



UNIVERSITY OF
LINCOLN

**Environmental &
Sustainability Strategy
2013 to 2017**

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1 – Introduction

Embedding Sustainability at the University of Lincoln

This Environmental Strategy document sets out a vision for transforming the University of Lincoln into a much more environmentally sustainable organisation. The document sets out the environmental agenda for the coming years up to 2017.

The University has already made great strides in improving its environmental performance. Emissions of carbon dioxide have fallen year on year since 2005 – this has been achieved through energy efficiency projects such as PC Power Down, automatic lighting controls and improved building insulation. The new School of Engineering Building has achieved a BREEAM rating of "Excellent" at the design stage and this is now being confirmed in a post construction review. Water consumption has been reduced and there is a new monitoring system that identifies water leaks. There is now a University wide Travel Plan which sets out how the number of single occupancy car journeys will be reduced. Additionally, the University has an updated Environmental Policy that sets out the principles behind the sustainable development of the organisation (see Section 5).

Challenging targets for improvements in performance have been set out in this document. Meeting these targets will take the University to a higher level of environmental performance. The overall aim is reduce the environmental impact of the University and clearly demonstrate this to staff, students and the surrounding community.

By 2017 the University will aim for the following achievements:

- **No longer sending waste to landfill**
- **Recycling more than half of its waste**
- **On course to meet the HEFCE targets for carbon emission reductions**
- **Less than half of staff will travel to work by single occupancy vehicle**
- **Have an accredited environmental management system**
- **Incorporate sustainable development issues into its courses and training programmes**

The Environmental Strategy document is the first step towards transforming the University into a truly environmentally sustainable organisation. To produce the best opportunity of achieving implementation of the objectives a detailed action plan for each of the strategic aims will be developed.

2 – Proposed Strategic Aims for Environmental Sustainability

Transforming the University of Lincoln into an environmentally sustainable organisation requires a broad approach that produces positive change in many different areas of activity. The approach taken in this Environmental Strategy is to identify the key environmental challenges for the University and to develop strategic aims for each area. The document then covers each of the strategic aims in detail setting relevant objectives and describing the key performance indicators that will be used to measure progress.

The proposed strategic aims are:

Waste, Recycling & Resource Efficiency: Establish the principles of resource efficiency and "Reduce, Re-use, Recycle" within the way waste is managed at the University.

Energy & Carbon: Ensure energy consumption is well understood and managed in order to meet national and sector wide carbon emission reduction targets.

Water Resources: Understand how much water the University uses and develop opportunities to reduce water consumption.

Sustainable Transport: Produce a long term reduction in single occupancy car journeys to the University by making alternative methods of travel more available.

Sustainable Procurement: Ensure that environmental and sustainability issues are taken into account in the appropriate purchasing decisions of the University.

Biodiversity: Understand the extent of the biodiversity assets that the University has and look for opportunities to enhance and add new habitats around the Estate.

Education for Sustainable Development: With the support of faculties and departments develop course material on sustainable development that could be incorporated into academic programmes at the University.

Communications – Staff and Student Engagement: Provide a consistent message on sustainability issues to staff and students.

Environmental Management Systems: Develop the University's Environmental Management System to a stage where it can attain accreditation.

Research Using Environmental / Sustainability Data: Make data available on environmental management at the University which can be used for research projects.

Waste, Recycling & Resource Efficiency

Strategic Aim: Establish the principles of resource efficiency and "Reduce, Re-use, Recycle" within the way waste is managed at the University.

Overview: The 2009/10 recycling rate at the University was 33.9%, this compares to a Higher Education Sector average recycling rate of 36%. Although the recycling rate is only just below the sector average, the University lags behind the local authority recycling rate (51.36% for Lincolnshire County Council). In addition, several universities have raised their recycling rates to above 80% and now send zero waste to landfill. In this context the recycling performance of the University of Lincoln could be greatly improved.

