



# Interim Green Plan 2021-22



# Respond | Develop | Collaborate

## Foreword

East Midlands Ambulance Service NHS Trust recognises the impact our operational activities have on climate change and we are committed to reducing our impact and contribute to achieving a net zero health service by 2045.

We also recognise that climate change will increase the demand on our services from predicted increased frequency of climate related hazards such as adverse weather events and zoonotic diseases and we have already made great progress to adapt our contingencies and training so that we are resilient to such events.

Our Trust has already undertaken excellent work to reduce our environmental impact through our Sustainable Development Management Plan (SDMP) and I welcome this Interim Green Plan which will build on our progress so far and include the NHS net zero targets. An Interim Green Plan will allow us to transition our SDMP to a Green Plan, and an explorative year will enable us to identify achievable long-term targets and build them into our final Green Plan.

For our Trust to successfully work towards becoming net zero, all of our staff must play a part; the development of a Green Team and steering groups will promote and encourage engagement in our sustainability objectives and help us to achieve our goals.

I look forward to seeing how the actions from this Interim Green Plan will contribute to the development of an achievable long-term roadmap to net zero and our final Green Plan in time for the start of the next financial year.



**Richard Henderson** Chief Executive



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#### 1. Executive Summary

#### "The climate emergency is a health emergency"- Sir Simon Stevens

The NHS has committed to achieving a Net Zero Health Service by 2045.

It is a requirement of the NHS Standard Contract that every NHS Trust has a Board approved Green Plan in place by the start of the 2022-23 financial year. The NHS Long Term Plan (2019) also sets out clear environmental sustainability commitments and feasible targets which are further explored in this Interim Green Plan.

Green Plan guidance is still being developed so that all NHS Trusts are aligned in their net zero strategies, therefore we have produced this Interim Green Plan which will be continuously updated throughout 2021-22. An interim plan also allows us the opportunity to take stock of the environmental impact of COVID-19 on our organisation and align with our ICS Green Plans.

2021-22 will mostly be an explorative year and we will use this time to conduct feasibility studies to see how we can reduce the impact of the key areas of focus relevant to our Trust that are identified in this plan. We will also use this year to strengthen internal commitment, knowledge and involvement in our net zero strategy and will further develop relationships with other Trusts, particularly through ICS's and the NAA.

Internal collaboration and commitment is key to the success of our Green Plan and during 2021-22 three groups will be formed:

- 1. Net Zero Steering Group Senior Managers with Net Zero responsibilities
- 2. EV Project Group Strategy, Sustainability, Fleet, Estates & Procurement
- 3. Green Team aim to have at least one member at each Trust location

The main focuses of this explorative year are summarised in our 2021-22 Action Plan (Appendix 1) which outlines what we need to explore and achieve to create our final Green Plan to include a long-term sustainability roadmap within it. The status of the action plan will be reported quarterly to the newly formed Net Zero Steering Group led by our net Zero Lead and to the Trust Board via our Board Level Net Zero Lead.

#### 2. Introduction

East Midlands Ambulance Service NHS Trust provides emergency and nonemergency services for a population of approximately 4.8 million across 6,425 square miles in Derbyshire, Leicestershire and Rutland, Lincolnshire, Northamptonshire and Nottinghamshire. On average we receive a 999 call every 32 seconds; approximately 2,700 every day.

We operate from over 70 premises across the East Midlands and our estate includes ambulance stations, educational and development centres, fleet workshops, two Emergency Operation Centres (EOCs), a specialist hazardous area response team (HART) unit and administrative offices. Our estate includes leased and owned properties.

The NHS Long Term Plan, published in 2019, sets out the sustainability commitments for the NHS. In 2020, the 'For a Greener NHS' programme launched, driving the ambition for the NHS to become a net-zero healthcare system. The Greener NHS Expert Panel published the "Delivering a 'Net Zero' National Health Service" report in October 2020. Identifying a trajectory to net zero emissions for a complex, highly specialised system as large as the NHS is particularly challenging. The NHS Net Zero Expert Panel agreed that the targets set should be as ambitious as possible, while remaining realistic; and supported by immediate action and a commitment to continuous monitoring, evaluation and innovation.

The NHS aims to provide health and high-quality care for all, now and for future generations. This requires a resilient NHS that responds to the health emergency that climate change brings, and East Midlands Ambulance Service NHS Trust, hereon after referred to as the Trust, is fully committed to reducing the climate impact of our services and contribute to achieving a Net Zero NHS.

Two clear and feasible targets emerge for the NHS Net Zero commitment, based on the scale of the challenge posed by climate change, current knowledge, and the interventions and assumptions that underpin this analysis:

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

Our Trust does not have a huge carbon footprint in comparison to Acute or Mental Health Trusts but meeting this commitment will only be achievable if every part of the NHS, more than 1.3 million of us, are working together; we all have a role in delivering a Net Zero NHS, providing health and high-quality care for all, now and for future generations.

This Interim Green Plan details the overarching rationale and requirements for its implementation and outlines what we aim to achieve during this explorative year. It also explains the key areas of focus for EMAS, as an Ambulance Trust, to develop our finalised Green Plan.

Financial year 2021-22 will be an explorative year in which we will review the environmental impact of our Trust and develop a strategy that will contribute to achieving a Net Zero NHS; this Green Plan therefore serves as an interim document which will outline the work we will undertake over the next 12 months. Our intention is to publish a full Green Plan to cover the period 2022-25, which is the duration for the next Green Government Commitments.

## 3. Net Zero Leadership at EMAS

In line with the requirement of the NHS Standard Contract, we have nominated Net Zero/Greener NHS Leaders for our Trust:

Board Level Net Zero/Greener NHS Lead: Director of Finance and Deputy Chief Executive, Mike Naylor

Net Zero/Greener NHS Lead & Cycle to Work Lead: Sustainability Energy & Compliance Manager, Stacie Scullion

For the actions in our Green Plan to be successful we need top-down leadership and commitment across all divisions of our Trust and we will work towards embedding environmental sustainability into all aspects of our operations, now and in the future.

