

Bath Spa University EMS/EnMS Manual V.2.0

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Version Control

Version number	<i>Purpose/change</i>	<i>Name and job title</i>	<i>Date</i>
V2015:1.0	Initial Draft	Julian Greaves – Sustainability Manager	14/09/17
V2015:1.1	Completed document	Julian Greaves – Sustainability Manager	13/12/17
V2015:1.2	Change scope following audit recommendation	Julian Greaves – Sustainability Manager	05/03/18
V2015:1.3	Removal of specific reference to the SHE Advisor from the compliance review section and reduction to once yearly as monthly updates are carried out from Cedrec communications.	Julian Greaves – Sustainability Manager	14/05/18
V2015:1.4	Update introduction section to include intended outcomes of the system. Update as a result of peer audit observation Oct 2018.	Julian Greaves – Sustainability Manager	12/11/18
V2015:1.5	Update to include method of recording completion of internal audits in internal audit programme.	Julian Greaves – Sustainability Manager	18/03/19
V2015:1.6	Clarification of Scope for EnMS, following Peer audit finding OFI 1 & 8.	Julian Greaves – Sustainability Manager	27/11/19
V2015:1.7	Change of ESG to SSG	Julian Greaves – Sustainability Manager	11/12/19

V2015:1.8	Appendix 8: Energy Data Collection Plan removed to avoid duplication of separate Energy Data Collection Plan 2019-V1.1 as per peer audit finding Obs 8.	Sam Henderson – Energy Performance Officer	19/12/2019
V2015:1.9	Section 5.2: Policy. Policy review extended to bi-annually.	Julian Greaves – Sustainability Manager	07/01/20
V2.0	Fully integrated EnMS 50001 requirements and review following Feb 2021 recertification audit.	Julian Greaves – Sustainability Manager	24/02/21

Introduction

This manual describes the combined Environmental Management System (EMS) and Energy Management System (EnMS) processes used by Bath Spa University (BSU) to ensure compliance with the ISO14001-2015 and ISO50001-2018 Standards.

The intended outcomes of this joint management system are; to ensure continual improvement in protection of the environment, energy efficiency and in the joint system itself; to ensure continual compliance with legislative and obligational requirements as a minimum commitment; to ensure resilience of the organisation in times of change and uncertainty and; to ensure that top management maintain an informed engagement in energy efficiency, environmental and sustainability-related issues and consider these in their business planning.