The 66% of the waste from the University that is not recycled is sent to landfill for disposal. The 2012/13 Landfill Tax rate is £64 per tonne and the Government has confirmed that the rate will rise to £72 per tonne in April 2013, with further increases likely. This means that the cost of disposing waste to landfill will increase significantly over the coming years. In the medium term sending waste to landfill is not economically viable. Therefore, the University needs to examine the possibility of moving completely away from landfill disposal. This would involve raising recycling levels to above 50% and then sending the residual waste to an alternative treatment method, such as thermal treatment or MBT (mechanical and biological treatment).

The recycling that does take place at the University has low visibility to staff, students and visitors. For example none of the catering outlets has separate waste bins for recyclable waste. Additionally, none of the external waste bins around the sites are segregated by waste type. The recycling that does take place is under cover and needs better promotion to the users of the University. This issue of waste awareness needs to be addressed urgently.

The data provided by the waste management companies that collect the waste from the University is estimated and based on the number of bin collections. Without adequate data to measure performance it is very difficult to understand how waste and recycling levels are changing. Many waste management companies are able to offer data on the weight of each bin they collect. Obtaining this level of data would be a useful first step to improving the quality of waste data at the University. The University has already asked local waste management companies if they are able to supply data on the weight of each bin.

The best method of reducing waste volumes and costs is to not generate the waste in the first place. Resource efficiency and waste minimisation are methods of reducing the amount of waste generated. These issues link strongly with the Sustainable Procurement topic (covered later in this document) – the amount of waste generated from major purchases and the

disposal costs of this waste should be considered as part of the procurement process.

The disposal of bulky waste is a major issue for the University. There is a lack of storage space at the University. This means that bulky items, such as furniture, sometimes have to be disposed of when they could be stored and then used again. Significant volumes of good quality furniture has been given away or sent to landfill due to lack of storage options.

In previous years the University has not collected consistent data on waste from construction projects. Evidence from other organisations suggests that construction waste makes up a significant proportion of total waste arisings from universities (90% for some organisations). A simple method of recording construction waste levels will be developed.

General and construction waste make up the bulk of the generated waste, but there are many other waste streams – such as batteries, WEEE, paint etc. The University does have recycling options in place for many of these waste streams. Awareness of the availability of these waste streams needs to be raised around the University.

Objectives

- Set an ambitious target for the University to send zero waste to landfill by 2017
- Increase the amount of waste sent for recycling to above the 2010 Higher Education Sector average (36%) by 2015.
- Promote resource efficiency and waste minimisation around the University
- Examine opportunities for collecting data on the weight of waste collected as part of the next waste management contract
- Make recycling more visible around the Estate through awareness raising
- Develop a system for the recycling of bulky waste and furniture
- Ensure that data is collected on construction waste amounts and the destination of this waste
- Increase the recycling opportunities for non-general waste streams i.e. batteries, WEEE, paint

Key Performance indicators

- Total amount of general waste (tonnes)
- Waste generated per m² of floor area (GIA)
- Waste generated per FTE staff and student
- Recycling rate
- Carbon dioxide emissions due to waste management
- Total amount of construction waste

Energy & Carbon

Strategic Aim: Ensure energy consumption is well understood and managed in order to meet national and sector wide carbon emission reduction targets.

Overview: The higher education sector has been set challenging targets for the reduction of carbon emissions by HEFCE. A reduction in emissions of 43% against 2005 levels by 2020 has been set. This target covers just Scope 1 & 2 carbon emissions i.e. from the use of gas and oil for heating and electricity. For the University of Lincoln the targets mean reducing emissions from 9,781 to 5,575 tonnes by 2020. This is against the potential backdrop of a growing estate.

To manage how the emission reductions are achieved the University developed a Carbon Management Plan in March 2011. This is the key document for energy and carbon, setting out how the University will attempt to reduce emissions over the short to medium term. The CMP sets out in detail the carbon emission reduction objectives of the University. Carbon dioxide emissions for the 2011/12 year have fallen by 17% compared to the 2005/06 academic year.

The Carbon Management Plan describes how the University will measure Scope 3 carbon dioxide emissions in the future (these are emissions from other sources such as travel to work, business travel, procurement, waste management etc.) It is possible that these emissions will be included in future Government targets and therefore a robust methodology for calculation is required.

