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### Introduction

As part of its strategy to tackle the environment and climate emergency, the University of Exeter (UoE) has committed to a policy of environmental net gain and to use our research and education to deliver environmental net gain within the region, nationally and across the globe.

The clearest demonstration of environmental net gain is biodiversity net gain delivered through nature positive action, although environmental net gain also includes reducing pollution, reducing waste, improving carbon storage and water quality. The University recognises that improving the environment has tangible benefits for local residents, staff and students, and that those benefits are strengthened through establishing local partnerships, defining clear environmental net gain metrics and delivering world-leading research and education in this field. Nature underpins our communities, our society and global business, and the University has committed to deliver environmental net gain in parallel with our net zero emissions target.

In 2022, the University made a pledge to become a <u>Nature Positive</u> University, developing a plan for action that will result in a net positive impact on the environment and biodiversity. In undertaking this plan, we have pledged to measure, monitor and report on the environmental impacts of all University activities – teaching, research, operations, partnerships and supply chains. The following is our Nature Positive Strategy, explaining our aims and the principles we will follow, together with our objectives and how we will measure progress against them.



# Context and related policies

Planetary boundaries (environmental limits within which humans can safely operate) are thought to have been exceeded and are in a 'high risk' zone for 3 out of 11 categories¹. The IPCC 2022 report estimates that global warming is likely to reach, and exceed, 1.5°C in the 21st Century². According to the IPCC Report 2022, D4: "Resilience of biodiversity and ecosystem services at a global scale depends on effective and equitable conservation of approximately 30% to 50% of Earth's land, freshwater and ocean areas, including currently near-natural ecosystems".

#### **United Nations' Sustainable Development Goals (SDGs)**

The 17 SDGs were established by the UN in 2015. This Strategy supports their delivery.



































<sup>1</sup> https://www.science.org/doi/10.1126/science.1259855

<sup>2</sup> https://www.ipcc.ch/report/ar6/syr/resources/spm-headline-statements/ statement A4

### Related UoE strategies

#### Strategy 2030 and Environment and Climate Emergency Policy Statement

The UoE Strategy 2030 states that "[w]e will use the power of our education and research to create a sustainable, healthy and socially just future" and that "[w]e will commit our resources – intellectual, physical and human – to increase skills levels and to support the region in becoming an international hub for net zero, clean growth and nature recovery." One of the three main pillars of the Strategy is to lead meaningful action against the climate emergency and ecological crisis.<sup>3</sup>

The UoE declared an ecological and climate emergency in 2019 and published an Environment and Climate Emergency Policy Statement<sup>4</sup>. This Nature Positive Strategy (NPS) is in response to Goal 3: "To pursue a policy of environmental net gain on our estates, and to use our research and education to deliver environmental net gain within region, country and across the globe."

Biodiversity and sustainability are intrinsically intertwined, as biodiversity underpins the processes that support life on earth. The UoE has pledged to become a Nature Positive University, a commitment to restore species and ecosystems harmed by University activities, and enhance the University's positive impacts on nature. This Strategy relates to all nature positive actions and sits alongside other <u>UoE policies and strategies</u>, including:

- Water Resilient Policy
- Sustainable Procurement Policy
- Fairtrade Policy (Exeter)



- FXPlus Sustainability Policy (Cornwall)
- Decarbonisation Masterplan
- Sustainable Transport Plan
- Single-use Plastics Strategy
- Circular Economy and Sustainable Resource Management Strategy
- Equality, Diversity and Inclusivity Vision 2019-2025

The University of Exeter is a signatory to the <u>Concordat for the Environmental Sustainability of Research and Innovation Practice</u>, which aims to ensure that UK Research and Innovation not only contribute to understanding how our planet is changing, but to ensure that they are environmentally sustainable in design and practice.

In addition, the University has three Civic University Agreements with partners in Exeter, Devon and Cornwall, and this Strategy will contribute to the missions of these partnerships.



<sup>3 &</sup>lt;a href="https://www.exeter.ac.uk/about/strategy2030/">https://www.exeter.ac.uk/about/strategy2030/</a>

<sup>4</sup> https://www.exeter.ac.uk/media/universityofexeter/campusservices/sustainability/docs/ Environment\_and\_Climate\_Emergency\_Policy\_Statement.pdf

### Vision

To lead meaningful action against the ecological crisis and enhance the environment through our teaching, research and operations across our estate, South West England and globally.