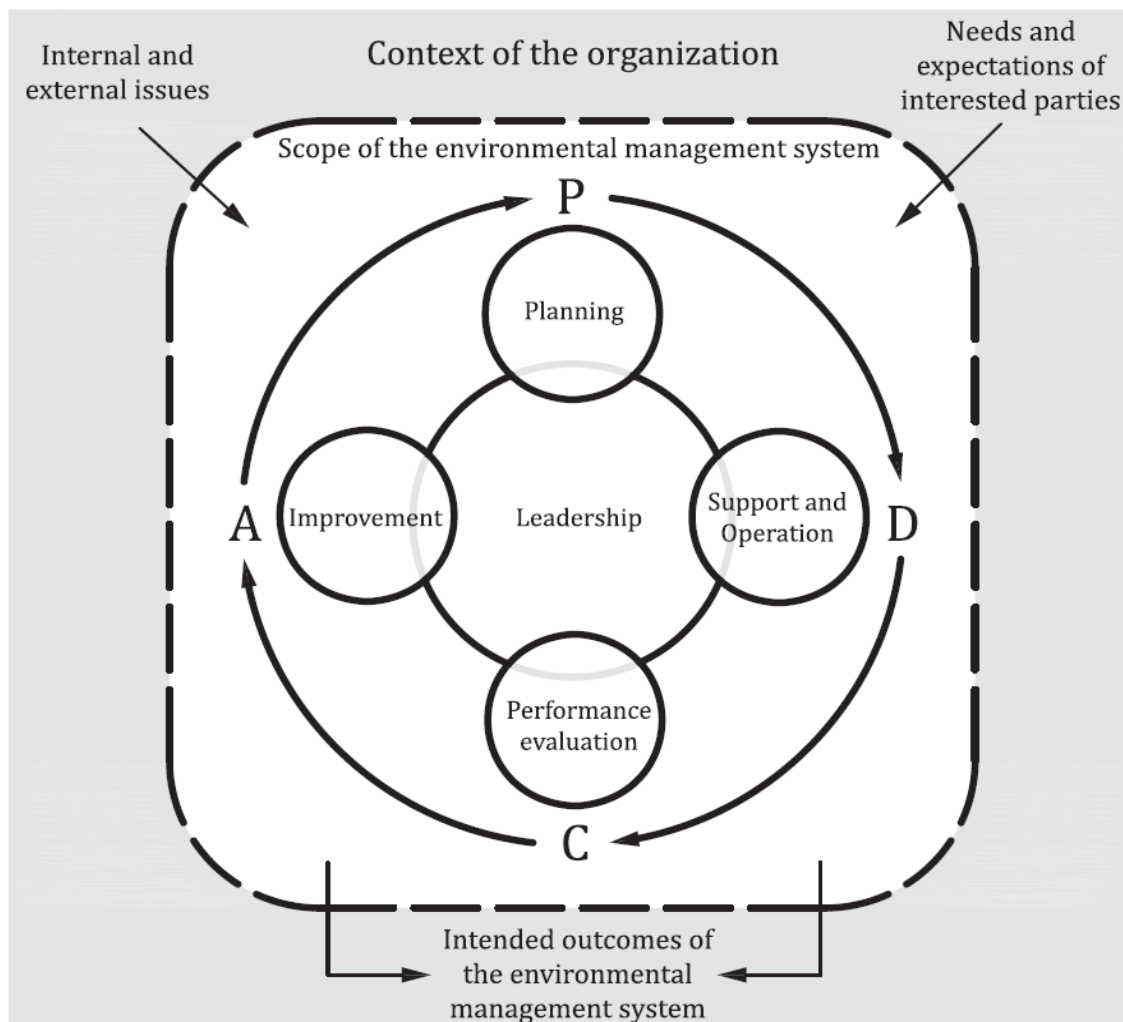


Figure 1. EMS procedural model

4 Context of the organisation

4.1 Understanding the organisation and its context

Bath Spa University is an English Higher Education (HE) institution, which focuses primarily on teaching subjects that could be described as “liberal arts”. The University has between 7,000 and 8,000 students and around 750 staff, and operates from several (currently 12) sites in the vicinity of the historic city of Bath and one at Corsham Court, approximately 12 miles to the East.

Bath Spa’s main campus is situated within a Grade 2 listed, historic parkland setting, which was styled by Capability Brown. As such, the local landscape and its environment are key attributes, which are central to the University’s identity.

The historic nature of our site and many of our buildings brings with it a number of constraints that impact on our ability to reduce some of our environmental and energy-related impacts.

In addition to our academic sites, we operate student residential buildings both on-campus and in the city of Bath and we recruit students both from the UK and widely across the globe. Due to our international recruitment, the multi-site nature of the organisation, and the rural setting of our main campus, commuting, both inter-site and inter-country, transport is one of our most significant aspects.

Bath Spa University currently operates under the derestriction of both UK and EU environmental law. However, this may change following Brexit. With respect to environmental legislation, the University is regulated by the Environment Agency, Trading Standards, the Local Authority and Natural England.

As a UK HE institution, Bath Spa operates within the rules and expectations of the Office for Students (OfS).

4.2 Needs and expectations of interested parties

Interested parties and their needs and expectations are reviewed by the SSG periodically and when material changes to the business occur, and are recorded in Document 4.2: *Interested Parties Register*.

4.3 Scope of the EMS and EnMS

Provision of Education, Research and related support services including maintenance of historic buildings and landscapes at Newton Park site and several other sites within Bath and surrounding locations. Energy consumption within the Estate, including all buildings, both owned and leased, business travel by staff and fleet vehicles is excluded from the EnMS.

4.4 Energy and Environmental management system

This document describes Bath Spa University’s integrated EnMS & EMS. Bath Spa University will be audited jointly against the ISO14001:2015 and ISO50001:2018 standards in January 2020, after being certified to ISO14001:2004 since 2010.

5 Leadership

5.1 Leadership and commitment

This joint Energy and Environmental Management System is supported by Senior Management, which ensures the necessary resources are made available to maintain and continually improve the system and our environmental and energy performance.

The integration of environmental protection into BSU's core values is enshrined in our Vision Statement: <https://www.bathspa.ac.uk/about-us/vision-and-values/>

All sustainability-related policies are signed off by the Vice-Chancellor and these are considered when formulating University policy and strategy.

The Sustainability Steering Group (SSG) is populated by senior managers from both academic and professional services sections of the business and is chaired by the Pro-Vice-Chancellor Finance and Infrastructure.

5.2 Policy

BSU Sustainability and Carbon Reduction and Energy Policies, have been developed to address our [Significant Aspects \(6.1.2\)](#). These Policies, along with supporting Policies are reviewed bi-annually (24 months) by senior management, via SSG and are publicly available on the BSU [web site](#). Policies may be reviewed at times of material change to the business or environmental/energy undertakings.

5.3 Organisational roles, responsibilities and authorities

The Vice-Chancellor has overall responsibility for the strategic direction of the organisation, including the integration of environmental and energy performance considerations into core strategy. The Vice-Chancellor delegates the operational management of environmental aspects and energy performance to the Pro-Vice-Chancellor Finance and Infrastructure.

The Sustainability Manager has responsibility for management of the EnMS and EMS and authority to ensure that other roles and responsibilities are identified and filled by competent people.

The process for identifying, assigning and recording roles and responsibilities is described in [Appendix 1: Management Procedure 5.3](#).

Staff whose roles directly impact upon our significant aspects or have a direct responsibility within the En/EMS are identified by the Sustainability Manager, in consultation with relevant staff, and recorded on the Roles and Responsibilities Register, found in [folder 5.3](#).

Lines of authority and reporting are described in Figure 2, [section 7.4](#).

6 Planning

6.1 Actions to address risks and opportunities

6.1.1 General

Risks and opportunities associated with Bath Spa's environmental aspects, energy performance, compliance obligations, needs and expectations of interested parties and other items relating to the

En/EMS are identified by the Sustainability manager, in collaboration with senior staff members, via SSG and are recorded in the Environmental Aspects Register.

Energy performance-related risks and opportunities are identified during the Energy Review and are recorded in the Energy Review spreadsheet.

Where appropriate, strategic risks will be elevated and considered through the University's Risk Register Process.

