

**Annual Climate Emergency**

**and Sustainability Report**

**2022/23**

**January 2024**

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1. Foreword from Harriet Campbell

As the Sustainability Champion for NHS Borders, it is my privilege to introduce this annual report.

The climate crisis affects everyone, both those who work directly with, or rely upon, the services of NHS Borders, as well as the wider population of the Scottish Borders, Scotland and the world.

We are committed to meeting our obligations to plan for and mitigate the impact of climate change. In doing so we want to be open with our stakeholders, sharing information on the impact of our activities and the effectiveness of our actions. This report is our way of sharing information and we welcome feedback on how this can be improved in future.

This past year we have seen some real successes in reducing our carbon emissions from building energy, our use of medical gases and the amount of waste we produce. We have also made significant efforts to improve the quality and comprehensiveness of our reporting. This has meant that in some cases our previous reported figures have been amended. Where this is the case we have ensured that this is highlighted within the report.

This report covers the year from April 2022 to March 2023. As such it is a ‘snapshot’ of a point in time. Some key milestones achieved in 2023 include the development of our Climate Change Action Plan, Net Carbon Roadmap and Climate Change Adaptation Plans. Although not concluded within the timeframe of this report, work on these plans began during 2022/23.

I am particularly delighted to report that NHS Borders has recently been awarded a grant of just under £2m from the Scottish Central Government Energy Efficiency Grant Scheme which will help us to undertake the necessary changes to our buildings to reduce our emissions. This investment provides a significant step towards the delivery of our Net Carbon Roadmap, and we will continue to report on progress as we implement the measures set out in the plan.

Of course, the benefits brought by these changes will continue long into the future and are a key step in ‘green-ing’ NHS Borders’ Estate. There is much work still to be done and we recognise that despite the overall improvement there are areas in which our emissions have increased.

While we at NHS Borders are beginning to do what we can to reduce our impact on the environment, I’m also excited to report on the work underway with our partner organisations. Our work with Scottish Borders Council will help us to develop joint plans supporting greener and healthier travel for our staff, patients and visitors.

We are also blessed in the Borders with our many green spaces, and our work in this area will not only promote the environmental agenda but also support individuals’ mental and physical health to their benefit and the benefit of the wider community.

Finally, I should express my thanks to the many, many, NHS Borders staff who individually work towards improving our environmental performance. I know that this is often beyond the duties of their day-to-day jobs and out of a sense of responsibility to the planet and their local community. I want them to know how much their efforts are appreciated. Every one of them is an invaluable part of this work.

We also really do welcome ideas and thoughts in this area so if people think there is more we could or should be doing, please do get in touch.

|  |  |
| --- | --- |
| *Harriet Campbell*  Non Executive Member, NHS Borders Health Board;  *Sustainability Champion* and  Chair of Organ & Tissue Donation Committee |  |

**Further information**

More information on NHS Borders and its activities can be found at the following website: [**nhsborders.scot.nhs.uk**](https://www.nhsborders.scot.nhs.uk/patients-and-visitors/)

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2. Introduction

This is NHS Borders second annual Climate Emergency and Sustainability Report. Our previous report, covering our activities for the year to March 2022, was published in February 2023.

The planet is facing a triple crisis of climate change, biodiversity loss and pollution because of human activities breaking the planet’s environmental limits.

The World Health Organisation recognises that climate change is the single biggest health threat facing humanity. Health organisations have a duty to cut their greenhouse gas emissions, the cause of climate change, and influence wider society to take the action needed to both limit climate change and adapt to its impacts. More information on the profound and growing threat of climate change to health can be found here: [www.who.int/news-room/fact-sheets/detail/climate-change-and-health](http://www.who.int/news-room/fact-sheets/detail/climate-change-and-health)

NHS Borders provides health care to the 116,900[[1]](#footnote-2) people who live in the Scottish Borders and employs 3,315 people. The region covers 1827 square miles at the southeast of Scotland. The Health Board has one district general hospital, four community hospitals and a range of primary care health centres and other community-based buildings across the region.

Throughout this report there are areas where we have amended our figures from last year to improve the accuracy and completeness of our emissions data. We are committed to ensuring that this data is both robust and transparent. These revisions ensure that we have the most realistic assessment of our overall position and will support us to set the ambitious targets necessary to support our Net Zero ambitions and allow us to monitor progress in future years.

3. Leadership and governance

NHS Borders recognises the importance of Leadership and governance in this area. The Health Board has appointed a non-executive member of our Board, Harriet Campbell, as our Sustainability Champion and our Director of Finance, Estates & Facilities, Andrew Bone, is appointed as Executive Lead officer.

