

GREEN PLAN 2021 to 2023

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Contents

1. Foreword	3
2. Introduction	4
2.1 Environmental sustainability definition	4
2.2 The Trust Green Plan Vision and Objectives	4
2.3 Partnerships.....	5
3. Sustainability at AWP – Leadership and Governance	5
4. Sustainability at a national level	6
5. Green Plan	6
5.1 Electricity consumption	9
5.2 Gas consumption	10
5.3 Water	11
5.4 Waste	11
5.5 Transport	13
5.6 Commissioning and Procurement	16
5.7 Food and Nutrition	17
5.8 Medicines	18
5.9 Healthy, Sustainable and Resilient Communities	18

GREEN PLAN 2021 to 2023

5.10	Sustainable Clinical Care Models.....	20
5.11	Workforce engagement and Communication	20
6.	Climate change adaptation and mitigation	21
6.1	Adaptation	22
6.2	Mitigation – reducing our carbon emissions	23
6.3	References	24

1. Foreword

I am delighted to be able to present Avon and Wiltshire Mental Health Partnership NHS Trust's first Green Plan, as we embark on a critical decade for climate change globally, and AWP's own environmental sustainability. We recognise that the healthcare services we provide to our local community, and the resources we use to undertake this work, all produce carbon emissions which adversely affect the communities we serve and the wider environment and climate. We consider that it is essential to take urgent steps to eliminate or reduce these emissions in order to reduce the harm we are causing.

This Plan has been developed during the Covid-19 pandemic which will have long term impacts for communities around the world. The pandemic has influenced our behaviour, including how we work and interact with our colleagues and service users. During this period we have also witnessed an increase in the awareness of the vulnerability of global and planetary health. Environmental issues continue to permeate our lives including air pollution, marine health, extreme weather events, waste pollution and food security. We cannot ignore the environmental degradation that our supply chains cause. Therefore, as a large healthcare organisation, we have taken the decision to accelerate our progress to net zero emissions. .

To help us achieve this we have established a Sustainability Group of over 70 staff members. In June 2020, the group produced a compelling climate emergency presentation which showed how serious the climate emergency is, and recommended that the Trust should target achieving net zero carbon emissions by 2030. This presentation was unanimously supported by the Trust Board and we formally declared a climate emergency in May 2021.

Our Trust has already made good progress towards reducing its carbon emissions. As of 1st April 2021, all of the Trust electricity supplies are sourced from renewable electricity sources.

To reduce our reliance on fossil fuelled heating systems we have started to plan and deliver multiple decarbonisation projects. This has commenced well as we were successful in securing £4.5M of grant funding from The Department for Business, Energy and Industrial Strategy to invest in solar panels, LED lighting, heat pumps and other technologies, which will reduce our emissions by 565 tonnes per annum.

The ultimate aim is for our Trust to embed sustainability within our organisation working together with partner organisations, service users and carers. For the Trust to be a truly sustainable organisation, we need all our staff to play their part in delivering this Green Plan and I strongly encourage all of our colleagues to work together to achieve this.



Dominic Hardisty
Chief Executive

2. Introduction

Our Trust employs over 4,500 dedicated members of staff who deliver mental health and social care services from more than 90 locations, working in approximately 150 teams across Avon, Wiltshire and locations in the south west , for a population of approximately 1.8 million people.

A Board approved Green Plan is a requirement of the NHS 2020/2021 Standard Contract which is used to procure products and services for NHS organisations. The Standard Contract also requires NHS organisations to provide an annual summary of progress towards net zero carbon.

This Green Plan replaces our previous Sustainable Development Management Plan. It puts forward the strategy we need to follow in order to achieve our target of reducing our emissions to net zero by 2030; which is the recommendation put forward by the IPCC1 (Intergovernmental Panel on Climate Change).

2.1 Environmental sustainability definition

Sustainability in an environmental context is defined as:

Interacting with the planet responsibly to ensure we avoid depleting natural resources and compromising the future generation’s ability to meet their daily needs

2.2 The Trust Green Plan Vision and Objectives

“Our Trust will provide sustainable healthcare for existing and future generations and endeavour to ensure we achieve net zero carbon emissions by 2030”

It is important to clarify the key differences between the terms “net zero” and “carbon neutrality”

1. The boundary of a net zero target includes all our emissions from gas and electricity consumption, transport, waste and supply chain activities, whereas carbon neutrality for an organisation only requires scope emissions from gas and electricity with waste and supply chain emissions encouraged but not mandatory.
2. Net zero carbon emission reduction targets must align to a 1.5°C science-based target (following the IPCC guidance¹), whereas the level of ambition for carbon neutrality is not specified.
3. The approach to residual emissions differs between the two definitions, with specific greenhouse gas removals required for net zero targets; whereas carbon offsetting (contributing to carbon emission reducing projects such as tree planting) is accepted for carbon neutrality.

We consider carbon offsetting to be an option that should only be considered, after all available options to directly reduce our carbon emissions are exhausted.

We will achieve our net zero 2030 target by focussing on:

- **The Trust estate**

Reducing carbon emissions relating to energy, water, and buildings while adapting to climate change.

- **Our “Work Lifestyle”**

Reducing carbon emissions and other environmental impacts through changes to travel, ways of working, procurement and waste.

- **Our wider impact**

Ensuring that the health care we deliver provides a social and environmental return on investment, adapting how services are delivered, promoting healthy lifestyles, and developing more sustainable ways to deliver our care. We are already making use of green social prescribing where service users can take part in outdoor nature related activities. This helps to improve general wellbeing.

Our sustainability objectives are:

1. Embed a Trust-wide approach to sustainability by ensuring this is included in staff job descriptions, staff training, corporate decisions and procurement processes.
2. Consider the environmental impacts of everything we do, taking into account the direct impacts on the health and wellbeing of service users, carers and our staff.
3. Reduce carbon emissions across all our services and ensure we report our progress on this to our Trust Board
4. Reduce consumption of single use plastic items and improve waste segregation across all our services
5. Make a positive impact on our people and communities by supporting social prescribing initiatives and involving the local community to help develop our services to ensure they are effective and sustainable.

2.3 Partnerships

Delivery of the Trust's vision in this Green Plan involves collaboration with strategic partners. As well as the involvement of staff and Trade Unions in the delivery of this Plan, we will also work with:

- NHS England and NHS Improvement
- The BNSSG and BSW Integrated Care Systems (ICS)
- Local Authorities
- Other NHS Trusts – both local and national
- Patient, service user and carer representative groups
- Suppliers
- Universities
- Local schools and businesses.

The Trust will share our successes with our partners and seek to learn from others and apply best practice.

3. Sustainability at AWP – Leadership and Governance

We have been actively monitoring our carbon emissions (consumption of gas, electricity and water, use of transport and waste production) annually since 2007. Our first Sustainable Development Management Plan (SDMP) was produced in 2018 and a subsequent SDMP in 2019. Our Board Lead for sustainability is our Director of Finance and we have a dedicated Energy and Sustainability Manager who works to progress the sustainability agenda at the Trust

and to implement the aims, ambitions and objectives established within the previous SDMP's and now in this Green Plan.

