



**University Hospital
Southampton**
NHS Foundation Trust



OUR GREEN PLAN

2022 to 2025

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 **OUR SUSTAINABLE UHS**
Together we'll create a healthier future





“WE ARE ALL KEY
TO SUCCESSFULLY
TRANSITIONING UHS TO
BECOME A SUSTAINABLE
ORGANISATION”



**MESSAGE FROM
THE CHIEF MEDICAL
OFFICER**

At UHS we recognise that to effectively respond to the climate crisis everyone has a part to play, including myself.

Our Green Plan sets out where we are on our journey to decarbonising UHS and achieving the challenging NET ZERO target set by the NHS. In this plan we identify our areas of focus and our ambitions for the next three years.

We are all key to successfully transitioning UHS to become a sustainable organisation, learning what we can do, be that from a personal or professional perspective.

I haven't entered this arena with a strong background in environmental sustainability but it has caused me to reflect very significantly. I am therefore going on this journey with you all; there really are so many actions we can take at home and

work that will collectively make a big difference. At home I've been looking at many actions to improve energy efficiencies, increase recycling and reduce plastics use, but also if an electric vehicle could work for my commute.

Alongside this I am seeking improvements through my clinical role and, in sponsoring this programme, I am hoping together we can make a positive impact on the environment through everything UHS does.

As this first Green Plan is just the beginning, we look forward to working with you all in developing the programme.

Paul Grundy

Paul Grundy
Chief medical officer



OUR SUSTAINABLE UHS
Together we'll create a healthier future

BACKGROUND

THE NATIONAL PICTURE

The UK is committed to becoming **carbon-neutral by the year 2050**, as per the Climate Change Act 2008. The national NHS targets and the targets within this Green Plan are based on the Climate Change Act 2008.

In October 2020, the NHS became the **world's first health service** to commit to reaching carbon net zero, in response to the profound and growing threat to health posed by climate change. The *'Delivering a Net Zero Health Service'* report sets out a clear ambition and two evidence-based targets:

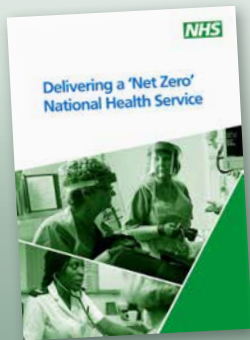
1. for the emissions we control directly (the NHS Carbon Footprint), to be **net zero by 2040**, with an ambition to reach an **80% reduction by 2028 to 2032**.
2. for the emissions we can influence (our NHS Carbon Footprint Plus), to be **net zero by 2045**, with an ambition to reach an **80% reduction by 2036 to 2039**.

In October 2021 the chief executive of the NHS, **Amanda Prichard**, stated that climate change is a health emergency, as well as an environmental emergency and how important activities were to make a difference to patients, staff, communities, and to save lives.



THE PICTURE AT UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST (UHS)

