

Inspected and rated

Outstanding 



The Newcastle upon Tyne Hospitals  
NHS Foundation Trust



# Shine

Sustainable Healthcare in Newcastle

**Sustainability Report**  
**2016-17**





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# 1. Introduction

The Newcastle upon Tyne Hospitals NHS Foundation Trust's first Sustainability Strategy was launched in 2011, closely followed by the first Sustainable Development Management Plan (SDMP) in 2012. Our SDMP is the action plan with which to deliver the key aims of our strategy. In 2016 our strategy was redeveloped to reflect the *Sustainable Development Unit's (SDU) Sustainable Development Strategy for the Health and Social Care System 2014-2020*. In September 2016 our new Sustainable Healthcare Strategy 2016-2020 (incorporating our SDMP for 2016-2018) gained Board approval.

Building on our Trust commitment to deliver Healthcare at its very best – with a personal touch, our vision for sustainability is for us to **deliver these outstanding services within the available environmental and social resources, protecting and improving health now and for future generations**. This means working to reduce carbon emissions, minimising waste and pollution, making the best use of scarce resources, building resilience to a changing climate and nurturing community strengths and assets.

We have started the transition to deliver more sustainable healthcare services and communities. This report highlights where we have successfully reduced our environmental impact, saved money and improved patient

and staff wellbeing, all during a year of increasingly tight financial constraints. This report celebrates a successful year for the team and introduces our new Shine logo and brand to further promote sustainability within the Trust and beyond.

This Annual Sustainability Report, for 2016-17, aims to demonstrate our progress towards the key aims of our Sustainable Healthcare Strategy. The initial section of the report shows an update on our overall performance, using key performance data and historical trends, whilst the following section provides detailed progress reports for each of our SDMP key action areas.

**We have successfully reduced our environmental impact, saved money and improved patient and staff wellbeing, all during a year of increasingly tight financial constraints**



# How we plan to deliver sustainable healthcare at its very best, with a personal touch



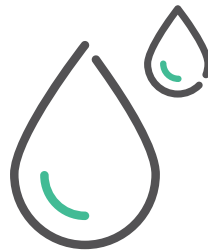
## Energy

Using energy more efficiently and transitioning to lower carbon energy sources



## Waste

Moving up the waste hierarchy: dispose of less, reuse and recycle more



## Water

Eliminating wasteful use of this precious resource



## Buildings & Land

Providing healthy and biodiverse spaces for patient and staff wellbeing



## Journeys

Encouraging active and sustainable travel for all



## Purchasing

Working with our supply chain to deliver ethical and sustainable procurement



## Care

Developing low carbon care pathways and adapting our services with climate change in mind



## People

Inspiring, empowering and motivating our people to embrace sustainable healthcare

# 2. Overall Performance Update

## 2.1 Good Corporate Citizen Assessment Tool

To support NHS Trusts with the implementation of sustainability, the SDU have developed a model called the Good Corporate Citizen (GCC) Assessment Tool. The GCC is a qualitative self-assessment tool for NHS Trusts to evaluate and monitor progress against sustainability, and identify areas for improvement and actions for a Trust's SDMP ([www.sduhealth.org.uk/gcc/default.aspx](http://www.sduhealth.org.uk/gcc/default.aspx)). The tool consists of over 400 questions in nine sections and provides an excellent means of measuring progress in implementing sustainability across a healthcare organisation.

The GCC performance graph (figure 1) shows our progress over the last five years. We first completed the GCC tool in 2012, repeating it every two years until 2016. Then, with the development and approval of our new Sustainable Healthcare Strategy we committed to completing this every year. Our 2017 scores show an improvement in each category and our overall score has moved from 51% in 2016 to 58% in 2017.

**To support NHS Trusts with the implementation of sustainability, the SDU have developed a model called the Good Corporate Citizen (GCC) Assessment Tool.**

Good Corporate Citizen (GCC) Assessment Performance

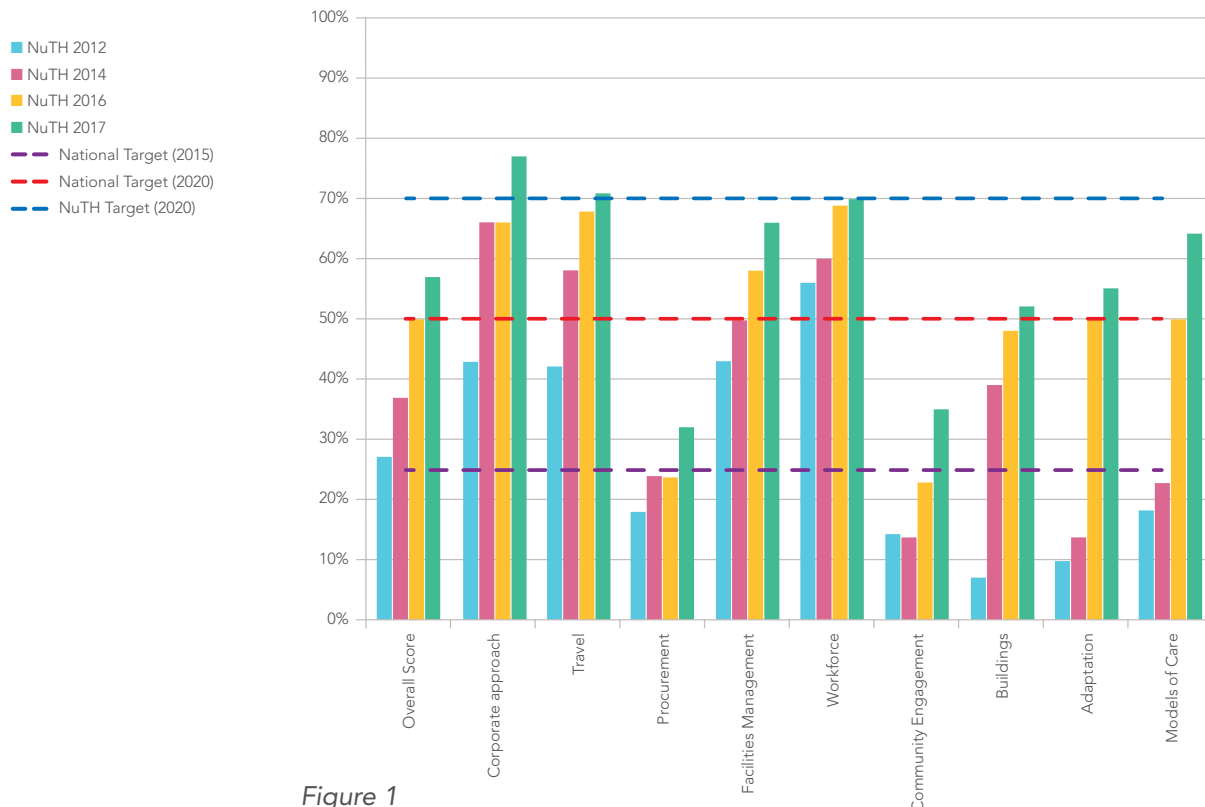


Figure 1

## 2.2 Carbon Footprint

The carbon footprint graph (figure 2) shows the carbon emissions associated with our Building Energy use, our Water use, our Waste and for the first time our Travel and Procurement (supply chain) emissions. As you can see from the graph, we have a significant challenge ahead of us to reduce our carbon emissions to achieve the target by 2020. The orange bar at the end of the graph shows the 2020 target, which is a 28% reduction in emissions from a 2013 baseline.