Historically the University has not had detailed data on how energy is used around its estate. To rectify this, an automatic meter reading system was installed at the Brayford Campus in 2009. This system uses the eSight energy management software to track energy use every half hour in each of the buildings on the Campus. In order to optimise this system it needs to be much more closely integrated with the estates and finance systems at the University. Additionally, automatic meter reading systems have been installed at some of the other campuses (Cathedral, Holbeach and Riseholme).

To reduce the amount of energy consumed, the University has funding from HEFCE and Salix Finance through their Revolving Green Fund scheme. This funding can pay for energy saving projects provided that payback conditions are met. The savings made through the projects are then reinvested in more energy efficiency projects.

In 2011 the University changed the way it procures its electricity and gas from fixed rate terms to flexible purchasing. This procurement method should offer advantages in terms of risk management. However, the procurement process is much more involved and requires more input from Estates Department

staff. In order to support the new procurement process good data on energy costs and progress against budgets is required.

The new energy procurement process means that it is essential that there is a wider understanding across the University on the cost of energy. The energy costs of providing new buildings, services and equipment must be included within the decision making process. Therefore, the environment team has a need to improve internal communications on energy and carbon matters.

Objectives

- Continue progress towards meeting the HEFCE 2020 targets for the reduction of carbon dioxide emissions
- Produce annual update reports on progress towards the Carbon Management Plan targets
- Meet the targets and objectives set out in the Carbon Management Plan
- Produce an estimate of Scope 3 emissions for the University
- Ensure that energy and carbon issues are taken into account in decisions on new buildings, large scale refurbishments and major equipment purchases.
- Meet Revolving Green Fund spending targets and ensure that energy efficiency investment is communicated within and outside the University
- Identify opportunities for further energy efficient investment

Key Performance indicators

- Total emissions of scope one and two carbon dioxide in tonnes
- Energy consumption per m² of floor area (GIA) overall and by building
- Scope 3 carbon dioxide emissions including:
 - Waste management
 - Water consumption
 - Business travel
 - Staff and student commuting
 - Student travel from home to the University
- Energy cost per m² of floor area (GIA) overall and by building
- Energy consumption per staff and student FTE

Water Resources

Strategic Aim: Understand how much water the University uses and develop opportunities to reduce water consumption.

Overview: Water consumption at the University has fallen by 16% from 46,509 m³ in 2007/08 to 39,070 m³ in 2010/11. This fall has occurred due to the fact that there was a major water leak in 2007/08. Excluding leaks the general trend is for flat water consumption.

The amount of water used is susceptible to water leaks. Most water meters are read monthly, but a small number are read at six monthly intervals. It is necessary to have regular checks on consumption to identify water leaks. At the Brayford and Riseholme sites an automatic meter reading system has been installed on all of the main water meters. This equipment provides data on water use profiles and has already been used to identify leaks that had annual costs of £8,000 p.a.

Water leaks are a major issue for the University and large costs can be produced if leaks are not quickly repaired. It is possible to reclaim some of the cost of leaks but only if they are reported to the water company. Therefore, a leak reporting process and document is required to ensure the appropriate information is collected to ensure a refund.

The specification of water using appliances clearly has a major influence on how much water a building consumes. If high consumption fittings are specified this locks in high levels of water consumption for the building. The new Business & Law Building at the University of Lincoln has low volume push taps, low flush WCs and urinals with presence detecting flushing. This low water consumption standard needs to be applied across the University during new buildings and refurbishment.

Rainwater harvesting is a water saving method that has become increasingly common during the last decade. The technology could potentially save the University a significant part of its water costs in new buildings. In previous new building projects rainwater harvesting has been considered (not in detail) but then excluded as the issues surrounding the technology were not fully understood. A review of the technology, installation issues and available products would mean that rainwater harvesting could be considered in detail for future new building projects.

Objectives

- Reduce water consumption by 5% by 2015 compared to 2009/10 levels
- Obtain data on daily water use profiles from Anglian Water and the Automatic Meter Reading System
- Establish a low water use standard for bathrooms in new University buildings and major refurbishment projects

- Establish a list of water saving opportunities around the Estate – focussing on push taps and urinal flushing sensors
- Develop a reporting system for water leaks
- Report on the potential for rainwater harvesting at the University

Key Performance indicators

- Overall annual water consumption
- Water consumption per m² of floor area (GIA)
- Water consumption per staff and student FTE
- Maximum Daily Demand (MDD) figure for the Brayford Campus

Sustainable Transport

Strategic Aim: Produce a long term reduction in single occupancy car journeys to the University by making alternative methods of travel more available.

