

# Sustainable Development Management Plan

2019-2020



## Foreword

There is no question that sustainability is one of the most important challenges facing us all in the 21<sup>st</sup> century and it is one that unites our staff, our patients and our communities.

North Bristol NHS Trust believes it has a responsibility to find ways to deliver great healthcare that is also environmentally, socially and financially sustainable.

To indicate its commitment, the Trust Board has made a declaration that NBT will be carbon zero by 2030. We expect our health partners in Bristol will join us in working to fulfill this goal.

In 2018/19 we have continued to make good progress on many things that will contribute significantly to a sustainable footprint.

We are playing our part in the Bristol One City Plan which has committed to making the city carbon neutral by 2030 and have our own sustainable travel plans which will support staff and patients. Our land surrounding the Southmead site is managed in a way that actively supports biodiversity and we have plans to increase this further.

Inside the hospital we are reducing single use plastics everywhere from theatres to the coffee shops and even finding ways to reduce the use of volatile gases in surgery. Our wheelchair recycling project and re-use initiatives such as Warp-it help us to recycle furniture and later this year we will finalise our staff and patient allotments and our green gym.

We are proud that our staff have joined us so wholeheartedly on our “sustainability journey”. Each day we see them inspired to take simple actions to reduce our impact on the planet.

There is still much to do such as changes to purchasing and supply chains but sustainability is at the heart of the NBT Strategy and we are proud to be able to make a public commitment to do everything we can to contribute to a sustainable future.



Andrea Young  
Chief Executive



Michele Romaine  
Trust Chair

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## 1. Introduction

North Bristol NHS Trust is a centre of excellence for health care in the South West. We have more than 8000 members of staff committed to treating our patients with respect and dignity and, most importantly of all, as a person.

We aim to deliver excellent clinical outcomes and a great experience for everyone who uses our services. Our vision is to be the provider of choice for patients needing our specialist care, delivering innovative services with excellent clinical outcomes.

In order to achieve our vision, we rely on the availability of natural resources such as energy, food and water alongside other man made products such as pharmaceuticals, anaesthetic gases and medical equipment, all of which contribute to our carbon footprint.

Our carbon emissions contribute to increased levels in the atmosphere and changes in our climate. These climatic changes are predicted to bring about health conditions such as increased heat and cold related illness and deaths, incidences of skin cancers and sun burn and increase the health impacts of respiratory disease from poor air quality and aero-allergens.

Other health related impacts of our changing climate could include an increase in mental health issues as a result of local social impacts and changes in water and vector borne diseases are also expected. These health impacts of climate change will increase the demand on our services, and the need for further natural resources to treat our patients.

The NHS therefore plays a significant role in both mitigating and adapting to our changing climate. By seeking to reduce our reliance on fossil fuels and our consumption of finite natural resources we can both reduce our impact on the environment and protect patient health in the long term.

The recently published NHS Long Term Plan recognises this critical relationship between the use of resources and our health, particularly in relation to vehicle emissions and the health impacts associated with poor air quality.

This recognition by NHS England, along with increased public awareness and expectations around single use plastics has placed sustainable healthcare firmly on the agenda.

Here at NBT, we have committed to reduce our impact on the environment and embed sustainable development across our sites and services to ensure we are a resilient service fit for the future.



**44,396kWh**

solar energy  
generated onsite



16,163 electric  
vehicle miles

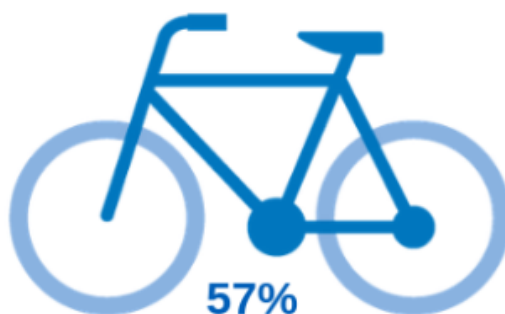


Saved **£11,000** and recycled  
**74 tonnes** through our  
wheelchair recycling project

## 2018-2019 at a glance....



We removed  
60% of plastic  
drink bottles  
from our  
shelves



**57%**

NBTstaff travel to work sustainably



Twitter engagements  
@NBTSustHealth



We reduced our  
carbon footprint  
from electricity  
and gas by  
3,536 tonnes  
during  
2018-19



**£33,217**

Saved through our Green Impact  
teams



**£43,000**

Saved through our  
furniture re-use  
scheme Warp-It

**133**

Trees, plants and  
shrubs planted onsite



## 2. Drivers for change

Sustainable healthcare in the NHS is predominantly driven through local and national policy, legislative and mandated requirements and healthcare specific specifications from the Department of Health and NHS England.

The delivery of sustainable healthcare is also a contractual obligation through the NHS Standard Contract (2019-20) which requires Trusts to manage their resources sustainably and have a Trust Board approved Sustainable Development Management Plan (SDMP).

During 2018/2019, there were some significant step changes in sustainable development drivers, at both a local and national level.

- The National Adaptation Programme (2018) outlines key requirements and associated actions for the NHS to ensure climate change adaptation and mitigation measures are addressed.
- The NHS Long Term Plan (2019-2029) set out key expectations regarding carbon emissions, energy efficiency, vehicle exhaust emissions and the use of single use plastics within the supply chain. The Long Term Plan commits to the carbon targets set out in the UK government Climate Change Act (2008) to reduce emissions (on a 1990 baseline) by:
  - 34% by 2020
  - 51% by 2025

This work will include projects to reduce the carbon footprint of inhalers and anaesthetics.

The NHS also committed to improve air quality by:

- Cutting business mileage by 20% by 2023/24
- Ensuring that at least 90% of the NHS fleet uses low-emissions engines (including 25% ultra-low emissions) by 2028
  - In June 2019 the UK Government committed to reduce its greenhouse gas emissions to net Zero by 2050 under the terms of a new government plan to tackle climate change. The Government's announcement stated cutting emissions would benefit public health and cut NHS costs.
  - More locally, the Bristol One City Plan (2019-2050) spans a collective of organisations with shared goals across the city led by Bristol City Council alongside our local universities, police, NHS, business community, voluntary sector, unions and faith groups. The plan aspires to deliver a sustainable city, with a low impact on our planet and a healthy environment for all by 2050. The plan sets out a series of objectives across the backdrop of the United Nations Global Goals for Sustainable Development with key commitments for Bristol which include carbon neutral status by 2030.
  - Public awareness and staff expectation has never been so high following national campaigns and publicity on action against plastic. The response to plastic pollution has brought about a real step change in behavior by many, enabling and inspiring people to make meaningful choices around their use of plastic. This behavior change is reflective of staff and patient expectation at NBT, with much greater interest around what the Trust is doing with plastics.

### 3. Our Vision

Our Sustainable Development Policy sets out our aspiration to be a leader in the field of sustainable healthcare through committed leadership, innovation, culture change and system wide engagement and development.

We are committed to embedding sustainable development across our sites and services as laid out within our recently updated Sustainable Development Policy.

We will deliver our Sustainable Development Policy commitments through our SDMP by;

- Maximising the environmental, financial and health opportunities associated with sustainable development and the co-benefits to our staff, patients and the local community.

- Valuing the importance of protecting our natural environment for the benefit of the physical and mental health and well-being of our community, now and in the future.
- Striving to improve staff and patient experience by moving towards more sustainable models of care and workplace practices.

### 3.1 Climate Emergency Declaration

During 2019-20, North Bristol NHS Trust will join University Hospitals NHS Trust alongside our civic partners, Bristol City Council, North Somerset Council, South Gloucestershire Council and the West of England Combined Authority to declare a Climate Emergency. By making such a declaration, we hope to lead the healthcare sector in collective action to ensure the future health and wellbeing of our city.



## 4. Governance

Our Sustainable Development Management Plan (SDMP) is approved by Trust Board on an annual basis, with a six monthly progress report submitted half way through the year.

Sustainable development is championed by the Trust's Chair Michele Romaine and the Director of Estates, Facilities and Capital Planning, Simon Wood.

Simon Wood chairs the sustainable development steering group which meets quarterly. The steering group consists of our Trust Chair, specialist Public Health Advisers, Senior Management, our PFI partner and representatives from the local community and Trade Unions.

The group drives forward the sustainable development agenda at the Trust by setting objectives, reviewing progress and delivering assurance on a regular basis. The group promotes collaborative working with external partners to bring external benefits to the trust and support the local community.

The Sustainable Development Unit (SDU) is a small team of specialists providing advice and support across the Trust to assist in the delivery of sustainable development.

The SDU sits within the Sustainable Health and Capital Planning (SHCP) Service within the Facilities Division.

To further support the delivery of the policy commitments, the Trust has an active network of Environmental Awareness Reps (EARs) and Green Impact teams spread throughout the organisation to raise awareness, engage and enthuse the wider workforce.

NBT is also a member of the Bristol, North Somerset and South Gloucestershire Sustainability Transformation Partnership (STP) "Healthier Together", along with other major health and care providers in the region. The STP has developed a Climate Change and Sustainability work stream into which all organisations are expected to contribute.



