



Image; French Beans from the Community Farm weekly Fruit and Veg stall at Southmead Hospital

SUSTAINABLE DEVELOPMENT MANAGEMENT PLAN

2016/2017



Image: Photovoltaic panels on the roof of the Learning & Research Building, Southmead Hospital.

Foreword

North Bristol NHS Trust is one of the largest healthcare providers, employers and consumers in the region. As such, we recognise the environmental impact of the healthcare service we provide to our local community and the potential co-benefits of minimising this impact.

As a healthcare provider, we must adapt and react to climate change and maximise every opportunity to improve economic, social and environmental sustainability where we can.

This Sustainable Development Management Plan outlines our contribution towards the NHS Sustainability Strategy and the NHS Five Year Forward View through our vision to be a healthy, resilient and sustainable healthcare service ready for changing times and climates, both now and for future generations.



Andrea Young
Chief Executive

Peter Rillett
Chairman



**NGS Macmillan
Wellbeing Centre**

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NHS Sustainability Strategy 2014 - 2020

Sustainable, Resilient, Healthy People and Places

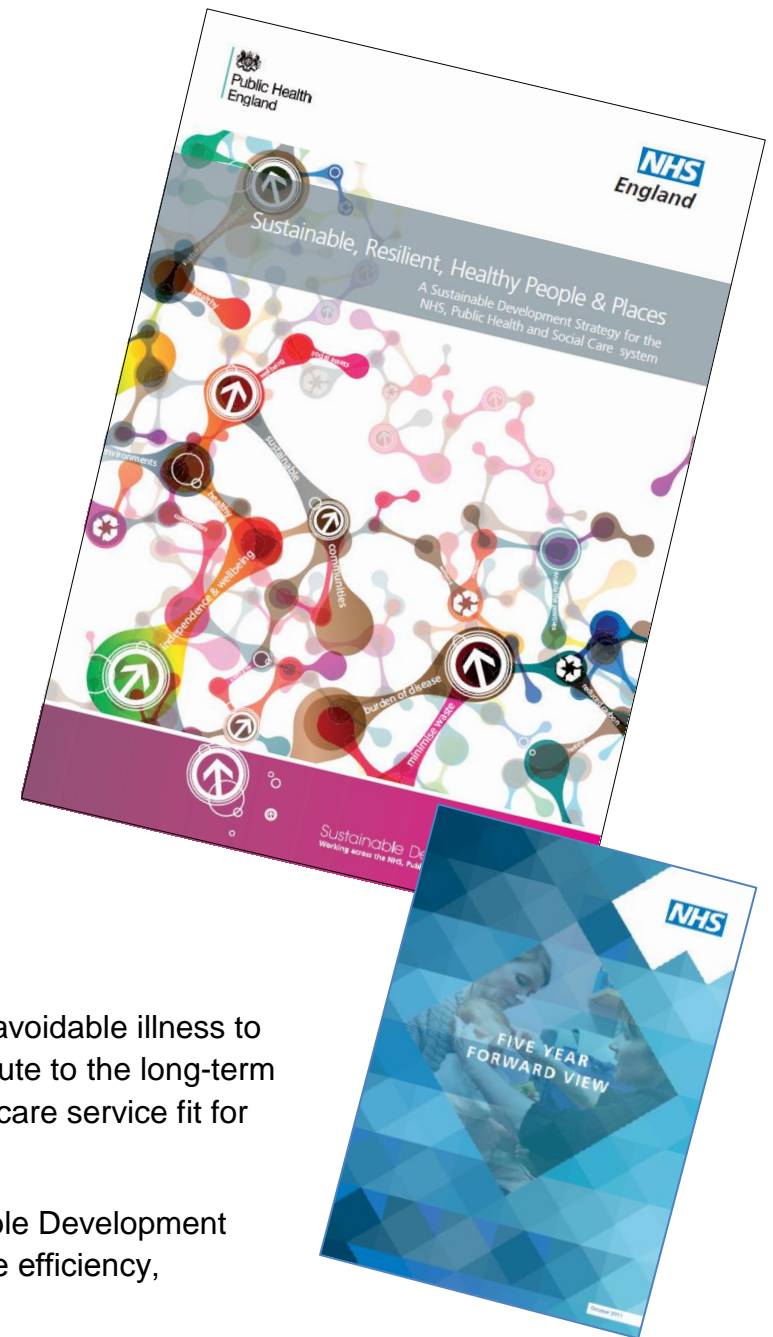
NHS England's **Sustainability Strategy 2014-2020, "Sustainable, Resilient, Healthy People and Places"** describes the vision for a sustainable healthcare system which reduces carbon emissions, minimises waste and pollution, makes the best use of scarce resources, builds resilience to a changing climate and nurtures community strengths and assets.

The strategy requires the NHS to adopt an integrated, aligned and co-ordinated approach to deliver social, economic and environmental sustainability in a changing climate. The strategy goes beyond carbon reduction to include other areas of sustainable development such as climate change adaptation, social value and sustainable models of care. The strategy places greater emphasis on the prevention of avoidable illnesses by reducing our own impact on the environment and by strengthening our relationships with our staff, contractors, suppliers, patients, visitors and our local community to realise the true potential of the health co-benefits of sustainability.

The strategy dovetails with the **NHS Five Year Forward View, 2014**, which also requires a radical upgrade in the prevention of avoidable illness to secure sustainability within the NHS and the future health of millions of children.

North Bristol NHS Trust has a significant part to play to contribute towards the prevention of avoidable illness to deliver long term sustainability. By managing our own environmental impacts, we can contribute to the long-term health and wellbeing of our community and deliver a healthy, resilient and sustainable healthcare service fit for the future.

The NHS Sustainability strategy requires NHS Trusts to prepare a board approved Sustainable Development Management Plan (SDMP). This SDMP supports the Trust's own strategy to deliver resource efficiency, sustainability and resilience in line with the local NHS Sustainability Transformation Plan.



Climate Change and Health

Climate change is the change in climatic patterns largely attributed to the increased levels of atmospheric carbon emissions produced by the use of fossil fuels.

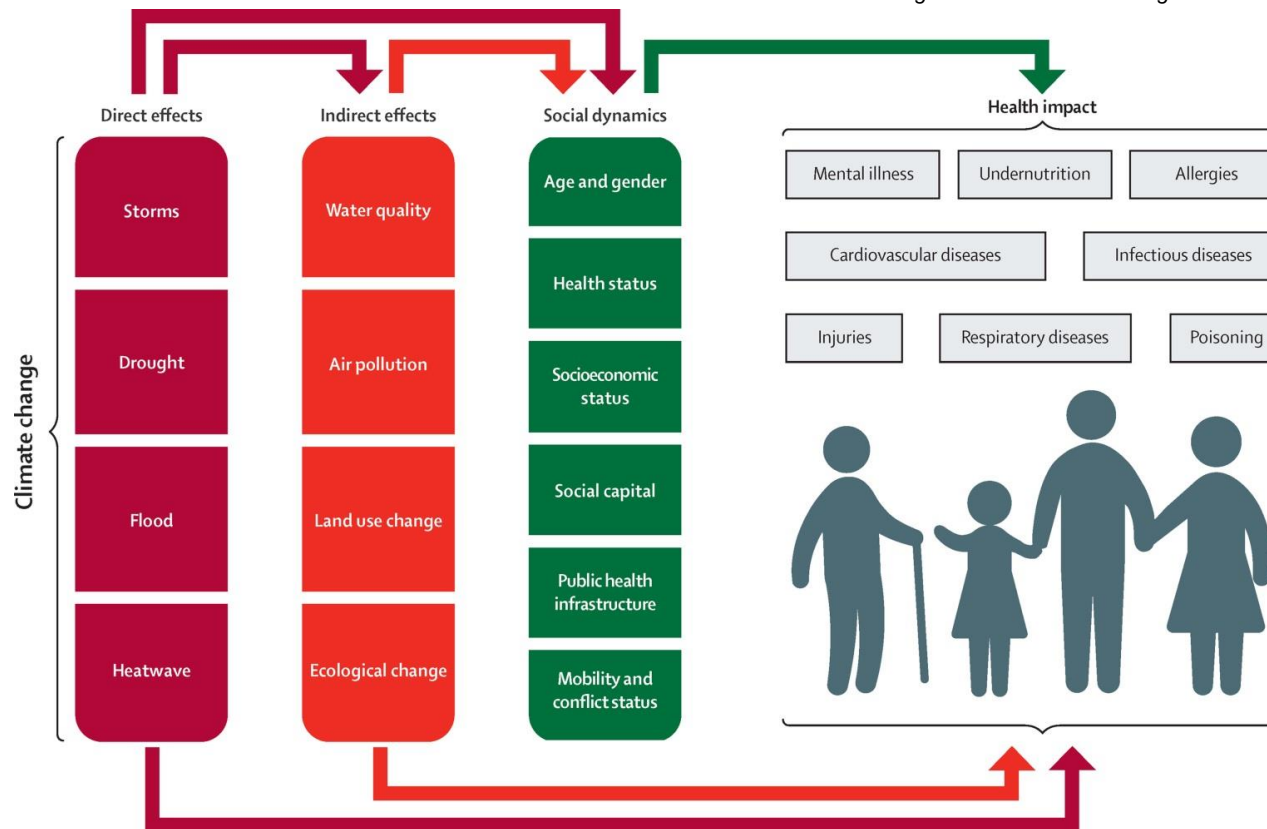
Described as the biggest global threat to health facing the twenty first century by the World Health Organisation and more recently in The Lancet, (2015), climate change is predicted to have far-reaching consequences for weather systems, global temperatures, food scarcity, water scarcity and cause changes to communicable disease patterns and biodiversity and finally public health.

