

# University of South Wales Group (2015 – 2020) Environmental Strategy



University of South Wales Group  
Estates & Facilities Department

Visit:

<http://estates.southwales.ac.uk/Sustainability/>



## Contents

Introduction .....	2
Waste Management .....	3
Energy .....	5
Water .....	7
Travel .....	9
Sustainable Procurement.....	11
Biodiversity .....	13
Community Involvement .....	15
Construction and Refurbishment.....	16
Emissions and Discharge.....	18

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>1</i>	<i>of</i>	<i>19</i>

## Introduction

### Context

The University of South Wales (USW) was established in April 2013 as a result of a merger of two universities, the University of Wales, Newport and the University of Glamorgan. Both universities had a proven track record in environmental management. The University of Glamorgan operating an Estates wide ISO 14001 EMS for around 10 years and the University of Wales Newport a University wide ISO 14001 EMS for around 5 years. The University of Wales Newport obtained 33rd position in the People and planet Green League table during 2012 and 34<sup>th</sup> in 2013.

USW is currently the largest university in Wales, employing over 3,000 staff and supporting a student population in excess of 30,000. At present we manage five campuses; Treforest, Glyntaff, ATRiUM, Newport City and Caerleon. Part of the wider USW group is Merthyr College and The Royal Welsh College of Music and Drama (RWCMD). As a major university we acknowledge the role we have to play in protecting the environment.

The University shall endeavour to continually improve its environmental performance and select those activities, which are most appropriate to the University's particular needs and circumstances, and helps to achieve its mission.

### Mission and Aim

In line with the University's mission and strategic objectives, the Estates Department, has adopted the following environmental mission statement:

*To serve, maintain and enhance the University and protect its local environment ensuring that it is able to pursue its educational and research objectives.*

Our Environmental Strategy has been developed alongside our Environmental Policy to support this mission. The policy is a top tier document, endorsed by the Vice Chancellor, which outlines the university's commitment to minimising its environmental impact. This strategy aligns with the University's commitment to protecting the environment, and reflects the objectives of our ISO 14001:2004 Environmental Management System. It reflects the aims and objectives of both the regional and institutional strategies of the University, the requirements of the Welsh Government's Climate Change Strategy for Wales, and the requirements of various Higher Education Funding Council of Wales (HEFCW) Circulars including the Education for Sustainable Development and Global Citizenship (ESDGC) Circular requirements.

Our strategy focuses on the areas that create the biggest environmental impact for the university, thus allowing the greatest potential carbon reduction to be achieved. Through adopting responsible environmental practices and developing approved procedures, the

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>2</i>	<i>of</i>	<i>19</i>

university will seek to sustain and improve its environment and the local environment around our campuses, thereby contributing to the protection of local and national environments.

## Waste Management

### **Objective:**

- *To reduce the environmental impact of waste through reducing the amount of waste sent to landfill and increasing reuse and recycling levels*

### **Target:**

- *Increase recycling rate by 3% per year; 15% over the next five years*

USW recognises that responsible waste management is important, with limited capacity in landfill sites, and the increasing costs associated with disposing of waste. Therefore the university aims to reduce the amount of waste that it generates and that is sent to landfill by implementing safe and responsible waste recycling schemes. Goods that are made from recycled raw materials can be manufactured using less energy compared against the use of virgin raw materials. Therefore, responsible waste management practices will save natural resources, energy and conserve the environment.