The Trust's Sustainability Group comprising staff representatives from a wide range of disciplines meets regularly to discuss sustainability themed ideas and initiatives. Other Trust representatives including service users and carers are also invited to participate or provide input as relevant.

The Energy and Sustainability Manager also reports annually on sustainability for the Trust's Annual Report, in accordance with NHS Sustainable Development Unit and HM Treasury guidance.

As well as specific sustainability tasks the Energy and Sustainability Manager is responsible for liaison and coordination with members of the Sustainability Group on collation of periodic monitoring and reporting requirements.

4. Sustainability at a national level

The Climate Change Act² was revised in 2019 and set a new legally binding target for the UK to reduce carbon emissions by 100% by 2050.

In 2019, the NHS Long Term Plan³ was published which outlines key requirements for the NHS to implement in order to continue to provide high quality sustainable healthcare. The Long Term Plan emphasises the requirement to develop Integrated Care Systems (ICS) which involves much closer working between GPs, community health and social care staff and the acute care sector. There is a strong emphasis on improving the health of the population by preventing illness and reducing health inequalities. Developing new sustainable care systems will also reduce carbon emissions, for example through digital consultations and by providing more localised access to care services.

In 2020, NHS England and NHS Improvement published the "Delivering a Net Zero National Health Service" document⁴, which outlines how the NHS as a whole, will achieve net zero (directly emitted) carbon emissions by 2040. This goes further than the 2050 UK net zero target.

The South West Clinical Senate Council have stipulated that climate change should be treated as a healthcare emergency and that there is much that can be done both in the short and medium term to make the NHS more sustainable. Key recommendations were made to show how emissions can be reduced in the healthcare sector from various sources, including Travel, Estates, Workforce and Procurement⁵.

Public attitudes to climate change have also influenced national and local policies. 62% of the UK public feel the government is not doing enough in preparing for and adapting to climate impacts⁶ Climate change protests organised by Greta Thunberg and Extinction Rebellion in 2019 and 2020 have also gained significant media attention. This has ensured that climate change continues to be an important public issue and one for which the public expects the NHS to be setting an example and taking the lead.

5. Green Plan

The "Delivering a net zero NHS" report divides emissions into those we have control over (the NHS Carbon Footprint) and those that we indirectly influence (NHS Carbon Footprint Plus).

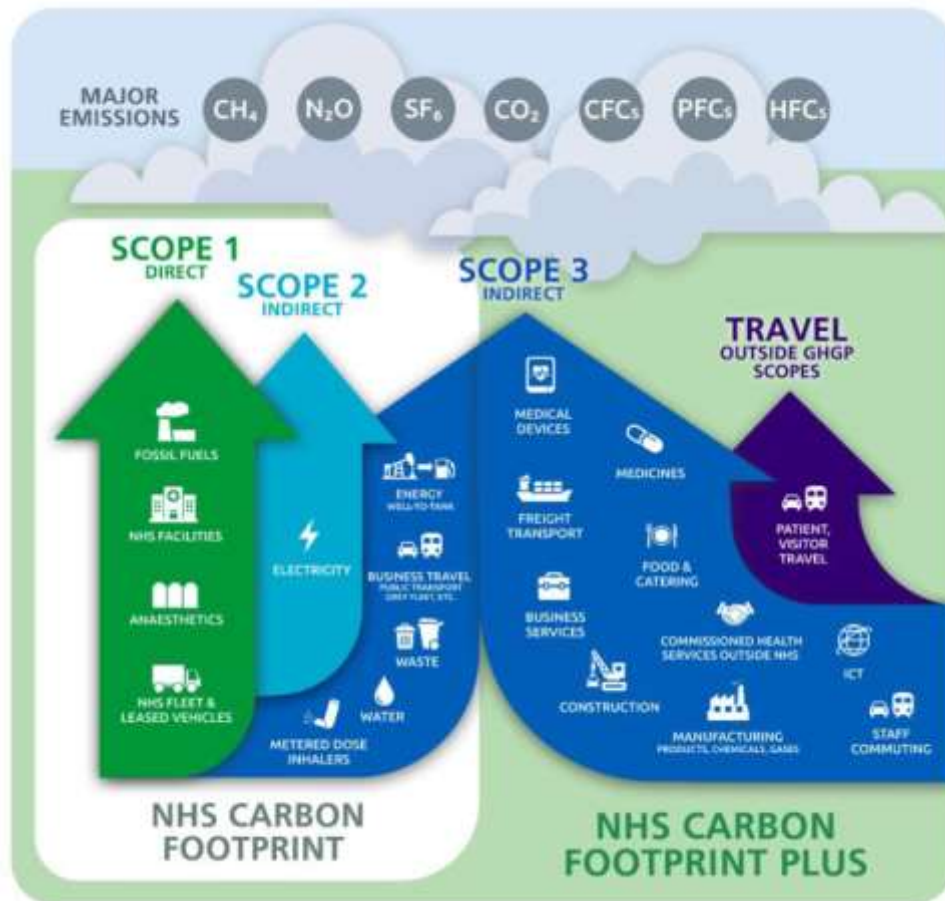
All the services we operate and all the things we purchase all produce carbon emissions.

We currently report the core carbon emissions from the standard NHS Carbon Footprint:

- Gas consumption (heating and hot water)
- Electricity consumption
- Business transport
- Water consumption
- Waste

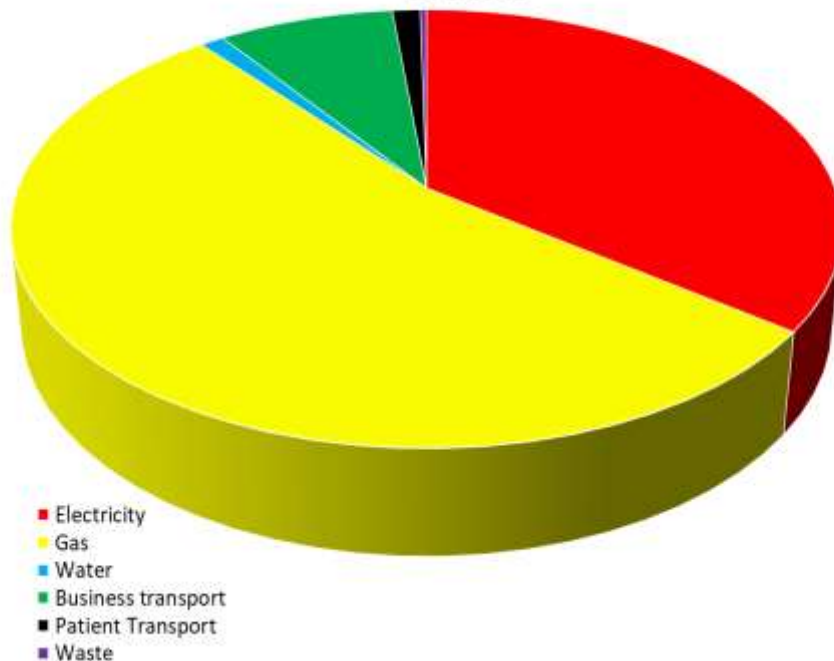
We are planning to report our emissions from procurement of products and services in the future once we have a reliable data set for this. A national standard for measuring these emissions is currently being developed by NHSEI. A large proportion of our procured consumables is supplied by NHS Supply Chain, and we are working with other NHS Trusts and NHS Improvement to obtain an estimate of the carbon footprint of these consumable items.