The graph shows us levelling off our emissions from building energy, waste and water use over the last four years. Whilst this doesn't demonstrate the rate of progress we need to achieve our absolute reduction targets, when this is considered against an increase in our building space (8% increase in our floor space since 2013) and increase in activity (patient contacts up 4% since 2013) it shows we have achieved relative carbon emissions reductions in these areas. Whilst our carbon intensity has reduced we know that we still have some significant challenges ahead of us to achieve our 2020 target.

Trust Absolute Carbon Emissions (showing 2020 target)

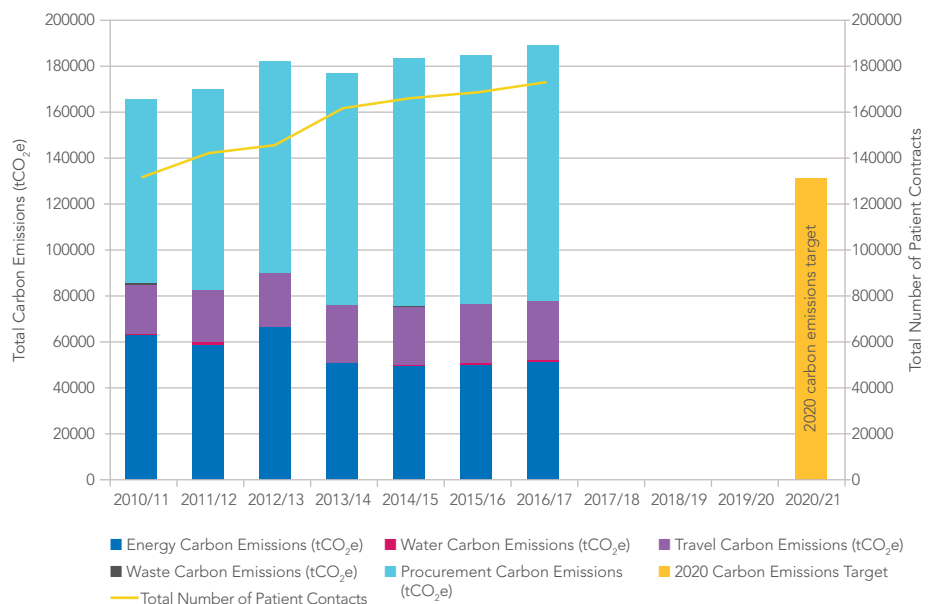


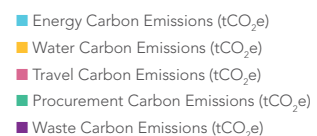
Figure 2

Figure 3 shows the total carbon emissions associated with our building energy use, water use, our travel, procurement and waste for 2016/17.

Trust Absolute Carbon Emissions (2016/17)



Figure 3



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## 2.3 Environmental Performance Data

Our overall environmental performance data, with historical trends, is presented for reference in the table below. This year, for the first time, we have been able to calculate and backcast our travel and procurement data to generate carbon emissions for these categories (using SDU recommended calculations). As previously mentioned, more detailed updates on progress in our key action areas are outlined in Section 3.

**This year, for the first time, we have been able to calculate and backcast our travel and procurement data to generate carbon emissions for these categories.**







Environmental Performance Data		2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Energy	Electricity imported (kWh)	13,815,699	10,384,543	13,603,713	14,690,626	10,181,446	12,135,292	9,598,663
	Electricity exported (kWh)				8,072,236	11,913,094	9,559,200	11,196,097
	Gas usage (kWh)	268,065,517	259,259,594	283,775,283	256,661,771	269,476,845	263,081,262	279,013,869
	Oil usage (kWh)	344,400	358,520	590,271	560,443	734,716	1,041,27	1,420,945
	Carbon emissions (tCO <sub>2</sub> e)	63,111	58,898	65,858	50,335	49,188	49,996	51,060
Waste	High Temperature Disposal (t)	165	197	218	239	251	290	270
	Heat Treatment (t)	1,484	1,454	1,472	1,536	1,554	1,659	1,689
	Landfill (t)	1,726	0	0	0	0	0	0
	Energy Recovery (t)	579	1,980	1,875	1,879	1,741	2,001	1,891
	Recycling (t)	326	710	905	920	1,056	1,216	1,183
	Total Waste (t)	4,280	4,341	4,470	4,574	4,602	5,166	5,033
	Recycling rate (non-clinical)	12.4%	26.4%	32.6%	32.9%	38.1%	42.3%	40.6%
	Carbon emissions (tCO <sub>2</sub> e)	502	131	138	182	186	206	204
Water	Water usage (m3)	484,596	491,855	488,417	431,693	457,611	509,960	458,037
	Carbon emissions (tCO <sub>2</sub> e)	387	452	447	454	481	537	482
Travel	Patient Transport (miles)	1,110,616	1,257,569	1,304,173	1,365,161	1,314,908	1,266,668	1,235,687
	Visitor Transport (miles)	46,000,654	49,666,570	50,722,387	56,612,693	57,771,389	58,806,302	59,923,749
	Staff Commute (miles)	9,619,733	11,280,475	10,488,882	10,720,973	10,897,246	11,152,770	11,464,010
	Total Travel (miles)	56,731,003	62,204,614	62,515,441	68,698,827	69,983,542	71,225,740	72,623,446
	Carbon emissions (tCO <sub>2</sub> e)	21,359	23,419	23,536	25,382	25,714	25,758	26,247
Procurement	Supply Chain Spend (£)	£284.42M	£305.07M	£316.64M	£349.83M	£382.76M	£383.13M	£395.24M
	Carbon emissions (tCO <sub>2</sub> e)	80,491	87,548	92,588	100,896	107,983	108,424	111,852
<b>Total Carbon Footprint (tCO<sub>2</sub>e)</b>		<b>165,850</b>	<b>170,449</b>	<b>182,568</b>	<b>177,250</b>	<b>183,553</b>	<b>184,922</b>	<b>189,845</b>

Figure 4

# 3. Key Action Areas

## 3.1 Energy

### PERFORMANCE

Carbon emissions from building energy use have remained largely constant over the last four years, with 2016/17 emissions increasing just 1% since 2013/14. As Trust activity has increased at a greater rate during this period the carbon intensity of our building energy use has reduced.