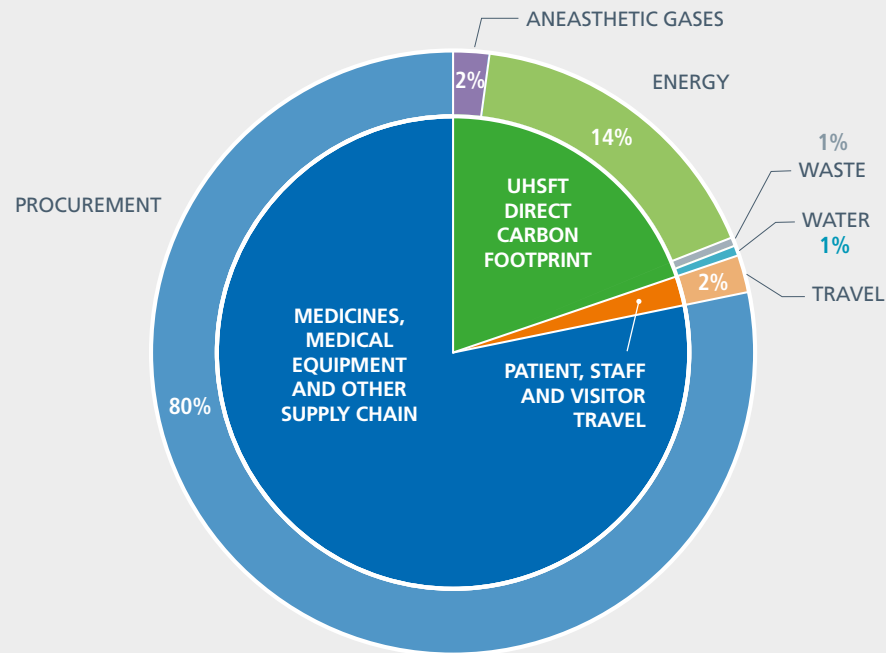
We recognise the **enormous challenge** that the issues of climate change, air pollution, waste and environmental decline present to the city of Southampton and the impact that these issues have on the health and wellbeing of the local population we serve. This plan outlines how we as an organisation are planning to help address these issues at a local level.



UHS NET ZERO PATHWAY

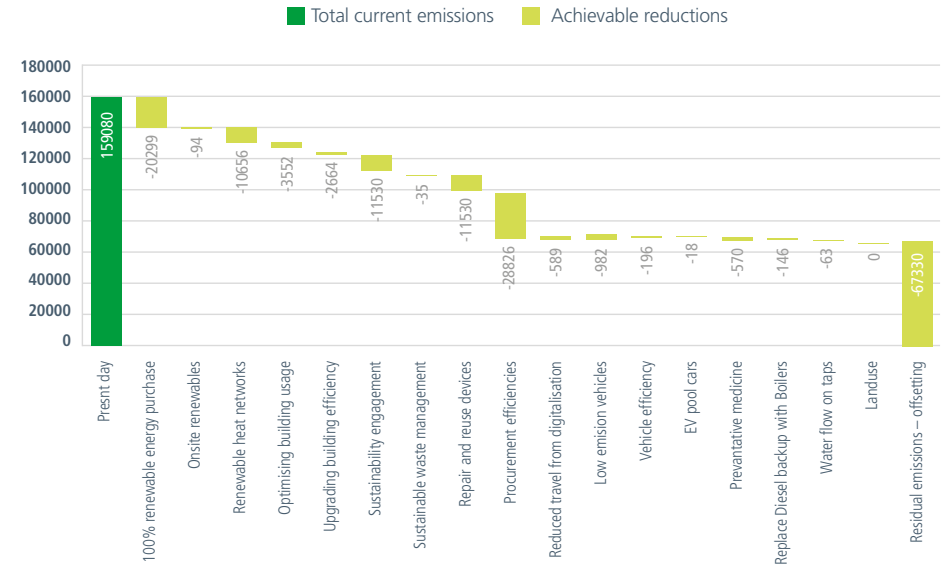
In order to plan our pathway to net zero carbon emissions, we must first understand the areas responsible. The chart below identifies the sources of emission by activity. Whilst the chart makes clear that the area around medicines, medical and other supply chain gives us the greatest opportunities for positive change, the small changes each individual one of our 13,000 staff can make will contribute significantly to the overall picture.

UHS carbon emission (tCO2e) by activities



An assessment has been carried out looking at the impact of a range of activities which can be achieved through existing technology. This has indicated that through current technology it should be possible to transition around half the Trust carbon emissions over the next decade.

Carbon reduction pathway



SUSTAINABILITY AS PART OF THE UHS WAY

The work of the sustainability board and its sub-groups sit within the Foundations for the future strategic pillar as, at its core is the intention to build a sustainable future for UHS and to contribute to the longterm goals of the NHS. Yet the ambitions and the outcomes we seek to achieve cross each one of the pillars that form **THE UHS WAY**. Delivering world class care is more than just about offering the most advanced treatments or delivering the best outcomes, it's also about doing all of these things in a sustainable, environmentally responsible way. And so it's integral to all that we do here at UHS and it should factor into each and every decision we all make.