The University aims to follow the waste hierarchy that is outlined below:

- Prevention
- Re-use
- Recycle
- Recovery
- Disposal

While waste production cannot be eliminated, the University will adopt the below practices to prevent waste wherever possible and ensure the sustainable use of any waste that is produced:

- Develop good working relationships with licensed waste contractors
- Ensure that records are held for all waste transactions that are undertaken
- Ensure that the space in each skip is maximised
- Look at reusing items such as furniture and WEEE where possible
- Continue to recycle all recyclable waste streams
- Undertake awareness raising exercises for staff and students
- Work with local charities and schools to reuse waste furniture and WEEE
- As a last resort look at waste to energy with our waste contractors.
- Monitor and review waste production and recycling, and set future targets against this
- Investigate recycling and reuse opportunities

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>3</i>	<i>of</i>	<i>19</i>

- Raise awareness for all students, staff and visitors of the need to manage their waste
- Adhere to the waste hierarchy
- Comply with all relevant waste legislation

**Achievements to date:**

- In 2014 USW recycling rate was 53% at Treforest, 47% and 34% Newport campuses 34% Glyntaff and 89% Atrium.
- This is an average of 50%
- Introduction of food waste recycling at Treforest and Glyntaff campus
- Introduction of recycling bins/practices at our campuses to recycle cardboard, paper, cans, plastic, glass, printer cartridges, batteries, wood, metal, food waste and WEEE waste.
- Liaison with Newport Waste Savers to collect the mixed recycling waste free of charge
- Rehome of over 3,000 items of furniture from the closure and demolition of buildings and campuses.
- Awareness raising events to promote responsible waste management
- Mixed recycling bins for our halls of residence
- Continued monitoring of waste and recycling.

**Related documents**

[Environmental Policy](#)

[Legal Register](#)

[Waste and recycling projects](#)

[Carbon Management Plan](#)

[Waste Management Procedure](#)

[Waste Management Action Plan](#)

Issue No	1.1		
Issue Date	11.12.2015		
Page	4	of	19

## Energy

### **Objective:**

- To reduce energy usage through the promotion of energy conservation and efficiency

### **Target:**

- Reduce energy usage by 5% per year; 25% over the next 5 years.
- 3% reduction in carbon per year; 15% over the next 5 years.

Energy efficiency is of great importance to the university. The numerous headlines reminding us of depleting energy reserves and issues with security of supply reinforces the fact that energy costs are only likely to increase over time. The university is mindful of the environmental impact of energy use and we have been actively working to reduce this over time. The university aims to conserve energy by reducing unnecessary usage and improving efficiency.

Working practice will be to use the minimum quantities of energy necessary to maintain adequate heating, lighting and general operation of plant and machinery, whilst ensuring the safe and effective operation of the university's activities. The Estates Department will continually review its energy sources, plant and equipment to ensure that future works incorporate improvements to the overall energy efficiency thereby reducing the environmental impact. Monitoring consumption to individual buildings will be undertaken to ensure that excessive or unnecessary usage is identified and corrected.

Baseline energy consumption in 2013/14 as USW was 21,125,671kWh Gas and 16,200,000kWh for Electricity. USW Estate size is approx 178,503m<sup>2</sup>.

In order for the University to achieve the above aims, it shall:

- Monitor energy consumption, and set future targets against this.
- Investigate energy efficiency opportunities
- Maintain temperatures between 19°C and 21°C
- Ensure heating season is operational between 1<sup>st</sup> October – 1<sup>st</sup> May (this may vary dependent on outside air temperature which will be monitored at the time)
- Ensure all air conditioning measures are authorised by the Director of Estates
- Ensure portable heaters are only used when authorised by Estates and Facilities, and in emergency situations where there is no heating and the internal air temperature falls below 19°C
- Monitor the success of all energy management initiatives that have been adopted
- Raise awareness for all students and staff of the need to manage energy
- Install sub-meters to better understand and control energy usage
- Validate all utility bills to ensure accuracy

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>5</i>	<i>of</i>	<i>19</i>

- Work with the Welsh Purchasing Consortium to ensure effective energy procurement
- Work with all areas of the university to promote energy efficiency across the estate
- Ensure regular maintenance of plant and equipment so it runs efficiently at all times
- Ongoing monitoring of energy use
- Monitoring of DEC's and EPC's to ensure an energy reduction (as required in EPBD)
- Comply with all relevant energy legislation such as CRC

