



UNIVERSITY OF LINCOLN

Investors in the Environment Manual

October 2015

Investors in the Environment – University of Lincoln

Introduction

The University of Lincoln is committed to improving its environmental performance. Over the last decade significant progress has been made towards reducing the energy consumption at the University. This has reduced costs and emissions of carbon dioxide. The next stage in the process is to measure and improve performance in other areas.

The University has had an evolving Environmental Policy for a number of years and in March 2013 an Environmental & Sustainability Strategy for the University was published. The strategy document sets out a series of environmental targets and objectives for the organisation up to 2017. The strategy document sets targets and objectives for the following topic areas:

- Waste, Recycling & Resource Efficiency
- Energy & Carbon
- Water Resources
- Sustainable Transport
- Sustainable Buildings
- Sustainable Procurement
- Biodiversity
- Education for Sustainable Development
- Communications – Staff and Student Engagement
- Environmental Management Systems
- Research Using Environmental / Sustainability Data

The medium term aim of the University is to obtain accreditation for the ISO 14,001 standard for environmental management systems.

As of May 2015 the University of Lincoln had 12,883 students and 1,482 staff. The University operates from sites at the Brayford Campus in the centre of Lincoln, Holbeach and an agricultural campus at Riseholme to the north of Lincoln. The University moved its headquarters to Lincoln from Hull in 2001, with the development of the Brayford Campus.

Sustainability Highlights for 2014/15

The University has made considerable progress towards its sustainability targets during the 2014/15 academic year. Highlights include:

- A new Environment & Sustainability Committee was established. The group has membership from the Senior Management Team at the University and has representatives from each College, professional services department and the Students' Union. The group will receive reports on the Environmental Policy and the annual sustainability report.
- The University was successful with an application for £500k in funding from the HEFCE and Salix Finance Revolving Green Fund. This is to fund energy efficiency improvements in a number of buildings around the Brayford Campus. The initial project has been to convert the lighting in the University's TV Studios to LED lighting. This has considerable student experience and health and safety benefits – as well as reducing energy consumption.

- Over the course of the year a new range of external recycling bins have been introduced at the Brayford Campus. These have space for mixed recyclables and glass waste. In addition, the University has started receiving data on the weight of residual waste collected at the Campus.
- A significant amount of funds and effort have been put into upgrading and expanding the energy sub-metering system over the course of 2014/15. Meters that were not working have been replaced and additional meters have been added.
- The University is utilising the “Learning in Future Environments” (LiFE) scheme as a method of embedding sustainability across the organisation. This scheme has been developed by the Environmental Association for Universities and Colleges (EAUC). The scheme involves reporting on various different sustainability activities – including Education for Sustainable Development. The plan is to use the Environment and Sustainability Committee as a driver for LiFE.

Step One: Environmental Policy

The Environmental Policy for the University of Lincoln was completely re-written in April 2009. The revised document was put together with the intention that the Policy would enable the University to meet the requirements of ISO 14001, if it decided to pursue this accreditation.

The environmental policy is reviewed annually to ensure that it is still relevant and meets the requirements of the University.

Environmental Policy

The University of Lincoln aims to be recognised as a university of quality and distinction. The University acknowledges that environmental responsibility plays a key part in achieving this.

This policy has been developed to promote environmental awareness across the University and will be promoted amongst staff, students, suppliers and contractors in order that everyone has a role in minimising adverse effects on the environment. The University will aim to establish a culture where environmental performance is continually improved. This will be achieved through regular reviews and the setting of challenging objectives and targets.

The University will aim to improve its environmental performance through the following areas:

Legal & Regulatory Compliance: aim to comply with all relevant environmental legislation. A register of relevant legislation will be developed, maintained and regularly reviewed.

Prevention of Pollution: look to minimise and prevent pollution from its activities wherever practicable. This will be achieved by reducing energy use and minimising water use. Waste will be minimised and where possible reused or recycled.

Energy: Continually assess and seek to reduce pollution from energy use. Energy use will be monitored and challenging targets for reducing consumption will be set. Wherever possible energy reduction possibilities will be identified and followed up.

Waste Management: Minimise waste through the judicious use of products and materials. The University will look to reduce the amount of waste sent to landfill and to identify recycling opportunities. Correct storage, collection and disposal of waste will be ensured.

Sustainable Procurement: Wherever possible, the environmental impacts of goods and services will be taken into account in major purchasing decisions. Suppliers bidding for major contracts will be asked to demonstrate that they have established environmental standards.

Water: Minimisation of water consumption across the estate. The University recognises the sensitive nature of the water courses in the immediate vicinity of its campuses and will take appropriate action to prevent contamination of water courses and groundwater.

Biodiversity: In order to understand the ecological value of the Estate surveys of the flora and fauna will be undertaken. The University will ensure that important habitat areas within its land holdings are protected.

