

NHS Ayrshire & Arran



Meeting: Ayrshire and Arran NHS Board

Meeting date: Monday 5 February 2024

Title: Climate Emergency and Sustainability Report

Responsible Director: Nicola Graham, Director of Infrastructure and Support Services

Report Author: Helen Gemmell, Assistant Director of estates and Clinical Support Services
Alastair Kay, Energy Manager

1. Purpose

This is presented to NHS Board Members for:

- Decision

This paper relates to:

- Annual Operational Plan
- Government policy/ Directive
- NHS Board/ Integration Joint Board Strategy

This aligns to the following NHSScotland quality ambition(s):

- Effective
- Person Centred

2. Report summary

2.1 Situation

NHS Scotland Health Boards are required to report on an annual basis against the aims of [DL\(2021\)38](#) - A Policy for NHS Scotland on the Climate Emergency and Sustainable Development.

2.2 Background

This is the second year of reporting for Scottish Government (SG) where they require a summary report of our climate change and sustainability activities across the organisation.

This report is due for submission in January 2024. DL(2021)38 requires the report to be approved by the organisation's chief executive. It is recommended that the report is taken to the organisation's Board for consideration before that approval is given.

Changes to our reporting have taken place this year, where our biodiversity reporting has now been included within this report, which reduces the requirement to submit additional reports to SG. As the reporting template was not made available to Boards until November, this report was not able to go to the December Board meeting and a draft report has been sent to Scottish Government to ensure the deadline is not missed.

We are still required in law to produce a biodiversity action plan. This work sits on the Climate Emergency and Sustainability Operational group (CESOG) work programme and paper writing schedule. Work is ongoing to ensure there is sufficient resource to complete all necessary requirements in this area.

2.3 Assessment

Please see Appendix 1 for the annual Climate Emergency and Sustainability Report and Appendix 2 for the Biodiversity Duty Report- notes to support completion.

2.3.1 Quality/ Patient Care

The progress of this plan will have long term impact on the quality of patient care as it will support the reduction of the environmental impact of health care through adopting the National Green Theatre Programme actions, supporting the implementation of the Quality Prescribing Guides and the adoption of the sustainability in our quality improvement approach. The decarbonisation of our fleet will reduce the production of greenhouse gasses as will the reduction of waste.

2.3.2 Workforce

The Climate Emergency and Sustainability report for Scottish Government has no impact on the workforce at this time.

2.3.3 Finance

There are currently no financial implications arising from this SBAR.

2.3.4 Risk assessment/management

The completion of this report has no operational risks associated to it. The Board are making good progress in achieving the aims contained within the 10 year strategy. The associated workplan and workstreams capture the risks and action have been allocated to these with the expectation that the strategic aims will be achieved within the set timescales.

2.3.5 Equality and diversity, including health inequalities

An impact assessment is not required due to this being a report on performance against a strategy.

2.3.6 Other Impacts

- Best Value
 - **Governance and accountability and Sustainability**
This report forms part of the national reporting requirements on the Environmental performance of the organisation as set out in 'A Policy for

NHS Scotland on the Climate Emergency and Sustainable Development.’
The required actions are contained in the sustainability workplan which is delivered by the Climate Emergency and Sustainability Operational group and the performance against the plan is monitored by the Climate Emergency and Sustainability Strategic group.

- **Compliance with Corporate Objectives**
The report demonstrates our progress towards the following corporate objectives:
 - protect and improve the health and wellbeing of the population and reduce inequalities through advocacy, prevention, and anticipatory care, by evidencing the progress towards reaching our strategic objectives contained within NHSAA’s Sustainability Strategy
 - deliver better value through efficient and effective use of all resources.

2.3.7 Communication, involvement, engagement and consultation

This report has been shared with the Climate Emergency and Sustainability Operational group (CESOG) and it has been sent virtually to the climate emergency and Sustainability Strategic group for discussion and any amendments.

- CESOG meeting took place on 25 January 2024

2.4 Recommendation

For decision. NHS Ayrshire & Arran Board members are asked to agree this annual report for Chief Executive approval and onward submission to Scottish Government.

These reports will be published on our website once agreed and submitted.

3. List of appendices

The following appendices are included with this report:

- Appendix 1, Annual Climate Emergency and Sustainability Report 2022/23 for Scottish Government
- Appendix 2, Greenspace and Biodiversity

Annual Climate Emergency and Sustainability report 2022/23 for Scottish Government

November 2023

Contents

1.	About	2
2.	Introduction	2
3.	Leadership and governance	2
4.	Greenhouse gas emissions	4
5.	Climate change adaptation	5
6.	Building energy	6
7.	Sustainable care	8
8.	Anaesthesia and surgery	8
9.	Respiratory medicine	10
10.	Travel and transport	12
11.	Greenspace and biodiversity	16
12.	Sustainable procurement, circular economy and waste	18
13.	Environmental stewardship	21
14.	Sustainable construction	22
15.	Sustainable communities	23
16.	Conclusion	26

1. About

The report focuses on the environmental performance of the organisation.

However, health boards such as NHS National Services Scotland, NHS Education for Scotland, Healthcare Improvement Scotland, Public Health Scotland and the Golden Jubilee should also highlight how they are supporting the rest of the health and care system to improve their environmental and social sustainability.

2. Introduction

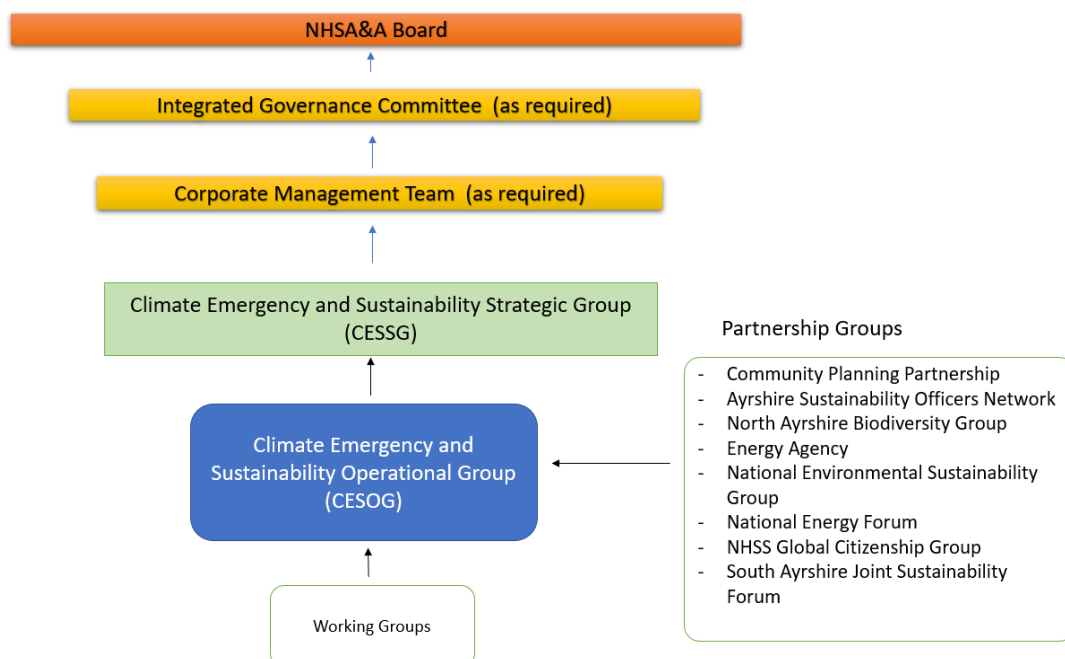
This is NHS Ayrshire & Arran’s annual Climate Emergency and Sustainability Report.