It is predicted climate change will increase the number of heat and cold related illness and deaths, increase the amount of food, water

and vector borne diseases, increase skin cancers and sunburn, increase the health impacts of respiratory disease from poor air quality and aeroallergens and likely bring about an increase in mental health issues as a result of local social impacts caused by climate change.

As a Trust we will face pressures to keep our services running during extreme weather events and associated fuel, water and food shortages and face increased demand on our services from the associated health impacts of climate change. As the NHS is one of the world's largest health organisations, we have a national and international duty to act and to set an important example to the business community, the public, our patients and our staff.

Figure 1: Health and climate change: policy responses to protect public health. The direct and indirect effects of climate change on health and wellbeing. The Lancet. June 2015.



Climate Adaptation and Mitigation

As a Trust, we must become resilient to the effects of climate change and adopt adaptation and mitigation measures to prepare for and reduce the impacts of a changing climate on our healthcare service.

Climate change adaptation is the understanding and implementation of resilience measures to enable us to prepare for the effects of climate change.

We will achieve this by ensuring our Business Continuity plans consider and plan for the vulnerabilities of our healthcare service and our staff and our patients to climate impact risks. Consideration must also be given to the secondary impacts of climate change, such as

the effects of storms on our infrastructure and access to our supply chain and vital resources such as medical equipment, water, energy, fuel and food to ensure continuity of service in times of scarcity.

Climate change mitigation measures are actions which limit the effects of climate change by reducing the amount of carbon and greenhouse gases we release into the atmosphere. Our carbon mitigation measures are detailed within this SDMP.

By adopting climate change adaptation and mitigation measures we will become a healthy, resilient, sustainable healthcare service ready for changing times and climates.

Image: Flooding at Cumberland Basin, Bristol 2015 [Image courtesy of Michelle Scoplin, Bristol City Council]



Sustainable Models of Care

One of the key elements of climate change adaptation is to move towards more sustainable clinical care models. It is increasingly important to consider the environmental and social impact of how our services are delivered to ensure long term financial, social and environmental sustainability is achieved as part of the Five Year Forward View.

We aim to deliver exceptional care within the resources available. This has always been a challenge and will become increasingly so as costs escalate and scarce resources diminish.

Transforming the way we deliver our healthcare service provides an opportunity to take a whole systems approach to sustainability and the long term health co-benefits which sustainable models of care can deliver. By enabling our patients to live well through self-management, and by providing the right support, prevention, early intervention and acute and specialist rehabilitation, we can further



Image; Patient Meal at NBT. Courtesy of The Soil Association Food for Life

promote patient health and reduce the pressures on our services and their associated environmental impacts in the longer term.

One example is the provision of appetising, nutritious and sustainably sourced meals for patients. The importance of good nutrition to health, recovery and rehabilitation is recognised within the NHS Standard Contract and the NHS Five Year Forward View, which calls for better support for hospital staff and visitors to eat well by providing high quality patient meals. By providing fresh, locally grown meals, we can aid swift recovery, promote healthy eating, reduce waste, reduce costs, support the local economy and reduce our impact on the environment.

Taking account of the environmental and social impacts of our services supports the development and delivery of more integrated and sustainable models of care in line with the Sustainability Transformation Plan (STP) to deliver long term financial sustainability for the Trust.

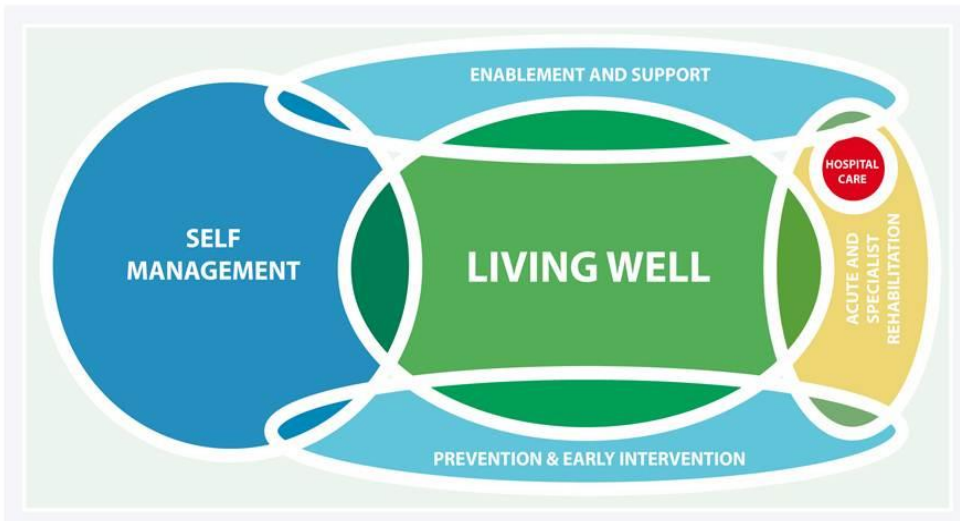


Figure 2; Sustainable Development Unit (2014) Sustainable resilient healthy places and people; Sustainable, Clinical and Care Models

Delivering the Vision

This Sustainable Development Management Plan sets out how we will be working to deliver the vision of the National Sustainability Strategy at North Bristol NHS Trust.

Sustainable Development Governance

The Director of Estates, Facilities and Capital Planning, Simon Wood, is the Executive Lead for Sustainability, supported by Liz Redfern, Non-Executive Director.



Simon Wood, Director of Estates, Facilities and Capital Planning



Liz Redfern, Non-Executive Director

The Sustainable Development Steering Group is chaired by the Sustainability Lead, Simon Wood.

The group meets quarterly and includes Executive and Non-Executive Director's, our Special Advisor on Public Health and Sustainability, Senior Management from across the Trust, our PFI partner and representatives from the Patient Panel and Trade Unions. During 2016, the Steering Group has expanded to include more clinical representation at Senior Level. The Steering Group drives forward the sustainable development agenda at NBT.

The Sustainable Development Momentum Group is chaired by the Sustainable Development Manager. This working group meets regularly and is responsible for the delivery of the Sustainable Development Management Plan, Good Corporate Citizen Assessment and monitoring environmental improvement across all work areas.

The Sustainable Development Manager manages a small team of specialist advisors working towards sustainable development, including the implementation of the Environmental Management System ISO14001.

The Trust has approximately 181 Environmental Awareness Representatives (EARs), who act as Sustainability Champions within their specific work areas.

Image 3: NBT Environmental Awareness Reps (EARs) at our Environmental Policy launch, May 2015



Communication

The Trust's environmental policy commits to engaging staff, patients, visitors, stakeholders and the wider local community on the economic, social and health benefits of sustainability.