# Scope

This Strategy covers areas where we have both direct influence and indirect influences via, for example, the supply chain. Areas where we have direct influence includes all our University campuses and contracts with third parties who build on or manage land owned by the University. There are numerous indirect impacts of University activities on biodiversity, which we will assess as part of this Strategy.

# **Principles**

#### 1. Multifunctionality

We aim to meet our goals taking a 'people and nature' approach – protecting and enhancing nature with a positive impact on people (social and health outcomes, and considering the principles of environmental justice). We aim to both protect biodiversity and promote nature-based solutions to environmental problems which benefit people via improved natural capital. We will incorporate the protection of biodiversity into all operations, processes and activities by – as a minimum – understanding the impacts (direct and indirect). We will consider trade-offs between goals around carbon reduction, biodiversity enhancement, health and well-being, and living within planetary boundaries. Where possible we will use multifunctional solutions that provide benefits in more than one area, such as flowering fruit trees which store carbon but also provide resources for pollinators and food for wildlife and people.

#### 2. Protect-enhance-extend

We will protect and enhance biodiversity impacted by University activities. We will follow the mitigation conservation hierarchy<sup>5</sup> when considering the impacts of University activities on biodiversity (refrain from impact, reduce impact, restore biodiversity and renew biodiversity). Avoiding loss is the first aim, but where we have negative impacts on biodiversity, any offsetting activities will be held to a high standard and be locally relevant to the impact imposed (for example, replace lost habitats with similar). For our campuses and direct landholdings, we will protect and enhance existing habitats for

5 Milner-Gulland et al. 2021 Four steps for the Earth: mainstreaming the post-2020 global biodiversity framework https://doi.org/10.1016/j.oneear.2020.12.011

wildlife, including natural habitats, but also semi-natural habitats and green infrastructure, such as ornamental and horticultural planting in appropriate areas. We will prioritise native species planting wherever possible to enhance biodiversity but will also consider the biodiversity value of non-native species. We will look holistically at campus development, allowing for space for wildlife populations to potentially shift around and use different areas. We will enhance the benefits that we gain from nature by thoughtful planning and by converting grey infrastructure to green where possible. When considering net gain for biodiversity after development we will include both formal planning developments and permitted development on campus.





Refrain: Refrain from actions which would harm species or ecosystems.



**Reduce:** Reduce harm by taking steps to mitigate negative impacts.



Restore: Restore species and ecosystems that have been harmed.



Renew: Renew nature through new actions that make a difference.

#### 3. Innovate and share knowledge

We will base decision making on evidence, including multiple knowledge bases, and record the impacts of our actions and decisions. We will focus on monitoring and knowledge that contributes to wider schemes and initiatives where possible and appropriate. On our own campuses, we will use our expertise to be innovative. We aim to make UoE campuses a case study and living laboratory of nature positive actions which inspire visitors, students and other universities. We will share the visible and invisible achievements that make the UoE a Nature Positive University.

#### 4. Connect and collaborate

The connectivity of habitats is extremely important to allow wildlife to move between areas and increase resilience to environmental change. When incorporating the mitigation conservation hierarchy into our activities we will include considerations of connectivity. We will connect existing habitats on campus and in and around student accommodation, and seek to connect them into the wider landscapes around campuses. We will collaborate with national and local conservation charities, community interest companies, statutory bodies, local authorities and local communities where possible. We will work with neighbouring landowners and communities to promote wildlife corridors and biodiversity friendly landscape management and planting. We will understand the wider impacts of our actions on biodiversity and environmental gain beyond our campus boundaries.





#### 5. Review opportunities and threats

This Strategy is a live document and should respond to emerging threats and opportunities around biodiversity, as part of ongoing operations and wider activities of the University. This NPS will be supported by reporting on actions on appropriate time scales, and records of decision–making processes to track progress towards targets.

#### 6. Engage our community

The University has an extraordinary breadth and depth of knowledge and enthusiasm. We have global reach via our activities including research partnerships but also in terms of the resources we use. We aim to be an exemplar for how a global institution can act in a nature positive way through all our activities. We will engage with our community to exchange knowledge and use our campuses as a showcase for a sustainable, healthy and socially just university. We aim to empower our community to take nature positive actions and support them in nature positive activities. We will engage with the local community surrounding campuses and other areas of University activity, and embed inclusive practices into our work both on the ground and digitally. Where we have indirect impacts on communities via our supply chain, we will seek to work with partners who, in turn, engage with their local community.