Overview: 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.

Various surveys of how staff and students travel to the University have been conducted over the last decade. The University now has a set travel survey format, which will give consistent data for future surveys. Travel surveys will be conducted every two years and the data will be used to measure performance and to identify priority areas.

The latest staff travel survey revealed that 51% of employees travel to the University by single occupancy vehicle. Overall 70% of employees travel to work by car, which is equal to the national average for car journeys to work from Department for Transport statistics.

As stated reducing single occupancy car journeys is a priority. Car park charging was introduced in 2010 as part of a separate initiative. The charges offer an economic incentive to travel by another method or car share to reduce costs. A managed car share scheme operates in Lincoln and is run by the Lincoln Business Improvement Group, this has and will continue to be promoted to staff.

The travel surveys show that the number of staff and students travelling by bus is low (3% of staff and 1.9% of students). Staff are eligible to take part in the Lincoln BIG Bus Deal, which offers a reduced fare for weekday bus travel. This offer needs to be actively promoted to staff.

A Travel Plan for the University has been developed by Colin Buchanan SKM (a transport consultancy) as part of the development of a master plan for the Brayford Campus. This document sets out overall strategic goals for transport and travel. The next stage is to develop a specific transport action plan for each site. This is important as Riseholme, Brayford and Holbeach all have specific transport issues.

The number of staff cycling to the Brayford Campus has increased from 8% in 2009 to 11.3% in 2011. This is a good outcome; however facilities for cyclists and bike security should increase with the greater numbers of cyclists. Regular checks are required to ensure that the number of cycle parking

spaces provided is sufficient.

Cycling infrastructure around the sites is a key issue. This includes having cycle routes on and around the Brayford Campus, secure cycle storage at all campuses and changing and storage facilities for cyclists. Providing additional facilities for cyclists could require significant capital investment. In order to make the case for this investment it is necessary to have good data how existing facilities are used. As part of this data will be collected on the usage of cycle parking facilities.

A cycle hire scheme for students operates from the Brayford Campus - CycLin. This scheme is in co-operation with Sustrans (the national sustainable transport charity). CycLin provides cycles for rent at a low fee. The cycles have regular maintenance checks and the Sustrans team run a number of support events, such as Dr Bike sessions. The scheme has been highly successful in promoting cycling around the University and currently has a waiting list for membership.

There are many opportunities to develop joint sustainable travel schemes with other large employers in Lincoln. The Estates Department will look to develop partnerships with other organisations.

Objectives

- Reduce the number of single occupancy car journeys made by staff travelling to work to below 50% by 2015
- Conduct biennial travel surveys for staff and students
- Calculate carbon dioxide emissions associated with staff and student travel
- Develop the University Travel Plan into a Travel Action Plan for each Campus
- Increase the number of staff and students that walk and cycle to the University
- Cycling infrastructure – Establish the case for providing additional secure cycle storage and examine opportunities to improve cycle routes in and around the Estate.
- Provide information on sustainable travel options to staff and students – including public transport
- Work with other major employers, local government and transport companies to improve the transport provision

Key Performance indicators

- Percentage staff single occupancy car journeys to the University
- Percentage of students cycling / walking to University
- Overall modal split for staff and student journeys to the University
- Parking spaces per staff FTE
- Response rates to travel surveys
- Cycle parking spaces per staff and student FTE

Sustainable Buildings

Strategic Aim: Include environmental considerations in the design and specifications for new buildings and identify opportunities to improve the environmental performance of existing buildings.

Overview: The University has used the BREEAM (Building Research Establishment Environmental Assessment Method) criteria during the development of a number of buildings. In 2011 the new School of Engineering Building achieved a BREEAM rating of "excellent" at the design stage. Usually the decision to use BREEAM has been a funding requirement for the new building.