Transport: Seek to minimise the effects on the local population of emissions, noise and fumes from vehicles travelling to and from the University campuses. By promoting a Sustainable Transport Plan, which encourages a healthier lifestyle for employees and students and reduces emissions from travel to work, the University will reduce adverse effects from transport on the surrounding communities.

Policy Availability: This policy will be made publicly available and will be communicated to staff and students. In addition, individuals and businesses working for and on behalf of the University will be made aware of the policy.

Review: The Policy will be reviewed at least annually and will be updated where appropriate.

Approval Date: 19 February 2013

Signed: Prof. Mary Stuart
Vice Chancellor of the University of Lincoln

2014/15 Update: The Environmental Policy has been left unchanged over the course of 2014/15. It will be an agenda item on the Environmental & Sustainability Committee in 2016

Environmental Champion: The responsible person for environmental matters at the University of Lincoln is the Environmental Sustainability Manager (Dan Clayton). Additionally, the University has a Carbon Reduction Manager role – this is currently a job share between Alison Wilmshurst and Cara Tabaku. In November 2015 a new Energy and Environment Officer will be appointed.

Step Two: Measuring Resource Use

Overview of the University Estate

The Estate at the University of Lincoln has changed significantly over the last decade. The University made the decision to consolidate its activities on the Brayford Campus by moving the headquarters to Lincoln in 2002. This has meant that many of the satellite sites have been closed or sold on to third parties.

In 2006/07 the University operated the following sites:

- Brayford Campus
- Cathedral Campus
- Holbeach Campus
- Hull Campus
- Riseholme Campus

By 2014 the Hull Campus had been completely vacated and the Cathedral Campus had mostly been handed over to other organisations to run. In addition, activity at the Riseholme Campus has been significantly scaled back and many of the buildings have been vacated.

In contrast the Brayford Campus has been significantly extended – several new buildings have been constructed and buildings in areas surrounding the Campus have been taken over by the University.

The overall result of these changes are that since September 2006 the total Gross Internal Area of the University's buildings has gone from 108,000 m² in 2006 to 113,000 m² in 2014. A high point of 126,000 m² of GIA was reached in 2011.

The University has an Environmental and Sustainability Strategy. This documents sets out the plans for environmental management between 2013 and 2017. The document is available to staff and students through the University's Environmental website: <http://estates.lincoln.ac.uk/sustainability/>

In addition, the University produces an annual Environmental Report and has a series of published sustainability aims and objectives for the coming year.

Resources to Measure

Electricity

The University of Lincoln currently has 23 separately billed electricity meters; however most of these are for small supplies. Over 80% of the total electricity consumption goes through the two main half hourly meters at the Brayford Campus.

Electricity is used to power plant and machinery at the University, such as ventilation units. In addition, the University has two data centres (with air conditioning), a number of other ICT rooms and lots of PCs and associated ICT equipment. Lighting of the buildings is also a considerable user of electricity.

There are also half hourly meters that cover the main buildings at the other sites – such as Riseholme, David Chiddick Building and Holbeach.

The majority of the University's non-half hourly meters have been fitted with Automatic Meter Reading (AMR) Systems, which give feedback on direct consumption. The electricity supplier makes the data available through an on-line portal and the data is fed into the eSight Energy Management System.

In addition, to the fiscal meters the Brayford Campus has a sub-meter system which records the electricity usage in each of the buildings on Campus. This information is then fed back through to the eSight energy management system.

Gas

The University has 13 separately billed gas meters. The main Brayford Campus is covered by three gas meters each of which now have automatic reading systems. The data is being made available from the supplier at half hourly intervals.

The gas is used to provide space heating and hot water in almost all buildings. In addition, gas is supplied to the kitchen areas for cooking and the laboratories for Bunsen burners.

The other buildings with gas supplies each have their own specific gas meter and the majority of these now have AMR. The Brayford Campus also has a gas sub-meter system which records gas usage at each of the buildings on Campus. Again this system feeds back to the eSight energy management software.

Water

The University has 34 water meters at its various sites. The Brayford Campus is covered by an industrial tariff and the nine meters are amalgamated on to one bill. The other sites tend to have individual water meters.

The water is used in the toilets, for showers in various buildings, in the kitchens and in the Student Village for student bedrooms and clothes washing.

The main water meters at the Brayford and Riseholme sites are fitted with data loggers from Anglian Water. These meters provide half hourly data on water consumption.

Fuel Oil

The Riseholme Campus is not currently connected to the mains gas network. Therefore, the Campus gets its hot water and space heating from fuel oil (red diesel). There are six storage tanks around the Campus that are used to store oil. The oil is used to provide hot water and space heating to the Campus.

Records of each oil delivery are kept to monitor usage of fuel oil. It is not currently economically viable to purchase fuel oil on a long term contract.