OUTSTANDING PATIENT OUTCOMES, SAFETY AND EXPERIENCE

The overall decarbonisation aim is designed to improve the health and outcomes of our population (which include our staff) so it is within this pillar that we see the greatest impact.

- **Adaptation** – looking at how we can ensure the extreme weather conditions we now experience do not negatively impact the quality of the care or our patients' experience of care. See page 32.
- **Biodiversity** – this is the key indicator of the health of an ecosystem. By looking at how we can improve our own biodiversity we able to positively contribute to the health of the local population. See page 34.
- **Food and nutrition** – by looking to increase plant based and locally sourced food products within our supply chain we will be able to offer our patients food that is healthier for them and our planet. See page 30.
- **Travel and transport** – by supporting sustainable travel options we can reduce air pollution and ease traffic congestion around our hospital sites. See page 26.
- **Digital transformation** – by embracing new and innovative healthcare technology we are able to offer care to our patients in their own home or in more convenient locations. That improves their experience of care and reduces the need for travel to our sites. Reducing unnecessary journeys reduces air pollution and reduces traffic congestion and parking around our sites, benefitting the health and wellbeing of residents local to UHS. See page 22.
- **Clinical and medicines** – in order to improve the sustainability and performance of the Trust it is important to improve the sustainability of our care models. See page 20.



WORLD CLASS PEOPLE

- **Adaptation** – the issue of how we as an organisation adapt to the now more common place extreme weather conditions has a huge impact on our staff who are not only trying to ensure they continue to deliver a high standard of care during these events, but are also often putting themselves at risk travelling to and from work in such adverse weather conditions, and are then working in those conditions. See page 32.
- **Biodiversity** – seeking to improve our own biodiversity will positively contribute to the health of our staff. Biodiverse green spaces also have a huge impact on mental health, so the provision of such spaces is essential to the wellbeing of our staff. See page 34.
- **Food and nutrition** – as mentioned, by looking to increase plant based and locally sourced food products within our supply chain we will be able to offer our staff nutritious options that support their health and wellbeing and food which has had a limited impact on the environment. See page 30.
- **Travel and transport** – by supporting sustainable travel options we can reduce air pollution and ease traffic congestion around our hospital sites. See page 26.
- **Digital transformation** – investing in technologies that reduce stress and pressure on staff will improve their mental wellbeing, reduce errors and ensure they feel supported and empowered to do their jobs to the best of their ability. See page 22.



INTEGRATED NETWORKS AND COLLABORATION

- **Supply chain and procurement** – ensuring the sustainability of our supply chain will require us to support, guide and work together with the internal departments who receive goods and services from our supply chain, our procurement team who purchase these on behalf of the Trust and, of course, our external supply chain partners. Only by working collaboratively with all our stakeholders can we deliver a shared vision. See page 24.
- **Clinical and medicines** – as part of an integrated care system, we are collectively responsible for delivering the NHS targets and therefore it's crucial that we work alongside our NHS partners, sharing insight and best practice and monitoring progress. See page 20.
- **Travel and transport** – as one of the city's largest employers and organisations many residents interact with, we can support Southampton City Council's Clean Air Strategy by encouraging behaviour change to improve air quality. See page 26.