To maximise the effectiveness of the Trust's communications on sustainability and to identify the key stakeholders such as staff, patients, visitors, contractors and the local community, the Trust has developed a communications procedure. The communications procedure sits within the Trust's Environmental Management System and defines how the Trust communicates with stakeholders and interested parties.

The Trust recognises the value in how we communicate our sustainable development messages to ensure information on our progress towards the Sustainable Development Management Plan (SDMP) goals are communicated in a simple, effective and relevant way in order to ensure maximum engagement with the stakeholders identified in the table below.

The table below documents the key communication methods used to engage with our stakeholders and interested parties.



Classification	Medium	Method	Uses	Target group/s
Internal Communication	Printed materials	Insite staff magazine, noticeboards, posters, banners, lanyards, fliers, stalls, events e.g. NHS Sustainability Day	Promote Environmental Policy, SDMP, Green Impact and sustainability messaging, support specific events, etc.	All non PC-using staff
	Electronic communications	All user emails, staff group emails, Insite magazine (pdf), Friday Five, staff intranet pages, specific newsletters, Message of the Day, staff bulletin.	Promote Environmental Policy, SDMP, Green Impact and sustainability messaging, policy consultation, staff surveys, support specific events, etc.	All staff
	Training	Corporate induction, mandatory training, Managed Learning Environment (MLE)	Promote Environmental Policy, SDMP and sustainability messaging, ensure staff awareness & competence.	All staff
External Communication	Printed materials	Your Hospital magazine, Patient Bedside Folder, posters, fliers, stalls & events, e.g. NHS Sustainability Day	Promote Environmental Policy, SDMP & sustainability messaging, support specific events, etc.	Patients, visitors, contractors & suppliers, regulators, stakeholders, local residents, etc
	Electronic communications	NBT website, stakeholder contact lists, social media (Facebook, Twitter, etc), Brunel Building atrium screens, etc.	Promote Environmental Policy, SDMP & sustainability messaging, support specific events, etc.	Patients, visitors, contractors & suppliers, regulators, stakeholders, local residents, etc

Reporting

There is a requirement on North Bristol NHS Trust to report progress on sustainable development in line with national guidance. These reporting requirements are laid out below.

NHS Standard Contract

The NHS Standard Contract requires Trust's to take all reasonable steps to minimise adverse impacts on the environment. The contract specifies that Trusts must demonstrate progress on climate change adaptation, mitigation and sustainable development and must provide a summary of that progress in the annual report. In addition to the Standard Contract requirements, NHS Trusts have an obligation to complete the sustainability reporting template to the national Sustainable Development Unit. Equally this is required of NBT through our contract with the local Clinical Commissioning Group.

Sustainable Development Management Plan (SDMP)

The Sustainability Strategy requires Trust's to report on progress against sustainable development in a Trust Board approved Sustainable Development Management Plan (SDMP). The SDMP sets out the Trust's key objectives and targets in line with the national strategy. Progress against the SDMP is reported to the Steering Group quarterly before final approval and publication by Trust Board. The annual SDMP report is available on the Trust's website.



Figure 3: North Bristol NHS Trust, Sustainable Development Management Plan, 2014/2015

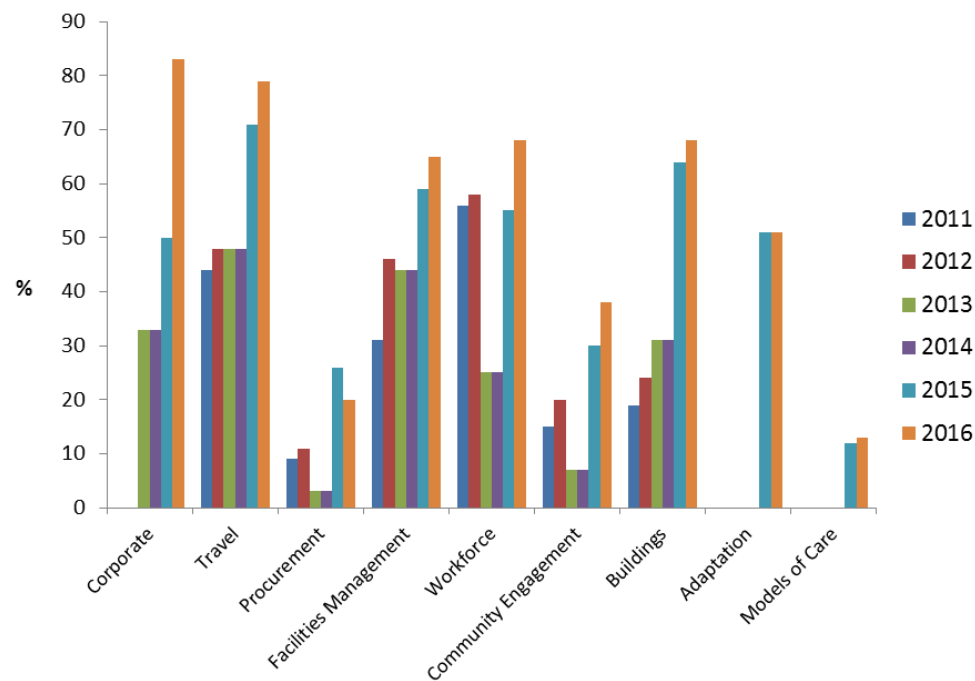
Estates Return Information Collection (ERIC)

The Department of Health requires Trusts to report ERIC (Estates Return Information Collection) data. ERIC data comprises essential statistics on waste, energy and water (amongst other data sets) from Estates and Facilities. The data provided enables the analysis of Estates & Facilities information from NHS Trusts in England which is a compulsory requirement that NHS Trusts submit an Estates Return.

Good Corporate Citizen Assessment

The Good Corporate Citizen assessment model was developed for Trusts to benchmark progress on sustainable development. The assessment allows Trusts to measure how well their activities support sustainability both inside the organisation and outside in the community. By 2018 the Trust should be achieving 25% across all sections, plus four sections with at least a score of 50%. The assessment for December 2015 highlights that the Trust priorities should focus on procurement, community engagement, adaptation and sustainable models of care.

Figure 4: Good Corporate Citizen Assessment, July 2016



Corporate Vision and Governance

We value the importance of protecting our natural environment for the benefit of the physical and mental health and wellbeing of our community, including our patients and staff, now and in the future.

We have...

- A Trust Board approved Environmental Policy
- A Trust Board approved Sustainable Development Management Plan
- Established 2020 performance targets against energy, carbon, water, waste & travel.
- Established progress monitoring against the SDMP to the Sustainable Development Steering Group on a quarterly basis
- Benchmarked progress against the Good Corporate Citizen Assessment on a six monthly basis
- Met the annual sustainability reporting requirements of the NHS Standard Contract
- Met the annual sustainability reporting requirements of the local Clinical Commissioning Group
- Won the NHS Sustainability Award 2016 for “Behaviour Change” for our Sustainable Healthcare campaign
- Won the NHS Sustainability Award 2016 for “Overall Winner” for our ongoing commitment towards sustainability

We will...

- Report progress against the 2020 performance targets laid out in the SDMP
- Report progress in line with the NHS Standard Contract requirements
- Benchmark progress against the Good Corporate Citizen Assessment on a six monthly basis
- Continue with the ongoing implementation of the Environmental Management System ISO14001 within the Directorate of Estates, Facilities & Capital Planning

NBT's Award Winning Services 2016

North Bristol NHS Trust was recognised at the national NHS Sustainability Awards in 2016 for the progress made towards embedding sustainable development across our services.



The Trust was shortlisted in four categories; Behaviour Change, Sustainable Design & Infrastructure, Water & Community. The Trust went on to win the Water Award, for achieving water efficiency savings of 25% and the inclusion of sustainable urban drainage within the design and build of the new Super Hospital at Southmead.

The Trust was also successful in winning the Behaviour Change category which showcased the Trust's “Sustainable Healthcare” campaign launched in 2015 to raise awareness of the importance of all three pillars of sustainability in the face of changing times and climates.

The Trust was highly commended for the Community Award for collaborative working with University Hospitals Bristol, on the Green Impact scheme. As a result of the Trust's achievements, NBT also received the “Overall Winner” NHS Sustainability Award in recognition of the ongoing commitment towards sustainability.