Staff Commuting to the University by Single Occupancy Car and by Bicycle

Lincolnshire is a rural county and public transport routes tend to be poor, therefore employees often have no choice but to travel to the University by car. The University aims to conduct staff and student travel surveys every two years.

The results from the Travel Surveys feed into the Sustainable Travel Action Plan, which is subject to ongoing updating. The surveys record the modal split for commuting to the University. The latest travel survey was conducted in November and December 2013. A new round of travel surveys will be conducted in October and November 2015.

Total General Waste and Total Recycling Collected

The waste data for the University has been somewhat limited as the waste company used to only supply data on the number of bin lifts, not the total weight of waste collected. Therefore, the historic waste totals have to be based on an average waste density and the number of bins collected. In 2014/15 Veolia, the waste management company, began supplying the University with data on the actual weight of waste collected. This has allowed a much better understanding of how much waste is generated at the University.

The University has separate waste collection for dry recyclables and glass. The general waste is collected and sent to a Materials Recovery Facility (MRF). The equipment at the MRF removes any materials that can be readily recycled from the general waste. The residual material is then sent to an Energy from Waste Facility and is burnt to generate electricity and heat.

In the first year that the waste material was sent to the EfW the University recorded that zero general waste was sent to landfill. In the second year the waste company was able to provide an estimate of the proportion of waste entering the EfW plant that was converted into bottom and flue ash, which then had to be disposed of at landfill.

Step Two: Measure Resource Use

Area Measured	Units	Year								Change		2020 Target
		2006/07	2007/08	2008/09	2009/10	2010/11 (Baseline)	2011/12	2012/13	2013/14	13/14 Change on the Baseline	13/14 Change on 12/13	
Total GIA	m ²	108,426	108,426	110,627	111,710	117,279	125,914	112,781	113,027	-3.63%	0.22%	N/A
Electricity	MWh	10,878	11,633	11,194	11,023	11,041	10,837	10,347	10,335	-6.39%	-0.12%	6,561
Gas	MWh	15,104	14,736	13,862	13,959	10,627	9,625	10,438	8,006	-24.66%	-23.30%	7,756
Fuel Oil	Litres	188,005	199,837	196,242	211,037	188,009	181,314	65,104	64,760	-65.56%	-0.53%	40,000
Water	m ³	34,767	44,746	39,933	39,070	48,209	46,040	50,769	63,608	31.94%	25.29%	37,000
Waste Recycled	Tonnes	359	229	240	360	320	590	255	424	32.50%	66.27%	255
Waste to Landfill	Tonnes	690	676	676	700	698	0	79	79	-88.68%	0	0
Total Waste	Tonnes	1049	905	916	1060	1018	910	937	979	-3.83%	4.48%	800
Staff commuting by single occupancy car	%	-	-	-	50%	51.4%	-	48.9%	-	-2.50%	N/A	42%
Staff cycling to the University	%	-	-	-	8%	11.3%	-	11.5%	-	0.20%	N/A	15%

Steps Three and Four: Targets and Action Plans

Electricity

Target	Reduce electricity consumption by 43%	
Description of the Target	<p>The higher education sector has been set a target by HEFCE for the reduction of carbon emissions by 43% against 2005 levels by 2020. This target covers just Scope 1 & 2 carbon emissions i.e. from the use of gas and oil for heating and electricity. 2</p> <p>The University of Lincoln has adopted the HEFCE target as part of its Carbon Management Plan. As such the objective to reduce electricity usage by 43% has been set. Within the 43% cut target there are annual objectives to ensure that the University is on course to meet the HEFCE target.</p>	
Progress to Date	<p>Some significant progress has been made in reducing electricity consumption at the University. At the Brayford North Campus electricity consumption has been reduced by 23% against 2005/06 levels.</p> <p>An increased focus on science and engineering courses means that electricity consumption has increased in some areas. However, overall electricity consumption is down by 10% against the 2005/06 baseline.</p>	
Key Actions	Comments	Target Date
Refurbishment of Phases 1 and 3 of the Student Village – including energy efficiency improvements	The two phases were upgraded in summer 2012 and 2013. The work included installing new LED lighting, low energy white goods and electronic radiator valves. The result was that electricity usage fell by over 20%.	Complete
Installation of LED streetlights on the Brayford North Campus	In 2014 LED streetlights were installed on the Brayford North Campus. These lights use around one third of the electricity of the original lights. Additionally,	Complete
Continue monitoring of electricity consumption for the fiscal electricity meters	Data from the automatic meter readings is fed into the University's eSight energy management database. This can be used to identify high levels of consumption.	Ongoing
Focus on using the Building Management System to control energy usage	<p>The University has invested in the BMS – this now needs to be utilised to get better control of energy consumption. An action plan for the use of the BMS will be produced.</p> <p>2014/15 Update: There is now a BMS working group including Maintenance, Environment and our BMS contractors. This focuses on getting the BMS time</p>	December 2014