6.1.2 Environmental aspects

Bath Spa University's Environmental Aspects were identified during an initial Environmental Review and recorded on the Aspects Register. The Aspects Register is updated as following:

- periodic environmental reviews
- changes to the University's Estate or business practices
- additions to the Scope of the En/EMS

Environmental aspects identified during the environmental review process are assessed and ranked according to their relative environmental impacts, legislative, obligatory and Policy requirements.

Environmental aspects are considered against normal operating conditions and against emergency conditions, which are defined in the [Aspects Register](#). Significant aspects are also considered from a lifecycle perspective, where appropriate.

A detailed description of the procedure is given in [Appendix 2: Management Procedure 6.1.2](#).

6.1.3 Compliance obligations

Legal obligations, and those relating to our non-regulatory interested parties, are identified and documented in our [Environmental Compliance Register](#) and are communicated to relevant groups. Our legal requirements are monitored and updated via various sources including CEDREC, ENDS bulletins and the Environment Agency's guidance pages. A review of legal obligations is carried out annually by the Sustainability team, with assistance from other competent staff where necessary. A legal register is maintained by the EMS manager and communicated to those whose work is impacted by the legislation. The Environmental Compliance Register is stored in [Folder 6.1.3](#). A full description of this process is given in [Appendix 3: Management Procedure 6.1.3](#).

6.1.4 (6.1.2. EnMS) Planning action

Bath Spa University develops plans to address its energy performance, significant aspects, compliance obligations and its risks and opportunities, which are integrated into the Universities En/EMS and evaluated for effectiveness. These are captured and described in detail in the University's Carbon Reduction Management Plan, Transport Plan, Energy Review, Environmental Action Planner and the Sustainability Strategy. Their integration into the En/EMS is described in section 6.2 below.

6.2 Environmental and Energy objectives and targets and planning to achieve them

6.2.1 Environmental and Energy objectives and targets

Bath Spa's environmental and energy objectives are developed and maintained to control our significant aspects, energy performance and obligatory requirements, and as such, are aligned with our Sustainability Policy. Our objectives are identified and developed in various ways, including SSG workshops, baseline environmental reviews and subsequent internal and external environmental audits, taking into account risks and opportunities.

At a high level, BSU's objectives and targets over the medium and long-term are captured in our Sustainability Strategy. Actions and responsibilities are recorded on Bath Spa's Environmental Planner.

Plans and short-term targets to achieve our objectives are recorded in the Environmental Planner. Detailed energy performance targets are recorded in our Energy Review spreadsheet.

Progress against Targets is reviewed via the SSG Management Review process and is reported on annually.

6.2.2/6.2.3 Planning actions to achieve environmental objectives

Actions to achieve our objectives are developed by the Sustainability Manager, Energy Performance Officer and various working groups, which are overseen by SSG and are captured in our [Environmental Planner](#) and Energy Review spreadsheet.

6.3 Energy Review

The initial energy review was carried out to:

1. Analyse energy use and consumption in all buildings and BSU-owned vehicles from metered data, billing and fuel receipts. This includes:
 - i) identification of current energy types;
 - ii) evaluation past and current energy use(s) and consumption;
2. Based on this analysis, we identify significant energy uses (SEUs);
3. For each SEU we:
 - i) determine relevant variables;
 - ii) determine current energy performance;
 - iii) identify the person(s) doing work under its control that influence or affect the SEUs;
 - iv) determine and prioritize opportunities for improving energy performance;
 - v) estimate future energy use(s) and energy consumption.

The energy review is reviewed annually and is updated at any point when material change occurs to the University Estate, business operations, staff or student numbers, plant or equipment that might impact upon the energy performance of any significant energy use (SEU).

The Energy Review methodology is recorded in the Energy Review.

6.4 Energy Performance Indicators

Detailed calculation methodology for energy performance indicators (EnPIs) is recorded in the Energy Review. EPIs will be calculated on a building-by-building basis and performance will be demonstrated on a year-by-year basis.

In summary, the EPIs are:

- Weather corrected heat per unit of area (GIA), expressed as kWh/m²/year
- Total electricity consumption per unit of area (GIA), expressed as kWh/m²/year

6.5 Energy Baselines

An Energy Baseline (EnB) is calculated for each EnPI, for each building and is recorded in the Energy Review. The EnB calculation methodologies are also recorded in the Energy Review.

Energy baselines are calculated on calendar year energy consumption, corrected for significant variables, beginning from 2017.

6.6 Planning for collection of energy data

Data collection plan is described in **Error! Reference source not found.**

7 Support

7.1 Resources

Resources required to operate and continually improve the integrated En/EMS are identified by the EMS manager and communicated with direct line management and SSG. Responsibility for providing these resources lies with Head of Estates and Chief Operating Officer, depending on scale and nature of resource required.

7.2 Competence

The procedure for assessing, providing and recording appropriate competence, training and awareness is described in [Appendix 4: Management Procedure 7.2 & 7.3 – Competence, Training and Awareness](#).

The competence of each staff member to carry out the roles and responsibilities identified in the Roles and Responsibilities Register is assessed in consultation with staff. Where gaps in skills, knowledge or qualifications are identified, appropriate training is provided. Relevant training, development and awareness-raising is recorded in the [Responsibility, Competence and Training log](#), or by individual teams.

General awareness regarding BSU's environmental aspects, impacts and Policy is provided during induction and by periodic communications to both staff and students.

7.3 Awareness

All staff are informed of the University's Sustainability Policy, general sustainability ethos, sustainable travel assistance and recycling procedures during their induction process and are directed to the Green Focus intranet pages for further information.