The Climate Change & Sustainability Group has responsibility for developing the Board’s response to climate change and supporting NHS Borders in becoming environmentally sustainable. The group meets on a bi-monthly basis to ensure progress against its action plan is regularly monitored.

The Climate Change and Sustainability Group reports to the Quality and Sustainability Board, comprising the Board executive management team and senior management representatives from all business units. Updates are provided on a quarterly basis.

The Quality and Sustainability Board reports to the Health Board’s Resources & Performance Committee, which undertakes scrutiny of the Board’s strategic plans.

NHS Borders has dedicated both Board development time and Executive Leadership time to discuss this important agenda. Development and awareness sessions will continue with both the Board and Senior Leaders on a regular basis and sessions are planned for the full NHSB (NHS Borders) leadership team to enhance understanding.

A number of the Executive team lead key projects within their areas or expertise to support the Boards overall Net Zero ambitions.

4. Greenhouse gas emissions

NHS Borders 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 amount of greenhouse gas produced annually by NHS Borders.

NHS Borders did not set target emissions for 2022/2023 and 2023/2024. Targets are now being developed for 2024/25 and will be in place moving forward.

**Greenhouse gas emissions 2021/22 & 2022/23, tonnes CO2 equivalent**

| **Source** | **2021/22 – emissions** | **2022/23 – emissions** | **Percentage change – 2021/22 to 2022/23** | **2022/23 – target emissions** | **Percentage difference between actual and target emissions – 2022/23** |
| --- | --- | --- | --- | --- | --- |
| Building  energy | 7180.9 tCo2e | 5995.43  tCo2e | -16.5% | NA | NA |
| Non-medical F-gas use | Not Available | 391.06  tCo2e | - | NA | NA |
| Medical gases | 563.5  tCo2e | 535.7  tCo2e | -4.9% | NA | NA |
| Metered dose inhaler propellant | 1,903  tCo2e | 1,908.35  tCo2e | +0.28% | NA | NA |
| NHS fleet use | 248.472  tCo2e | 302.74 tCo2e | +21.84% | NA | NA |
| Waste | 159.88  tCo2e[[2]](#footnote-3) | 135.98  tCo2e | -15% | NA | NA |
| Water | 26.44  tCo2e[[3]](#footnote-4) | 26.91  tCo2e | +1.77% | NA | NA |
| Business travel | 376.05 tCo2e | 381.31 tCo2e[[4]](#footnote-5) | +1.39% | NA | NA |
| **Total greenhouse gases emitted** | **10,458.24**  **tCo2e** | **9677.48**  **tCo2e** | **-7.46%** |  |  |
| Carbon sequestration | Not Provided | Not Provided | Not Provided |  |  |
| Greenhouse gas emissions minus carbon sequestration | **10,458.24tCo2e** | **9677.48**  **tCo2e** | **-7.46%** |  |  |

5. Climate change adaptation

The climate is changing due to the greenhouse gases already emitted into the atmosphere. While efforts to reduce the rate and scale of climate change continue, we must also adapt to new conditions we are facing.

The changing climate is increasing risks for health and health services. More information on these risks in the UK can be found in the UK Climate Change Committee’s Health and Social Care Briefing available here: [www.ukclimaterisk.org/independent-assessment-ccra3/briefings/](http://www.ukclimaterisk.org/independent-assessment-ccra3/briefings/)

NHS Borders completed an Adaptation Risk Assessment in 2023. The main risks identified were in relation to changes to population needs (i.e. increased demand for healthcare services) and the adaptability of environmental controls within our estate (e.g. ventilation systems).

Risks outlined include more patients requiring admission due to the impact of the changing climate, e.g. during prolonged hot weather admissions relating to dehydration, heat stroke, breathing issues and cardiac issues could be anticipated; with further long-term issues relating to potential increase in skin cancers. We also identified wider societal impacts affecting population mental health, with specific concern regarding the isolation of small communities in rural locations.

We are considering actions to address both the direct and indirect impacts of climate change, identifying the adaptations required to our estate and buildings and ensuring that changes in future demand are considered in the development of our clinical strategies.

In relation to our buildings, we are aware of innovation in building design which offers opportunities to improve natural ventilation and cooling and we will ensure that these opportunities are considered for both our existing estate and new buildings developed in our long term property strategy.

The actions to address increased demand will be a collaborative approach between our clinicians, supported by our Public Health and Communications teams, to ensure residents of the Scottish Borders are engaged in the design of future service models and aware of the actions they can take to ensure that health services are both effective and efficient with regard to the impact that these services have on our environment.

As we further evaluate our Climate Change Risk Assessment, we will collaborate with appropriate teams to increase the resilience of our healthcare assets and services.

6. Building energy

We aim to use renewable heat sources for all the buildings owned by NHS Borders by 2038.