	schedules right.	
Complete the lighting refurbishment in the Student Village	<p>A 3 year rolling refurbishment project at the residences will be completed in 2014. This has replaced lighting systems and white goods – leading to a 20%+ reduction in consumption.</p> <p>2014/15 Update: The project was completed. Additional lighting improvements in the Courts were identified in Summer Works 2015.</p>	November 2014
Using the Sustainability specification for new build projects	<p>The specification sets out minimum energy standards for major projects. Need to ensure that they are implemented as part of projects.</p> <p>2014/15 Update: The specifications have been given to the Design Teams for the new buildings and have been incorporated into the designs.</p>	Ongoing
Meet Revolving Green Fund spending targets	The RGF Fund will be used to identify energy saving projects that meet set payback criteria. So far over 15 projects have been funded through the RGF	Ongoing
Complete the upgrade of the sub-metering system	Faulty meters are being replaced and new loggers are being added to the system. Opportunities to expand the sub-metering network have been identified.	June 2016
Deliver the Revolving Green Fund (Round 4) projects	The University received £500k for energy efficiency improvements. The first group of these projects have been implemented. The next phase needs to be installed and checked during the 2016 Summer Works period. This includes new lighting systems and improvements to control systems.	December 2016

Gas

Target	Reduce gas consumption by 43%	
Description of the Target	<p>The higher education sector has been set a target by HEFCE for the reduction of carbon emissions by 43% against 2005 levels by 2020. This target covers just Scope 1 & 2 carbon emissions i.e. from the use of gas and oil for heating and electricity.</p> <p>The University of Lincoln has adopted the HEFCE target as part of its Carbon Management Plan. As such the objective to reduce gas usage by 43% has been set. Within the 43% cut target there are annual objectives to ensure that the University is on course to meet the HEFCE target.</p>	
Progress to Date	<p>Gas consumption is heavily dependant on the weather conditions. However, there has been considerable progress in cutting consumption at the University.</p> <p>2014/15 Update: Relatively mild weather over the last two years has meant that gas consumption has been significantly lower than in previous years.</p>	
Key Actions	Comments	Target Date
Improve Building Management Systems to allow greater control over gas boilers	The BMS allows control over time schedules for heating and ventilation systems at most of the University's buildings. The system was expanded to ensure that all buildings and all appropriate systems were connected to the network.	Complete
Ensure that all appropriate valves, flanges and wheels have insulation jackets in plant rooms	In some of the University's buildings plant room insulation had been excluded due to value engineering during construction. A project to systematically survey each plant room and bring insulation levels up to suitable levels was undertaken. This was funded from the Revolving Green Fund	Complete
Obtain data from gas AMR meters to clear picture of consumption	<p>The major fiscal gas meters now have AMR systems. The university will get the electronic data from the AMR to feed into the eSight software.</p> <p>2014/15 Update: The AMR on the gas meters was only capable of recording monthly readings. Therefore, a new contract for AMR meters that are capable of recording half hourly data has been placed. This is expected to be installed and providing data by November 2015.</p>	November 2014
Meet Revolving Green Fund spending targets	The RGF will be used to fund projects that reduce the need to heat the buildings.	Ongoing
Focus on using the BMS to control energy usage	The University has invested in the BMS – this now needs to be utilised to get better control of energy consumption. An action plan for the use of the BMS will be produced.	December 2014 & Ongoing

	2014/15 Update: There is now a BMS Working Group, which looks at how the BMS can be developed and better utilised.	
Linking in with the long term maintenance plan to ensure energy efficient boilers are specified	Many boilers will be replaced as part of the LTM plan. Need to ensure that energy conservation principles are included in the replacements – are the boilers appropriately sized, are controls appropriate, etc.	Ongoing