From use of the BREEAM criteria it has become apparent that the methodology is not always appropriate for every project. For example in the Business & Law building project achieving a high BREEAM rating was a significant challenge as the project was a refurbishment rather than a new build.

The operational costs need to be a key consideration during the design of a building. Careful planning at the design stage can minimise these in use costs. In order to achieve this, a checklist of sustainability issues for construction projects will be developed. The checklist will be based on existing systems and the experience that has been gained from the Business & Law and Engineering Hub projects.

Environmental issues also need consideration in smaller construction projects. To ensure sustainability is taken into account a simple data collection form will be developed. The form will be used at the initial project brief stage of each project.

The upcoming changes to the implementation of the EU Energy Performance of Buildings Directive mean that all buildings over 500m² will need to have a Display Energy Certificate (DEC) from 2013. For the University this means that every building will need a DEC. The information contained in the DECs needs to be widely circulated to staff, students and visitors. This will be achieved through the website, blog and displays in buildings.

Post occupancy review is a vital stage within the project management process. It is crucial that the successes and failures from a project are considered as a basis for the next project. Each building at the Brayford Campus will have a survey of occupants over the period of this strategy to collect their opinions on how the buildings operate. There will also be a focus on gathering the views of the occupants of new buildings.

The University has invested heavily in Building Management Systems (BMS) that give central control over the heating and ventilation systems. The BMS is

a powerful tool in controlling and reducing the amount of energy buildings use. However, there has not been a strategy behind the implementation of the BMS and as a result there are several different types of BMS software in use across the Estate. A standard specification for the BMS software in use at the University will be developed. This document will also set standards for the maintenance of the system.

Objectives

- Consider if BREEAM is appropriate for each new building
- Develop an Environmental Sustainability Checklist of issues to consider for major building refurbishment projects
- Create an environmental considerations form for smaller scale refurbishment projects to ensure their consideration
- Promote the Display Energy Certificate (DEC) results for the buildings at the University
- Establish a post occupancy review programme covering existing and new buildings
- Develop a comprehensive strategy for the use of Building Management Systems at the University. This should cover a standard specification for controls and a plan for the maintenance of the system.

Key Performance indicators

- Percentage split of DEC ratings
- Post Occupancy Review ratings
- BREEAM ratings – percentage of building space rated at "C" or above

Sustainable Procurement

Strategic Aim: Ensure that environmental and sustainability issues are taken into account in the appropriate purchasing decisions of the University.

Overview: The Procurement Team at the University has a set of supply chain principles, which include clauses on how suppliers are expected to ensure environmental protection. This is a reasonable first step and captures information on new suppliers. By working with the Procurement Team information on the environmental principles of existing major suppliers will be collected.

Many purchasing decisions are made without considering the energy and environmental costs implications. There can be wide variations in energy consumption between electrical products with similar functions and quality. Therefore, standard sustainability clauses will be produced that can be added to tender documents before major purchasing decisions. These will ensure that the costs to use as well as buy the products are considered.

The goods and services that the University purchases could potentially account for a significant proportion of overall carbon dioxide emissions. Calculating carbon dioxide emissions due to procurement is difficult as it is problematic to apportion carbon emissions to companies along the supply chain. A number of methodologies have been devised to calculate procurement emissions and these will be used to produce a Scope 3 calculation for the University.

Fairtrade products are now available in all of the University shop, catering outlets, hospitality service and vending machines. A revised Fairtrade policy has been produced, which will cover the University and the Students' Union. The University achieved Fairtrade University status in February 2012 and has teamed up with other organisations to get Fairtrade City status for Lincoln.

Responsible sourcing of building materials, such as timber, is already covered for large construction schemes. The process for ensuring sustainable sourcing on smaller projects is unclear and needs to be addressed. This could be addressed with a standard clause within project specification documents.

Objectives

- Quantify the carbon dioxide emissions from procurement activity
- Contact existing major suppliers to determine if they have an environmental and sustainability policy
- Develop standard sustainability clauses to add to major contracts
- Report on how the University can use national sustainable procurement frameworks and methodologies in its purchasing decisions
- Work with the Finance Department to establish an Ethical Investment Policy

- | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">• Promote Fairtrade products at the retail and catering outlets• Ensure that all timber used in construction projects comes from accredited sources |
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Key Performance indicators

- | |
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| <ul style="list-style-type: none">• Carbon dioxide emissions due to procurement (tonnes)• Percentage of suppliers with environmental policies / ISO14,001 accreditation (or similar) |
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Biodiversity

Strategic Aim: Understand the extent of the biodiversity assets that the University has and look for opportunities to enhance and add new habitats around the Estate.