**Achievements to date:**

- *Lighting improvements and the use of PIRs throughout campuses*
- *Installation of a number of sub-meters on the buildings at the Treforest campus*
- *Extension of the sub-metering system at the across campuses. Ongoing works to ensure fully operational and expand.*
- *BMS management work to improve the energy efficiency of plant and equipment*
- *Awareness raising events to promote responsible energy efficiency*
- *Installation of new boilers, heating system filtration, and pipe lagging across campuses*
- *Improved monitoring and measuring of energy consumption*
- *Forward planning to allow the purchase of forecast allowances under the CRC scheme*
- *Installation of a PV panel on top of Pen-y-fan the accommodation building at Treforest*
- *UWN was a participant of the Higher Education Carbon Management Programme. Completion of 5 year CMP. As a result reduced carbon emissions by 7.5%.*
- *Construction of CAPSE building at the Treforest campus following the BREEAM standard.*

**Related documents**

[Environmental Policy](#)

[Legal Register](#)

[Energy projects](#)

[Carbon Management Plan](#)

[Energy Procedure](#)

[Energy Action Plan](#)

Issue No	1.1		
Issue Date	11.12.2015		
Page	6	of	19

## Water

### **Objective:**

- *To promote water efficiency across all USW campuses.*

### **Target:**

- *Reduce water usage by 1% per year; 5% over the next 5 years.*

Although water prices have not experienced the same level of price increase as electricity and gas has in recent years, water usage at the university is still significant. Therefore it is vital that the environmental impact of this activity is considered at all opportunities. The University shall endeavour to use the minimum quantities of water needed to effectively undertake its activities. Hot supplies will be maintained at temperatures which will minimise energy consumption, but will protect users from scalding and other health hazards such as Legionella. All foul and wastewater will be discharged correctly thus ensuring conformity to statutory requirements.

To achieve the above, the university will adopt the following measures:

- Monitor water consumption, and set future targets against this.
- Investigate water efficiency opportunities.
- Monitor the success of all water management initiatives that have been adopted.
- Raise awareness for all students and staff of the need to adopt good water efficiency.
- Install sub-meters to better understand and control energy usage.
- Validate all utility bills to ensure accuracy.
- Work with all areas of the university to promote water efficiency across the estate
- Ensure regular maintenance of plant and equipment so it runs efficiently at all times
- Comply with all relevant water legislation.
- We have in place emergency procedures to prevent contamination of water courses.

### **Achievements to date:**

- *Water saving measures have been installed at Caerleon including urinal flush controls and efficient taps*
- *Installation of water meters to look at the consumption of processes in departments e.g. Photography Department.*
- *Awareness raising events to promote responsible water efficiency*
- *Aqualogic have undertaken a water audits at Treforest and Caerleon to identify any efficiency improvements*
- *Improved monitoring of water consumption to help quickly identify any leaks*
- *Reduced flow shower heads installed at a number of showers at the Treforest campus*

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>7</i>	<i>of</i>	<i>19</i>



## Related documents

[Environmental Policy](#)

[Legal Register](#)

[Water Management projects](#)

[Water Procedure](#)

[Water Action Plan](#)

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>8</i>	<i>of</i>	<i>19</i>

## Travel

**Objective:**

- *To reduce fuel usage, carbon dioxide emissions and encourage alternative methods of transport*

**Target:**

- *To reduce single occupancy car use by 2% per year; 10% over the next 5 years.*

USW is currently the largest university in Wales, and therefore recognises travel as a major impact on the surrounding area and environment. As a result of the merger, our campuses are spread across South East Wales, which presents various challenges when managing the impact of travel. USW is aware that there is a growing local and national concern around the harmful effects of fumes and traffic congestion on people's health, and also the damage it causes to the environment, and local community.