## 5. Communications and Engagement

Our vision to be a leader in the field of sustainable healthcare requires system-wide engagement and development through simple and effective communication.

We communicate with our stakeholders using various channels and means to get our messages out to our staff, patients and wider community, notably through our website and social media outlets, annual reports and numerous, innovative engagement events and opportunities throughout the year.



### Engagement Activities 2018/9

- Staff insect hotel building (Jun 2018)
- NHS Sustainable Health and Care Week (June 2018)
- Clean Air Day (June 2018)
- 30 Days Wild (June 18)
- Southmead Festival (July 2018)
- Cycle to workday (Aug 2018)
- Southmead Hospital Lavender Project events (June – Dec 2018)
- Apple pressing in partnership with The National Trust (Oct 18)
- SDMP Launch event October 2018
- MOVEMBER (Nov 18)
- NBT Sustainable Healthcare Twitter account launch (Nov 18)
- Green Impact Awards (Dec 2018)
- Travel Plan consultation (Dec 18)
- Sustainable Development Policy consultation (Jan 18)
- Urban Buzz Wildflower planting with volunteers (Jan 19)
- Travel to Work Survey (Mar 2019)
- NHS Sustainability Day (Mar 2019)
- Community Farm weekly fruit and veg stall
- 11 monthly SDUpdate e-newsletters
- 100 staff lunchtime walks
- 86 Tweets
- 79,600 Tweet engagements

## 6. Sustainable Development Assessment Tool (SDAT)

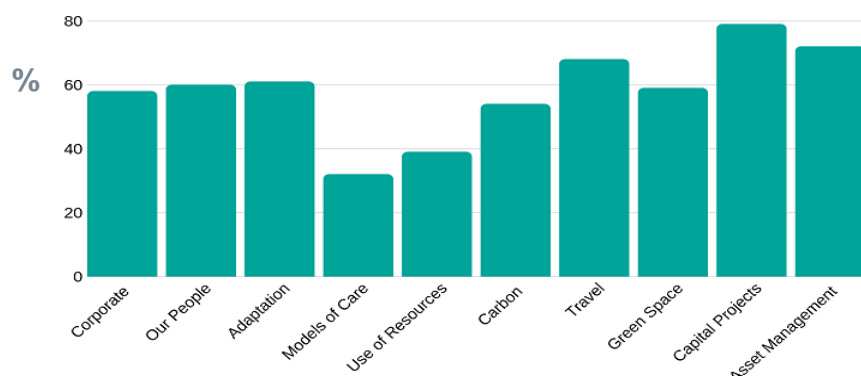
The Sustainable Development Assessment Tool (SDAT) is the national bench mark used by Public Health England and NHS England to measure improvement across the health and care system.

The assessment determines progress against the implementation and delivery of sustainable development across the health and care system and is aligned to the UN Sustainable Development Goals.

The SDAT is designed to help the NHS and other healthcare organisations understand their work, measure progress and create the focus of and action plans for their sustainable development management plans (SDMP). Each benchmark undertaken reports how the Trust is contributing to the 17 UN Sustainable Development Goals.

SDAT consists of ten areas which are assessed against four cross-cutting themes; governance and policy, core responsibilities, procurement and supply chain and working with staff. During 2018/19, North Bristol NHS Trust achieved an overall score of 58%, which is a 49% improvement from 2017/18.

**Figure 1: North Bristol NHS SDAT Assessment 2018/19**



## United Nations Sustainable Development Goals

The 17 Sustainable Development Goals (SDGs) were adopted by all United Nations Members States in 2015 and represent an urgent call for action by all countries in a global partnership. The SDAT measures progress against the SDG's. The Trust is starting to contribute to 12 of the 17 SDGs at a local level.



**NORTH BRISTOL  
NHS TRUST**  
**58%**

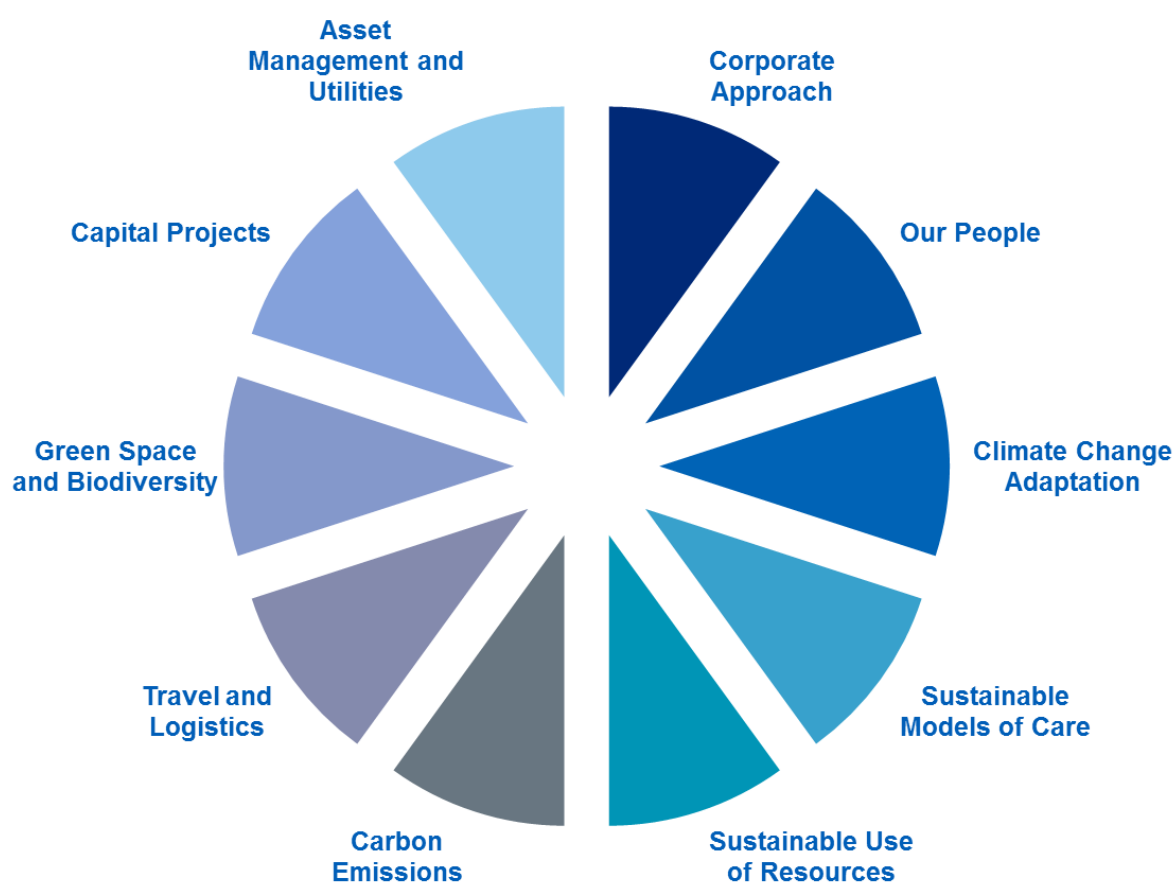
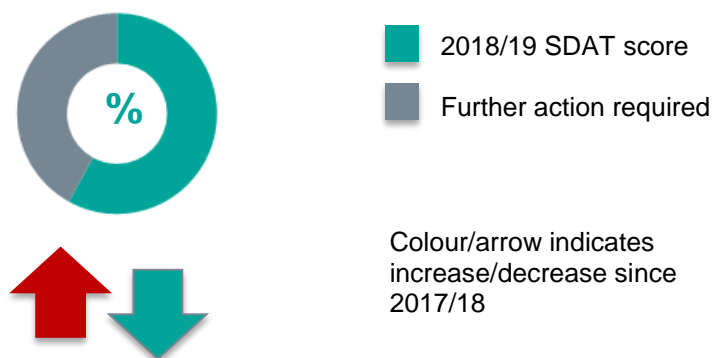
## 7. Corporate Objectives

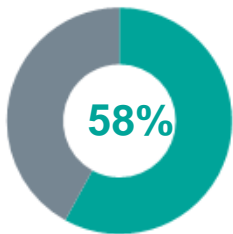
North Bristol NHS Trust has developed ten key objectives in line with the SDAT themes laid out in the diagram below.

Each objective has a set of actions set for the year ahead to drive forward sustainable development at NBT.

The following pages outline the Trust's progress against each theme undertaken in 2018/19 and our plans for the year ahead.

At the top of each page, we have reported our SDAT progress score against each theme.





## 7.1 Corporate Approach

The Trust strategy recognises the great potential of our organisation by empowering our skilled and caring staff to deliver high-quality, sustainable services in state-of-the-art facilities. Our Trust Strategy is currently being updated.

During 2018-19 we reviewed and updated our Sustainable Development Policy to ensure it is reflective of the national sustainable development agenda. Our Sustainable Development Policy underpins our decision making process, which now includes Sustainability Impact Assessments for all key decisions.

