steps will we take in 2025/26 to further develop and implement our EMS?**

Increased resourcing within the Sustainability Team with the new Sustainability and Environmental Manager starting in June 2025 will enable the team to progress the development of the EMS. An EMS document task list will be created to catalogue all documents and reports, supporting effective management of reporting cycles and review requirements. A document-referencing system will be introduced, assigning each document a unique identifier to streamline retrieval and ensure consistency. All existing EMS documents will be reviewed for accuracy, and new documents will be developed where required.

A Sustainability Communications Delivery Plan has been produced for FY 25/26, setting out communication objectives and planned activities, including awareness events such as Climate Week

and best-practice guidance. This will involve close collaboration with Communications and other directorate teams to coordinate messaging and identify opportunities for joint engagement.

Risk and opportunities at various levels across the organisation have been identified, assessed and documented. The high level corporate risk has been revised and re-scored to align with the new NHSGGC Risk Framework.

The Sustainability Team will continue its internal assurance programme for waste and the two Pollution Prevention and Control permits at the Queen Elizabeth University Hospital (QEUH) and Glasgow Royal Infirmary (GRI) to support ongoing compliance with permit conditions. Environmental site reviews across all acute sites will be introduced in 2026.

### **What did we do in 2024/25 to reduce our environmental impacts and improve environmental performance?**

A mock audit was undertaken with Q-Pulse to get a better understanding of how it could be utilised at its full capacity. This included developing corrective action processes and audit checklists. Development of key documentation for the EMS commenced, such as legal registers, aspect & impact registers and audit programmes.

The Sustainability Team continued to grow with one new Assistant Sustainability Officer, members of the team also completed ISO 14001 and ISO 9001 internal auditor courses, in preparation for carrying out environmental audits.

The annual student placement partnership with Glasgow Caledonian University continued, recruiting a student for 3 months to work within the Sustainability Team. This placement scheme allows students to get experience within the environmental industry and support their studies and future career.

### **What are we doing in 2025/26 to reduce our environmental impacts and improve environmental performance?**

Environmental performance is expected to continue improving as the Environmental Management System (EMS) develops. Site Environmental Reviews are planned for each hospital site within NHSGGC to establish an environmental baseline and identify risks at each location in relation to all areas of sustainability including energy, travel and transport, greenspace and more. Additionally, an Environmental Site Inspection programme is planned for all hospital sites to assess compliance with standards and environmental regulations. These inspections will help identify necessary corrective actions, support performance improvement, and reduce environmental impacts.

The Sustainability Team will also continue to work within the internal audit programme and undertake annual audits for our Pollution Prevention Control permits at Queen Elizabeth University Hospital (QEUH) and Glasgow Royal Infirmary (GRI) to ensure permit compliance.

A training programme is also being developed to provide staff with sessions on various environmental topics, including handling environmental incidents such as spills, air pollution, and habitat damage or disturbance. The purpose of this training is to increase awareness of potential environmental impacts associated with the sites and to instruct staff on appropriate corrective measures and response



procedures, including the use of toolbox talks where applicable. A Sustainability Communication Delivery Plan will be produced to highlight key environmental awareness days and set out a detailed schedule for comms pieces helping to raise awareness and increase engagement with a wide range of sustainability aspects.

An external audit of the NHSGGC Sustainability and Climate Change Strategy 2023-28 is planned for 2025/26 to identify gaps in our strategy and reporting requirements associated with the strategy.

**What factors have prevented implementation of EMS to ISO14001 Standard for any sites in NHSGGC's estate which have not yet reached that standard?**

Staffing challenges affected the team's ability to implement changes at the beginning of 2025; these challenges have since been addressed, allowing significant progress on EMS development. Technical and software issues with Q-Pulse have impacted system advancement and EMS progress but the team has now established an alternative system and hope to expand this to cover the tracking of audit findings.

It is worth noting that while NHSGGC believes an EMS provides a useful framework for structuring sustainability work, formal certification is not considered a priority. The focus should remain on reducing the environmental impact of significant aspects rather than aligning documentation to meet the requirements of a specific standard. By using the EMS as a guiding tool, rather than a certification-driven process, meaningful action will be prioritised, resources will be directed where they deliver the greatest environmental benefit, unnecessary administrative burden avoided.