NHS Borders has thirty-nine buildings, across 19 sites, such as Borders General Hospital (Acute Hospital), Hawick Community Hospital, Galashiels Health Centre, and Newstead Offices.

In 2022/23, 5995.43 tonnes of CO2 equivalent were produced by NHS Borders use of energy for buildings. This was a decrease of 16.5%against the previous year.

In 2022/23, NHS Borders used 33,733,385kWh of energy. This was a decrease of 16.5% against the previous year.

In 2022/23, NHS Borders generated 1469 MWh of energy from renewable technologies.

**Building energy emissions, 2015/16, 2021/22 and 2022/23 – tCO2e**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2015/16 energy use** | **2021/22 energy use** | **2022/23 energy use** | **Percentage change 2015/16 to 2022/23** |
| Building fossil fuel use | 4681.3 tCO2e | 5226.2 tCO2e | 5220.2 tCO2e | +11.5% |
| District heat networks and biomass | 129.7 tCO2e | 83.2  tCO2e | 69.0  tCO2e | -47% |
| Grid electricity | 4340.6 tCO2e | 1871.5 tCO2e | 1659 tCO2e | -61.7% |
| **Totals** | **9151.6**  tCO2e | **7180.9** tCO2e | **6948.2**  tCO2e | **-24%** |

**Building energy use, 2015/16, 2021/22 and 2022/23 – MWh**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2015/16 energy use** | **2021/22 energy use** | **2022/23, energy use** | **Percentage change 2015/16 to 2022/23** |
| Building fossil fuel use | 22368MWh | 24363MWh | 24434MWh | +9.2% |
| District heat networks and biomass | 2860.6MWh | 1582MWh | 1439MWh | -50% |
| Grid electricity | 8739.6MWh | 8097.7MWh | 7860MWh | -10% |
| Renewable electricity | 2895MWh | 1612MWh | 1469MWh | -50%  \*PV estimated |
| **Totals** | **36863.2 MWh** | **35654.7**  **MWh** | **35202 MWh** | **-4.5%** |

In the last year to reduce emissions from building energy use we have carried out the following:

* Rolling replacement programme of fluorescent light fittings with LED (light emitting diodes) fittings (internal and external).
* Rolling replacement of inefficient boilers – Melburn Lodge, Kelso Hospital, Coldstream HC, Innerleithen HC
* Upgrading and maintenance of associated heating pipework insulation.
* Upgrades of heating pumps and associated equipment – Kelso, Knoll, Coldstream etc.
* Rolling replacement of laundry equipment – steam dryers (improved efficiency).
* Upgrade of AHU (MRI (Magnetic Resonance Imaging)- more efficient.
* Chiller unit upgrades – catering and laboratory.
* Upgrades to the Building Management System (BMS).
* Installation of water condensate recovery units.

This year to reduce emissions from building energy use we have committed to the following:

* Rolling replacement programme of fluorescent light fittings with LED fittings (internal and external)
* Rolling replacement of inefficient heating boilers – various locations.
* Rolling maintenance programme – extract roof fans (replace with efficient direct drive fans where possible).
* Replacement of 3 laundry washers with new efficient units (including water recovery systems).
* Pressure systems replacement - efficiencies in steam system.
* Condensate Units.
* Steam trap upgrades.
* Upgrades to BMS.
* Feasibility of new efficient fans being utilised for roof extraction and supply ventilation.
* Green theatres initiatives.
* Rolling programme of insulation upgrades (inclusive of insulation jackets).

Our longer-term plans to reduce to reduce emissions from building energy use are set out in our Net Zero Carbon Roadmap developed in 2023 and will include ongoing rollout of measures outlined above.

In 2023 were successful in bidding for £1.9m of capital investment funds from the Scottish Green Public Sector Estate Decarbonisation Scheme. Plans outlined in the bid cover schemes such as Fan/pump efficiency upgrades, LED lighting, insulation projects, solar PV, sub-metering etc. Appointment of contractors to undertake the programme of works outlined in our bid is currently underway and it is expected that delivery of the plan will be undertaken in 2024 and 2025.

7. Sustainable care

The way we provide care influences our environmental impact and greenhouse gas emissions. NHS Scotland has three national priority areas for making care more sustainable – anaesthesia, surgery, and respiratory medicine.

8. Anaesthesia and surgery

Greenhouse gases are used as anaesthetics and for pain relief. These gases are nitrous oxide (laughing gas), Entonox (a mixture of oxygen and nitrous oxide) and the ‘volatile gases’ - desflurane, sevoflurane and isoflurane.

Through improvements to anaesthetic technique and the management of medical gas delivery systems, the NHS can reduce emissions from these sources.

