Northamptonshire Healthcare NHS Foundation Trust

Sustainable Development Management Plan

2017 - 2020

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Contents

<u>Version history</u>

Task	Name	Date	Version
Prepared by	Khaled Belgasmi (Loreus Ltd)	12/04/2017	4.5
Checked by	Peter Redfern (Loreus Ltd)	18/04/2017	4.5
Approved by	Richard Wheeler, NHFT Finance Director	28/06/2017	4.5

Executive Summary

This Sustainable Development Management Plan (SDMP) sets out Northamptonshire Healthcare NHS Foundation Trust's (NHFT) vision for sustainability and establishes a plan of actions for how the Trust can become a more sustainable provider of healthcare services.

The Trust's vision for sustainable development is:

> **"A sustainable health and care system works within the available environmental and social resources, protecting and improving health now and for future generations.**
>
> **This means working to reduce carbon emissions, minimising waste & pollution, making the best use of scarce resources, building resilience to a changing climate and nurturing community strengths and assets."**

The Trust has selected the 2011/12 financial year for its carbon footprint baseline as this is the earliest date for which a complete data set is available. The Trust's direct footprint (excluding procurement) in 2011/12 was 11,779 tCO_2e. this was split 79% from buildings (energy, waste and water) and 21% from travel.

The Trust has set a target of reducing direct carbon emissions by 28% by 2020 compared with the 2011/12 baseline. This equates to a total reduction of 3,298 tCO_2e to reach an annual emissions level of 8,481 tCO_2e by 2020.

Initial estimates by the Trust show that under a business as usual scenario, emissions are expected to increase to 13,588 tCO_2e over the period to 2020. Consequently, in order to achieve this target and eliminate the projected increase from the business as usual scenario, a total carbon saving of 5,107 tCO_2e by 2020 will be required. Split evenly across the 8 years, the trust needs to make an average annual carbon emission reduction of 639 tCO_2e.

A Sustainability Committee has been established with membership from key departments within the Trust & has responsibility for annually reporting sustainability to the Trust Board. The primary role of the Sustainability Committee will be to implement and monitor the actions set out in the Sustainable Development Action Plan (SDAP). The SDAP establishes priority actions for the Trust to undertake in order to embed sustainability and carbon reduction throughout its operations. The 8 areas of focus within this SDMP have been updated to match the key areas of focus highlighted by the Sustainable Development Unit (SDU):

- Leadership, engagement & workforce development
- Carbon hotspots
- Commissioning & procurement
- Sustainable clinical & care models
- Healthy, sustainable & resilient communities
- Metrics
- Innovation, technology and R&D
- Creating social value

1. Background Context

1.1. Introduction

A Sustainable Development Management Plan (SDMP) is a Board approved document that assists organisations by clarifying their objectives on sustainable development and establishing a plan of action.

Having a Board approved Sustainable Development Management Plan (SDMP) is the cornerstone of a sustainable organisation.

This SDMP has been designed to help the Trust;

- Meet the minimum statutory and policy requirements of sustainable development
- Save money through increased efficiency and resilience
- Improve the environment in which care is delivered for both patients and staff
- Have robust governance arrangements in place to monitor progress
- Demonstrate a good reputation for sustainability
- Align sustainable development requirements with the strategic objectives of the organisation

1.2. Sustainable Development

The most widely recognised and accepted definition of Sustainable Development comes from the Brundtland Commission (1987), it is; "development that meets the needs of the present without compromising the ability of future generations to meet their own needs[1]."

NHFT acknowledges that the above definition describes Sustainable Development in terms of being able to meet our most basic needs both now and in the future. It does not directly refer to the environment, being green or saving energy, rather Sustainable Development is about responsible stewardship of resources.

There are now a wide range of legislative drivers for organisations to become more sustainable, and sustainable development is well enshrined in national policy and international law. To this end, the NHS and all other UK public sector organisations must consider the economic, social and environmental consequences of their actions.

In the NHS, sustainable development is often referred to as good corporate citizenship. This means using NHS organisations' corporate powers and resources in ways that benefit rather than damage the social, economic, and physical environment. How the NHS behaves can have a big impact on people's health, the wellbeing of society, the economy and the environment. Behaving as a good corporate citizen can save money, benefit public health and help reduce health inequalities, as many measures that improve health can also contribute to sustainable development and vice versa.

Figure 1 below demonstrates the link between the actions of NHS organisations and the health and prosperity of the local community.

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[1] Brundtland G et al (1987) Our Common Future: Report of the 1987 World Commission on Environment and Development, Oxford, Oxford University Press.