#### 7. Equality, diversity and inclusivity

The NPS aims to be inclusive of all people. We will ensure nature positive interventions do not conflict with needs of people with protected characteristics. The inclusivity of on-the-ground events, such as monitoring, volunteering and work placements, will be considered in advance, making sure that there will be opportunities for everyone to be involved. We will engage with under-represented groups in the sector by considering how we time and advertise opportunities.

#### 8. Have targets that are SMART

We will use SMART (specific, measurable, achievable, relevant and timed) targets to measure the impact of our activities, understand what is working and what is not. We will leave space for context-specific innovation where measurement may be difficult and outcomes uncertain. We acknowledge that many aspects of nature positivity will be a 'work-in-progress', about which we will be transparent. We plan to deliver measurable improvement to the environment around the University and places where the University works or has influence.

- 1. To enhance biodiversity through protection, restoration and expansion where possible, and to increase the direct and indirect benefits accrued from biodiversity by people (via estates management, teaching, research, operations and supply chain).
- **2.** To reduce negative impacts of University activities on species and ecosystems, and restore those that have been previously harmed where possible.

To meet these goals, and following our principles, our objectives and targets are measurable and set within a 7-year horizon. They have been set within the context of the goals in the Department for Environment, Food & Rural Affairs (Defra)'s <a href="Environmental Improvement Plan 2023">Environmental Improvement Plan 2023</a>, and Local Nature Recovery strategies in the region.

### Objectives

- 1. Improve the biodiversity value of University campuses by maintaining a sustainable and well-connected ecosystem with viable wildlife populations on University landholdings, and reduce impacts of estates operations and capital projects on biodiversity.
- 2. Increase the natural capital value of University campuses and areas we can influence.
- **3.** Increase how we engage/connect people with nature (via teaching, volunteering, research).
- **4.** Provide positive benefits to staff, students and local communities as a result of nature-based interventions.
- **5.** Reduce the impact of our operations, supply chain and global activities on biodiversity and the environment.



### Baseline

#### **Wider University activities**

We will develop a baseline of the impact of wider UoE activities on biodiversity and the environment, beyond our estimated carbon footprint (similar to that which has been carried out at the University of Oxford<sup>6</sup>). This work sits in Objective 5 and will be the focus of further development in 2024.

#### University landholdings

The University has landholdings around the city of Exeter and the Penryn Campus, Cornwall. Some areas have been assessed using 'biodiversity units', developed by UK Government and statutory agencies (Defra and Natural England) to understand the impact of projects and development on biodiversity<sup>7</sup> and are summarised in Table 1.

Table 1: Summary of biodiversity units across University landholdings.

		Campus and year of field survey					
		Streatham <sup>8</sup> (2021)	St Luke's <sup>9</sup> (2021)	Lower Hoopern Valley <sup>10</sup> (2021)	Duryard <sup>11</sup> (part) (2023)	Penryn <sup>12</sup> (2019)	Total
Biodiversity	Habitat	715	31	163	61.7	289	1260
units (Defra	Hedgerow	10	1	0.1	0.26	67	78
metric)	River	4	0	5	0.21	4	13

- 8 Plan for Ecology (2022) Natural England Biodiversity Metric 3.1 Site: Streatham Campus, University of Exeter, Devon
- 9 Plan for Ecology (2022) Natural England Biodiversity Metric 3.1 Site: St Luke's Campus, University of Exeter, Devon. Report no. PAE2614\_2
- 10 Plan for Ecology (2022) Natural England Biodiversity Metric 3.1 Site: Lower Hoopern Valley
- 11 GE Consulting (2023) Duryard Campus, Exeter, Devon. Biodiversity Net Gain Assessment. A report on behalf of Tetra Tech Ref 1523-BNG-MD
- 12 Plan for Ecology (2023) Natural England Biodiversity Metric 3.1 Penryn Campus, University of Exeter, Cornwall.

<sup>6</sup> See methods developed by Bull et al (2021) doi: https://doi.org/10.1038/d41586-022-01034-1

<sup>7</sup> https://www.gov.uk/guidance/biodiversity-metric-calculate-the-biodiversity-net-gain-of-aproject-or-development



There is no information available for biodiversity value of other UoE landholdings.