NHS Ayrshire & Arran provides healthcare to over 400,000 people who live across the three localities North, South and East Ayrshire which employs 9388 full time equivalent people to operate its service to the public.

NHS Ayrshire & Arran operates from 144 buildings and manages land and buildings covering an area of 245,523 m2.

3. Leadership and governance

- Our Sustainability Executive Lead is the Director of Infrastructure and Support Services
- Our sustainability champion is a Non-Executive Member of the Board, Linda Semple
- Governance arrangements for our climate change and sustainability



- How is the health board showing leadership in tackling climate change and becoming environmentally sustainable?

NHS Ayrshire & Arran energy manager reports to the Head of Estates ensuring that all climate change and sustainability reporting requirements are being met, collecting all greenhouse gas and carbon emissions data across the organisation, providing analysis on the data, carbon and energy saving projects, writing and developing the boards strategies, policies, and guidance to improve the boards performance on National objectives for carbon and greenhouse gas emissions targets, climate change, and environmental sustainability.

The Climate Emergency and Sustainability Operational Group (CESOG) administers the board's carbon management and sustainability policies, helping to set objectives to deliver board wide climate change and sustainability requirements. Several departments across the organisation feed into our climate change and sustainability work program these include energy; waste; procurement; transport; public health; capital planning; resilience; IT Infrastructure; catering; finance; estates; green theatres; green health partnership; green prescribing group; AMR team, and various external partnership representatives.

The CESOG helps to minimise the corporate risk to the board through management of the sustainability work program and ensuring all environmental legislation is met. The boards climate change and sustainability strategy 2021-2032 set out the corporate objectives that must be achieved through planning, monitoring and evaluating of all climate change and sustainability actions. The group is responsible for the formulation and development of the work program ensuring that each party within the CESOG is assigned their own actions. The group develops the procedures and protocols to ensure the board complies with all relevant legislation, codes of practice, and healthcare guidance on property, estates matters including reviewing and monitoring changes in technical legislation and standards. Environmental and Sustainability management extends across the organisation and sits within estates; however, works are undertaken across the whole organisation, including laboratories, clinical acute estate, theatres, pharmacy, health and social care, dentistry, and public health just to name just a few.

Climate Change is embedded in the organisation through its policies, procedures, and governance structures. The CESOG, drives the work program and reports progress up to the strategic climate change and sustainability group. They ensure the board meets its targets and achieves the goals.

4. Greenhouse gas emissions

NHS Ayrshire & Arran 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 Ayrshire & Arran.

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*	22,009	19,939	9.4%	3%	6.4%
Non-medical F-gas use	10.4	80.4	+673%	3%	+ 676%
Medical gases	1,655	1,309	20.1%	3%	17.1%
Metered dose inhaler propellant	5,682	5,902	+3.8%	3%	+ 6.8%
NHS fleet use **	1,462	1,461	0%	3%	+ 3%
Waste	384	445	+15.9%	3%	+ 18.9%
Water	104	92.2	11.3%	3%	8.3%
Business travel ***	1,223	1,147	6.2%	3%	3.2%
Total greenhouse gases emitted	32,324.6	30,146.4	6.7%	3%	3.7%
Carbon sequestration	N/A				
Greenhouse gas emissions minus carbon sequestration					

*Includes Gas, Oil, Kerosene, Electricity, T&D, Biomass chip and pellet & all associated WTT emissions

**Includes WTT emissions for 5 categories – Van class 1, Van average, HGV average, HGV Laiden, Car's petrol small. No pool car data so small petrol car emissions factor used until data improves. EV impact unknown.

***Includes WTT emissions for all travel activities – ferry, taxi, planes, trains, busses

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/

- What are the main risks from climate change that the Health Board has identified through its Climate Change Risk Assessment?
 - Overheating in wards and clinical areas.
 - Flooding risks fluvial and coastal to our properties causing service disruption
 - Patients in the community at risk of adverse events and how we priorities these patient groups and get to them in times of climate events
- What actions has the health board taken to reduce those risks?
 - At present work is ongoing to identify what actions we can take to mitigate against climate change and these mitigations will come as an output of our adaptation plan. At present these plans are very high level and generic, and we need to create a more focused approach to adaptation actions. Our current adaptation plan has a monitoring process in place to ensure the plans are tracked over time. The plan will be reviewed and monitored through the CESOG group (Climate Emergency and Sustainability Operational Group) and will be taken to the boards Resilience Group for further review. Where the plans sit is to be finalised.
- What are we doing to be prepared for the impacts of climate and increase the resilience of our healthcare assets and services?
 - S2-2 Society - The Scottish Government release the "Preparing for Winter" guide which NHS Ayrshire & Arran then distribute through its own internal communications channels to the team members.
 - S3-1 Society - Mandatory requirement for each NHS Board to have a Climate Change Adaptation Plan due to an increased burden on NHS emergency health care services and social and welfare services in dealing with the impact of sudden extreme weather events. A climate change adaptation support programme has been established for all NHSS Boards. A Sustainability Manager has been recruited with responsibility for

overseeing and supporting the development and implementation of the Adaptation Plans nationally. Health Facilities Scotland are also reviewing the whole suite of climate change and sustainability reporting undertaken by the NHS Boards with a view to consolidating these. Each board must complete their own CCRA assessment this year and submit to Health Facility Scotland.

- S3-2 Society - Ensure that NHS Scotland provides, maintains, and develops a high quality, sustainable asset base that supports and facilitates the provision of high-quality health care and better health outcomes and, that the operational performance of assets is appropriately recorded, monitored, reported and reviewed and, where appropriate improved. In addition, there may be gains in terms of reduced vulnerability to current climate variability as well as contributing to the long-term sustainability of the estate. All NHS Boards are required to submit annual Property Asset Management Strategies (PAMS) which outline priorities for their estate going forward. The information from the PAMS is collated each year and reported via the NHSScotland State of Assets and Facilities Report, which includes information on a range of operational KPIs.
- S3-4 Society - Ensure that IT suites in NHS properties take account of heat generated by equipment, and that any potential overheating issues are addressed at the time of installation of equipment. IT equipment is monitored as part of the annual State of Assets and Facilities Report. IT upgrades are carried out at Board/ site level as required. Recent flood risk assessments of key NHS sites highlighted where IT premises may be at risk. This information has been passed onto NHS Board Resilience Officers for information and action where appropriate. In most cases, existing resilience plans have been updated to account for specific climate change risks.
- S3-5 Society - Scottish Capital Investment Manual is reviewed and revised as necessary. The SCIM has undertaken a major revision with sustainability being addressed.