The transport of students and staff to and from the university, around campus and between campuses creates a major impact on the surrounding area and environment. Therefore an appropriate Travel Plan has been created, which details the impact of travel and the necessary measures the university will implement to control this impact.

A number of these measures are detailed below:

- Continue to promote low impact travel and reduce single occupancy car use through the USW travel plan.
- Monitoring of the bike shed usage to establish the uptake of cycling
- Awareness raising of the location and hours of use of shower facilities
- Undertake regular travel surveys to monitor modes of transport and determine the impact of sustainable travel methods and reduction of single occupancy car use.
- Awareness raising for all students and staff of the benefits of sustainable travel
- Continued work with local public transport providers to negotiate discounts
- Continued work with Sustrans to promote cycling
- Investigation of methods to increase sustainable travel
- Promotion of the university Cycle Scheme
- Regular audits to ensure compliance with all relevant transport policies

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>9</i>	<i>of</i>	<i>19</i>

**Achievements to date:**

- *Production of a USW wide Travel plan to priorities measures to reduce single occupancy car use and promote less impacting travel.*
- *Introduction of Cyclescheme for UWN in 2010 and subsequent roll out to the whole of USW in 2014.*
- *Investment in secure bike storage and shower facilities across campuses.*
- *Parking charges to discourage single occupancy car use.*
- *Work with Arriva Trains Wales to provide discount to staff*
- *Production of a map identifying local routes for cycling and walking*
- *First university in the country to produce Bio-diesel, at the Caerleon campus.*
- *Shuttle bus facilities between certain campuses.*

**Related documents**

[University of South Wales Group \(2015 – 2020\) Travel Plan](#)

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>10</i>	<i>of</i>	<i>19</i>

## Sustainable Procurement

### **Objective:**

- *To reduce the environmental impact of USW purchasing and purchase environmentally friendly products wherever possible.*
- *Ensure major suppliers manage and reduce their environmental impacts.*

### **Target:**

- *To obtain the environmental credentials of key suppliers*
- *10% new suppliers with Environmental Policy this year*
- *10% of suppliers with ISO 14001 or similar by 2020*

Purchasing decisions can have major economic and environmental implications, locally, nationally and globally. The university is committed to sustainable procurement, and when conducting its procurement activity USW will seek to ensure that environmental and sustainable factors are an integral consideration of all aspects of needs definition, acquisition, service delivery and product utilisation and disposal and do so within the framework of value for money in the public sector.

To achieve the above, the university will adopt the following measures:

- Work with suppliers and contractors to ensure goods and services are purchased sustainably and responsibly
- Encourage the reduction of waste in goods and the packaging of goods
- Assess the environmental credentials of suppliers before they are appointed
- Assess the content of recycled materials in items purchased, and favour those that utilise a recyclable waste stream as a raw material
- Assess the impact of materials and equipment using life cycle analysis/whole life costing techniques for items that are purchased and during new build/refurbishment
- Encourage the reuse/repair of equipment/furniture internally throughout the university and externally with schools and charities.
- Purchase equipment that can be upgraded and refurbished wherever possible
- Assess the energy rating of any electrical equipment when purchasing
- Look at purchasing Fair Trade, local, seasonal and sustainable food where possible
- Favour less hazardous materials when purchasing chemicals
- Ensure that timber purchased is from a reputable source and has the Forrester Stewardship Council (FSC) logo
- Purchase paper that has the FSC certification, low chlorine or chlorine free (PFC) where possible.

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>11</i>	<i>of</i>	<i>19</i>

**Achievements to date:**

- Fair trade status across USW
- Bronze food for life standard for catering outlets – This demonstrates purchase of local products, sustainable fish, meat, free range eggs etc.
- Installation of MFDs to reduce printer and print / toner cartridge purchasing.
- Furniture re-home policy as opposed to purchasing new.