**2016/17 emissions increased by just 1% since 2013/14.**

Carbon Emissions from Building Energy Use

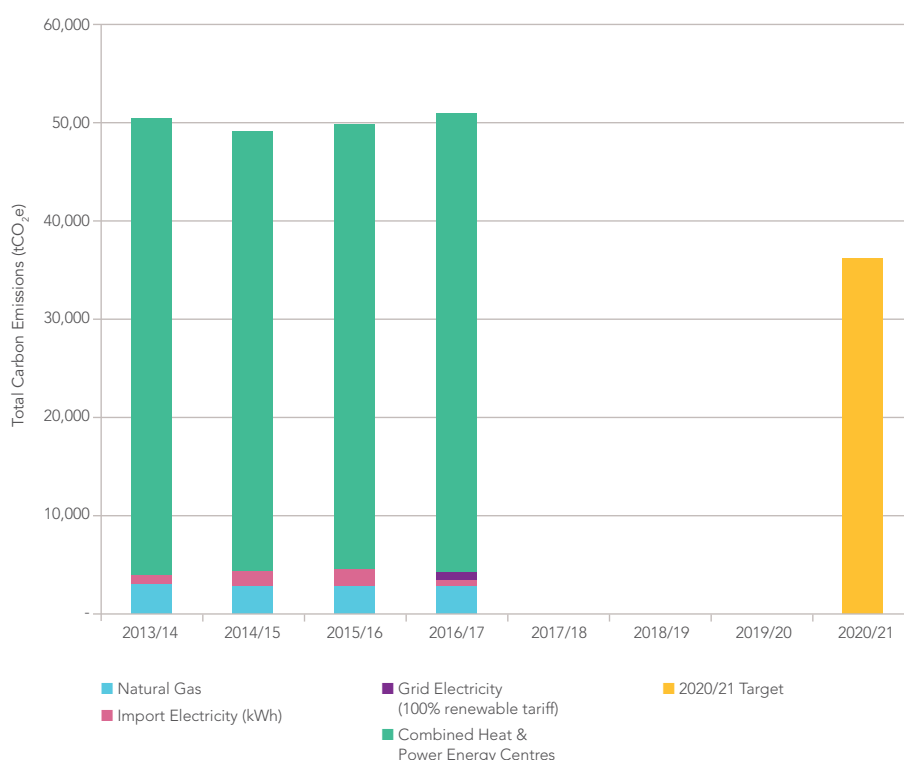


Figure 5

Annual Energy Consumption Breakdown

Year	CHP Energy Centres				Other Supplies		
	Natural Gas (kWh)	Oil (kWh)	Import Electricity (kWh)	Exported Electricity (kWh)	Natural Gas (kWh)	Import Electricity (kWh)	100% Renewable Tariff Import Electricity (kWh)
2013/14	240,125,421	560,443	12,589,563	8,072,236	16,536,349	2,101,063	
2014/15	253,522,934	734,716	7,179,017	11,913,094	15,953,911	3,002,429	
2015/16	247,105,704	1,041,271	8,678,339	9,559,200	15,975,558	3,456,954	
2016/17	263,325,181	1,420,945	6,188,715	11,196,097	15,688,688	1,758,067	1,651,882

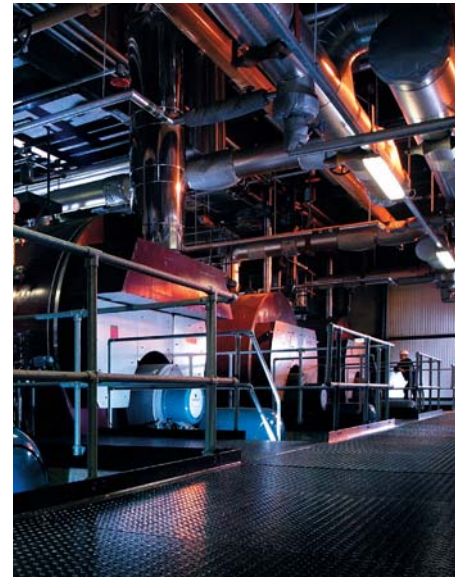
Figure 6



## ACTIONS AND ACHIEVEMENTS

As one of the early adopters of combined heat and power (CHP) within the NHS, the Trust has benefitted from the efficiencies of utilising waste heat from electricity generation on our sites for many years. These CHP energy centres at the RVI and Freeman hospital sites represent 90% of Trust building energy emissions (see figures 5 & 6). Effectively utilising the free heat from our energy centres is an ongoing area of focus. For example, pipework insulation has been improved in a number of plant rooms across the Freeman Hospital site.

In the face of rising energy prices, the Trust has been reviewing its approach to energy procurement to ensure best value. Since October 2016, the Trust has switched to a 100% renewable tariff for all supplies outside of the energy centres. The review intends for all energy centre import electricity supplies to also be sourced from a 100% renewable tariff.



During the last year, the Energy Management Group has been developing an Energy Strategy for the Trust. This aims to set out the key objectives to embed energy management best practice within Trust culture, supported by good quality data and management systems to enable a step change in performance required to meet the 2020 carbon emissions reduction target and to deliver the building energy targets agreed in our SDMP.

## PLANS FOR NEXT YEAR

As well as finalising and publishing the Energy Strategy in the early part of 2017/18, next year plans include replacing older heating calorifiers at the RVI site and exploring improved control strategies to better match demand patterns with the heat available, reducing site requirements for additional gas for space and water heating.

Efforts to reduce electrical demand are also progressing. **New, higher efficiency engines are due to be installed at the RVI energy centre in summer 2017 which will result in future carbon savings.** Opportunities for onsite renewable energy generation are yet to be explored but the SDMP commits to completing a full feasibility assessment in 2017/18.

A programme of weekly energy audits across site was recently established and will be rolled out next year. As well as identifying specific energy saving opportunities to feed into our Energy Management Programme, it is hoped that the face to face conversations with a wide range of staff will help share and highlight existing best practice and encourage broader engagement in energy saving and the sustainability agenda more generally. This will be further supported by our planned roll out of 'Green Impact' (see section 3.9) which incorporates energy saving actions.

**Efforts to reduce electrical demand are also progressing. New, higher efficiency engines are due to be installed at the RVI energy centre in summer 2017 which will result in future carbon savings.**

### CASE STUDY:

Building on the success of lighting projects in previous years which installed LED technology at the RVI multi-storey car park and street lighting at our Freeman Hospital site, the Trust now fits low energy LED fittings as standard in our ward refurbishments. We also continue to roll out LED projects across non-clinical areas of our sites.

Recently the RVI Estates Department offices benefitted from exchanging 133 light fittings, replacing with only 69 LED fittings to achieve equivalent lighting levels. The new fittings reduce maintenance costs as well as shrinking electrical load by 60% from 7.2kW to 2.9kW. Over the course of a year, this will save £1,300 and 5.5tCO<sub>2</sub>e. This is particularly beneficial at the RVI as, due to extensive site development since the Energy Centre was built in 2000, grid electricity is imported during the daytime in the week when the offices are occupied and lit.

2017/18 will see the further roll out of LED in the RVI Leazes and Claremont wings, focussing on corridors, toilets and shared break out areas and incorporating automatic sensor controls to avoid unnecessary lighting when spaces are unoccupied.