FOUNDATIONS FOR THE FUTURE

- **Adaptation** – it's important that as a Trust we look at how the climate is changing and what impact that will have on our ability to perform our function. Yet, it's not just adverse weather events that force us to adapt our estate. In order to stop the nosocomial infections of Covid-19, good ventilation became a crucial factor. This means we need to understand and predict the possible risks posed to our estate, our staff and our patients and having an established plan in place to mitigate these risks. See page 32.
- **Estates and facilities** – it's important that we review our estate and facilities to ensure that it's able to cope with the impact of the changing climate, as well as look at how we can reduce the environmental impact of our buildings and operations, and ensure future estate development plans are sustainable. See page 16.
- **Supply chain and procurement** – building relationships with suppliers that have sound and deliverable green plans as well as looking at their impact on our financial performance. For example, the significant increases in the price of fossil based fuels have had a significant impact on UHS. Whilst the prices we pay as consumers are capped, there are no such price caps for commercial use. Any reduction in the use of such fuels will not only reduce our emissions but will enable us to invest the money saved in other areas. See page 24.
- **Travel and transport** – we have a responsibility to understand what our sustainable models of care may look like in the future so that we can predict what future travel and transport requirements are needed. We can then work with local transport organisations to help inform their strategies. See page 26.
- **Digital transformation** – understanding the impact the digital element of our clinical strategy will have on future models of care and working with the integrated care system on the vision of healthcare in the future and how that translates into how we structure our services and estate for the UHS of the future. See page 22.



PIONEERING RESEARCH AND INNOVATION

- **Clinical and medicines** – Innovative sustainable QI projects and improvements to management of medical gases. See page 21.



University Hospital Southampton NHS Foundation Trust recognises the enormous challenge that the issues of climate change, air pollution, waste and environmental decline present to the city of Southampton.

As this first Green Plan is just the beginning, we look forward to working with you all in developing the programme.

**OUR TARGET:
NET CARBON ZERO BY 2045**

**TOGETHER
WE'LL CREATE A
HEALTHIER
FUTURE**

OUR TARGET: NET CARBON ZERO BY 2045

GOVERNANCE



Sustainability Board

In June 2021 the Trust Executive formed a **Sustainability Board** to lead the programme, this is chaired by the **chief medical officer**. The board is responsible for overseeing the Trust's sustainability programme, particularly in relation to meeting NHS England's Net Zero Targets. Alongside the chief medical officer, the Board includes the chief finance officer, director of estates, facilities and capital development, director of communications, clinical environmental sustainability lead and a representative of the Council of Governors.

Alongside the sustainability board sit a number of groups that ensure the operational delivery of the programme, these include:



Sustainability Delivery Group

Lead by the head of sustainability and energy, the Sustainability Delivery Group is responsible for delivering the Trust's sustainability programme. The group provides the Sustainability Board with a means of assurance regarding the sustainability programme.



Clinical Environmental Sustainability Sub-Group

Lead by the clinical environmental sustainability lead, this group of clinicians are collaborating to produce a clinical sustainability strategy and associated action plan. They will take the lead in rolling out of improvements across UHS.



Green Guardian Network

The Green Guardian Network is an informal group of UHS staff members, and university students who support the delivery of the Trust's sustainability objectives by:

- gathering information, highlighting issues and putting forward opportunities
- sharing best practice and
- co-ordinating awareness raising.



ESTATES AND FACILITIES

Estates represents the largest contributor to greenhouses gases at UHS and therefore offer the greatest opportunity for improvement. Direct emissions in the form of gas consumption alongside electricity consumption and embodied energy in development will all be targeted. Continual improvement in utilities management is **crucial to reducing our carbon footprint** and achieving our emissions targets.

Presently 100% of the electricity that the Trust imports is renewable, in addition to this around 60% of the electricity is generated via two large CHP systems or onsite Photovoltaic Panels.

The Trust will continue to roll out energy saving initiatives as part of our campaign on energy and resource efficiency. This will include the replacement of fluorescent lights with low energy alternatives. Energy efficiency will also be factored into procurement decisions in order that all new products, services and buildings acquired are suitably efficient.



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We are in the process of completing a decarbonisation study for the Trust, which will set out a pathway for Net Zero. The study will look at options to decarbonise all heating and electricity.