In 2021-22, we will:

- develop a Net Zero Steering Group to include all roles with actions in our Green Plan
- explore Carbon Literacy training for senior management teams

## 4. Delivering a Net Zero National Health Service

Over the last 10 years, the NHS has taken notable steps to reduce its impact on climate change but, as the biggest employer in this country, there is more that the NHS can do. Action must not only cut NHS emissions, currently equivalent to 4% of England's total carbon footprint, but also build adaptive capacity and resilience into the way care is provided.

This action will lead to direct benefit for patients, with research suggesting that up to one third of new asthma cases might be avoided through efforts to cut emissions. This is because the drivers of climate change are also the drivers of ill health and health inequalities. For example, the combustion of fossil fuels is the primary contributor to deaths in the UK from air pollution, disproportionately affecting deprived and vulnerable communities.

In 2008 the Climate Change Act set national targets for the reduction of carbon emissions in England against a 1990 baseline. Since then, the NHS has been working to deliver on these targets, most closely approximated by the NHS Carbon Footprint (see Table 1).

Carbon footprint scope	1990	2010	2015	2019	2020 (est)
Climate Change Act – carbon budget target		25%	31%		37%
NHS Carbon Footprint (MtCO <sub>2</sub> e)	16.2	8.7	7.4	6.1	6.1
NHS Carbon Footprint as a % reduction on 1990		46%	54%	62%	62%
NHS Carbon Footprint Plus (MtCO₂e)	33.8	28.1	27.3	25.0	24.9
NHS Carbon Footprint Plus as a % reduction on 1990		17%	19%	26%	26%

#### Table 1: NHS emissions from 1990 to 2020

These targets do not, however, cover the full scope of emissions from the NHS. The Greenhouse Gas Protocol (GHGP) 25 scopes cover a wider set of emissions, and support international comparison and transparency:

GHGP scope 1: Direct emissions from owned or directly controlled sources

GHGP scope 2: Indirect emissions from the generation of purchased energy

**GHGP scope 3:** All other indirect emissions that occur in producing and transporting goods and services, including supply chain

However, there are still some emissions that fall outside these scopes. As agreed with the NHS Net Zero Expert Panel, the NHS will also work towards net zero for a NHS Carbon Footprint Plus that includes all three of the scopes above, as well as the emissions specifically from NHS activities and services (see Figure 1).





Despite progress made, there is still a significant challenge ahead; to close the gap to Net Zero the NHS will need to remove 6.1 MtCO2e from the NHS Carbon Footprint and 24.9 MtCO2e from the NHS Carbon Footprint Plus, roughly equivalent to the emissions profile of Croatia.

Every area of the NHS will need to act if net zero is to be achieved; the intention for these targets is to construct the most ambitious, credible declaration to

reach net zero of any national healthcare system in the world. However, they can only be delivered if they are supported by collective action from all NHS staff and collaborative partnerships within and beyond the NHS, as well as appropriate investment.

Any analysis that looks forward 30 years will be subject to uncertainty; the pace of change is likely to increase over time and predicting future shifts and innovations that will help accelerate this ambition is particularly challenging. This uncertainty is reflected in the requirement that every NHS Trust continuously monitors and updates their local Green Plan. National and international government action to decarbonise electricity, transport and supply chains will also contribute to the ambitions of the NHS.

While it is difficult to quantify the benefits that a net zero NHS alone can deliver in terms of lives saved, our current analysis makes clear that reaching our national commitments under the Paris Climate Change Agreement2 and achieving a net zero UK economy would result in significant health benefits. Indeed, by the year 2040, this trajectory would see an estimated: 5,770 lives saved per year from reductions in air pollution; 38,400 lives saved per year from increased levels of physical activity.

#### 5. Our Key Areas of Focus

As an Ambulance Service Trust, our most carbon intensive activities are different to most other Trusts, particularly Acute and Primary Care Trusts, as shown in Figure 2 which also shows that our carbon emissions are not as significant as most other Trusts.

Figure 1 and Figure 2 are from the 'Delivering a Net Zero National Health Service' (2020) plan, and from this we can easily identify the Key Areas of Focus for our Trust and build our Roadmap to Net Zero in alignment with this national NHS guidance.

Figure 2 shows two clear areas that our Trust needs to focus on to have the biggest impact on our contribution to a net zero NHS; Business Travel & NHS Fleet and Anaesthetic gases. Both aspects are explored in more detail in the next part of this plan and actions to be taken this year to begin decarbonisation in all identified key areas of focus.

## NHS ACTIVITY TYPE

Figure 2 : Sources of carbon emissions by activity type and setting of care

		Ambulance	Community	Mental Health	Acute	Primary Care	Non-clinical suppo	
	Building Energy	•	•	•		٠		
	Waste		-	•	٠	•	•	
NHS	Water		•	•	٠	•		
FOOTPRINT	Anaesthetic gases	•			٠			
	Metered Dose Inhalers					٠		
	Business Travel & NHS Fleet	•	•	•	٠	•	•	
	Medicines & Chemicals		•	•			+	
MEDICINES,	Medical Equipment	•	•	•		•	•	
EQUIPMENT	Non-Medical Equipment	. •	•	•		٠	•	
AND OTHER	Business Services		•	•		٠	٠	
SUPPLY	Construction & Freight		•	•	۲	+	٠	
Civili	Food & Catering		•	•	۲	•	٠	
PERSONAL	Patient & Visitor Travel		•	٠	٠	•		
TRAVEL	TRAVEL Staff Commuting	•	•	•	٠	•	•	
Commissioned	Health Services Outside NHS				•		٠	

Tables 2 and 3 are a condensed summary of the NHS Green House Gas Protocol (GHGP) scopes and the activities relevant to our Trust. Each table shows, in order of priority based on the  $tCO_2e$  emissions produced from each activity, what our key areas of focus are and the targets to become net zero.