6. Building energy

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

NHS Ayrshire & Arran has 142 buildings such as acute hospitals, long term community care hospitals, health centres, and clinics.

In 2022/23, 15,675 tonnes of CO2 equivalent were produced by NHS Ayrshire & Arran use of energy for buildings. This was a decrease of 11.8 % since the year before.

In 2022/23, used 99,816,495 kWh of energy. In 2021/22, used 101,342,046 kWh of energy. This was a decrease of 1.5% since the year before.

In 2022/23, NHS Ayrshire & Arran generated 18,576,071 kWh / MWh of energy from renewable technologies.

This equates to 25% of the boards total energy has been generated from renewables this year.

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 *	15,795	14,566	12,158	23%
District heat networks and biomass				
Grid electricity*	16,420	7,463	6,917	58%
Totals	32,215	22,029	19,075	41%

*Includes WTT emissions and power T&D, grid losses, WTT generation, WTT grid losses

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	69,757,244	64,751,016	56,264,523	19%
District heat networks and biomass				
Grid electricity*	29,809,637	26,503,005	26,433,170	11%
Renewable electricity **	157,815	235,504	228,577	45%
Totals	99,724,696	91,489,525	82,926,270	17%

*Includes fleet EV power from grid

**Includes wind and solar power

- What did we do last year to reduce emissions from building energy use?
 - LED lighting projects across various NHS hospital sites
 - Boiler replacement at EACH hospital
 - EV Infrastructure program – creation of EV charging points, and the introduction of 100 EV fleet vehicles.
- What are we doing this year to reduce emissions from building energy use?

This year we plan the following works to further our carbon reduction:

 - Further LED lighting installations using GPSEDS funding streams
 - Increased biomass performance across all site's improvement plan
 - Water cross charging and water leak repair work continuing program
 - An additional 100 EV fleet vehicles to arrive during this year
 - The provision of 5 new power supplies ran into hospitals for EV charging transition
- What projects are we planning for the longer-term to reduce emissions from building energy use?
 - EACH Decarbonisation project – under the SFT PPP net zero program
 - University Hospital – BEIS Catapult Project work – reduction of 50% traded carbon emissions by 2030 workstream
 - Wind Turbine progression at Ayr/Ailsa Hospital campus
 - Reporting of decarbonisation projects into the Integrated Program Board to oversee transition our transition to net zero
 - Biggart Hospital – BMS control project
 - Estate wide BMS replacement project – master planning specification writing
 - University Hospital Crosshouse – Medium temperature to Low temperature project
 - Feasibility works at Biggart & Girvan – Hydronic modelling improvements

7. Sustainable care

The way we provide care influences our environmental impact and greenhouse gas emissions. NHSScotland 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, 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 Ayrshire & Arran total emissions from these gases in 2022/23 were 1,001 tonnes CO₂e, a decrease of 346 tonnes from the year before. 26% reduction year on year. More detail on these emissions is set out in the tables below:

Volatile medical gas emissions, 2015/16, 2021/22, 2022/23 – tCO₂e

	2015/16 (baseline year)	2021/22	2022/23	Percentage change 2015/16 to 2022/23
Desflurane	695	40.8	36.4	94.8%
Isoflurane	0.2	1.9	1	+ 400%
Sevoflurane	67.7	39.8	49.5	26.9%
Total	762.9	82.5	86.9	88.6%

Nitrous oxide and Entonox emissions, 2015/16, 2021/22, 2022/23 – tCO₂e

Source	2018/19	2021/22	2022/23	Percentage change 2018/19 to 2022/23
Piped nitrous oxide	1826	1843	921	50%
Portable nitrous oxide	17	44	40	-14%
Piped Entonox	2345	2010	1619	31%
Portable Entonox	340	347	319	6%
Total	4,528	4,244	2,899	40%

- What did we do last year to reduce emissions from anaesthetic gases?
 - All our anaesthetic machines were upgraded to allow for low flow anaesthesia to take place with a software upgrade allowing setting automated gas control.
 - We trialled three Sage capture technology in theatres at University Hospital Crosshouse to allow the collection and disposal of volatiles.
 - Decommissioning of a nitrous oxide manifold at University Hospital Ayr.

- What are we doing this year to reduce emissions from anaesthetic gases?
 - Looking to identify where all our nitrous oxide manifolds are, which service uses them and start dialogue to follow the national guidance on removal and decommissioning.
- What else did we do last year to make surgery more sustainable?
 - All PC monitors within theatre now on-screen brightness of 40%
 - HVAC times adjusted to 7am-7pm resulting in 22hrs reduced running time per day across theatres
 - IV now in some theatres within a continued roll out in other theatres- this will eventually remove large fluid warmers from the department where clinically possible.
 - Neptune waste management system installed in Urology theatre- no financial saving but there is a reduction in plastic waste and huge staff wellbeing benefits from moving heavy loads.
 - Theatre and Anaesthetic Room shutdown checklists implemented.
 - No longer use plastics basins in favour of stainless-steel reusable ones.
 - Review of instrument trays underway in conjunction with CDU to reduce number of instruments per tray.
 - Use of cool sticks as standard practice, significant reduction in Ethyl chloride spray.
 - Converted to the use of reusable plastic drugs trays (cleaned between patients and at the end of lists) instead of single use disposable plastic.
- What are we doing this year to make surgery more sustainable?
 - Recycling of all waste within theatres continues (effectiveness remains difficult to quantify)
 - Review of all consumable products continues to standardise and reduce variation across a range of products from customisable procedure packs, pulse lavage, forced air warmers and dressings are a few to mention.
 - Embedded surgical rub as standard practice as opposed surgical scrub.

9. Respiratory medicine

Greenhouse gases are used as a propellant in metered dose inhalers used to treat asthma and COPD. 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.

There are also more environmentally friendly inhalers such as dry powder inhalers which can be used where clinically appropriate.

We estimate that emissions from inhalers in NHS Ayrshire & Arran were 5,902 tonnes of CO2 equivalent.

