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#### Environmental Management

Subject: Annual Report for Academic Year 2010/11 and Objectives for 2011/12

**Origin: Environmental Manager, Nik Hunt**

Purpose of the report

To provide a report on achievements and statistics for the academic year 2010/11 and set targets and objectives for the academic year 2011/12. Progress against these will then be reported on at each HSE Committee Meeting.

Background

The Development Plan alongside the Waste Strategy objectives and targets are required to ensure that the University continues to work towards its five key Waste Strategy targets of:

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.

(To view the Full Waste Strategy please see: <http://www.lboro.ac.uk/sustainability/downloads/pdf/lu-waste-man-strategy.pdf>)

The plan shall also ensure that Environmental Management supports the strategic planning of the university and makes best use of the resources available.

Summary Report:

1. The role of Environmental Manager was created in October 2010 on a part time basis (0.5FTE) with the intention of the role becoming full time in August 2011. However the additional responsibility of Managing the Symmetry Door Access installation Project has meant that less than 0.5 FTE has been achieved. Furthermore the role has yet to become full time as a result of commitments to the additional role in imago Services, (Operations Support Manager). This is a workstream which is being reviewed as part of the merger between FM and imago.
2. Excellent progress has been made on statistical data gathering and analysis and a report on this follows.
3. Appendix 1 reports on Development Plan objectives for the year 2010/11 and the progress made against these as well as additional achievements.
4. Appendix 2 reports on the Development Plan objectives for the year 2011/12 agreed with line management

**Supplementary Environmental Management Update:**

* As part of the EcoCampus baseline environmental review our Emissions to Air and Discharges to Water were identified as a significant environmental impact. As a result we have appointed consultants Revise to undertake an audit of emissions and discharges and produce a report on current activities and processes with guidance on current legislation which applies to these. As a subsequent result any non conformances will be addressed through appropriate training.
* A review is currently underway to look at defining how Environmental Management will work alongside Sustainability and the Health, Safety and Environment Office particularly with regards to roles and responsibilities and with regards to communication and the web.

**STATISTICAL REPORT:**

A key failing of Environmental Management on campus in the past has been the statistical waste data available from the University’s operations and contractors. As a result significant emphasis has been placed on all our contractors to improve on this area which is now enabling far better data to be gathered and analysed. This in turn will enable us to report our data more accurately, target areas for improvement and reduce our landfill impact. As a direct result we will then be able to reduce our carbon footprint as well as driving a VFM service.

The following table is the one currently publicised on the Sustainability web pages, the figures highlighted in yellow are the figures to be added as a result of the last year’s activities.

|  |  |  |  |
| --- | --- | --- | --- |
| 2005 - 2011 waste and recycling figures | | | |
|  | **Total waste** | **Recycling** | **% of Total waste recycled** |
| **(inc recycling)** |
| **2010 - 2011** | **1761** | **971** | **55%** |
| **2009 - 2010** | 1,799 | 513 | 28.5% |
| **2008 - 2009** | 2,199 | 568 | 26% |
| **2007 – 2008** | 2,411 | 838 | 35% |
| **2006 – 2007** | 2,097 | 418 | 20% |
| **2005 – 2006** | 2,092 | 191 | 9% |