We have welcomed the Southmead Development Trust onto our Sustainable Development Steering Group to maximize the opportunities to support our local community through joint ventures and communication and engagement opportunities. We regularly support their activities and events such as the annual Southmead Festival and encouraged our local staff to be part of the Neighbours Connect Project, promoting health and wellbeing in our local community.

We will continue to work closely with them as we continue to deliver exceptional healthcare facilities whilst also supporting the needs of the local community. We hope to achieve this by ensuring any developments become a valuable resource for the local community, through the provision of accessible green space and future capital developments as part of the One Public Estate.

### OBJECTIVE 1

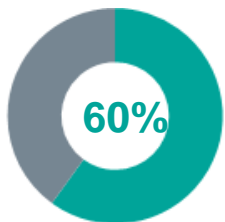
**The Trust aspires to be a leader in sustainable healthcare**

#### We have:

- Reviewed and updated our Sustainable Development Policy
- Worked with partners in our local community, the Southmead Development Trust
- Ensured sustainable development and social value are a material consideration in all business cases through the requirement of Sustainability Impact Assessments.
- Delivered sustainable procurement and waste training for our Environmental Awareness Reps

#### We will:

- Declare a Climate Emergency
- Embed sustainable development within the Trust's updated Strategy.
- Work collaboratively to deliver the Bristol One City obligations
- Review our Sustainability Impact Assessment process to promote ease of use
- Engage with our suppliers, contractors and commissioned services to reduce the impacts of the goods and services we buy
- Embed sustainable development within the annual corporate business planning process
- Commence external Environmental Management System ISO14001:2015 audits for the Directorate of Estates, Facilities and Capital Planning



## 7.2 Our People

The Trust recognises that a healthy, happy and resilient workforce is key to ensuring we operate sustainably, and as such, every single member of staff has an important role to play in helping us achieve this.

The Trust's Sustainable Development Policy outlines individual staff responsibilities to ensure efficient resource use through simple, everyday actions.

The Sustainable Development Unit encourages staff to get involved in activities and events throughout the year as part of the Green Impact Engagement scheme. During 2018-19, we successfully completed our third year of Green Impact with 25 teams taking part across the Trust. The scheme provides innovative ways for staff to get involved in sustainability in the workplace and celebrating those that did with an awards ceremony in December in collaboration with University Hospitals Bristol NHS Foundation Trust and the University of Bristol.

Looking ahead, our joint charity funded project with Fresh Arts to deliver the Pathway to Wellbeing programme will begin to take shape with the appointment of a project manager to coordinate a series of engagement opportunities for staff, patients and the local community, linking the great outdoors and health and wellbeing.

The project will be supported through the delivery of physical improvements onsite including the completion of Lime Walk Park, a new dedicated green space, the Southmead Hospital allotment and the installation of the Green Gym.

### OBJECTIVE 2

**Engage our staff, patients, visitors, stakeholders and our wider community on sustainable development**

#### We have

- Launched our staff Green Impact engagement scheme for the fourth consecutive year
- Launched the Pathway to Well-being programme

#### We will

- Complete Green Impact year 4, aiming to achieve a 50% increase in teams across the Trust, specifically targeting clinical areas.
- Complete construction of the staff and patient allotment at Southmead Hospital
- Complete the installation of Green Gym equipment at Southmead Hospital
- Hold at least 6 sustainable healthcare engagement events
- Ensure greater engagement with the local community on sustainability activities at the Trust
- Complete the Pathway to Wellbeing programme in partnership with Fresh Arts

## Green Impact Case Studies



### Complex Assessment Liaison Service (CALs)

The CALs team embraced the ethos of Green Impact and began segregating their food waste to take home and compost, as well as other initiatives such as a veg-growing competition and 'fruity Fridays', designed to encourage healthier food choices.

The team also recognised the value of green spaces around the Trust so they started to schedule frequent walks to promote health and wellbeing.



### The Move Makers

The Move Makers are real ambassadors of Green Impact. They are committed to continually improving the sustainability of their service.

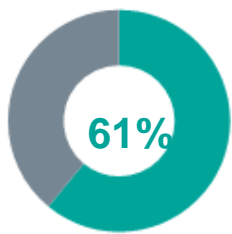
Sustainability is raised in all one-to-ones and appraisals so that all everyone is aware of their responsibilities. Jill used the office to good effect in displaying relevant information and organising bring-and-share lunches around local, Fairtrade or organic themes.



### Research and Innovation

This team embedded Green Impact into their daily routines.

The team almost immediately switched their stash of sugary cakes for fresh fruit and made a host of other changes over the year as well, so much so that the team managed to achieve not only our Bronze award, but our silver award in the first year as well, making them NBT's 'Most Improved Team'.



## 7.3 Climate Change Adaptation

The Trust is committed to adapting to the impacts of climate change by working to deliver a healthy, resilient and sustainable healthcare system ready for changing times and climates.

The Trust has been working across the region with STP partners to finalise the Bristol, North Somerset and South Gloucestershire Climate Change Adaptation Plan. The plan identifies the shared risks and opportunities in our region, including the anticipated health impacts and serves to prioritise actions and deliver shared opportunities to achieve regional benefits going forward.

The plan sits within the wider Bristol, South Gloucestershire and North Somerset STP Estates Group and aims to reduce our combined impact on the environment, reduce our organisational running costs, ensure our business continuity plans are in place and reduce health inequalities.

North Bristol NHS Trust has already implemented a number of schemes on site to promote adaptation through sustainable design and infrastructure, notably through the development of the Brunel Building which includes sustainable urban drainage and energy efficient design.

The Trust has also been working to promote patient and staff resilience through health and wellbeing via the provision of access to high quality green space and the natural environment. Consideration is also given to the secondary impacts of climate change, such as the effects of severe weather on our infrastructure, supply chain and vital resources such as medical equipment, water, energy, fuel and food to ensure continuity of service in times of scarcity.

### OBJECTIVE 3

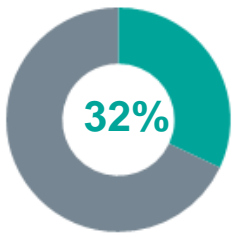
**We will adapt our sites and services ready for a changing climate**

#### We have

- Finalised our Climate Change Adaptation Plan
- Recognised climate change adaptation as a significant driver within our NBT Estate Strategy
- Embedded the outcomes of our climate change adaptation plan into the wider Bristol, North Somerset and South Gloucestershire regional Sustainability Transformation Partnership Estates Strategy

#### We will

- Ensure climate change is considered within our corporate business planning process
- Add climate change onto our organisation's risk register
- Complete the Healthier Together Climate Change Adaptation Plan by working with our partners across the Bristol, North Somerset and South Gloucestershire region



## 7.4 Sustainable Models of Care

The Trust is committed to improve staff and patient experience by moving towards more sustainable models of care and workplace practices.

During 2018-19, the Trust worked closely with the NBT Quality Improvement team to embed sustainability across our quality improvement projects. Sustainability is a domain of quality in healthcare, ensuring we consider the wider resource use and sustainability impacts of our improvement projects, not just clinical outcomes and costs. These improvement projects have changed the way we work, transforming our processes and developing more sustainable models of care.

The NBT pressure point injury quality improvement project embedded sustainability from the start, ensuring that the project didn't just consider the statistics and patient experience, but also the wider resource use and efficiency improvement opportunities to reduce the risk of these injuries in the first instance, thus reducing the number of injuries, but also the resource use (extended bed days, dressings, pharmaceuticals, staff resource, patient flow, etc.)

### OBJECTIVE 4

**We will adopt sustainable models of care across our services**

#### We have

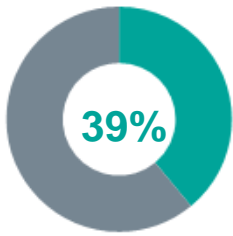
- Embedded sustainable models of care within the Quality Improvement programme, which promotes smarter, more efficient ways of delivering our clinical services and improving patient flow
- Worked with the Heads of Nursing to embed sustainability within the Pressure Point Injury Project to reduce the number of injuries and improve patient outcomes
- Worked with NBT Anaesthetists' to develop a Sustainable Model of Care to reduce the use of volatile anaesthetic gases

#### We will

- Prepare training for staff on the identification and development of Sustainable Models of Care
- Work with citywide partners developing a bid to deliver the Warmer Homes Project, ensuring those patients being discharged to a cold home receive the support they need to ensure their homes are warm and to prevent readmission
- We will capture Sustainable Models of Care submitted through Trust business cases and Green Impact teams.

*Figure 2: Sustainable Model of Care; Pressure point injury expected outcomes 2018*





## 7.5 Sustainable Use of Resources

We are committed to working with our key suppliers and contractors to reduce the environmental impact of the goods and services we use.

The NHS spends in excess of £40 billion each year on critical natural resources to deliver services. Our demand for resources is not something the Trust can control directly given resource use increases with patient contact, however using our influence through the procurement processes we can embed social value (environmental improvements, local social capital and economic value) to encourage our suppliers to adopt sustainable practices for the products and services they provide.