Leadership, Engagement and Development

We aspire to be a leader in the field of sustainable healthcare through committed leadership, innovation, culture change and system wide engagement and development.

We have...

- Continued to develop the Sustainable Healthcare campaign
- Expanded the Sustainable Development Steering Group with greater clinical representation and key stakeholders including representatives from NBT's Patient Panel and Trade Unions
- In collaboration with University Hospitals Bristol NHS Trust, completed our first year of Green Impact, an engagement scheme promoting sustainability and health and wellbeing amongst staff, for which we were highly commended at the NHS Sustainability Awards 2016
- Engaged staff, patients and visitors on the links between sustainability & health & wellbeing through a series of innovative events during "Sustainable March" including lunchbox talks for staff, green impact events, sustainable travel roadshows & drop in insect hotel building
- Developed a training skills map for staff to identify the gaps and opportunities to further embed sustainability within our existing corporate induction and mandatory training schemes Trust wide

We will....

- Re-launch Green Impact year 2 during Healthy Cities week in October 2016 in collaboration with UHB
- Implement our Training Skills Map to fully embed sustainability training and awareness across the Trust
- Embed sustainability into our HR and workforce processes
- Develop a Sustainability Engagement Strategy

Collaborative working with University Hospitals Bristol on Green Impact

North Bristol NHS Trust, together with University Hospital's Bristol NHS Foundation Trust have been working collaboratively. By learning from each other and sharing best practice, the two Trusts' have successfully expanded the Bristol Healthcare Green Impact Award Scheme.

The Green Impact scheme promotes sustainable behaviour change and raises awareness on both the positive and preventative co-benefits sustainable development can deliver for public (& staff) health and wellbeing, improving patient care, protecting the environment and delivering longer term cost savings.

The Scheme recognises members of staff making simple changes to their daily routine such as turning off lights, travelling in a more sustainable way and other simple actions which promote health and wellbeing in the workplace. By staff taking simple steps, the two Trusts have achieved a combined total of 859 actions, and initial calculations from the Carbon Trust's Empower assessment tool have estimated a possible combined saving of £42,000 per year, based on the number staff taking part, and making a total estimated carbon saving of 145,684 kg CO2 per year per Trust.



Healthy, Sustainable and Resilient Communities

We must adapt to the impacts of climate change to ensure a healthy, resilient and sustainable healthcare system ready for changing times and climates.

We have

- Completed Phase 1 of the Brunel Building, our exceptional new super hospital at Southmead which incorporates many climate change adaptation specifications and techniques within the design and infrastructure.
- Completed Phase 2 of the Brunel Building, plus access routes, parking facilities and landscaping to the rear at the Southmead hospital site.
- Ensured our Business Continuity and Resilience Plans are in place.
- Undertaken the annual Flu Vaccination campaign for our staff
- Promoted the importance of health, sustainability and resilience to our local community through public events such as the NHS Sustainability Day Fair and through innovative ways such as Fresh Arts
- Worked collaboratively with colleagues, supporting local sustainability & health networks, particularly Bristol Health Partners, the local Fairtrade Network, Bristol's Health & Sustainability Network and other local groups including Bristol Food Policy Council

We will...

- Work with local NHS providers to assess the risk of climate change and ensure we are prepared for the future
- Consider climate change adaptation specifications within all future major projects and refurbishments
- Continue to promote the positive and preventative health co-benefits of sustainable development to our community through engagement, networking and co-ordinated communications

NHS Sustainability Day 2016

On Thursday 24th March, North Bristol NHS Trust ran a Sustainability Day Fair. Designed to raise awareness of the three pillars of sustainability across the NHS (social, environmental and financial) and to promote the health co-benefits of leading sustainable lifestyles to our staff, patients and their visitors, the fair included stalls from a wide range of local charities and businesses.

Stallholders included a local fruit and veg supplier to promote healthy eating, Bristol Water, to encourage water efficiency at home, the Centre for Sustainable Energy who provided advice to home owners encouraging them to make energy efficiency improvements and prevent cold homes. Other stall holders included the Avon Wildlife Trust and local community group, the Friends of Badocks Wood, encouraging staff and local residents to use our local nature reserves to promote wellbeing through access to green space. Local artists also used recycled felt jumpers to encourage staff to make sustainability monster key rings.

In addition to visiting stall holders, the Trust promoted its own sustainability work, which included providing free samples in compostable pots of the award winning locally sourced organic patient meals.



Sustainable Clinical and Care Models

We strive to improve staff and patient experience by moving towards more sustainable models of care and workplace practices.

We have...

- Incorporated sustainable design and infrastructure within our hospital redevelopment to improve both patient care and our environmental performance
- Worked with discharge managers, outpatient teams, and occupational therapy to refer vulnerable patients to the Centre for Sustainable Energy for energy efficiency improvements in their own homes to reduce hospital readmissions from cold homes
- Secured greater clinical representation on the Sustainable Development Steering Group to identify and drive forward sustainable and clinical models of care

We will...

- Work closely with clinical leads to further develop sustainable models of care at the Trust
- Secure greater HR representation on the Steering Group to identify and drive forward sustainable workplace practices.
- Establish a sustainability & HR working group to firmly embed sustainability within workplace practices in line with the Good Corporate Citizen recommendations
- Educate & raise awareness amongst clinical staff about how they can contribute to sustainable health care delivery including tackling carbon hotspots
- Consider carbon reduction in our decision making and business planning for the design and delivery of services
- Maximise the culture shift of staff, patients & users on the benefits of healthy lifestyles

The Brunel Building; embedding clinical care models within sustainable design & infrastructure

From the very outset at the design stage, the Brunel Building incorporated sustainable models of care specifically for the needs of the patient in the care environment in order to aid recovery, promote health and wellbeing and ensure comfort during their time in hospital.

The provision of green spaces throughout the development, if not direct access to green space, but views of green space, either from landscaping to the front and rear of the building or one of the many courtyard gardens or green roofs, was a requirement of the build and linked to the ethos of the healing power of green space and access to nature biodiversity.

The building is orientated in such a way to control solar gain and maximise the use of natural daylight without overheating and causing solar glare. The natural ventilation of the building has been designed with thermal comfort in mind alongside strict energy consumption targets. Patient rooms have been designed to ensure the maximum comfort for the patient, through the provision of single occupancy rooms which not only reduces noise, but also energy consumption, through closing doors and switching off lights to aid sleep. Patient check in has been made swift and efficient through the automated system, guided by the fantastic team of voluntary Move Makers.



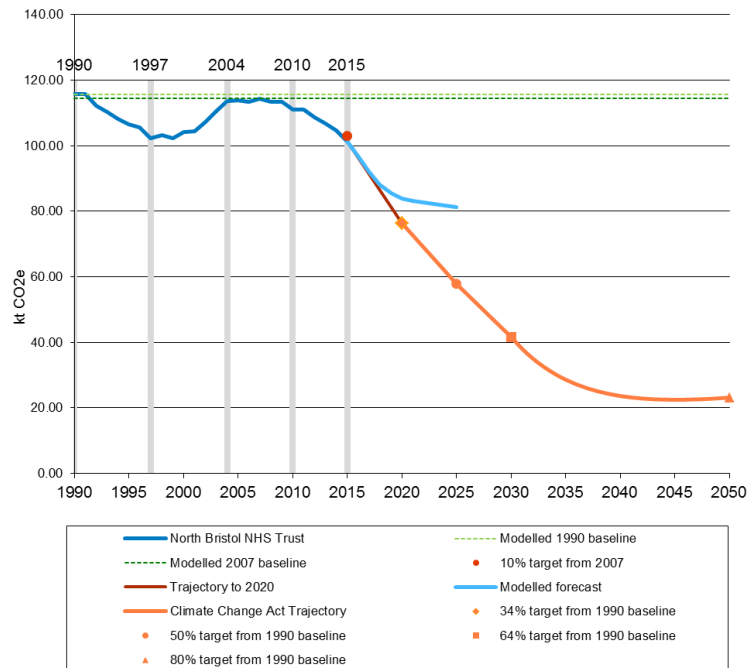
Carbon Hotspots

NHS England has identified the key areas or “carbon hotspots” across the healthcare service where we should prioritise our carbon reduction activities to help protect the wellbeing of the UK population.