Contractors are made aware of our Sustainability Policy and are required to comply with our waste management procedures in the Control of Contractors documentation. Any contractors carrying out works that could affect energy performance will be made aware of their contribution to the effectiveness of the EnMS including achievement of objectives and energy targets, and the benefits of improved energy performance.

Relevant personnel are made aware of the consequences of not conforming with the requirements of the EnMS.

The Sustainability Team works closely with the Students' Union to engage students on all matters of sustainability, with particular reference to waste and recycling procedures.

Awareness-raising methods are detailed in our [Communications Strategy](#).

7.4 Communication

Internal and external lines of energy performance and environmentally-related communications are described in Figure 2 and [Appendix 5: Management Procedure 7.4 – Communication](#).

Annual environmental and energy performance is communicated to Senior Management via an Annual Report/presentation, which is subsequently published on the BSU environment web pages. This may be presented a slides or as a report.

Environmental and energy news items are communicated to staff via a weekly communications bulletin and via our intranet service, The Hub. Environmental news items are communicated to students and staff via our monthly communications document, Space and are carried on the BSU website.

General Environmental information is communicated via the Environment pages of the BSU website.

Details of communication methods to target audiences are provided on the BSU [Environmental Communications Strategy](#).

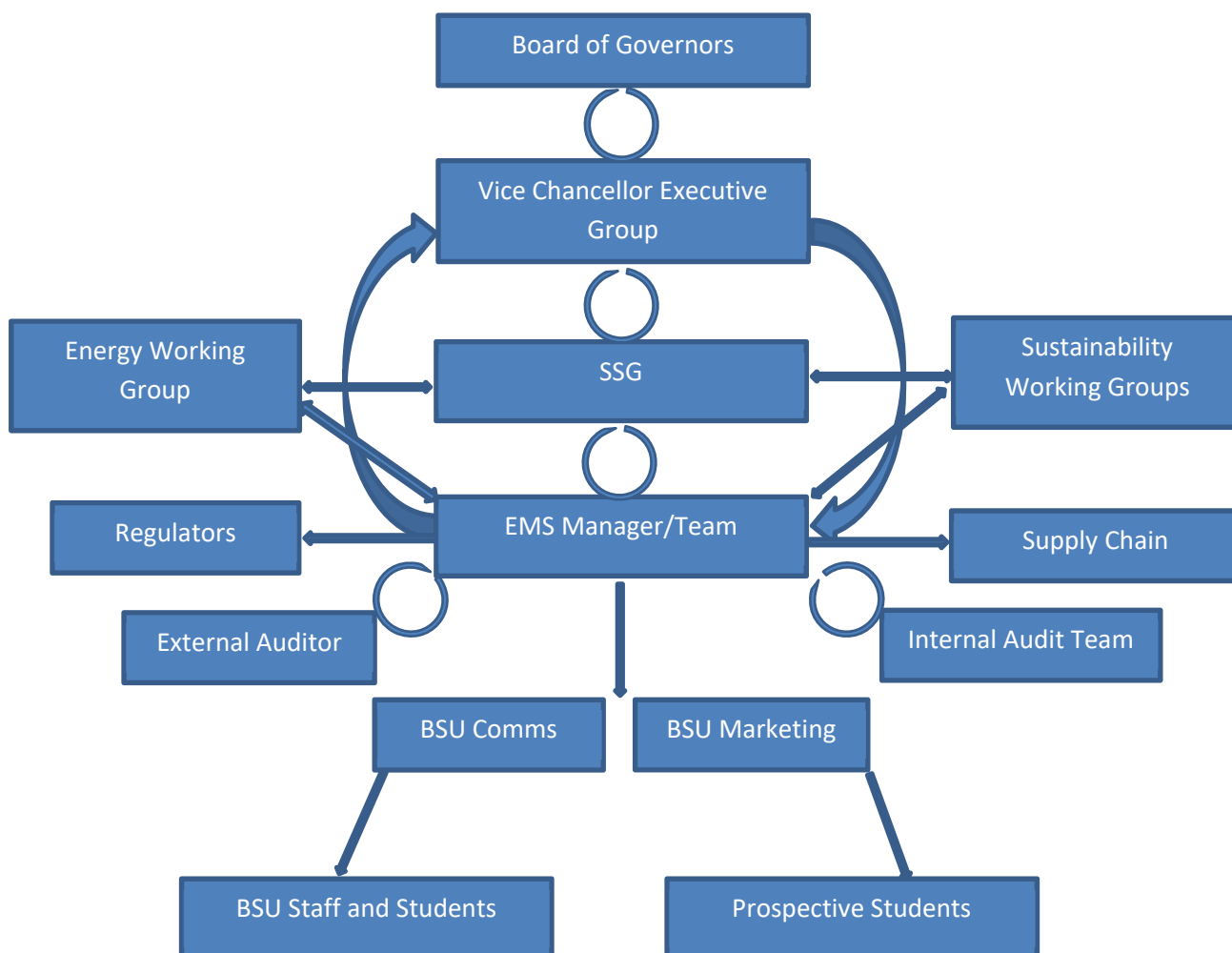


Figure 2. Bath Spa University internal and external communications diagram.

7.5 Documented information

This Energy and Environmental Manual describes the core elements of the En/EMS and the documents and their interaction necessary for the functioning and continual improvement of the En/EMS.

The EMS manager is responsible for ensuring that all documents described are up to date and fit for purpose. The Energy and Environmental Manual is reviewed and updated annually or whenever changes to the University's activities or the external risks and opportunities that might impact upon its significant aspects are noted to have changed or developed.