AMBITION

- Production of a comprehensive decarbonisation strategy for the trust
- Expansion of onsite renewable generation
- Highly efficient development, targeting BREEAM Excellent*
- Energy efficiency improvements through the Estates Maintenance Programme

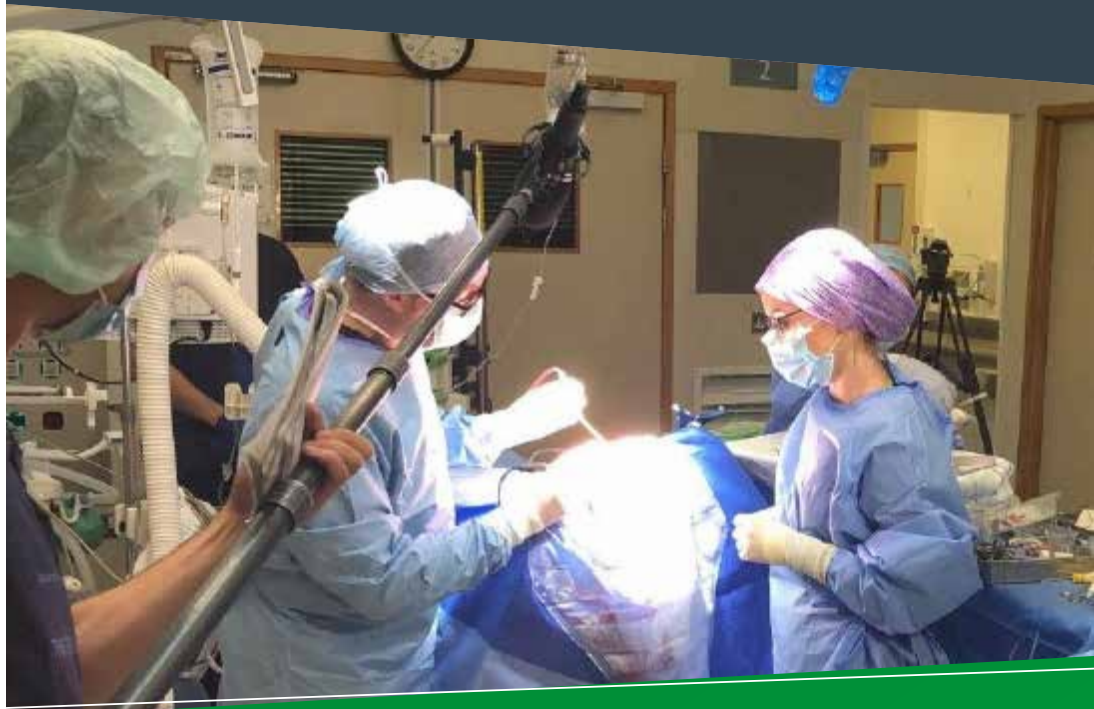


*BREEAM is the world's leading sustainability assessment method for masterplanning projects, infrastructure and buildings.

CLINICAL AND MEDICINES

To improve the sustainability performance of our Trust it is important to improve the sustainability of our care models, so we can continue to provide high quality care that does not create negative patient outcomes, environmental, social or economic impacts.

We will reduce our direct and embodied greenhouse gas emissions, such as that caused by harmful levels of anaesthetic gases, by becoming more sustainable in our use of medicines and medical equipment, such as meter-dosed inhalers. We will also get better at reducing, reusing and refurbishing a range of equipment like walking aids quickly and safely. These will all form part of our clinical environmental sustainability strategy.



We will become more sustainable through continuous improvement and innovation in the care we provide for our patients. Focusing on key areas with initiatives and utilising sustainable QI will ensure we find ways to innovate.