Fuel Oil

Target	Reduce fuel oil consumption by 43%	
Description of the Target	<p>The higher education sector has been set a target by HEFCE for the reduction of carbon emissions by 43% against 2005 levels by 2020. This target covers just Scope 1 & 2 carbon emissions i.e. from the use of gas and oil for heating and electricity.</p> <p>The University of Lincoln has adopted the HEFCE target as part of its Carbon Management Plan. As such the objective to reduce fuel oil usage by 43% has been set.</p>	
Progress to Date	The University only uses fuel oil at the Riseholme Campus. The changes in the usage of the Campus mean that the University's consumption of fuel oil has fallen significantly - c70%.	
Key Actions	Comments	Target Date
Improve plant room insulation levels	Each plant room at the Riseholme Campus was surveyed and the insulation levels were brought up to standard. As the buildings are quite old many plant rooms had little or no insulation.	Complete
Ensure that the heating and hot water systems in the remaining buildings are tightly controlled. Closed buildings should be drained and mothballed	<p>Several buildings at the Riseholme Campus are no longer in use and have been closed – meaning they no longer require heating. The building usage position at the Campus is changing constantly and as areas are closed it is important that the boiler systems are also shut down.</p> <p>2014/15 Update: The majority of the Riseholme Campus is still occupied and buildings have been leased out to third parties, therefore there has been a limited opportunity to mothball buildings. Where possible electricity meters have been de-energised to avoid standing charges.</p>	Ongoing
Closely monitor the purchasing of fuel oil to ensure that the University obtains value for money	<p>Fuel oil is purchased from suppliers based on the global oil price. Therefore, there can be extreme volatility in price. To mitigate against this there has to be a robust oil procurement process – ideally quotes from at least three suppliers should be sought.</p> <p>2014/15 Update: The Environment Team has been working closely with the Procurement Team to ensure that the oil procurement process is getting value for money.</p>	Ongoing
Ensure that the fuel oil tanks meet the regulations for the Oil Storage Regulations	An audit programme for the fuel oil tanks will be put in place. The initial audit will check compliance with the oil storage regulations and the condition of the tanks. Subsequent audits will check the condition of the tanks.	December 2014 and ongoing

Water

Target	Reduce water consumption by 5% against 2009/10 levels	
Description of the Target	Water consumption has increased significantly over the last few years. The exact reasons for this are not fully understood – but there are issues around ongoing leakage problems at the Riseholme Campus and the Student Village.	
Progress to Date	<p>The University has had improved information on water consumption since the Demeter data logger system was installed. This shows half hourly consumption for the main water meters at the Brayford and Riseholme sites (the main areas of consumption).</p> <p>2014/15 Update: The Demeter system has now been replaced by a system offered by Anglian Water.</p> <p>A major leak at the Riseholme Dairy Farm site, which was not identified for a considerable time, meant that water consumption was significantly up on previous years.</p>	
Key Actions	Comments	Target Date
Water saving bathrooms in the Minerva Building toilets	The Minerva Building contains the main lecture theatres at the University and therefore has a high traffic level. The toilets have been fitted with low flow taps, percussion taps, low volume flush toilets and flush sensors. This standard will be rolled out around the Brayford Campus.	November 2014 and ongoing
Investigate data on daily water use profiles from Anglian Water and the Automatic Meter Reading System	The data from the water logging system needs to be carefully monitored to identify areas with high consumption levels and areas with variable flow rates.	Sep 14 and then ongoing
Establish a low water use standard for bathrooms in new University buildings and major refurbishment projects	As part of the Sustainable Standard Specification for new buildings a standard for bathrooms was established. This needs to be implemented in upcoming major projects. This will involve liaising with project managers and project teams. 2014/15 Update: The standard was supplied to the Projects Team for refurbishment work. Most of the recommendations were implemented.	Ongoing
Establish a list of water saving opportunities around the Estate – focussing on push taps and urinal flushing sensors	A series of water audits of the major buildings at the Brayford Campus will be conducted. These will identify water saving opportunities around the Campus	Complete
Develop a reporting system for water leaks	The Environment & Sustainability Team require more feedback on the level of leaks around the Estate. The Planon Facilities Management Software can be used to log reports of leaks from the maintenance team. The system will be regularly checked to identify areas with high levels of leakage.	October 2014 and Ongoing

	<p>2014/15 Update: The Environment Team is now receiving reports from the Planon system on maintenance call outs that mention leaks. This has allowed water leaks to be identified at an early stage.</p>	
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Staff Commuting to the University by Single Occupancy Car and by Bicycle

Target	Produce a long term reduction in single occupancy car journeys (45% by 2020) to the University by making alternative methods of travel more available.	
Description of the Target	Managing the environmental impacts of transport is vital in the development of a sustainable Campus. The overall object of the work on sustainable travel is to reduce single occupancy car journeys and promote alternative travel options. Public transport provision in the rural areas surrounding Lincoln is sporadic and therefore car usage for travel to work is higher than for universities in more urban areas.	
Progress to Date	The latest staff travel survey (November 2013) shows that single occupancy car journeys have fallen below 50% for the first time. There has been an increase in the provision of cycle parking spaces. However, some recent new building projects have cut cycle parking as part of value engineering activities.	
Key Actions	Comments	Target Date
Establish a Travel Group with a wide membership at the University	The University has established a Travel Group with membership from across the organisation to discuss sustainable travel issues. The Group meets three times a year to discuss transport and identify areas to focus on. 2014/15 Update: The Travel Group is now well established and is meeting regularly. Clear areas for focus on car parking and cycle security have been identified.	Complete and ongoing
Install new covered cycle parking at the University Library	The cycle stands outside the University Library were regularly fully occupied and were not covered. This project installed a cover over the existing parking and added additional covered parking stands. The project was delivered with support from Sustrans	Complete
Introduce Season Ticket purchase scheme for staff	Relatively low levels of staff commute to the University by rail and bus. The University will now loan a staff member the cost of a season ticket, which is then deducted monthly from their salary. 2014/15 Update: This scheme was promoted to staff at a Sustainable Travel Event in June 2015.	Complete and ongoing
Conduct biennial travel surveys for staff and students	In order to understand how travel patterns are changing at the University it is necessary to carry out regular travel surveys. The surveys will be conducted every two years. 2014/15 Update: The Staff Survey will begin in October 2015 and the Student Survey will follow in November.	Ongoing – next survey Nov 2015
Develop the University Travel Plan into a Travel Action Plan for each Campus	The Travel Plan and associated action plan needs to be regularly updated and maintained. The Travel Plan feeds into planning applications and the development of transport options at the University	November 2014 & Ongoing

