



Sustainability Strategy 2022 - 2027

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REVISIONS

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It is intended that this document covers the period 2022 to 2027, with annual reviews in order to ensure it maintains relevance and suitability to the goals of the University and its developing estate.

Responsibility for the review and amendment of the strategy will reside with the Estates directorate, with the University Sustainability Board being notified of the status of the strategy and any significant amendments on an annual basis.

The last such notification to the Board was on the adoption of the strategy on the 2nd August 2022.

Summary of changes since last review

Initial issue no changes

Executive summary

The planet is warming at an unprecedented rate and the Humber region is one of the coastal regions around the world officially listed as at high risk due to rising sea levels and increasing flood threat.

Recognising that global and national improvement will only be made with local and individual commitment and action, the University is actively seeking to employ operating practices that integrate environmental integrity with a concern for the physical and social fabric of the campus.

This Strategy outlines how the University of Hull will manage and control its environmental impacts and, by setting realistic targets and monitoring progress towards their attainment, the University will strive for a continual improvement in its environmental performance and will work towards sustainable operating practices that have a net zero impact. Of equal importance will be to disseminate the information gathered and inform the University population of actions being taken and cultivate the knowledge and awareness this engenders amongst students and staff.

University of Hull recognises that it can only achieve effective control of its environmental performance if it knows what impacts are being created by its activities and operational practices. Accordingly creating accurate and accessible data sources will be central to the success of this strategy and also in facilitating research and innovation from the wider University community.

Sustainable improvements to environmental performance will not be achieved from a one-off process and the University recognises that progress will be incremental and require sustainability to be integrated within the day to day activities of all aspects of the University operations.

However, the University has set a number of ambitious targets to give direction to this progress and includes Sustainability as a core element of its current strategy development vision. Key targets include:

- Carbon Neutral Campus by 2027
- To reduce the overall University owned estate water consumption by 50% compared to the 2018/19 baseline by 2027
- No waste will be sent to landfill
- Increase EV charge point availability to encourage use of non-fossil fuel powered vehicles
- Create a whole campus ecosystem by ensuring the connectivity of habitat rich “islands”
- Aim for new build construction projects to be carbon neutral in performance

The management of the University’s environmental performance will develop and evolve as the University itself grows and evolves, but through the monitoring of

impacts and proactive and collective action, it will generate continuous and sustainable improvements to its environmental impact and embed these improvements as the normal operating practice of the University.

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INTRODUCTION

The University of Hull is committed to operating as a sustainable organisation and minimise any negative environmental impact. Sustainability is one of the key elements of the University's Strategic Plan with the University pro-actively working towards ensuring a sustainable future in all areas of the University's activities.

The University has already successfully taken measures aimed at improving its performance regarding energy consumption, biodiversity, water usage and waste disposal. This strategy aims to develop these further and establish and embed working methods that continue to promote sustainable and ethically responsible use of natural resources.

The overarching aim of this strategy is to facilitate the effective control and management of the environmental impacts generated by University operations and by doing so enhance the student experience and contribute to an improved reputation of the University of Hull.

Fundamental to creating the necessary effective management control are:

- The identification of the sources of environmental impact and the current level of those impacts
- To use this data to establish baselines and to implement effective and regular monitoring, to demonstrate improvements across all sustainability areas and across all University activities
- To use the knowledge of our resource consumption and environmental impact to identify short, medium and long-term opportunities for improvement that are realistic, achievable, measurable and sustainable
- Make the data available to the wider University community so as to facilitate research and innovation in sustainability and environmental management and technologies
- To raise awareness amongst all staff and students of the activities that generate environmental impacts with the aim of engendering changes in attitude and behaviour that support improved environmental performance and the wider sustainability objectives

This strategy aims to provide the framework by which the University of Hull can realise the benefits associated with improving its environmental performance and as a result deliver more people-friendly, efficient and sustainable operating practices, facilitating the continued enhancement of the staff and student experience.

The University has recognised the impact of climate change and the need to adopt more sustainable operating practices. As a result, the University has made a commitment to become a net zero emitter of carbon and achieve a carbon neutral campus by 2027.

Biodiversity and ecosystems are affected by the presence and operation of the University and the aim is to ensure both are considered as central elements to the design and maintenance of the estate. There is a recognition that these systems are dynamic and evolve with time, as do the needs and physical structure of the University. There will

therefore be a constant flux within the biodiversity provision as ecosystems are impacted by estate developments, mitigations provided to compensate for any negative effects and opportunities taken for positive intervention.

Water is an often overlooked resource consumption and waste stream. The University is committed to treating water as a valuable commodity and ensuring its use is carefully managed. In most areas of the University operations there is limited “process” water usage with the bulk of the consumption believed to be associated with “domestic” use (toilets, washing etc.) and food preparation. The focus of attention in the short term therefore will be in ensuring the aging distribution infrastructure is fit for purpose and taking opportunities to minimise usage.