As can be seen there has been a significant increase overall in the level of recycling on campus, however further detail is required to understand the increase. The table on the following page is the data gathered to date which will make up our HESA return. On page 4 there is then a series of bullet point explanations.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | 2009/10 |  | 2010/11 DATA | | | | | |
| **HESA**  **CODING:** | **WASTE TOTAL FOR:** | | DATA  RETURN  Tonnes | % of Sub total | Aug-Dec | % of Sub total | Jan-July | % of Sub total | DATA  RETURN Tonnes | % of Sub total |
| Tonnes | Tonnes |
| D73.C13a | Non-Residential | Recycled | 446.7 | 44.8% | 143.01 | 41% | 351.94 | 75% | 495.36 | 60% |
| D73.C13b | Non-Residential | Incineration |  |  | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| D73.C13c | Non-Residential | Other | 550.22 | 55.2% | 205.81 | 59% | 45.7 | 10% | 252.10 | 31% |
| D73.C13d | Non-Residential | Used to Create Energy |  |  | 0.00 | 0% | 73.99 | 16% | 73.99 | 9% |
|  |  | **SUB TOTAL** | **996.92** |  | **348.82** |  | **471.63** |  | **821.46** |  |
| D73.C14a | Residential | Recycled | 66.52 | 8.3% | 47.46 | 15% | 428 | 68% | 475.61 | 51% |
| D73.C14b | Residential | Incineration |  |  | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| D73.C14c | Residential | Other | 735.41 | 91.7% | 262.84 | 85% | 76.77 | 12% | 340.46 | 36% |
| D73.C14d | Residential | Used to Create Energy |  |  | 0.00 | 0% | 124.3 | 20% | 124.3 | 13% |
|  |  | **SUB TOTAL** | **801.93** |  | **310.3** |  | **629.08** |  | **940.38** |  |
| D73.C15a | Construction | Recycled |  |  | 0.00 |  | 0.00 |  | 0.00 |  |
| D73.C15b | Construction | Incineration |  |  | 0.00 |  | 0.00 |  | 0.00 |  |
| D73.C15c | Construction | Other |  |  | 0.00 |  | 0.00 |  | 0.00 |  |
| D73.C15d | Construction | Used to Create Energy |  |  | 0.00 |  | 0.00 |  | 0.00 |  |
|  |  | **SUB TOTAL** |  |  | 0.00 | **% of All Wastes** | 0.00 | **% of All Wastes** | 0.00 | **% of All Wastes** |
| D73.C01a | Total HEI | Recycled | 513.22 | 28.5% | 190.47 | 29% | 779.94 | 71% | 970.98 | 55% |
| D73.C01b | Total HEI | Incineration |  |  | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| D73.C01c | Total HEI | Other | 1285.63 | 71.5% | 468.65 | 71% | 122.48 | 11% | 592.55 | 34% |
| D73.C01d | Total HEI | Used to Create Energy |  |  | 0.00 | 0% | 198.29 | 18% | 198.29 | 11% |
| D73.C01 | Total HEI | All Wastes | **1798.85** |  | **659.12** |  | **1100.71** |  | **1761.83** |  |

**Other = Landfill.**

**Explanation of statistical data:**

* In the period Aug-Dec 2010 we were still operating under the previous waste contractor and recycling levels in this period for the site were just 29% which is in line with 2009/10. Under this contractor all general waste leaving site was designated as landfill and therefore classed as “Other” for the HESA return. This general waste may have subsequently been processed though a MRF (Materials Recycling Facility) but no data on the processing of this was available.