Figure 1: NHS Influence on Sustainable Development.
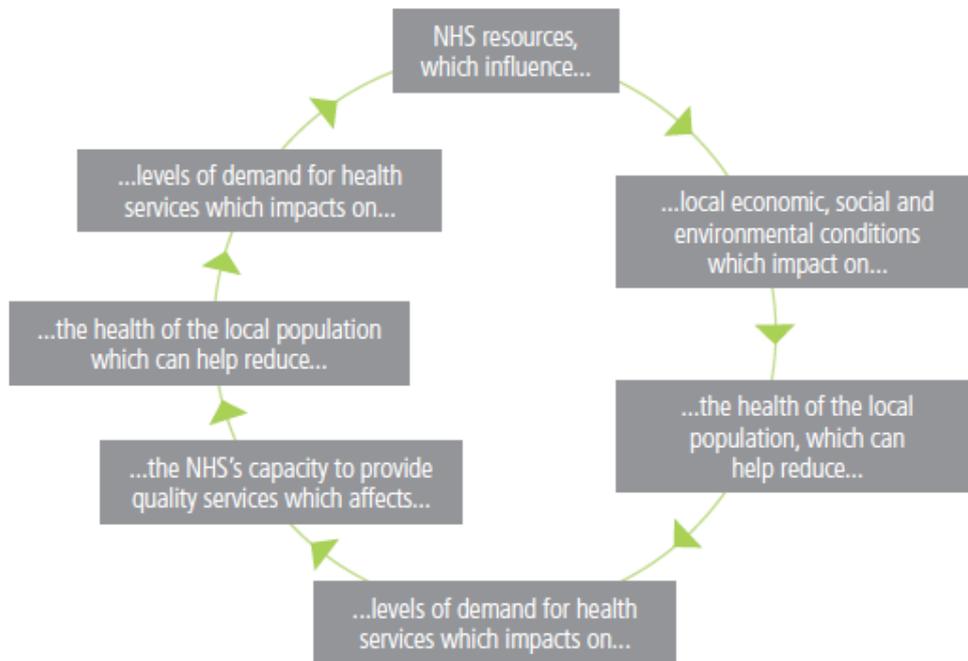
1.3. Climate Change

There is now strong scientific consensus regarding human influence on the global climate. A recent report by the Intergovernmental Panel on Climate Change (IPCC) stated that "It is extremely likely (95-100%) that human influence has been the dominant cause of the observed warming since the mid-20th century[2]".

This human influence is due in large part to the increased emission of greenhouse gasses resulting from the combustion of fossil fuels, cement production, land use change and deforestation, among many other activities. Climate change is now recognised as one of the most serious threats to human health and its impacts stand to be felt greatest by the most vulnerable people within our society.

The UK Climate Projections 2009[3] present 3 different future scenarios, representing low, medium and high levels of greenhouse gas emission.

Under the medium emissions scenario the key impacts of climate change within the East Midlands Region by 2050 are forecasted to be;

- 2.5^{o}C increase in average daily summer temperature
- 2.2^{o}C increase in average daily winter temperature
- 16% decrease in average summer precipitation while winter precipitation may increase by 14%

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[2] IPCC (2013): Summary for Policymakers. Climate Change 2013: The Physical Science Basis. Available at: http://www.ipcc.ch/report/ar5/wg1/ (Accessed: 13th Oct 2014)
[3] UK Climate Projections Science Report (2009): Climate change projections. Available at: http://ukclimateprojections.metoffice.gov.uk/ (Accessed: 13th Oct 2014)

Finally, as a result of the warming climate, occurrences of extreme weather events will potentially become more frequent.

1.4. Healthcare, Sustainable Development and Climate Change

In 2011, the NHS Sustainable Development Unit (SDU) published the 'NHS Route Map for Sustainable Health' framework. This document outlined a number of transformational shifts required for a more sustainable health and care system. These shifts are summarised in the table below.

Table 1: Transformational Shifts Required for A Sustainable Healthcare System[4].

From	To
Health care as an institution led service	Health and social care as part of the community
Curative and fixing medical care	Early intervention and preventative care
Sickness	Health and well-being
Professional	Personal
Isolated and segregated	Integrated and in partnership
Buildings	Healing environments
Decision making based on today's finances	An integrated value of the future which accounts for impacts on society and nature
Single indicators and out of date measurements	Multiple score card information and in real time
Sustainability as an add on	Integration in culture, practice and training
Waste and over use of all resources	A balanced use of resources where waste becomes a resource
Nobody's business	Everyone's business

Sustainable Development for the NHS means reducing the significant environmental impacts from its activities while remaining within increasingly tight financial constraints. For the NHS there is significant overlap between the environment and economy as avoiding environmental harm and reducing waste will lead to financial savings.

Sustainable healthcare should encompass three main principles:

- **A healthy society depends on a healthy environment**: clean air to breath, green spaces to enjoy, safe places to walk and cycle, and a radical reduction in our greenhouse gas emissions.
- **A sustainable healthcare system requires development of resilient communities**: resilience that is fundamental to health and wellbeing, both in times of relative stability, and in times of crisis.
- **Working with people to prevent the preventable and manage the manageable**: This means helping the public to improve the understanding and control over their own health. The

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[4] NHS Sustainable Development Unit (2011): Route Map for Sustainable Health. Available at: http://www.sduhealth.org.uk/policy-strategy/route-map.aspx (Accessed: 13th Oct 2014)

traditional model of being well, then ill, then treated, and then better, is increasingly outdated & unsustainable.

The effects of climate change are likely to be felt disproportionately by those groups which have contributed the least in terms of their consumption of natural resources or are least able to cope with a changing climate. Impacts are likely to be felt most keenly by the elderly, the sick, the young and those living in areas of high deprivation. The effects of climate change will also vary spatially across the UK, for example coastal and rural areas are more likely to experience the most severe cases of flooding while heat waves will be most likely in Southern England.

