UNIVERSITY OF HULL

THE UNIVERSITY OF HULL ENVIRONMENTAL SUSTAINABILITY STRATEGY 2018/19

Executive Summary

Subject to annual review and presentation to our senior management The University of Hull environmental strategy is committed to delivering exceptional environmental management and
resource sustainability in order to minimise the impact of its operations on the natural world.
This forms one of the key objectives highlighted in the University's 2016-2020 Strategic Plan:
"4.4.5 Environmental Sustainability
The University remains committed to promoting sustainable development in the natural environment.
As an anchor institution, we will take a leading role in promoting the sustainability of our regions. Our commitment to a sustainable environment will be manifested in our academic endeavours, our approach to managing and developing our campus, estates, facilities, transport, and activities, as well as our public advocacy. 'Energy and Environment' is one of our institutional interdisciplinary themes, and will be a strong driver of our research, enterprise, and teaching.
We will:
• Implement green strategies to reduce our carbon footprint and waste, conserve energy and water along with promoting clean and renewable sources.
• Continue to promote the inclusion of environmental and sustainability issues in our taught curricula and research agenda to provide our students with an understanding of these important challenges."
This also accords with the current Environmental Policy.

Scope of the Environmental Sustainability Strategy
Environmental sustainability refers to the long-term maintenance of valued environmental resources in an evolving human context. In order to improve sustainability we must reduce the size of our Ecological footprint by reducing the amount of resources we use, and waste and emissions we produce. This definition encourages implementation of renewable energy and energy efficiency technologies, improved soil and water management, sustainable travel, waste minimisation, and recycling. The scope of this strategy addresses each of these areas and covers all actions and responsibilities associated with the University.

Management and Reporting
The institution has a central role to play in supporting overall environmental sustainability in terms of environmental management, the use of natural resources, renewable energy technologies, and the development of sustainable communities. To fulfil this role the University will lead by example by striving to implement best practice and continually reviewing and improving its environmental

Performance via nationally recognised accreditation in carbon reduction and HE sector benchmarking schemes. The University maintains our ISO 14001:2015 accreditation status for the Lawns residential campus along with improved annual rankings in both the People and Planet and HEFCE assessments.

Procurement

In line with the current Modern Slavery Act 2015 the University has published their annual Commitment statement confirming compliance with ethical and environmentally friendly Procurement.

Investment

The University follows the direction of its Ethical Investment Policy to ensure appropriate social Compliance. We have a dedicated Carbon Reduction Budget of £200,000pa that is complimented by looking to achieve BREEAM excellence/SKA Gold for new build and refurbishments.
Larger scale energy efficiencies that require further investment are considered as stand-alone projects with separate budget allocation from our Capital Investment Plan.

Sustainability Actions

Our Sustainability Policy recognises the objectives set out by the Higher Education Funding Council for England (HEFCE) in their 'Sustainable Development in Higher Education: 2008 update to Strategic Statement and Action Plan' (HEFCE 2009/03).
Specifically, the University will aim to:
a) Raise the profile of sustainable development to become a mainstream part of University Activities, building upon section 4 of the University of Hull Strategic Plan 2016.
b) Introduce a carbon reduction culture to significantly reduce carbon emissions across our activities.
c) Integrate sustainable development into our policy-making in relation to campus operations, curriculum, and research, being open about the reasons for policy choices.
d) Demonstrate genuine efforts to promote sustainable development and extend good practice.
e) Support innovative and novel projects engaging with staff, students and stakeholders.
f) Include regional partners and business to build capacity to manage sustainable development and support good practice.
In order to deliver these objectives, the University of Hull is committed to preventing pollution and reducing its negative impacts on the environment and will contribute to the national commitment to sustainable development by:
g) Meeting all relevant UK, European and international legislative and regulatory requirements and agreements.
h) Reducing its carbon emissions by reducing energy consumption and by increasing the efficiency of consumption. We are aiming for a 5% annual reduction on 2015/16 figures. The University has recently obtained ISO 14001:2015 accreditation; within the resultant EMS process we will be detailing full F-Gas compliance, along with all with recording all other relevant emissions.
i) Considering use of renewable energy; either at source, during future construction/refurbishment projects, or by complementing energy supplies via on-site self-generation and renewable initiatives. We currently seek 'Excellant' BREEAM (or SKA Gold accreditation if more appropriate) for these type of works. .
j) Installing water conservation devices and technology, carrying out leak identification and repairs. We are aiming for a 15% annual reduction on 2015/16 figures.
k) Minimising waste by reduction, reuse, and by increasing recycling on campus and within residences. We are aiming for a 5% annual reduction on 2015/16 figures.
l) Creating a culture of energy and water conservation through training, education, curriculum,

