

2016-2019 Biodiversity Action Plan

October 2018

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1. Legal Compliance								
1.1	To ensure that the University complies with all legislation relating to biodiversity and grounds management.	Review legislation and regulation relating to biodiversity and grounds and undertake any updates required to the sustainability legal register.	Reviewed regularly, updated February 2019	Legal register is updated with requirements of legislation and regulation.	Legal and other requirements are identified as part of the University's ISO14001 EMS	Phil Mole	EcoCampus	Ongoing
1.2		Ensure that appropriate measures are in place to ensure legal compliance and that performance audited regularly.	Feb 2019	Number of operational controls in place. Number of audits undertaken.	Audits are undertaken as part of the University's ISO14001 EMS.	Katy Boom	EcoCampus	Ongoing
2. Protecting Biodiversity								
2.1	To ensure that existing biodiversity features are	To protect existing biodiversity features on all campuses during development, in line with BS 42020 – a code of practice for	September 2017	Biodiversity features are protected in line with BS 42020. This is applied as campuses develop and	David Norman from Estates projects now member of SBMG	David Norman	Tom Taylor	Ongoing

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2.2	protected on all campuses wherever possible.	biodiversity in planning and development.		particular consideration is given to Lakeside and University Park Campuses and University Court.				
		Review and implement BS 5837:2012 - Trees in relation to design, demolition and construction.	September 2019	Trees are protected in line with BS 5837:2012.	The University avoids the unnecessary removal of trees and specimens are protected, wherever possible. Additional practices recommended by BS 5837:2012 to be considered.	David Norman	Alan Box	Ongoing
		Identify measures to protect existing biodiversity during day-to-day campus management, such as effective contractor briefing.	September 2017	Biodiversity areas and features are not damaged during campus operation and maintenance.	The conservation area was damaged by contractors in spring 2016 and remedial action was put in place.	Tom Taylor	Alan Box	December 2016

3. Managing Biodiversity

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3.1	To ensure that biodiversity management objectives are clearly defined for all campuses.	Review the Ground Maintenance Service Level Agreement to ensure that reference and instructions are in place to implement the Biodiversity Strategy and Action Plan.	Jan 2019	Grounds maintenance activities are informed by written guidance on biodiversity management.	As of June 2016 the SLA does not give specific instructions to manage the grounds for biodiversity.	Tom Taylor	Katy Boom	March 2017
3.2		Establish a regular agenda item at the SBMG to develop biodiversity project ideas, agree projects and project ownership.	Aug 2018	Agenda item is established.		Lorraine Weaver	Katy Boom	Ongoing
3.3		Put in place management objectives and actions for the Lakeside and University Park campuses and University Court once surveying has been undertaken.	March 2018	Management objectives agreed and recorded in the BAP.		Lorraine Weaver	Duncan Westbury SBMG	May 2017
3.4	To manage trees to maintain and improve biodiversity.	To identify and undertake management to maintain and improve trees for biodiversity such as coppicing or retaining deadwood.	Oct Annually	Number of trees that have been managed for biodiversity.	Hazel coppicing has been undertaken at the St John's campus in two loctions. On a three year growth cycle. Tree Survey to be conducted to access the	Tom Taylor	Alan Box, Duncan Westbury	Ongoing

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3.5		To identify opportunities to plant new trees on all campuses and to undertake tree planting.	Annually in January	Area of and location of land identified as suitable for tree planting. Number of trees that have been planted.	safely of trees on campus. Lakeside Campus – 420 tree planted in Bushcraft area. Progress 2016-17 Member of Lakeside invited to be on SBMG	Tom Taylor	Alan Box	Ongoing – annual updated
3.6	To manage and improve the biodiversity of hedgerows.	To agree and implement hedgerow management to be undertaken, including consideration of hedgerow laying at Battenhall Playing Fields and at the St John’s conservation area.	Annually in December	Length and location of hedgerows that have been layed. Length and location of hedgerows where management practices have been reviewed/improved for biodiversity.	Hedge laying has been undertaken on some of the hedges at Battenhall. There are still extensive hedges that could be layed on the site. Due to uncertainty over ownership we have invested time in Battenhall fields.	Tom Taylor	Alan Box	Annually in February
3.7		To identify hedges that could be	Annually in	Length of new hedges	Young whip	Tom Taylor	Alan Box	Ongoing –