The baseline is currently 1990 but this year the Greener NHS should release an updated percentage reduction based on current data, for example a 47% reduction from 2018. Any updated targets will be included in the final Green Plan.

ort activities

Table 2: EMAS Key Areas of Focus (NHS Carbon Footprint)

			ACTIVITY	NHS GHGP SCOPE	EMISSIONS REDUCTION TAR (1990 baseline) 80% NET ZER		
		МС	DST	Fleet	1		
ced		1		Business Travel	3		
odu	'n	₽S		Anaesthetic Gases	1		
ns pi	activ	ĒM		Fossil Fuels	1	2032	2040
ission	þγ	at		Electricity	2		
E		ſ	Ļ	Waste	3		
		LEA	ST	Water	3		

Table 3: EMAS Key Areas of Focus (NHS Carbon Footprint Plus)

			ACTIVITY	NHS GHGP SCOPE	EMISSIONS RED (1990 b <b>80%</b>	UCTION TARGET aseline) <b>NET ZERO</b>
	Μ	OST	Supply Chain	3		
٨			Non-Medical Equipment	3		
nced			Medical Equipment	3		
rodu	vity MAS		Staff Commuting	3	2039	2045
d su	acti at E		Construction	3		
iissic			Medicines	3		
En			ІСТ	3		

Each identified key area of focus relevant to our Trust activities will be explored in 2021-22 with the aim to have sufficient evidence and knowledge to enable us to publish a fully costed and achievable longer-term actions within our final Green Plan which will be published from April 2022.

Collaboration is key to our Trust developing and achieving our Green Plan objectives and our Net Zero Lead will continue to work with the following networks to collaborate on feasibility studies, share resources and support each other to ensure strategic alignment and continuously develop our Trust long term strategy:

• Northern Ambulance Alliance (NAA) Sustainability Managers Network

- Ambulance GreEAN Network
- Our ICS and others in our operational areas
- Humber Coast & Vale Sustainability Network
- Northern Sustainable Development Network
- Sustainability National Performance Advisory Group (NPAG)
- Waste National Performance Advisory Group (NPAG)
- Greener NHS
- City and County Council Green Partnership Networks in our operational areas

#### 6. Our 2021-22 Roadmap – NHS Carbon Footprint

This 2021-22 roadmap will outline where we are today as a Trust and how we plan to explore how we can reduce the emissions from each identified key area of focus of the NHS Carbon Footprint (Figure 1, Table 2) and included in our 2021-22 Action Plan (Appendix 1).

During this explorative year we will conduct feasibility studies and collaborate with members of our ICS, NAA and other Trusts to identify and publish clear commitments for each key area of focus relevant to our Trust activities.

#### 6.1 Our Carbon Footprint

Our most recent fully calculated carbon footprint, as published in our SDMP (2018), was 25,762 tCO<sub>2</sub>e per year.

Our 2019-20 carbon footprint has been calculated at 20,500 tCO<sub>2</sub>e in line with the new Scope 1, 2 and 3 NHS Carbon Footprint activities shown in Figure 1. It is important to understand that this does not indicate a reduction in emissions since 2018 as emissions from our supply chain have not been included; whereas the 2017/18 calculation did include some.

This calculation is also based on pre-pandemic data from 2019-20, as data from 2020-21 is unusual and we expect business to start returning to pre-pandemic conditions over the coming years.

For now, excluding Supply Chain emissions, we can see what our most carbon intensive activities are, as shown in Chart 1 and Chart 2.

During 2021-22, we will:

- calculate the total carbon footprint of all our Trust activities to include NHS Carbon Footprint Plus emissions ready for target setting in line with updated NHSEI guidance

- align our carbon footprint methodology with the other Trusts within our ICS
- work with our ICS and the NAA to align our decarbonisation strategy



Chart 1: EMAS 2019-2020 emissions by activity (excluding supply chain)

Chart 2: EMAS 2019-2020 emissions % by activity (excluding supply chain)



#### 6.2 Our Fleet

We have circa 720 vehicles in our fleet and during 2019-20 our operational fleet consumed over 4.5 million litres of fuel which equates to just over 12,000 tCO<sub>2</sub>e and accounts for 59% of our NHS Carbon Footprint emissions.

The majority of emissions from our operational fleet are currently unavoidable; our plans to 'green' our fleet are restricted while EV technology and infrastructure is being developed. The government has announced a ban on new diesel and petrol vehicles from 2030 and this short timescale is forcing vehicle manufacturers to develop zero emission alternatives. This ban will include blue light fleets and we expect many opportunities to trial zero emission response vehicles over the coming years.

NHSEI Greener NHS teams are working on projects to develop zero emission Ambulance Service vehicles including and Estates EV charging study to be carried out in 2021-22. The results from the studies they carry out this year will enable us to include more detail into our finalised action plan. A 'Zero Emission Ambulance Programme Group' has also been established and includes participation by the Fleet Manager and Union representative from each NHS Ambulance Trust.

Our Fleet Services Manager has already made great progress to reduce the emissions from our operational fleet, for example by limiting vehicle speeds when not responding to emergencies and phasing out the run-lock feature on ambulances. 8 electric vehicles have also been secured for use by our Community First Responders from Q2 2021-22.

We have formed a working group with Nottingham City Council to explore a 'Public Sector Charging Network' in the city and we will connect with other councils across our operational areas to explore the potential to expand on this idea.