	2014/15 Update: An updated Travel Action Plan has been produced and agreed with Lincolnshire County Council. The first actions have been implemented.	
Cycling infrastructure – Establish the case for providing additional secure cycle storage and examine opportunities to improve cycle routes in and around the Estate.	Identify priority areas for new cycle parking infrastructure. The University will have a specific transport improvements budget in 2014/15. Cycling improvements will be tendered so that progress can be made as soon as the budget becomes available 2014/15 Update: A Project Initiation Form for more cycle parking was passed in early 2015. A new cycling compound has been installed at the Sports Centre and plans for a new compound at the Minerva Building have been produced and costed.	October 2014 & Ongoing
Provide information on sustainable travel options to staff and students – including public transport	Promoting cycling and walking as a travel to University option is crucial to reducing the number of people who drive to the Campus. A programme of activities and information campaigns will be developed to begin at the start of the 2014/15 academic year 2014/15 Update: A Sustainable Travel Event was held in June 2015.	October 2014 and ongoing
Work with other major employers, local government and transport companies to improve the transport provision	Regular meetings will be held with relevant local groups to co-operate on transport issues. Meetings have been held in the past but these have been sporadic – a new emphasis will be placed on working with other groups in Lincoln	December 2014 and ongoing

Total General Waste and Total Recycling Collected

Target	Get a much better understanding of the amount and type of waste that the University generates. Aim to send zero waste to landfill in the longer term (by 2020)	
Description of the Target	<p>The University needs much better information on the waste it generates. At present the University has poor data on its waste management activity. The waste collection company only provides information on the number of bin collections – not on type and weight of waste. Therefore, it is necessary to estimate waste volumes.</p> <p>The key priorities over the next few years are to gain a clearer picture on the volume and types of waste generated at the University.</p>	
Progress to Date	<p>The University has a general waste and mixed dry recyclable waste collection system. The general waste from the University is sent to a Materials Recovery Facility to extract any recyclable items. The residual waste is then sent for energy recovery. This system means that the amount of waste being sent to landfill is limited.</p> <p>2014/15 Update: The waste management contractor (Veolia) is now providing details on the weight of waste collected. This has given much better information on the amount of waste generated at the University.</p>	
Key Actions	Comments	Target Date
Develop a plan for waste management improvements	A basic outline of ideas for improving waste management and recycling at the University has been developed. This will be added to and expanded with the aim of developing a Waste Management Strategy.	Complete and ongoing
Increase the number of battery recycling bins at the University	<p>Staff and students at the University generate a large number of spent batteries. If there are inadequate collection facilities then batteries will end up in the general waste. A new battery bin was provided in the Media Building. Opportunities for additional bins will be identified.</p> <p>2014/15 Update: The University is now a designated battery collection point. New battery recycling pods have been installed in several buildings around the University.</p>	Complete and ongoing
Examine opportunities for collecting data on the weight of waste collected as part of the next waste management contract	<p>Procurement for the next waste contract will begin in January 2015. In order to be ready for this the University will develop a waste tender document that sets out clearly the data requirements from the new contract.</p> <p>2014/15 Update: Veolia is now providing information on the weight of waste collected.</p>	Complete
Make recycling more visible around the Estate through	Information on where staff and students can recycle will be improved. In addition, information on recycling other non-standard waste stream such as	October 2014 & Ongoing

awareness raising	batteries will be promoted.	
Develop a system for the recycling of bulky waste and furniture	<p>Large items of furniture are often disposed of due to a lack of storage space. Options for online databases of recyclable bulky furniture will be investigated. This could ensure that the items are reused.</p> <p>2014/15 Update: Now have an agreement in place to use the Warp-it system to recycle bulky waste. We will begin using it in 2016 on a trial basis – building up to Summer Works 2016 when the system will become fully operational.</p>	November 2014 & Ongoing
Information on hazardous waste	<p>There is limited information on hazardous waste held by the University. The move into Chemistry and biomedical sciences could mean that more hazardous waste is generated. There needs to be clear procedures in place to say what happens to hazardous items</p> <p>2014/15 Update: We have started a Sustainable Labs project with the College of Science. This will develop into a system capable of recording hazardous waste.</p>	December 2014 & Ongoing
Ensure that data is collected on construction waste amounts and the destination of this waste	<p>Waste generated from small and medium sized construction projects is often overlooked. These waste streams need to be checked to ensure that contractors are dealing with them correctly.</p> <p>2014/15 Update: There are now details that need to be recorded on smaller construction projects.</p>	October 2014 & Ongoing

