University of Surrey Biodiversity Plan

UNIVERSITY OF SURREY

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Purpose

The University of Surrey recognises that our owned and managed sites encompass a range of habitats and species, with many opportunities to conserve and enhance conditions for biodiversity. We are committed to actively enhancing conditions for and promoting biodiversity on our grounds.

We support biodiversity in our local neighbourhoods and region, to improve the health and well-being of staff, students and the wider community.

What is Biodiversity?

Biodiversity describes the variety of life on earth and is essential for supporting the processes that we all depend on. It includes plants, animals, fungi and bacteria and other all living things. We rely on the relationships between these diverse kingdoms to provide us with the resources we need to live, including food, clean water and a stable climate.

Why is Biodiversity important and why should we take action to support it?

Today species are disappearing faster than ever in human history. Globally, at least 1.2 million plant and animal species are estimated to be under threat of extinction, many of them before 2100. Global wildlife populations have dropped by 69% on average since 1970.

This dramatic loss of biodiversity is not only an environmental crisis, but results in economic, social and ethical issues too. The most vulnerable people on the planet are those least responsible for the biodiversity and climate crises, but their lives and livelihoods are at the greatest risk.

According to the United Nations Environment Programme, the key drivers of biodiversity loss are:

- **Invasive species:** Our globalised economy, which depends on the transport of goods, has enabled the spread of invasive species.
- **Changes in land use:** Humans are responsible for changing rich natural habitats into land for urban or agricultural development.
- **Climate change:** Climate change-induced temperature increases may threaten as many as one in six species globally.
- **Pollution:** Chemical and plastic waste, and the use of pesticides and herbicides is a major cause of biodiversity and ecosystem change.
- **Exploitation of natural resources:** Unsustainable use of plants and animals endangers other species and also risks livelihoods.

In the UK it is estimated that since 1970 there has been a 19% loss of species, and this is higher for groups like birds (43%) and plant (54%).

Action is required for a number of reasons, decline in plant and insect species directly affects our **ability to grow food**, making the UK dependent on imports. Loss of overall biodiversity means more **carbon is released** into the atmosphere that was previously locked up. Our natural environment provides **well-being benefits** for everyone.

The University with its large estate plays a key role in addressing biodiversity loss.

Estates biodiversity management

The University is committed to maximising the ecological value of its green space for the benefit of a wide range of flora and fauna, whilst at the same time retaining its functional value. Our long-term vision is to improve the biodiversity value of the existing estate and to contribute, where possible, to local, regional and national biodiversity targets.

The University has a wide and varied estate areas consisting of woodland, farmland, sports surfaces, waterways and amenity landscaped grounds. These are significant assets and provide unique opportunities for social, environmental, visual, educational, and recreational use.

We will aim to connect our estate with other green spaces, green corridors and the wider community. We will also manage and develop our green space to provide positive benefits and psychological well-being to our students, staff and the people who regularly travel through our estate. Woodlands that are not part of campus sites will be managed in keeping with a Woodland Management Plan, and with a view to engaging students and staff in future in terms of living lab projects, volunteering and other programmes.

Key estates management principles include:

- Ensure protection and conservation of existing habitats
- Give preference to native species of local provenance
- Create a mosaic of different habitats to provide a range for more species Link habitats (green chain) where possible for species movement
- Undertake grounds maintenance management operations at times to reduce impacts on species (feeding, breeding, hibernating)
- Compost green waste
- Align with Local Biodiversity Action Plans
- Where resources allow, work with students on Living Lab projects
- Aline with bio plant security regulations

Policy priorities

The University is aware that responsibility for biodiversity is not limited to the campus boundary. In addition to acknowledging the scale of our activity, the University has identified the following policy priorities:

Status on Continuous improvement plan

The EFCS Grounds team have spent 2 years on a fact finding project to improve our bio diversity on our amenity landscape areas across our campus and park areas. This has included feedback from key stakeholders from Students, Senior leaders, middle line managers, Heads of dept, Staff members, Experts, and general public. This information will build a brief to build an achievable University Biodiversity land management plan.

- BNG survey from an independent specialist, Surrey Wildlife Trust
- Animal survey with data from our in house School of Biosciences
- Ecology information with inhouse Grounds team
- Amending Tree management strategy to access Ecological enhancement and encourage ecological diversity
- Implementing ecological diversity
- Review bird box plan
- Conducted site survey on suitable locations of biodiversity enhancement
- Review of different operational tasks from frequency regime in mowing to tree improvement plans to produce different habitats and see what is achievable with current staff and budget.

1. **Improve our Knowledge of Biodiversity**

The University will carry out a Biodiversity baseline review to establish the range, scale and quantity of biodiversity and habitats. Regular reviews of this baseline will be undertaken to measure changes to biodiversity.

Decisions made around Biodiversity should be data driven and a baseline study will establish what key actions are required. Objective and target setting should be using SMART principles.

Where Biodiversity Net Gain (BNG) has to be delivered, the University will monitor and review taking any mitigation measures to ensure delivery of BNG.

The University will monitor and report on any IUCN red listed specifies and national conservation listed specifies.

https://www.iucnredlist.org/

The University will also monitor for opportunities to improve Biodiversity as well as identifying potential threats.

The setting up of a Biodiversity steering group will be explored to help deliver the Biodiversity plan.

2. Protect existing biodiversity

The University of Surrey estate covers a physically large and diverse patchwork of land holdings, many of which are in urban locations. We have a range of soilscape from acid base rich loamy clayey soils, to shallow lime-rich soils over chalk. With a range of grasslands, SANGs, woodland, farmland, historic hedgerows and extensive collection of trees.

The University is custodian of the associated biodiversity of these sites, which means it has a responsibility to ensure it understands their composition and value.