Overview: A number of ecology and biodiversity assessments have been conducted over the last decade at the University. These reports have all been completed as part of the background development for building projects. At the Riseholme Campus there are locally important habitats and some protected species. The Brayford Campus is not as ecologically important, but it is adjacent to some important habitats, such as the Brayford Pool, River Witham and Delph Drain.

The Lincolnshire Biodiversity Action Plan identifies a number of key bird species for the Lincoln City Centre urban area. To encourage the species a programme of support will be developed. This will identify areas of the Brayford Campus that support these species and areas that could be adapted to offer support.

To raise awareness of the ecological assets that the University has on its estate a communications campaign will be developed. This will include promotional biodiversity events. The aim will be to eventually give students the opportunity to volunteer for biodiversity assessment work.

At present the University does not have enough data on biodiversity issues to produce relevant key performance indicators. The Environment Team will aim to address this issue and produce appropriate KPIs.

Objectives

- Develop a key species programme that supports the Local Biodiversity Action Plan
- Encourage new landscaping and planting schemes to include native species and plants that support wildlife
- Establish a communications plan for biodiversity issues
- Review the existing ecology and biodiversity surveys and identify any areas that have not been covered
- Produce a paper on appropriate KPIs for biodiversity

Key Performance indicators

- Number of biodiversity promotional events held each year

Education for Sustainable Development

Strategic Aim: With the support of faculties and departments develop course material on sustainable development that could be incorporated in to academic programmes at the University.

Overview: In February 2009 HEFCE published a report on "Sustainable development in higher education". This report sets out how sustainability can be made an integral part of the curriculum. This view is supported by the United Nations, which has established 2005-2014 as the Decade of Education for Sustainable Development. The goal of the Decade is to integrate the principles, values and practices of sustainable development into all aspects of education and learning. The University of Lincoln should engage with these programmes and set its own specific ESD scheme.

The University does not have a School of Environmental Sciences, but there are many courses that do incorporate some elements of sustainability. In order to assess the current extent of environmental related modules taught at the University a review of current activity will be undertaken.

It is clear from the work of HEFCE and UNESCO that there is already a great deal of work on ESD programmes for the Higher Education sector. A short review of current HE relevant ESD programmes will be produced. From this a proposal for how an ESD programme would operate at the University of Lincoln will be developed.

The Environmental & Sustainability Team already has an environmental volunteer programme. Students can work on sustainability projects in their spare time. Current student volunteering opportunities include:

- Energy Champions network – energy auditing of University buildings
- Big Tidy Up – an anti-litter campaign
- Marketing for a book recycling scheme

The schemes are delivered with the assistance of the Volunteering Office at the University. Opportunities to develop additional volunteering projects will be examined.

In summer 2011 the Environment Team took part in delivering a "Sustainability Leadership Summer School" for German students as part of a joint programme between the University of Lincoln and the Hamburg University of Applied Sciences. The project focussed on using practical lessons from around the Brayford Campus on how sustainability could be improved. The modules developed for this course could be adapted for sustainability sections on other courses.

Objectives

- Conduct an audit of existing environmental / sustainability modules within courses at the University
- Produce a review of Education for Sustainable Development (ESD) programmes at other universities in the UK
- Develop an outline of how an ESD programme at the University would be delivered and what form it would take
- Develop further opportunities for students to volunteer for sustainability projects
- Build on existing links and programmes with the Business & Law faculty – such as the Sustainable business summer school

Key Performance indicators

- Number of sustainability modules available to students
- Annual number of student volunteers on sustainability projects

Communications – Staff and Student Engagement

Strategic Aim: Provide a consistent message on sustainability issues to staff and students.

