

## **2019-2023 Biodiversity Action Plan (BAP)**

**March 2022**

### **Overview of key biodiversity management objectives.**

The following list is a summary of key objectives for implementation from 2019-2023. It is intended to be used as a quick reference tool for key projects and does not include many of the ongoing management objectives that are outlined in the full BAP.

- To ensure that existing biodiversity features are protected on all campuses wherever possible (Objective 2.1)
- To manage and increase the biodiversity of conservation areas the St John's campus (Objective 3.6)
- To leverage funds to create new habitats through the Natural Networks Programme (Objective 4.1)
- To establish high impact biodiversity creation projects at the Lakeside campus (Objective 4.3)
- To create a new conservation area on Severn Campus, in the area of the badger sett as part of the new development (Objective 4.4)
- To establish new wildflower areas - Specific areas to be considered are the St John Campus, University Court terraces (Objective 4.7)
- To establish a central monitoring database for biodiversity at all University campuses and sites (Objective 6.1)
- To maintain and develop regional partnerships for biodiversity (Objective 7.6)
- To ensure that the SBMG drives continuous improvement in biodiversity at the University – Access additional secretarial support for taking meeting minutes, establishing meeting actions and their accountability (Objective 8.1)

## Management objectives, targets and progress updates

Ref	Objective	Actions	Action Date	Measure of Success	Progress of Project	Lead Contact	Partners	Completion date
<b>1. Legal Compliance</b>								
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.	Sept 2020	Legal register is updated with requirements of legislation and regulation.	Legal and other requirements are identified as part of the University's ISO14001 EMS.  Last reviewed Sept 2020.	Jessica Tasney	Eco-Campus	Ongoing
		Ensure that appropriate measures are in place to ensure legal compliance and that performance audited regularly.	Sept 2020	Number of operational controls in place. Number of audits undertaken.	Audits are undertaken as part of the University's ISO14001 EMS. Last audit undertaken Sept 2020, no recommendations for biodiversity.	Jessica Tasney	Eco-Campus	Ongoing
<b>2. Protecting Biodiversity</b>								
2.1	To ensure that existing biodiversity features are protected on all campuses wherever possible.	To identify biodiversity features that may be affected by development plans on all campuses as part of any development plans.	Sept 2020 with annual review	List of potential biodiversity features that could be affected by development plans created.	Construction and refurbishment strategy being reviewed Nov 2020.  Capital Project major refurbishment schemes are to be SKA compliant, which has Ecology targets.  New Build schemes will	David Norman	Mark Evans	Annually

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		To protect existing biodiversity features on all campuses during development, in line with BS 42020 – a code of practice for biodiversity in planning and development and BS 5837:2012 – Trees in relation to design, demolition and construction.	Ongoing	Biodiversity features are protected in line with BS 42020.	account for ecological improvements and will include appointment of specialist ecology consultants as part of the design process and planning application submission documentation.  David Norman from Estates projects is now member of SBMG. This assists with protection of biodiversity within campus developments.  Contractors are advised they must get permission before undertaking any tree work.	David Norman	Tom Taylor	Ongoing

### 3. Managing Biodiversity

3.1	To establish and regularly review biodiversity management objectives.	To produce and disseminate an overview of biodiversity management objectives.	Oct 2020 with annual update	Number of staff members provided with overview of biodiversity management objectives.	Students added to group their views will be considered	Duncan Westbury	Students Anna, Megan, Aadil.	Ongoing
		Include regular agenda item at the SBMG to develop biodiversity project ideas, agree projects and project ownership.	Ongoing	Agenda item and minutes including objective.	Agenda item has been established.	Duncan Westbury	Katy Boom	Ongoing
		Put in place management objectives and actions for the Lakeside Campus, informed by Campus Development Plans.	March 2020	Management objectives agreed and recorded as a	A management plan has been produced for the Lake and Woodland.	Rob Delahay	David Norman	May 2021