3. **Enhance and extend conditions for biodiversity where possible**

This policy has been developed with reference to Local Nature Recovery Strategy Surrey County Council's Biodiversity Strategy. The size and location of the University's estate means it has a significant role to play in contributing to local and regional biodiversity efforts.

4. **Connect areas for wildlife**

It has become well-recognised practice to provide links or corridors for wildlife between sites, enabling support of greater numbers and variety of species. Across the University estate there are opportunities to link up habitats in this way, joining up the University's own pockets of green spaces to benefit the wider wildlife community.

5. **Promote engagement with biodiversity**

Engagement with biodiversity is central to the success of any plan. An understanding that the natural environment offers tangible benefits to everyone and that its conservation is a collective responsibility is vital. The University offers the opportunity to build staff and student capacity into our spaces to benefit the wider wildlife community. Opportunities for growing food with staff and student groups will be investigated and where possible supported.

Links between monitoring, research or conservation activities with academic programmes should be developed.

6. **Follow general landscape management principles:**

Leave large areas of perennials standing until Spring to provide habitat and food sources

Where suitable provide nesting sites and cover for wildlife by allowing shrub bed areas to grow to maturity undisturbed, as well as leaving log piles for cover and food

Where suitable adopt a reduced mowing regime in selected appropriate areas Incorporate mulch to use as a soil improver from the EFCS Grounds own closed loop recycling operation.

Consider plant selection carefully using plants with a range of flowering times to ensure a continuity of food sources for insects

Use trees and shrubs that produce fruit and berries in winter

Diversify habitats by using a variety of plants/ trees/shrubs to provide a range of vegetation levels while ensuring plant health and only using approved species and taking note that our land falls with in a Ips typhographus demarcated Area.

Use of artificial habitats ie birdboxes/bat boxes/ bug hotel/hedgehog shelters

7. **Incorporate biodiversity into university developments**

The University is committed to aligning its development projects with Guildford Borough Council's Biodiversity Net Gain (BNG) policies, striving to deliver a 20% net gain in biodiversity across new developments. This goal can be achieved by embedding biodiversity considerations into all stages of project planning and design. Through thoughtful and integrated design, the University aims to ensure that new buildings, infrastructure, and urban spaces not only meet the functional needs of the estate but also contribute positively to the natural environment.

The University's approach will be guided by key principles, including integrating biodiversity into design, implementing mitigation measures where necessary, and seeking opportunities to enhance the ecological value of its sites. Collaboration with stakeholders, including the local planning authority, architects, project managers, and ecological advisors, will ensure that biodiversity objectives are considered early in the development process. By doing so, the University can create spaces that support both human activity and biodiversity, while contributing to the broader goals of sustainability and environmental stewardship.

8. **Provide buildings & structures for biodiversity**

The University will explore a range of strategies to enhance biodiversity as part of its commitment to meeting Biodiversity Net Gain (BNG) targets. Opportunities may include incorporating features into buildings and structures that support local wildlife, such as integrating nesting boxes or other habitats for birds, bats, and insects. The potential use of green infrastructure, such as wildflower roofs, will be considered where appropriate, offering a habitat for pollinators and other species. Additionally, climbing plants could be utilised on building facades to provide both shelter and a source of nectar.

As part of any redevelopment project, the University will assess the potential impact on existing soft landscapes and tree stock to ensure that valuable ecological assets are preserved or enhanced. The overall design of new buildings and developments will aim to foster a range of habitats on-site, creating opportunities to support diverse species and contribute positively to the local ecosystem. By considering these options, the University will remain flexible in its approach while promoting biodiversity improvements in alignment with BNG goals.

Examples of actions could include.

Provide bespoke nesting boxes attached or integrated into buildings

Consider the use of wildflower roofs in appropriate locations to help provide a source of nectar for bees and potential nesting sites

The use of climbing plants to provide nesting habitats and a source of nectar and shelter

Impact assessment should be considered in areas of re-development in terms of assessing the impact on the soft landscape and existing tree stock

Building design will be optimised to create habitats on site to attract the broadest range of biodiversity possible.

Action plan for Biodiversity 2024-2030

This action log will be updated each year or as and when necessary if sooner.

Action	Timescale	Measure /Target	Outcome
Fact finding project to improve our bio diversity. This has included feedback from key stakeholders from students, Senior leaders, Middle line managers, Heads of dept, Staff members, Experts, and General public.	**Active 2 year**	**Plan produced**	**Delivery habitat improvement with the local nature recovery strategy**
Produce University Biodiversity land management plan	**1 year**	**Plan produced**	**Delivery habitat improvement with the local nature recovery strategy**
BNG baseline Survey by SWT	**1 year**	**Survey issued to university**	**Have a independent baseline data of the estate**
Assess SWT findings and ther suggest recommendations	**2 year**	**Implement their suggestions**	**Better biodiversity**
Set biodiversity realistic targets	**3 years**	**Hit targets**	**Better biodiversity**
Investigate Local Nature Recovery Strategy	**2 year**	**Review**	**Aline our selfs with a local strategy.**
Aline with Local Nature Recovery Strategy with best practice.	**3 year**	**Adjust bio diversity plan**	**Aline our selfs with a local strategy.**
Improve our knowledge base	**2 year**	**More educated team**	**Toolbox team membership Biodiversity talks**
Produce an invasive species list	**1 year**	**Produce list**	**Action mitigation**
Produce IUCN red a list of Threatened species.	**1 year**	**Produce list**	**Amened plan**
Investigate Technical advice note from nature conservation compliance	**3 year**	**Review**	**Add to management plan**
Come up with a communication plan	**1 year**	**Set up communication platform**	**Implantation Media X Facebook. Instagram.**
Investigate reporting to an advisor group	**2 year**	**Wider advice pool of knowledge**	**Set up advisor group**