In line with the NHS Long Term Plan, the Trust needs to work with the Bristol and Weston Purchasing Consortium and suppliers to address the use of single-use plastics and encourage more suppliers to provide recyclable packaging.

### OBJECTIVE 5

**We will manage our resources sustainably, reducing our direct environmental impacts across our healthcare services in energy, waste, water, food and anaesthetic gases**

#### We have

- Embedded sustainability within the specification of all new Facilities Management service contracts to promote the sustainable use of resources, reduce consumption and promote efficiency throughout the duration of these contracts
- Worked with our new PFI Provider Bouygues Energy Services to undertake a high level energy review of the PFI to identify energy efficiency opportunities going forward
- Engaged clinical staff in a recycling campaign to raise awareness and promote good waste segregation to improve recycling rates
- Launched a single use plastic recycling project in theatres
- Reduced our consumption of volatile anaesthetic gases

#### We will

- Adopt and implement a Resource Action Plan to include energy, waste, water, food, paper, pharmaceuticals, medical devices, fuel and anaesthetic gases
- Undertake a comprehensive waste review to identify further opportunities to reduce our carbon emissions
- Launch a clinical waste campaign with our clinical waste contractor SRCL to raise awareness and enable staff to make informed decisions when disposing of their waste

## Resource Use Case Studies



### Southmead Hospital Charity Eco Coffee Cups

The Southmead Hospital Charity team launched reusable Eco-coffee cups for sale to help reduce the amount of waste generated through the use of disposable coffee cups at NBT.

The reusable coffee cups have been a real success, with staff receiving a discount if they take their coffee cups to staff coffee shops.



### Theatres Plastic Recycling Project

Theatre staff identified a specific waste stream of small colourful clinical plastics generated at NBT. These plastics which included bottle tops, syringe sheaths and tube racks were not accepted for recycling.

Staff started segregating these plastics and sending them to the Children's Scrapstore in Bristol for reuse within the community. The project was such a success it soon spread nationally and raised awareness of single use plastics amongst the manufacturers via a successful Twitter campaign.



### Volatile Anaesthetics Reduction Project

Anaesthetists have been working to reduce the use of Desflurane, a volatile anaesthetic gas which has sixty times the environmental impact of other less harmful greenhouse gases or anaesthetic alternatives such as total intravenous anaesthetic (TIVA).

Staff have been raising awareness through stickers on equipment - a local campaign amongst staff which has resulted in a significant reduction in Desflurane!

## 7.5.1 Energy Consumption

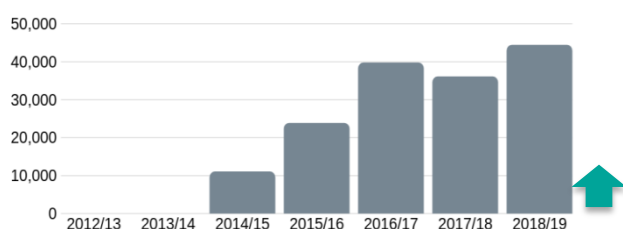
The Trust is committed to reduce the environmental impacts of energy.

During the last year we have seen an increase in electricity consumption; however we have also seen an increase in renewable energy generated onsite from our solar arrays on the Learning and Research Building and Elgar House. Gas consumption decreased slightly during 2018/19.

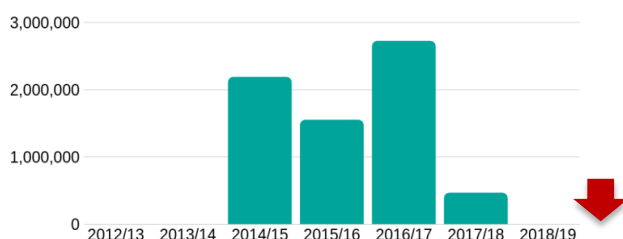
The Trust, alongside its new PFI partner Bouygues Energy Services has undertaken a comprehensive review of the energy generation and efficiency opportunities onsite.

The findings and proposals identify significant opportunities to reduce the Trust's scope 1 and scope 2 carbon emissions in line with the NHS Long Term Plan and the government's recent commitment to achieve net zero carbon by 2050.

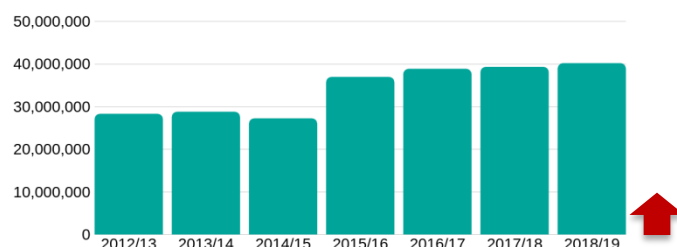
**Figure 3: Owned onsite renewable energy generation (solar) (kWh) 2012-2019**



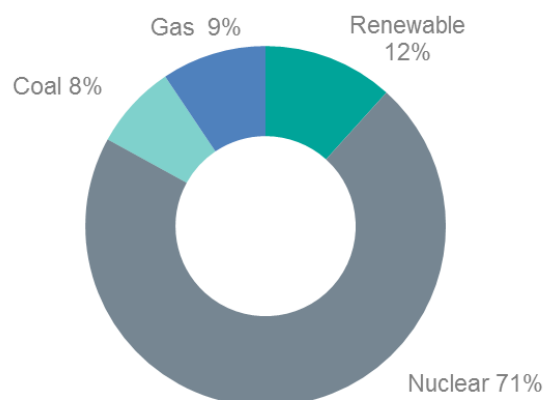
**Figure 4: Owned onsite renewable energy generation (Biomass) (kWh) 2012-2019**



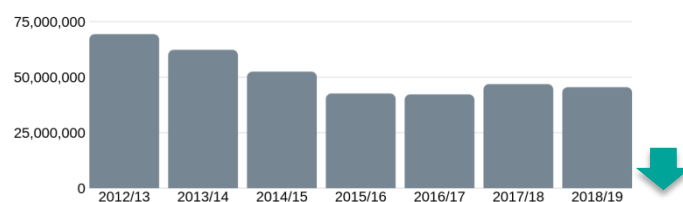
**Figure 5: Electricity consumption (kWh) 2012-2019**



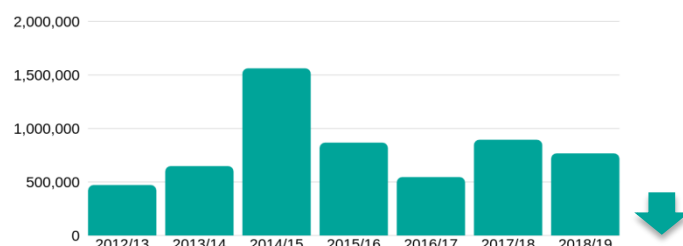
**Figure 6: Electricity source breakdown 2018/19**



**Figure 7: Gas consumption (kWh) 2012-2019**



**Figure 8: Oil consumption (kWh) 2012-2018**



## 7.5.2 Waste and Recycling

The Trust is committed to reducing the environmental impacts of waste. Our recycling rates have remained low during 2018-2019 due to low quality recyclates and mixed media waste such as medical packaging no longer being accepted by our current waste contractor. As a result of this issue, the majority of our dry mixed recycling was sent for energy recovery rather than recycling.

To address the problem, we have been raising awareness amongst our staff promoting what can be recycled by our current waste contractor and we are pleased to report that from April 2019 all dry mixed recycling (plastics, paper and cardboard) will be reintroduced back into the Trust's recycling streams.

Our disposal to landfill has increased marginally due to improved offensive waste segregation which is a legal requirement (this is both a positive and a negative impact).

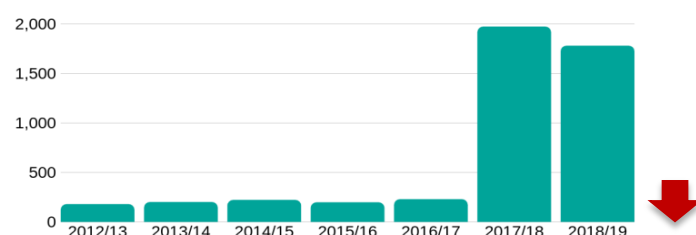
The Trust also runs a series of innovative recycling projects to remove unnecessary items from our waste streams. During 2018/19, the Trust launched the plastic recycling project in theatres which segregates small single use plastics which cannot be accepted for recycling. These plastics were donated to Bristol Children's Scrapstore for reuse within the community.

The Bristol Centre for Enablement (BCE) continues the innovative wheelchair recycling programme by successfully recycling damaged and retuned wheelchairs.

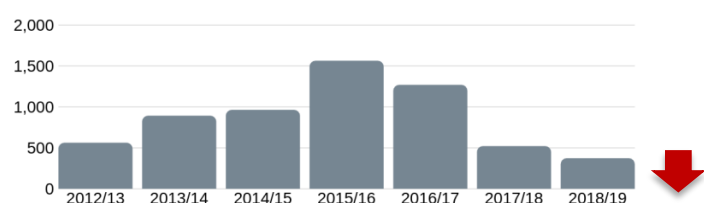
During March 2019, the Trust undertook an external waste review to identify any opportunities to make improvements to our waste segregation and recycling across the Trust. The audit report identified a series of opportunities which the Trust will review going

forward to increase our recycling rates during 2019/20.