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3.2	To manage existing trees to maintain and improve biodiversity.	To identify and undertake management requirements to maintain and improve trees for biodiversity such as coppicing.	Oct 2020 and then annually	supplement to the BAP. Number of projects/trees that have been managed for biodiversity.	Hazel coppicing has been undertaken at the St John's campus in two locations. On a three-year growth cycle.  Tree Survey has been conducted to assess the safety of trees on campus.  Briefing sessions arranged with grounds staff to ensure correct management of trees protected by TPOs.	Alan Box	Tom Taylor	Ongoing
3.3	To manage and improve the biodiversity of hedgerows.	To agree hedgerow management activities for biodiversity on an annual basis.  St John's conservation area and campus boundary hedges, including alongside Car park M to be prioritised.	Dec 2019 and then annually	Length and location of hedgerows that have been laid.  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.	Alan Box	Tom Taylor	Annually in February
3.4	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	Sept annually	Number of management activities that have been undertaken to improve and manage the biodiversity of	Seasonal pond management activities are undertaken.	Tracey Richards	SBMG	October annually

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		leaf piles.		ponds.				
		To manage the water lake on the Lakeside Campus according to a Management Plan that includes pollution and nutrient level management.	Ongoing	Number of management objectives achieved from Management Plan.	Management activities have been undertaken to reduce nutrient levels including addition of organic digester, coir rolls and planting to deter over population by Canadian Geese.	Rob Delahay	Alan Box	Ongoing
3.5	To increase the biodiversity of formally planted areas.	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 2020 and then annually.	Area of formally planted areas that have incorporated wildlife gardening principles, use of native species and structurally diverse habitats.	Biodiversity is considered when new planting is undertaken. Native species list is used where possible but 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.	Alan Box	Duncan Westbury	March Annually
3.6	To manage and increase the biodiversity of conservation areas the St	To increase the species diversity of the St Johns conservation area to include additional wildflower establishment.	Oct 2020	Number of habitats and species in the conservation area.	Additional species introduced including English bluebells.	Alan Box,	Tracey Richards	Ongoing
		To increase the species diversity on the	March	Number of species in	Teasel seed oversown onto	Duncan	Alan Box	April 2021

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	John's campus.	second St John's wildflower area including supplementary seeding, plug planting and suitable mowing regime.	2021	the wildflower area.	area.	Westbury		

#### 4. Creating New Habitats

4.1	To leverage funds to create new habitats through the Natural Networks Programme.	To discuss potential project ideas and submit applications in either of following rounds: <ul style="list-style-type: none"> <li>• 18th September 2019</li> <li>• 13th November 2019</li> </ul> Full details can be found at <a href="http://www.worcestershire.gov.uk/naturalnetworks">http://www.worcestershire.gov.uk/naturalnetworks</a>	Sept 2019	Application Submitted. Funding awarded.	Funding awarded for new Natural Network wildflower areas to be established in Spring 2022. 500 m <sup>2</sup> wildflower strip sown 14/3/22.	Alan Box	Duncan Westbury	March 2022
4.2	To create new habitats alongside campus development plans.	To identify new habitats that can be created within any campus development plans, following BS 42020 – a code of practice for biodiversity in planning and development.	Dec 2019 and then annually.	Area of new habitats created.	New habitat provided in compliance with PEA's prepared by Worcestershire Wildlife Trust and Life Environmental Consultants for the Berrows House and Severn Campus infrastructure, respectively.	David Norman	Alan Box, Rob Delahay, Tom Taylor	Dec 2019 and then annually.
4.3	To establish high impact biodiversity creation projects at the lakeside campus.	To create project proposals for Estates approval and SBMG discussion for the following projects: <ul style="list-style-type: none"> <li>• Planting bird friendly crops with supplementary feeding for overwintering birds with potential bird hides - RSPB funded,</li> <li>• Extending and enhancing the current woodland to include mature trees and</li> </ul>	July 2019	Number of projects implemented	Area of winter bird food area established in Spring 2021 in association with the RSPB.	Rob Delahay	Alan Box	Ongoing