and awareness campaigns.
m) Along with our Liftshare programme we are encouraging and facilitating modes of transport by staff and students that minimise environmental impact, and to apply environmentally friendly principles to the operation of University owned vehicles. We are aiming for a 5% annual reduction for business travel mileage on 2015/16 figures.
n) Influencing our suppliers and contractors to ensure that goods and services procured support the Sustainability Policy and, in turn, that all suppliers and contractors progressively improve their own environmental performance. Please also see the University's Environmental and Sustainable Purchasing Policy.
o) Maintaining the grounds and buildings of the University in an environmentally sensitive way, seeking to protect and enhance natural habitats and biodiversity. Please see the current University Biodiversity Action Plan.
p) Developing amongst our community the values, skills, and knowledge that students and staff need to live and work sustainably. Currently for 2016/17 we are engaging with the Student 'Switch Off' campaign, implementing a web-based student community engagement campaign, and working with the Hull City Fairtrade campaign. Further engagement to be detailed following the start of the academic year.
q) Ensuring Staff Development is a continual and ongoing process as demonstrated through the University Staff Development Team. Recent examples include ISO 14001:2015 accreditation for our Environmental Lead Auditors. This is complemented by access to a dedicated budget, appropriate tools and any relevant resources as required.

SMART Sustainability Plan 2018/19:

Proposal	Target	Responsible Person	Detail	Resource Requirement	Timescale	Projected Savings
Emissions and Discharges - Building Optimisation	**10 highest consuming buildings to achieve a 5% reduction**	**Stewart Hugill**	**Along with control optimisation buildings to be surveyed for potential reduction projects.**	**Free surveys from suppliers. Resultant projects to be funded on merits.**	**Jun-19**	**800 tonnes CO2 in total on completion of project**
LeD replacement/installation	**All replacements to be LeD**	**Maintenance Dept.**	**All light replacements will be LeD if possible**	**Undertaken as part of general maintenance and budgeted accordingly.**	**Jul-19**	**56 tonnes CO2**

Construction-New Build/Refurbishment	**BREEAM/SKA excellence or very good**	**Pat Chapman**	**All new projects to attain highest possible environmental score for works.**	**Included in Capital Works budgets.**	**On-Going**	**£200 million re-furbishment/new build scheme. CO2 savings to be confirmed following commission.**
CHP install/ boiler replacement	**5 year return on investment**	**Dave Hill**	**Replacement of in-efficient HVAC boilers.**	**£120,000 per unit subject to individual proposals.**	**Jul-20**	**106 tonnes CO2**
Education	**All staff and students to be offered access to Sustainability training portal**	**Stewart Hugill**	**On-line sustainability training availability.**	**ITC and Marketing to assist with maintaining relevance.**	**On-Going**	**26 tonnes CO2**
Space Management	**5% reduction in consumption per sqm/person.**	**Rob Labron**	**Optimisation of space within estate to reduce under occupancy rates.**	**Space Management team to manage.**	**On-Going**	**52 tonnes CO2**
HVAC Optimisation	**20% reduction in A/C unit consumption**	**Stewart Hugill**	**Successful trial complete of Coolnomix equipment**	**£500 per unit, initially £75,000 of works proposed.**	**Apr-19**	**74 tonnes CO2**
Battery Storage	**Increased resilience and 5 year payback**	**Stewart Hugill**	**To deploy a 2Mw battery to allow for better use of off peak electricity.**	**Circa £2million dependant on funding vehicle**	**Jan-20**	**N/A but better able to store future renewables and offer grid protection.**
Collection of personal heaters	**To allow BMS sensors to operate correctly**	**Stewart /H&S department**	**After collection problem heating areas can be identified and addressed.**	**H&S and Maintenance already have this covered as part of usual roles.**	**On-Going**	**Over 150 heaters collected giving a 45 tonnes CO2 saving.**