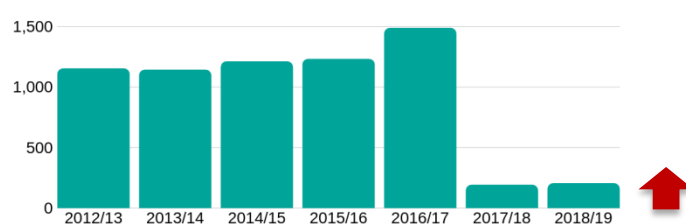
*Figure 9: Waste recovery (energy from waste through incineration) tonnes 2012-2019*



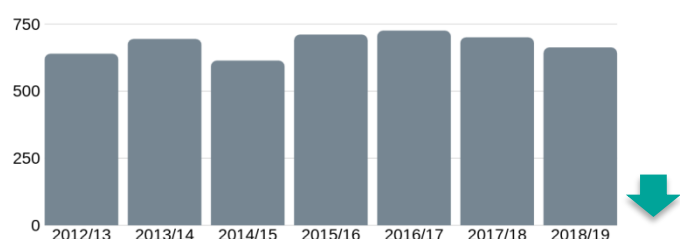
*Figure 9: Recycling (IT WEEE, scrap metal, dry mixed recycling) tonnes 2012-2019*



*Figure 10: Landfill (tonnes) 2012-2019*



*Figure 11: Autoclave (tonnes) 2014-2019*



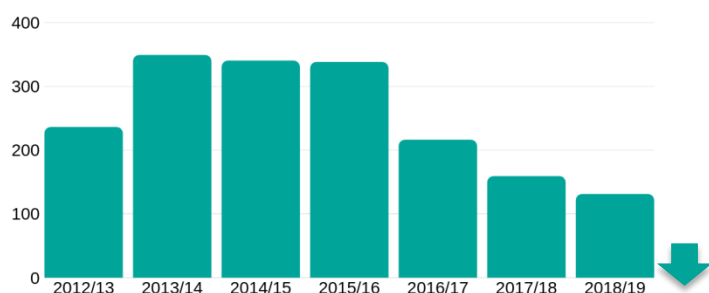
### 7.5.3 Anaesthetic Gases, Pharmaceuticals and Medical Devices

The consumption of anaesthetic gases, pharmaceuticals and medical devices varies in line with patient contact, the more patients we treat the more products we use.

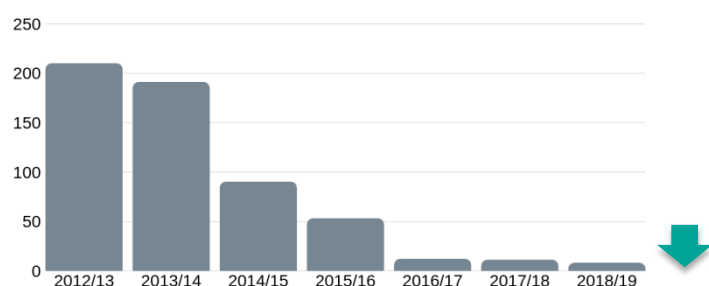
During 2018-19, the anaesthetists at NBT have been switching away from using volatile anaesthetic gas such as sevoflurane and desflurane to using intravenous anaesthesia as an alternative for some patients. Intravenous anaesthetic has a considerably lower carbon footprint.

As a result of the work undertaken by staff, we have seen a significant reduction in the use of these gases and hope to continue to see significant reductions going forward into 2019-20.

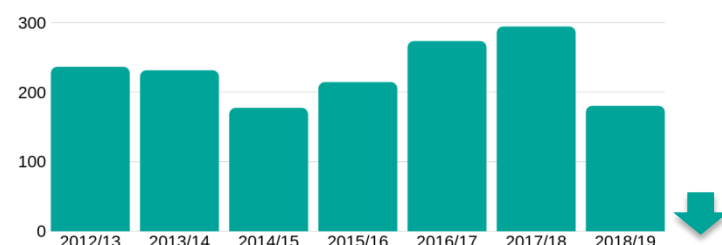
**Figure 12: Anaesthetic Gas; Desflurane (litres) 2012-2019**



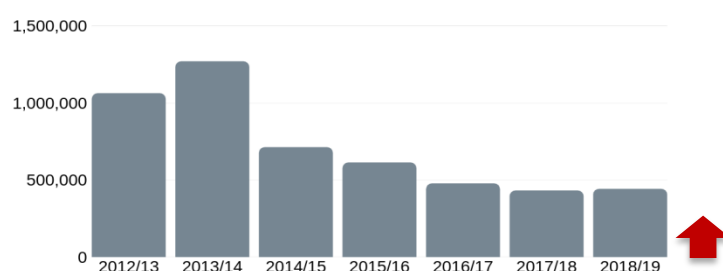
**Figure 13: Anaesthetic Gas; Isoflurane (litres) 2012-2019**



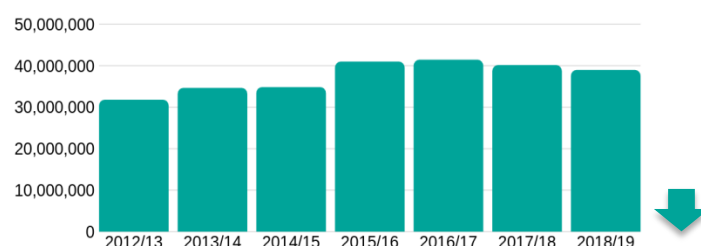
**Figure 14: Anaesthetic Gas; Sevoflurane (litres) 2012-2019**



**Figure 15: Anaesthetic Gas; Nitrous Oxide (litres) 2012-2019**



**Figure 16: Pharmaceuticals (£) 2012-2019**



**Figure 17: Medical Devices (£) 2012-2019**



### 7.5.3 Water consumption

During 2018-19, NBT suffered two major water leaks, which significantly affected our water consumption figures. Both leaks were detected and corrected at the earliest opportunity; however background water consumption continues to increase in line with patient contact and changes in services.

### 7.5.4 Fuel Consumption

Data for 2018-2019 shows an increase in grey fleet mileage (staff using their own vehicles for business use). This is likely due to the launch of the Hospital at Home service which provides acute healthcare to patients in the comfort of their own home.

The service is delivered by a team of specially trained nurses who visit each patient in their home to deliver the care they need, scheduling regular visits, daily or more frequently, dependent on individual need. Whilst the service generates emissions for staff travelling out to the patients, it avoids the emissions of patients travelling in to Hospital.

To reduce the impact of emissions from vehicles used for business mileage the Trust provides 3 hybrid pool cars available for staff.

### 7.5.5. Paper Consumption

During 2018-19, the Trust's paper consumption increased slightly following a significant decrease during 2017-18. Earlier this year, the Trust published One NBT Digital Vision, setting out how we intend to move towards more digital communication which will further reduce paper consumption moving forwards.

Figure 18: Water Consumption (m3) 2012-2019



Figure 19: Grey Fleet Mileage (km) 2012-2019

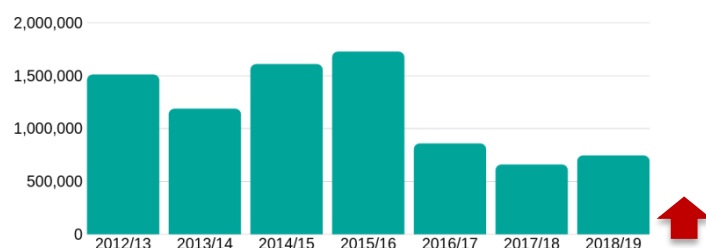
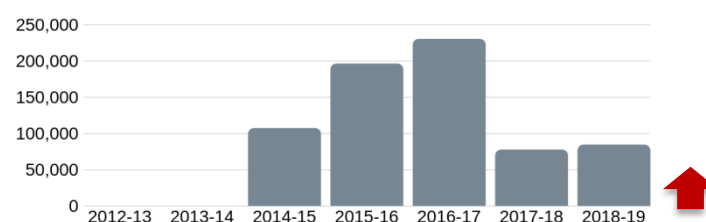
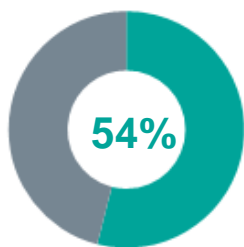


Figure 20: Paper Consumption (£) 2012-2019





## 7.6 Carbon and Greenhouse Gases

The Trust is committed to reducing our carbon emissions.

The UK Government has updated the zero carbon target to 2050. This target supersedes the target set out in the Climate Change Act (2008).

During 2019, NBT will jointly declare a Climate Emergency with University Hospitals Bristol NHS Foundation Trust and sign up to the Bristol One City goal to be zero carbon by 2030.

