

EcoCampus Significant Environmental Aspects, Objectives & Targets

The Environmental Management System enables Loughborough University to develop and implement a policy, objectives and targets, which take into account legal requirements and information about the significant environmental aspects.

To this end, the significance of each aspect must be determined, and those that are classed as significant should have objectives and targets set against them. This should inform our environmental policy (to be reviewed January 2011)

All baseline environmental reviews have now been completed. A register of 25 aspects and impacts has been drawn up using the action plans from the review.

The register has been scored using a risk based matrix to rank the most significant environmental impacts at Loughborough University currently.

These are in no particular order and as follows:

- 1. Water Consumption**
- 2. Use of electricity from the National Grid**
- 3. Use of gas from the National Supply**
- 4. Use of fossil fuels**
- 5. Purchase of non sustainable goods and services**
- 6. Construction, refurbishment and maintenance of buildings**
- 7. Emissions and discharges to air**
- 8. Waste**

Objectives and Targets

Water Consumption (1)

Key Objectives

The following are the key objectives of the water strategy which are in line with the requirements of the EMS and needs of the University in delivering its teaching and research functions.

1. Reduce water consumption by the operation of the University Estate
2. Monitor and control costs of water use and sewerage production, seeking best value for the University at all times
3. Support the activity of the Carbon Management Plan in reducing carbon emissions
4. Introduce a “self generated” water reduction investment fund

Water quality issues and discharge consents are not covered by this strategy. They are available under Emissions and Discharges to Air and Water.

Strategy Targets

The following targets have been set for the above objectives:

1. To reduce water consumption per FTE student by 5% per annum from a 2005/06 base year. Action July 2011
2. To identify the contribution water use reduction makes per cubic metre saved to carbon emissions and regularly report on this contribution. Action July 2011
3. Provide a “self generated” annual investment fund to allow ongoing initiatives to be carried out (subject to business case). Action July 2012

Carbon Management (this covers 2, 3, 4 above)

The total CO2 emissions that make up the 2005/06 Baseline are 29,505 tonnes.

Carbon Reduction Targets

The driving target for the reduction in CO2 emissions at the University is the HEFCE target that was published in January 2010. Progress against this target will potentially impact on both future funding opportunities and also the reputation of the University in terms of its sustainability aspirations

The definition of scope 1, 2 and 3 emissions is detailed within the following table:

Definition of Carbon Emissions

| Scope | Description | Example |
|---|--|--|
| Scope 1 : Direct emissions | Direct emissions occur from sources that are owned or controlled by the HEI. | Direct fuel and energy use ie gas for heating. Transport fuel used in institutions' own fleet vehicles. |
| Scope 2 : Electricity indirect emissions | Emissions from the generation of purchased electricity consumed by the HEI. | Purchased electricity. |
| Scope 3 : Other Indirect emissions | Scope 3 emissions are a consequence of the activities of the HEI, but occur from sources not owned or controlled by the HEI. | Water Waste Land –based business travel Commuting (both staff and students) Air travel (business, international students, student exchange) Procurement |

The key objectives associated with the development and implementation of a structured carbon management programme are:

1. To identify an accurate baseline for our carbon emissions.
2. To use the baseline data to establish clear targets for carbon reductions over a defined period.
3. To identify and quantify carbon reduction projects that will meet the annual reduction targets.
4. To develop a business case to assist in securing funding to support the implementation of carbon reduction projects.
5. To implement an annual programme of carbon reduction projects.
6. To embed carbon management in all our activities and ensure that the challenge of carbon management is shared and promoted at both a strategic and individual level across the university.
7. To use the University committee structure to report the progress of the carbon management project on an annual basis.

Target Reduction in CO2 Emissions

The target reduction in scope 1 and 2 CO2 emissions is 43% by 2020, compared to a baseline year of 2005/06.

This equates to a reduction in CO2 emissions of 12,685 tonnes.

To achieve the 43% reduction. The CO2 emissions in 2020 will need to be 16,818 tonnes.

In order to meet the target reduction in CO2 emissions, the University will need to reduce its emissions that are included within the scope and boundary of the carbon management plan **906 tonnes of CO2 year on year**.

To achieve this reduction in CO2 emissions, the following annual reduction targets have been established:

| Year | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 |
|------------|----------|---------|---------|---------|---------|---------|---------|---------|
| Target CO2 | Baseline | 28,597 | 27,691 | 26,785 | 25,878 | 24,972 | 24,066 | 23,160 |
| Actual CO2 | 29,503 | 28,405 | 29,907 | 30,232 | | | | |
| Difference | Baseline | -192 | +2,216 | +3,447 | | | | |

| Year | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|------------|---------|---------|---------|---------|---------|---------|---------|
| Target CO2 | 22,254 | 21,348 | 20,442 | 19,535 | 18,629 | 17,723 | 16,818 |
| Actual CO2 | | | | | | | |
| Difference | | | | | | | |

Purchase of non sustainable goods and services (5)

Key Objectives

The following are the key objectives of Sustainable Procurement Strategy:

1. Loughborough University's purchasers will reduce the demand for resources (e.g. by reducing purchases, using resource-efficient products, considering end of life).
2. Loughborough University's purchasers will seek to minimise any negative impacts of goods, works or services across their life-cycle and through the supply chain (e.g. impacts on health, air quality).
3. Loughborough University's purchasers will seek to ensure that minimum ethical, equality, human rights and employment standards are met by suppliers.
4. Loughborough University's Purchasing Office will ensure that fair contract prices and terms are applied and respected.
5. Loughborough University's Purchasing Office will seek to provide opportunities for and encouragement to small and medium businesses and other relevant organisations to tender for business.