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		<p>ground flora – potential Natural Networks funded</p> <ul style="list-style-type: none"> <li>• To create new wildflower areas as part of the Busy Bees project – potential Natural Networks funded</li> <li>• To create wild pond areas.</li> </ul> <p>Project implementation</p>	Spring-Autumn 2020					Summer 2021
4.4	To create a new conservation area on Severn Campus, in the area of the badger sett as part of the new development.	Identify native plants and trees best suited to the site and produce proposal for Estates approval, incorporating project funding through Natural Networks	July 2019	Number of trees, area of wildflowers planted	<p>Worcestershire Wildlife Trust (WWT) have prepared a report for the Severn Campus Infrastructure scheme.</p> <p>Berrows House - WWT have prepared a Preliminary Ecological Appraisal (PEA), and recommendations have been incorporated into the scheme.</p>	Dave Norman	Katy Boom, Tom Taylor	Ongoing
4.5	To plant native trees.	To identify opportunities to plant new trees on all campuses and to undertake tree planting.	January 2020 and then annually	Area of and location of land identified as suitable for tree planting. Number of trees that have been planted.	<p>Lakeside Campus has had 420 trees planted to create a Bushcraft area in 2018.</p> <p>Rob Delahay, Lakeside representative has become a member of the SBMG</p> <p>The area of trees on the Malvern entrance has been</p>	Alan Box	Tom Taylor	Ongoing – annual updated
		To ensure new trees are planted and maintained when any tree removal is	Ongoing			Alan Box	Tom Taylor	Ongoing

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		required for health and safety reasons.			identified for tree works. A planting programme needs to supplement this.			
4.6	To create new hedgerows.	To identify hedges that could be connected through planting whips and to undertake planting.  Boundary hedges and hedging with design of new development to be a specific area of focus.	January 2020 and then annually	Length of new hedges that have been planted.	Young whip hedgerows have been put in across multiple sites. Lakeside garage hedge and hedge rear of Woodbury has been established.	Alan Box	Tom Taylor	Ongoing – annual updated
4.7	To establish new wildflower areas	To establish new wildflower areas and reduced intensity mowing regimes. These areas can include ‘transient’ wildflower areas with short lived plants where there may be future development plans for the land. Specific areas to be considered are the St John Campus, University Court terraces.	Sept 2019 and then annually.	New wildflower areas created.  Area of grassland areas where mowing regime has been adapted for biodiversity.	New cornfield wildflower area established by the Bredon Building. Spring 2021  New cornfield wildflower strip established along the road from the Severn Gate entrance. Spring 2021  Natural Networks strip established 14/3/22	Alan Box  Duncan Westbury	Dave Norman  Tom Taylor	Ongoing
4.8	To increase the amount of artificial habitat, nesting and roosting opportunities.	To identify and install the number of new bird and bat boxes that would be beneficial install bird boxes, repairing those in place where possible.	Sept 2019	Number of bird boxes installed.  Number of bird boxes utilised.	35 bird boxes were in place on St Johns campus as of May 2017. A survey needed to identify the number of boxes remaining and the potential for more.  As part of the Arches project 12 artificial sand martin nest boxes have been installed on Bishop Bosel (City Campus),	Duncan Westbury, Rob Delahay	Nature society	November 2021  Spring 2022

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					<p>under the direction of WWT.</p> <p>Further bird boxes have been installed as part of the Natural Networks scheme.</p>			
		To assess opportunities to install new bat boxes at all campuses and install bat boxes according to assessment findings.	Oct 2019	<p>Number of bat boxes installed at all campuses.</p> <p>Number of bat boxes utilised.</p>	<p>7 bat boxes are in place on the St John's campus as of May 2016. An original target of 20 was set.</p> <p>As part of the Arches project one bat box has been installed on Bishop Bosel (City Campus), under the direction of WWT.</p> <p>Six additional bat boxes (Vincent Pro, as recommended by WWT), to be installed on the Garage (Severn Campus).</p>	Duncan Westbury, Dave Norman, Alan Box.	Nature society	Ongoing
4.9	To create new deadwood habitats.	To retain wood from tree works to create deadwood habitat piles in conservation areas within vegetation patches under trees.	Ongoing	Number of habitat piles created.	<p>Deadwood left as woodpiles in some areas, for example near to Malvern Meadow.</p> <p>Conservation / Malvern Meadow Brash Piles &amp; Lakeside log piles added.</p> <p>Deadwood retained on site</p>	Alan Box	Duncan Westbury, Tom Taylor	Ongoing