#### Retrospective studies of historic biodiversity loss

#### **Streatham Campus**

A retrospective study<sup>13</sup> of biodiversity net gain/loss on Streatham Campus between 2001-2021 found:

- Overall loss of -7.3 % in habitat units.
- Overall loss of -11.6% in hedgerow units.

#### **Penryn Campus**

A retrospective study<sup>14</sup> of biodiversity net gain/loss on Penryn Campus between 2001 and 2019 found:

- Overall gain of 18.7% in habitat units, due to development occurring on low value semi-improved or arable land.
- Overall loss of -19.5% for hedgerow units.



<sup>14</sup> Plan for Ecology (2023) Natural England Biodiversity Metric 3.1 Historic biodiversity loss assessment Penryn Campus 2001-2019. Report no. P4E2615\_2



However, the report states that "[b]iodiversity loss is likely to be underestimated due to the limitations", particularly changes to ecological connectivity, functionality and increase in light pollution that cannot be assessed by using the biodiversity net gain metric.

The Nature Positive Alliance recommends 2020 as the baseline for activities. and we approximate to that baseline using the ecological assessments of Streatham Campus in 2021 and Penryn Campus in 2019.

#### **Natural** capital

In terms of the natural capital stocks on the University campuses, assessment of the value of the University's trees on campus in 2022 has found that across two locations (Exeter, including Streatham and Penryn), the trees store 5,896 tonnes of carbon, sequester 120 tonnes of carbon, remove 3.2 tonnes of pollution and reduce water run-off by 9245 m<sup>3</sup> 15. However, as yet we have no further assessment of natural capital stocks.

<sup>15</sup> Treeconomics (2022) University of Exeter Tree Inventory Assessment

### Targets and KPIs

The following targets, key performance indicators and actions have been developed. Table 2 outlines the targets, key performance indicators (KPIs) and actions/outcomes contributing to the KPI, organised around the five objectives. Table 3 gives further detail around each action/outcome, specifying responsibilities and timeframe.

Table 2: Targets, key performance indicators and actions designed to meet the objectives.

Targe	ts	Key performance indicators	Actions contributing to KPI			
	Objective 1 – Improve the biodiversity value of University campuses by maintaining a sustainable and well-connected ecosystem with viable wildlife populations n University landholdings, and reduce impacts of estates operations and capital projects on biodiversity.					
20% for habitats by 2030, with a stretch goal of 30%, from a baseline of 2020 <sup>16</sup> .  [3] Pro [5] Ca [6] Per		[1] Campus specific Biodiversity Action Plan [3] Protected corridors [5] Campus GIS [6] Permitted development biodiversity impact assessed [28] Biodiversity monitoring				
		1.1.2 The number of biodiversity interventions on campus.	[1] Campus specific Biodiversity Action Plan [5] Campus GIS			
		1.1.3 The area of biodiversity interventions on campus.	[1] Campus specific Biodiversity Action Plan [5] Campus GIS			
1.2	Increasing or stable wildlife populations on University campuses.	1.2.1 Wildlife population trends of key indicator groups (bumblebees, butterflies, birds, bats) and those of conservation concern (Red List species, s41 species, and local priority species within Cornwall and Devon).	[1] Campus specific Biodiversity Action Plan [2] Nature positive Standard Operating Procedures (SOPS) for campus activities. [3] Protected corridors [4] Reduce artificial light at night [5] Campus GIS [6] Permitted development biodiversity impact assessed [21] Central internal Information Hub [28] Biodiversity monitoring			

<sup>16</sup> Note the different campuses have had baselines assessed between 2019 and 2021 and we will use these as an approximation of the 2020 baseline. The 20% gain refers to existing land holdings. New University land holdings will be required to also reach 20% net gain, unless explicitly purchased as a biodiversity offsetting unit.