Total carbon emissions are commonly used as a performance indicator to measure an organisation’s success in reducing its contribution to climate change. Carbon equivalent (CO₂e) is a way to express all greenhouse gas emissions in a standardised unit.

NHS England has set an ambitious goal to reduce carbon dioxide equivalent emissions across building energy use, travel and procurement of goods and services by 34% by 2020. Given the progress already made between 1990 and 2013 there is still a 28% reduction required to align with the Climate Change Act target of a 34% reduction by 2020.

Carbon Footprint
CO₂e baseline to 2020 with Climate Change targets




Our Carbon Footprint

The carbon footprint for North Bristol NHS Trust has been calculated using the Sustainable Development Unit’s carbon footprint model looking specifically at energy, water, waste, travel and procurement based on spend over the year.

The carbon footprint for NBT for 2015/2016 is outlined below.

Table 1; North Bristol NHS Trust Total Carbon Footprint 2015/2016

	Category	Tonnes (CO ₂ e)
	Water	239
	Waste	340
	Travel	8,354
	Energy	30,683
	Procurement	62,916
TOTAL FOOTPRINT		102,531

Our 2020 Carbon Targets

North Bristol NHS Trust’s 2020 sustainable development targets have been set and agreed to deliver a 2% improvement year on year by 2020. Given the significant amount of organisational change North Bristol Trust has been through following the major redevelopment, new baseline data has been established for the year 2015/2016.

The following section provides further details on North Bristol NHS Trust’s carbon hotspots. Commissioning & procurement is an indirect environmental impact and the carbon emissions associated with it are measured against spend. For direct environmental impacts such as energy, water consumption and waste and travel operations, data shown is actual consumption and in line with NBT’s 2020 sustainable development targets.

Commissioning & Procurement

The national healthcare system spends in excess of £40billion each year on the procurement of goods and services which presents a significant opportunity to influence the suppliers of these goods and services to develop more environmentally, financially and socially responsible practices. Additionally, the Public Services (Social Value) Act 2012 requires the public sector to consider the economic, social and environmental wellbeing of contracts. By considering the three pillars of sustainability, and not just cost, we should begin to address the impacts of climate change on our supply chain and reinforce the resilience and continuity of our supply networks moving forward.

Using the Sustainable Development Unit's carbon model based on the Trust's annual spend, the commissioning & procurement of our products and services has the greatest carbon footprint across all Trust operations. This is in line with the national average. Please see Figure 5 below.

The environmental impact of our commissioning and procurement is not something the Trust can control directly, however using our influence and through our procurement processes, we aim to encourage suppliers to reduce the environmental impact from the goods and services they provide.

Figure 5; North Bristol NHS Trust carbon footprint 2015/16 (taken from the SDU carbon model)

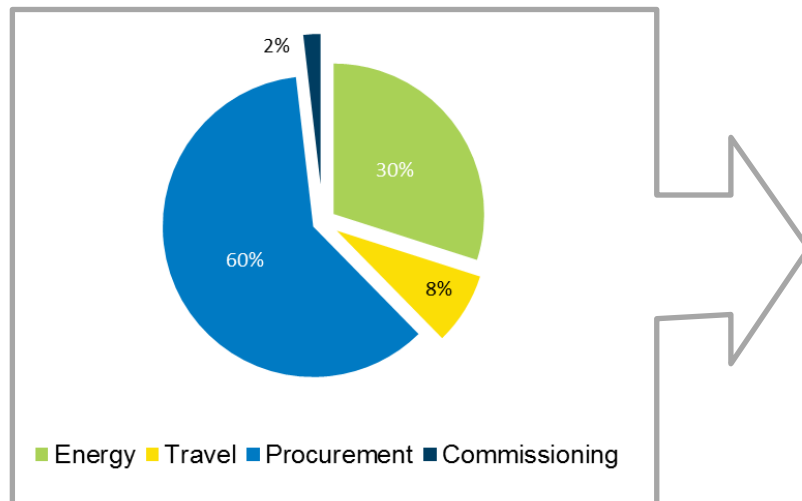
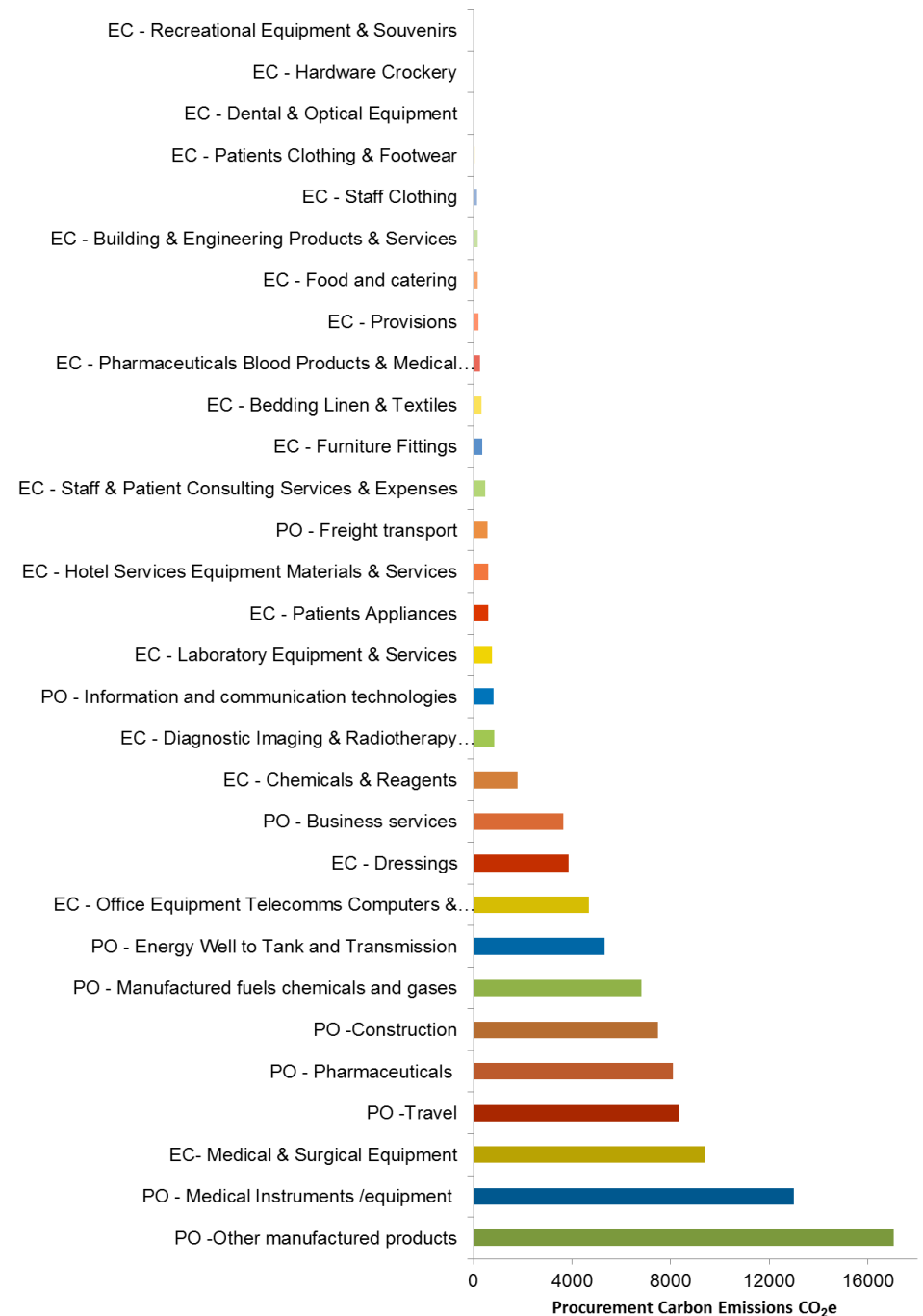


Figure 6; NBT Modelled Carbon Emissions from E-Class (EC) and Non -Purchase Order (PO) Procurement Spend 2015/2016. Carbon emissions calculated using the SDU carbon model. EC data output from the procurement system EROS and Non PO data provided by Finance.



Working with our partners Bristol and Weston Purchasing Consortium (BWPC), we are committed to...