NHS Borders total emissions from these gases in 2022/23 were 535.7 tCO2e, a decrease of 27.8 tCo2efrom the year before.

More detail on these emissions is set out in the tables below:

**Volatile medical gas emissions, 2018/19, 2021/22, 2022/23 – tCO2e**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2018/19 (baseline year)** | **2021/22** | **2022/23** | **Percentage change 2018/19 to 2022/23** |
| Desflurane | 33 | 6.3 | 0 | -81% |
| Isoflurane | 1.1[[5]](#footnote-6) | 2.1[[6]](#footnote-7) | 2.7 | +145% |
| Sevoflurane | 15.3 | 9 | 10.3 | -41% |
| **Total** | 48.6 | 15.5 | 13 | -73% |

**Nitrous oxide and Entonox emissions, 2018/19, 2021/22, 2022/23 – tCO2e**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Source** | **2018/19 (baseline year)** | **2021/22** | **2022/23** | **Percentage change 2018/19 to 2022/23** |
| Piped nitrous oxide | 241 | 241 | 234.7 | -2.6% |
| Portable nitrous oxide | 12 | 8 | 13 | +8% |
| Piped Entonox | 265 | 217 | 216.7 | -18% |
| Portable Entonox | 114 | 82 | 58.3 | -48% |
| **Total** | 632 | 548 | 522.7 | -17% |

We have moved away from using Desflurane for volatile anaesthesia.  No Desflurane has been purchased by NHS borders since August 2021 and it is no longer used. Sevoflurane or total intravenous anaesthesia is now our default anaesthesia.

In previous years we moved to GE Aisys anaesthetic machines which have technology that makes giving anaesthetics at lower gas flows more straightforward.  This reduces the amount of volatile anaesthetic used as well as piped oxygen and air.

The nitrous oxide manifolds have now been decommissioned which will lead to a significant reduction in CO2e in the coming year.

We are implementing the green theatre project and have reusable theatre hats for staff, reusable sterile drapes and gowns, embedded waste segregation and oral Paracetamol as the default choice in the peri-operative period. We are working on a process to switch AGS (Anaesthetic Gas Scavenging) and HVAC (Heating Ventilation Air Conditioning) to a background setting out of hours and looking at the business case for alternative surgical suction devices.

*We have identified a discrepancy between locally held data and nationally reported figures on anaesthetic gases. This discrepancy is not considered material however work is underway to identify differences in reported data and to ensure that figures are aligned for future reports. The data presented above represents local information.*

9. Respiratory medicine

Greenhouse gases are used as a propellant in metered dose inhalers used to treat asthma and COPD (Chronic Obstructive Pulmonary Disease). Most of the emissions from inhalers are from the use of reliever inhalers – Short Acting Beta Agonists (SABAs). By helping people to manage their condition more effectively, we can improve patient care and reduce emissions.

NHS Borders clinicians have adopted the approach agreed through national Respiratory pharmacy networks. It is the opinion of the Scottish Respiratory Pharmacist SIG, that the best inhaler is ‘the one the patient can use [most] effectively’. The cost (financially and environmentally) of Dry Powder Inhalers (DPI) is significantly greater than normal use of MDIs (metered dose inhalers). There are two new (environmentally better) propellants coming to market in the next couple of years and it was agreed the greatest immediate gain clinically and environmentally would be to focus on patients’ over-use of SABA inhalers rather than any scheme switching to DPI. Also worth noting, the current crop of environmental claims is mostly through carbon off-setting and often still result in a plastic product which cannot be recycled.

We estimate that emissions from inhalers in NHS Borders were 1908.34tonnes of CO2equivalent.

**Inhaler propellant emissions, 2018/19, 2021/22, 2022/23 – tCO2e**

| **Source** | **2018/19 (baseline year)** | **2021/22** | **2022/23** | **Percentage change 2018/19 to 2022/23** |
| --- | --- | --- | --- | --- |
| Primary care | 1,751.27 | 1,770.58 | 1,871.67 | +6.87% |
| Secondary care | 41.55 | 35.19 | 36.67 | -11.74% |
| **Total** | 1792.82 | 1805.77[[7]](#footnote-8) | 1908.34 | +6.44% |

This year to improve patient care and reduce emissions from inhalers we are taking part in SRP-SIG discussions, gathering local data, and starting preparation work for individual patient review work required across practices. We will likely need to enter an agreement with a third-party review company (e.g., Interface/Spirit Healthcare) to support the practices. In early October 2023, the Pharmacy department and Respiratory team are meeting to agree an approach to the draft National Strategy and projects to improve East Region Formulary compliance for the year ahead. This will be published within the Board by early November 2023.