NHS Carbon emissions



Our carbon footprint for 2020-2021 was 6,142 tonnes CO₂e. This is a large reduction of 1,255 tonnes compared to 2019-2020.

Avon and Wiltshire Mental Health Partnership NHS Trust Carbon Footprint
2020-2021



Source	2019-2020 Tonnes CO2e	% share of emissions	2020-2021 Tonnes CO2e	% share of emissions	Change
Electricity	2550	34.5	2169	35.3	-380.0
Gas	3481	47.1	3305	53.8	-176.6
Water	79	1.1	68	1.1	-11.1
Business transport	1191	16.1	502	8.2	-689.3
Patient Transport	79.50	1.1	79.50	1.3	0.0
Waste	16.00	0.2	17.98	0.3	1.98
TOTAL	7397		6142		-1255.1

Please note that Patient Transport carbon emissions for 2020-2021 are the same for 2019-2020 due to the unavailability of mileage data from the previous provider of this service.

Carbon emissions have decreased for the majority of sources, with the largest reduction arising from reduced business mileage (689 tonnes). The Covid-19 pandemic and subsequent lockdown restrictions has meant that staff have significantly reduced the need to use a vehicle to carry out their work. The Trust also provided additional laptops to enable more staff to work remotely.

Our buildings have been subject to reduced occupation during Covid-19 restrictions with the shift to more home working. This is most noticeable in electricity related carbon emissions where a reduction of 380 tonnes has been achieved.

We have also seen a reduction of 177 tonnes relating to gas consumption and 11 tonnes reduction relating to water consumption. This is also due to our buildings containing reduced numbers of staff.

Due to the Covid-19 pandemic, waste related carbon emissions have increased due to significantly higher volumes of clinical waste being produced as a result of Covid-19 regulations being in place from March 2020. The pandemic has resulted in a significant increase in the use of masks, gloves, aprons and similar single use consumables.

The amount of Covid-19 PPE clinical waste produced will have decreased significantly from July 2021 after the Trust reclassified Covid-19 PPE waste as non-hazardous offensive waste, which is disposed of in deep landfill and does not need to be subject to additional heat sterilization.

The large carbon reductions in 2020-2021; especially the reduction in business travel related emissions has shown that there are multiple cost and efficiency savings that can be realised from changing working practices and sustainable use of buildings.

This presents us with important decisions to make concerning the way the Trust operates in the future. It may be the case that we reduce desk numbers in our buildings and/or decide to reduce the number of buildings we directly own. The services we provide will also need to adapt to ensure they meet sustainability criteria in order for us to achieve net zero carbon emissions by 2030. Utilities: carbon reduction progress and proposals.

To sustainably achieve net zero carbon emissions by 2030, our gas and electricity consumption will need to substantially reduce, and use less fossil fuels. All new building or refurbishment projects will need to allocate a minimum of 10% of the project budget to sustainable design for providing zero or low carbon heating, solar PV panels, LED lighting, water saving technology etc). Our priority is to decarbonise our heating systems across the estate, following the direction taken by NHS Improvement and NHS England.

Reducing water, gas and electricity consumption will also reduce our costs associated with using these resources.

We have made a good start on our journey to achieve net zero carbon emissions by 2030 by receiving a £4.5M grant in January 2021 from the Department for Business, Energy and Industrial Strategy (BEIS) to invest in solar panels, LED lighting, heat pumps and other technologies, which will reduce our combined electricity and gas emissions by over 565 tonnes per annum.

5.1 Electricity consumption

We now utilise a renewable electricity tariff for all our electricity supplies. This ensures we are compliant with NHSEI requirements and the terms of the NHS Standard Contract 2021/22. It is important to note that we will continue to report the fossil fuel equivalent carbon emissions associated with electricity consumption to ensure we do not lose the impetus with our future investment in electricity reduction projects. A renewable electricity tariff enables us to contribute a higher proportion towards national renewable electricity projects that will contribute to the decarbonisation of the electricity supply grid. Our renewable electricity supply is based on Renewable Energy Guarantees of Origins (REGOs) () and/or Guarantees of Origin (GoOs). Each megawatt-hour (MWh) is evidenced by a REGO or a GoO certificate. The purpose of the certificate is to prove that a given share of our electricity demand was produced from renewable sources.

We have achieved a significant reduction of 380 tonnes relating to electricity consumption. This is due to the large extent of remote working that was put into operation from March 2020. Electricity and gas carbon emissions will increase to some extent as our buildings become more occupied, but this will be offset by a move towards more remote working and electricity and gas demand being lowered by our recent BEIS grant funded projects involving the installation of solar panels, LED lighting, Building Management System (BMS) upgrades and electric heating.

We will continue to adopt measures to reduce our electricity consumption:

- Ongoing replacement of old and inefficient lighting with LED lighting

- Installation of solar photovoltaic panels to Trust buildings in order to generate electricity and reduce our dependence on the electricity grid
- Removal of supplementary electric heaters in use at Trust sites
- Setting a mandatory procurement standard for fridges, dishwashers, washing machines, microwaves and vacuum cleaners to AAA+ energy efficient appliances
- Utilise the AWP Sustainability group to encourage ideas and projects to reduce electricity usage.
- Produce regular reports for our Trust Board showing how we are progressing with reducing our electricity emissions.

5.2 Gas consumption

The Trust uses gas for heating and for producing hot water. Based on 2020-2021 figures, gas usage accounts for 54% of the Trust carbon footprint. Since 2007-2008, we have reduced our gas emissions by disposing of old buildings, replacing inefficient boilers, replacing inefficient hot water heaters and replacing old building management systems (BMS).

Gas carbon emissions have decreased by 177 tonnes in 2020-2021 compared to 2019-2020. This was mainly due to a reduction in gas consumption as a result of our buildings not being in full occupation. BMS infrastructure improvements will be taking place at these sites during 2021 in order to give improved control over heating which will help us to further reduce gas consumption and lower our carbon emissions.

To reduce our gas usage carbon emissions, we will ensure that:

- All new heating systems installed will be zero or low carbon. Where boilers have to be retained, this would involve the use of air source or ground source heat pumps. The aim is to move away from using gas as the primary source of heating and utilise electric heat pumps instead. The heat pumps being installed in three Trust buildings as part of the BEIS funded decarbonisation project operate in tandem with the existing gas boilers. The boilers remain operational for use only when the heating load becomes too great for the heat pumps.
- Where possible, we will move towards using electric-only heating such as heat pumps without retaining existing gas boilers. Heat pumps offer a significant advantage over gas boilers, in that for every KW of electricity they consume, it is possible to receive between 2 and 3KW heat output. To take full advantage of using heat pumps, the building should be well insulated and the existing radiators may need to be upgraded, so this technology is better suited for our more modern buildings which are cost effective to retrofit. In other properties, we may choose to install electric radiators. Furthermore, we may choose to downsize our Estate and dispose of our older, less energy efficient sites.
- We will encourage the landlord of properties which we rent, to reduce gas consumption by installing improved heating controls and/or consider low or zero carbon heating systems.
- Where possible, extra insulation will be installed where required into roof spaces, walls and floors.
- Feasibility studies are devised for installing heat recovery systems on building ventilation systems.
- Point of use electric water heaters are used for smaller office buildings to reduce gas demand for heating.
- Buildings are draught proofed and doors and windows are replaced with more efficient types during refurbishment works (taking into account ventilation arrangements).