- **Working with our key suppliers and contractors to reduce the environmental impact of the goods and services we buy.**

We have...

- Established baseline data
- Drafted a Sustainable Procurement Strategy
- Consulted with key suppliers and contractors on our Environmental Policy
- Expanded the Sustainable Development Momentum Group and Steering Group to include BWPC
- Reported our sustainable procurement data as contractually required by Bristol's Clinical Commissioning Group
- Established an Environmental Management procedure for the control of contractors working on behalf of NBT Estates Management

We will...

- Establish a Sustainable Procurement working group
- Support BWPC with the implementation of the Sustainable Procurement Strategy
- Prepare sustainable procurement advice for NBT staff, including guidance on the Public Services (Social Value) Act, 2012

	Procurement carbon emissions	Tonnes CO₂e
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Sustainable Procurement Strategy

North Bristol Trust is working in partnership with BWPC to embed sustainable procurement within our existing processes.

The benefits of sustainable procurement include;

- Reducing costs and increasing productivity from the efficient use of resources and waste reduction
- Better engagement and collaboration with suppliers
- The identification of strategic supply risks, in terms of continuity, cost and raw material scarcity.
- Promoting supplier innovation in an expanding market for alternative materials, and lower cost technologies and products
- Eliminating inefficiencies, streamlining processes and thinking long term,
- Adapting to climate change and minimising our impact on the environment.

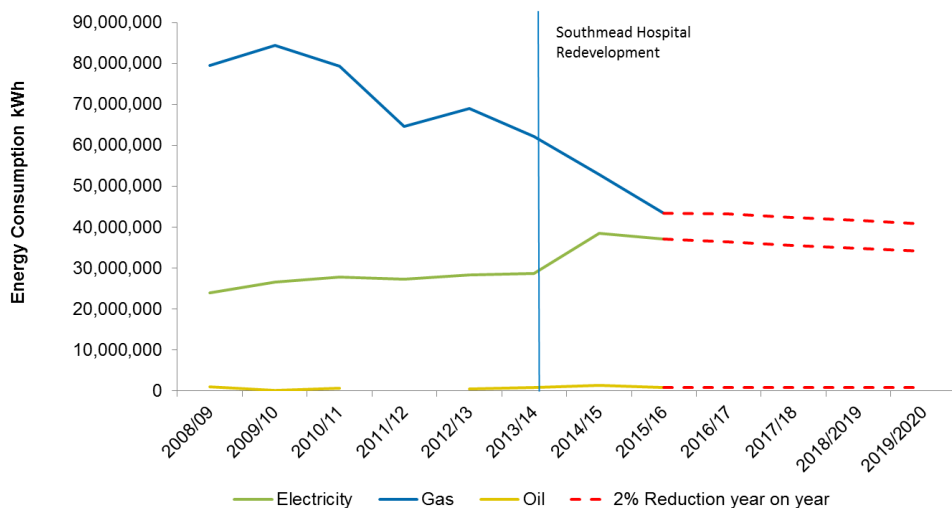
The Strategy is still in draft form, however over the next twelve months, BWPC and NBT will be working together to finalise the strategy and ensure our sustainable procurement obligations are met by working with small and medium sized enterprises, taking a lifecycle approach and ensuring environmental, social and economic aspects are considered within the procurement process.



Energy & Water

Energy consumption, particularly the use of natural gas has been declining over recent years; this has been especially evident with the closure of Frenchay Hospital and opening of the new energy efficient Brunel Building in 2014, which is easily meeting its strict energy consumption targets of 40GJ/100m³.

Figure 7; NBT Energy Consumption 2008-2020



Energy consumption for scope 2 emissions (electricity) has seen an increase commensurate with the provision of a twenty first century healthcare building using increased technology, which is to be expected, however through staff engagement the Trust hopes to minimise the use of excess electricity use through the Less Waste, More Care TLC (Turn off, Lights out, Close the Door) campaign.

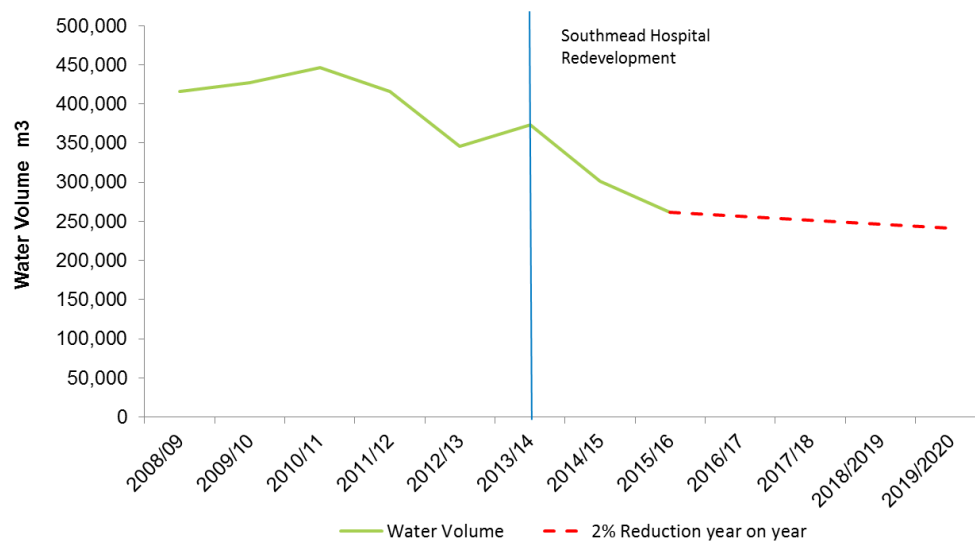
The Brunel Building benefits from its own energy centre with wood chip fed biomass boiler on site. To further supplement the reduction of gas, NBT has expanded the generation of renewable energy further onsite with increased solar photovoltaics on the roof of the new Pathology building for 2015/2016.

The redevelopment of Southmead Hospital and the final closure and demolition of Frenchay Hospital and several large buildings on the Southmead site has delivered significant savings in water consumption through improved infrastructure and water efficient systems.

The Brunel Building design incorporates water efficient appliances such as low dual flush WC's (max flush volume 4.5litres), integral flow limiter showers (max flow rate 9l/min) and flow limiter taps (max flow rate 5l/min).

To further supplement the water efficient design, a comprehensive system of sustainable urban drainage has been installed across the site, including a grey water collection facility, collecting 20,000litres of rainwater from the roof for use by grounds maintenance staff for irrigation via a bespoke grey water recycling kiosk.

Figure 8; NBT Water Consumption 2008-2020



We are committed to...

- Reducing the environmental impacts of energy and water

We have...

- Established baseline data for 2014/2015
- Expanded the Energy Conservation Group
- Developed a draft Energy Policy
- Developed an Energy Abatement Plan
- Launched Green Impact; Less waste, more care promoting the TLC Campaign (Turn off, Lights out, Close doors) targeting energy & water conservation measures
- Developed an Energy Champion Scheme & recruited Energy Champions through Green Impact
- Won the NHS Sustainability Water Award 2016
- Undertaken a lighting review of the retained estate

We will...

- Consult and adopt the Energy Policy
- Implement the Energy & Carbon Abatement Plan
- Broaden the recruitment of Energy Champions and promote wider uptake of the TLC component of the Green Impact scheme
- Communicate energy awareness to patients and visitors
- North Bristol Heat Network Feasibility Study

	Electricity	KWh
	Gas	KWh
	Heating Oil	KWh
	Water	M3

Less Waste More Care Campaign - TLC

The Green Impact Scheme has enabled the roll out of simple energy actions and communications through Green Impact teams Trust wide. The Less Waste More Care, TLC (Turn off, Lights out, Close the door) campaign is one example of this. Green Impact Teams have been distributing TLC posters and stickers throughout the Trust to actively encourage staff and patients to turn off unused equipment, turn the lights our and close doors behind them.