Inhaler propellant emissions, 2015/16, 2021/22, 2022/23 – tCO₂e

Source	2015/16 (baseline year)	2021/22	2022/23	Percentage change 2015/16 to 2022/23
Primary care	6,022	5,548	5,760	4.3%
Secondary care	179	134	142	20.7%
Total	6,201	5,682	5,902	4.8%

- What did we do last year to reduce emissions from inhalers?
 - A revision took place to our inhaler prescribing guideline for asthma and COPD, updating the guidance to clinical prescribers. The pharmacological guide was updated with metrics to show the environmental impacts of the inhalers along with this it is split into sections highlighting to prescribers the lower impact inhalers (highlighted in green). Getting the right inhaler for that person is still key, however the impact of the inhaler is now provided to make a more sustainable choice.
 - Work is ongoing in primary care to review patients and move where clinically appropriate to a formulary recommended inhaler. We are continuing to look at ways to safely make changes to individual's inhaler regimes which reduce the emissions burden. We use Scriptswitch to recommend changes in line with formulary; there are however caveats associated with the clinical appropriateness of these recommendations where the patient is not there to discuss these changes with a clinician face to face. It is essential that the right inhaler is used in any individual situation, so the key moving forward is in educating both prescribers and patients in their choice.
- What are we doing this year to improve patient care and reduce emissions from inhalers?
 - Throughout 2023 we are carrying out use of the guidance and prescribing formulary inhalers. Encourage first time prescriptions into dry powder inhalers or mists, rather than MDI's. Working with specialist nurses and doctors to promote the guidelines at an individual patient level. Addressing

Asthma and COPD care plans encouraging clinicians to look at the environmental impact of the prescribing.

- We are developing material to support messaging to the public about the importance of clinical review in respiratory conditions and raising awareness on the impact on the environment of returning inhalers to community pharmacy for disposal. We are planning some targeted work in the year ahead to increase the number of patients prescribed single combination-type inhalers instead of using multiple inhalers.

Other areas:

- What else did we do last year to make care more sustainable & what else are we doing this year to make care more sustainable?
 - **Diabetes in Dalmellington: Living and Caring** is a two-year SG VIF pilot project that aims to improve the self-management of pre-diabetes and diabetes in order to reduce the incidence of diabetes and its complications, enabling people to live longer and healthier lives, whilst ensuring this is delivered in an equitable and sustainable way which recognizes the importance of planetary health. Quality improvement methods have been utilised to identify health impacts through process and outcome markers. Alongside this runs an evaluation of the Diabetic Eye Screening Service pre- and post-intervention to determine if the carbon footprint of this service has been reduced, the results of which will inform future service design as well as be submitted to peer review publication to contribute to the much-needed literature on sustainability and planetary health.

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.

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

- What did we do last year to reduce the need to travel?
 - The increased use of Teams and subsequent applications within office 365 have been progressed to help improve remote working and stopping the need to travel for meetings.

- What did we do last year to improve active travel?
 - Promoted and Maintained Cycle Friendly Employer Status and Cycle to Work Scheme with staff. Monitored engagement with the CTW scheme 71 people applied April 22-March 23.
 - In collaboration with the Active Travel Hubs, NHS A&A developed a staff Active Travel booklet to promote active travel information via staff engagement sessions and to be provided when staff applied for CTW scheme.
 - Successfully applied for a fully funded Active Travel Workplace Engagement Programme Officer (WEPO) for 1 year Nov 22 – Nov 23, with 50% funding for another 2 years, via Sustrans Behaviour Change Programme. Unfortunately, due to funding cuts this post was terminated by Sustrans in Aug 23.
 - For the period until March 23 the WEPO completed a baseline workplace active travel survey, promoted active travel via attending corporate induction and ad hoc staff meetings and events, spent £20K capital budget (which came with the post) on x2 new bike shelters at East Ayrshire Community Hospital and Three Towns Resource Centre (installed summer 23) promoted e-bike loans and local initiatives such as Dr Bike sessions and active travel breakfasts.
 - Worked with partners via the Travel Smart Officer in North Ayrshire and the Active Travel hubs in East, North and South to promote (via various methods) and support activities to engage staff e.g. Women's Cycle Festival, Pedal for Scotland, Ayrshire Walking Festival, Bike Week, Clean Air Day, Cycle to Work Day, Scottish Workplace Journey challenge. The Travel Smart Officer also attended weekly staff engagement sessions at ACH and until the WEPO came into post they attended Corporate Induction sessions they also offered Personalised Travel Plans for staff to increase awareness of alternative options to access the workplace.
 - Developed local case studies of individuals who had loaned e-bikes, these are now available on the staff intranet.
 - Created a short film highlighting the facilities available at University Hospital Crosshouse which are available to support staff who travel actively to and from work UHC facilities to support active travel
 - Created/promoted infographics with details of cycling facilities on key sites.
 - Ensured active travel information was available via NHS Ayrshire & Arrans Healthy Weight app.
 - Continue to contribute to wider local Planning and Strategy developments via feedback on consultations and discussions e.g. with Ayrshire Roads Alliance and Sustrans around an active travel route which improve access to University Hospital Crosshouse.

- What did we do last year to improve public and community transport links to NHS sites and services?
 - We have provided information on bus routes to our hospitals, inclusive of sign posting to available community transport or for specific groups e.g. cancer patients travelling to Glasgow.
- What are we going to do this year to reduce the need to travel?
 - (TEC) Technology Embedded Care continues to allow monitoring of long-term conditions at home e.g. blood pressure, blood glucose and TEC/digital solutions is a component of each of the “Caring for Ayrshire” Workshops. “Caring For Ayrshire” is our local transformational programme and digital solutions to prevent people from having to come up to hospital are a major component of this programme.
 - With the growing multidisciplinary teams around primary care – many more interventions are being provided at a local level, also reducing the need for patients to travel to our hospital sites.
- What are we going to do this year to improve active travel?

April 23-24 so far

Developed a draft Active & Sustainable Travel Strategy in conjunction with Travel Knowhow Scotland which will now be taken to the board for approval.

Wider discussions internally about governance of this work and potential membership of subgroups related to the Climate Emergency and Sustainability Operational Groups, supporting a proactive programme of planning and reporting.

Promote and maintain Cycle Friendly Employer Status and Cycle to Work Scheme with staff. To date for the period April 23-Sept 23 - 55 people have applied to use this scheme.

Installed an additional cycle shelter at North Ayr Health Centre via Staff Lottery funding.

Encouraging others via intranet, e news daily digest to respond to relevant consultations and submit responses that may impact active travel and transport e.g. NA Local Transport and Active Travel Strategy, SPT Active Travel Strategy, Accessible Ayr consultation.

Record and promote a short film with NHS A&A CEO championing active travel

Continue to promote a short film describing facilities at University Hospital Crosshouse.

12 staff attended walk leader training with The Trinity Active Travel Hub in Aug 23, these staff are offering weekly walking activities for patients and informal staff walks.

Updating Transport and Active Travel Intranet pages and infographics to promote cycling infrastructure on key sites.

Active Travel: Challenging Poverty – promoting activities at The Trinity Active Travel Hub to support to support Challenge Poverty Week.

Continue to promote various activities available e.g. Adult Cycle Training, e-bikes, Cycle to Work Scheme, 33 people attended Dr Bike sessions delivered at NHS sites across North South and East Ayrshire.