## 3.2 Waste

### PERFORMANCE

Trust Waste Segregation & Performance from 2013

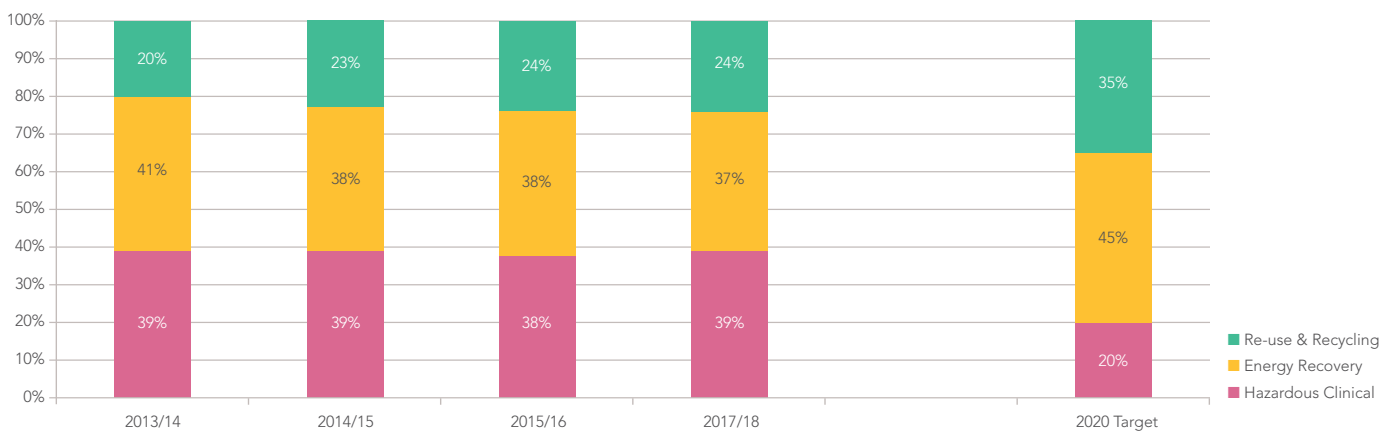


Figure 7

Figure 7 shows the segregation of all waste, both clinical and non-clinical, since 2013 along with our 2020 target. Our recycling rate for non-clinical waste was 40.6% in the last year (see figure 4 in Section 2.3). This was achieved despite challenging circumstances in the waste industry such as more demanding quality criteria for recyclable material at waste sorting facilities leading to some consignments being rejected because of low level contamination, mostly food.

### ACTIONS AND ACHIEVEMENTS

Targeted awareness training and a further increase in recycling opportunities across the Trust have helped maintain a focus on waste segregation in key areas, even in those previously considered not possible - highlighted for special mention below.

A trial of using non-infectious (tiger) bags for healthcare waste has recently concluded and been demonstrated to work successfully in both outpatient and inpatient areas. With some very clear routines relating to the containment of waste from known or suspected infectious patients this has been demonstrated to work well and will be much more extensively implemented across all hospital sites in the coming 12-18 months.

A move away from classifying waste as 'hazardous' and towards a situation where waste will be considered as safe for energy recovery without pre-treatment is envisaged and this will aid both compliance and cost savings as well as being better environmentally.



## PLANS FOR NEXT YEAR

Looking forward to the next year, as well as the roll-out of the non-infectious healthcare waste stream in several areas of our hospitals highlighted above, we will widen the scope of the Warp-It surplus furniture and equipment portal to include staff across the hospital wards and departments who will all be able to check items and availability and so avoid unwanted procurement costs and waste disposal. Already this has had a significant impact and we hope to more fully report on its success in next year's update.

Finally it is anticipated that we will be able to take large steps towards the recycling of food waste from several areas of the hospitals, including catering departments and franchise areas. This will move waste up the Waste Hierarchy and will also contribute towards cost savings.

**The impact in terms of waste awareness and volumes for recycling has been enormous. The Freeman Hospital has had to increase the frequency of recycling collections to cope with the additional volume.**

### CASE STUDY: Recycling in Central Operating Theatres (Freeman Hospital)

An initiative aimed at segregating and recycling the huge volume of PVC facemasks, saline bags and lines that are used in our theatres was started in the Central Operating Theatres in September 2016. The results from that initiative alone are impressive with over 1 tonne of PVC being diverted from incineration or heat treatment to date. This initiative covering 20 theatres will be rolled out to the remaining 38 theatres across the Freeman and RVI during 2017.

A very welcome consequence of this project was to focus the minds of staff working in the theatres on the thorny issue of recycling inside the theatres and anaesthetic rooms themselves. In particular the huge volumes of packaging material that is routinely disposed into either black or orange bags. Completely recyclable packaging often ends up as residual waste or infectious waste for unnecessary heat treatment.

Previously this had been thought of as being in the 'too difficult' box and not something that would work very well. However with a little imagination and very little investment it was discovered that clear bags could be utilised in the most unobtrusive of places and that staff were convinced to spend an extra second or so to completely separate the clear film front from the paper backing from instrument packaging to ensure large volumes of recyclable material. The impact in terms of waste awareness and volumes for recycling has been enormous. The Freeman Hospital has had to increase the frequency of recycling collections to cope with the additional volume.



### 3.3 Water

#### PERFORMANCE

##### Annual Water Usage & Associated Carbon Emissions

Year	Water Use (m3)	Carbon Emissions from Water (tCO <sub>2</sub> )
2013/14	431,693	454
2014/15	457,611	481
2015/16	509,960	537
2016/17	458,037	482

The last year has seen a 10% reduction in site water use since the year before, taking site usage back down to 2014/15 levels. Overall use is still 6% higher since 2013/14 but the Trust hopes to continue the recent trend towards our 2020 carbon emissions targets through continuing improvements in water management.

Figure 8

##### Water Use & Associated Carbon Emissions

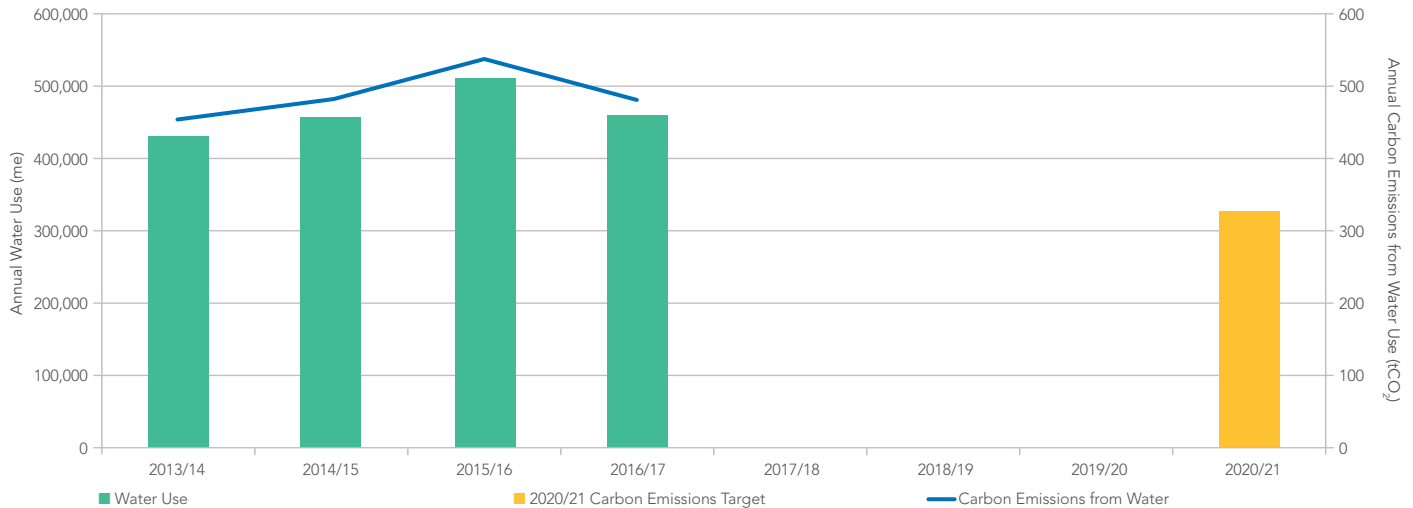


Figure 9

**The improved water metering system will continue to be developed, supported by water audits to understand more clearly how water is used across our sites.**

#### ACTIONS AND ACHIEVEMENTS

The Trust has very proactive water quality management procedures in place that have already reduced daily flushing times from 10 minutes to 3 minutes. Recent trials in the Dental hospital have gone further, reducing daily flushing routines to 1 minute with no negative impact on water quality. Initial data indicates that this has reduced the morning peak demand by 20%.