Climate change will also influence the social and environmental determinants of health; clean air, safe drinking water, sufficient food and secure shelter. The 2012 UK Climate Change Risk Assessment (CCRA) has identified the following health risks and impacts of climate change[5]:

- A reduction in water availability for homes and hospitals, particularly during the summer, leading to more frequent water use restrictions and in the longer term, water shortages.
- Potential loss of staff hours due to high internal building temperatures (assessed as being of particular relevance to the health, education and retail sectors, which have large workforces).
- Increased summer temperatures may lead to increased risk of mortality and morbidity from heat related illness.
- More flooding will increase the risk of death and injury.
- Increased ozone levels by the end of the century could lead to an increased risk of mortality and respiratory related hospital admissions.
- Increased summer temperatures combined with increased periods of time spent outdoors may lead to an increased incidence of skin cancer.
- Increased temperatures and changed rainfall patterns may lead to an increased health risk from water borne disease.
- Increased sea temperatures may lead to increased marine pathogens and harmful algal blooms with a consequent negative effect on human health.
- Added burden on the emergency services in responding to more frequent flooding, heat waves and wildfires.

1.5.   Why the NHS?

In 2008 the NHS Sustainable Development Unit carried out a consultation on carbon reduction within the NHS in England. The results showed there was a very strong willingness and commitment amongst NHS organisations and staff to take a lead on carbon reduction and sustainable development. 66% of NHS organisations responded to the consultation, with 95% of responders strongly supporting the NHS in taking a leading role[6].

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[5] HM Government (2012): Climate Change Risk Assessment: Government Report. Available at: https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-government-report (Accessed: 14th Oct 2014)

[6] NHS Sustainable Development Unit (2009): Saving Carbon Improving Health: NHS Carbon Reduction Strategy for England. Available at: http://www.sduhealth.org.uk/policy-strategy/engagement-resources/nhs-carbon-reduction-strategy-2009.aspx (Accessed: 14th Oct 2014)

The NHS is the largest single employer in the UK, with approximately 1.3 million staff in England alone. NHS Staff hold a position of unique responsibility and are well respected within their local communities. This position presents them with a significant opportunity to positively influence public attitudes towards sustainable development.

92% of the public have said it is important for the NHS to work in a more sustainable way[7]. This is a national vote of confidence for implementing sustainability in healthcare, demonstrating that the public want their health service to consider sustainability as part of its primary function.

Finally, the current carbon footprint for the NHS in England (published in January 2016) is 22.8 $MtCO_2e$[8], roughly equivalent to some medium sized countries. This new figure shows that progress is being made, between 2007 and 2015 the NHS carbon footprint in England has reduced by 11%. The NHS carbon footprint represents 25% of England's total public sector emissions and 3.3% of total carbon emissions in England. Reducing the carbon footprint of the NHS will make a significant impact on the UK's total carbon footprint. Clearly there is a desire both internally and externally for NHS organisations to become more sustainable, as well as there being a significant opportunity for the NHS to have an impact on the wider sustainability and climate change agendas both nationally and globally.

As a result, NHFT is committed to playing its role in making the NHS more sustainable and to lead by example at both a regional and national level.

2. Drivers for Change

The following section identifies the key drivers for the Trust to take action on climate change and to work towards becoming a more sustainable organisation.

2.1. Legislative Drivers

- The **Climate Change Act (2008)** is the overarching legislation that sets out the strategy to improve carbon management and help the transition towards a low carbon economy in the UK. This act introduced legally binding national carbon targets and budgets, ultimately aiming to achieve at least an 80% reduction in emissions by the year 2050 compared with a 1990 baseline.

- The **Carbon Reduction Commitment Energy Efficiency Scheme (CRC)** is a mandatory energy efficiency scheme affecting the majority of NHS organisations. In the 2016 budget, it was announced that the CRC scheme will be scrapped from the end of the 2018/19 compliance year. NHFT has an internal plan for compliance with the CRC scheme which has been successfully implemented since its introduction.

- The **Civil Contingencies Act (2004)** requires all NHS organisations to prepare for adverse events and incidents. Organisations must demonstrate that they have undertaken risk assessments and

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[7] NHS SDU (2013): Public Opinion Survey. Available at: http://www.sduhealth.org.uk/policy-strategy/reporting/ipsos-mori.aspx (Accessed: 14th Oct 2014)

[8] NHS SDU (2017): NHS Carbon Footprint. Available at: http://www.sduhealth.org.uk/policy-strategy/reporting/nhs-carbon-footprint.aspx (Accessed: 12th April 2017)

that carbon reduction delivery plans are in place in accordance with emergency preparedness and civil contingency requirements.

- The **Social Value (Public Services Act) (2012)** requires commissioners to evidence a Triple Bottom Line (to show social, environment and economic assessments of commissioning decisions in a balanced way). This may include the development of a Sustainable Development Management Plan.

- The **Government Financial Reporting Manual (FReM)** includes mandatory sustainability and environmental reporting from 2011/12. The Department of Health (DoH) use FReM as the basis for NHS annual financial reporting. From 2011/12 onwards the framework will be part of the mandatory accounts direction issued by the DoH.

- **The EU Energy Performance in Building Directive Recast** has translated into UK legislation requirements for publicly displayed energy certificates in all public buildings over 250m^2. Certain air conditioning units will become outlawed and unmaintainable by 2015 due to the polluting refrigerants they use. There are now legal requirements for regular maintenance and testing of heating and cooling systems.

- **The 2014 EU fluorinated greenhouse gas (F gas) regulations** introduced guidelines on the use of fluorinated gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). The requirements on operators of equipment containing F gasses (such as NHFT) are that they must use trained technicians, label equipment and regularly check for leaks either manually or automatically. There are also limitations on which gasses can be used to recharge air conditioning systems, however this is managed by the selected F gas contractor on behalf of NHFT.