- Regular reports are produced for our Trust Board which show how we are progressing with reducing our gas related carbon emissions.

5.3 Water

Water is used in the Trust for:

- Catering
- Medical uses
- Sanitary applications (toilets, baths, showers, etc.)
- Water heaters
- Grounds maintenance

Carbon emissions relating to water consumption has increased from 70.7 tonnes in 2007-2008, from 70.7 tonnes CO₂e to 79 tonnes CO₂e in 2019-2020, and has now decreased to 68 tonnes in 2020-2021. This recent decrease is due to many of our buildings being partially occupied for the majority of 2020-2021

Although water related carbon emissions are 1% of the total carbon footprint, the Trust must still make every effort to reduce water consumption by:

- Closely monitoring sites to identify possible water leaks and ensure these are repaired promptly
- Encouraging staff to report defects such as dripping taps, broken taps etc
- Ensuring all large water consuming electrical appliances (dishwashers, washing machines etc) are AAA+ efficiency rated.
- Monitoring existing water consuming appliances such as dishwashers to determine usage efficiency and determine if these appliances should be decommissioned.
- Fitting water saving measures such as water saving taps and toilets.
- Reporting our performance for reducing water consumption to our Trust Board.

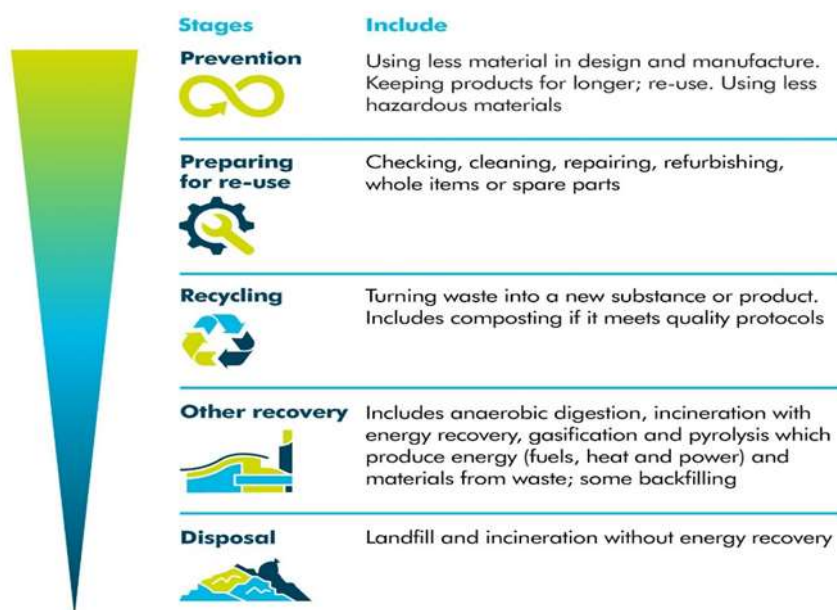
5.4 Waste

Waste related carbon emissions represent 0.3% of the total Trust carbon footprint. Whilst this is a small proportion, it still makes good environmental and business sense to improve the waste segregation performance across the Trust. There are significant legal and financial implications related to inadequate waste segregation.

Waste carbon emissions have decreased significantly since 2007-2008, from 79 tonnes CO₂e to 17.98 tonnes CO₂e in 2020-2021. This is primarily due to the introduction of recycling collections in 2011-2012 and an increasing amount of black bag waste sent to Energy from Waste Plants instead of landfill.

The Trust needs to ensure it follows the waste hierarchy for all waste management processes:

THE WASTE HIERARCHY



The waste hierarchy ensures that waste is minimised as a priority with disposal as a last resort. We recognise that we can make improvements in our processes to ensure we are closely following the hierarchy. A larger proportion of our waste can be recycled and we can prevent waste being created by re-using more items such as furniture, and avoiding the purchase of single use items such as disposable plastic cups.

In order to further reduce carbon emissions and ensure we reuse and recycle more of our waste, we will:

- Improve the waste training delivered to our staff to improve waste segregation and to emphasise the importance of following the waste hierarchy.
- Reduce our consumption of single use plastic items in line with the single use plastic reduction drive initiated by NHS Improvement (NHS Single-Use Plastics Reduction Campaign)
- Organise waste awareness days to encourage recycling and use of correct bins
- Set up a website based Trustwide asset re-use system for office furniture, working electrical items, stationery, office consumables etc. This will need to record cost savings, carbon emission reductions and tonnes of waste avoided. Reporting on re-use is now mandatory via the annual ERIC returns.
- Introduce the offensive waste stream to an increasing number of sites to divert waste away from the clinical waste stream
- Remove small under desk bins and replace these with a smaller number of centralised general waste and recycling waste stations.
- Introduce food waste collections to divert this waste away from the black bag waste stream
- Introduce glass recycling at various Trust sites
- Establish a Trust-wide battery recycling system.
- Introduce recycling schemes for office consumables e.g. non-refillable pens
- Ensure we report our performance for improving our waste segregation to our Trust Board.

5.5 Transport

Carbon emissions from transport are the third largest emissions source from our carbon footprint. Emissions from transport also cause significant air pollution. Air pollution is the biggest environmental threat to health in the UK, with between 28,000 and 36,000 deaths a year attributed to long-term exposure. There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease and lung cancer, and exacerbates asthma. As a healthcare Trust we have a moral duty to significantly reduce the carbon emissions and air pollution we are causing with the large amount of vehicle journeys we undertake each year.

Our emissions from transport arise from 3 sources:

- Patient transport which is provided by external contractors
- Business related travel undertaken in staff owned or leased vehicles (referred to as grey fleet) and Trust leased vehicles.

Transport emissions relating to the delivery of goods and services for the Trust (this is considered under NHS Carbon Footprint Plus (see para 5.0) and is currently not measured). Total carbon emissions from patient transport and business travel has decreased since 2007-2008, from 1,451 tonnes CO₂e to 581.5 tonnes CO₂e in 2020-2021. The large decrease seen for 2020-2021 is due to the large increase in remote working in response to the Covid-19 pandemic. The Trust was able to secure funding to provide laptops to increased numbers of staff to enable this transition to happen quickly. We envisage that there will be some increase as services return to a form of mixed remote working and office based functions. However, we need to ensure that we embrace this change and sustain the carbon emissions reduction in order to reach net zero emissions by 2030. Transport emissions are the third largest source in our carbon footprint and therefore we need to address this as a top priority.