Included active travel information in examples of current work in the Director of Public Health Board report on Obesity and Diabetes Prevention Oct 23.

Installed a cycle shelter at East Ayrshire Community Hospital and Three Towns Resource Centre via funding supplied by Sustrans Workplace Engagement Officer.

Contributed to wider local Planning and Strategy developments via feedback on consultations and discussions e.g. with Ayrshire Roads Alliance and Sustrans around an active travel route which improve access to University Hospital Crosshouse, East Ayrshires Active Travel Strategy, Kilmarnock infinity active travel loop, Moorfield Innovation Hub, NA Local Transport and Active Travel Strategy, SPT Active Travel Strategy.

Currently in discussions with local third sector organisation (Yip world) to offer free bike and e-bike loans to staff.

Supporting a digital health project in the Irvine Valley area of East Ayrshire by providing active travel information to be shown on TV screens with a GP practice.

Promoting use of e-bikes from South Ayrshire Community Transport with GPs and AHPs, to see if there is uptake to use e-bikes for home visits

- What are we going to do this year to improve public and community transport links to NHS sites and services?

In discussion with South Ayrshire Community transport and local communities in South Carrick to obtain funding and agree a daytime community transport

bus service one day per week between rural village and local GP Practice in Ballantrae.

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 Ayrshire & Arran fleet at the end of March 2022 and March 2023:

	March 2022		March 2023		Difference in % Zero Emissions Vehicles
	Total vehicles	% Zero Emissions Vehicles	Total vehicles	% Zero Emissions Vehicles	
Cars	209	2%	206	22%	20%
Light commercial vehicles	94	0%	94	0%	-
Heavy vehicles	8	0%	8	0%	-

The following table sets out how many bicycles and e-Bikes were in NHS Ayrshire & Arran s fleet at the end of March 2022 and March 2023:

	March 2022	March 2023	Percentage change
Bicycles	0	0	0
eBikes	0	0	0

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](#)) 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](#)) requires every public body to summarise their activities to meet this duty, through the production of a publicly available report.

- Refer to our Biodiversity Report

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 national Green Exercise Partnership NHS Greenspace Demonstration Project aimed to:

- improve the quality and accessibility of greenspace on a range of demonstration sites
- encourage more use of greenspace by patients, staff, visitors and members of the local community

NHS Ayrshire & Arran conducted a strategic review of its outdoor estate which led to the creation of several Landscape Assessment and Development reports. The table below outlines the key greenspace projects which were further developed and implemented because of this and their benefits.

Project name/ location	Benefits of project	Details of project
NHS Greenspace Demonstration site at University Ayr& Ailsa	Extensive woodland walks, teaching circle installed Increased biodiversity and tree planting Active travel routes improved and upgraded Way marking, signage and promotional illustrated maps created	NHS Greenspace Demonstration Project. NHS Greenspace NatureScot Creation of Woods and Walks leaflet for Ayr and Ailsa Hospital

<p>Greenspace for Health Officer at University Hospital Ayr & Ailsa</p>	<p>Delivery of green health activities on site, promoting nature-based activities to promote health and wellbeing and nature conservation</p>	<p>Specific project delivering Green Gym activity on the demonstration site 2016 – May 2023, delivered by The Conservation Volunteers (TCV).</p>
<p>NHS Greenspace project Ayrshire Central Hospital</p>	<p>Improved woodland management and woodland walk creation. Walk is now used daily by patients, staff and the local community to improve wellbeing and keep physically active</p>	<p>Woodland management plan developed and implemented, and woodland walk created in a previously inaccessible area on site.</p>

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 was 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.

- What did we do last year to reduce the environmental impact of the goods and services we buy?

The NHS A&A Sustainability Strategy contains 12 actions for the Board to implement around procurement. These actions are aligned to the Board's

climate change duties and progress against these actions are being reviewed by the Climate Emergency and Sustainability Operational Group (CESOG). Importantly we have committed to increase our spend with local suppliers, and to proactively engage with potential suppliers to support and facilitate their involvement in our contracts.

- What are we doing this year to reduce the environmental impact of the goods and services we buy?

The 2014 Procurement Reform (Scotland) Act introduced the Sustainable Procurement Duty requiring public bodies to consider how they can improve the economic, social and environmental wellbeing of their constituency, and act in a way to secure improvements identified. All contracts which require an Open Tender and are over the Threshold (£138,760 for supplies and services and £5,336,93 for works) and are tendered by the Procurement Team are continuing to consider how each procurement process can improve the economic, social and environmental wellbeing, by completing a procurement strategy document prior to each Procurement. This Document ensures appropriate consideration and management approval of each tender prior to the publication. Use of Warp-It portal to re-cycle office furniture and equipment. Increased use of sustainability led questions on quick quote and tenders.

We want to reduce the amount of waste we produce and increase how much of it is recycled.

The table below sets out information on the waste we produce and its destination for the last three years:

Type	2020/21 (tonnes)	2021/22 (tonnes)	2022/23 (tonnes)	Percentage change
Waste to landfill	0	0	0	-
Waste to incineration	1,090	1,091	1,252	+ 14.9%
Recycled waste	344	383	441	+ 28.2
Food waste	78	3*	49	37%
Clinical waste	1,269	1,275	1,466	+ 15.5%

*Data missing

We have set targets to reduce the amount of waste we produce, and the tables below provide information on our performance against those targets:

Reduce domestic waste by a minimum of 15%, and greater where possible compared to 2012/2013 – by 2025

Target – reduce domestic waste by	312 (tonnes)
Performance – domestic waste reduced by	649 (tonnes)
Outcome	ACHIEVED
Further reduction required	0 (tonnes)

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	1,358 (tonnes)
Performance – waste sent to landfill reduced by	1,358 (tonnes)
Outcome	ACHIEVED
Further reduction required	0 (tonnes)

Reduce the food waste produced by 33% compared to 2015/16 – by 2025

Target – reduce food waste by	62 (tonnes)
Performance – food waste reduced by	159 (tonnes)
Outcome	ACHIEVED
Further reduction required	0 (tonnes)

Ensure that 70% of all domestic waste is recycled or composted – by 2025

Target – recycle or compost	1,000 (tonnes)
Performance – recycled or composted	377 (tonnes)
Outcome	NOT ACHIEVED
Further increase required	623 (tonnes)

- What did we do last year to reduce our waste?
 - Minor projects in theatres were undertaken to assist our reduction of waste into the orange waste stream to increase our recycling rates.
 - We worked with a waste champion to reduce waste coming out of wards, introducing more recycling containers into wards.
 - We replaced our black bag compactor to aid reduce the number of uplifts to the hospital in collection of this waste stream.
 - We also replaced our paper/cardboard compactor in Jan '23 which has helped to reduce the uplifts in waste, reducing our costs.
- What are we doing this year to reduce our waste?