AMBITION

- The Trust will produce a new clinical environmental sustainability strategy
- Rollout of measures aimed at reducing consumption and the impact of medical gases such as inhalers
- Rolling programme of service areas sustainability audits
- Expansion of sustainable QI activities

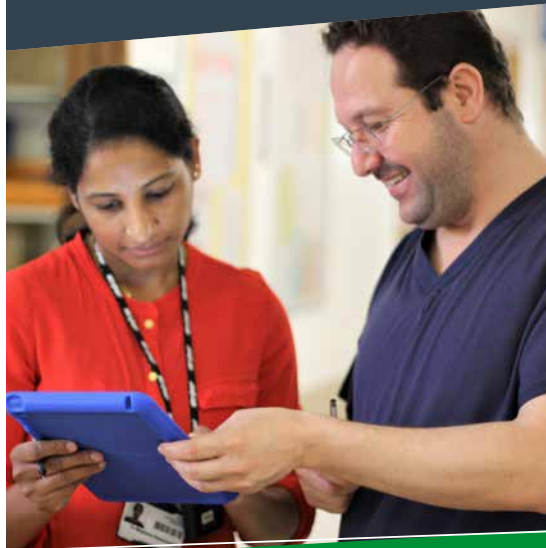


DIGITAL TRANSFORMATION



The Trust has been part of the **Global Digital Exemplar (GDE)** programme and during that time has seen the delivery of a wide range of projects which have delivered benefits for both staff and patients. The GDE programme accelerated our progress in digital maturity towards being a digital first organisation, largely paper free with data driven decision making.

Sustainability has been embedded within the Trust's new 2021-2026 Digital Strategy. The Informatics team measure benefits by assessing the reduction in the number of times a patient needs to travel into hospital.



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In 2019 the Digi Rounds solution was developed with Trust consultants and provides a highly portable (via ipads) read-only summary of key clinical information. In this year we changed the way admission offices work by introducing eTCI (electronic To Come In). Previously, paper cards were used to describe a patients procedure and were stored on walls or draws onsite. This is now 100% electronic in CHARTS and saves admin time and improves patient safety.



AMBITION

- Take forward an agile working strategy
- Expansion of mobile tablet electronic forms and digital workflow to improve admin and clinical process
- Increased options to switch off all paper correspondence (clinical and admin)
- Further remote working enhancements such as home working

SUPPLY CHAIN AND PROCUREMENT

UHS is in line with the national picture that approximately two thirds of its Net Zero Plus footprint relates to supply chain and procurement emissions.



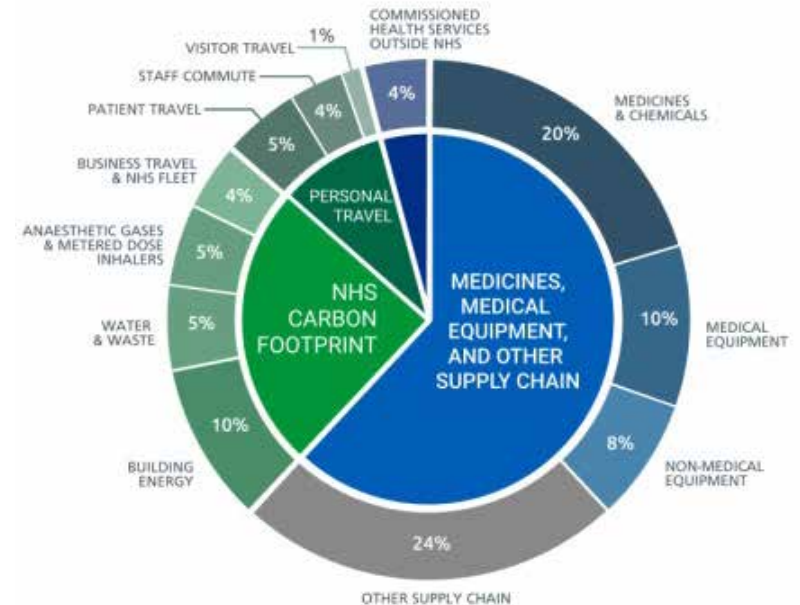
We will become more sustainable through continuous improvement and innovation in the care we provide for our patients. We are already leading the way on digitally enabled care and will continue focusing on ways to innovate patient-centred care, that is preventative and closer to home where possible.