During 2021-22, we will:

- formalise our EV project team
- identify a Trust-wide charging provider (subject to wider NHS Frameworks)
- identify locations to be prioritised for fleet charging infrastructure
- network with other Ambulance Trusts to keep up to date with technological developments and opportunities
- work with our ICS and NAA for strategic alignment and EV collaboration opportunities
- identify external funding schemes to develop our own charging infrastructure

- connect with Environmental Sustainability teams at each City and County Council within our operational counties for charging collaboration initiatives
- connect with other Trusts to discuss charging infrastructure sharing, for example allowing our fleet to charge at a hospital between responses

#### 6.3 Business Travel (Grey Fleet)

During 2019-21 nearly 2.2 million business miles were declared; the equivalent of driving around the equatorial circumference of the earth 88 times. Emissions from our annual business mileage totals 5,300 tCO<sub>2</sub>e and accounts for nearly 30% of our total operational emissions.

The Covid-19 pandemic saw business mileage claims fall by 45% in 2020-21 with travel and contact restrictions forcing us to work remotely. This is a significant reduction of 2,400 tCO<sub>2</sub>e. Post pandemic, if we can continue to facilitate our meetings virtually by default, we have the opportunity to not only significantly reduce our emissions in this area but could also save our Trust a significant £/per year in mileage claims.

Initiatives to encourage more sustainable travel are in place such as only offering ultra-low and zero emission vehicles in our lease car scheme. At the time of writing, 64% of staff using our Lease Car Scheme have chosen ultra-low or zero emission vehicles.

During 2021-22, we will develop a Grey Fleet Mileage Reduction Plan to include:

- work with Communications to increase awareness of the impact of avoidable business travel, encourage more sustainable commutes and virtual meetings
- revise relevant travel policies to include environmental principals at their core; conducting our business virtually by default where practicable
- revise travel expense policies for Staff which promote sustainable travel choices
- Promote the Government's tax-in-kind benefits of electric vehicles being leased through our scheme

#### 6.4 Anaesthetic Gases

Modern anaesthetic gases include the hydrofluorocarbons sevoflurane and desflurane, the chlorofluorocarbon isoflurane, and nitrous oxide. Following use, anaesthetic gases are expelled into the atmosphere, where they contribute to anthropogenic climate change.

Our Trust uses the anaesthetic Entonox, the composition of which is 50% nitrous oxide ( $N_20$ ), for pre-hospital injury and trauma pain relief. We procure over 7500 (2 litre) bottles of Entonox per annum, each containing 700 litres of compressed gas. Therefore, in total we consume approximately 5,300,400 litres of Entonox which is the equivalent of 1436 tCO<sub>2</sub> per year which contributes 7% of our carbon footprint (NHS Carbon Footprint) and only slightly lower than our entire building energy footprint which contributes 8%.

One of our neighbouring Ambulance Trusts have a student with them working on a research project on the climate impact of Entonox and the outcome will be shared with all Trusts which will hopefully enable the wider NHS to explore alternatives.

#### 6.5 Building Energy

Compared to other Trusts, the environmental impact from the energy our estate consumes is low at 1741 tCO<sub>2</sub>e/yr which is just 8% of our carbon footprint. This also means any investments we make towards renewable energy will have a long return on investment. However, we still have commitments in this area in the NHS Standard Contract including the phasing out of all coal and oil heating and procurement of 100% renewable energy.

Our Trust does not own any property that uses coal as an energy source; however, as we do not currently procure 100% renewable electricity we are indirectly consuming coal to power our buildings. One of the updates in the NHS Standard Contract is to ensure that all electricity purchased is from renewable sources. This requirement will be included in the next electricity contract renewal.

The annual carbon impact of our electricity consumption is relatively low at 207 tCO2e and is easily offset with the procurement of electricity from renewable sources, it is important to consider as we phase out fossil fuels for heating, electricity consumption will increase significantly, and electricity £/kWh is significantly higher than gas. However, investments in renewable heating systems such as Air Source Heat Pumps, which produce more heat energy than they use in electricity, would offset any costs increases over time.

Developing electric charging infrastructure to future proof the greening of our response vehicles will also increase electricity demand both from a cost and power availability perspective. We need to explore ways to increase the power availability at our owned buildings by installing renewable forms of electricity such as wind and solar with battery storage to utilise for energy spikes.

All maintenance lighting replacements and minor upgrades should be LED as BUI. LED lighting is around 28% more efficient and we will identify which sites need upgrading during this explorative year.

We currently own 3 ambulance stations that use oil for heating. A requirement of the NHS Standard Contract is for all NHS Trusts to take action to phase out oil and coal for primary heating and replace them with less polluting alternatives. This year we will explore replacing oil with renewable heating sources at these 3 stations including costs and ROI. As the emissions from heating oil consumption are relatively low at 126 tCO2e/yr part the business case for replacing oil with renewable alternatives could be that these stations can be used as pilot projects for future retrofits to replace gas with renewable heating sources.

Gas consumption accounts for approximately 7% of our carbon footprint at 1407 tCO2e/yr. With the exception of our 3 owned stations with oil heating, the rest of our owned and leased buildings are heated, including heating water, by natural gas. Although it is not a specific requirement of the current NHS Standard Contract to replace gas heating with renewable alternatives, we must start to explore the replacement of gas heating to meet our wider net zero targets.

During 2021-22, we will:

- include a requirement for our electricity procurement framework to include that our supplier provides electricity from 100% renewable sources
- carry out a feasibility study to replace 3 stations with oil heating with renewable alternatives
- start exploring ways to replace gas heating with renewable alternatives in our owned buildings including links to local district heating networks
- start exploring ways to increase power availability at owned buildings using renewable sources such as wind and solar
- identify sites without LED lighting and produce a business case for upgrades

#### 6.6 Waste

The waste our Trust produces has the least impact on our NHS Carbon Footprint at just 14 tCO2e per year. We do need to focus on waste compliance as a priority in 2021/22; ensuring the whole Trust is aligned in its waste management procedures and adhering to waste management laws and HTM 07-01.