Clean Air Zones (CAZ's)

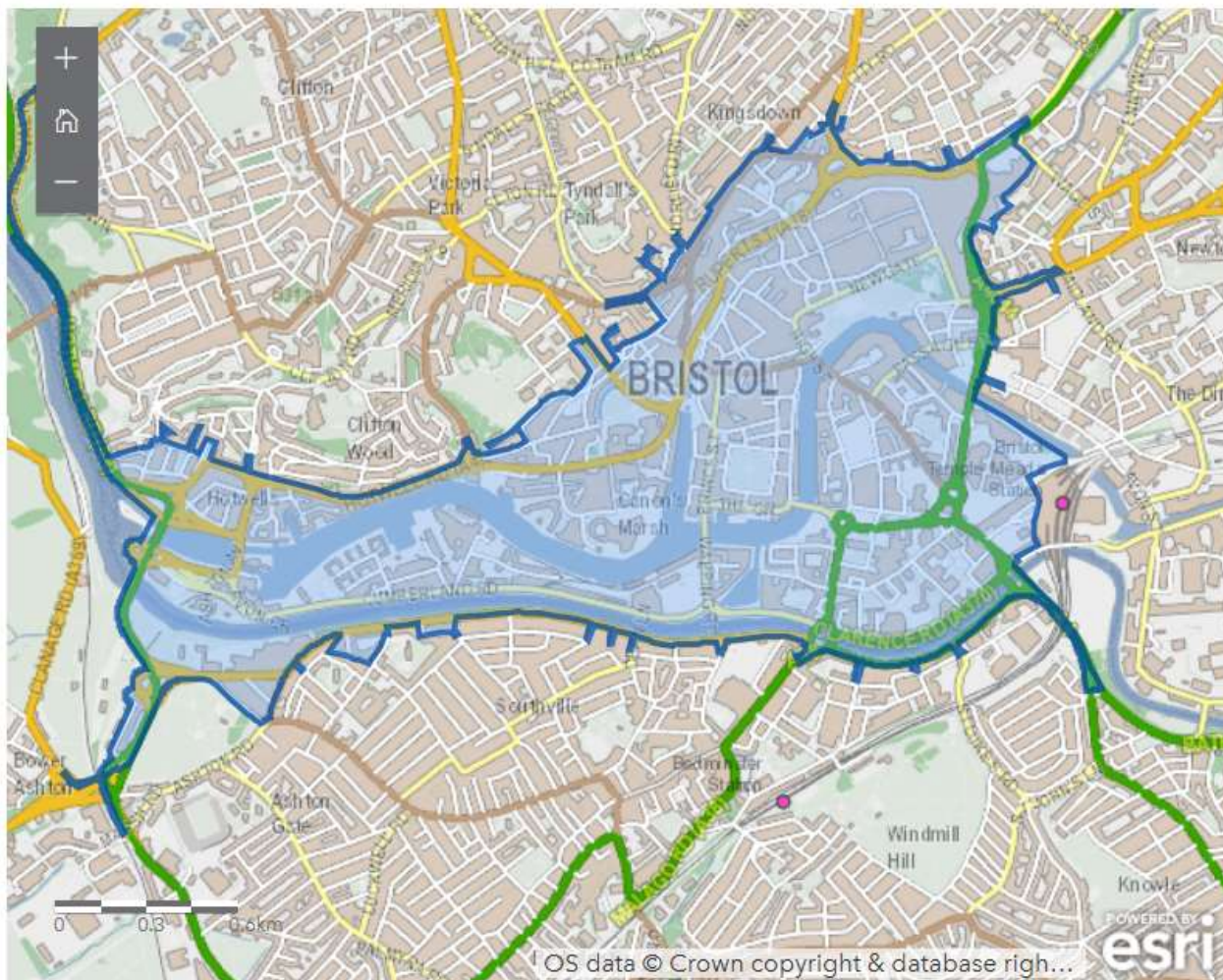
External influencing factors will also have an effect on staff decisions relating to the vehicles they may purchase or lease. On 15th March 2021, Bath imposed a Clean Air Zone in the centre of the city, which at present, only applies to commercial vehicles which are below Euro 4 petrol emission standard and below Euro 6 diesel emission standard. The CAZ is in operation 24 hours per day, 7 days per week.

Bath Clean Air Zone

The Bath clean air zone is unlikely to have much impact on our Trust or our staff working at our Bath sites, as our main sites which are in Bath (Hillview Lodge and Bath NHS House) are not in the Clean Air Zone. Also, as the Bath CAZ does not include privately owned vehicles, the impact on staff undertaking journeys in relation to Trust business, is unlikely to be significant.

Bristol Clean Air Zone

The situation in Bristol is more far reaching, and the changes could impact staff that are using their private vehicles to visit various Trust sites that are adjacent or close to the CAZ zone. The Bristol CAZ has recently been approved by the UK Government and will be imposed in summer 2022.



The Bristol CAZ will work in a similar way to Bath CAZ in that it applies to vehicles which are below the Euro 4 petrol emission standard and below the Euro 6 diesel emission standard. The key difference is that the Bristol CAZ will apply to both private and commercial vehicles.

Most diesel cars made after 2015 will be Euro 6 whereas most petrol cars made after 2006 will be Euro 4. This means that diesel vehicles below Euro 6 and petrol cars below Euro 4 used by Trust staff will be charged £9 per day if they enter the CAZ. The CAZ will be in operation 24 hours, 7 days per week.

The CAZ will also affect Trust operated owned and leased vehicles (as these are not classed as commercial vehicles under the CAZ rules). If these proposals are enacted, and to avoid the charges, the Trust will need to ensure that all Trust operated lease vehicles that need to access Bristol city centre are either: petrol Euro 4 and above, diesel Euro 6 or above, hybrid or electric. Trust staff needing to carry out their work in the city centre, would need to decide whether to pay the charge, use an alternative route or use an alternative form of transport. It is likely that CAZ's will also increase in size and they could also become stricter as emission standards continue to improve.

There is significant investment occurring into the electric vehicle market and the associated charging infrastructure. Most car manufacturers now produce a range of hybrid and electric vehicles and sales of these are increasing each year. Government legislation such as the recent move to ban the sale of new petrol and diesel vehicles in the UK by 2030, is increasing the demand for hybrid and electric cars. It therefore makes good sense for our Trust to start to use these cars now and to provide the required charging infrastructure for staff as they transition to using electric vehicles.