- **The Health & Social Care Act 2012** mandates that large healthcare providers such as NHFT must partner with the local authority to take such steps as they consider appropriate for improving the health of people within its area. Health & wellbeing boards therefore have a central role to play in assuring the alignment of service provision with health needs within the area

- **The Public Services (Social Value) Act 2012** places a requirement on commissioners to consider economic, social & environmental wellbeing, therefore providers must demonstrate due regard to the collective gain of a community has been considered over & above the direct services provided.

2.2. NHS Policy Drivers

NHS England's Carbon Reduction Strategy 2009
The NHS Carbon Reduction Strategy for England sets an ambition for the NHS to help with the change to a low carbon society; setting a pledge for the NHS to become one of the leading sustainable and low carbon organisations by aligning NHS targets with the Climate Change Act.

NHS Constitution 2013

The NHS Constitution establishes seven key principles to guide NHS organisations. Principle six from the constitution states:

"The NHS is committed to providing the best value for taxpayers' money and the most effective, fair and sustainable use of finite resources. Public funds for healthcare will be devoted solely to the benefit of the people that the NHS serves[9]."

Care Quality Commission (CQC)

The CQC is responsible for ensuring high quality systems of care and safeguarding the rights of patients. The CQC judges that to be high quality, care must:

- Be safe
- Have the right outcomes, including clinical outcomes
- Be a good experience for the people who use it
- Help to prevent illness, and promote healthy, independent living
- Be available to those who need it when they need it
- Represent efficient use of resources

All of these characteristics are inherent to a sustainable health service. The CQC, as part of its strategic planning, is considering how it makes environmental and public health an appropriate and meaningful part of its assessment criteria.

NHS Sustainability & Transformation Plans (STPs)

The NHS & local councils have come together in 44 areas across England to develop proposals and make improvements to health & social care. These proposals are called Sustainability & Transformation Plans (STPs), they are place based and built around the needs of the local population. The proposals have been created to tackle the current and future challenges facing the NHS. The three key areas for STPS are;

1. **Health & wellbeing**: by promoting healthier lifestyles, we can improve people's quality of life and reduce the pressure on our health and social care services.
2. **Care & quality**: Ensuring that needs are met by services of consistently high quality
3. **Funding & efficiency**: Efficient use of limited resources is essential if NHS services are to remain effective, affordable and able to provide up-to-date treatments.

You can view the STP for Northamptonshire online at
http://www.neneccg.nhs.uk/resources/uploads/Northants_STP_v8.pdf

3. Baseline Performance

The following sections describe where the Trust currently stands in terms of its known performance on sustainability and climate change issues. The Trust's carbon footprint has been calculated in order to establish a baseline for quantitative aspects of sustainability. The Trust also intends to use the

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[9] Department of Health (2013): The NHS Constitution, the NHS belongs to us all. Available at:
https://www.gov.uk/government/publications/the-nhs-constitution-for-england (Accessed: 14th Oct 2014)

Good Corporate Citizenship (GCC) assessment tool to establish a baseline and to monitor progress on the qualitative characteristics of sustainable development.

3.1. Carbon Footprint

The Trust commissioned Nottingham Energy Partnership (NEP) to conduct a Trust wide analysis of the carbon emissions generated from travel, procurement, energy in buildings and waste. This established the Trusts carbon footprint for the 2011/12 financial year. From 2016/17 NHFT will be working with the Nottingham based environmental consultancy Loreus Ltd.

3.1.1. Recast of the 2011/12 Carbon Footprint

The figures below supersede the Trust's original 2011/12 carbon footprint. The 2011/12 carbon footprint has been recast as a result of a change in the methodology used by DEFRA for calculating the emissions from grid generated electricity. The table below highlights the change in the emission factor from the original carbon footprint to the recast in this document.

Table 2: Recast of 2011/12 Carbon Footprint

Emissions Source	Previous Carbon Factor ($kgCO_2$/kWh)	Updated Carbon Factor ($kgCO_2$/kWh)
Grid Supplied Electricity	0.48357	0.57081

The updated methodology from DEFRA means that electricity consumption emissions have increased from 4,584 tCO_2e to 5,411 tCO_2e, an increase of 827 tCO_2e. The updated carbon footprint is detailed in Figure 2 below. There has been no change to the methodology used to calculate the emissions arising from gas consumption, travel, waste, water or procurement.

Total emissions over the 2011/12 financial year were 22,848 tCO_2e. This encompasses the direct and indirect emissions of healthcare delivery across the Trust's estate. This equates to 5.7 tonnes CO_2e per employee per annum. By comparison, average UK household emissions are 9 tCO_2e per household per annum. The direct footprint (total footprint minus emissions from procurement) comprises 52% of the total footprint and equates to a per employee carbon footprint of 2.94 tCO_2e per employee per annum. Figure 2 below shows the breakdown of the Trust's total carbon footprint.