Our recycling rate from domestic waste also needs significant improvement; currently only 32% of our non-clinical waste is recycled and, as this waste is mostly from offices we should be aiming for at least 75% recycling.

We are currently diverting approximately 92% of waste from landfill which is impressive, but this year we will be aiming to achieve zero waste to landfill.

Covid-19 has had a significant impact on the healthcare waste produced by our Trust; in line with government guidelines we reclassified all our Offensive Waste as Infectious Waste under the presumption that all patients have Covid-19. As infectious waste needs to be treated before disposal it is more expensive to dispose of and our healthcare waste disposal costs have increased by 138% compared to 2019-20. The quantity of healthcare waste produced since the start of the pandemic has increased by 129%, this is a result of the increased PPE our frontline staff have been using. See comparisons below.

	2019-2020	2020-2021	% change
Healthcare Waste (Tonnes)	34	78	^137.5%
Healthcare Waste (Cost)	£24,000	£57,000	^129%
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This year our Sustainability, Energy & Compliance Manager will continue to work with the Head of IPC to periodically assess the Covid-19 risks of healthcare waste and start to re-introduce the offensive waste stream when that risk is considered insignificant enough.

During 2021-22, we will:

- audit each Trust location against our Waste Management Procedure to identify gaps in compliance and rectify
- work towards increasing our non-clinical waste recycling percentage
- aim to achieve zero waste to landfill
- continually reassess the Covid risk of healthcare waste

#### 6.7 Water

The water we consume varies across our owned estate amounts to approximately 7.5 tCO2e/yr which, in comparison with emissions from our other operational activities, is insignificant. However, from an environmental perspective, initiatives to reduce water consumption should always be explored.

Our Ambulance Stations and Workshops consume higher amounts of water due to vehicle washing and future water saving projects could include water capture and recycling, but this is not an immediate priority.

Business as usual practice for building maintenance and minor upgrades should include retrofitting/replacement with low flow taps and toilets.

During 2021-22, we will:

- continue to analyse water usage data to detect leaks
- ensure any water replacements (taps, toilets) are low flow

#### 7. Our 2021-22 Roadmap – NHS Carbon Footprint Plus

The activities categorised as NHS Carbon Footprint Plus (Figure 1, Table 3) have an extended target date of 2045 to become net zero; this is because these emissions are mostly indirect meaning we can influence but not control. because of this we will not have actions for each activity in this interim Green Plan except for Supply Chain and Staff Commuting which are hot topics.

#### 7.1 Supply Chain

Emissions from our Supply Chain are indirect and has been categorised in the NHS Carbon Footprint Plus (scope 3) which has a longer net zero target. However, procurement accounts for a significant percentage of our overall carbon footprint, the true impact figure will be calculated this year, which means it is important to consider as a priority area of focus.

Our Procurement Team has recently undergone a restructure which aligns the Team into category specific roles will also help provide a greater focus on how we can identify & improve category specific sustainability initiatives.

Areas the Procurement team will support our net zero roadmap are as follows:

- Social Value Act
- Whole lifecycle costing for procurement contracts
- Reviewing high expenditure goods and services to identify priority action
- Carbon Targets
- Procuring for Carbon Reduction Hierarchy of Interventions
- Staff Performance & Development Goals

The Procurement Team are also looking to incorporate the sustainable hierarchy of interventions aims into their tender documents where applicable. These cover 4 key areas:

- 1. Reduce demand
- 2. Efficiency in use
- 3. Substitute and Innovate
- 4. Supply Chain Management

During 2021-22, we will:

- Work with our dedicated Procurement colleagues to develop a longerterm action plan to align with our roadmap to net zero
- Collaborate with the Environmental Sustainability team at Nottinghamshire Healthcare NHS Foundation Trust, with whom we share procurement services
- Quantify the current carbon footprint of our supply chain

- Further explore plastic and paper reduction initiatives from non-operational supplies

#### 7.2 Staff Commuting

How our employees travel to and from their place of work from home impacts our Scope 3 carbon emissions; transport is the largest source of carbon dioxide emissions in the UK and getting our staff to work and back contributes to this.

These are emissions we can only influence as an employer through awareness and education and providing facilities to support lower and zero emission commutes such as bus pass deals, secure cycle storage and showers.

#### 7.2.1 Green Travel Plan

Every NHS Trust is required to have a Cycle to Work Lead and a Green Travel Plan to explore, develop and implement methods and policies to encourage sustainable commuting. Our Cycle to Work Lead is our Net Zero Lead.

During 2021-22, we will:

- calculate the carbon footprint of our staff commutes (pre and during Covid 19)
- develop a Green Travel Plan
- include the actions and targets from the Green Travel Plan in our Green Plan
- conduct a travel survey to identify who would be prepared to commute more sustainably
- invest in secure cycle storage at owned properties

## 8. Wider Sustainable Development Responsibilities

In addition to the NHS net zero responsibilities, we have a duty of care as a large organization to have a positive impact on the environment. Sustainability is most often defined as meeting the needs of the present without compromising the ability of future generations to meet theirs. It has three main pillars: economic, environmental, and social which are informally referred to as people, planet and profits. Every operational aspect of our Trust should consider sustainability in its methodology.

#### 8.1 Legislation

There are thousands of legislative documents that aim to protect the environment and tackle climate change; of these 53 (England) Acts, Regulations and Orders are specific to the operational activities of our Trust, see Appendix 2.

Compliance with environmental legislation is monitored and managed by our Sustainability, Energy & Compliance Manager and reflected in relevant Trust policies and procedures.

#### 8.2 UN Sustainable Development Goals

There are also international frameworks we have responsibilities to adhere to, most notably the United Nations Framework Convention on Climate Change (UNFCCC). The Paris Agreement, a global agreement of 196 countries to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C, sits under this UNFCCC framework.