**Related documents**

[Sustainable Procurement Procedure](#)

[Legal Register](#)

[Sustainable Procurement Action Plan](#)

[Sustainable Food Policy](#)

[Sustainable Procurement Action Framework](#)

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>12</i>	<i>of</i>	<i>19</i>

## Biodiversity

### **Objective:**

- *Maintain and enhance the bio-diversity of USW sites.*

### **Target:**

- *Update the biodiversity action plan to ensure that they cover the whole of USW and work towards Biodiversity action plans to cover the whole of USW campuses.*

As a university, we recognise the impact we can cause on the environment as a result of our activities. The various locations of our campuses mean that each of the landscapes are different and need to be managed differently. Our campuses are situated in a number of environments, with grassy areas, woodlands and urban areas. Our grounds are managed with the environment in mind, minimising the use of pesticides and only using peat free or low peat planting material where appropriate.

Alongside our Newport City Campus we have otters present in the river and there are bats nesting at our Treforest campus. The university works with responsible contractors to monitor their presence and ensure there is no adverse impact to them as a result of maintenance/refurbishment work.

The University will adopt the below practices to manage its impact on biodiversity:

- Assess and monitor the biodiversity on our campuses and create an action plan to conserve it
- Use sympathetic management techniques to protect biodiversity when maintaining grounds on campus.
- Work with responsible contractors to maintain and enhance biodiversity
- Ensure that any protected species that are identified and provided with safe habitats
- Identify opportunities to conserve and create new biodiversity habitats
- Ensure native plant species are used when planting
- Work with the local community and schools to promote biodiversity
- Undertake yearly otter and bat surveys to ensure there is no detriment to the species as a result of our activities
- Comply with all relevant biodiversity legislation.
- Continue maintain and enhance the biodiversity on campuses occupied by USW
- Continue otter surveying
- Improvements to the woodland walk and awareness of flora and fauna.

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>13</i>	<i>of</i>	<i>19</i>

**Achievements to date:**

- *Protect and enhance bats on Treforest and undertake measures to help encourage their presence.*
- *Otters at the City Campus – continue to monitor and prevent / monitor activity that is likely to affect the otters.*
- *Biodiversity habitat enhancement works at Glyntaff campus.*
- *Monitoring and production of BAP – roll out to cover the whole of USW.*
- *Woodland walk and notices to increase awareness of flora and fauna in that area.*

**Related documents**

[Legal Register](#)

[City Campus Otter Monitoring Reports](#)

[Biodiversity Action Plan](#)

[Biodiversity Procedure](#)

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>14</i>	<i>of</i>	<i>19</i>

## Community Involvement

### **Objective:**

- *To work with the local community and provide a pleasant environment for everyone. Reduce incidents of complaints.*

### **Target:**

- *Complaints response time 24 hours*
- *Reuse of furniture with local charities, schools or community groups.*
- *Work with 3 groups, schools or charities per year; 15 groups, schools or charities by 2015*

The university recognises the environmental impact it can have on the local communities in which it operates. Due to the size of the university, the large numbers of staff and students traveling to and from our campuses, and the number of students living around our sites, it is important that we work with the community to manage our impact and create a positive environmental for everyone. In order to achieve this, the university has set out the following measures:

- Provide sustainability/environmental awareness courses.
- Provide an allotment area for staff and the student community to grow vegetables, fruit etc.
- Continue to work with local community groups including Newport Waste Savers through recycling and clothing up-cycling projects.
- Donate redundant furniture to local schools and community groups
- Allow the local community to use the facilities on campus
- Work with schools to raise environmental awareness e.g. Forrest Schools, open days
- Support funding for local environmentally beneficial measures e.g. cycle routes
- Encourage student projects which work with the community
- Work with the unemployed and those with learning difficulties from the local community to provide work experience and employment opportunities

### **Achievements to date:**

- *Complaints procedure for prompt dealing with complaints*
- *Close relationships with local schools, colleges, charities and community groups.*

## Related documents

[Community Involvement Action Plan](#)

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>15</i>	<i>of</i>	<i>19</i>



## Construction and Refurbishment

### **Objective:**

- *To ensure the environmental is considered during any new build and/or refurbishment at our campuses*

### **Target:**

- *Aspire towards BREEAM Excellence rating for major new builds*

The design, construction, refurbishment and demolition of buildings can create a significant environmental impact. Our campuses have experienced a number of refurbishments and new constructions. Well-designed and operated buildings can have a positive impact and the environment. Therefore USW ensures careful consideration is given to these projects with regard to the environment, and that buildings conform to the appropriate relevant environmental legislation.