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4.10	To create new areas for woodland flora.	To establish a new area on St John's campus to support early emerging insects.	Spring 2022	New areas created	whenever possible. One area identified and funding for plants being investigated.	Duncan Westbury	Alan Box	Ongoing
<b>5. Managing Invasive Species</b>								
5.1	To manage invasive species according to UK law and best practice guidance.	To monitor any potential regrowth of Japanese Knotweed on the Severn campus and to ensure required management in line with guidance and legislation,	Ongoing	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.	Alan Box		Ongoing
5.2		To maintain controls on Elodea at lakeside campus as outlined in the Biodiversity Strategy.	Ongoing	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 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.	Alan Box	Rob Delahay	March-August annually
5.3	To eradicate Spanish bluebells ( <i>Hyacinthoides hispanica</i> ) from St John's Campus	Monitor and new occurrence of Spanish bluebells and destroy either by lifting bulbs and sending to landfill, or by using an appropriate herbicide.	Ongoing	Absence of Spanish bluebells on campus	Removal has been undertaken, but some patches still present.	Alan Box	Duncan Westbury	Ongoing

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<b>6. Monitoring and Data Management</b>								
6.1	To establish a central monitoring database for biodiversity at all University campuses and sites.	Establish a simple SharePoint system with files for each species and habitat where monitoring records can be filed.	Ongoing	Database established	Species records are being added to online databases e.g. <a href="https://ebird.org/barchart?r=L11372398&amp;yr=all&amp;m=">https://ebird.org/barchart?r=L11372398&amp;yr=all&amp;m=</a>  Nature society currently not collecting any data.	Kate Ashbrook	Nature Society	Ongoing
6.2	To monitor habitats and species that occur on all campuses.	To work with student groups to monitor habitats and species on all campuses, ensuring data is collated on the SharePoint system.	March annually	Number of habitat and species surveys undertaken.	Phase 1 habitat surveys have been completed for St John's campus. Moth surveys have been undertaken.	Nature Society	Kate Ashbrook  Duncan Westbury	July Annually
<b>7. Training, Communication and Partnerships</b>								
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	The Nature Society reformed in September 2021 after an absence of nearly two years with no student members/activity.	Kate Ashbrook	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	species and habitat surveys. Number of interpretation boards installed.	Malvern Meadow installed. Additional locations identified include the University Pond, St John's Meadow, and the Conservation Area.	Katy Boom	Katy Boom Duncan Westbury	Ongoing
7.5			Quarterly	Number of posts.	Biodiversity Strategy and BAP is published online with articles also published on <a href="http://www.susthingsout.com">www.susthingsout.com</a>	Katy Boom		Quarterly
7.6	To maintain and develop regional partnerships for biodiversity.	To represent the University within the Worcestershire Biodiversity Partnership in order to assist with the implementation of the 2018-2027 Worcestershire Biodiversity Action Plan (BAP).  To progress relationships with RSPB and Worcester Wildlife Trusts.	Ongoing	Meetings attended. Number of projects focussing on the Worcestershire Biodiversity Action Plan priority habitats.	Meetings attended and partnership well established.	Katy Boom	Katy Boom	Ongoing
			Ongoing	Meetings attended. Number of partnership projects.	Rob Delahay is in contact with the RSPB for Lakeside projects. Dave Norman is consulting with WWT	Rob Delahay, Dave Norman	Katy Boom	Ongoing

## 8. Governance, Review and Reporting

8.1	To ensure that the SBMG drives continuous improvement in biodiversity at the University	To establish a role for taking meeting minutes, establishing meeting actions and their accountability.	Oct 2019			Katy Boom	Duncan Westbury	Ongoing
		To report meeting outcomes at a Senior Level, linked to the University's Sustainable Development Goals	Five time per year			Katy Boom	UW Sustainability Committee	Ongoing

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		Schedule SBMG each semester with BAP version number and date to be updated after each review.	Every semester	Number of meetings held. Number of BAP reviews undertaken.	The BAP is reviewed and updated at each SBMG meeting.	Duncan Westbury	UW Sustainability Committee	Quarterly
		To report on progress on improving biodiversity on campus as part of the annual sustainability report.	May annually	Number of reports produced		Katy Boom		August annually
8.2	To fully review and update the Biodiversity Strategy and Action Plan every 3 years.	Full revision to be undertaken with assistance of external consultant.	June 2019 June 2023	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 in June 2019.	Katy Boom	SBMG	July 2019 July 2023