The United Nations also established a blueprint to achieve a better and more sustainable future for all by 2030, the UN Sustainable Development Goals (SDG's).



#### Figure 3: United Nations Sustainable Development Goals

We are not able to implement actions to influence some SGD's from our Trust, and others that we can influence are covered by our Trust through our HR policies and this Interim Green Plan. There are still some not already covered that we can influence and need to include in our action plan to support wider sustainable development obligations.

#### 8.2.1 Goal 3: Good Health and Well-Being

Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development, particularly from our Trust who respond to those in ill health. Currently, the world is facing a global health crisis unlike any other;

COVID-19 is spreading human suffering, destabilizing the global economy and upending the lives of billions of people around the globe.

As an Ambulance Trust we already directly contribute to saving thousands of lives each year and we are already exploring how we can reduce our transport emissions to reduce our contribution to air pollution, but we could also promote good health and well-being for our c.4000 employees.

During 2021-22, we will:

- promote the benefits of exercise and healthy eating through internal communication channels
- run an awareness campaign to encourage response crews to turn off their engines when stationary for their own health and that of the public

#### 8.2.2 Goal 12: Responsible Consumption and Production

Worldwide consumption and production, a driving force of the global economy, rest on the use of the natural environment and resources in a way that continues to have destructive impacts on the planet.

Economic and social progress over the last century has been accompanied by environmental degradation that is endangering the very systems on which our future development; indeed, our very survival, depends. Should the global population reach 9.6 billion by 2050, the equivalent of almost three planets could be required to provide the natural resources needed to sustain current lifestyles.

Our Trust consumes a lot of single use items which are currently unavoidable as they are essential to our operations; the increase in personal protective equipment used during the pandemic has also doubled our healthcare waste. There are areas we can reduce unnecessary waste and promote responsible consumption among our staff both at work and at home; good habits start at home and are transferred to the workplace.

During 2021-22, we will:

- itemise our consumables to identify where we can reduce our avoidable consumption and unnecessary waste
- introduce a 'Re-Use' platform to enable us to obtain second hand but usable items such as desks and other office items. The platform can also be used to donate our unwanted items to reduce our waste
- promote responsible consumption at home and at work to our staff through internal communications channels

#### 8.2.3 Goal 13: Climate Action

This overarching purpose of developing our Green Plan is to contribute to preventing global temperatures exceeding 2 degrees Celsius above preindustrial levels; but is important to understand why we need to act on our ambitions and the importance that this plan is fully supported.

2019 was the second warmest year on record and the end of the warmest decade (2010- 2019) ever recorded and global emissions of carbon dioxide have increased by almost 50 per cent since 1990.

From 1880 to 2012, average global temperature increased by 0.85°C. To put this into perspective, for each 1 degree of temperature increase, grain yields decline by about 5 per cent. Maize, wheat and other major crops have experienced significant yield reductions at the global level of 40 megatons per year between 1981 and 2002 due to a warmer climate.

Given current concentrations and on-going emissions of greenhouse gases, it is likely that by the end of this century, the increase in global temperature will exceed 1.5°C compared to 1850 to 1900 for all but one scenario. The world's oceans will warm, and ice melt will continue. Average sea level rise is predicted as 24 – 30cm by 2065 and 40-63cm by 2100.

The climate impact of our Trust may seem insignificant and some would argue that we can't make a difference; but we are part of the 5<sup>th</sup> largest employer in the world and the NHS as a whole must come together and take action.

During 2021-22, we will:

- expand or collaboration with sustainability teams across the whole NHS
- ensure this Green Plan and the actions within it are fully supported

#### 8.2.4 Goal 15: Life on Land

Nature is critical to our survival: nature provides us with our oxygen, regulates our weather patterns, pollinates our crops, produces our food, feed and fibre. But it is under increasing stress. Human activity has altered almost 75 per cent of the earth's surface, squeezing wildlife and nature into an ever-smaller corner of the planet.

Deforestation and desertification – caused by human activities and climate change – pose major challenges to sustainable development and have affected the lives and livelihoods of millions of people. Forests are vitally important for sustaining life on Earth and play a major role in the fight against climate change. And investing in land restoration is critical for improving livelihoods, reducing vulnerabilities, and reducing risks for the economy. The health of our planet also plays an important role in the emergence of zoonotic diseases, i.e. diseases that are transmissible between animals and humans. As we continue to encroach on fragile ecosystems, we bring humans into ever-greater contact with wildlife, enabling pathogens in wildlife to spill over to livestock and humans, increasing the risk of disease emergence and amplification.

As a Trust we can have a positive impact on our land by investing in biodiversity; greenspaces are not only great for carbon sequestration but have a positive effect on mental health and wellbeing.

We can also offset some of our carbon footprint through tree planting and we could do this through NHS Forests.

During 2021-22, we will:

- explore funding to develop a greenspace at every owned property
- explore collaboration with NHS Forests to offset carbon emissions
- identify where we can make choices to procure fibre based products such as paper, wood and fabrics from more sustainable sources

#### 9. Engagement and Training

Employee engagement is essential in transforming our sustainability goals into reality although it is often met with uninterest; sustainability initiatives rarely have individual benefits and are additions to work responsibilities without reward. It is therefore important to provide proper sustainability training to create a feeling of individual responsibility.

#### 9.1 Creating a Green Team

Our Trust is spread over a huge geographical area and we have just one person, our Net Zero Lead, to proactively engage our Trust in the requirements of our Green Plan. The development of a Trust-wide Green Team is imperative to achieving our goals to become net zero; the intention will be to have at least one Green Team member at every Trust location.