Documentation required by the En/EMS is controlled in the following manner:

1. The EMS Manager is responsible for authorising, issuing and maintaining all documentation in the EMS, although this may be delegated;
2. Controlled documents and their storage and distribution locations shall be recorded on the EMS Document Register;
3. Master copies of documentation are stored electronically in the ISO14001 and ISO50001 section of the team drive, with read-only copies of relevant documentation available through the University's Hub pages;
4. Any hard copies of EnEMS documentation will be uncontrolled copies and therefore cannot be treated as an up-to-date version;
5. All key documentation shall be version-controlled, clear, dated and readily identifiable. Previous versions shall be retained for a minimum period of 12 months;
6. Obsolete documents should be promptly removed from all points of issue and use. Those retained for legal or other purposes shall be clearly marked as obsolete;
7. Relevant parties will be informed when a document is changed.

8 Operation

8.1 Operational planning and control

Operational procedures describe how BSU staff undertake and control key operations associated with significant aspects and energy performance, in such a way as to manage or minimise their environmental impacts and maintain legal compliance. Operational control documents are appended to this document and are stored in [Folder 8.1](#).

Operational controls are developed by the EMS Manager, in consultation with relevant staff and are updated periodically, according to changes in business operations and legal requirements. The EMS Manager is responsible for ensuring that Operational Procedures are followed.

8.2 Emergency preparedness and response

BSU Emergency procedures are available on the BSU website at:

<https://thehub.bathspa.ac.uk/reference/emergency-management>

Identification and assessment of environmental impacts that may arise from emergency situations are recorded during Environmental reviews. The potential impacts of emergency conditions on BSU's environmental aspects are recorded on the [Aspects Register](#).

8.2 – 8.3 (EnMS) Design and procurement

Energy performance is considered during the design phase of modification, renovation and construction of facilities and during the procurement of plant and equipment that may have a significant impact on energy performance.

Where such assessment has taken place, records of the calculation methodology and other considerations leading to a procurement decision will be retained in the Energy section of the Estates and Services team drive.

9 Performance evaluation

9.1 Monitoring measurement and analysis

The EMS Manager ensures that parameters relevant to BSU's energy performance and significant environmental aspects are measured, monitored and analysed to assess performance and legal compliance.

9.1.1 General

- The institution's significant environmental aspects and impacts are determined using procedure [6.1.2 Environmental Aspects](#).
- Energy Performance Indicators (EnPIs) are identified and recorded in the Energy Review. Monitoring data to review the operation of Significant Energy Users (SEUs) and the effectiveness of achieving objectives and targets are also recorded in the Energy Review, which is maintained as a live, working document.
- The EMS Manager determines how these significant aspects and impacts are monitored and measured. These are summarised in [Appendix 6](#) and shared with relevant staff.
- Those responsible for data collection send relevant records (e.g. weight of waste sent to landfill, water use etc.) to the EMS Manager on an annual basis or on request.
- Where required, calibration of monitoring equipment is the responsibility of the utility/service providers that own the equipment.
- The EMS Manger collates, analyses and reviews these records to assess progress towards meeting the institution's objectives and targets.
- Monitoring and measurement procedures are described in [Appendix 6](#).

9.1.2 Evaluation of compliance

All managers that have responsibility for activities that relate to legal or obligatory compliance will have a good understanding of their compliance requirements. The EMS manager has responsibility for ensuring that Legal and obligatory compliance is evaluated periodically according to Procedure 6.1.2 ([Appendix 3](#)). Compliance checks are undertaken annually by competent members of staff that do not have direct responsibility for the task in question and results are recorded on the [Environmental Compliance Register](#). Non-compliance incidents are recorded using the EMS non-conformance procedures 10.2 ([Appendix 7](#)).

9.2 Internal audit

Baseline energy and environmental audits are carried out within 12 months of taking on any additional premises. Internal audits of operations and the E(n)MS systems are carried out periodically by the EMS Manger, with support from competent colleagues. Peer audits are carried out annually by a partner organisation via a reciprocal arrangement. Internal audit Records are retained in folder [9.2 – audit](#). External audits are carried out annually by a UKAS-accredited auditor.

9.2.2 Internal audit programme

An [internal audit programme](#) is maintained by the EMS Manager to ensure compliance and continual improvement in both EnMS and EMS. Internal audit schedule dates are recorded in red boxes, until complete, at which time they are changed to green to demonstrate completion and highlight outstanding actions.

9.3 Management review

The E(n)MS is reviewed periodically by SSG, which sits at quarterly intervals. All areas of the E(n)MS that require review under the Standards are covered by a Standing Agenda Items document. Audit findings are reported and actions to promote continual improvement are agreed by SSG. Implementation is carried out or overseen by the EMS Manager.

10 Improvement

10.1 General

10.2 Non-conformity, corrective action and preventative action

If at any time it is found that E(n)MS procedures are not being followed or that legal obligations are not being met, these incidents are recorded according to the Non conformity procedures ([Appendix 7](#)). If non-conformities are recorded, corrective and preventative action(s) are agreed with the relevant staff member(s) and their implementation within agreed time scales is recorded on the Corrective Actions spreadsheet ([folder 10.2](#)).

10.3 Continual improvement

Bath Spa University uses the processes described in this document to drive continual improvement in both the operation of this integrated management system and in its environmental/energy performance.