AMBITION

- The Trust is in the process of developing a new **decarbonisation strategy**
- Adopt the **Social Value Model*** from April 2022, with minimum 10% demonstrating Net Zero
- All suppliers with anticipated contract value over £5m must publish **Carbon Reduction Plans** by April 2023
- Every direct and indirect suppliers must publish a Carbon Reduction Plan by April 2027

*The Public Services (Social Value) Act requires commissioners who procure services to consider social, economic and environmental benefits. The Social Value Model provides a standardised way of doing this.

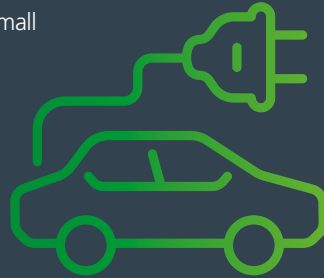
Sources of carbon emissions by proportion of NHS Carbon Footprint Plus



TRAVEL AND TRANSPORT

As the **largest employer of staff** in Southampton we contribute significantly to the numbers of people commuting in the city. Statistics show that of the UK's overall emissions, commuting to and from a place of work accounts for 5%. This national statistic is reflected in our own data, with staff travel accounting for 4% and patients 1%. The main hospital sites have frequent bus services and there are **dedicated facilities** for people to cycle or walk to work.

Alongside commuter travel, the Trust has a relatively small fleet of vehicles, all new vehicles will be **transitioned to ultra-low emissions vehicles (ULEVs)**.



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The Trust is committed to delivering a world class sustainable healthcare system that works within the available environmental, financial, and social resources. We are working to challenging targets to reduce the NHS carbon footprint to net zero by 2040 and this includes staff commuting to work. Commuting emissions account for 5% of the UK's total emissions and air pollution due to transport is also a significant contributor to health issues. We are therefore supporting staff to transition towards more sustainable modes.

AMBITION

- Develop a new travel plan to support active and sustainable travel and public transport for further staff, patients and visitors
- Reduce the air pollution from our fleet and leased vehicles by switching to low emission and electric vehicles, and encouraging greener and more active travel alternatives among our staff, patients and visitors
- Where feasible all new purchases and lease arrangements for vehicles are ultra-low emissions vehicles (ULEVs) or zero emissions vehicles (ZEVs)

WASTE AND RESOURCES

The Trust creates a **significant level** of waste material and this is a **huge cost** and environmental pressure. The waste management team have made some positive inroads into this area. They have increased the number of materials which can be recycled, reduce waste through re-use schemes, such as furniture and equipment, and introduced reusable sharps bins.

AMBITION

- Develop a new waste strategy
- Ensure waste is managed and disposed of at the highest level of the waste hierarchy
- Complete Waste Audits for all service areas
- Introduce food waste collection
- Increase measures to reduce single use plastics



HOW YOU CAN MAKE A DIFFERENCE



FOOD AND NUTRITION

We will enable more sustainable catering at our hospital sites through a **food and retail transformation programme** which will map **sustainability from farm-to-plate**. This programme will include reviewing our supply chains working with partners to further increase plant-based and **locally sourced products** and reducing waste generated from food packaging.

The government's **EatWell** guide recommends a diet with reduced processed foods high in sugar, salt and fats as part of a healthy balance. Analysis makes clear that this diet is also a **low-carbon diet**, with seasonally and locally sourced fruits and vegetables greatly decreasing emissions, as well as one for which rates of **colorectal cancer and heart disease** are lower compared to average diets across the country.



We will enable more sustainable catering at our hospital sites through a food and retail transformation programme which will map sustainability from farm-to-plate.

EAT CLEAN

DRINK WATER

STAY ACTIVE

BE HEALTHY

AMBITION

- Embed carbon reduction plans and targets into the catering contracts
- Increase the number of plant based options into menus
- Transition away from maceration to foodwaste collections



ADAPTATION

Climate change is considered one of the **greatest public health threats of the 21st Century**. As a healthcare provider, we recognise the importance of adaptation in order to **mitigate the impact** of the changing climate and to ensure that it can continue to deliver a high quality of care during **extreme weather events**.