A team of staff undertook pre acceptance audit training, where 202 pre acceptance audits have been undertaken for all inpatient sites and sites where we pick up waste from. During these audits the teams were able to speak to staff about their waste to help increase our recycling rates. Action plans are being issued to the department

heads where any non-conformances have been found during the audit. A rolling program of repeat audits is being devised for the years ahead to carry out the same process. The dental surgeries and GP surgeries are currently being undertaken.

We will be updating our waste poster in line with the national waste poster, which is currently going through approval with our infection control teams.

Waste teams are participating in the Green Theatre Program helping sites across the organisation to increase our recycling rates, ensuring high quality packaging is recycled appropriately.

Sample reusable gowns are being brought in from our main laundry in Lanarkshire, but sadly this was unsuccessful as the gowns were too heavy and caused staff discomfort and overheating.

Ayr Surgical management team meetings will be held to assist and discuss further waste segregation strategies.

Reusable theatre hats investigation works ongoing for feasibility with infection control.

Revolution pods used to launder reusable gowns will be addressed for suitability. Due to the extra processing required for drying and the chemicals for cleaning, we have very limited national laundering capability for reusable gowns.

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.

- What steps did we take last year to develop and implement our EMS?

Focus of last year was to address the top 5 organisational compliance tasks and ensuring that audits, reviews, and compliance was carried out.

Our annual delivery plans for climate change and sustainability were developed around the requirement to become ISO14001 compliant and develop a management system for compliance.

Assessment of the legal register was undertaken for applicability to the organisation and who should be responsible for various actions.

Main goals are to gain funding for an EMS post, write and get approved a job description and carry out development of the legal register, aspects register and creation of the board wide compliance platform encompassing health, safety, wellbeing and environment, using a 9001-quality basis.

- What did we do last year to improve our environmental performance?

Environmental performance improved this year with our highest ever recorded renewable heat and power generation. This reached 26% of our total energy (heat and power) came from renewable sources. The highest performing board in Scotland to achieve this.

We achieved reductions in the burning of fossil fuels which fell by 8,486,493 kWh helping to reduce our carbon footprint and exceed our carbon reduction target overall for this reporting year, by an additional 3%.

- What steps will we take this year to further develop and implement our EMS?

We have been working with our quality manager and health and safety teams to scope out a suitable management system platform to host the QHSE compliance. This will help track training, non-compliance, policies, audits, procedures and best practice.

A business case for staffing has been written and currently going through a process to gain traction, support, and approval.

- What are we doing this year to improve our environmental performance?

We are tackling the Scottish Heat Network regulations along with the new 2023 compliance asks for the board.

Obtaining support to gain resources to take forward the EMS creation and work plan

14. 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. NHS Ayrshire & Arran is working on the following building projects:

National Treatment Centre – NHS Ayrshire & Arran

- What did we last year to make our construction projects more environmentally sustainable?

We spend time piloting the new mandatory (SDaC) Sustainable Design and Construction guide SHTN02:01 and applying this to our National Treatment Centre project.

We also looked at using the Scottish Governments Net Zero Standard for buildings and refurbishments standard and seeing how this would fit in with the project. The SDaC points to certain areas of the SG Standard and how we are to apply this through the SDaC process.

The aim was to build our first net zero building, but this has not been achieved. It will require further capital investment to make the facility net zero annual operational energy which is being sought through grant funding.

- What are doing this year to make our construction projects more environmentally sustainable?

We have been feeding into capital project work to address environmental issues around the using more sustainable, non-toxic products, moving away from plastics in paint and removing the use of PVC (polyvinyl chloride) in flooring materials.

15. 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 (delete as appropriate)?

North Ayrshire Green Health Partnership (NAGHP)

Worked with partners to increase engagement in nature-based activities to improve health and wellbeing through everyday contact with nature, nature-based health promotion initiatives and via referral pathways.

Provided approx. £40K (2022/23) of its funding to green health projects within North Ayrshire, delivered via the Communities Mental Health and Wellbeing Fund supporting outdoor learning, health and wellbeing, volunteering, community development through a range of activities via local community groups such as

nature connections, growing, community/social gardens, mindfulness and nature-based art. In total the (NAGHP) North Ayrshire Green Health Program has contributed around £114K to local green health projects since the programme began in 2018.

The NAGHP Senior Project Officer has led on work to promote and embed green health within referral pathways promoting the benefits of green health activity across a range of services.

Many partners and stakeholders on the steering group have been successful in securing funding to increase green health activity locally e.g. KA Walking for Health Coordinator, TCV delivering green gyms and health walks locally and work at Eglinton Community Garden specifically for veterans.

NHS A&A have been leading the NAGHP Steering Group meetings to maximise engagement with nature to improve health and wellbeing through our work with partners and the wider CPP.

Addressing priorities in the LOIP around Wellbeing, Work and World and encouraging investment in greenspaces and biodiversity green health volunteering, employment, supporting community groups and health and wellbeing.

Developing a Green Health Framework with Greenspace Scotland about how we could embed green health activity through everyday contact with nature; green health activities e.g. conservation, walking groups, growing etc. and green health prescribing.

Developed a NAGHP website where individuals can access green health information across North Ayrshire. Includes details on a range of activities including a weekly events calendar of activities.

Developed resources to support engagement in nature-based activities e.g. calendar of activities for people to use alone or with their friends/family.

Delivered Green Health Week (May23) which included over 40 different activities over the week via the event calendar which people could attend and an event at Eglinton Country Park promoting all things green health with around 26 different community groups in attendance and over 100 people visiting the stalls and activities on the day.

Regular network events organised across the localities to engage people who deliver or participate in green health activity to share information with them and provide time to network with others, sharing experience and find out what's happening locally.

South Ayrshire Green Health and Active Living subgroup

Although South Ayrshire does not have a funded Green Health Partnership as in North Ayrshire, there is strong interest in the delivery and promotion of green health activities. The Green Health and Active Living subgroup was formed from South Ayrshire's Community Planning Partnership and has a strong group of partners who have developed a 3-year action plan to develop and promote green health in South Ayrshire.

A Green Health App has been developed, which sits within the NHS Ayrshire & Arran retainer app and includes a range of green health activities and groups in South Ayrshire, and work is underway to link with health professionals to encourage referral to the app.

Marketing materials are being developed, including:

- NHS Ayrshire & Arran webpage nhsaaa.net/services/services-a-z/better-health/green-health/
 - Green health leaflet
 - Video for social media
 - Nature calendar including self-led opportunities for green health
 - Referral leaflet for health professionals
 - Training resource for health professionals
- What are we doing to improve the resilience of our local community / communities to climate change?

North Ayrshire Green Health Partnership

Commissioned Greenspace Scotland to develop a Green Health Framework as a legacy of the NA GHP which will address the priorities within the Local Outcome Improvement Plan around World, Wellness and Work.

Working alongside organisations and community groups as part of the Climate Action Towns initiative in Stevenston.