In addition, to make care more sustainable we ensure good Formulary compliance which means a move away from Diclofenac use.

We are involved with Realistic Medicine which will ensure patients are on the most appropriate medicines for the minimum time. Establishing the National Strategy work around Polypharmacy reviews is all Pharmacy have been able to do with the resources available.

10. Travel and transport

Domestic transport (not including international aviation and shipping) produced 26% of Scotland’s greenhouse gas emissions in 2021. Car travel is the type of travel 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.

We note the increase in NHS Fleet use and in Business Travel. The increase in fleet use can be attributed partly to services returning to pre-pandemic levels ensuring we deliver services across the board. In addition, these miles include the introduction of a local Patient Transport Hub; these journeys were previously made by Scottish Ambulance Service and the NHS Lothian hub.

In business travel the increase in emissions is due to the inclusion of all transport data instead of previous reporting which was just car miles. The inclusion of air, rail, and passenger journeys we supported is now included for completeness.

We have worked collaboratively with Scottish Borders Council to ensure public transport is effective for NHS Borders staff, patients, and visitors. We expect this work to continue for the next two years.

We continue to enable agile working which enables people to utilise technology such as Microsoft Office Teams to reduce the need to travel to meetings.

NHS Borders recognises that supporting active travel will be a key component of our future travel plans. Our progress to date in this area has been limited however through the development of our Active Travel plan we expect to increase awarenessacross staff and visitors and to ensure that our policies and infrastructure are refreshed to support active travel.

In addition, we will be working with all our services to ensure essential journeys are well planned to reduce carbon emissions.

We will continue to build on positive engagement to date with Scottish Borders Council to improve public transport usage for all our sites.

We are working to remove all petrol and diesel fuelled cars from our fleet by 2025.

The following table sets out how many renewable powered and fossil fuel vehicles were in NHS Borders fleet at the end of March 2022 and March 2023:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **March 2022** | | **March 2023** | |  |
|  | **Total vehicles** | **% Zero Emissions Vehicles** | **Total vehicles** | **% Zero Emissions Vehicles** | **Difference in % Zero Emissions Vehicles** |
| Cars | 24 | 12 | 23 | 11 | -8% |
| Light commercial vehicles | 30 | 6 | 43 | 6 | 0 |
| Heavy vehicles | 2 | 0 | 2 | 0 | 0 |

The following table sets out how many bicycles and eBikes were in NHS Borders’ fleet at the end of March 2022 and March 2023.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **March 2022** | **March 2023** | **Percentage change** |
| Bicycles | 0 | 0 | 0 |
| eBikes | 0 | 0 | 0 |

Due to the rurality of the Scottish Borders the relative distances for journeys are significantly higher than in Health Board regions which have a higher population concentration within urban centres. As such we do not believe that there will be a significant uptake for bicycle transport, however we are presently developing a pilot project in relation to eBikes.

11. Greenspace and biodiversity

***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 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 ([Nature Conservation Scotland Act 2004](https://www.legislation.gov.uk/asp/2004/6/contents)) to further the conservation of biodiversity, taking care of nature all around us. Furthermore, the Wildlife and Natural Environment (Scotland) Act 2011 ([Wildlife and Natural Environment Scotland Act 2011](https://www.legislation.gov.uk/asp/2011/6/contents/enacted)) requires every public body to summarise their activities to meet this duty, through the production of a publicly available report.

We are working on a long-term strategy to address the identification, protection, and enhancement of biodiversity across our estate. As part of our climate change adaption plans we will consider how nature-based solutions may align across both the climate and biodiversity emergencies. We recognise this is a complex area and will work with relevant bodies (e.g. Nature Scotland) to ensure that plans are aligned to best practice.

We have submitted our data for NHS Scotland Estate Mapping programme and look forward to progressing this work.

To mainstream Biodiversity across the organisation we have continued to reduce the number of cuts on our large areas of grassland per year from approximately 16 to 10 whilst increasing the height of cut of these areas to 75mm.

We have also further increased the number of areas within all NHS Borders grounds that are planted with new pollen rich planting and wildflowers.

We are currently assessing how we can minimise the use of pesticides across our estate. And have reduced the times it is used each year.

We are seeking to embed the principles of biodiversity into all our estate planning and management.

Finally, we have used our regular communications to highlight Biodiversity and increase understanding of the issues to all our employees.

We are currently investigating opportunities on how to best monitor and assess biodiversity across the Estate.

***Greenspace***

The design and management of the NHS Scotland 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.

To support this our grounds & gardens team continue to assist in the “Space to Grow” project at Huntlyburn House. The “Space to Grow” area is used for carrying out workshops that assist in the rehabilitation of our mental health patients and is widely accessed by staff and visitors.