* In January 2011 new waste contractors commenced operations and recycling levels overall have increased to 71%. This is as a result of:
  + increased on campus recycling though our main contractor – by approx 6%
  + the processing of all general waste through a MRF with an average recycling recovery rate of 45%
  + increased recycling through additional contractors and improved data management in these areas
* On campus recycling through all contractors is made up of:
  + 58 tonnes of cardboard – whole year
  + 28 tonnes of WEEE (Waste Electronic and Electrical Equipment) – Jan to Jul
  + 194 tonnes of food waste – Oct to Jul
  + 28 tonnes of mixed recyclables from academic areas – whole year
  + 86 tonnes of mixed recyclables from Halls of residence – whole year
  + 175 tonnes of paper – whole year
  + 92 tonnes of inert material – whole year
  + 28.5 tonnes of metal – Jan to Jul
  + 56.5 tonnes of wood – whole year
  + 5 tonnes of furniture – Jan to Jul
* In addition to the increased recycling the processing of general waste through the MRF also allows the recovery of material (34%) suitable for use as an RDF (Refused Derived Fuel) which can then be used for creating energy and allowing us to report this under that section.
* The net result of the above factors is that we have progressed from 71% of waste to landfill for the first five months of the year to just 11% for the latter 7 months enabling us to report just 34% overall.
* Recycling levels in Halls was only an estimated 10% during the period Aug-Dec, however data for Jan-Jul tells us it is 19%
* The data presented does not include construction data which has not previously been reported on but is now being gathered as part of the review of SWMP’s and is a HESA requirement
* The data presented does not include any data on Hazardous or Clinical waste as weight data has been poor from these contractors and the new contractors are only just in the process of being appointed.
* The data presented for 2010/11 is for the whole site and thus includes:
  + imago ltd facilities of Burleigh Court, The Link and SDR
  + Holywell Park
  + Loughborough Park
  + SportPark
  + The main campus both Residential and Non Residential
  + The waste collected from UPP under the soft FM contract
* The data for 2009/10 was thought to exclude all commercial operations (imago Ltd and tenanted areas.)

**Target statistical data for 2011/12:**

The Waste Strategy when written in December 2010 targeted recycling of 45% and diversion of 30% by 2015 against a 2005/6 baseline of 2092 tonnes. Thus with results during the latter part of this year at 71% recycling and 18% diversion we are already surpassing these figures overall and the Waste Strategy will be reviewed and updated to reflect this. It will focus on maintaining these levels of recycling but through a transition to increased recycling on campus by building on the 6% achieved this year alongside which increased recycling in halls will be targeted. It will also focus on reducing waste overall but with particular emphasis on food waste.

It is proposed therefore that the Waste Strategy targets be amended to:

1. Maintain a recycling rate overall of at least 70% with a target of 75% by 2015
2. Maintain a diversion rate overall of at least 15% with a target of 20% by 2015
3. To increase on campus recycling by 10% in 2011/12 and by 5% year on year until 2015
4. To increase recycling in halls by 10% in 2011/12 and by at least 5% year on year until levels on campus reflect local averages (current target for Charnwood Borough Council is 46%)
5. To reduce food waste by 5% year on year until 2015 (almost 10 tonnes per year).

**Appendix 1: ENVIRONMENTAL MANAGEMENT DEVELOPMENT PLAN 2010/11 - review of progress**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OBJECTIVE** | **WHY COMPLETE THIS OBJECTIVE** | **BUDGETED COST OR ESTIMATED SAVING** | **WHAT WILL BE THE EVIDENCE OR MEASURE OF SUCCESS** | **WHEN WILL THIS BE COMPLETED BY** | **TO BE DELIVERED BY** | **COMMENTS** |
| Deliver new Waste Contracts | Current contract expires Dec 2010 | Minimum requirement is a zero increase in waste costs, ideal solution will save money. | Better management data and cost savings. | January 2011 | **Nik Hunt & Carole Burgess** | **Completed for main waste streams, two streams still under negotiation** |
| Eco Campus Project | University project to deliver Eco standard | £2 – 4k P.A. | Standard achieved should lead to ISO 14001 | 3 – 4 year project | **Nik Hunt, Jo Hasbury & Cathy Moore** | **Silver Award Pending** |

**Objective achievements**

Deliver new waste contracts:

* Joint tender bid undertaken with Leicester University
* Wastecycle appointed for general waste, bulky waste, paper, confidential waste, metal, wood and mixed recyclates from non residential areas
* Charnwood Borough Council appointed to take mixed recyclable from Halls of Residence (Nil Charge Contract)
* Mercury Recycling appointed to take light bulbs and batteries (Nil Charge Contract)
* SecondByte appointed to take all WEEE - Waste Electrical and Electronic Equipment. (Nil Charge Contract)
* Bioco appointed to take Food Waste
* Additional furniture recycling scheme set up with Giving World Online
* All departmental skips now under main contract
* Segregated metal and bulk paper now attract rebates
* Achieving recycling targets now attracts a rebate from main contractor
* Rebates now received for any contractor using Wastecycle skip service.
* Significant improvement in waste data (see figures presented) is enabling removal of bins and reduction in lifts
* First year savings of £20K+ achieved
* Clinical and Hazardous waste contracts are in the final stages of appointment