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		connected through planting whips and to undertake planting.	January	that have been planted.	hedgerows have been put in across multiple sites. Native whips are put in. 2016-17 progress update Lakeside garage, rear woodbury.			annual updated
3.8	To manage and improve the biodiversity of lakes, ponds and waterbodies.	To implement the pond management activities as part of the Management Plan on the St John's Campus including the consideration of activities such as installing new planting, rock piles, corrugated sheeting, pond ledges and leaf piles.	September annually	Number of management activities that have been undertaken to improve and manage the biodiversity of ponds.	Seasonal pond management activities are undertaken.	Tracey Richards	SBMG	October annually
3.9	To improve the biodiversity of grassland areas.	Review the grass cutting management regime proposed by the Nature Society and identify suitable areas where mowing regimes can be altered to encourage species rich grassland to develop. Suggest area and get agreed by	November annually	Area of grassland areas where mowing regime has been adapted for biodiversity.	Mowing exclusion zones are in place. The Nature Society has prepared a map of areas proposed for mowing alteration, for discussion at the	Duncan Westbury	Alan Box SBMG	November annually

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3.10	To increase the biodiversity of formally planted areas.	Facilities. Review the management of formally planted areas with a view to increasing the application of wildlife gardening principles, use of native species and structurally diverse habitats.	February Annually	Area of formally planted areas that have incorporated wildlife gardening principles, use of native species and structurally diverse habitats.	SBMG. Where long grass is not desirable, raising the height of the mowing would improve biodiversity. Biodiversity is considered when new planting is undertaken. Native species are not always incorporated for visual, availability and financial reasons. An area near the main reception has been planted for wildlife. Biodiversity has been a key consideration in planting at the Hive.	Duncan Westbury	Alan Box/ Matt smith	March Annually

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3.11	To manage and increase the biodiversity of the conservation area on the St John's campus.	Review the current management regime and put in place updated management prescriptions to ensure that the area is managed primarily for biodiversity.	October annually	Number of habitats and species in the conservation area.	The area has been used primarily for teaching requirements and biodiversity objectives have not taken priority.	Lorraine Weaver	Duncan Westbury	November annually
3.12	To ensure that species selected for planting are from a sustainable source.	Review the procurement policies of new species that are planted to ensure that they are from a sustainable source.	Feb 2018	Number of plants that purchased from a sustainable source. Policy or agreement in place for sustainable sourcing.	Geology Rock garden has utilised species that may not be considered to be sustainable.	Dave Norman	Tom Taylor Alan Box	March 2018
4. Creating New Habitats								
4.1	To create new habitats on all campuses.	Incorporate new habitats within any campus development plans, following BS 42020 – a code of practice for biodiversity in planning and development.	Feb 2018	Area of new habitats created.		Katy Boom		June 2018
4.2		Identify new habitats that can be created on all campuses	January annually	Area of new habitats identified and targets set	The map of grassland area produced by the	Nature Society	Tom Taylor, Alan Box,	February annually

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		including new ponds, damp gardens, wildflower meadows, trees, hedgerows and set targets to implement habitat creation.		for creation as part of the BAP. Number, type and area of habitats that have been created.	Nature Society can be utilised to set targets for wildflower areas on St John's Campus.		Mark Hughes, Duncan Westbury	
4.3	To increase the amount of artificial habitat, nesting and roosting opportunities.	Install 30 additional bird boxes at all campuses according to the specific needs of each campus and giving specific consideration to rare or declining species in the area.	Sept 2017	Number of bird boxes installed. Number of bird boxes utilised.	35 bird boxes are in place on St Johns campus as of May 2017. A survey is needed to identify if number of boxes is now at capacity on the campus. Conservation / Malvern Meadow Brash Piles & Lakeside log piles added 2016/17	Duncan Westbury	Nature society/Matt Smith	Jan 2019
4.5		To assess opportunities to install new bat boxes at all campuses and install bat boxes according to assessment findings.	July 2017	Number of bat boxes installed at all campuses. Number of bat boxes utilised.	7 bat boxes are in place on the St John's campus as of May 2016. An original target of 20 was set. 20 locations have been	Duncan Westbury	Nature society/Matt Smith	Jan 2019

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					found but it was not permitted to install them. New locations to be identified.			
4.6		Maintain existing bee hotels, establish sites for new bee hotels on all campuses and install new bee hotels.	Jan 2018	Number of bee hotels maintained. Number of new bee hotels installed.	Two bee hotel is in place at the St John's campus.	Duncan Westbury	Nature society	Jan 2019
4.7		Establish 2 new bee hives and prevent and treat bee mite.	Oct 2018	Number of successful hives in place. Number of treatment or prevention measures for bee mite.	Change strategy to promote solitary bees	Kate Ashcroft		April 2019
4.8	To increase deadwood habitats.	To increase the number deadwood wood piles within vegetation patches under trees.	September 2017	Number of new wood piles put in place.	Deadwood is already left as woodpiles in some area, for example, Malvern Meadow.	Tom Taylor	Alan Box	June 2019