There is also ongoing work to improve site water metering and processes are being developed to quickly identify and respond to potential leaks.





## PLANS FOR NEXT YEAR

Reducing the daily flushing times down to 1 minute will continue to be trialled at the Dental Hospitals with plans to roll out as the new standard across more areas of the Trust estate where viable. The improved water metering system will continue to be developed, supported by water audits to understand more clearly how water is used across our sites and identifying prioritised areas for water saving interventions.

Other projects of note include the Freeman site water main which is being replaced following a series of small but not insignificant leaks that have affected overall water usage to date. Plans have also commenced to renew the reverse osmosis (RO) water treatment plant that serves the Renal Services Centre at Freeman Hospital. RO treatment is very water intensive so a more efficient system has huge water saving potential.

### CASE STUDY: Reduced Flushing Trial

Currently the standard is for all outlets (such as taps and showers) to be manually opened for 3 minutes each day to prevent a build-up of harmful bacteria in the water. This is a necessary process but it does result in substantial water use so the team are keen to minimise wasted water whilst still maintaining the Trust's high water quality standards.

In January 2017, the Water Quality and Decontamination Team were given approval to trial a reduced daily flushing routine from 3 minutes per outlet to 1 minute at the Dental Hospital.

The trial was a success, with no deterioration on the water quality tests whilst substantially reducing water use.

As the graph shows, there is a large water use peak in the morning as a result of the flushing regimes.

Comparing the equivalent week in 2016 and 2017, a substantial reduction in peak water use can be seen. Averaged between 7am and 10am, the trial showed a 20% reduction in this peak use.

*Note: the Dental Hospital is only open Monday to Friday but in other areas of the hospital, flushing peaks occur every day of the week.*

The team plans to extend the trial further during 2017/18. Based on this early data, if 1 minute flushing becomes the new Trust-wide standard, savings are expected to be in the region of 5% of total water use, equating to approximately 20,000m<sup>3</sup> of water and 20tCO<sub>2</sub> each year.

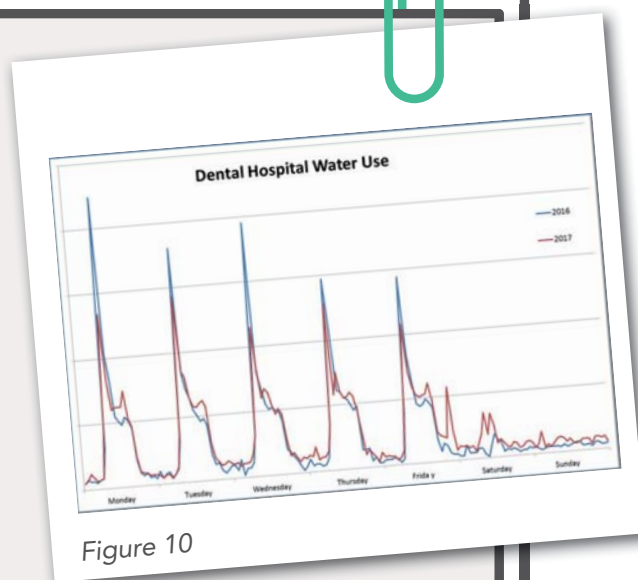


Figure 10



## 3.4 Buildings & Land

### PERFORMANCE

GCC Performance Score				
	2012	2014	2016	2017
Buildings & Land	8%	40%	49%	53%

Figure 11

Our GCC score has increased again this year to 53%. Originally our lowest scoring area in 2012, the actions and improvements taken by the Trust mean we have now exceeded the national 2020 target of 50%.

**We have considerably more green space at Freeman compared to the RVI, with scope to link with several departments to introduce outdoor rehabilitation, and future potential to develop biodiversity links to nearby Paddy Freeman's Park. The CMP could contribute to the wider public health and ill health prevention agenda.**

### ACTIONS AND ACHIEVEMENTS

Students of Northumbria University have produced a 5 year Site Management Plan for our RVI site. The plan was created to increase the levels of biodiversity at the RVI and includes objectives to manage new and old trees, create wildlife corridors, install educational facilities and improve habitats in potential areas of high biodiversity.

To meet our SDMP commitment students from Northumbria University are currently compiling a Conservation Management Plan (CMP) for our Freeman site. We have considerably more green space at Freeman compared to the RVI, with scope to link with several departments to introduce outdoor rehabilitation, and future potential to develop biodiversity links to nearby Paddy Freeman's Park. The CMP could contribute to the wider public health and ill health prevention agenda. Once we have an understanding of our baseline level of biodiversity at the Freeman site we can look to improve biodiversity, improve access to our green spaces to aid in both staff and patient health and wellbeing and improve awareness of the biodiversity of our green space.

### PLANS FOR NEXT YEAR

Once the Freeman CMP is completed we will be able to bring the recommended improvements together with those suggested at the RVI to inform the specification of the new grounds maintenance contract renewal.

The Head of Environmental Management, James Dixon, has set up a Newcastle Sustainability Network. Members of the network include the Head of Sustainability at Newcastle University and the Sustainability Adviser at Northumbria University, representing two other significant land owners in the city. This provides an opportunity for the different groups to collaborate on green space and biodiversity in the future.



### CASE STUDY:

As part of the NHS Forests "Plant 2 at 2" campaign we planted two English Oak tree saplings in the grounds of the Freeman Hospital on NHS Sustainability Day 2017. This supports our SDMP commitment to enhance the biodiversity and accessibility of our external spaces.

There are many health and wellbeing benefits to tree planting at our hospital sites, in addition to the environmental benefits for biodiversity and carbon capture. There is growing scientific evidence to show that hospital gardens can help with stress reduction in staff, patients and visitors, and improve patient recovery rates.



## 3.5 Journeys

### PERFORMANCE

Travel is one of our key sources of carbon emissions. The impact of transport is significant as it also contributes to poor air quality as a result of other pollutants such as carbon monoxide and nitrogen oxides. Better air quality is proven to reduce respiratory ailments like asthma and bronchitis, reduce the risk of life-threatening conditions like cancer, and lessen the burden on our healthcare system.