## 11. Sustainable Construction

Where there is a need for new healthcare facilities, we want both the buildings and grounds to be safe, nature-rich, sustainable, resilient and accessible. By choosing sustainable construction methods, NHS Greater Glasgow and Clyde can lessen environmental impact, boost resilience, and help create healthier settings for patients and staff. In addition to approximately 53 refurbishment projects NHSGGC has worked on the following building projects in FY 24/25:

### **Primary Care Centre at Dargavel/Bishopton**

This project was completed in September 2025 as part of the Dargavel masterplan. The building was designed with focus on embodied carbon and is fully compliant with new SDAC guidance. Key aspects of the design include:

- Enhanced insulation and triple glazing throughout;
- Natural ventilation where applicable;
- Enhanced air permeability rating of 2m<sup>3</sup>/m.m<sup>2</sup>@50Pa;
- 25kWp of photovoltaic panels on roof;
- Heating via air-source heat pumps;
- Point of use water heaters to minimise overheating;
- 2 EV charging points; and
- Total Embodied Carbon to be <600kgCO<sub>2</sub>/m<sup>2</sup> or better.

### **Glasgow North East Hub**

This project opened to the public in February 2025 and the final phase to add car parking is due for completion in December 2025. Key aspects of the design include:

- Enhanced insulation and triple glazing throughout;
- Natural ventilation where applicable;
- Enhanced air permeability rating of 2m<sup>3</sup>/m.m<sup>2</sup>@50Pa;
- 75kWp of photovoltaic panels on roof;
- Heating via air-source heat pumps;
- Point of use water heaters to minimise overheating;
- 34 EV charging points; and
- Total Embodied Carbon to be <600kgCO<sub>2</sub>/m<sup>2</sup> or better.

### **Radionuclide Dispensary Relocation**

This project will provide a specialist pharmaceutical manufacturing facility and is due for completion in Q3 of 2026. The building is designed with focus on embodied carbon and is fully compliant with new SDAC guidance. Key aspects of the design include:

- Enhanced insulation and triple glazing throughout;
- Natural ventilation where applicable;
- Enhanced air permeability rating of 0.6m<sup>3</sup>/m.m<sup>2</sup>@50Pa;
- 100m<sup>2</sup> of photovoltaic panels on roof;
- Heating via air-source heat pumps;

- Point of use water heaters to minimise overheating;
- 4 EV charging points; and
- Total Embodied Carbon to be <600kgCO<sub>2</sub>/m<sup>2</sup> or better.

### **What did we do in 2024/25 to make our construction projects more environmentally sustainable?**

NHS Scotland has released the Sustainable Design and Construction (SDaC) Guidance<sup>11</sup> which NHSGGC intend to use on projects going forward. The guidance offers practical advice on the sustainable design, building, and renovation of health and social care facilities and covers procedures, strategies, and key factors for achieving sustainable performance. It also includes supporting standards, links to best practice case studies, references to major industry frameworks and methodologies, as well as detailed sustainability targets.

### **What are we doing in 2025/26 to make our construction projects more environmentally sustainable?**

NHSGGC will create and implement a sustainable capital projects strategy to ensure that all new construction and major renovations maximise sustainability benefits, including addressing climate change and aiming for net-zero emissions.

A process for thorough Buildings Performance Evaluation will be established during both design development and post-project stages and findings will be shared with relevant stakeholders.

NHSGGC will develop a methodology to assess buildings for sustainability performance when leasing or procuring properties and apply this to future projects.

NHSGGC will continue to explore opportunities for waste reduction, operational streamlining, increased efficiency, circular economy initiatives, and cost savings.

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<sup>11</sup> [Sustainable Design and Construction \(SDaC\) Guidance from NHS Scotland](#)

## 12. Sustainable Communities

The climate emergency undermines the foundations of good health and deepens inequalities for our most deprived communities.

The NHS touches every community in Scotland. We have a responsibility to use our abilities as a large employer, a major buyer, and one of the most recognised brands in the world – an ‘anchor’ organisation – to protect and support our communities’ health in every way that we can.