To achieve the above, the university has adopted the following measures:

- All new builds will be constructed against the BREEAM Standard, with the aim to achieve an Excellence rating where possible.
- All new builds and refurbishments will consider the Part L building regulations
- Identify opportunities for energy efficiency measures during the construction phase
- Assess the potential environmental impact of the new build e.g. travel, biodiversity
- Work with the projects team to ensure the environment is considered for all builds/refurbishments
- Produce a project/design checklist for prompt consideration of the environmental impact of projects
- Ensure contractors are made aware of the university's Environmental policies
- Assess the environmental credentials of contractors
- Monitor any contractor work to ensure the environmental impact is kept to a minimum and that all university environmental practices are being adhered to
- In the event building demolition, seek contractors who will reuse the building fabric

### **Achievements to date:**

- *Contractors control procedure*
- *Standard specification compiled to consider environment and energy.*
- *City campus to BREEAM excellence.*
- *Part L building regs also considers*
- *Metering installed in new builds and refurbishments*

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>16</i>	<i>of</i>	<i>19</i>

## Related documents

[Legal Register](#)

[Construction Projects](#)

[Project/design Checklist](#)

[Construction and Refurbishment Action Plan](#)

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>17</i>	<i>of</i>	<i>19</i>

## Emissions and Discharge

### **Objective:**

- *To manage the University's emissions and discharge to air, land and water.*

### **Target:**

- *3% reduction in carbon emissions per year; 15% reduction by 2015*

Emissions and discharges from our activities can create environmental impacts. The university does not create any harmful emissions which require IPPC consent; our main emissions are the result of transport, which is being addressed in our Travel Plan and Carbon Management Plan. Boiler emissions are being reduced through energy saving measures and regular maintenance.

Discharge is created as a result of the machinery used in the Photography Lab at our Caerleon campus. This is the only activity that creates hazardous discharge. To control this hazard, we have put measures in place so that the chemical side of the processing drains into an effluent tank that is emptied on a regular basis by an approved contractor. The wash or rinse process, does involve small amounts of residual chemicals which drain out to the foul sewer, but we have the necessary discharge consent for this.

To ensure we manage our discharge and consents, the university has adopted the following measures:

- Regularly check discharges to ensure they do not exceed our consent levels
- Work closely with Welsh Water to manage our discharge/consents
- Monitor the effluent tank regularly to assess how often it requires emptying
- Undertake regular maintenance of the effluent tank and boiler equipment to maintain compliance with discharge and emissions levels
- Ensure approved contractors are used to empty the effluent tank
- Produce appropriate procedures and training material so staff/students are aware of the actions to take in the event of a spill
- Comply with all relevant emissions and discharge legislation

### **Achievements to date:**

- *Monitoring of emissions*
- *Maintenance schedule to reduce the likelihood of inefficiencies*
- *Energy efficiency measures to reduce carbon emissions*
- *Work on travel plan.*

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>18</i>	<i>of</i>	<i>19</i>

## Related documents

[Discharge Consent Certificate](#)

[Boiler Maintenance Certificates](#)

[Spill Procedure](#)

[Legal Register](#)

<i>Issue No</i>	<i>1.1</i>		
<i>Issue Date</i>	<i>11.12.2015</i>		
<i>Page</i>	<i>19</i>	<i>of</i>	<i>19</i>