The three years following the baseline year were relatively constant at 5-7% higher than in 2012/13; however, there was a significant 12% increase in travel CO<sub>2</sub>e emissions this year from the baseline year. The increase in CO<sub>2</sub>e is in part due to increased availability of data; for example this is the first year we have been able to report the emissions from air travel and owned vehicles, though total business travel and fleet only represents 4% of the 27,318tCO<sub>2</sub>e from travel this year.

The largest increase in CO<sub>2</sub> comes from the increase in patient contacts as the carbon figure is generated using an average travel distance of 9.4 miles (15km) and 3.7 patient and visitor journeys per patient contact. Increasing staff numbers has also increased the staff commute emissions annually though there are travel initiatives in place to encourage the use of public transport and active travel.

Travel CO<sub>2</sub>e

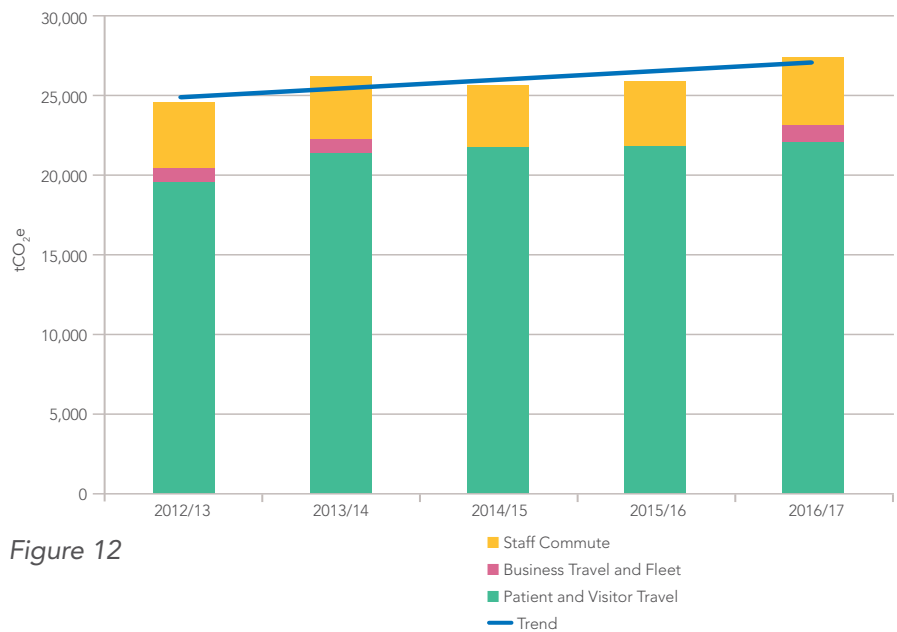


Figure 12

### ACTIONS AND ACHIEVEMENTS

#### Staff Travel Plans

The Newcastle Upon Tyne Hospitals Foundation Trust has a comprehensive Travel Plan Strategy that sets out how the corporate commitment to efficient and sustainable transport is supported by an action plan at each individual site.

The first travel plan was produced in 2000 with subsequent travel plans produced in 2003, 2006, 2010 and 2012.

The Travel Plan objectives can be summarised as:

- To maximise the **supply** of the best possible access to goods and services
- To manage the **demand** for each transport mode in a way that best meets the aims of the Trust.

Despite the Trust being spread over several main sites the latest staff travel survey in 2010 found a relatively low proportion of car use at the two main hospital sites. This is in keeping with the progress of previous travel plans and the restrictions on car parking, and supported by free staff travel between the 4 sites.

The Trust runs a shuttle bus between the Newcastle upon Tyne NHS Foundation sites. This is free for staff and provides a valuable service that saves on car journeys. This service is constantly monitored and changes are considered in order to increase the overall net benefit to the Trust and to the City. The Trust also has an arrangement in place with the local Arriva bus provider to provide free travel between Haymarket (near the RVI) and Regent Centre (near Regent Point offices) for staff, again allowing lower carbon travel between Trust sites.



### Patient transport services / operational logistics

The North East Ambulance Service (NEAS) provides pre-planned non-emergency transport for patients who have a medical condition that would prevent them from travelling to a NUTH treatment centre by any other means, or who require the skills of an ambulance care assistant during the journey.

In 2016/17 the planned Patient Transport Mileage (PTS) was 1,235,687 miles which has resulted in 446.6tCO<sub>2</sub>e emissions. This is a 2.5% reduction on the 458.1tCO<sub>2</sub>e from 1,266,668 miles last year and 9.0% lower than the PTS emissions in 2012/13 (baseline year).

Despite increasing patient numbers we have seen a reduction in our planned patient transport mileage largely thanks to the carbon reduction efforts of the NEAS. Driver training and efficient route planning has reduced unnecessary emissions. We are working in partnership with them to ensure the best patient experience, with the smallest impact.

### PLANS FOR NEXT YEAR

In order to achieve our 28% reduction in travel CO<sub>2</sub> emissions by 2020 based on a 2013 baseline we will need to reduce our CO<sub>2</sub> by 13% annually from this year's emissions. We plan to reduce the CO<sub>2</sub> from our Courier service by combining contracts, with better route planning to ensure journeys are not duplicated unnecessarily and by working with the suppliers to reduce fleet emissions and train drivers to drive more efficiently.

**Despite increasing patient numbers we have seen a reduction in our planned patient transport mileage largely thanks to the carbon reduction efforts of the NEAS.**

### CASE STUDY: Cycle Scheme

Staff have access to the Cycle to Work Scheme through Benefits Everyone. The Cycle to Work scheme is an initiative to encourage active travel and reduce environmental pollution. It enables those who wish to cycle to work access to a tax-free benefit.

Key benefits of the Cycle to Work Scheme include improved employee health and wellbeing, increased productivity, reducing the impact of traffic on the local community, employee retention and motivation, and a reduction in the need for car parking spaces.



## 3.6 Purchasing

### PERFORMANCE

The carbon embedded in the products and services we buy represents the largest proportion of our total CO<sub>2</sub> footprint. We have a well-established Sustainable Procurement Policy to support the Trust and the NHS wider community in achieving its aims and objectives for a sustainable future.

Our Sustainable Procurement Policy ensures that goods and services are procured in a way that achieves value for money on a whole-life basis, not only generating benefits to the organisation but also to society and the economy, whilst minimising damage to the environment.

Supply chain CO<sub>2</sub> has increased year on year as a result of increased Trust spending. The Sustainable Development Unit (SDU) attributes an average carbon factor for spend in each of the categories included in figure 13. The 2015/16 and 2016/17 data has been modelled on the SDU predictions for acute Trusts with our total spend and modified to be in line with the pattern of previous years' allotment of spend.

**Our Sustainable Procurement Policy ensures that goods and services are procured in a way that achieves value for money on a whole-life basis.**

Procurement CO<sub>2</sub>



Figure 13

### ACTIONS AND ACHIEVEMENTS

**Our Supplies staff have received formal training on sustainable healthcare procurement practices. Increased staff awareness on sustainable procurement will generate significant benefits, including increased efficiency, improved risk management, reduction in carbon, cost savings, improved supplier diversity & progress towards the Trust's sustainability targets.**

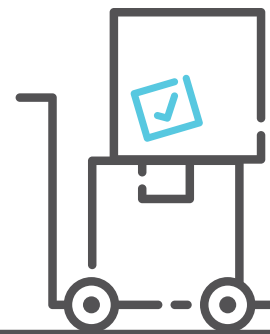
- Reducing CO<sub>2</sub> impact from the supply chain

Medical instruments and equipment, and pharmaceuticals represent the largest proportion of our procurement CO<sub>2</sub> emissions and offer the biggest opportunities to reduce our carbon footprint.