5. Managing Invasive Species

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5.1	To manage invasive species according to UK law and best practice guidance.	Review current Knotweed management practices against the DEFRA Guidance 'Prevent Japanese knotweed from spreading' 2016 and implement any changes required to management practices to meet the guidance. The University also needs to comply with the Environmental Protection Act (Duty of Care) Regulations 1991 and Hazardous Waste Regulations 2005 in disposing of any Japanese Knotweed.	September 2017	The spread of Knotweed has been prevented through controls in accordance with best practice guidance.	Japanese Knotweed is present was fully removed from Severn Campus 2017.	Tom Taylor	Phil Mole	December 2017
5.2		Elodea. Convention on Biological Diversity 1992, updated by the Conservation of Habitats and Species regulations 2010, Wildlife and Countryside Act 1981 makes it an offence to introduce certain plant species into the wild. Schedule 9 updated in April 2010 to include several more invasive non-native aquatic	September 2017	The spread of Elodea has been prevented through controls in accordance with best practice guidance.	Elodea is present at Lakeside Campus. There is no effective control for invasive Elodea available in the UK at the present time which is compatible with maintaining the condition of existing aquatic floras of nature conservation	Tom Taylor	Mathew Hill	March-August annually

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5.3	To eradicate Spanish bluebells (<i>Hyacinthoides hispanica</i>) from St John's Campus	species, including <i>E. canadensis</i> and <i>E. nuttallii</i> . The University also needs to comply with the Environmental Protection Act (Duty of Care) Regulations 1991 and Hazardous Waste Regulations 2005 in disposing of Elodea Identify all locations of Spanish bluebells and destroy either by lifting bulbs and sending to landfill, or by using an appropriate herbicide.	February 2018	Absence of Spanish bluebells on campus	value. Physical control of Elodea by harvesting is well-used as a control method, and many machines are commercially available. An annual contract is in place.	Dr Duncan Westbury	Alan Box	
6. Monitoring and Data Management								
6.1	To establish a central database of biodiversity at all University campuses and sites.	Identify key partners/skills that can contribute to the establishment of a database.	ongoing	Number and nature of partners identified.	A partner's data sharing agreement has been established and contract entered into with Worcestershire Biological Records Centre. Collaborative partnership with Oxford Brookes established	Lorraine Weaver	Duncan Westbury, Tim Shreeve.	ongoing

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					with Tim Shreeve.			
6.2		Launch database using agreed software. Allocate staff/students/partners that will input and manage data on a regular basis and provide any training required.	January 2018	Database is in operation. Database managers and operators are trained and in place.		Nature Society	Duncan Westbury	June 2017
6.3	To identify and monitor habitats and species that occur on all campuses.	Undertake a phase 1 habitat surveys of the Lakeside and University Park campuses, University Court and the Hive and review the need to for further habitat surveys on all campuses.	March 2018	Number of phase 1 habitat surveys completed.	Phase 1 habitat surveys have been completed for St John's campus	Capital Developments/ Nature Society	Duncan Westbury	December 2017
6.4		Undertake a survey of the current value of buildings and the built environment at the St John's Campus, City Campus and Severn Campus.	September 2018	Number of surveys undertaken, number of recommendations made to increase biodiversity value on three campuses.		Capital Development/ Nature Society	Duncan Westbury	December 2018
6.5		To survey the Moors playing fields to confirm the potential of badgers on site.	September 2018	Survey undertaken and presence of badger sett confirmed.	A sett/den has been identified on the site by grounds staff but it	Nature Society	Duncan Westbury	October 2018

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					is not clear if this is a badger sett or fox den.			
6.6		Undertake regular species and habitat surveys including surveys for birds, bats, moths, badgers, hedgerows, grasslands, water bodies and to set management objectives and actions based on findings as part of the BAP.	Annual programme	Number of surveys undertaken, number of artificial habitats occupied, number of management objectives informed by monitoring.	The Nature Society has compiled data and records on: <ul style="list-style-type: none"> • the locations of bat and bird boxes and their usage; • the occurrence of bird, moth and bat species; • sittings of foxes and badger using camera traps; and • the occupancy of badger setts. All the bird box data has been submitted to BTO nest box challenge.	Nature Society	Duncan Westbury	Annual programme
6.7		To install a webcam and an endoscope in a bird box on St John's Campus and stream images/videos on the	Jan 2018	Camera in place and streaming to website in place.	The Nature Society have recommended that this is done as an awareness and	Nature Society	Katy Boom	Feb 2018