### **What are we doing to act as an anchor institution for our local community / communities?**

NHSGGC recognises its significant influence on the health and wellbeing of local communities, not only through the provision of care and treatment but also as a major employer, purchaser, and holder of land and assets. As a key Anchor Institution, NHSGGC is committed to leveraging resources to address the social, economic, and environmental determinants of health and to reduce inequalities across the region.

NHSGGC’s contribution to Community Wealth Building (CWB) is structured around four strategic pillars:

#### **Employability and Workforce**

Strengthening pathways into NHS employment, and to work collaboratively with Local Employability Partnerships (LEPs) in all six local authorities to support individuals in local communities into meaningful employment. In 2024/25, efforts focused on four key themes:

- **Apprenticeships:** A graduation event in September 2024 celebrated 42 apprentices transitioning into substantive roles to continue their careers in NHSGGC. Two job coaches were appointed to support young people in apprentice roles. The first NHSGGC apprentice survey (November 2024) informed future planning, and our February 2025 pathways event welcomed 575 senior phase pupils. Graduate Apprenticeships in Business Management have expanded to support internal upskilling, aligning with NHSGGC workforce plan.
- **Academy Programmes:** Two programmes were delivered and reviewed to align with Healthcare Support Worker career pathways.
- **Careers Promotion:** “Get Ready” programmes continue to provide senior pupils with access to careers in nursing, podiatry, physiotherapy, and medicine.
- **Partnership Working:** Deepened collaboration with Local Employability Partnerships, Motivation Commitment and Resilience Pathways mentoring programme, and the King’s Trust. Visibility at job fairs and STEM events has increased and has been supported by Facilities and Admin service leads. The Board has actively participated in national initiatives such as Scottish Careers Week and Scottish Apprenticeship Week.

#### **Procurement**

NHSGGC supports local SMEs (Small and Medium Enterprises), social enterprises, and supported businesses and encourages Community Benefits which support health and wellbeing of the most vulnerable groups in our communities. In 2024/25, it delivered its second Procurement Development

Project in partnership with the Supplier Development Programme and Public Health. Outcomes included:

- Training and awareness sessions delivered to suppliers and third sector organisations (TSOs) increased engagement with the NHS Community Benefits Gateway, resulting in a rise in approved submissions from TSOs —from 7 in 2023/24 to 28 in 2024/25.
- New Contract Supplier Management Process was introduced by the Procurement team, making Community Benefit Gateway updates a standard agenda item in meetings with key suppliers across the four commercial streams.
- Partnership working between SDP, Procurement, Public Health, Third Sector Interface, Glasgow Council for Voluntary Sector and other stakeholders has been enhanced. This partnership approach has now become embedded into current practice and SDP membership was renewed. NHSGGC continue to engage existing and potential suppliers on tender and procurement opportunities such as local and national “Meet the Buyer” events and through “Talking Tenders” sessions to increase suppliers' awareness and capacity for NHS tenders.
- The NHSGGC Procurement Strategy 2025–2028 emphasises corporate social responsibility, with a community benefit clause in local contracts and a target of 14% local supplier spend for 2025/26.

### **Land and Assets**

NHSGGC is committed to the socially productive use of its land and assets, promoting green spaces, biodiversity, and arts projects co-produced with members of the community. Highlights during 2024/25 include:

- Opening of Parkhead Hub which is an integrated community hub hosting a range of health and social work services, bookable community meeting rooms, Glasgow Life Library, café, and co-locating other community organisations and services. It's an excellent example of productive use of NHS land, implementing an Arts Strategy with significant community involvement, and a strong Community Benefits approach including education programme, construction work academy, well-being programme, community and volunteering programmes.
- Clydebank Health Centre won in two categories at Building Better Healthcare Awards in November 2024: ‘Best Healthcare Development under £25 Million’ and ‘Best Collaborative Arts Project (static)’. The project was recognised for creating a positive, supportive, and therapeutic environment for patients, visitors, carers and staff with bright and engaging spaces.
- Greenspace and Arts projects: NHSGGC leads for Anchors, Arts and Health, and Greenspace have been working collaboratively through NHSGGC CWB Group and Greenspace and Biodiversity Working Group to identify funding, deliver numerous projects at our sites, share good practice, and contribute to national groups.