Carbon Footprint: 2013/14

The University has attempted to calculate its carbon emissions from both energy use (Scope 1 & 2) and other (Scope 3) activities. The results for the 2013/14 academic year are displayed below:

Area	Carbon Emissions 2012/13 (Tonnes)	Carbon Emissions 2013/14 (Tonnes)	Data Source
Energy Consumption (Electricity, gas and fuel oil)	8,364	8,224	Bills and meter readings
Business Travel	589	590	Data from HR Expenses System
Staff Commuting	1,560	1,560	Travel Survey and staff numbers
Student Commuting	3,262	3,262	Travel Survey and student numbers
Waste	60	68	Information from waste management company
Water and Sewage	93	101	Bills and consumption data
Supply Chain Purchasing	35,796	35,424	Calculation from Southern Universities Purchasing Consortium
Total	49,724	49,229	

As the table above shows the purchasing of goods and services is by far the largest area of carbon emissions at the University. The figures supplied by the Purchasing Consortium have been checked against those of other universities and appear to be in right area.

Travel Plan

The University of Lincoln Travel Plan was published in 2012 and was produced as part of the development work for the Brayford Campus Masterplan. The Plan describes the transport infrastructure in the area around the University and the connectivity issues between the University and the City Centre.

The available public transport routes to and from the nearby bus stops and train station are described in detail in the report, as is the cycling infrastructure. The aims and objectives of the Travel Plan are:

- Prevent congestion on the local highway network and mitigate against overspill onto the surrounding roads;
- Improve the travel options for staff and students;
- Minimise incentives for staff and students to use private cars and maximize incentives to use sustainable alternatives;
- Promote and raise awareness of the benefits of healthier and more environmentally-friendly travel;
- Ensure all staff and students are aware of the TP and its purpose;
- Promote and raise awareness of the benefits of healthier and more carbon efficient travel to staff and students;
- Accommodate those journeys that are necessary by car (i.e. those with no alternative); and
- Help support objectives of the University and reducing the environmental impact by reducing CO2 emissions

The Travel Plan goes on to set a series of targets for the modal shift of travel methods to the University. The main overall target is to reduce single occupancy car travel from 51.4% to 41.4% over the period of the Travel Plan.

A full copy of the Travel Plan can be downloaded at:

<http://estates.blogs.lincoln.ac.uk/files/2015/06/Brayford-Campus-Travel-Plan.pdf>

A new Travel Action Plan has been produced in 2015 – this has been shared to the Highways Team at Lincolnshire County Council and has been approved as part of recent planning applications. The University of Lincoln is updating its Strategic Plan in 2015 (expected December 2015). Following on from this will be a new Estates Strategy in March 2016. The updated Travel Plan will follow on from this.

University of Lincoln: Environmental Engagement

The University has an ongoing programme of engagement with students and staff on environmental and sustainability issues.

Go Green Week – each year the University holds a week long programme of environmental events. This is part of the national People & Planet Go Green Week, which covers universities and colleges around the UK. The Environment Team links up with the Students' Union to deliver the event.



UNIVERSITY OF LINCOLN PRESENTS

GO GREEN WEEK

Feb 2014

A WEEK TO HELP YOU REDUCE YOUR CARBON FOOTPRINT

FREE EVENTS ALL WEEK

10-14th FEB
University of Lincoln

In conjunction with:

NATIONAL STUDENT MONEY WEEK

CHECK ONLINE FOR THE LATEST UPDATES

MONDAY
Go Green e-launch - online quiz on environmental attitudes, ethical shopping talk at @ B&L

TUESDAY
Take the One Plot Pledge! - Make your own Fair Trade smoothie, sample veggie delights @ The Atrium 11am-2pm

WEDNESDAY
Craft event - @ the Platform
Marine conservation workshop - @MB1003
Trashed film screening - @ Cargill Lecture theatre

THURSDAY
National Student Money Goes Large! - Let's talk about money @The Hub + Valentines budgeting @ The Atrium

FRI DAY
- Dr Bike Event
- Islamic society evening lecture
- Talk on preserving farming

OUR SUPPORTERS

people & planet LINCOLN STUDENTS' UNION

Find out more, plus event locations/times online:
environment.blogs.lincoln.ac.uk/whats-on/ggw2014

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UNIVERSITY OF LINCOLN PRESENTS

GO GREEN WEEK

FEB 2015

A WEEK TO HELP YOU REDUCE YOUR CARBON FOOTPRINT

LOADS OF FREE EVENTS

FILM SCREENINGS

GUEST LECTURES

9TH - 13TH FEBRUARY 2015

For updates and the timetable of events, visit environment.blogs.lincoln.ac.uk

people & planet

UNIVERSITY OF LINCOLN

The 2014 Week featured a wide variety of events including stalls, film showings, Dr Bike, craft events and quizzes. As part of the programme Anglian Water brought in their information stand and there was a lecture from the Marine Stewardship Council.