We have also continued to develop new outdoor spaces for staff members at all our NHS Borders Hospitals by providing areas in greenspace which promote improved staff wellbeing. These areas will be planted with pollinator plants and shrubs.

The table below outlines our key greenspace projects and their benefits.

|  |  |  |
| --- | --- | --- |
| **Project name/ location** | **Benefits of project** | **Details of project** |
| Public Health Collaboration | Wide Stakeholder engagement  Anchor Organisation Work | We are working with PH to ensure our Green spaces provide the best environment for everyone in the Scottish Borders |
| Rainwater Harvesting | Reduced Water consumption | We are implementing rainwater harvesting to support the watering of plants across our sites |
| Increased Tree Planting | Improved environment and Carbon Sequestration | Investigating locations and partnerships to improve tree planting across the Estate. |

12. Sustainable procurement, circular economy, and waste

Earth Overshoot Day marks the date when our demand for resources exceeds what earth can regenerate in that year. In 2023, Global Earth Overshoot Day is 2 August.

For the UK, the picture is more worrying. In 2023, the UK’s Earth Overshoot Day is 19 May. The current level of consumption of materials is not sustainable and is the root cause of the triple planetary crises of climate change, biodiversity loss and pollution.

We 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.

In the last year, to reduce the environmental impact of the goods and services we buy we have ensured over 80% of our products are purchased through National Contracts or Frameworks.  The National Distribution Service supply over 80% of our medical consumables (economies of scale, consolidation of deliveries).

NHS Borders Procurement work with NHS NSS (National Services Scotland) National Procurement.  Our Head of Procurement is a member of the Sustainable Procurement Steering Group.

Supplier and category prioritisation has been delivered by this group to enable effect targeting of efforts.  The National Procurement team have been working on driving supply visibility across its 400 strong supplier base primarily in support of resilience. It also provides us with a heat map of manufacturing locations across its 9,000 products and this can be used as the basis for mapping supply chains from an environmental footprint point of view. It also provides us with insights from an ethical viewpoint, with country of manufacture information allowing us to assess labour practice risk across the supply chain.

NHS Borders has signed up to the Community benefits Gateway.  The Community Benefits Gateway is a facilitation platform, enabling procurement services and suppliers to further improve lives, and support healthier communities.

When undertaking procurement activities, NHS Borders consider community benefits within the tender evaluation criteria (where relevant).

During 2021 NHS Borders became a Living Wage Accredited Organisation (working with the Poverty Alliance).  Fair Work principles will be embedded in appropriate contracts.

The Head of Procurement is a member of the National Efficiency Operational Group (commercial optimisation key objective).

In the next year to reduce the environmental impact of the goods and services we buy we will have a continued presence within the National Groups. This year a Commercial Improvement Taskforce (CITF) has been set up by National Procurement.  This is bringing together expertise across the Boards to review various commodities.  We have commenced with non-medical commodities (Phase 1).

The CITF (Commercial Improvement Taskforce) has developed a list of various initiatives.  These initiatives will be reviewed and taken forward in the form of Buyers Guides to assist Boards with implementation.  Examples of benefits of the initiatives are: reducing print, reducing use of bottled water, Hybrid Mail, Air Dryers (reduction in hand towels). NHS Borders is committed to delivering on these initiatives where possible.

Sustainability training is now a mandatory requirement for Procurement Staff (using the SG (Scottish Government) eLearning) on Sustainable Public Procurement, Climate Literacy and Circular Procurement & Supply.  We plan to roll this out to other department with a procurement remit.

Developments from the Sustainable Procurement Steering Group this year are:

Agreement to introduce a mandatory sustainability question (with minimum weighting) within local tenders with a value exceeding £250,000. A model question has been developed for all Boards to use. The questions suppliers will be asked are:

* How are you incorporating climate change considerations into your product(s) development & Manufacturing processes?
* What steps have you taken to reduce assessed harmful environmental impact in your product distribution activities?
* How are you working to reduce the assessed harmful environmental impact of your product (s)?

During 2023/24 NHS Borders will remain committed to delivering on Climate and Sustainability objectives and utilising the benefits of being an active member of the various national groups.

We have a commitment to ensuring that waste generated through procurement activities will continue to be reduced and that we will increase how much of this waste is recycled.