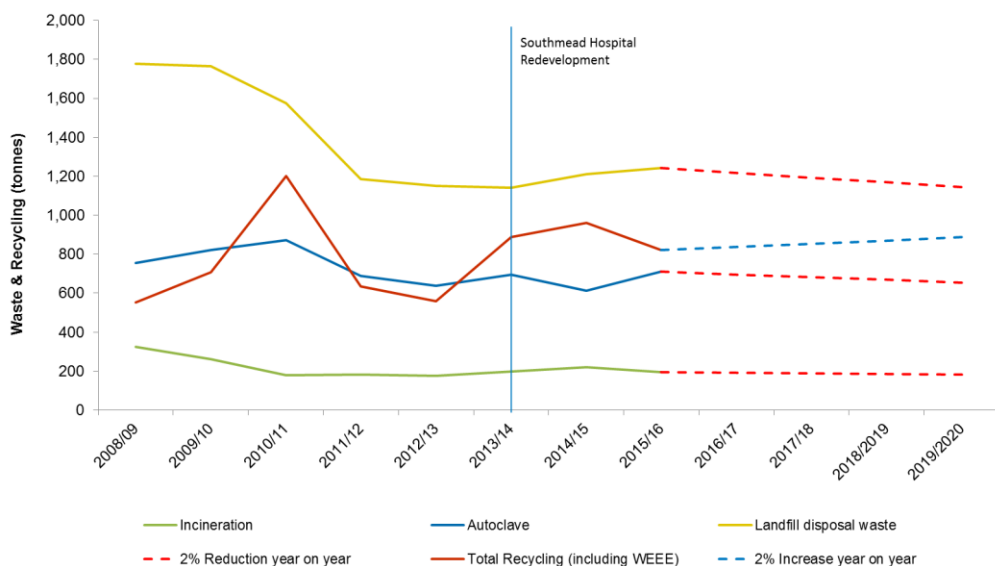
Initial estimates provided by Green Impact using the Carbon Trust Empower calculator to identify the financial cost savings, anticipate the Trust has achieved estimated savings of £8,501 from the TLC campaign, with total expected savings of £18,416 by the end of the year. In addition to financial savings, the Carbon Trust calculator anticipates we have already saved 54.3 tonnes of carbon and are expected to achieve 117.6 tonnes of carbon.



Waste and Recycling

This year has seen a small reduction in overall waste production of 37 tonnes. The production of waste requiring incineration has also reduced and is most likely due to reduced cases of suspected Ebola and the trial of re-usable sharps bins in some areas. Infectious waste sent off-site for autoclaving has risen slightly since last year and is against the downwards trend to which we are aspiring. An increased segregation of offensive hygiene waste this year will help reduce the tonnages sent for autoclaving.

Figure 9; NBT Waste and Recycling 2008-2020



Landfill waste has risen which we would expect if there was a corresponding drop in autoclave waste as offensive hygiene waste is sent for deep landfill burial.

The increase however matches the equivalent decrease in recycling tonnages and can be attributed to unforeseen operational issues surrounding a lack of segregation of recycling waste generated on the non-PFI element of the Southmead site.

This issue is being resolved through the introduction of additional external wheeled bins into which waste streams can be segregated at source into dry mixed recycling and landfill waste and then tipped automatically into the corresponding compactor once it reaches the service yard.

Equally some heavier waste streams that have been sent for recycling in recent years (e.g. uniforms) are no longer being generated so will show as part of the decline in tonnage.

The impact of recent initiatives such as food waste recycling will be more visible in next year's data. Equally, the Trust's re-use scheme is only in its infancy and experience at other NHS Trusts has shown that these systems can take a certain period of time to embed.



We are committed to....


- Reducing the environmental impacts of waste

We have...

- Established baseline data
- Developed a Trust Waste Compliance Group
- Exceeded The Trust's mandatory training compliance targets for waste
- Launched Green Impact; less waste, more care awareness posters for waste & recycling
- Established food and coffee ground waste segregation from onsite concessions
- Encouraged reuse through the use of Sustainable Healthcare travel mugs and lunchboxes for staff in the restaurant
- Implemented the segregation of gypsum waste
- Entered into a Trust-wide Re-use project, Warp It.

We will...

- Continue to expand the offensive waste stream Trust-wide
- Continue to investigate alternative disposal routes for IV drip disposal and pharmaceuticals
- Embed Warp It, the Trust-wide reuse project,
- Introduce a dedicated Waste Portering Team within the Brunel Building to manage waste efficiently and effectively.

	Incineration	Tonnes
	Autoclave	Tonnes
	Landfill	Tonnes
	Recycling	Tonnes

Less Waste More Care Campaign - Waste

As part of the Green Impact staff engagement scheme, members of staff have been promoting the Less Waste More Care poster to improve recycling rates and encourage better waste segregation across the Trust.

Posters have been distributed by Green Impact Teams in their areas of work and in the staff restaurant to encourage better segregation of food waste and packaging.



This includes food waste segregation which, once segregated is fed into our three food waste digesters onsite at Southmead. By treating food waste in this way, we are diverting waste from landfill.

To further encourage staff to reduce waste through reuse, the Sustainable Healthcare campaign at the Trust has provided reusable travel mugs and lunchboxes for staff to use in the Trust restaurant and coffee shops and also receive discounts on salad boxes and hot drinks.

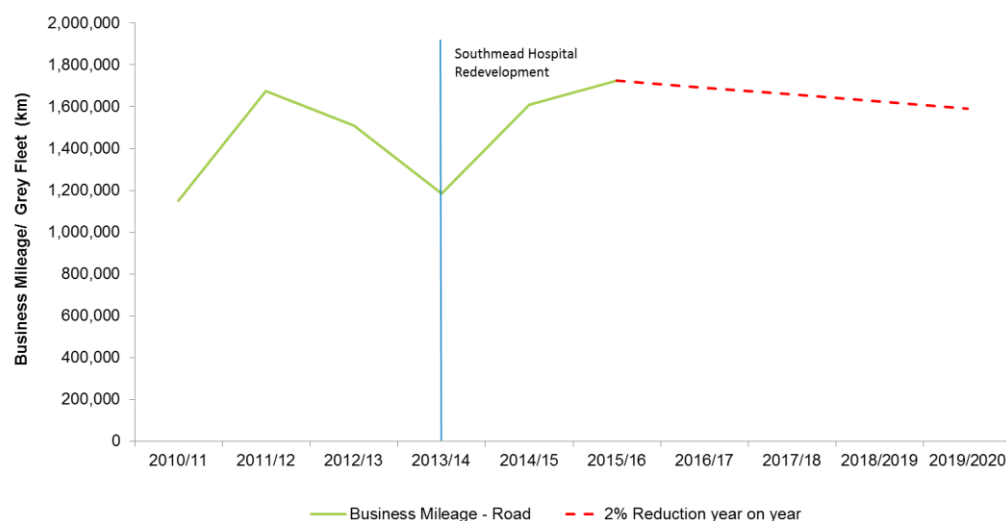


Travel and Transport

Grey Fleet business mileage is the total annual mileage undertaken by staff using their own vehicles for work purposes. This is primarily for staff within the Children's Community Health Partnership (CCHP) and other community led services which require NBT staff to travel on a daily basis.

Grey Fleet is calculated via the staff expenses system, reimbursing staff in line with the Travel and Expenses Policy at the agreed Agenda for Change mileage rates.

Figure 10; NBT Grey Fleet Mileage 2010-2020



Grey fleet mileage has seen an increase since the opening of the new Southmead Hospital redevelopment. The increase in staff expenses claims has arisen following the move and relocation of a number of staff from the old Frenchay Hospital site in the east of the city to the new Southmead Hospital site in the north of the city. As a result of this, excess mileage reimbursement costs were agreed and

set for two years following the move, enabling staff to claim for the additional mileage following the relocation.

Moving forward, we anticipate this will now begin to decline in the coming years in line with the final payment of excess mileage in March 2016 and also in line with the movement of Children's Community Health Partnership away from North Bristol NHS Trust.

The Trust's Travel Plan sets out our ambitions to reduce the environmental impact of staff commuting to and from work in single occupancy vehicles and what the Trust will be doing to encourage staff out of their cars and into other sustainable travel options.

Through the provision of three fuel efficient hybrid car club cars, we hope to encourage more staff to travel to work sustainably and use the pool cars for business use over their own car.

A full data set is not currently available for NBT's transport fleet of vehicles. This was flagged as a key area for improvement by the Energy Saving Trust during their fleet review of our services early in 2016.



We are committed to...



- **Reducing the environmental impacts of our direct travel and transport operations**

We have...