It would be naive to ignore the fact that resource consumption, whether it be energy, water, food or indeed any of the myriad of finished goods procured, represents a significant cost to the University. By managing the resources it consumes in the most sustainable manner, the University aims to control that expenditure and benefit from limiting its operational costs.

By making data from environmental management activities available to the wider University community the intention is to support and facilitate research and innovation and enhance learning opportunities.

Making the University’s performance available to all staff and students is a means by which sustainability and environmental management can be integrated into the collective consciousness and become a motivator for behavioural change.

The University appreciates that establishing effective and sustainable control over its resource consumption and environmental impacts will not be instantaneous, there is no immediate solution that will reduce energy consumption and no single intervention that will limit emissions from travel and waste streams. The goals of the University will be met by numerous actions and involve a great number of people.

With the growing international, national and local focus on sustainability, the language and terminology used continues to evolve and, in some cases, currently lacks broad consensus understanding and definition. To avoid doubt where it is believed to be the case, the University will clarify the basis of its targets and achievements.

CURRENT POSITION

Carbon Emissions

In 2011, the University published its first Carbon Management Plan. The plan set a target of reducing Scope 1 and 2 CO₂ emissions by 34% by 2019/20 using the 1990 baseline of 19,090 tCO₂e. This targeted reduction equated to a 2020 figure of 12,599 tCO₂e.

The target did not however reflect the considerable changes that would be seen in the size and type of buildings within the University estate, nor did it reflect the introduction of more energy intensive teaching methods and facilities.

For the 2019/20 reporting year, the Scope 1 and 2 CO₂e emissions totalled 8,541 tCO₂e. Using the 1990 baseline figure of 19,090 tCO₂e, this equated to a 55.26% reduction in emissions. It is important to note that the COVID-19 lockdown was in place for some of this period which is reflected in the lower than expected carbon emissions, nevertheless, the University had made a significant reduction in carbon emissions through a number of improvements to its estate, specifically its engineering infrastructure.

Looking forward, the effect on the working environment and operation of the University created by the Covid-19 pandemic means the energy usage and carbon emissions from the 2020/21 reporting year are unlikely to be a representative indicator of the University's current or likely future carbon footprint.

The University has therefore adopted the 1st August 2018 to 31st July 2019 reporting year to be the basis of its carbon management baseline and will use this data set as the starting point for the strategy to achieve carbon neutrality.

Using this energy data, a baseline position of the scope 1 and 2 emissions has been established for the whole University estate and for the main campus site (the subject of the carbon neutral aim):

	Whole Estate
Carbon emissions:	11,030 tCO ₂ e
Energy consumption	52,480 MWh

Considering just the main campus the consumption and carbon emissions become:

Carbon emissions:	9,415 tCO ₂ e
Energy consumption	45,238 MWh

The immediate aim of the University is to create a carbon neutral campus by 2027, eliminating this 9,415 tCO₂e by installing solar PV arrays, making consumption savings through energy efficiency measures, by converting fossil fuel consuming heating plant to electrical supplies and adopting appropriate offsetting schemes as necessary.

It is the intention of the Carbon Neutral Campus project that it provide a blueprint for the de-carbonisation of the remainder of the University Estate, and form a key milestone on the

road to becoming a net zero carbon emitter across the whole of the University and its operations.

The Carbon Neutral Campus is a critical waypoint in the sustainability agenda for the University but this ambition being the first step on a longer journey does not diminish its importance or the challenges in achieving it.

Greater detail in how the Carbon emissions of the University are to be managed and reduced can be found in the separate Carbon Management Strategy document.

Water

The University uses large volumes of water to support its activities, most of this is connected with the provision of domestic water services for toilets and washrooms with onsite catering being another significant source of consumption.

Water consumption will be a necessary aspect of many taught courses and research activities. It is the intention in these areas to provide information to these faculties and departments of what that consumption is and to work with them, where appropriate to identify where reductions in consumption could be made.

Where appropriate, the University will seek to adopt rainwater harvesting systems with the intention of reducing the volume of water resources it consumes.

Water sub-metering will be adopted across all the campus buildings and high-volume consuming plant and equipment. The value of this data will be not only in managing incoming water supplies but also in controlling wastewater discharges and providing information to research activities within the University, notably in the area of Sustainable Urban Drainage systems.

As with Carbon emissions and Energy consumption the University's 2018/19 financial year will be taken as the consumption period that will form the baseline for improvement over the period covered by this document.