Figure 2: NHFT carbon footprint 2011/12
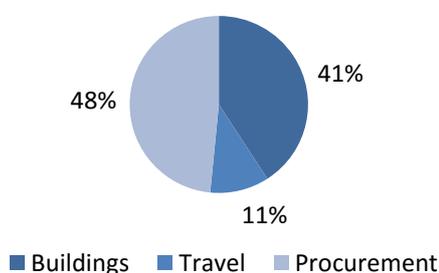
Source	tCO_2e
Energy	9,245
Waste	18
Water	69
Travel	2,447
Procurement	11,069
Total Footprint	**22,848**
Core Footprint	**11,779**

Indirect emissions through procurement are the largest single component of the Trust's total footprint, accounting for 48%. This is followed by emissions from buildings which are 41% of the total, which includes energy consumption, waste disposal and water consumption. GHG emissions from travel account for 11% of the total. NHFT has previously achieved zero waste to landfill during

the 2011/12 financial year. The carbon footprint of waste disposal is now only 0.08% of the total footprint. The carbon footprint of water use and treatment is similarly small, encompassing only 0.3% of the total footprint.

The headline figures from the Trust's baseline carbon footprint and environmental performance are as follows:

Building Energy Use
- Total expenditure on energy in buildings was £1,608,758
- The breakdown of emissions from energy consumed across the Trust is 34% from Electricity and 66% from Gas in kWh
- The energy intensity has been benchmarked against other mental health Trusts within the region by comparing the CO_2e per m^2. The East Midlands Average is 68.76 $kgCO_2e$ per m^2 with NHFT producing 97.95$kgCO_2e$ per m^2 (42.5% above the average)

Waste
- Total annual expenditure on waste was £109,234.
- Waste going to landfill accounted for 0% of total waste generated.
- The Trust-wide onsite recycling rate is 10% and the offsite recycling rate is 50%.
- The waste generated across the Trust equates to 212kg per employee, approximately 3 times the weight of an average person.

Travel
- Total Expenditure for travel was £2,635,264
- The largest single contributor for travel emissions is from staff business mileage in private vehicles at 2,163 tonnes CO_2e.

Procurement
- Total expenditure on procurement over the 2011/12 financial year was £31,265,272 (excluding spend on energy, travel and waste).
- The largest single source of carbon emissions from procurement activities come from the purchase and use of pharmaceuticals & medical gasses at 2,628 tonne CO_2e.

3.2. Carbon Reduction Target

Taking in to account the national and NHS specific carbon reduction targets described above, NHFT has established the following carbon reduction target for its operations:

Northamptonshire Healthcare NHS Foundation Trust commits to reducing its direct CO_2e footprint by 28% by 2020 compared with the 2011/12 baseline.

The aim of this SDMP and the included action plan is to help the Trust meet this target and contribute to its vision of sustainability. The Trust's direct footprint encompasses: consumed energy, waste disposal, water (consumption & treatment) and travel, but excludes emissions from procurement.

CO_2e emissions from the Trust's procurement activities have been excluded from its carbon reduction target at this time. The Trust wishes to improve the methodology for calculating this element of its carbon footprint and understand more fully how procurement emissions can be

monitored and managed. However, the Trust will still work to improve the sustainability of its procurement activities and monitor its performance in this regard using the GCC tool.

3.2.1. Decarbonisation of the National Electricity Grid

By 2030 DECC estimates a carbon intensity of 100g CO_2/kWh for UK grid generated electricity[10]. This is expected to result from the increasing contribution of renewable technology to electricity generation at a national level. This will result in reducing the grid carbon intensity by 79% by 2030 from 2011 levels (484g CO_2/kWh). As the current NHFT target runs through to 2020 this document has assumed a grid carbon intensity of 301g CO_2/kWh which is in line with the linear reduction from 2011 to 2030 as described above.

This assumed reduction in grid carbon intensity is projected to result in a carbon saving of 17.32% against NHFT's 2011/12 core carbon footprint. This saving has been applied to the Trust's carbon footprint which can be seen in table 3 below.

3.2.2. Projected Emissions Scenarios

In order to project the absolute carbon emission reduction needed to meet the 28% target, a business as usual emissions scenario has been developed. This takes the Trust baseline CO_2e emissions from 2011/12 and in the absence of any further data applies an annual percentage increase in line with the current Consumer Price Index (CPI); this equates to an annual emission increase of 1.6%. The reduced emissions scenario has then been plotted as a linear pathway from 2011/12.

Figure 3: 2020 carbon reduction target and BAU projection.

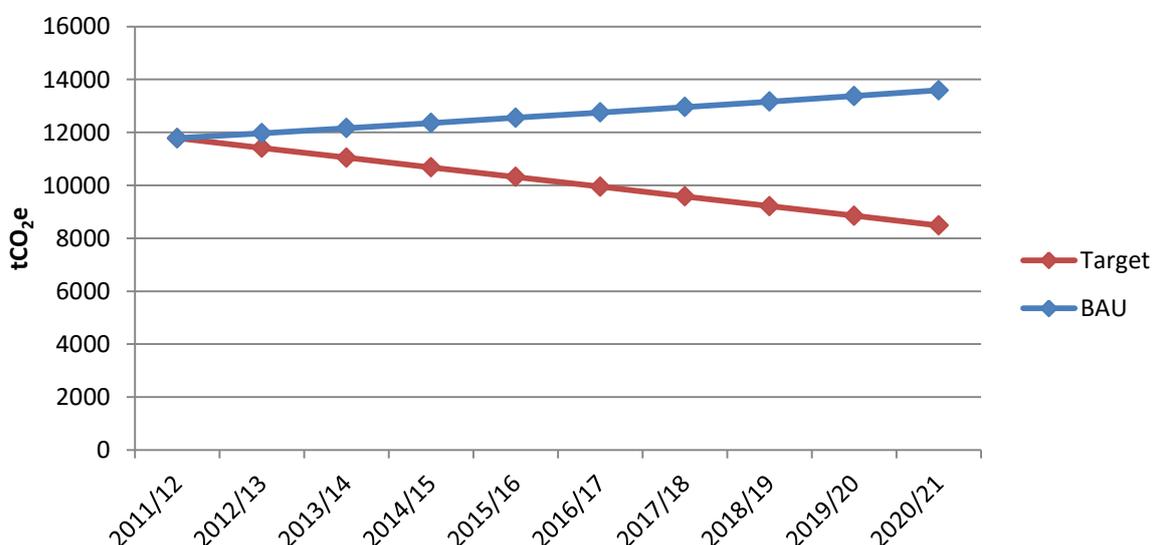Figure 3 above demonstrates the carbon emissions reduction needed to take the Trust from a business as usual scenario to achieving the 2020 target. Table 3 below shows the levels to which the