Transport – carbon reduction progress

- In September 2019, following a successful grant funding bid, we provided 34 new cycle stands at various sites in the Bristol region.
- In April 2021, following another successful grant funding bid, we completed our first electric vehicle charging point installation at Bath NHS House.
- Furthermore, in April 2021, we submitted a grant funding bid to refurbish the changing rooms at Fromeside and to refurbish the cycle compound at Wickham Unit. We hope to secure the funding in 2022

In order to further reduce transport related emissions, we will:

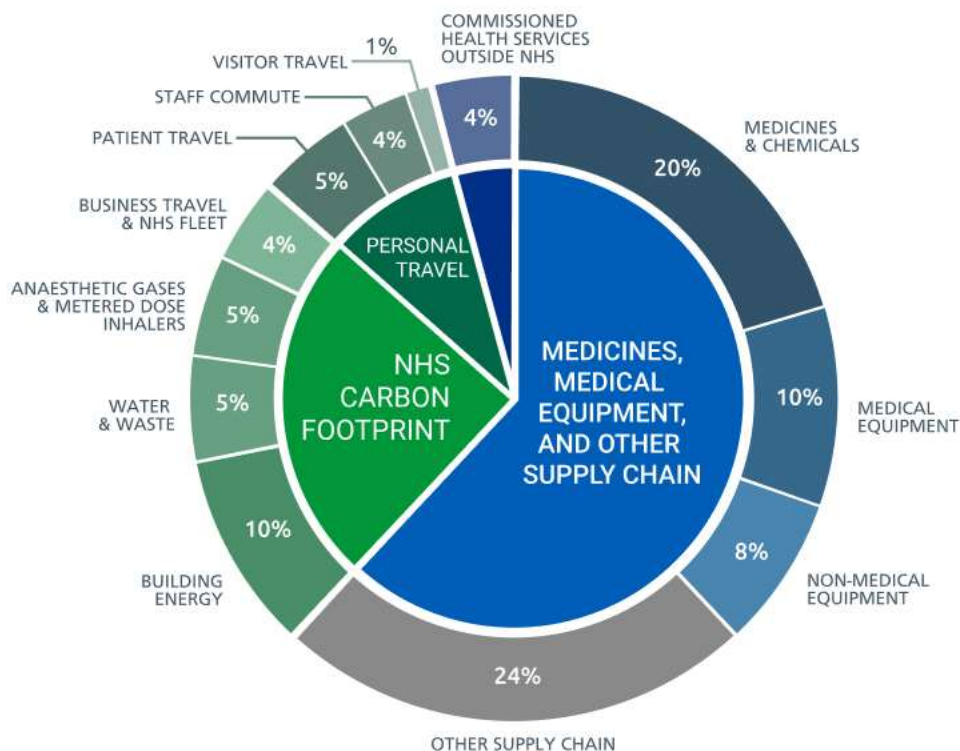
- Ensure vehicles available on the Trust lease car and salary sacrifice purchase schemes are exclusively low or zero emission; this can include electric and hybrid vehicles. No diesel or petrol cars should be available on any purchase or lease scheme that the Trust offers to staff.
- Utilise government grant funding to install electric vehicle charging points at various sites to create a Trust-wide charging network that can be used by staff and visitors.
- Replace existing diesel and petrol lease vehicles for electric or hybrid models upon lease renewal.
- Organise sustainable travel awareness days to encourage staff to utilise alternative modes of transport such as cycling, walking and public transport.
- Install new cycling facilities across Trust sites including cycle shelters, stands, changing rooms, showers and drying rooms.
- Increase publicity of the Trust electric bike lease scheme to encourage more teams to use electric bikes for undertaking work related journeys.
- Report our progress in reducing our transport carbon emissions to our Trust Board

5.6 Commissioning and Procurement

The procurement of goods and services in the NHS contribute significant carbon emissions as well as creating opportunities to generate environmental improvement and social value.

On a national level, it is estimated that procurement of goods and services contributes to 64% of the entire NHS carbon footprint:

GREEN PLAN 2021 to 2023



We have not yet measured our procurement carbon emissions, as this is currently outside of the scope of our carbon footprint. However, we are currently working with other NHS Trusts and NHS Improvement in order to devise a reliable method for measuring our procurement carbon emissions.

We have also signed up to the NHS Plastics Pledge, to reduce the use of single use plastics and the phasing out of avoidable single-use plastic items.

We recognise that we need to create a sustainable procurement strategy which will include the following actions:

- Engage with suppliers to seek reductions in emissions in the supply chain (this could involve using electric vehicles to transport goods to our Trust)
- Support for the transition to a circular economy (this is an economic system aimed at eliminating waste and the continual use of resources) while identifying opportunities for enhancing social value (e.g. skills and training, employment opportunities for disadvantaged groups and others).
- Encouraging the use of local suppliers to support a low carbon procurement system. This also helps to ensure resilience of supply which is an important consideration especially when dealing with pressures such as the Covid-19 pandemic.
- Measuring our progress with reducing procurement related emissions by updating our Trust Board on our performance with various initiatives, including reducing single use plastic.

5.7 Food and Nutrition

Our sites in the Bath, Swindon and Wiltshire area operate seasonal variations to menus, and have fresh fruit and salad items supplied to services every day.

We make on site as many items as we can within the confines of our kitchen space and ensuring we follow Hazard Analysis and Critical Control Point (HACCP) principles in order to ensure

compliance with food safety legislation. For example, we will make, rather than buy in sandwiches, sandwich fillings, salads & cold desserts.

We have a vegan menu and vegetarian options on our menus at every meal service. Approximately 66% of our main dish items are meat or fish based. We are currently looking at improving our utilisation of local suppliers, moving away from nationally approved suppliers for low risk items such as fruit and salad items.

Increasing the number of plant based main dishes will be ultimately dependent on our various suppliers.

5.8 Medicines

- The pharmacy department has rigorous processes in place to minimise medicines waste, and the value of expired medicines is reported on a monthly basis as part of dispensary key performance indicators. In FY 2020-21 AWP pharmacy service had a total expenditure on medicines of £1,768,565, with an expired stock value of £7,335 representing just 0.4% of total medicines expenditure.
- Over 90% of AWP pharmacy spend on medicines is through three wholesalers - [AAH](#), [Alliance Healthcare](#) and [Mawdsleys](#) pharmaceuticals who each have a commitment to ensuring they operate in an environmentally sustainable way.

The Trust has several Trustwide procedures that contribute to reducing medicines waste:

- Procedure for the disposal of medicines waste ([Med12](#)) - allows for recycling and reuse of medicines issued from AWP dispensaries to wards and teams. This procedure also advises wards to dispose of empty outer packaging and package inserts, (i.e. cardboard and paper) in appropriate recycling bins.
- Procedure for the use of Patients' Own Drugs (PODs) ([Med06](#)) – encourages the use of medicines brought in to hospital by patients, dispensed by a different service provider, e.g. community pharmacy.

These Trustwide procedures are supported by two pharmacy specific procedures:

- D035 - Return of Pharmaceutical Products into Pharmacy Stock
- D036 – Safe Disposal of Pharmaceutical Waste

The Trust has procured an electronic prescribing and medicines administration (EPMA) system and a project team is in place to facilitate rollout of this late 2021. EPMA will almost entirely eliminate the use of paper medicine charts in wards, which are currently not routinely recycled due to the requirement to store them in patients' files.

AWP dispensaries issue medicines to patients in recyclable paper bags. More sustainable alternatives to single use plastic bags that are currently used for medicines delivery are being investigated.

As a mental health trust, AWP prescribers do not routinely initiate inhalers for patients.