Steps have been made to reduce the CO<sub>2</sub> impact of our supply chain. Sustainability is included in Trust business strategies and investment proposals, and considered in all Estates and Facilities business cases. All purchases over £50k now receive Environmental Management Team consultation for specification and evaluation amendments.

- Considering social value in the supply chain

Health is determined by a complex mix of factors including income, housing and employment, lifestyles, and access to healthcare and other services. Therefore, addressing social inequalities can have a positive impact on an individual's health outcomes as well as improve local economic output. Buying locally ensures the money spent in the area remains and benefits people in the area.



## PLANS FOR NEXT YEAR

Our Procurement staff will receive formal training on sustainable healthcare procurement practices next year.

We plan to work with more suppliers and look at ways to reduce the impact of what we procure. We hope to reduce the amount of packaging on the products we use. This will have many benefits: reduced

resource use, reduced weight and size for transport, and reduced emissions as a result of disposal.

We also plan to utilise the Ethical Procurement for Health workbook to reduce the negative impact of our procurement practices on communities.

**Supporting local food producers is an investment in the local community and local economy and is a way to reconnect people with where their food comes from and how it is produced.**

### CASE STUDY:

The Freeman Hospital at NUTH was the first hospital in the Shelford Group of elite specialist NHS teaching Hospital Trusts to achieve the Silver Food for Life Catering Mark for food served to patients as well as visitors and staff through the restaurant. The Silver standard rewards food providers for their ingredient spend on ethical and environmentally friendly food, locally sourced ingredients and steps to offer healthier menus.

As we have increased the number of local producers and suppliers we have been able to reduce the number of food miles associated with our foods. Supporting local food producers is an investment in the local community and local economy and is a way to reconnect people with where their food comes from and how it is produced. Research into Catering Mark menus has demonstrated a social return on investment of over £3 for every £1 spent, mostly in the form of increased jobs and opportunities for local food producers.

After achieving silver in the award in 2016 and retaining it this year, we are now in discussions with suppliers to look at how we can increase the provision of local, organic, seasonal and Fairtrade food in order to achieve gold in 2017/18.



## 3.7 Adaptation

### PERFORMANCE

GCC Performance Score				
	2012	2014	2016	2017
Adaptation	11%	15%	51%	56%

Figure 14

**To ensure that our services continue to meet the needs of our local population during such events we have detailed resilience plans in place for extreme weather events and other climate related impacts, developed with our Business Continuity team and Emergency Preparedness Resilience & Response group.**

Our 2017 GCC score for adaptation has risen to 56%. The significant jump in our score from 2014 to 2016 coincides with the appointment of Theresa Glennie, Head of Business Continuity, to the Trust. Theresa has engaged with the Sustainable Healthcare Committee and been pivotal in improving the Trust's understanding of potential risks and improving resilience through engagement with local stakeholders.

### ACTIONS AND ACHIEVEMENTS

Events such as heatwaves, cold snaps and flooding are expected to increase as a result of climate change. To ensure that our services continue to meet the needs of our local population during such events we have detailed resilience plans in place for extreme weather events and other climate related impacts, developed with our Business Continuity team and Emergency Preparedness Resilience & Response group.

We have a board approved Trust Climate Change Adaption Plan. The plan was agreed at the Business Continuity Operational Group and then signed off by the Emergency Preparedness, Resilience and Response (EPRR) Strategy group before being agreed by the Trust Board.





## PLANS FOR NEXT YEAR

Following the last meeting of the North East Local Resilience Forum (LRF) Chairs and the success of the joint LRFs development day a LRF symposium event has been arranged. James Dixon will be attending to discuss adaptation and encourage others to develop plans locally. The event will allow us to demonstrate the progress of exemplar Trusts (like NUTH) in order for this success to be replicated, and to share the lessons learned from collaboration.

**The health sector in England has made a collective commitment to address sustainable development and climate change, in order to develop more resilient services and improve the health of the population.**

## CASE STUDY:

The health sector in England has made a collective commitment to address sustainable development and climate change, in order to develop more resilient services and improve the health of the population.

Theresa Glennie requested for the EPRR lead for the North to hold an event which would allow a variety of health care providers to come together, to share best practice and ensure the North East is developing robust adaptation plans.

The event was attended by James Dixon along with Theresa Glennie and Ian Baxter (Consultant Anaesthetist, keen on sustainable healthcare) from the Trust. James travelled to the event in the Trust Leaf to lead the way with sustainable travel.





## 3.8 Models of Care

### PERFORMANCE

GCC Performance Score				
	2012	2014	2016	2017
Models of Care	19%	24%	51%	65%

Figure 15

Our GCC score for Models of Care has increased year on year to 65%, now exceeding the national 2020 target of 50%. Significant progress has been made in the time since Christine Eddy, Deputy Director of Nursing & Patient Services and Moira Hill, Community Dietetic Manager, joined the Trust's Sustainable Healthcare Committee.

### ACTIONS AND ACHIEVEMENTS

We continue to introduce lean, low-carbon, care pathways for sustainable healthcare closer to home. This includes using the 'making every contact count' approach for patient interactions – encouraging healthcare professionals to use each interaction with patients as an opportunity to identify lifestyle factors that could be negatively impacting on their health.

### PLANS FOR NEXT YEAR

Our award winning community outreach services will continue to expand every month and we expect to extend our provision of Telehealth services to further empower our patients.

We will continue to seek to establish the carbon footprint of key care pathways, to identify hotspots and implement actions to reduce the carbon footprint.

### CASE STUDY: Care closer to home

Care closer to home provides an opportunity for reduced hospital admissions and shorter hospital stays; which is beneficial to the patient and reduces the carbon intensity of the care. NUTH are working to be able to provide care closer to home for our patients.

Bone-marrow transplant patients at the Freeman Hospital in Newcastle no longer have to travel out of the region to receive some of their treatment, thanks to collaboration between local hospital charities and the Newcastle upon Tyne Hospitals NHS Foundation Trust.

North East blood cancer charity, Bright Red, has joined forces with the Freeman Hospital's Ward 33 Haematology Fund (Newcastle Hospitals NHS Charity) to purchase two ECP machines, at a total cost of £60,000, for bone marrow transplant patients at the Freeman Hospital. Previously around twenty patients per year who could benefit from this treatment have to travel to Rotherham which necessitates an overnight stay just at a time when their immune systems are compromised or they may be too sick to travel. (<http://www.newcastle-hospitals.org.uk/news/news-item-22401.aspx>)





## 3.9 Culture

### PERFORMANCE

Staff engagement in the sustainability agenda is an integral part of embedding a culture of sustainability at the Trust. As of 2017 sustainability is embedded in the Trust induction, which all new staff attend, in the form of a hand out and a rolling presentation.