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[11] DECC (2012): Updated Energy and Emissions Projections 2012. Available at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65717/6660-updated-emissions-projections-october-2012.pdf (Accessed: 16th Feb 2015)

Trust must reduce its CO_2e emissions for each of its primary emissions sources and the absolute reduction required to meet this target from the business as usual scenario.

Table 3: Target CO_2e emissions and emissions reduction (tCO_2e).

Source	Baseline Emissions	Target Emissions	Emissions Reduction Required	% Emissions Reduction against 2011/12 Baseline
Grid Decarbonisation	N/A	N/A	2,040	17.32%
Energy	9,245	8,258	987	10.68%
Waste	18	16	2	
Water	69	62	7	
Travel	2,447	2,186	261	
Total	**11,779**	**8,481**	**3,298**	**28%**

Decarbonisation of the electricity grid comprises 17.32% of the Trust's carbon reduction target with the combined savings from energy, waste, water and travel making up the remaining 10.68% reduction to achieve the 28% target by 2020.

The Trust has undertaken a number of carbon reduction activities since these baseline emissions were calculated, and thus has already taken steps along the path to achieving its target.

3.3. Current carbon emissions & performance

The 2017 update to this SDMP represents the first time that NHFT have opted to include a disclosure regarding our most recent carbon emissions. It is the intention of NHFT to update this part of the SDMP as part of the annual review process, allowing stakeholders to view the progress made by the Trust.

Table 4: Carbon footprint summary for 2015/16.

Source	2011/12 (baseline) tCO_2e	2013/14 tCO_2e	2014/15 tCO_2e	2015/16 tCO_2e	% change from baseline
Electricity	5,411	4,614	5,045	3,982	-26%
Gas	3,834	2,897	3,038	3,157	-18%
Water	69	42	61	84	+21%
Waste	18	22	13	19	+5%
Travel	2,447	1,821	1,834	1,815	-26%
Direct footprint total	**11,779**	**9,396**	**9,991**	**9,057**	**-23%**
Procurement	11,069	17,989	18,843	21,445	+94%
Grand total	**22,848**	**27,385**	**28,834**	**30,502**	**+33%**

As can be seen from table 4 above, the Trust is well ahead of its target to achieve a 28% reduction in direct emissions compared with the baseline year. A more detailed breakdown of the most recent

carbon footprint can be found in the Trust's carbon footprint report which is available at https://www.nhft.nhs.uk/documents?smbfolder=545.

3.4. Good Corporate Citizenship assessment

The current version of the Good Corporate Citizenship (GCC) assessment tool has been developed by the NHS SDU as a methodology for NHS Trusts to measure and monitor their progress towards sustainable development. The tool provides Trusts with the means to monitor progress on the qualitative aspects of sustainable development in financial, social and environmental terms. Using the GCC tool is one of the four core requirements of the NHS Carbon Reduction Strategy.

The GCC tool encourages users to assess their performance over 8 categories and scores progress according to three different levels; "getting started", "getting there" & "excellent". The GCC tool is designed to be used annually for monitoring and reporting on progress. The results of each Trust's assessments are made public and can be viewed by other registered users of the tool.

Figure 4: The Areas Assessed by the GCC Tool

Travel	Community Engagement
Procurement	Buildings
Facilities Management	Models of Care
Workforce	Adaptation

NHFT plans to use the GCC tool in conjunction with the carbon footprint established above as the key metrics by which it will measure the impacts from the implementation of this plan and by extension its progress towards sustainable development. The Trust will benchmark its performance against other appropriate organisations.

3.5. Good Corporate Citizenship score

To date the Trust has not undertaken a self-assessment using the GCC tool, however the Trust commits to undertaking this assessment once per year and publishing the results in this part of the SDMP as part of the annual review.

Northamptonshire Healthcare NHS Foundation Trust commits to using the GCC assessment tool to monitor its sustainability progress and will develop a procedure for completing the assessment annually. The trust will also use the GCC assessment to benchmark its performance against other organisations.

The results from the first GCC submission by NHFT are contained below. The score reflects the new areas of focus from the SDU and the need for NHFT to incorporate new areas of the organisation within the Sustainability Committee such as clinicians for the models of care category.

NHFT will complete the GCC questionnaire annually and it is expected that the score will increase year on year as NHFT works towards sustainability excellence. It is important to remember that the GCC questionnaire is intended to provide a roadmap towards sustainability excellence as such no organisation is expected to score 100% on their first attempt.