5.9 Healthy, Sustainable and Resilient Communities

As a mental health Trust, it is important that we encourage the use of green spaces to improve physical and mental health for our patients and service users. Research evidence suggests that mental wellbeing is improved if access to local green space is within 300m of a residential location¹¹. Within the Trust we have established green spaces at several of our sites including

Fromeside and Callington Road so we are well placed to enable our patients and service users realise this benefit.

We can help to alleviate stress, anxiety and depression by encouraging nature-based therapies and we can mitigate the impact of weight gain as a result of medication by encouraging physical activity outdoors.

In the therapeutic garden at Fromeside (Malago ward) we are running sessions which range from very basic stimulation (connecting with plants by looking and watering) to deliberate fitness and strength promotion (digging and shovelling). The plants are situated at various heights to allow them to be tended by service users who find bending or kneeling difficult. Given the sedentary nature of being detained the exercise and movement of gardening can be invaluable to some. Digging also allows for a rare opportunity for healthy expression of physical force. At the lighter end of the spectrum, for some the work is more about developing focus, nurturing characteristics or mindfulness. One SU who hears voices for example, reports being less bothered by them whilst gardening and therefore leaves his session in a brighter mood and more able to engage with other opportunities.

We are developing a sensory garden within the Malago garden which will benefit, amongst others, the more acutely unwell service users who access the garden simply to walk around. The sensory stimulus can help ground people with heightened anxiety and can help bring people out of a more detached state. The scented part of this will be a herb garden which has the added benefit of being used for cooking and fresh herbal teas.

We grow food in the garden which helps our service users think about healthy eating and the value of food and a connection with where it comes from. We run a session called "Plot to Plate" where service users make food from the garden (this is not currently running on due to Covid-19, but will re-start when it is safe to do so.) This links in with our healthy eating courses.

We are also building a composting system in order to make good use of our garden waste and accept deliveries of free woodchip from tree surgeons. The recent hot bin purchase will also allow us to make use of kitchen waste and reduce our compost costs.

The "Waste Not, Want Not" group (a cooking group run by the Occupational Therapy department) use leftover food from other cooking groups and the wards at the end of each week. They also use leftover vegetables from the garden. In 2020 our allotment also provided lots of vegetables for residents of Wickham Unit, some of whom attend sessions in Malago garden as well as those on their ward gardens.

At our Callington Road inpatient site, the occupational therapists based at the Coppice and Woodside buildings run groups which utilise the garden areas of wards as well as running an allotment in the green space between Woodside and Coppice to ensure that spending time in nature is part of people's recovery. There is another allotment group for inpatients at a nearby allotment site at Callington Road and Recovery teams and the Veterans service run horticulture projects for service users.

Many teams also run walking groups and help service users connect with nature and horticulture activities as part of their recovery plans across the AWP map including Green Gym, volunteering with wildlife trusts, attending walking groups etc.

Developing, protecting and enhancing green infrastructure and the natural environment can help protect urban environments against the impacts of climate change by improving surface water drainage and helping to reduce the urban heat island effect. Green infrastructure can also be

designed to optimise the carbon carrying capacity of the natural environment (e.g. planting more trees), helping to reduce our carbon emissions.

We will:

- Ensure existing green spaces are protected and improve the ecological and therapeutic value of existing spaces. This will increase biodiversity at our sites which will also help to stabilise the numbers of pollinating insects. This is important to note as almost 90% of the world's wild plants depend on pollination, along with 75% of leading global crops. Pollinator species include wasps, ants, butterflies, beetles, moths and bees.
- Work internally with Estates, nursing staff and allied health professionals, and with the local voluntary and community sector, neighbouring Trusts and local authorities to provide opportunities for service users to benefit from nature-based activities and therapy.
- Educate colleagues, patients and service users on the benefits of nature for physical and mental health.
- Continue to provide opportunities for staff, patients and service users to access green space.
- Acknowledge that green space is a resource and encourage allotments and food growing at home.
- Provide updates to our Trust Board relating to the overall feedback and outcomes of various green social prescribing initiatives.

5.10 Sustainable Clinical Care Models

As we move forward from the Covid-19 pandemic, we will need to ensure our clinical care services are delivered in a sustainable way taking into account any environmental impacts; whilst ensuring the healthcare service is clinically effective, safe and of a high standard. This also means being able to identify environmental impacts that may arise from a subsequent review of models of care. Face to face consultations with service users will still be carried out where required.

Our Trust has been able to adapt to the Covid-19 pandemic by reducing the amount of face to face service user consultations by undertaking digital consultations. Use of digital technology also enables our clinical staff to reduce their business mileage, which reduces our Trust carbon footprint and subsequently reduces the wider environmental impact of the clinical service.

As the effects of climate change continue to be apparent, we need to make sure that our healthcare system does not impede the discussions that we undertake with our service users. Environmental concerns that service users have need to be discussed in an open and honest manner and it is especially important that health professionals do not pathologise climate anxiety.

We will

- Devise training for healthcare staff in order to provide them with sufficient knowledge to discuss climate change with their colleagues, inpatients and service users.
- Continue to use digital technology and alternative transport solutions, to develop our clinical services to further reduce carbon emissions.

5.11 Workforce engagement and Communication

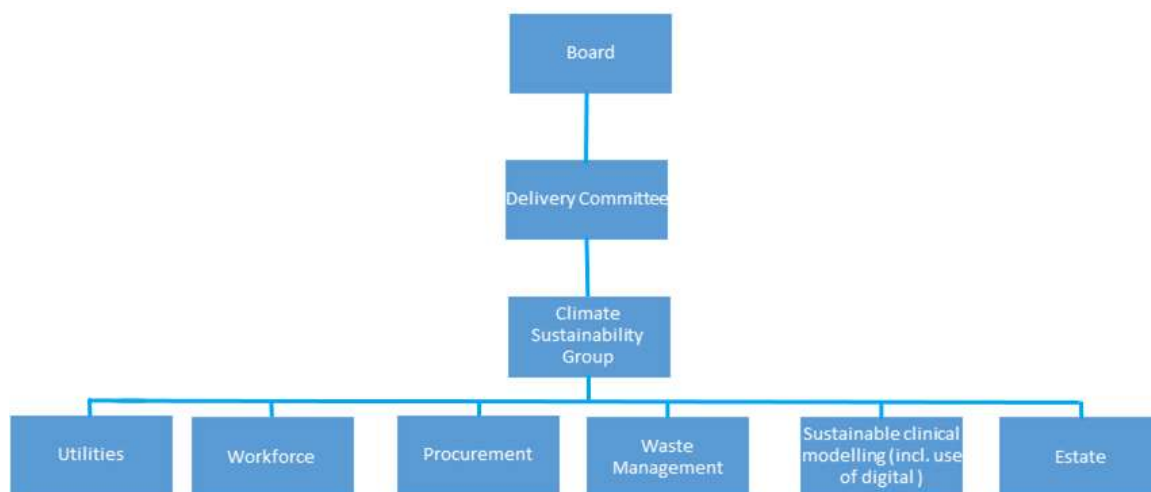
A sustainable organisation depends on a sustainability culture which is instilled from the time an employee starts a new role and which is maintained throughout their career progression. We cannot be truly sustainable unless all staff are provided with suitable training to enable them to

make sustainable choices. Examples could include reducing their car journeys, setting up a locally based recycling scheme in their department or helping to ensure their colleagues switch off lights and computers after they have finished their working day. The training should be given to staff when they join the Trust at induction and also be delivered on a refresher basis annually, or every 2 or 3 years.