The Trust will develop a plan to ensure that it **can adapt to the projected changes** in demand and impacts on operational delivery caused by climate change. These measures will ensure that we assess the risks posed by climate change, both **internally and externally**.

The Trust will then work **collaboratively with staff** and other partner organisations to develop a **climate change adaptation strategy**, and update business contingency plans to include climate risks.



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Climate change is considered one of the greatest public health threats of the 21st Century. As a healthcare provider, the Trust recognise the importance of adaptation in order to mitigate the impact of the changing climate and to ensure that the Trust can continue to deliver a high quality of care during extreme weather events.

AMBITION

- Carry out comprehensive climate adaptation assessments of UHS facilities and services
- Update Business Continuity and Risk Assessments for Internal (service provision) and External risks (such as to supply chains or local population)



BIODIVERSITY

In August 2021 the Trust appointed the **Hampshire and Isle of Wight Wildlife Trust's consultancy, Arcadia**, to assess the biodiversity potential of UHS's main sites.

They found that the hospital grounds include **habitats of higher ecological value** such as mature trees and hedgerow, areas of shrubs and herbaceous plants, interspersed with areas of lower ecological value including many ornamental shrubs and bedding plants, and closely mown amenity grassland. However, the habitats were **generally quite fragmented and disparate**, with varying management regimes.

The report proposed a range of actions, from those **maintaining or enhancing features** that have already been created to benefit biodiversity such as the maintenance of hedges and in-filling of gaps; while others are new ideas or seeking opportunities to **engage and benefit patients, visitors and staff**.

By implementing the actions from their assessment, the hospital will **enhance the biodiversity** of the grounds and make progress towards UHS's commitment to NHS Net Zero targets. Southampton Hospitals Charity were fortunate enough to receive funds gifted by Banksy for the sale of his 'NHS Superheroes' artwork. The artist's desire was for this money to be used to improve staff facilities and so we're developing new biodiverse green spaces for our staff to enjoy.



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Healthy ecosystems clean our water, purify our air, maintain our soil, regulate the climate, recycle nutrients and provide us with food. They provide raw materials and resources for medicines and other purposes.

AMBITION

To develop a Biodiversity programme for UHS which will focus on:

- Increasing connectivity with adjacent SINC: Lordsdale Greenway which includes areas of remnant ancient woodland
- Increasing habitat structure and diversity
- Enhancing habitat resources for birds
- Implement a plan to tackle air pollution



WIDER SUSTAINABILITY

The Trust is a signatory of the **Southampton Green City Charter** this includes requirements for the Trust to develop plans towards Net Zero and tackle issues such as air pollution.

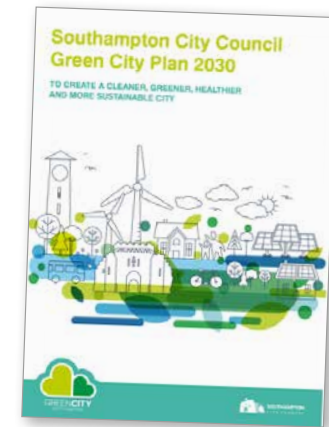
Whilst there are certain areas in the Green Plan guidance that are mandatory, there are specific areas of sustainability, such as **air pollution**, which are important regionally and some nationally such as **biodiversity**. These areas will be developed in time and are likely to feature in more detail in future versions of the UHS Green Plan.



The climate crisis represents a significant health challenge for the 21st century and this Green Plan details a proactive approach that our Trust can take to do our part to reduce the impact that climate change will have on the people of Southampton and beyond.

AMBITION

- To stop modern slavery
- Ensure that environmental controls are in place
- Consider implementing an Environmental Management System (such as ISO14001)
- Implement a plan to tackle air pollution



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