Appendices

Appendix 1: Management Procedure 5.3: Roles, Responsibilities and Authorities.

PROCEDURE: 5.3 – Roles Responsibilities and Authorities
Department: Sustainability Author: Sustainability Manager Approved by:
PURPOSE: To describe how the University assigns responsibility for environmental management
METHOD: Top management ensures that Bath Spa’s environmental management system is managed and continually improved by assigning responsibility to the position of Sustainability Manager. The Sustainability Manager identifies additional roles required to meet the requirements of this standard and makes recommendations to senior management. The Sustainability Manager has authority for identifying those whose roles are important to the EMS in terms of impact on our significant aspects, and communicating this to the individuals involved. This involves communication with the person(s) directly or through their line managers. Communication will either be face to face or through emails, Roles and Responsibilities under the EMS are recorded on the Roles, Responsibility, Competence and Training record, folder 5.3 . This spreadsheet is updated when there are changes in personnel or additions to operational activities or significant aspects.
EFFECTS & ACTIONS ON NON-CONFORMANCE: If this procedure is not applied it may result in: a failure to correctly assign roles and responsibilities for establishing and maintaining the institution’s EMS; non-conformance with the requirements of the Scheme and/or the clauses of the ISO 14001:2015 standard. Departures from this procedure are addressed using procedure 10.2 Nonconformity, corrective action & preventive action.

Appendix 2: Management Procedure 6.1.2: Environmental Aspects

PROCEDURE: 6.1.2 – Environmental Aspects
Department: Sustainability Author: Sustainability Manager Approved by:
PURPOSE: <ul style="list-style-type: none">• To identify the environmental aspects of the institution’s activities• To identify aspects that will result from planned or new developments/activities• To assess the significance of the institution’s aspects in terms of their impacts on the environment under normal, abnormal and emergency conditions.• To understand our significant aspects from a lifecycle perspective <p>To review and revise the institution’s environmental aspects and impacts following audits, complaints and changes in regulations and legislation.</p>
METHOD: <p>The EMS Manager jointly with the Sustainability Co-ordinator (SCo), conducts an annual review of all relevant past, current and proposed activities to identify the institution’s environmental aspects.</p> <p>Particular attention is given to previous emergency situations and accidents that caused, or had the potential to cause, damage to the environment.</p> <p>The EMS Manager and SCo then evaluate the significance of each aspect using the Aspects Register scoring methodology.</p> <ul style="list-style-type: none">• Scoring significance<p>The significance of aspects is evaluated by considering their environmental risk (likelihood and severity) under normal operating and emergency conditions. The risk score is then weighted according to whether the aspect is controlled by legislation, permits or is the subject of other obligation (e.g. HEFCE requirement) and if it is a specific BSU policy requirement.</p>• Likelihood of impact<p>The likelihood of an environmental impact occurring from each aspect under normal operating conditions is determined by choosing a likelihood factor in a four point scale, via the drop down list provided in the appropriate cell.</p>• Severity of impact<p>The severity of an impact resulting from each aspect is determined using the 8 point drop down score provided in the appropriate cell. Negative scores are given to impacts which are deemed to be environmentally or socially positive.</p>

- **Abnormal and Emergency conditions**

Abnormal and emergency conditions that are likely to impact upon each Aspect are recorded. The risk scoring methodology described above is then repeated, giving consideration to the likelihood and severity of an impact occurring under abnormal and emergency conditions.

- **Overall Risk**

The final risk score is calculated as the average between the normal and emergency risk scores calculated above.

- **Legislation and other obligation**

Legislation relating to each Aspect is recorded.

A drop down box is provided to register if the aspect is controlled by:

- direct legislation
- permit (e.g. trade effluent discharge consent)
- other (e.g. HEFCE requirement or BANES agreement)

- **Policy requirement**

Whether or not each aspect is the subject of a BSU Environmental Policy statement is also recorded.

- **Aspect score**

The final Aspect Score is calculated as a function of the above criteria. These can then be ranked to identify the most significant aspects.

- **Determination of Significant Aspects**

“Significant Aspects” are determined as those that score above 7 on the Aspects Register. The University does not limit itself to managing only its significant aspects but ensures these are given sufficient resources.

- **Lifecycle perspective**

“Significant Aspects” are considered from a lifecycle perspective to enable better decision-making by the University.

EFFECTS & ACTIONS ON NON-CONFORMANCE:

If this procedure is not applied it may result in:

- a failure to identify, and hence effectively control, the institution’s significant environmental aspects and impacts;
- non-conformance with the requirements of the Scheme and/or the clauses of the ISO 14001 standard.

Departures from this procedure are addressed using procedure 10.2 Nonconformity, corrective action & preventive action.