Overview: Communicating the message on sustainability to staff, students and the surrounding community cuts across all of the strategic themes outlined in this strategy. Demonstrating progress on sustainability issues is vital if momentum on improving performance is to be maintained. There has been a great deal of environmental communications work undertaken at the University, but it has not been conducted in a formalised way.

To develop a clear and consistent programme for getting out the environmental message a communications plan will be produced. This will have a set number of communications campaigns to be conducted annually. These will be based around themed events that aim to engage staff and students as appropriate.

The Environment Team already has close links with environmental teams in local government and other East Midlands based universities. Opportunities to share best practice and learn from the success of others will be examined. The University will look to play a full part in national environmental organisations such as the Environmental Association of Universities and Colleges (EAUC) and People & Planet.

The Environment Team already has a blog that covers most areas of team activity. The blog allows the Team to provide updated content on sustainability without the need to go through the University website. The blog will be regularly updated and will provide content on all areas of environmental activity. The potential for having a sustainability section on the University website will be examined. Other electronic communications methods such as Twitter will be used to communicate with staff and students.

Several staff members have expressed an interest in having training on environmental issues. Options for a staff training module will be examined. This training could be delivered through the web portal of the University.

Objectives

- Produce a communications plan that sets out an annual programme for environmental communications at the University
- Develop and extend links with local, regional and national environmental groups
- Improve electronic communications on sustainability issues – including blog, twitter, all staff e-mails and University website
- Create a programme of awareness raising events that link to the communications plan – this could include a “Green Week”

- Examine options for a sustainability training module for staff and students
– i.e. would the module be taught or electronically delivered?

Key Performance indicators

- Number of awareness events held each year

Environmental Management Systems

Strategic Aim: Develop the University's Environmental Management System to a stage where it can attain accreditation.

Overview: The University has an existing Environmental Management System (EMS), but this has not been accredited to an official standard. Ideally the system would meet the ISO 14,001 or BS8555 standard. In order to reach this level of environmental management it will be necessary to develop many additional processes and systems.

To gain an idea of the amount of work required a gap analysis of the current EMS will be produced. This will examine the amount of additional work that would be required to produce an EMS that could achieve accreditation. This analysis will describe the reporting structure for the EMS and any additional groups that are required for the development of the EMS.

There are several potential options for an accredited EMS. These include ISO14,001, BS8555 and EMAS. The ISO14,001 option is the most commonly used version. The BS8555 process has been used by some universities as it splits the accreditation process up into five smaller stages. The gap analysis will attempt to assess the most suitable accreditation option for the University.

To ensure that good progress is made a detailed action plan will be developed for the first stage of the project. This will set out the first steps to be undertaken in developing the EMS.

Objectives

- Produce a gap analysis to identify what we have in place and what will be required for a fully accredited EMS
- Determine the groups, reporting structure and documentation that will be required
- Assess the appropriate accreditation route to take for the EMS
- Develop a full plan for the first stage of the EMS

Key Performance indicators

- Not applicable

Research Using Environmental / Sustainability Data

Strategic Aim: Make data available on environmental management at the University which can be used for research projects.

Overview: The overall aim in the area of research is to encourage and promote research based on environmental data. Ideally information on the Estate will be made available for researchers at the University. This could include data on energy, waste and water consumption. It could also include data on building conditions, such as temperature, humidity etc.

The University has plans for a number of new developments over the period covered by this strategy. Opportunities to include research projects within the building programmes will be investigated. This could include issues such as life cycle assessment for new buildings, comparisons of predicted and actual energy performance and post occupancy evaluation. All of these areas are potential research topics and the information gained would be of benefit to the Estates Department.

There are already some Estates related research projects underway. For example the HEFCE funded Electro-magnates project includes staff from the School of Computing and Estates and is looking at how social media can be used to encourage staff and students to save energy. These projects need to be communicated within the University to ensure that every opportunity for exploitation is pursued.

The promotion of research related to sustainability links strongly to the Education for Sustainable Development strategic aim.