The table below sets out information on the waste we produce and its destination for the last three years. The data for 2020/2021 is incomplete. Percentage change has been measured against 2021/22 to ensure comparability of figures.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type** | **2020/21 (tonnes)** | **2021/22 (tonnes)** | **2022/23 (tonnes)** | **Percentage changefrom last year** |
| Waste to landfill | 10 | 10 | 10 | 0% |
| Waste to incineration | 31.5  (Partial Data) | 58.08 | 63.62 | +9.53% |
| Recycled waste | 711.6 | 644.2 | 715.9 | +11.13% |
| Food waste | Not available | 15.5 | 15.5 | 0% |
| Clinical waste | 262.8 | 408.6 | 360.9 | -11.67% |

In common with a number of other areas covered in this report, significant work has been undertaken during the past year to improve the quality and comprehensiveness of our reporting. This report incorporates improved data in relation to 2021/22 to ensure we are reporting on all relevant waste streams.

The increase in incineration waste is in part due to pharmaceutical waste, where patients are encouraged to return unused medicines to their local pharmacies for safe destruction; it is believed that this impact reflects a backlog of returns built up during the pandemic. We are however aware that there has been a general increase in the overall volume of medicines issued (across Scotland) in recent years and this presents an ongoing challenge in this area.

Further to this, the safe disposal of ‘sharps’ (i.e. needles, etc.) used in health treatments has increased as activity returns to pre-pandemic levels, resulting in corresponding increase to clinical waste.

Despite this, there has been a reduction of 2% in the volume of hazardous waste (chemicals) requiring incineration.

To reduce the amount of incinerated waste we are reinforcing our education of what should be included in this waste stream and asking for increased vigilance that all recycling packaging is placed in the correct waste stream. In addition, for pharmaceutical waste we have moved from plastic containers to recycled cardboard containers which reduces the overall waste streams carbon emissions.

We are pleased that we have moved 11% of Clinical waste into recycling streams and this was achieved through working with Clinical colleagues in all areas of Borders General Hospital and Community Hospitals to change the types of bins they have available and to provide education on using the appropriate waste stream. As Clinical Waste creates more than 12 times the greenhouse gases than recycling this is a positive outcome.

We have also removed several single use items such as theatre scrub hats which have been replaced with a washable material and changing the trays used for injections/blood samples with a reusable product. In addition, we commenced a pilot on using rechargeable batteries within the organisation.

The work to reduce waste and ensure waste is placed in the correct waste stream across the organisation will continue. We will work with community pharmacies to reduce pharmaceutical waste and ensure that as much packaging as possible is recycled.

We will also continue to look for opportunities to further reduce single use items.

There are nationally agreed targets setting out reduction to the amount of waste produced across NHS Scotland; the tables below provide information on our performance against those targets. It should be noted that until April 2018 NHS Borders operated an onsite incinerator which was how most of our waste was processed; this means that we do not have segregated data from 2012/2013.

|  |  |
| --- | --- |
| **Reduce domestic waste by a minimum of 15%, and greater where possible compared to 2012/2013 – by 2025** | |
| Target – reduce domestic waste by | No 2012/13 baseline data available. Based on ‘straight line’ methodology, anticipate 1.25% reduction per year.  Target = 1.25% x 2021/22 tonnes |
| Performance – domestic waste reduced by | 0 (tonnes) |
| Outcome | Not achieved yet\* |
| Further reduction required | 3 x 1.25% of 2021/22 less any reduction achieved in 2022/23 |

*\*On basis that reduction of 1.25% is expected each year from point where base data is available.*

| **Ensure that no more than 5%, and less where possible, of all domestic waste is sent to landfill – by 2025** | |
| --- | --- |
| Target – reduce waste sent to landfill by | Target (total landfill at 5% of overall waste) |
| Performance – waste sent to landfill reduced by | 10 tonnes (1.3% of all domestic waste based on SBC (Scottish Borders Council) provided data) |
| Outcome | Achieved |
| Further reduction required | None |

|  |  |
| --- | --- |
| **Reduce the food waste produced by 33% compared to 2015/16 – by 2025** | |
| Target – reduce food waste by | 3.3% per year based on 33% over 10 years.  Use 2021/22 as baseline |
| Performance – food waste reduced by | 0 tonnes |
| Outcome | Not achieved yet |
| Further reduction required | 3.3% x remaining year |

|  |  |
| --- | --- |
| **Ensure that 70% of all domestic waste is recycled or composted – by 2025** | |
| Target – recycle or compost | 500 tonnes |
| Performance – recycled or composted | 715 tonnes |
| Outcome | Achieved |
| Further increase required | None |

13. Environmental stewardship

Environmental stewardship means acting as a steward, or caretaker, of the environment and taking responsibility for the actions which affect our shared environmental quality.

This includes 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 our environmental goals through consistent review, evaluation, and improvement of our environmental performance.

We have commenced work on our EMS during 2023. This work is ongoing and through our Climate Emergency and Sustainability Group we are aligning EMS to our overall action plan to ensure that as work is undertaken to review and/or introduce our plans, policies, and procedures these will be recorded within our EMS. The work on EMS impacts a wide number of stakeholders and we will work collaboratively to ensure the EMS is robust with organisational wide engagement and teams aware of their responsibilities.