### OBJECTIVE 6

**We will manage our carbon emissions in line with the NHS Long Term Plan**

#### We have

- Identified that the Trust is not on target to reduce carbon emissions in line with the UK Government's net zero carbon target by 2050

#### We will

- Sign up to the Bristol One City goal to be zero carbon by 2030
- Establish a Trust Carbon and Energy Plan to deliver our zero carbon goal

Figure 21: NBT Carbon Emissions (tCO<sub>2</sub>e)

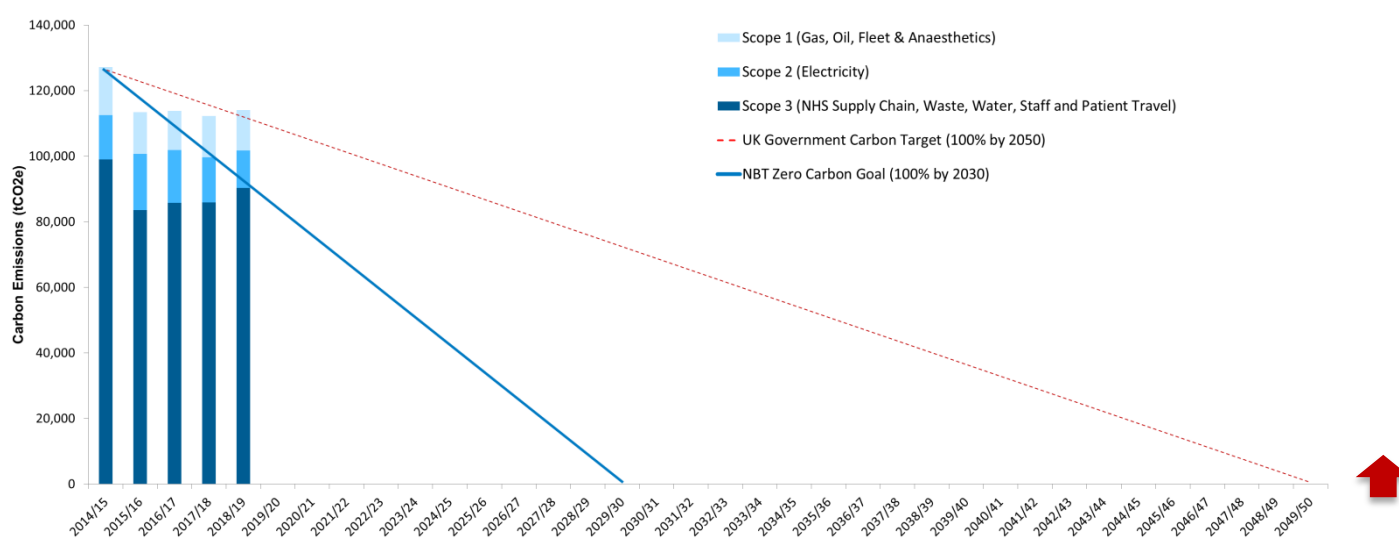
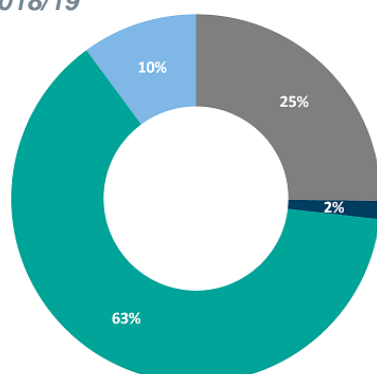
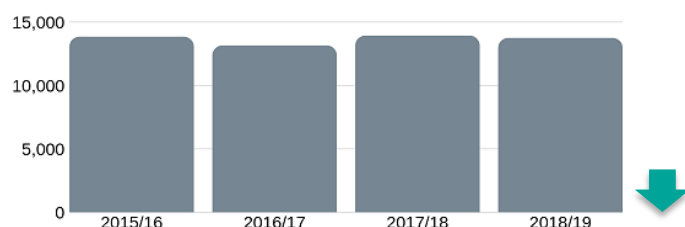


Figure 22: NBT Carbon Emissions Breakdown (tCO<sub>2</sub>e) 2018/19



- Core emissions:** Scope 1, 2, 3 and emissions from energy, waste, water, business travel and transport and anaesthetic gases
- Commissioning:** Scope 3 emissions
- Supply chain:** All scope 3 emissions (goods, services and buildings procured)
- Community:** All emissions (Scope 1, 2, 3 from staff commute, patient and visitor travel).

**Figure 23: Scope 1 (Direct) Carbon Emissions (tCO<sub>2</sub>e) 2015 – 2019**

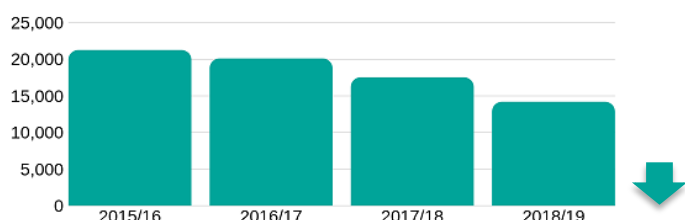


The Trust's direct carbon emissions (Scope 1) have reduced in line with decreased gas and oil consumption during the year. However scope 1 carbon emissions specifically from NBT fleet vehicles and anaesthetic gas use have increased. Carbon from fleet vehicles is due to more robust data capture and reporting, however carbon from anaesthetic gas consumption is a direct result of increased patient contact during 2018/19.

**Table 1: Scope 1 Carbon Breakdown (tCO<sub>2</sub>e) 2015 – 2019**

	2015/16	2016/17	2017/18	2018/19
Gas	8,905	8,802	9,914	9,641
Oil	276	172	292	244
Fleet	0	0	0	98.7
Anaesthetics	4,639	4,158	3,701	3,740
<b>TOTAL</b>	<b>13,820</b>	<b>13,132</b>	<b>13,907</b>	<b>13,724</b>

**Figure 24: Scope 2 Carbon Emissions (tCO<sub>2</sub>e) 2015 – 2019**

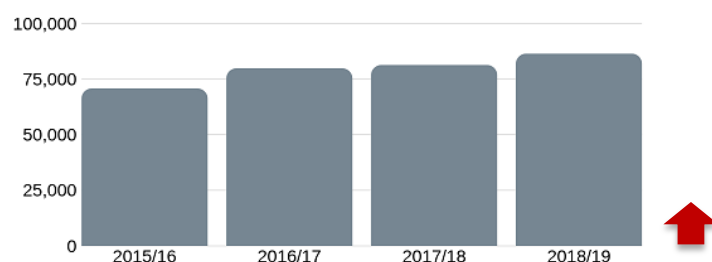


Electricity consumption increased during 2018/19; however the carbon associated with it decreased in line with the decarbonisation of the national grid. The Trust procures electricity from EDF, which consists of a mixture of renewable and non-renewable sources.

**Table 2: Scope 2 (Indirect) Carbon Breakdown (tCO<sub>2</sub>e) 2015 – 2019**

	2015/16	2016/17	2017/18	2018/19
Electricity	21,236	20,067	17,515	14,162
<b>TOTAL</b>	<b>21,236</b>	<b>20,067</b>	<b>17,515</b>	<b>14,162</b>

**Figure 25: Scope 3 (indirect) Carbon Emissions (tCO<sub>2</sub>e) 2015 – 2019**



Scope 3 represents the largest proportion of carbon emissions from NBT. These emissions include carbon associated with the commissioning of services, procurement of medical devices, patient travel, waste and water. These emissions are indirect, which means the Trust has no direct control over the management of them, only influence

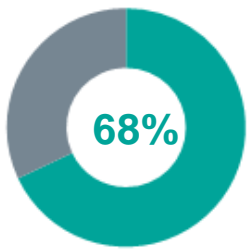
**Table 3: Scope 3 Carbon Breakdown (tCO<sub>2</sub>e) 2015 – 2019**

	2015/16	2016/17	2017/18	2018/19
Procurement	66,961	67,507	67,823	72,025
Commissioning	0	0	2,030	1,853
Travel	3,117	11,463	10,893	11,948
Waste	350	508	135	131
Water	237	216	325	354
<b>TOTAL</b>	<b>70,665</b>	<b>79,694</b>	<b>81,206</b>	<b>86,311</b>

Over the last year we have seen a significant increase in patient contact (35,000+) which has resulted in a similar increase in consumption of associated medical devices, water and patient travel.

**Table 4: Patient Contact 2015 – 2019 (outpatients; new and follow up, elective, emergency admissions)**

	2015/16	2016/17	2017/18	2018/19
Patient contact	433,000	659,177	648,950	683,610



## 7.7 Travel and Logistics

The Trust is committed to reducing the impacts of our travel and transport.

Active travel plays a significant part in both reducing traffic on the roads whilst also promoting health and wellbeing through exercise and improving local air quality.

The Trust runs the TravelSmart scheme aimed at encouraging staff, patients and visitors to travel sustainably where they can. TravelSmart promotes cycling, walking, public transport and lift-sharing as alternative ways to travel to work.