Appendix 3: Management Procedure 6.1.3: Compliance Obligations

PROCEDURE: 6.1.3 – Compliance obligations
Department: Sustainability Author: Sustainability Manager Approved by:
PURPOSE: <ul style="list-style-type: none">• identify environmental and energy related legislation and other obligations pertaining to the University's activities and interested parties,• determine the procedures necessary for the University to comply with our environmental legislative requirements and other obligations• ensure that the procedures necessary to comply with our legal and other obligations are followed• ensure that the University keeps abreast of changes to environmental legislation and other obligations and implements necessary procedural changes
METHOD: <p>The EMS Manager is responsible for maintaining the Environmental Legal Register and for ensuring that appropriate BSU staff are kept up to date and advised on environmental legislation relevant to their role within the EMS.</p> <p>The EMS Manager will utilise a number of sources to ensure we are up to date in relation to legal and other requirements, which include but are not limited to CEDREC, ENDS bulletins and the Gov UK guidance pages.</p> <p>The EMS Manager, supported by other competent staff, reviews our legal requirements at least annually and the Legal Register is updated where necessary.</p> <p>The Legal Register identifies teams or departments whose duties are affected by environmental legislation and outlines their related requirements. The EMS Manager emails relevant staff or department Heads to advise that there is environmental legislation relating to their job.</p> <p>If any training is required, this is dealt with in accordance with Management Procedure 7.2: Competence, Training and Awareness.</p>
EFFECTS & ACTIONS ON NON-CONFORMANCE: <p>If this procedure is not applied it may result in:</p> <ul style="list-style-type: none">• failure to remain compliant with environmental legislation• failure to maintain and store documents appropriately;• non-conformance with the requirements of the Scheme and/or the clauses of the ISO 1400:2015 standard. <p>Departures from this procedure are addressed using Management Procedure 10.2 Nonconformity, corrective action & preventive action.</p>

Appendix 4: Management Procedure 7.2 & 7.3 – Competence, training and awareness

PROCEDURE: 7.2 & 7.3 – Competence, training and awareness
Department: Sustainability Author: Sustainability Manager Approved by:
PURPOSE: <ul style="list-style-type: none">• To ensure the University community have a general awareness of the institutions environmental policies and direction as well as an awareness of their individual obligation to the environment at BSU• To ensure that people whose roles impact on the University’s significant environmental aspects are competent to carry out such duties• To describe how BSU will identify environmental training needs, provide relevant training and maintain records to confirm this.• To explain how training records are generated and stored.
METHOD: <p>General environmental awareness raising: - All new staff and students receive environmental awareness information during their induction. The Environment team also provides targeted environmental awareness training for Support staff (Domestic services and Maintenance staff) as well as those listed in the roles and responsibility register. General communication of environmental issues is described in the communications plan.</p> <p>Identification of training needs: Specific training needs to ensure staff competence to carry out designated roles are identified by the EMS manager, via the Roles, Responsibilities Competence and Awareness register.</p> <p>Provision of training: The EMS Manager arranges appropriate training for staff, in collaboration with line managers. Training may be provided by the Sustainability team, via on-line sources or by specialist providers.</p> <p>Recording of training: Training is recorded on the Roles, Responsibilities Competence and Awareness register.</p>
EFFECTS & ACTIONS ON NON-CONFORMANCE: <p>If this procedure is not applied it may result in:</p> <ul style="list-style-type: none">• failure to correctly identify and train people who have the potential to cause significant environmental impacts;• non-conformance with the requirements of the Scheme and/or the clauses of the ISO 1400:2015 standard. <p>Departures from this procedure are addressed using Management Procedure 10.2 Nonconformity, corrective action & preventive action.</p>

Appendix 5: Management Procedure 7.4 – Communication

PROCEDURE: 7.4 – Communication
Department: Sustainability Author: Sustainability Manager Approved by:
PURPOSE: <ul style="list-style-type: none">• To define internal channels of communication• To describe the methods of external communication, regarding BSU’s significant environmental aspects• To describe procedures for receiving, documenting and responding to requests from interested parties about the institution’s environmental performance, environmental aspects and Environmental Management System (EMS)
METHOD: <p>Internal communications:</p> <ul style="list-style-type: none">• Internal requests for information relating to our significant aspects are directed to the EMS Manager, who responds accordingly• Environmental performance relating to our significant aspects is communicated to Senior Management via the SSG and, from 2014, via an Annual Sustainability Report, which will subsequently be published on the BSU environment web pages.• Information relating to energy and carbon emissions is communicated via an annual Carbon Reduction Management Plan Progress Report, which is published on the Environment web-pages. From 2014, this will be reported as part of our Annual Sustainability Report.• Environmental news items are communicated internally to staff and students via the BSU Environment web pages, our BSU weekly e-mail bulletin through our monthly electronic magazine “Space” and via various social media platforms. <p>External communications:</p> <ul style="list-style-type: none">• Externally, BSU’s sustainability performance is published via the People and Planet Green League• BSU submits data to HESA, via the annual Estates Management Statistics• BSU communicates EMS and EnMS requirements to contractors our general supply chain via the Web site and direct communications during contract set-up. <p>Requests from interested parties</p> <ul style="list-style-type: none">• Requests for information relating to BSU’s EMS, significant aspects and general environmental information are directed to the EMS manager who responds accordingly• Complaints from interested parties are received and logged by the Director of the Vice Chancellor’s Office. If these are related to BSU’s environmental performance, they are directed to the EMS manager.
EFFECTS & ACTIONS ON NON-CONFORMANCE: <p>If this procedure is not applied it may result in:</p> <ul style="list-style-type: none">• a failure to communicate effectively with interested parties;• non-conformance with the requirements of the Scheme and/or the clauses of the ISO 1400:2015 standard. <p>Departures from this procedure are addressed using Management Procedure 10.2 Nonconformity, corrective action & preventive action.</p>

Appendix 6: Management Procedure 9.1 – Monitoring, measurement and analysis.