The AWP Sustainability Group is the main forum for raising awareness of sustainability and taking forward ideas from staff members, which will help to reduce carbon emissions and reduce costs. We also meet with service users and inpatients via the Service User Involvement Group and we incorporated their ideas and suggestions for the content of the recent climate emergency declaration.

Furthermore, it is recommended that the Sustainability Group is renamed as the Climate Emergency Group or the Climate Sustainability Group to ensure it is focussed on driving the target towards achieving net zero carbon emissions by 2030. The group should also sit within a formal governance structure to ensure sustainability principles are adopted at all levels within the Trust.

A suggested governance structure is shown below:



6. Climate change adaptation and mitigation

It is essential that we are prepared for a changing climate. Even when best-case carbon emission reduction scenarios are taken into account, further climatic changes are inevitable in the future and the UK will need to manage the growing risks from climate change. The Met Office has produced climate projection models in order to show the most likely climate scenarios that will be experienced in the UK in the near future⁸:

- By the end of the 21st century, all areas of the UK are projected to be warmer, more so in summer than in winter. This projected temperature rise in the UK is consistent with future warming globally
- Hot summers are expected to become more common. The summer of 2018 was the equal-warmest summer for the UK along with 2006, 2003 and 1976. Climate change has already increased the chance of seeing a summer as hot as 2018 to between 12-25%. With future warming, hot summers by 2050 could become even more common, near to 50%
- There are likely to be more intense summer rainfall events and this will impact on the frequency and severity of surface water flooding, subsequently leading to more people becoming displaced from their home

- Extreme weather events associated with heavy precipitation are also likely to occur more often

Changing weather patterns, more frequent extreme weather and rising temperatures have direct implications on our health, and pose challenges to the way in which the NHS, public health and social care system operates.

Our response to these challenges can be grouped into:

- **Adaptation:** preventing avoidable impacts and health burdens through comprehensive preparedness
- **Mitigation:** reducing emissions and the human influence on the climate.

6.1 Adaptation

The most significant health impacts and adaptation examples are shown below:

Climate change health impact	Adaptation examples
Extreme heat weather events leading to heat stress occurring in susceptible patients.	Adapting existing buildings and ensuring new buildings are built to include shading and similar adaptation measures. This may include cool room provision requiring additional air conditioning. Provision of additional cold water drinks for patients.
Increased burns and skin cancers due to greater exposure to UV	Wider sharing of public health UV alerts Provision of external shading
Flood related illness and displacement.	Flood preparedness plans; building controls/restrictions; identifying risk groups
Higher temperatures in city environments more likely to expose people to harmful ozone levels	Monitoring and alerting, health education programmes Bristol Clean Air Zone (CAZ) and Bath CAZ will reduce level of pollutants.
Increased incidence of diseases and infections resulting from higher temperatures	Monitoring and alerting, health education programmes
Increased pressure on healthcare systems to keep services running during extreme weather events. Ability to deliver services effectively could be compromised	Service redesign may be required.
Increase in health inequalities, e.g. increased fuel and food prices, reduced access to heating, cooling, health services, education and food security	Health education programmes Existing clinical services need to adapt and change, to ensure to ensure most vulnerable people are supported.

The UK Climate Change Risk Assessment⁹ suggests that the annual number of flood victims suffering anxiety, depression or other mental health problems could double by 2050. On top of this, annual damage to UK properties due to flooding from rivers, surface water run-off and the sea currently totals around £1.3 billion. For England and Wales alone, the figure is projected to rise to £12 billion by the 2080s. Hospital admissions for respiratory diseases such as resulting

from a rise in concentrations of ground-level ozone have risen and are projected to rise significantly.

Climate change heavily impacts health and social care services by increasing the burden of disease. We therefore have a duty to be prepared for this impact and ensure our healthcare systems are resilient.

6.2 Mitigation – reducing our carbon emissions

Adapting to a changing climate will require us all to make changes to the way we live and work. Our future heating needs will need to be met by the increasing use of electrically powered systems rather than using traditional gas boilers. Electricity will become the preferred energy source for heating given that the national electricity grid is progressing well with decarbonising as more wind, solar and (to some extent) nuclear power generation is now being used to generate grid electricity.

In order to achieve net zero carbon emissions on our gas consumption, significant capital investment will be required. Electricity consumption will also increase as a result of installing heat pumps, though this will be expected to be offset by installation of LED lighting, solar panels and BMS upgrades. Future government policy is likely to result in gas usage being taxed more heavily than electricity, which would make investment in alternative electric heating systems more financially attractive.

There has been some recent discussion on the possibility of utilising hydrogen as a replacement zero carbon gas but this is unlikely to be a viable option within the next 15 years and certainly not in time for us to meet our 2030 target¹⁰.

The Trust will need to take advantage of future government grant funding opportunities in order to install electrically powered heating systems across multiple sites. As part of our Salix Decarbonisation project, it cost £607K to install heat pumps at our Fountain Way, Green Lane and Hillview sites, which will be expected to deliver a total of 242 tonnes of carbon savings. This equates to an approximate carbon abatement cost of £2500 per tonne. In order to reduce our gas emissions to net zero, the cost of achieving this could be at least £9M

Once this initial heat pump installation work is complete, we will need to install more heat pumps across the Trust to enable us to move away from using gas as the prime source of fuel for heating. A strategic decision has already been made in the Estates Department that existing gas boilers that are due to be replaced, will only be replaced with air or ground source heat pumps.

We will also need to continue to reduce our electricity consumption by using electricity more efficiently in the case of turning off lights and electrical appliances when they are not being used. Energy saving campaigns can help us achieve savings by engaging with our staff, service users and carers to promote positive energy saving behaviour. This might involve encouraging people to wear a jumper before deciding to increase the heating in a room.

We can also lower our electrical consumption by continuing to invest in LED lighting, solar panels and by procuring the most energy efficient appliances (such as AAA efficiency rated dishwashers, fridges, freezers and washing machines)

In the case of transport emissions, there is now a clear direction of travel for zero carbon propulsion systems. The internal combustion engine is now being superseded by zero emission electric propulsion systems and the majority of vehicle manufacturers now sell electric vehicle models with several announcing that they will stop producing vehicles with internal combustion engines by 2030. By 2030, hydrogen may also be a viable zero carbon fuel, depending on

whether renewable energy sources can provide the energy required to produce it in sufficient quantity.

Our Trust has achieved a very good start on its journey to achieve net zero emissions by 2030 by securing the £4.5M BEIS decarbonisation grant and by making a climate emergency declaration. We now need to build on these significant achievements and continue to invest in initiatives that will enable us to reduce our carbon emissions. We should however recognise that the climate is changing at an accelerating rate so any relevant actions must be reviewed to effectively support our communities and our health system to adapt.

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Version History

Version	Date	Revision description	Editor	Status
1.0	31/01/2022	New strategy	LC	Approved