During 2018-19, the Trust updated its Travel Plan which was approved at Trust Board, alongside the accompanying action plan. Progress so far has included the installation of 12 new electric vehicle charging points, and pedestrian and cycle improvements to the Southmead Hospital site in collaboration with Bristol City Council.

North Bristol NHS trust was shortlisted for the local Travel West Sustainable Travel Awards and the national Sustainable Health and Care Awards for travel and logistics, winning Highly Commended for the latter.

### OBJECTIVE 7

**We will reduce the impacts from our travel and transport services**

#### We have

- Reviewed and updated our Travel Plan which has been approved by Trust Board
- Installed 12 electric vehicle charging points at Southmead Hospital
- Extended the provision of personal travel plans to patients and visitors
- Delivered 18 Bike maintenance sessions
- Delivered 10 Travel Smart Roadshows
- Loaned 68 bicycles to staff
- Commenced automatic monitoring of patient travel modes

#### We will

- Implement our travel plan
- Assess progress using the national Sustainable Development Unit's HOTT Tool
- Undertake scoping study for fleet rationalisation
- Commit to embed the Hospital Clean Air Framework

## Travel Smart Case Studies



### North Bristol NHS Trust Travel Plan 2019-2023

We updated our five year Travel Plan which outlines the progress we've made so far and our plans for the future for enabling sustainable and active travel to be a choice accessible for all.

The plan looks at reducing the number of single occupancy vehicles for staff alongside reducing air pollution from our business and fleet mileage.

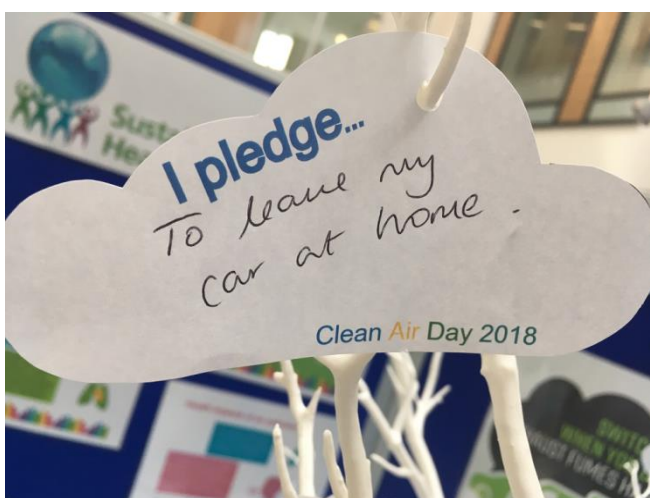


### Staff Bike Maintenance Lessons

In October we facilitated 7 staff maintenance lessons for staff to come and learn the skills needed to maintain and repair their own bicycles.

38 staff members learnt how to safety check their bicycles adjust their gears and brakes and fix a puncture.

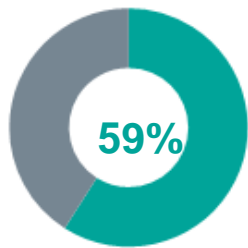
These skills enable staff to be independent and assured they are safely cycling to work.



### National Clean Air Day 2018

We joined the national campaign for clean air; asking staff, patients and visitors to pledge an action to reduce air pollution. Over 25 staff pledged to make changes such as swapping short car journeys with walking and investigate replacing their current car with an electric or hybrid model.

We also offered advice and information on how to avoid air pollution. Choosing to walk/cycle along side streets and making sure your home is well ventilated were a couple of the top tips.



## 7.8 Green Space and Biodiversity

The Trust is committed to protecting and enhancing the natural environment, including the prevention of pollution.

The Trust recognises the value of the natural environment which plays a key role in our health, improving patient recovery rates and patient experience. As a result, the inclusion of green infrastructure across the hospital estate is vital as a resource going forward. These green spaces also provide an important habitat for wildlife which contributes to Bristol's wider biodiversity network.

Managing our green spaces effectively can lead to improved biodiversity, improved air quality, noise reduction, provide essential shading during times of extreme heat and also reduce local surface water flooding.

During 2018-19, the green spaces onsite have undergone significant change as the final part of the hospital redevelopment takes place. To coincide with the works, the Urban Buzz project, along with some local volunteers, helped sow native plants, shrubs and wildflowers at the main entrance to Southmead Hospital.

During 2018/19, the Trust was shortlisted for a national Sustainable Health and Care Award for its green spaces.

Looking ahead, the Trust will complete the Southmead Hospital redevelopment in July which will include Lime Tree Park, a community green space with accompanying wildflower meadows.

The Biodiversity Management Plan identifies the priority areas and opportunities for improvement across the NBT estate, ensuring green spaces are protected and managed for the future.

### OBJECTIVE 8

**We will protect and enhance the environment and prevent pollution**

#### We have

- Planned a space for the cultivation of food through the planned allotment, providing opportunities for staff and volunteers to get involved with growing onsite, before extending the project to patients and the local community
- Provided staff with opportunities in the maintenance of green spaces and biodiversity such as building insect hotels, bird and bat boxes etc.
- Undertaken an ecological survey to the rear of the Brunel Building.
- Planted 133 native trees and shrubs and wildflowers across Southmead Hospital site
- Planted new lavender beds outside Elgar House
- Installed a wildlife interpretation panel for staff adjacent to the wildlife ponds
- Worked with local college SGS and using donated materials from Robins Timber built 25 bird boxes for Southmead Hospital
- Collaborated with Bristol City Council to win the Future Parks Accelerator bid to safeguard the future of green spaces and urban parks in Bristol

#### We will

- Finalise our Biodiversity Management Plan for the Southmead site and seek approval from Trust Board
- Start to implement the actions in our Biodiversity Management Plan

## Green Spaces Case Studies



### Southmead Hospital Insect Hotels

During the summer of 2018, clinical and non-clinical staff from across the Trust helped build an insect hotel during their lunchbreak.

The insect hotel is built from old wooden pallets and materials donated by local businesses.

This is the Trust's second Insect Hotel and can be found adjacent to the wildlife ponds off Avon Way.



### Wildflower planting by Urban Buzz

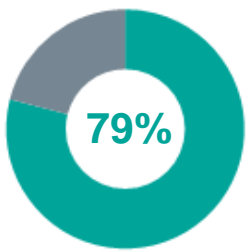
During March 2018, Urban Buzz, a local project to preserve wild bees in Bristol joined forces with students from the University of the West of England to help plant a new bed at the main entrance to the Hospital off Monks Park Way.

The students planted a variety of native shrubs and wildflower seeds which are pollinator friendly.



### Bird Boxes from SGS College, Filton

During 2018, students from local college SGS teamed up with local business Robins Timber to build 25 new bird boxes for the Southmead Hospital site.



## 7.9 Capital Projects

The Trust is committed to reducing the environmental impacts from our buildings, critical infrastructure and equipment essential for the smooth running of the hospital.

The Trust's Capital Programme ensures the delivery of services and enables resources to be managed more effectively through critical infrastructure and material improvement works across our Estates.

The programme ranges from major demolition and construction works through to refurbishment projects as well as energy efficiency projects and the purchase of critical medical equipment.

Over the last year, sustainability impact assessments have been completed for 20 capital projects, ensuring that sustainability is considered from the outset of any project going forward.

Sustainable Development has been included as a key driver within the newly revised Estates Strategy.

### OBJECTIVE 9

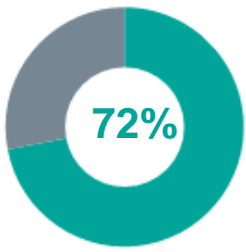
**We will embed sustainable design and construction within our capital projects**

#### We have

- Expanded the Sustainability Impact Assessments to include all capital projects regardless of cost.
- Ensured all contractors are assessed against sustainability as part of the tender process for capital projects.
- Completed 20 Sustainability Impact Assessments for capital projects over the last 12 months

#### We will

- Include sustainable development requirements in all capital project tenders for construction works
- Include sustainable development in all new tenancy leases



## 7.10 Asset Management and Utilities

The Trust is committed to reducing the sustainability impacts from our operational assets and buildings.

The Trust's Critical Retained Infrastructure Scheme Programme (CRISP) oversees the replacement of these assets and equipment. Once installed, these assets are maintained through the Planned Preventive Maintenance schedule (PPM). This is a cyclic schedule used to manage maintenance activity with the objective of maintaining safety, efficiency and keeping loss of service through break-downs or emergency maintenance activity to a minimum.

The Planned Preventive Maintenance schedule should be able to focus on maintaining new energy efficient equipment, rather than trying to maintain ageing assets which are no longer sustainable to run and at higher risk of failure.