Meeting regularly as part of the North Ayrshire Council (NAC) Climate Change steering group and associated subgroups to progress and feedback on associated activity such as active and sustainable travel and nature and biodiversity.

16. Conclusion

In terms of overall carbon reduction, the board has made good progress this year in working towards meeting its 2030 target. We have made a reduction in the burning of fossil fuels by over 8.4 million kWh, and our total energy that came from renewables reached 26% which is an incredible figure, leading the way in the NHS Scotland. The roll out of Microsoft 365 packages is enabling the workforce to collaborate better and helping to drive changes in the way the organisation operates. It must be said that our paper use stayed relatively flat this year at 17.9 million sheets.

Compliance with the DL (2021)38 – A policy for Scotland on the Climate Emergency and sustainability development and the requirements contained within the boards Annual Delivery Plan (ADP) are extensive, and the organisation must address the requirements within these, and the resources needed to take forward the work in this developing area. As we work towards net zero at the pace and delivering the ambition that Scottish Government are driving us towards, along with the reporting requirements, climate change mitigation and adaptation planning requirements, all the environmental legislation compliance work, and the joined-up approach we are taking around climate change and sustainability.

As we develop our compliance, digital means are needed to track progress, audits, training, policies and procedures. Creating an umbrella system where we can pin our ISO standards and legislation that falls under all departments will be key. Bringing together health and safety, wellbeing, quality and environmental management into a single compliance tool will be progressive.

We have an organisation full of staff who care and are keen to make changes for the better. Staff who have a focus on people and planetary health all working away in different areas across the organisation bringing in change for the greater good. Working together to increase sustainable practices, promoting equality, making cleaner and brighter futures for our families and those families to come.

Appendix 2

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](#)) 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](#)) 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?**

We have put together a Biodiversity Natural Capital Assessment package to address a variety of aspects of biodiversity and ecosystem baseline services for each site across the NHS Ayrshire and Arran estate. A detailed evaluation of the health and wellbeing benefits of our estate is required to help bolster any future business cases.

A complete mapping exercise of the estate will be taken using GIS Geographical Information Systems base mapping to clarify each land use type for example, grassland, hedgerow, individual trees. This will be added as an additional layer to our existing Greenspace GIS map.

Habitat quality and biodiversity quality will be included within the basemap, this will create our biodiversity baseline assessment using the new Natural England tool. This will allow us to test any biodiversity improvements in our estate enabling estate managers to show improvements even changes in maintenance that take place, or when we add new buildings onto our estate, we can measure the impacts of biodiversity loss or gain.

Mapping our physical ecosystem flows and services will be key to show a range of benefits that arise from the managed natural assets in our GIS map. Carbon storage and sequestration can be monitored and assessed, air quality, noise, urban heat, water flows, water quality, pollination, agriculture production, timber production, assessable nature, and recreation activities. For each ecosystem listed the capacity of the natural environment to deliver that service will be mapped.

Monetary flows of ecosystem services can then be calculated based on a variety of techniques from Office of National Statistics and Defra guidance to standardise the approach to the calculation. Each of the ecosystems can be assigned a cost per visit / M3 / tonne of CO₂e etc.

Health and wellbeing quantifying the quality-of-life impact of the patients and staff that interact with the greenspace which can then be used to assess money saved to the

organisation through the resultant decrease in treatment required by the patient. This would focus on certain green health activities linking into our green health partnership work, and green prescribing. This will provide a cost benefit analysis of green health interventions.

An improvement plan will be drawn up providing recommendations to the estates green space for improvements to enhance the current biodiversity, improve climate change resilience, and health and wellbeing. A cost benefit analysis can be achieved for the health benefits for health and wellbeing and other natural capital benefits along with costs of maintaining the infrastructure and wellbeing programs. This will provide the board with a local biodiversity action plan which will meet one of our biodiversity and greenspace objectives required in law and our current work plan.

Funding is being sought to take forward this work so we can detail our biodiversity across our estate.

- **Please include all specific actions that the NHS Board has made that have (or will benefit) biodiversity, noting successes and challenges, any plans for future or follow-up work and any enhancements secured for biodiversity as part of development projects. Examples of relevant actions you may wish to include are detailed below:**

- Creating a Local Biodiversity Action Plan (LBAP) or contributing to a local authority LBAP.
- The development of (or contribution to existing local authority) NHS Board strategies e.g. climate action plans, forest and woodland strategies, green infrastructure strategies, pollinator strategies, Invasive Non-Native Species (INNS) management plans, or nature networking strategies.
- Leading or contributing to local biodiversity partnership or working collaboratively with internal and external organisations.
- Undertaking a natural capital assessment of your organisation.

We have been working with our local partners working in a collaborative fashion feeding into biodiversity partnership groups. The North Ayrshire biodiversity Partnership is chaired by Neal Lochrie and comprises a variety of local groups like conservation volunteers / green health partnership, Scottish Wildlife Trust, Nature Scotland, Friend groups of the community councils, Arran Seabed Trust, Nectar Networks, Growing groups, RSPB Scotland, and the Southwest Scotland Environment Information Centre.

Review of the new Scottish Government biodiversity strategy to 2045 helping to empower everyone to tackle biodiversity loss accompanied by an act in parliament that has a target to restore nature. This will be key as to how we plan to deliver biodiversity improvements with involvement of the local community. Biodiversity loss aim is to come to an end by 2045, with gains seen in 2050. Local Biodiversity Action Plans will need to address and align with these targets and provide a focus on nature networks. The aims of the partnership are to have a variety of working groups who would take forward a particular piece of work providing support to each other and building up relationships.

Issues being addressed around local planning where greenspace is being targets for housing development, and how the planning framework deals with this. NPF4 National Planning Performance Framework 4 supersedes existing Local Development Plans which will be positive for biodiversity using the local biodiversity action plans working groups to pull together species and habitat lists specific to each area. Reviews of local conservation sites

are being undertaken and expanded to the island of Arran. Health and wellbeing targets should be part of the delivery plans and would be great to get these included.

- **Identifying, restoring, enhancing, and protecting habitat types across the estate. Wherever possible, please provide quantitative measures where possible (e.g. area of habitat restored, area of estate now managed for biodiversity, number of developments or projects where biodiversity is being enhanced, it could include changes to management techniques too).**

Works have been undertaken at Clonbeith building in Ailsa Hospital where biodiversity improvements have been undertaken using a variety of funding methods. Free services were provided by a local volunteer who is a professional garden designer. She was supported by a small group of local volunteers who worked on the project bringing it to fruition. Donations of plants, perennials and bedding were supplied by the local Dobbie's Garden centre, and applications to the woodland trust were made. The garden is for patient and staff use, specific to that ward which is closed off and used as sensory garden. The patients are used to help maintain the garden.

At Ayr Hospital we have created a small garden as part of a wellbeing suite development within the dining room area. The creation of an internal room for staff, and a cordoned off developed garden. It has park benches for staff to sit and relax in. It has been planted up to create a relaxing space for staff to come to.