The expectation of the Green Team will be to:

- support the Sustainability, Energy & Compliance Manager (Net Zero Lead) to disseminate information locally, report back about environmental issues and suggest sustainable improvements
- encourage and promote more sustainable actions with their colleagues
- reduce the need for the Net Zero lead to travel to sites, especially as we will implement strategies to reduce avoidable business travel

The Green Team member will in return receive sustainability training and can become part of a trust wide network to share ideas. They will also become trailblazers for the ultimate ambition to make sustainability part of everyone's role. It can also be great for their professional development and goals can be added to their PAD's.

The Green Team will also provide great stories for internal and external communication and its development already has the full support of our Communication's Team.

During 2021-22, we will:

- develop the requirements and expectations of a Green Team
- recruit members
- train members in internal and wider sustainability goals
- explore qualifications to formalise participation

#### 10. Environmental Management

As well as making effort to reduce our climate impact which is mostly through reducing emissions we must also ensure we do not harm our local environment. The best way to control the impact our Trust has on the environment is to implement an Environmental Management System (EMS) which, through identifying each aspect of our Trust which could impact the environment, we can add control measure to manage them and link to relevant legislative requirements.

Our Sustainability, Energy & Compliance Manager will develop an EMS throughout the year and create a usable aspects and impacts register in line with, but not seek accreditation of, the ISO 14001:2015 standard. This register will also include a continuously updated register of legislation and will fulfil our environmental compliance obligations.

## 11. Climate Adaptation and Resilience

More intense storms and floods, more frequent heatwaves and the spread of infectious disease from climate change threaten to undermine years of health gains. Action on climate change will affect this, and it will also bring direct improvements for public health and health equity.

This year has been dominated by a global health emergency and lessons have been learned which will help us to implement robust contingencies to be prepared and resilient to future pandemics and more adaptable to our changing climate.

Climate change directly impacts our Trust through our increasing response to climate related health incidents and also our ability to reach patients through extreme weather events such as heavy snow, flooding and wildfires.

The UK is projected to see an increase in the frequency and intensity of climate related hazards including heat waves and floods. While winters are projected to become warmer and wetter, cold spells will still occur, and summers are predicted to become hotter with more adverse and extreme wet weather events leading to flash flooding and extreme heat waves.

We must adapt our procedures to include the effects of events from climate change and understand that we need to be resilient to the increased demand on our services will increase over time.

During 2021-22, we will:

- identify the aspects of climate change that directly impact our operations now and in the future
- work together with relevant teams internally to include climate change in contingencies and create a robust adaptation and resilience plan
- ensure climate change is included in the Trust risk register and update accordingly

#### 12. References

- NHS Standard Contract (2021)
- Delivering a Net Zero Health Service (2020)
- NHS Long Term Plan (2019)
- Greener NHS https://www.england.nhs.uk/greenernhs
- United Nations Sustainable Development Goals https://sdgs.un.org/goals

# Appendix 1: 2021-22 Action Plan

Net Zero Leadership							
Q1	Q2	Q3	Q4	Person(s) to deliver			
Identify Trust Net Zero Leads	Develop a Net Zero steering group	Explore Carbon Literacy training for senior management and above Report Action Plan progress to steering group	Report Action Plan progress to steering group	Sustainability, Energy & Compliance Manager			
2021-22 Roadmap – NHS	S Carbon Footprint						
Q1	Q2	Q3	Q4	Person(s) to deliver			
		Calculate the total carbon footprint of all our Trust activities		Sustainability, Energy & Compliance Manager			
Align our carbon footprin		Sustainability, Energy & Compliance Manager					
Work with our ICS and the		Sustainability, Energy & Compliance Manager					
Formalise our EV project team				Sustainability, Energy & Compliance Manager			
Procure 8 new charge points	Identify locations to be prioritised for future charging infrastructure			EV project team			

Network with other Ambulance Trusts to keep up to opportunities	Sustainability, Energy & Compliance Manager Fleet Manager		
Identify external funding schemes to develop our ow	Sustainability, Energy & Compliance Manager		
	Connect with Sustainability teams at each City and County Council within our operational counties for charging collaboration initiatives		Sustainability, Energy & Compliance Manager
		Connect with other Trusts to discuss charging infrastructure sharing, for example allowing our fleet to charge at a hospital between responses	Sustainability, Energy & Compliance Manager
		Work with Communications to increase awareness of the impact of avoidable business travel, encourage more sustainable commutes and virtual meetings	Sustainability, Energy & Compliance Manager Communications
	Revise relevant travel policies to include environmental principals at their core; conducting	<b></b>	Sustainability, Energy & Compliance Manager Policy owners

	our business virtually by default where practicable		
		Revise travel expense policies for Staff which promote sustainable travel choices	In line with NHSEI
Include a requirement for our electricity procurement framework that our supplier provides electricity from 100% renewable sources			Sustainability, Energy & Compliance Manager Procurement
	Carry out a feasibility study to replace our 3 stations with oil heating with renewable alternatives		Sustainability, Energy & Compliance Manager
Start exploring ways to replace gas heating with renewable alternatives in our owned buildings including links to local district heating networks			Sustainability, Energy & Compliance Manager Head of Estates
Start exploring ways to increase power availability at owned buildings using renewable sources such as wind and solar			Sustainability, Energy & Compliance Manager Head of Estates
Identify sites without LED lighting and			Sustainability, Energy & Compliance Manager

	produce a business case			
Audit and Truct Is anti-	for upgrades			Custoir chilite. En custo 0
Audit each Trust locatio	on against our waste wanage	ement Procedure to		Sustainability, Energy &
Work towards increasir	Sustainability, Energy & Compliance Manager			
			Aim to achieve zero waste to landfill	Sustainability, Energy & Compliance Manager
Continually reassess the	e Covid risk of healthcare was	te		
01	02	03	04	Person(s) to deliver
		Work with our dedicated Procurement colleagues to develop a longer-term action plan to align with our roadmap to net zero		Sustainability, Energy & Compliance Manager Procurement
		Collaborate with the Sustainability team at Nottinghamshire Healthcare, with whom we share procurement services		Sustainability, Energy & Compliance Manager
		Quantify the current carbon footprint of our supply chain		Sustainability, Energy & Compliance Manager Procurement
	Further explore plastic and paper reduction initiatives			Sustainability, Energy & Compliance Manager