In addition this has enabled us to:

* Create a document register of all suppliers and there waste management licenses
* Centralise the tracking and storage of Waste Transfer and Consignment Notes

EcoCampus Project:

* Campus wide map of environmental activities and impacts
* Updated Register of Environmental Legislation
* Two local audits undertaken
* Ongoing procedural review and training

**Additional achievements:**

* Development of Waste and Recycling web pages within Sustainability website.
* Development of standardised waste & recycling posters – available on the website
* Environmental Audit of the Link Hotel
* Review of recycling in halls of residences and an investigation in to obstacles to recycling.
* Undertaken and passed year one of an MSc in Environmental Management (now starting year 2)
* Environment Day – held March 23rd as part of Sustainability Team

**Appendix 2: ENVIRONMENTAL MANAGEMENT DEVELOPMENT PLAN 2011/12**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OBJECTIVE** | **WHY COMPLETE THIS OBJECTIVE** | **BUDGETED COST OR ESTIMATED SAVING** | **WHAT WILL BE THE EVIDENCE OR MEASURE OF SUCCESS** | **WHEN WILL THIS BE COMPLETED BY** | **TO BE DELIVERED BY** | **COMMENTS** |
| Eco Campus Project | University project to deliver Eco standard | £2 – 4k P.A. | Standard achieved should lead to ISO 14001. Gold by Dec 2012 | 3 – 4 year project | Nik Hunt, Jo Hasbury & Cathy Moore | **Next Target is Gold** |
| Creation of a Recycling Compound on Holywell Park Utilities Yard | To enable increased recycling and financial gain from sale of baled materials | Likely set up cost TBC but estimated at £150-250K. Analysis of income potential to be undertaken. | Increase in recycling and an income stream to offset costs. | Sept 2012 | Nik Hunt | **Data now being gathered.** |
| Introduce the new Environmental League in Halls of Residence to replace the Energy League. | The Energy League focuses on energy but the Environmental League will encompass recycling and carbon footprint | Nil additional cost but savings should be realised in energy and waste costs. (Existing funding by imago is £5K which is still required). | Energy savings and increase in recycling. | Sept 2011 launch – ongoing throughout 2011/12. | Nik Hunt & Amy James | **On track** |
| Re-structure the W&RWG\* | To reflect the new School format and to replace those members who have retired / left and to increase membership. | Nil cost or direct saving although membership should help drive increased recycling and therefore indirect cost savings. | Membership from all 10 schools plus support departments. | Sept 2011 | Nik Hunt | **School representatives identified - first meeting scheduled for 12/10/11** |
| Introduction of new standard bin specification for campus | At present each building has a differing bin solution and this means we are not getting VFM from purchases and the guidance on waste & recycling is confusing. | There will be a cost to replace bins with the standard provision be if done on a rolling basis to coincide with replacements there should a VFM cost saving. | A clear message on what bins to use, where and how. | Bin standard by August 2011 but with ongoing replacement | Nik Hunt & Carole Burgess | **Deadline delayed, new target of 1st November 2011** |
| Review of SWMP (Site Waste Management Plans) & contractors used. | To improve on HEFCE Stats returns,we need to understand waste produced and recycled as part of building and refurbishment works | Nil cost but could result in an income stream if contractors use Wastecycle. | Requirement of SWMP to provide the relevant data to the Environmental Manager and recommendations on the use of Wastecycle. | Dec 2011 | Nik Hunt | **Initial data being collated.** |

\*W&RWG = Waste & Recycling Working Group, will be renamed the EWG = Environment Working Group)