Also, a redeveloped central courtyard work was undertaken at Ayr Hospital for staff to use. Creating an area to sit and relax for staff to take some away from the stresses of the hospital.

We also have a charge nurse who runs the Acorn Garden at Ailsa Hospital where clinical staff lead this large area of garden with greenhouses and expansive growing area. Work has been undertaken this year around the replanting of flowers and maintaining the land, as since Mental Health Scotland left the site, this area has been neglected, and the level of work needed for its upkeep has not been there. However, we have a new lead gardener who involves patients in the community to assist in restoring this area. Funding is achieved through the workshop on the land where goods are made and sold for capital to help run the Acorn Garden along with some fund-raising events throughout the year.

- **Consolidating biodiversity data the Board may hold (e.g. site surveys as part of developments, tree surveys, protected species surveys) to ensure it is accessible for boards to reference.**
- **What actions have been taken to contribute to the NHSScotland Estate Mapping programme, or to develop an internal mapping programme?**

We were the pilot board for carrying out of Greenspace mapping work where we have created an online GIS map showing all our greenspace. This work was undertaken by John Maslen of Greenspace Scotland.

[ArcGIS - NHS property map](#)

However, this is just a snapshot in Sept '21 and we do need to update this map to reflect our current estate. Resources are required to address this, and some mechanism within the NHS for updating this workstream.

- **Identifying nature network opportunities throughout sites and wherever possible, aligning with wider connectivity opportunities in adjacent locations.**

Projects have been identified across several of our sites to enhance our biodiversity through wildflower / meadow planting. As part of our community benefits work, Hewlett Packard have provided £20k worth of funding for us to develop our wild planting across various sites.

Location	Bed	Size	Cost
Ailsa / Ayr	Bee Bed	25 m2	£1,906
Ailsa / Ayr	Enhanced Grassland area	1000 m2	£6,490
Ailsa	Herbaceous border	2.7 m2	£704
Ayrshire Central Hospital	Bee Bed	42 m2	£2,199
Ayrshire Central Hospital	Enhanced Grassland	150 m2	£1,720
Crosshouse Hospital	Bee Bed	50 m2	£2,667
Crosshouse Hospital	Woodland Planting	30 m2	£1,418
Crosshouse Hospital	Hedgerow widening	200 m2	£2,110

Each project would require several volunteering hours to complete which can be made up of local off duty staff, public volunteers, and engaging with organisations such as VASA for example. We can also call on the support of the South Ayrshire Rangers service which would aid and provide guidance on the planting.

This work would help us achieve 3 actions in our climate change and sustainability strategy and take good steps to increase our biodiversity. However ongoing maintenance of the new areas which granted will take need attention twice per year, will require staff to undertake this. At present we do not have any additional resource to look after these areas of planting so further discussions are needed to help drive this project work forward. We have been approached by local volunteers who would like to carry out this maintenance work, and this also could be linked into our green health partnership work and green prescribing as a wider linkage helping to join up that circle.

We are aiming to create a greenspace and biodiversity working group next year to assist with the Scottish Governments ask around work in this area, where we can bring together all the relevant people in a group to develop our action plans, land use polices, and drive the links between green prescribing, green space and biodiversity as core business, and not a nice to do. If funding becomes available our natural capital work will be able to provide the board with a business case to help take this work forward.

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

Biodiversity forms part of the boards Climate Emergency and Sustainability Work plan and has a key focus in the organisation. Regular updates on progress are provided and we have started to work with our local partners round the table to look at ways we can work together and develop our formal plans.

Flooding has caused areas of pathways and woodland to be damaged and flood. These events will feed into our adaptation planning work which will provide a formal pathway to start to cost up mitigation measures to stop future events taking place.

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

We have existing nature-based solutions which include tree and wildflower planting extensively across our property portfolio which is managed through volunteering and patients. We have introduced SUDS areas into our modern designs for our National Treatment Centre for example, and the creation of a rain garden.

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

Communication and education activities are undertaken to inform and engage directly or indirectly with staff, patients, and the public. We raise awareness through actions to raise staff, staff and community enjoyment and understanding of, and connection with, biodiversity and nature, such as:

- Supporting volunteering opportunities – across various hospital sites work is undertaken with patients especially in the mental health specialities.
- We run two green gyms were run at Ailsa Hospital by The Conservation Volunteers until May 2023. These included patients who were primarily referred from Cardiac, HARP and Pulmonary rehabilitation, as well as Musculoskeletal programmes. Self-referral was also possible. Activities involved gardening, gentle DIY nature projects, walks, litter picking, biodiversity surveys and mindfulness
- No new signage 22/23, except replacement of a broken sign at Ailsa. One interpretation board and one waymarking sign replaced.
- NAGHP (North Ayrshire Green Health Partnership) wrote an article for Daring to Succeed showcasing work ongoing through this program of works.
- The Greenspace for Health Officer at University Hosp Ayr/Ailsa delivered two bioblitzes as part of Earth Hour in March 2023, recording different types of birds, wildflowers, plants, mammals and invertebrates at Ayr and Ailsa Hospital sites.

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

We have added in biodiversity targets into all new projects. These much achieve a 10% increase in biodiversity gain. The project must baseline the existing place, and then measure again to ensure a 10% has been achieved.

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 and community resilience building.

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

Project name/ location	Benefits of project	Details of project
Project name or location used as an identifier	Indicate/list the benefits of the project	Provide any key information regarding the project. This may include costs, timelines, collaborative working, lessons learned, future planning.
Ailsa Hospital Acorn Gardens	Biodiversity Health and Wellbeing	Mental Health Scotland have left the Ailsa Hospital site as we have no adult mental health facilities here anymore. However, the local community mental health teams have taken over the running of the Acorn Garden land on the site which is run by the head clinical nurse. The team work with patients who are referred through with issues of low mood, anxiety, or other mental health issues to engage and work in the garden creating new spaces, increasing our planting and biodiversity by reinvigorating the land back to its former gardens.
Woodland Walks Ayr / Ailsa / Ayrshire Central Hospital	Health and Wellbeing	Woodland walks are extensively used by local people on both sites, particularly important at ACH as the local community of Castlepark is within deciles 1& 2 of the most deprived. The Conservation Volunteers deliver a programme engaging people in health walks from Eglinton Medical Practice on site at ACH using the woodland walk regularly. They also deliver walks and green gyms at Castlepark Community Centre close to the hospital site and a green gym at Kilwinning Library.
Greenspace Health Officer Post	Biodiversity & Health and Wellbeing	Our current post has sadly come to an end and we have lost our lead officer for greenspace within the organisation. Funding for this post has ceased and this is something the board are looking towards other ways of funding.
Woodland View Walking	Health and Wellbeing	12 staff at Woodland View Walk Leader trained summer 2023, patient walking groups daily on site within Ayrshire Central Hospital.