Objectives

- Make environmental data sets available to academic staff and students for research projects
- Explore the potential for research projects linked to the development of the Estate – such as incorporating research into new building projects
- Ensure existing research projects linked to the Estates Department are communicated within the University

Key Performance indicators

- Number of Estates / Sustainability research projects

3 – Strategy Implementation

The success of the Environmental Strategy will depend upon the implementation of the strategic objectives. A detailed action plan will be produced for each of the objectives, describing the activity required to meet the objective, the financial and resource implications and timescales for completion.

To record progress an annual report on the Key Performance Indicators will be produced. The reporting process will be linked to other data collection requirements such as the Estates Management Statistics. The KPI information will build into a valuable data series, which will be used to measure ongoing progress.

Successfully achieving many of the Strategic Objectives will just require staff resource rather than any additional capital expenditure. In most cases setting up procedures and ensuring they are followed can allow significant environmental change. The action plans developed for the Strategic Objectives will highlight the requirements for any potential spending. The overall aim of the Strategy is to reduce resource use and if successful this should reduce the costs of running the University.

The Environmental & Sustainability Strategy will be regularly reviewed and updated where appropriate, to ensure that it links with other relevant national and University of Lincoln policy documents.

4 – Environmental & Sustainability Strategy and Other University Policies

In order to achieve an ongoing transformation of environmental performance this strategy needs to link with the existing and upcoming policies and plans at the University. These include:

Strategic Plan: The University of Lincoln published a new Strategic Plan for 2011 to 2016 in September 2011. This document focuses on seven key areas where the University will attempt to improve its performance in the next five years. The Key Areas identified for improvements are:

- A Great Student Experience
- Employable and Successful Graduates
- Growth and Diversification
- Meaningful Research
- An International University
- Talented People
- Interactive and Responsive Real and Virtual Estates

The table below shows how the Strategic Objectives from the Environmental & Sustainability Strategy could support the Key Areas in the University Strategic Plan.

Objectives / Key Areas	SP1	SP2	SP3	SP4	SP5	SP6	SP7
Waste Management	✓✓✓		✓✓		✓		✓✓
Energy & Carbon	✓✓✓		✓✓		✓		✓✓✓
Water Resources	✓		✓✓		✓		✓✓
Sustainable Transport	✓✓✓		✓✓		✓✓✓		✓✓✓
Sustainable Procurement			✓		✓		
Biodiversity	✓✓		✓✓				✓✓
ESD	✓✓✓	✓✓✓	✓	✓	✓✓✓	✓✓✓	
Communications	✓✓	✓	✓	✓	✓✓	✓✓	✓✓
EMS			✓✓			✓	✓
Environmental Research	✓	✓✓	✓✓	✓✓✓		✓✓✓	✓

Achieving the Strategic Objects set out in the Environmental & Sustainability Strategy will play an important part in helping the University to meet the key areas for improvement identified in the Strategic Plan. Education for Sustainable Development is an important issue, which can have benefits for most of the key areas in the Strategic Plan.

Estates Strategy: The current Estates Strategy was published in February 2010 and covers the period up to 2014. The document sets out five strategic aims for the Estate – these are:

- SA1** - To support an improved student experience
- SA2** - To support an improved staff experience
- SA3** - To create coherent welcoming and navigable campuses
- SA4** - To deliver improved environmental performance and sustainability
- SA5** - To help deliver financial sustainability

The table below shows how the Strategic Objectives from this document can support the Strategic Aims from the Estates Strategy.

Objectives / Key Areas	SA1	SA2	SA3	SA4	SA5
Waste Management	✓✓	✓✓	✓	✓✓✓	✓✓
Energy & Carbon	✓✓	✓✓	✓✓	✓✓✓	✓✓✓
Water Resources	✓	✓	✓	✓✓✓	✓
Sustainable Transport	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓
Sustainable Procurement	✓	✓✓		✓✓✓	✓✓✓
Biodiversity	✓✓	✓✓	✓✓✓	✓✓✓	
ESD	✓✓✓	✓		✓✓✓	
Communications	✓✓✓	✓✓✓	✓✓	✓✓✓	✓
EMS	✓	✓✓		✓✓✓	✓✓
Environmental Research	✓✓	✓✓		✓✓	✓✓

It is expected that a new version of the Estates Strategy will be produced in 2013. The table above shows that environmental sustainability can be the core around which the Estates Strategy is built.

5 – 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.