The major targets for water consumption are:

1. To reduce the overall University owned estate water consumption by 50% compared to the 2018/19 baseline by 2027
2. Introduce building level monitoring of water consumption across all campus buildings by 2027
3. Benchmark water consumption against other Universities
4. Report bi-annually to the Sustainability Board

Waste Management

The University has recognised that while there is a base level of waste that will be generated by the normal operation of the University, the impact of overzealous resource consumption will have a negative impact on waste volumes and the University's

environmental impact. There is therefore an immediate need to adopt more sustainable operating practices that reduce over consumption and thus prevents the resource consumption at source, rather than managing it via the waste disposal process.

As waste is generated by everybody using the University facilities, there will need to be actions taken by all to reduce those volumes.

The approach to manage and reduce waste volumes will be:

- Establish robust monitoring processes to clarify the source and magnitude of waste being generated
- Utilise the data gathered to establish the current position and regularly update the position to stakeholders
- Identify anomalies in usage to be investigated and resolved
- Identify opportunities to reduce over consumption and thus waste volumes and implement projects to realise those savings

By making data from waste management activities available to the wider University community, the intention is to support and facilitate research and innovation and enhance learning opportunities, as well as heightening awareness and engendering a change in behaviour.

Behavioural change by everyone is a key element in managing waste and especially recycling. By making the University's performance available to all staff and students, it is hoped that it will integrate waste into the collective consciousness and generate consistently good decision making regarding disposal routes.

The effect on the working environment and operation of the University created by the Covid-19 pandemic means the waste generation and volume of recyclable material collected in the most recent reporting years are believed to be an unrepresentative measure of the University's current position.

Standardising on the adoption of the 2018/19 reporting year for baselines is as relevant to waste as it is energy and water consumption and it is this data set that will be used as the starting point for the strategy to reduce waste volumes and against which to measure progress.

In 2018/19 the University created 1,060 tonnes of waste from residential and non-residential sources. (This excludes waste created as part of capital projects to the buildings on campus).

Under the current waste arrangements, no waste from the University goes directly to landfill, all waste is sent either to recycling facilities or to be incinerated for energy production. This "zero waste to landfill" aim will remain the default stance of the University.

The major targets with regards to solid waste disposal are:

1. No waste will be sent to landfill
2. Where capital projects create inert, non-recyclable waste, this will be re-used on-site wherever possible
3. Increase the recycling rate so that 50% of the combined residential and non-residential waste volume goes for recycling by 2027

4. Report to Sustainability Board on waste levels at least bi-annually

Travel and Transport

The overarching aim of the travel and transport strategy of the University of Hull is to make available to all staff and students, the opportunity to commute to the University, by whichever means has the lowest environmental impact possible for their own personal circumstances.

Additionally, the University recognises that providing the infrastructure to facilitate different transport methods can itself create negative environmental impacts. Land consumption for car parks results in loss of biodiversity and habitat that must be mitigated. The provision of welfare facilities to support cycling options can increase water and energy consumption and some public transport options may have minimal or no benefit in terms of emissions, relative to car use.

In short, there is a recognition that there is no “one size fits all” solution applicable to all staff and students and that every travel option comes with a range of advantages and disadvantages, both to the environment and the individual.

The University is committed to providing a range of options to facilitate each person being able to make commuting decisions that best balance their wellbeing needs and the environmental impacts created by that choice.

Initial plans and targets include:

1. Installation of enhanced EV charging infrastructure. Phase 1 being installation of 10 new charge points by Q2 2022/23
2. Commitment to facilitate car sharing for staff and students
3. Providing low cost cycle hire on campus
4. Introducing salary sacrifice schemes aimed at promoting electric car and electric bike usage

Biodiversity

Biodiversity and ecosystems are an integral element of the University. Inevitably the presence of the campus and the activities on site will impact biodiversity and the habitats and ecosystems present and vice versa. There are, however, many ways in which the University can, and does, make a positive impact.

The University campus already contains a range of habitats and ecosystems. The campus covers over 55 hectares and within that, grassland constitutes the largest single component, covering over 32 hectares in total. These grassed areas contain trees and shrubs, which are also present in cultivated beds and woodland areas. Also present are open water areas and some areas of green walls and roofs. These areas support a range of species and habitats and the strategy for biodiversity is to enhance these areas and ensure they are “joined”, so rather than having habitat rich “islands” supporting a small range of species, we create a whole campus ecosystem.

The University aims to continue its approach of seeking to accommodate and encourage the greatest diverse mix of ecosystems and habitats as possible and encourage a wide range of species that can survive and flourish cohabitating within the University estate and its operations.

The University recognises that there is a balance to strike between interventions to enhance the aesthetic value of the campus and pursuing a less intensively managed approach that allows ecosystems to develop naturally and areas to better support and encourage a range of species with which we can share our environment.

A campus offering a high visual amenity is an important element to the wellbeing of staff and students and adds to the social fabric of the University. Similarly, the presence of a rich and varied collection of habitats and ecosystems can also have a positive effect in promoting a local environment conducive and supportive to the academic activities of the University.