### **Strategic Partnerships**

As a key Anchor organisation, NHSGGC plays a significant role in regional initiatives to promote Fair Work and inclusive growth. During 2024/2025 partnership work included:

- Glasgow City Region Anchor Accelerator Summit: This biannual event brings together senior leaders from Anchors organisation in the public, private, and third sector to share learning and coordinate joint actions to drive strategic improvements across the region.
- Capital Investment Health Impact Assessment (CHIA): The CHIA is a resource developed to support project officers to maximise the population health and wellbeing outcomes and mitigate inequalities in capital investment decisions. NHSGGC have been an important partner in the tool development and launch and supported training delivery ahead of the CHIA tool being piloted in 2025/26.
- Making Glasgow City Region a Living Wage Place: NHSGGC is a key partner of GCR Living Wage Place Action Group. A three-year campaign was launched in November 2024, NHSGGC contributed to development of action plans and supporting the group to achieve its targets.

### Strategic Framework and Governance

Our Anchor activity is guided and supported through:

- **Anchor Strategic Delivery Plan 2023–2026**, which outlines our ambition to use our workforce, expenditure, and land and assets to improve community wellbeing and reduce health inequalities.
- **Benchmarking and annual reporting:** NHSGGC has completed an Anchors benchmarking process, utilising Public Health Scotland’s progression framework “Harnessing the power of anchor institutions”. Action plans have been developed from this to enable the organisation to continuously improve. Progress is monitored via annual reporting of key anchor metrics to Scottish Government.
- **Communications:** National Communication resources have been launched by Public Health Scotland in Summer 2024 which include an animation and infographics. These have been used for awareness raising sessions at health improvement forums. NHSGGC Communications Team has been tasked with developing a Comms Plan for internal and external Anchor and Community Wealth Building messaging to promote good practice.

### What are we doing to improve the resilience of our local community / communities to climate change?

NHSGGC improves the resilience of our local communities to climate change by implementing and supporting a range of strategies and programmes including:

- **Active Travel Initiatives:** Including cycle-to-work schemes, annual travel ticket scheme, and providing the infrastructure on NHSGGC sites for secure storage for bikes, and showering facilities
- **Food Systems:** Supporting Glasgow food plan & developing NHSGGC contribution through our own Food Plan as a key delivery partner. Glasgow City Food Plan is a holistic 10-year plan aiming for Glasgow to be recognised for its good food and as a city where nutritious, healthy, affordable food is accessible to everyone. The plan has 6 themes and is based around 3 overarching pillars – Equity, Sustainability and Health.
- **Greenspace Leadership:** A dedicated Greenspace Officer within the Sustainability Team leads efforts to enhance environmental resilience across our estate and within our communities.

Through our work on Community Wealth Building, NHSGGC continue to explore opportunities to develop our role as an Anchor organisation and to encourage staff throughout the organisation to consider how they can develop initiatives within their own services.



## 13. Conclusion

The inclusion of Climate Change and Sustainability in the Board Delivery Plan and the increased emphasis in the 2024/25 Annual Accounts is strengthening awareness and understanding of this emerging corporate priority. Embedding the climate action agenda through collaboration with teams such as HR, Communications, Learning & Development, and Finance is central to promoting awareness, providing training, and advancing objectives. Progress is overseen through the Sustainability Governance Framework, which enables subject-specific delivery groups to empower stakeholders to drive action across key priority areas:

- Energy Management;
- Waste Management & Circularity;
- Transport and Active Travel;
- Green Theatres;
- Environmental Management; and
- Greenspace & Biodiversity

Monitoring and measuring progress against Delivery Planning objectives and Annual Disclosures is now an integral part of NHSGGC's wider risk management approach and decision-making for sustainability and value objectives. Where appropriate, NHSGGC engages with external partners, including the Sustainable Glasgow Charter and Glasgow Caledonian University, to explore innovative approaches and technologies and collaborate on opportunities beyond routine operations.

During 2024/2025, NHSGGC made significant progress and established a strong foundation for further development. The Board continues to enhance its sustainability approach through the development of clear strategies, delivery plans, governance structures, and strengthened stakeholder engagement. By embedding consistent processes and fostering collaboration across the organisation, NHSGGC aims to further advance its sustainability agenda, delivering increasingly robust and transformative outcomes in support of sustainable healthcare.