14. Sustainable communities

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

Anchors approaches align with NHS Borders commitments to tackle health inequality and act on climate change and sustainability. Anchors approaches also prioritise the health and wellbeing of our workforce and emphasise our responsibilities as one of the largest local employers (along with Scottish Borders Council).

* Population health depends on more than health service provision and is shaped by the social, economic, and environmental conditions that people live in.
* These fundamental causes of health inequality are the focus of the new Tackling Health Inequalities in the Scottish Borders (THISBorders) strategy
* NHS Borders taking an Anchors approach is a coherent way to co-ordinate many actions to tackle health inequality.
* NHS Borders Public Health department advocate formation of an Anchors Development Group to bring together work on (i) workforce; (ii) procurement; (iii) land and assets; (iv) transport and (v) align with sustainability, net zero and climate action work locally.

Work is underway to identify the risks that climate change has to the people who live in Borders, with support from Public Health Scotland. This report and knowledge could then be used to provide focus for where further resilience may be required within local communities. Building the relationship with the climate change and environmental leads at Public Health Scotland will also hopefully lead to future conversations about actions that could be taken to improve the resilience of local communities in Borders to the effects of climate change.

A local interim steering group, led by local charities and community interest companies (CIC’s) is in place and are designing a plan for the development of the Scottish Borders Climate Action Network. The aim of this group is the achievement of net-zero and climate resilience in the Scottish Borders through community actions and activities, including the consolidation and coordination of existing support for climate change.

NHS Borders has representation on this interim steering group, and it is hoped that the network will provide opportunities for NHS Borders to collaborate and share information about risks arising from climate change. It will also hopefully create connections to increase awareness of NHS sites and how they could be utilised by communities to improve resilience to climate change.

NHS Borders has representation on the Scottish Borders Home Energy Forum which has a membership consisting of partners of the Community Planning Partnership and energy efficiency specialist groups. The aim of the Home Energy Forum is to ensure that a strategic, multi-agency approach is taken to help reduce fuel poverty, improve energy efficiency, and improve health and wellbeing in the Scottish Borders, particularly for the most vulnerable households.

Additionally, it will help to ensure households do not fall into fuel poverty; ensure that resident’s health and wellbeing are not put at risk, due to them being unable to heat their home and; explore opportunities to encourage self-funded households to establish energy efficiency measures in the home. This network of partners enables opportunities for collaboration, including information sharing and planned programmes of work. A good example of this was the response during the Covid 19 pandemic to food accessibility and promotion of the NHS Borders Money Worries App (developed by our Public Health service).

15. Conclusion

We are reporting a reduction of 7.46% against previous year emissions (9,677.48tCO2e from 10,458.24 tCO2e). This improvement is encouraging and has been achieved in the context of continued efforts to improve the accuracy, comprehensiveness, and transparency of our reporting.

Reducing carbon emissions in a healthcare environment is challenging due to both the complexities of the operating environment and the necessary use of products which presently have a high carbon emissions footprint. We hope that this report demonstrates the commitment of our clinical teams and support services to finding innovative solutions to reduce our carbon emissions, without compromising patient care.

We acknowledge the four areas where we have observed an increase in Carbon Emissions (Metered Dose inhalers, Fleet vehicles, Business Travel and Water), and understand that this is in part due to improved reporting, however it has also highlighted areas for focus in the next 12 months and the work stream leads in these areas are reviewing actions that can be taken.

The three areas of reduction (Building Energy, Medical Gasses and Waste) are of course good news stories. The work stream leads within these areas have clear action plans for continuing the progress within these areas.

NHS Borders has made considerable progress in the year 2022 –2023 and are committed to further reducing our Carbon emissions in 2023 –2024.

1. Scotland Census 2022 [↑](#footnote-ref-2)
2. *Amended from previous reporting following recalculation waste previously reported as 36.77 tCo2e.* [↑](#footnote-ref-3)
3. *Amended from previous year following calculation error.* [↑](#footnote-ref-4)
4. *Includes air travel and public transport for the first time. There is a 1tCo2e reduction in business miles claimed.* [↑](#footnote-ref-5)
5. *Amended from previous reporting following recalculation Isoflurane previously stated as 0.3 tCo2e (2018/2019).* [↑](#footnote-ref-6)
6. *Amended from previous reporting following recalculation Isoflurane previously stated as 0.2 tCo2e (2021/2022).* [↑](#footnote-ref-7)
7. *Report from SG shows different figures to 2021-2022 (1863 tCO2e Primary Care & 40 tCO2e Secondary Care)* [↑](#footnote-ref-8)