Our annual staff sustainability survey aims to understand the awareness and understanding across our workforce, of sustainability, sustainable healthcare and its value. This year we had 1,697 responses, which is slightly

less than the 2,296 responses received in 2015. 98.94% of respondents agreed it was fairly/very important for our trust to work in a more sustainable way. Also, 38% believe the Trust should make sustainability a top priority as part of the way we work in the future - an increase from the 2015 sustainability survey.

We have a commitment to deliver at least one sustainability awareness event each year in the Trust SDMP. Two awareness events were held in 2016/17.



**We will continue to seek to establish the carbon footprint of key care pathways, to identify hotspots and implement actions to reduce the carbon footprint.**

### ACTIONS AND ACHIEVEMENTS

#### • Sustainability Awareness Events

The first event was a staff focused event at the staff festival in the summer of 2016, where the team connected with approximately 400 members of staff. The second event was a stall at each of the two main hospital sites for visitors and staff to find out more about the work of the Trust's Sustainability Team and also to invite them to offer their ideas about sustainability opportunities, on NHS Sustainability Day 2017.



#### • Green Champions & Green News

We have a network of 187 Green Champions - staff who are passionate about being sustainable in the workplace. Representing both clinical and non-clinical services, our Green Champions cover almost every ward and department, helping to communicate sustainability messages throughout the Trust and encourage best practice. **Achievements of our Green Champions this year include: introducing PVC recycling in Central Ops and engaging staff on wider recycling opportunities in the department, and increasing recycling in Freeman CCU with the potential to save £10,000 per year.**

The Sustainability Team produces a quarterly newsletter 'Green News' which is sent out to the Green Champion network, available to all staff via the intranet and the public via the Trust website. The newsletters provide an update on new schemes and achievements, including the great work our Green Champions have done to improve the sustainability of NUTH.

**There is clear evidence of sustainability being integral to the Better Health at Work activities; examples include the promotion of use of stairs rather than lifts, active travel, and Meat Free Days.**



North East  
**Better Health**  
at Work Award  
Silver Award

- Silver in Health and Wellbeing Awards

The North East Better Health at Work award (BHAWA) is delivered by a range of local NHS Trusts, local authorities and other providers, who provide support to employers across the region. Following the appointment of a Health Improvement Practitioner for the Trust, NUTH were awarded the Silver Award in February 2017.

This year 41 new 'Health Champions' have been trained to help provide support to staff on a variety of wellbeing schemes, including: helping staff stop smoking, creating a better awareness of how health can be affected by work activities, asking staff what health issues they would like help with and running subsequent health improvement campaigns to address the most popular topics. We now have a total of 69 engaged Health Champions across the Trust.

There is clear evidence of sustainability being integral to the Better Health at Work activities; examples include the promotion of use of stairs rather than lifts, active travel, and Meat Free Days.

#### PLANS FOR NEXT YEAR

In the annual staff sustainability survey just over half of the respondents stated they were unaware of the sustainability work at the Trust. In order to improve awareness of sustainability and how staff and visitors can help deliver the aims of our sustainable healthcare strategy, we plan to more actively communicate with our Green Champions and develop a brand identity for our work and launch this in summer 2017 – watch this space!

**nus**

**green impact**

- Green Impact

Next year we will launch Green Impact at NUTH. Run by NUS, together with the Centre for Sustainable Healthcare, the Green Impact scheme will see staff form teams to complete pro-environmental actions in friendly competition with each other.

Currently run in over 280 organisations, including universities, colleges, hospitals, local authorities, fire stations, and private-sector organisations, Green Impact provides a framework which will empower staff to make real changes in their wards and departments.

We will be working with Northumbria University to offer students environmental auditing experience as they volunteer their time to come and audit the work done by each team, following training from NUS.



- **Green Champions**

We have plans to develop our Green Champions network next year by offering additional training for staff to help improve their understanding of sustainable healthcare and increasing the frequency of communications. We will also be creating a range of posters and other materials which will support the Green Champions in promoting our sustainability messages to staff around the Trust.

- **Events**

Our first ever annual events plan has been created for 2017/18 and includes a number of events which goes well beyond our Sustainable Development Management Plan commitment of one event per year.

In addition to our usual awareness stall at the staff festival in the summer we will also be running waste and energy events led by the Waste Manager and Energy Manager respectively. These events will help raise awareness of the work done by the Sustainability Team and promote good behaviours to both staff and visitors.

- **Better Health at Work Awards**

Next year the Trust is looking to improve on the Silver award achieved this year by going for gold! The criteria for this next stage include engaging people beyond the workforce, to create a healthier community. Therefore staff will be encouraged to take the messages and changes home with them to promote health and wellbeing amongst their family, friends and neighbours.

### CASE STUDY:

- **Meat-free days at Freeman**

Reducing meat consumption is just one example of a healthier, more sustainable diet. It can provide triple benefits to people, planet and pocket.

Meat free days offer the chance for staff, patients and visitors to the hospital to try some healthier food choices. Getting the balance right can help maintain a healthy body weight, which lowers your risk of obesity, type 2 diabetes and heart disease - our meat-free days can help people achieve this. You can get all the nutrients you need from a well-planned balanced vegetarian diet and this can provide people an opportunity to try some new foods too – potentially increasing the variation of nutrients consumed and preventing deficiencies due to bad diet. Consuming plant-based sources of protein, like beans and peas results in a higher intake of fibre, protein, folate, zinc, iron, and magnesium.

A healthier planet can be achieved with less carbon emissions coming from the food we consume – of which meat is a large contributor (meat production contributes to 18% of the world's greenhouse gas emissions). By switching to one meat free day a month, for a year, each patient/visitor/staff would save the equivalent of over 200 days of water use for the average UK citizen and the carbon emissions from boiling 4,660 kettles.

Meat alternatives cost less to buy and cook, therefore they are economical to use and reduce food bills. Research performed by Oxford University found that £1.2 billion in NHS costs (and 45,000 lives) a year would be saved in the UK by people reducing their meat intake. One measure of the success of the meat-free aspect of the project is that there has been no reduction in takings of the number of people served on the meat-free day each month.

- **Fresh food boxes**

For a small monthly fee staff can sign up to have a box of fresh fruit or vegetables delivered to them at work. Though the boxes are only currently available from the Freeman Hospital and Regent Point staff from other areas are able to arrange collection from one of the sites.

The fruit and veg boxes provide a cheap way for staff to get regular, seasonal fruit, vegetables and salad each month – promoting healthy eating.

# 4. Our Team



## Final Word

**"It's been a busy year for the team. Jason and Cara have quickly settled into their roles within the Trust and were joined in 2016 by Amy and Laura, offering some much needed support! We've achieved a lot in the short space of time that we've had the team at full strength and this was confirmed with us being shortlisted for two of the NHS Sustainability Day awards and gaining a certificate of excellence for our Sustainability Reporting for 2015-16. I'm excited for what we have planned in the coming year."**

James Dixon  
Head of Environmental Management  
James.dixon@nuth.nhs.uk  
0191 282 1503



*Photo: Our Sustainability Team, from left to right: James Dixon (Head of Environmental Management); Laura Middlemass (Environmental Management Team Administrator); Amy Johnston (Assistant Environmental Officer); Jason Mitchell (Waste Manager) and Cara Tabaku (Energy Manager)*





Little  
actions can  
have great  
impacts