Fairtrade University – the University of Lincoln qualified as a Fairtrade University in 2011. Each of the catering outlets at the University supplies Fairtrade products, meetings (where appropriate) are supplied with Fairtrade tea and coffee and vending machines have a minimum number of Fairtrade products. The University has a joint Fairtrade Policy with the Students' Union.

Each year during Fairtrade Fortnight the University holds a series of awareness raising events on Fairtrade issues. The University also supports the wider scheme to obtain Fairtrade City status for Lincoln – this was achieved in 2013.

An application for Fairtrade University Status was submitted in 2015.



Fairtrade display in the university Shop



Images from Fairtrade Fortnight 2015

Environmental Film Programme – the University holds an annual Environmental Film programme. This has proved increasingly popular with students, staff and the general public.

Environmental Films 2014-15

All in CARGILL LECTURE THEATRE

6.30pm start

Wednesday 1st October 2014 – Tiny (a film about the small house movement)

Wednesday 22nd October 2014 - The Vasectomist (a film about tackling the population explosion)

Wednesday 12th November 2014 - The Ghosts in our Machine(hosted by VegSoc) - do animals exist solely to serve humankind?

Wednesday 19th November 2014 - Growing Cities (a film about urban growing)

Wednesday 3rd December 2014 - Humanscale (a film about building cities with human needs in mind)

Wednesday 14th January 2015 - Thin Ice (a film about climate science and the scientists trying to understand it)

Wednesday 11th February 2015 – Misson Blue (a film about Sylvia Earle and marine conservation)

Wednesday 18th March 2015 – Watermark (a film about our relationship with water)

TBC – Conspiracy (hosted by VegSoc) - is farming animals for meat sustainable?

For more information please visit:

<http://environment.blogs.lincoln.ac.uk/whats-on/>



For 2014/15 the objective has been to link the films more closely to academic programmes offered at the University. So there are clear links to the Schools of Architecture, Life Sciences, Business and Media.

Student Volunteering – The University runs a student volunteering programme in partnership with the Students' Union. The Environment Team has been looking at developing an increasing number of sustainability based volunteering opportunities. These have included litter picking, energy auditing, designing logos, supporting recycling and working with Dr Bike.



Litter picking with Student Volunteers

Staff and Student Engagement 2014/15



Sustainable Transport Event – June 2015

GO GREEN WEEK 2015 ROUNDUP



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UNIVERSITY OF
LINCOLN

Go Green Week 2015



Tree planting during Go Green Week 2015

Step Five: Monitoring and Reporting Progress

The Environmental and Sustainability Team regularly reports on the environmental performance to the Senior Management Team at the University of Lincoln. There are regular updates to the Director of Estates and Commercial Facilities and an annual report is produced. In 2015 a new Environment & Sustainability Committee has been initiated – this has an objective of embedding sustainable behaviour around the University.

Transport issues are reported to the Transport and Travel Group, which meets three times per year and has representatives from the three Colleges, the professional services departments, the Students' Union and the trade unions.

The Environmental & Sustainability team has an active awareness campaign across the University – this includes information boards in the Student Village, a Student Switch Off Scheme, poster campaigns and an environmental film programme.

The Environment Team has been part of a working group organised by the Association of University Directors of Estates (AUDE) and the EAUC on developing a "Green Metric" for the Higher Education Sector. The Metric will focus on Estates related environmental issues – such as energy use, travel methods and water consumption. This is intended to run alongside the People & Planet Universities Green League, which has been an ongoing assessment of environmental performance. The Metric is expected to begin in 2016.

East Midlands Environmental Managers' Group – the University takes part in this group, which shares best environmental practice between universities in the East Midlands.

Environmental Association of Universities and Colleges (EAUC) – the University has membership of this group. Officers from the University have been part of judging panels for the annual EAUC Green Gown Awards.

Association of University Engineers – the Environmental and Sustainability Team regularly contributes to the AUE message board, which is used to share information between organisations.

Following on from this exercise and other activities on improving environmental communications, an annual environmental report will be produced each year. This will be completed early in each Academic Year (October or November once data becomes available).

Step Six: Accreditation

The Environmental & Sustainability Team will update this manual annually. The target date for update will be October each year.