4. Vision for Sustainability

Sustainability in healthcare is about the responsible use of resources and ensuring that every action taken is focused on promoting better health & wellbeing both now and in the future. Becoming a more efficient and sustainable NHS Trust also means developing the ability to adapt to a changing climate. In addition to providing high quality healthcare which meets the needs of the local community without negatively affecting the environment.

NHFT has adopted the following vision for sustainability as published in the NHS Sustainable Development Strategy[11]:

> **"A sustainable health and care system works within the available environmental and social resources protecting and improving health now and for future generations.**

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[11] NHS SUD (2014): Sustainable, Resilient, Healthy People and Places: A Sustainable Development Strategy for the NHS, Public Health and Social Care System. Available at: http://www.sduhealth.org.uk/policy-strategy/engagement-resources.aspx (Accessed: 15th Oct 2014)

This means working to reduce carbon emissions, minimising waste & pollution, making the best use of scarce resources, building resilience to a changing climate and nurturing community strengths and assets."

4.1.1. Sustainability Committee

In order to build sustainable development into the Trust's operations and begin to work towards the actions set out in the Action Plan below, the Trust has created a Sustainability Committee. The Committee consists of representatives from across the Trust with the aim of ensuring a continual focus on opportunities for improvement in sustainable development and carbon reduction. It will also review and report to the board on progress against the requirements of the Trust's Sustainable Development Action Plan.

Figure 5 shows the Sustainability Committee in relation to the Trust Board. The Sustainability Committee reports to the Performance Committee, which is a sub-group of the trust board.

Figure 5: Sustainability Committee and Trust Hierarchy

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            ┌──────────────────┐
            │   Trust Board    │
            └──────────────────┘
                     │
            ┌──────────────────┐
            │   Performance    │
            │   Committee      │
            └──────────────────┘
                     │
            ┌──────────────────┐
            │  Sustainability  │
            │   Committee      │
            └──────────────────┘
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The membership of the committee will be reviewed on a regular basis to ensure that it is able to influence sustainability across all aspects of the Trust's operations.

4.2. Progress reporting & review

The annual report, the annual updates to this SDMP, the dedicated carbon footprint report and the regular Sustainability Committee meetings are the primary avenues through which the Trust will report on its sustainable development progress.

In addition to annual updates, this SDMP will be reviewed on a 3-year cycle and submitted for Board approval at the same intervals.

Revisions may be made ahead of the review date should NHFT undergo significant change which will materially affect the SDMP. At every 3 year review, the revised document will be taken through the Trust's standard consultation, approval and dissemination processes.

5. Climate Change Adaptation

5.1. What is Adaptation?

Past and current global greenhouse gas emissions mean that the world is already committed to some level of future climate change, adaptation is therefore required to address the resulting consequences. Adaptation means responding to both the projected and current impacts of climate change and adverse weather events.

Adaptation for the health and care system is two-fold[12]:

1. Climate change will negatively impact the wellbeing of the UK population, thus the health and care system needs to be prepared for different volumes & patterns of demand.
2. Climate change could impact the operational delivery of the health and care system. The system infrastructure (e.g. buildings, communications, emergency service vehicles, models of care) and supply chain (e.g. fuel, food, and care supplies) need to be prepared for and resilient to weather events and other crises.

5.2. Why is Adaptation Important

The impacts of climate change are already being felt in the UK and these impacts will increase in the future. Adaptation should therefore be addressed alongside mitigation actions to reduce carbon emissions in a twin-track approach to addressing climate change.

Effective adaptation encourages better use of resources; can save money and can deliver wider health benefits too. For instance developing green spaces and infrastructure to help prevent overheating can help prevent flooding, save energy and promote biodiversity. It can also encourage people to go outdoors, be more active and promote mental well-being.

5.3. Climate Change Risk Assessment

The Climate Change Risk Assessment for the Health Sector (2012) has analysed the risks and impacts of climate change on public health. The document identified over 40 direct and indirect risks for the Health Sector (Appendix C)[13]. These risks are broadly grouped into three thematic areas; population health and wellbeing, healthcare services, facilities and infrastructure and environmental health.

From this original list the document identifies 9 risks which are the most significant to the health sector:

1. Temperature mortality (heat)
2. Temperature morbidity (heat)
3. Temperature mortality (cold)
4. Temperature morbidity (cold)
5. Summer air pollution mortality/morbidity (ozone)

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[12] NHS SDU (2014): Adaptation to Climate Change, Planning Guidance for Health and Social Care Organisations. Available at: http://www.sduhealth.org.uk/areas-of-focus/community-resilience.aspx (Accessed: 28th Oct 2014).

[13] Hames, D. and Vardoulakis, S. (2012): Climate Change Risk Assessment for the Health Sector. Available at: http://ccra.hrwallingford.com/CCRAReports/reportviewer.html?sector=health&link=LinkTarget_1 (Accessed: 28th Oct 2014).

6. Extreme weather event mortality (flooding and storms)
7. Effects of floods/storms on mental health
8. Sunlight/UV exposure
9. Extreme weather event injuries (flooding and storms)

The risk assessment also identified a number of climate change risks to other sectors which may be applicable to the NHS. These include:

- Urban heat island effect
- Overheating of buildings
- Effectiveness of green space
- Demand for heating
- Loss of staff hours due to high internal temperatures
- Cooling demand
- Population affected by a supply demand deficiency of water

NHFT will use the risks identified in the UK Climate Change Risk Assessment (2012) as the basis for its adaptation activities and around which the Trust will develop its adaptation action plan.