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		Sustainability Department and other relevant websites.			educational initiative.			
6.8		To extend species monitoring beyond the St John's campus.	Sept 2017	Number of species surveys undertaken	Species surveys have focuses on the St John's campus as of May 2016.	Nature Society	Duncan Westbury	June 2018
6.9		Conduct aquatic survey of water reserves on campus	Sept 2019	Completed baseline survey of aquatic reserves		Matt Hill		June 2018

7. Training, Communication and Partnerships

7.1	To ensure that staff are effectively trained to manage biodiversity.	Regularly identify and schedule relevant biodiversity training courses and events for grounds maintenance staff.	September annually	Number of training courses or events attended.	Hedge laying and management training undertaken. Some of the Ground's Team staff attended the Biodiversity Conference in April 2016.	Tom Taylor	Alan Box, Katy Boom.	Annual reports in June
7.2	To train new students to undertake species and habitat surveys.	To implement a training scheme to enlist new students to monitoring programs on an annual basis.	Annual programme	Number of new students trained. Number of new students undertaking species and habitat surveys.		Nature Society	Duncan Westbury	Annual reports in June

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7.3	To promote awareness and education on biodiversity.	Identify sites for interpretation boards to be installed and install boards.	September annually	Number of interpretation boards installed.	Malvern Meadow sign very successful. More planned	Katy Boom	Katy Boom	
7.4		Update nature trail leaflets.	Jan 2018	New leaflets produced and number distributed.	Seasonal nature trails leaflets were completed 4-5 years ago and require updating.	Tracey Richards	Duncan Westbury Nature Society	March 2018
7.5		Produce new leaflets to communicate biodiversity of campuses. Map to SDGs	September 2017	Number of leaflets produced and distributed.	The Nature Society would like to produce a night time nature leaflet.	Nature Society	Katy Boom	December 2017
7.6		Identify and plan events to promote awareness and education. Mapp to SDG's	September annually	Number of events held.	Night time nature walks are undertaken by the Nature society. Online photography competition as part of go green week is in place. Biodiversity conference held, spring 2016. This could be made an	Katy Boom	Nature Society.	June 2019

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7.7		Undertake a survey regarding opinions on visual appearance of long grass vs short grass areas.	September 2017	Number of staff/students/visitors that have completed surveys.	annual event with partner Universities and EAUC. The Nature Society has drafted a survey.	Nature Society	Katy Boom	June 2018
7.8	To publish information and share best practice on biodiversity.	Publish short articles on biodiversity and gain feedback from partners at www.susthingsout.com	September 2017	Number of posts, blogs and comments.	Posts been made To be officially launched in Sept 2016.	Katy Boom	STO editorial team	June 2019
7.9		Publish information about projects on the Sustainability Department's website.	Quarterly	Number of posts.	Biodiversity Strategy and BAP is published online.	Katy Boom		Quarterly
7.10	To maintain and develop partnerships for biodiversity.	Manage partnerships and support projects as part of the Heritage Lottery Fund Vale of Evesham Landscape Partnership.	September 2017	Number of project supported as part of the Heritage Lottery Fund Vale of Evesham Landscape Partnership.	A letter of support has been submitted as part of the bid to confirm the University's support for the partnership and that a £15,000 fund will be established to support projects in the community in	Katy Boom	Rebecca Lashley Worcestershire County Council	June 2019

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7.11	To apply for awards relating to biodiversity.	To apply for a Green Gown Award and any other awards.	September 2018	Number of awards applied for. Number of awards won.	partnership with Worcestershire County Council. Keep under review	Katy Boom		December 2018

8. Governance, Review and Reporting

8.1	To fully review and update the Biodiversity Strategy and Action Plan.	Full revision to be undertaken with assistance of external consultant.	May 2016 for v4 of Strategy May 2019 for v5 of Strategy	Version 4 of the Strategy completed. Updated BAP produced.	Draft of v5 and new version of BAP, incorporating commitments from the strategy has been completed.	Katy Boom	SBMG	July 2017
8.2		Review undertaken at the SBMG of the Biodiversity Strategy (Version 4, 2016-19) and Action Plan (2016-19 Version 1, June 2016). October 2018	October 2018	Review undertaken and final documents agreed for implementation.		Lorraine Weaver	Katy Boom	October 2018
8.3	To regularly review the	Schedule SBMG (2016/2017) meetings and undertake BAP	1 st meeting to be	Number of meetings held.	The BAP is reviewed and updated at each	Lorraine Weaver	UW Sustainability	Quarterly

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	progress of the BAP implementation.	reviews in meetings. BAP version number and date to be updated after each review.	booked in August 2017	Number of BAP reviews undertaken.	SBMG meeting, i.e. 4 times annually and circulated to members.		Committee	
8.4	To report on biodiversity initiatives.	Include a biodiversity update as part of the annual sustainability report.	May annually	Number of reports produced		Katy Boom		August annually