PROCEDURE: 9.1 – Monitoring, measurement and analysis
Department: Sustainability Author: Sustainability Manager Approved by:
PURPOSE: <ul style="list-style-type: none">To describe methods used for monitoring and measuring of parameters pertinent to our significant aspects
METHOD: Waste <p>Measurements of all waste streams are collated by the Assistant Portering Services (acting Waste) Manager on a shared Google spreadsheet. Waste data are analysed by the EMS Manager and reported annually to SSG and Senior Management.</p> Non-recyclable waste <ul style="list-style-type: none">Non-recyclable domestic-style waste is compacted at Newton Park and sent for recovery of recyclable materials and processing for energy recovery (EFW)The mass of materials in each consignment is recorded by our waste management service provider and sent to the Assistant Portering Services (acting Waste) manager periodicallyAverage waste-to-landfill figures from the processing plant are used to estimate the relative quantities of BSU waste-to-landfill and waste-to-energy Recycling <ul style="list-style-type: none">Recycling is compacted at Newton Park. The waste contractor provides the EMS manager with monthly weighbridge Skips (commercial waste) <ul style="list-style-type: none">Skips are segregated into wood, metal, green waste and residual. Residual waste is sorted in a waste transfer station (WTS) to recover recyclable and EFW materials. The remainder is sent to landfill. Average landfill figures from the WTS are used to estimate BSU waste-to-landfill from this sourceWeights of each skip waste stream are provided to the Assistant Portering Services (acting Waste) manager by the waste contractor regularly Spot-checking <ul style="list-style-type: none">Domestic Services staff, assisted by Sustainability Team members and Green Communicators, are responsible for conducting the spot-check audits, and for reporting findings to the EMS Manager Analysis and Reporting <ul style="list-style-type: none">Annual waste-to-landfill, EFW and recycling figures are collated by the EMS manager and reported to SSG, in order to demonstrate progress against objectives and targets and to inform further improvement planning

METHOD: Transport

The EMS Manager collates and analyses travel data and reports these to SSG and senior management annually. Findings are used to monitor performance against targets and to inform improvement planning.

Travel data are collected as follows:

- Records of fuel used by the institution's vehicles and machinery are recorded through the Dream accounting system
- BSU staff business mileage is recorded through the Dream accounting system
- Rail and air business journeys are reported periodically by our booking agent
- Daily commuter travel is recorded through annual transport surveys. Records of these are held the travel consultants, IMA, Summaries of these records are sent to the EMS Manager upon request.
- Commuting to the UK by overseas students is estimated from student records that identify the numbers of students and their cities of residence. Calculations are based on the assumption that each student has one return trip per year.
- Carbon emissions from transport are calculated using Defra GHG reporting factors

METHOD: Energy and carbon

- Energy data are monitored in order to calculate track Energy Performance Indicators (EnPIs), the operation of Significant Energy Uses (SEUs) and the effectiveness of action plans in achieving objectives and targets. These data are recorded in the Energy Review.
- Actual energy performance of SEUs is routinely compared with expected performance, according to rationale and calculation methodologies recorded in the Energy Review.
- Monitoring of heat and electricity occurs on an hourly basis wherever feasible, via an automated M&T system.
- Results of monitoring and measurement will be analysed and evaluated at least annually, or as appropriate to the SEU and associated objective and target.
- The effectiveness of the EnMS will be monitored via the internal and external auditing procedures described in section 9.2.
- Energy data, business travel and commuting data and waste data are used to calculate carbon emissions, according to Defra conversion factors, which are reported annually via channels described in the Communications Strategy.

EFFECTS & ACTIONS ON NON-CONFORMANCE:

If this procedure is not applied it may result in:

- a failure to collect and analyse data necessary for management of our significant aspects;
- non-conformance with the requirements of the Scheme and/or the clauses of the ISO 1400:2015 standard.

Departures from this procedure are addressed using Management Procedure 10.2 Nonconformity, corrective action & preventive action.

Appendix 7: Management Procedure 10.2: - Non-conformity, corrective action and preventative action

PROCEDURE: 10.1: Non-conformity, corrective action and preventative action
Department: Sustainability Author: Sustainability Manager Approved by: Sustainability Manager
PURPOSE: <ul style="list-style-type: none">• To establish, implement and maintain procedures for dealing with actual and potential non-conformities and for taking corrective and preventive action.• To assign responsibility and authority for investigating and rectifying non-conformities.
METHOD: <ul style="list-style-type: none">• The EMS Manager has responsibility and authority for investigating and ensuring the correction of non-conformities and for taking action to mitigate their environmental impacts.• The EMS Manager can delegate these tasks to competent members of staff.• Non-conformities may be identified during structured audits or at any other time.• Details of any non-conformity identified are recorded on Corrective action record forms and the Corrective Action Record spreadsheet, which are kept in Folder 10.2.• The EMS Manager/competent delegate agrees with the responsible person what actions are appropriate and the time-scales involved for their implementation.• The EMS Manager checks that the corrective actions/mitigations have been carried out and, if they have, records this on the Corrective Action Record spreadsheet and signs off the corrective action record form.• The EMS Manager determines the causes of the non-conformities and takes action to prevent their recurrence including changing procedures and other EMS documentation if necessary. <p>The effectiveness of corrective actions and preventive actions taken is reviewed by the EMS Manager.</p>
EFFECTS & ACTIONS ON NON-CONFORMANCE: <p>If this procedure is not applied it may result in:</p> <ul style="list-style-type: none">• non-conformance with the requirements of the Scheme and/or the clauses of the ISO 1400:2015 standard. <p>Departures from this procedure are addressed using Management Procedure 10.2 Nonconformity, corrective action & preventive action.</p>