### OBJECTIVE10

**We will manage our operational assets and critical infrastructure to promote longevity and efficiency of use**

#### We have

- Required all business cases going forward to undertake a Sustainability Impact Assessment.
- Delivered environmental management training to estates Maintenance staff

#### We will

- Develop a clear policy and process for our Estates Strategy that demonstrates our commitment to sustainability.
- Deliver 94% of the Planned Preventive Maintenance (PPM) works within the Retained Estate and PFI
- Ensure the PFI Building is maintained to the NHS Estates Code B Condition
- Ensure the replacement of equipment in the PFI considers whole lifecycle costs
- Include sustainability and energy performance of assets into the scope of the building condition surveys of the Retained Estate
- Undertake a contractor compliance review, ensuring all our contractors are vetted against environmental compliance as part of the tender process.

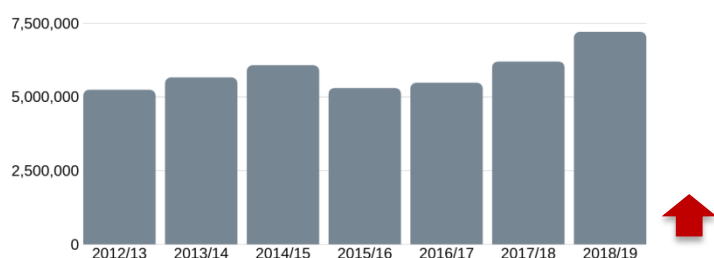
## 8. Finance

The Trust strives to adopt innovative ways to embed sustainable development within our services to deliver environmental, social and financial benefit.

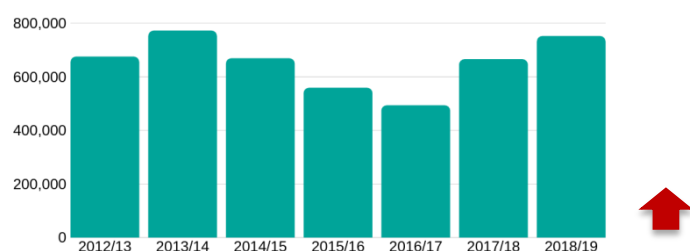
The current financial impact of each key area (energy, waste and water) is documented. Data for fleet transport is not currently available.

Over the coming years, the Trust aims to significantly reduce its carbon emissions and improve energy efficiency across the estate.

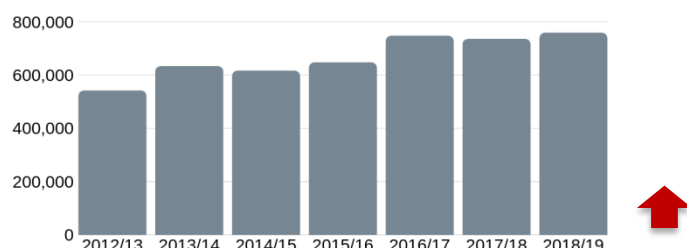
*Figure 26: Total Energy Costs (£) 2011 - 2019*



*Figure 27: Total Water and Sewerage Costs (£) 2012 - 2019*



*Figure 28: Total Waste and Recycling Costs (£) 2012 - 2019*



### We have

- Saved £43,000 through Warp-it, the Trust's furniture re-use programme
- Saved £33,2017 through Green Impact Year 3

### We will

- Save £50,000 through Warp-It during 2019/20
- Save £60,000 through Green Impact Year 4

## 8.1 Charitable Funds

To further support innovative sustainable healthcare projects, Southmead Hospital Charity's Sustainable Healthcare fund delivers a range of sustainability and health and wellbeing projects for the benefit of patients, visitors and staff.

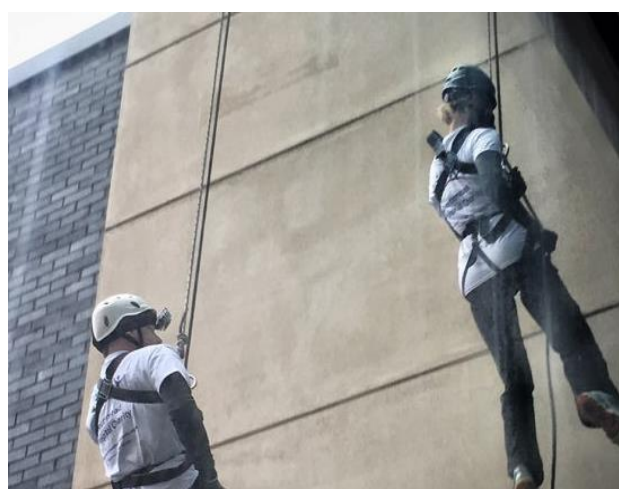
The fund aims to promote social cohesion and personal resilience through the prevention of avoidable illness through access to green space. Innovative engagement projects such as the Lavender Project, the Green Gym, and other engagement activities such as a staff and patient allotment and improving green spaces on our sites will promote health and wellbeing.



### Southmead Hospital Lavender Project

The Lavender Project is led by volunteer Chris Lindop and the Move Makers at Southmead Hospital. The project encourages staff, volunteers and the local community to get involved in making and selling homemade lavender bags from lavender grown on site.

This is the third year the project has run, raising over £1000 in total during 2018/19. The proceeds have been used to plant new lavender beds at the Hospital and will continue to be used to enhance our outside spaces for staff, patient and wildlife benefit.



### Charitable Donations

During 2018/19, local businesses and staff took part in various fundraising activities to raise money for the Sustainable HealthCare fund.

A huge thank you to GKN Aerospace, a global company based locally whose staff raised over £1800 for the Hospital Allotment Project.

Thanks also to our Sustainable Development Manager and her husband for abseiling off the Hospital building, raising another £470 for the funding pot.

## 9. Reporting

North Bristol NHS Trust has an obligation to report progress on sustainable development in line with national reporting requirements.

The NHS Standard Contract requires the Trust to take all reasonable steps to minimise adverse impacts on the environment. The contract specifies that North Bristol NHS Trust 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 HM Treasury sustainability reporting template on behalf of NHS England and Public Health England.

The Department of Health requires Trusts to report ERIC (Estates Return Information Collection) data. ERIC data comprises essential statistics on waste, energy and water from Estates and Facilities.

The national Sustainability Strategy also requires Trusts to report on progress against sustainable development in a Trust Board approved SDMP. Progress against the SDMP is reported to the Steering Group quarterly and Trust Board 6 monthly, before final approval and publication in September each year. North Bristol NHS Trust's annual SDMP report is available on the Trust website:

[www.nbt.nhu.uk/sustainablehealthcare](http://www.nbt.nhu.uk/sustainablehealthcare)

## 10. Risks and Opportunities

Risks and opportunities related to sustainable development are managed by the Sustainable Health and Capital Planning service through the Environmental Management System within the Directorate of Estates, Facilities and Capital Planning.

Significant risks and opportunities associated with compliance obligations, objectives, targets and project delivery are reported directly to the Director of Estates Facilities and Capital Planning and FM Board through the management review process.

These risks and opportunities are also communicated to the Sustainable Development Steering Group and to Trust Board twice a year. Significant sustainability risks are recorded on the Trust's risk register and managed accordingly.

## 11. Sustainable Development Indicators

Theme	Indicator	Metric	2015/16	2016/17	2017/18	2018/19	Trend
Carbon Emissions	Scope 1 (gas, oil, fleet, anaesthetic gas)	(tCO <sub>2</sub> e)	13,820	13,132	13,907	13,724	
	Scope 2 (electricity)	(tCO <sub>2</sub> e)	21,236	20,067	17,515	14,162	
	Scope 3 (NHS supply chain, waste, travel, etc.)	(tCO <sub>2</sub> e)	70,665	79,694	81,207	86,311	
	Total Carbon (Scopes 1, 2 & 3)	(tCO <sub>2</sub> e)	105,721	112,893	112,628	114,197	
Energy	Electricity consumption	kWh	36,937,547	38,828,428	39,295,816	40,147,116	
	Gas consumption	kWh	42,548,780	42,115,642	46,759,825	45,390,730	
	Oil consumption	kWh	865,098	543,381	892,324	765,375	
Onsite Renewable Energy Generation	Biomass	kWh	1,548,610	2,722,499	463,088	0	
	Solar	kWh	23,813	39,717	36,057	44,396	
Water	Water	m <sup>3</sup>	261,961	241,944	351,561	389,225	
Waste	Recovery	tonnes	196	227	1,972	1,779	
	Landfill	tonnes	1,231	1,487	191	204	
	Recycling	tonnes	1,561	1,266	518	386	
Travel	Grey Fleet	miles	1,072,470	532,744	409,137	461,973	
	NBT Fleet	miles	-	-	-	540,792	N/A
	Electric Fleet	miles		14,473	18,094	16,163	
Anaesthetic Gas	Desflurane	litres	338	216	159	131	
	Isoflurane	litres	53	12	11	8	
	Sevoflurane	litres	214	273	294	279	
	Nitrous oxide	litres	613,800	477,900	432,000	442,800	
	Nitrous oxide with oxygen	litres	10,629,500	10,877,700	10,078,200	10,588,800	

## Contact Us

### We 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  
Sustainable Health and Capital Planning  
North Bristol NHS Trust  
Trust Headquarters  
Southmead Hospital  
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[www.nbt.nhs.uk/sustainablehealthcare](http://www.nbt.nhs.uk/sustainablehealthcare)