- Undertaken an Energy Saving Trust Fleet Review
- Trialled Velopost for delivery of post locally by bicycle
- Expanded our Co-Wheels fleet onsite at Southmead Hospital
- Retained a Silver Star Accreditation for our Travel Plan
- Undertaken Travel West Roadshows
- Installed 160+ new secure cycle parking facilities at Pathology, Central Delivery Suite and the Emergency Department.
- Installed a cycling hub in Phase 2 for 300 cycle spaces
- Expanded staff bike loan scheme to include electric bikes.

We will...

- Promote Co-Wheels car club for business travel
- Review staff parking & permit scheme
- Promote lift sharing by reducing permit costs & providing dedicated parking bays for sharers

	Business Travel	Km
	Grey Fleet	Km
	Staff Commute – Single occupancy vehicle	%
	Staff Commute – Cycling	%
	Staff Commute - Bus	%
	Staff Commute – Walk	%
	Staff Commute – Lift share	%

Co-Wheels Car Club at Southmead

From April 2016, NBT expanded the Co-Wheels community car club provision onsite. The provision of three Co-Wheels hybrid vehicles enables members of staff to use these community vehicles during the day for business travel, but also enables members of the public to use these vehicles outside of these hours, providing a valuable community asset.

The provision of Co-Wheels cars enables staff access to a vehicle for business use during the day and facilities staff to travel to work sustainably, reassured in the knowledge there will be a pre booked low emission vehicle available when required.

Since Co-Wheels expanded, the Trust has recruited 17 new drivers registering with the scheme and usage in April for the Co-Wheels cars increased by 680 miles compared to the previous month.

Over the next 12 months, staff will be encouraged to maximise the use of Co-Wheels vehicles for business use. By doing so, the Trust should reduce parking pressures onsite, save the Trust money (it's cheaper to use Co-Wheels cars that claim mileage through e-expenses) and reduce our overall impact on the environment from emissions from vehicles.



Food and Catering

We are committed to....


- Sourcing local, organic, seasonal and fairly traded ingredients for the food we serve

We have...

- Established baseline data for 2014/2015
- Developed a Food and Drink Strategy user group
- Retained Silver Food for Life Catering Mark for patient meals
- Achieved Bronze Food for Life Catering Mark for staff meals
- Retained a Silver Fairtrade South West Business Award
- Won a Gold Fairtrade Advocate South West Business Award
- Working in partnership with The Soil Association, NBT held a Food & Drink Strategy Workshop for key stakeholders to begin developing our Food and Drink Strategy
- Secured funding for a culinary, medicinal & sensory herb garden on the staff restaurant terrace
- Established a weekly Fruit and Vegetable stall at Southmead

We will....

- Develop & finalise our Food and Drink Strategy
- Maintain Silver Food for Life Catering Mark for patient meals
- Maintain Bronze Food for Life Catering Mark for staff meals
- Maintain Silver Fairtrade South West Business Award
- Identify funding to establish a staff allotment

 <p>Food</p>	Locally sourced	%
	Organic	%
	Fairtrade	%

Successfully achieving the Food for Life: Bronze Award for Staff Meals in the Vu Restaurant

In line with the Trust's commitment to source more sustainable food in line with the SDMP objectives for food and catering, NBT has achieved the Bronze Catering Mark for the provision of locally grown and seasonal food for staff meals on the hot food counter in our staff restaurant.



This is in addition to the Silver Catering Mark already achieved for patient meals.

- All our eggs are free range
- All our fish is sustainably sourced
- All our cheese is locally sourced from Somerset
- All our ham is locally sourced from Wiltshire and is Farm Assured
- All our meat is from a local butcher and Farm Assured
- All our ice cream is locally sourced from Marshfield Farm, Bath
- All our milk comes from a herd of 350 Holstein Friesians grazing on 500 acres of pasturelands at a family run Gundenham Dairy Farm in Wellington, Somerset

Image; courtesy of The Soil Association Food for Life



Biodiversity

We are committed to...

- **Protecting and enhancing the environment, including the prevention of pollution**

We have...

- Established baseline assessment for 2014/2015
- Established a Biodiversity Working Group
- Completed the Phase 2 Sustainable Urban Drainage such as extensive landscaping, planting of native trees and shrubs, a wetlands area and 440m swales.
- Working with Avon Wildlife Trust, undertaken a biodiversity survey and developed an action plan
- Established a pollution prevention and response procedure in line with our Environmental management System
- Established an Environmental Management procedure which includes protecting the natural environment, including biodiversity for the control of contractors working on behalf of NBT Estates Management
- Encouraged staff to protect biodiversity through simple actions within the Green impact Scheme, such as providing bird feeders on site.
- Run insect hotel building workshops for staff, patients and visitors
- Supported Avon Wildlife Trust's 30DaysWild campaign

We will...

- Continue to improve biodiversity in line with the Avon Wildlife Trust recommendations where possible and funding permitting
- Investigate funding opportunities to further enhance biodiversity onsite by working to become "My Wild Hospital" in partnership with the Avon Wildlife Trust

The completion of Phase 2 works: Improving biodiversity through Sustainable Urban Drainage










NBT was successful at the national NHS Sustainability Awards 2016 in the "Water & Sustainable Urban Drainage" category for achieving a 25% reduction in water consumption through water efficiency savings, improved infrastructure and the inclusion of sustainable urban drainage within the design and build of the new hospital at Southmead. Sustainable urban drainage was a significant part of the design and infrastructure of the new hospital, with the aim to enhance water quality, incorporate water sensitive design, minimise vulnerability to flooding and maximise access to green space and biodiversity onsite



- 2 large therapy gardens
- 6 landscaped courtyards
- 6 x Green/ Brown roofs (approximately 1442m²)
- 700-1000 new trees and shrubs including native species.
- Wetland area; 4 x attenuation ponds (2x detention ponds & 2 x balancing ponds)
- Approximately 440m Swales, plus an additional larger swale (40mx5mx0.5m) to the north of the helipad.



Sustainable Development Indicators

INDICATOR		KPI	2014/2015 Data**	2015/2016 Data (% change from 14/15)	Trend
	Trust Carbon Footprint (energy, waste, water, travel and procurement)	Tonnes CO ₂ e	-	102,531	→
	Electricity Gas Heating Oil	KW/h KW/h KW/h	38,499,476 52,861,111 1,259,671	37,058,071 (-3.7%) 43,376,291 (-17.9%) 865,098 (-31%)	↓ ↓ ↓
	Renewable (Solar PV)	KW/h	11,000	23,813 (+116%)	↑
	Water	M3	300,858	261,961 (-13%)	↓
	Business Travel Grey Fleet	Miles km	Data incomplete* 1,609,097	Data incomplete* 1,725,973 (+7.2%)	↑
	Staff commute – Single occupancy vehicles*** Staff commute – Cycling Staff commute – Public transport Staff commute – Walking Staff commute – Lift share	% % % % %	45.5 20 12 10.5 8	- - - - -	→
	Incineration Autoclave Landfill	Tonnes Tonnes Tonnes	220.5 613.1 1209.8	196.1 (-11%) 709.8 (+15.8%) 1241.8 (+2.6%)	↓ ↑ ↑
	Recycling	Tonnes	961	820 (-14.6%)	↓
	Local (within 50 miles) Organic Fairtrade	% % %	20.6 2.3 3.5	23.7 (+3.1%) 3.7 (+1.4%) 4.8 (1.3%)	↑ ↑ ↑

*Data set is incomplete ** 2014/2015 data has been updated *** Data collected from NBT biennial Travel Survey **** Total Carbon Footprint calculated using the SDU Carbon Model based on annual spend.

We would welcome your views...

We are continually striving to improve sustainable development here at North Bristol NHS Trust and would welcome your views on how we can do this.

Please send any comments, ideas, suggestions or feedback you may have to;

Sustainable Development Unit

North Bristol NHS Trust
Southmead Hospital
Somerset House
Southmead Road
Bristol
BS10 5NB

E: SustainableDevelopment@nbt.nhs.uk

T: 0117 4148523/4145422



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Image; Organic carrots from The Community Farm weekly fruit and veg stall at Southmead Hospital



Image; Pathology Building, Southmead Hospital



**Sustainable
Healthcare**

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