Under the Civil Contingencies Act 2004 the Trust is required to produce an Emergency Preparedness, Resilience and Response (EPRR) plan. The Act designates NHFT as a Category 1 Responder to emergency situations which occur in the local area. This designation requires the Trust to put in place emergency plans and business continuity arrangements as well as procedures to cooperate with other local responders.

The Trust will develop a climate change adaptation action plan; however there also exists substantial overlap between adapting to climate change and preparing for emergency scenarios as required under the Civil Contingencies Act 2004. For example the overheating of Trust buildings and potential loss of staff hours due to overheating represents a significant business continuity issue and as such should be addressed under the EPRR plan. Where such overlaps occur the Trust will include the risks posed by climate change in its EPRR plan.

6. Sustainable Development Action Plan

The complete NHFT Sustainable Development Action Plan is contained within a separate document linked to this document. The sections below summarise the actions from the plan and the reasons for pursuing these actions.

Leadership, engagement & development

Number	Action	Action owner	Target date
1.01	Completion of the GCC assessment	SJ	2018
1.02	Introduce a clinical representative to the sustainability group	CW	2018
1.03	Include responsibility for sustainable development in all job roles & responsibilities	ML	2018
1.04	Embed sustainable delivery into executives & senior manager's appraisals	CW	2018
1.05	Develop & deploy a sustainability communications strategy to engage staff, patients & visitors	SJ	2018
1.06	Include sustainability awareness as part of the induction for all staff	HR	2018
1.07	Establish a network of green champions across the Trust's estate	CW	2018
1.08	Include input from patients & visitors in the sustainability communication strategy	SJ	2018

Carbon hotspots

Number	Action	Action owner	Target date
2.01	Communicate the sustainable travel plan to all stakeholders	SJ	2018
2.02	Include distance travelled in all travel expense claims	ML	2018
2.03	Identify key depts. responsible for significant fleet travel	ML	2018
2.04	Introduce a VED band cap for leased cars	ML	2018
2.05	Use the sustainable travel hierarchy as a basis for travel decisions within the trust	PLC	2018
2.06	Investigate the feasibility of pre-paid bus passes for use by staff on business travel	PLC	2018
2.07	Develop an estate wide water reduction strategy	ML	2018
2.08	Install diffuser taps in all bathrooms	ML	2018
2.09	Fit cavity wall insulation where not already present	ML	2018
2.10	Fit loft insulation in buildings with no or thin insulation	ML	2018
2.11	Provide half hourly meter reports to estates managers	ML	2018

Commissioning & procurement

Number	Action	Action owner	Target date
3.01	Provide guidance to finance about "whole life analysis" in financial decisions	AMcL	2018
3.02	Communicate the sustainable procurement policy & strategy to all relevant personnel & suppliers	CH	2018
3.03	Conduct a training needs analysis for procurement	CH	2018
3.04	Consider the Government Buying Standards for commonly purchased products		2018
3.05	Assess performance of NHFT procurement against the GCC criteria & other providers		2018
3.06	Consider using the "Procuring 4 Carbon Reduction" (P4CR) suite of tools and guidance from the SDU		2018

Sustainable clinical & care models

Number	Action	Action owner	Target date
4.01	Identify opportunities for the use of telecare & trial this within the Trust	COO	2018
4.02	Seek to improve the GCC score for the "Models of Care" section		2018
4.03	Investigate the possibility of using the SHAPE tool for planning services & locating physical assets		2018

Healthy, sustainable & resilient communities

Number	Action	Action owner	Target date
5.01	Create access maps for Trust buildings that cover walking, cycling & public transport options		2018
5.02	Assess the potential future impacts of climate change & take steps to mitigate negative impacts		2018
5.03	Assess the current & potential future flood risk to NHFT infrastructure		2018
5.04	Assess supply chain resilience to climate change & extreme weather events		2018
5.05	Establish a climate change adaptation & mitigation plan for NHFT		2018

Innovation, technology and R&D

Number	Action	Action owner	Target date
6.01	Implement a Trust wide EMS and demand a simple EMS from all new suppliers	CH	2018

6.1. Ongoing actions

In addition to the above action, the trust has also compiled a list of ongoing actions which represent the continual work the trust is doing to become more sustainable. These actions have been split into a separate table as they may not have a defined end date but are nevertheless part of the SDMP and will be reported on at meetings of the Sustainability Committee.

Action	Action owner
Continue to have input into and membership of sustainability groups within the county and at a national level	SC
Continue consultation with the landlord of leased properties on the aims & objectives of the SDMP	AMcL
Undertake a Trust wide travel survey every 2 years	AMcL
Investigate the potential for staff discounts on local bus services between busy sites	PLC
Improve and promote the Trust's teleconferencing facilities with suitable training	
Regularly update energy / carbon reduction targets and continue to monitor performance annually	
Complete energy audits of the Trust estate at regular intervals and implement changes to reduce energy consumption	
Negotiate flexibility with PFI partner around like for like contracts with a particular focus on lighting replacement with LEDs	
Phase in the replacement of halogen bulbs with more efficient LED alternatives	
Replace all lamp bulbs with LED alternatives	
Fit photo sensors and movement sensors on lighting systems in corridors and offices to reduce energy consumption	

in the above table the initialism SC refers to the Sustainability Committee.