As with other areas of sustainability, the presence of a biodiverse campus will provide opportunities to enhance student learning by providing an environment to develop practical skills associated with taught courses. Additionally, by demonstrating and communicating the actions being taken to support and nourish ecosystems throughout the campus, we will raise awareness throughout the whole University community of the possibilities and benefits this brings.

The more immediate aims and targets to manage and enhance biodiversity on campus are:

1. Reinvigorate the identified conservation area to improve grass species quality. To be completed by Spring 2024
2. Continue to leave grassland margins uncut during growing and flowering season. Additionally, identify areas where a low intensity mowing regime could be established to encourage wildflower growth (by Spring 2024)
3. Reinstate Peregrine nest box on the Library roof prior to nesting season in 2025
4. Provide deadwood habitats within woodland blocks and around grassland margins, with the aim to start this process by Winter 2023
5. Introduce wildflower planting as part of landscaping plans for proposed solar PV arrays, which the aim that this be in place by 2023
6. Adopt a “peat free” stance for the provision of topsoil and compost needed for the maintenance of the campus

Construction and Refurbishment

As the University enters a phase of development of its built environment, it does so with the main strands of its current strategic vision, namely people and sustainability, firmly at the core of those developments.

The intention is that new build and refurbishment projects will prioritise sustainability in their designs. This focus on sustainability will not be limited to the carbon emissions generated from the operation of the building once complete, but will take a much broader view incorporating:

1. Low impact construction methods. The University will explore the most appropriate construction methods and materials rather than simply following the established industry standard approach
2. Optimise building insulation levels and airtightness to limit the heating and cooling loads in operation
3. Maximising the support the building can give to biodiversity and ecosystems. The incorporation of elements, such as living walls to both boost biodiversity, but also limit the impact of solar gains and contribute to the mental wellbeing of those using the building
4. Water usage – the installation of rainwater harvesting for use in suitable systems
5. Incorporation of low water use sanitary appliances to limit water resource consumption and waste water production
6. Use of heat recovery within all building ventilation plant
7. Integrate intelligent control systems to allow flexible operation of lighting and heating systems
8. Provision made with the building for clear and intuitive waste collection facilities, so that high recycling rates can be facilitated

Sustainable Procurement

Sustainable procurement is an area of increasing concern with the value of procured goods being a highly significant proportion of the University's annual turnover.

Procurement of goods and services needs to reflect a sensitive and sustainable procurement policy, by working with suppliers to reduce the environmental impact of the goods and services used, whilst ensuring value for money is still maintained.

The University recognises that the purchasing decisions carry environmental implications and recognises the need to procure goods and services in a sustainable manner.

The aim of the University's Sustainable Procurement Policy is to prompt staff involved throughout the procurement of goods and services to use environmental and social responsibility as a factor in their purchasing decisions.

Staff involved in the procurement of goods and services should avoid using suppliers or purchasing products which are likely to:

- Endanger health
- Cause significant damage to the environment (e.g. by buying products that are not biodegradable or contain CFCs etc.)
- Consume a disproportionate amount of energy (e.g. a battery requires 50% more energy to produce than it will ever give out in its life)
- Cause unnecessary waste
- Use materials derived from threatened species or environments (e.g. tropical hardwoods)
- Involve the unnecessary use of or cruelty to animals

- Adversely affect other countries
- Cause danger or hardship to employees due to poor working conditions, discrimination or poor health and safety
- Have a negative impact on the local economy or community in which the products are produced

The following is proposed as a checklist for sustainable and environmentally friendlier purchasing:

- Is it essential that the product is bought?
- How efficiently will the product use resources during its lifetime and have the costs of operating been taken into consideration before purchase?
- How durable is the product? Is it rechargeable, repairable, refillable or reusable?
- Can the product be recycled at the end of its useful life?
- Are recycled materials used in the product?
- Is it made from properly managed, renewable resources?
- Is the product likely to emit toxic or polluting substances during its production, use or disposal?
- Is the product over packaged? Is the packaging made from recycled materials? Can the packaging be recycled after use or reused?
- Have the 'whole life' costs and impacts been considered when assessing equipment for purchase?
- Where items are of similar costs, can preference be given to those that are manufactured with a high re-cycled content?
- Can suppliers who can demonstrate that they are committed to anti-discrimination (in areas such as age, sex, religious beliefs, disability etc.) be favoured?
- Where suppliers manufacture the products overseas are the employees paid the minimum wage for the country?
- Where suppliers manufacture the products overseas can they demonstrate that they are committed to improving working conditions, working hours, minimum age for employment and employee welfare?
- What is the Energy Efficiency of any electrical appliances (you should select Category A or B for products carrying an EC energy label)?