Strategy Targets

The following targets have been set in order to move towards achieving these objectives:

1. This policy will go forward for approval to the Sustainability Strategic Group in November 2010, the Health, Safety and Environment Committee in February 2011, the Finance Committee in March 2011 and Council in April 2011.
Action: Director of Change Projects – completion by April 2011.
2. The working group looking at the sustainable procurement policy will consider the sustainability risks associated with areas of high spend and will prioritise areas for action through supplier appraisals, re-tendering where appropriate and through encouraging selection of more sustainable supplies through existing suppliers. Action: Working group to review and list and prioritise actions by January 2011
3. All tenders undertaken through the Purchasing Office from December 2010 (following discussion and approval of this document by Sustainability Strategic Group) to include sustainability criteria at pre-qualifying and main tender stages.
Action: Purchasing Office to report in December 2011.
4. The Purchasing Office to include information for local and small suppliers on their web page and promote areas where local suppliers are being successful (also has a community PR aspect).
Action: To be updated as part of the move of the Finance pages to the web content management system being rolled out to the University by December 2012.

5. The Purchasing Office to ensure that when the University places tenders for a value over £25K that this is made visible on GovNet which will increase visibility to local suppliers. Action Purchasing Office by January 2011.
6. Facilities Management as a major purchaser to incorporate whole-life costing considerations in construction, refurbishment and maintenance contracts.
Action Peter Upton, Andy Sweeney.
7. Facilities Management to lead a review on fleet management for the University to lead to a more environmentally sustainable approach.
Action: Director of FM – to report end 2011
8. Short training course to be run by Purchasing Office with support from the FM Sustainability team for finance officers in academic departments and support services.
Action: Director of Change Projects to discuss options with Staff Development. Programme in place for October 2011.
9. We will investigate ways to prompt purchasers using Agresso and DCLA to choose more sustainable options.
10. Action: Purchasing Office by July 2011.
11. We will create a supplier appraisal – to be considered at the January 2011 meeting of the working group.
Action: Working Group to develop proposal at January/February meetings for piloting by Purchasing Office. Action draft in use by March 2011.
12. The working group will look at the potential offered by use of online catalogues.
Action: by March 2012

Construction, refurbishment and maintenance of buildings (6)

Key Objectives

The following are the key objectives of this strategy which respond to the requirements of the EMS and the targets set in the Carbon Management Plan

1. To reduce the impact of new build, refurbishment and maintenance projects by assessment of the environmental impact and risk.
2. To work with and communicate to all stakeholders at design stage of any project. This includes the Transport Sustainability Group and Biodiversity Working Group.
3. To use best practise for sustainable design, construction and post occupancy incorporating new technologies at the design stage. The University has set a minimum target of BREEAM good for refurbishment with an aspiration to achieve very good and for new build a minimum target of very good with an aspiration to achieve excellent.
4. Ensure all capital and refurbishment projects have a written Site Waste Management plan which includes a minimum of 3 waste streams to be either reused or recycled.
5. Embed whole life costing and responsible sourcing practices in the procurement of all new build and refurbishment projects (including specification of construction materials from certified responsible sourcing schemes where possible)

Strategy Targets

The following targets have been set for the above objectives:

1. To produce sustainable design briefs for all new buildings and refurbishments. Action Sept 2011
2. To ensure that any future building specifications for new build, refurbishment and maintenance considers economic, social and environmental issues setting targets for key performance indicators such as energy, water. Travel & Transport, Biodiversity and waste. Action Sept 2012
3. To not lower the specification of environmental initiatives due to price conflict but consider the building as a whole and identify other areas where a trade off may be possible. For example, it may be possible to change a structural element of the design to keep a highly efficient glazing system. Action Sept 2011

Emissions and Discharges to Air & Water (1& 7)

Key Objectives

The following supports the University's commitment to ensure legal compliance in this particular area of impact responding to the requirements of the Environmental Management System.

1. To assess the volume of emissions to air and discharges to water ensuring compliance with relevant legislation.
2. To monitor emissions to air and discharges to water.
3. To establish and then set limits where applicable for the volume or concentration of substances emitted to air.
4. To keep record of any discharge consents where required.
5. To have a procedure for identifying and dealing with emissions that exceed set limits.
6. To have a procedure in place for any pollution of watercourses.

Strategy Targets

The following targets have been set for the above objectives:

1. To audit the current emissions to air and water. July 2011
2. To put in place a procedure for ongoing monitoring and management of emissions to air and discharges to drain or water. December 2011
3. To provide training and education on procedures and protocols for emissions or discharges that exceed set limits. March 2012

Waste (8)

Key Objectives

The University's objectives are:

1. To ensure legal compliance
2. To reduce the amount of waste produced
3. All waste will be managed in a sustainable manner following the waste hierarchy of prevention, reuse, recycle/compost, resource recovery and landfill
4. Waste will be segregated and clearly labelled to enable recycling rebates to be obtained wherever possible.
5. To ensure staff are trained to handle controlled and hazardous waste.

Strategy Targets

1. To recycle and compost 45% of total waste and divert a further 30% by 2015. This is against a 2005/2006 baseline of 2,092 tonnes.
2. In order to fulfil the WMS some improvement to current data collection streams will need to be implemented, in particular for the quantities of hazardous and clinical waste disposal and recyclable materials collected by the Local Council. The University will identify systems to record these data streams. This will be done by July 2011.
3. Procedures and monitoring will be put in place by July 2011 to ensure appropriate training is given on an ongoing basis.
4. A procedure will be written and communicated to ensure segregation of waste and adequate labelling by July 2011.