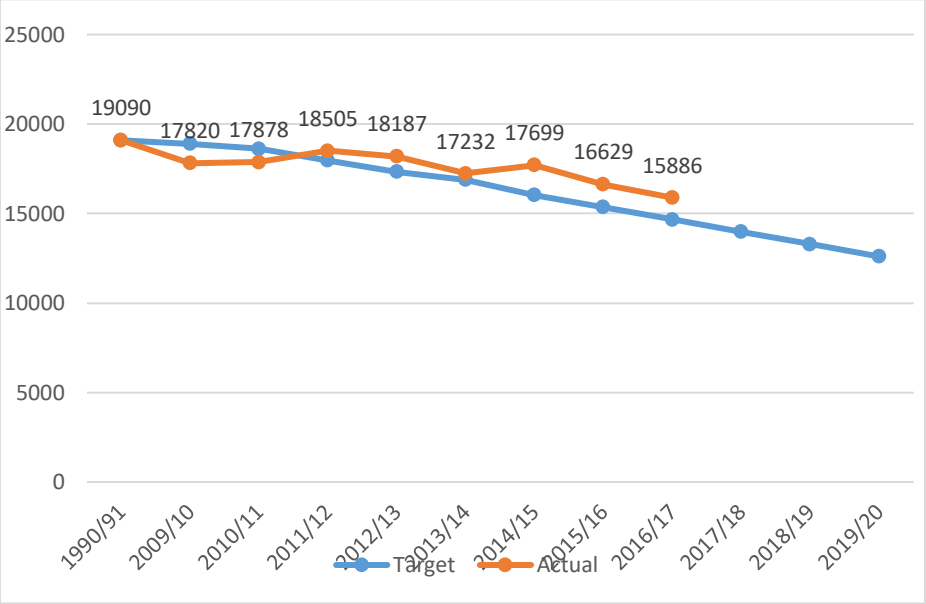
Water Mains replacement	**£90,000 pa saving through leak reduction**	**Pat Chapman**	**Replacement of existing 100 year mains.**	**£250,000 pa for three years of phased works.**	**Oct-20**	**39,130 cubic metres of water.**
Utility Retro Audit	**250,000kWh**	**Stewart Hugill**	**External auditors to check historic bills for accuracy**	**Appointment of external contractors on a share/save scheme.**	**Dec-18**	**28 tonnes CO2**
Waste - 164 tonnes/CO2	**5% reduction pa for three years**	**Stewart Hugill**	**Education**	**NUS switch off campaign to be complimented by staff/student training and improved signage**	**Throughout 2018/9**	**25 tonnes CO2 pa.**
Sustainable Procurement	**100% of all new contracts**	**Chris Gratton**	**New contracts to be compliant with Sustainability Policy**	**Procurement to implement in tenders/awards**	**Dec-18**	**5% reduction in waste, 25 tonnes CO2**
Waste -downstream disposal	**No waste to go to landfill**	**Phil White**	**Waste Contractor to confirm all waste locally treated**	**To be provided as part of contract**	**Apr-19**	**100% landfill free**
Yorkshire in Bloom Gold Standard	**To achieve award in 2018/19**	**Joe Garner**	**Grounds team to achieve Gold standard**	**To be undertaken as part of grounds maintenance**	**Apr-19**	**Reputational as this will be a cost rather than saving.**
Travel & Transport	**5% reduction in associated Scope 3 Emissions**	**Stewart Hugill**	**Adoption of updated travel plan linking Liftshare, EV and public transport**	**External contractors appointed and recruitment of dedicated travel manager**	**Jun-19**	**5.4 tonnes CO2**
Community Involvement	**Hull City Fairtrade Status**	**Stewart Hugill**	**Working in partnership with local council and community groups**	**To be included as part of current Sustainability roles**	**Jun-19**	**Reputational as this will be a cost rather than saving.**

Scope 3 travel	**5% reduction on previous HESA year**	**Stewart Hugill**	**Replacement of grounds fleet with electric vehicles**	**Budgeted within current maintenance allowance**	**Apr-19**	**5.4 tonnes CO2**

Scope 1 & 2 Emissions – The CMP sets out a series of carbon reduction measures to meet the Universities Scope 1 and 2 interim 2020 target of a reduction of 5,279 tCO2 from 2005 levels; this equates to a 16% reduction from 1990 levels. The final target contained in the plan is to reduce the scope 1 & 2 CO2 emissions from the University Estate from 19,090 tCO2/year in 1990 to 12,599 tCO^2/year in 2020; a 34% overall reduction.

Carbon Emission Data

Using the direct consumption carbon emission data extracted from the University's utility bills and as reported to HESA, the graph below outlines the University's performance in terms of actual versus targeted carbon emission reduction.



The University's current carbon consumption is reported as 15,886 tCO^2 for the most recent HESA reporting year, which is 2016/17. In terms of actual kWh performance, this equates to an annual consumption of 57,180,603kWh against the previous year's annual consumption of 64,146,590kWh, which equates to a reduction of 10.9%.

Scope 3 Emissions – Reduction targets for the Scope 3 emissions including those reported to HESA (https://www.hesa.ac.uk/) are to achieve a 5% annual reduction across all metrics. Currently emissions are reported as follows:

HESA Period	Total volume of wastewater (m3)	Total scope 3 carbon emissions from waste (tonnes CO2e)	Total scope 3 carbon emissions from water supply (tonnes CO2e)	Total scope 3 carbon emissions from wastewater treatment (tonnes CO2e)	Total waste mass (tonnes)	Total scope 3 carbon emissions from travel
2015/16	208,884	164	76	148	8849	109
2016/17	151,646	172	76	107	8619	109

The Environmental Sustainability Strategy 2017/18 functions not only to provide strategic direction to the environmental improvements implemented by the University, but also serves to communicate to staff, students, and external organisations the institution's commitment to reducing its impact on the environment. Through identification of Environmental Sustainability Indicators, the University's progress will be better monitored, quantified, and disseminated during the lifetime of this Strategy.

Stewart Hugill
Environmental & Energy Manager
July 2018