		Calculate the carbon footprint of our staff commutes (pre and during Covid 19)		Sustainability, Energy & Compliance Manager
	Develop a Green Travel Plan		Include the actions and targets from the Green Travel Plan in our final Green Plan	Sustainability, Energy & Compliance Manager Human Resources
Conduct a travel survey	Create priority list of owned sites the require secure cycle storage Write business case for cycle storage	Identify suppliers to procure and install cycle shelters		Sustainability, Energy & Compliance Manager
Wider Sustainable Deve	lopment Responsibilities			
Q1	Q2	Q3	Q4	Person(s) to deliver
			Promote the benefits of exercise and healthy eating through internal communication channels	Communications Sustainability, Energy & Compliance Manager
	Run an awareness campaign to encourage response crews to turn off their engines when stationary for their own health and that of the public	Monitor campaign success	Re-run awareness campaign if required	Sustainability, Energy & Compliance Manager Fleet manager Communications
	Itemise our consumables to identify where we can reduce our avoidable consumption and unnecessary waste			Sustainability, Energy & Compliance Manager Procurement Supplies

Identify a Re-use platform and write business case for buy in		Implement and communicate re-use platform	Include in procurement policies to check the re- use platform before buying new where practicable	Sustainability, Energy & Compliance Manager			
			Promote responsible consumption at home and at work to our staff through internal communications channels	Sustainability, Energy & Compliance Manager Green Team			
Explore funding to develo	Sustainability, Energy & Compliance Manager						
Explore collaboration with	Sustainability, Energy & Compliance Manager						
	Identify where we can make choices to procure fibre-based products such as paper, wood and fabrics from more sustainable sources			Sustainability, Energy & Compliance Manager Procurement Supplies			
Engagement and Training							
Q1	Q2	Q3	Q4	Person(s) to deliver			
Develop the requirements and expectations of a Green Team	Recruit Green Team members	Provide Green Team with training	Have a fully established Green Team in time for 2022-23 final Green Plan	Sustainability, Energy & Compliance Manager			
Environmental Management							
Q1	Q2	Q3	Q4	Person(s) to deliver			
Develop an EMS and creat	Sustainability, Energy & Compliance Manager						

Climate Adaptation and Resilience							
Q1	Q2	Q3	Q4	Person(s) to deliver			
Identify the aspects of climate change that directly impact our operations				Sustainability, Energy & Compliance Manager			
	Work together with relevant teams internally to include climate change in contingencies and create a robust adaptation and resilience plan			Sustainability, Energy & Compliance Manager Risk Managers Resilience Mangers			
Ensure climate change is included in the Trust risk register and update accordingly				Risk Managers Sustainability, Energy & Compliance Manager			

## Appendix 2: List of Environmental Legislation Relevant to our Trust Activities

Air Quality (England) Regulations SI 2000/928

Air Quality Standards Regulations SI 2010/1001

Anti-Pollution Works Regulations SI 1999/1006 Biodiversity 2020: A strategy for England's wildlife and ecosystem services

Building Regulations SI 2010/2214

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations SI 2009/1348

Clean Air Act 1993

Clean Neighbourhoods and Environment Act 2005

Climate Change Act 2008

Climate Change Levy (General) Regulations SI 2001/838 Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations SI 2018/1155 **Companies Act 2006** Contaminated Land (England) Regulations SI 2006/1380 Control of Major Accident Hazards Regulations SI 2015/483 Control of Pollution (Amendment) Act 1989 Control of Pollution Act 1974 Control of Substances Hazardous to Health Regulations SI 2002/2677 Controlled Waste (England and Wales) Regulations SI 2012/811 Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations SI 1991/1624 Controlled Waste Regulations SI 1992/588 CRC Energy Efficiency Scheme (Revocation and

Savings) Order SI 2018/841 Decision 532/2000/EC (OJ:L226/3/2000) establishing a list of wastes (European Waste Catalogue) Ecodesign for Energy-Related Products Regulations SI 2010/2617 Energy Act 2008 Energy Efficiency (Encouragement, Assessment and Information) Regulations SI 2014/1403 Energy Performance of Buildings (England and Wales) Regulations SI 2012/3118 Energy Savings Opportunity Scheme Regulations SI 2014/1643 Environment Act 1995 Chapter 25 Environmental Damage (Prevention and

Remediation) (England) Regulations SI 2015/810

Environmental Noise (England) Regulations SI 2006/2238

Environmental Permitting (England and Wales) Regulations SI 2016/1154 Environmental Protection Act 1990

Finance Act 1996 Chapter 8

Fluorinated Greenhouse Gases Regulations SI 2015/310

Greenhouse Gas Emissions Trading Scheme Order SI 2020/1265

Greenhouse Gas Emissions Trading Scheme Regulations SI 2012/3038 Hazardous Waste (England and Wales) Regulations SI 2005/894 Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations SI 2008/410

Natural Resources Policy

Noise Act 1996

Noise and Statutory Nuisance Act 1993 Ozone-Depleting Substances Regulations SI 2015/168

Ragwort Control Act 2003

REACH Enforcement Regulations SI 2008/2852 Regulatory Enforcement and Sanctions Act 2008

Special Waste Regulations SI 1996/972

Waste (England and Wales) Regulations SI 2011/988 Waste Batteries and Accumulators Regulations SI 2009/890 Waste Electrical and Electronic Equipment Regulations SI 2013/3113

#### Water Act 2003

Water Environment (Water Framework Directive) (England and Wales) Regulations SI 2017/407 Water Resources Act 1991

Wildlife and Countryside Act 1981