Target	rs	Key performance indicators	Actions contributing to KPI
1.3	Reduce the biodiversity impacts of estates operations and capital projects.	1.3.1 Biodiversity impact of direct and indirect activities using a lifecycle approach (local relative species loss).	[1] Campus specific Biodiversity Action Plan [2] Nature positive SOPS for campus activities [7] Sustainability Design Guide [8] Biodiversity representative on decision making committees [9] Biodiversity footprint impact assessment [10] Assess biodiversity impacts of capital and strategic projects [11] Biodiversity requirements are incorporated into third-party contracts [13] Promote informed purchasing decisions with reduced biodiversity impacts
Object	tive 2 – Increase the natural capital value of University	campuses and areas we can influence.	
2.1	Increase the amount of carbon stored in University estates.	2.1.1 Increase in habitats with higher amounts of stored carbon, assessed using standard carbon values for different habitat types.	[1] Campus specific Biodiversity Action Plan [2] Nature positive SOPS for campus activities [7] Sustainability Design Guide
2.2	Reduce water run-off from University campuses and University owned land.	2.2.1 Increase in habitats with higher water infiltration rates, using standard or estimated values for different habitat types.	[1] Campus specific Biodiversity Action Plan [2] Nature positive SOPS for campus activities [7] Sustainability Design Guide
2.3	Promoted cooling effect of soft landscaping through planting and location of planting.	2.3.1 Increase in biodiversity-friendly green walls and location of planting so that it shades buildings, or areas people use.	[1] Campus specific Biodiversity Action Plan [7] Sustainability Design Guide
2.4	Increase area/number of edible habitats.		[1] Campus specific Biodiversity Action Plan [7] Sustainability Design Guide
Object	tive 3 – Increase how we engage/connect people with n	ature (via teaching, volunteering, research).	
3.1	Increase the availability of information about UoE nature positive actions and research.	3.1.1 Number of nature positive posts via digital and social media/number of nature positive signs on campus/hits to website.	[19] Dedicated nature positive posts to Instagram accounts, digital display boards and features in Sustainability and staff newsletters [20] Dedicated external-facing areas of University webpages [21] Central internal Information Hub
3.2	Increase number of student learning activities involving campus biodiversity.	3.2.1 Number of student learning activities involving campus biodiversity/natural capital/impacts of nature on people.	[14] Use curriculum mapping to Sustainable Development Goals to identify areas for nature positive activities [15] Engage with all faculties [16] Support for on-campus activities



Targe	ts	Key performance indicators	Actions contributing to KPI		
Objec	Objective 5 – Reduce the impact of our operations, supply chain and global activities on biodiversity and the environment.				
5.1	The overall impact on biodiversity of all our activities is reduced by 20% by 2030.	5.1.1 Biodiversity impact of direct and indirect activities using a lifecycle approach (local relative species loss).	[9] Biodiversity footprint impact assessment [10] Assess biodiversity impacts of capital and strategic projects [13] Promote informed purchasing decisions with reduced biodiversity impacts [18] Biodiversity impacts of research projects evaluated at conception [31] Conduct biennial accounting of biodiversity impacts		

Table 3 details the responsibilities and timeframe for the actions contributing to KPIs outlined in Table 2.

#### Table 3: Actions and responsibilities to meet the targets of the Nature Positive Plan

**Actions:** are themed according to general area of work: grounds; built and grounds combined; built estate; teaching and research; engagement and monitoring.

**Responsibilities:** Other departments or groups may be involved but only one lead is given, or one lead for each campus where appropriate.

**Timeframe:** Short = completed within 1 year, Medium = completed 2-4 years, Long = completed >5 years and ongoing.

	Action	Who is responsible?	Theme	Timeframe
1	1 Campus specific Biodiversity Strategy/Plan	UoE Grounds and FXPlus	Grounds and their management	Short
	Campus specific biodiversity action plans (BAPs) are created, and include improving the biodiversity value of ornamental plantings, replacing non-native hedges with native hedges and improving grassland biodiversity.	,		
	Campus BAPs also incorporate reduced environmental impacts of estate operations via, for example, reduced carbon in procurement; reduced water consumption via both planting and installation of grey watering systems; integrated pest management; reduced chemical use.			
	Campus BAPs to incorporate people engagement in management and nature-based activities.			
2	2 Nature positive SOPS	UoE Grounds and FXPlus	Grounds and their management	Medium
	Environmental management policies/standard operating procedures developed to cover common operations such as tree/hedgerow management, invasive species management and pest control.			

	Action	Who is responsible?	Theme	Timeframe
3	Protected corridors  Habitat corridors marked on University Masterplan and protected by covenant.	UoE Estates and FXPlus	Built and Grounds	Medium
4	Reduce artificial light at night  Review the nighttime lighting on campus and take action to reduce it, or replace with wildlife-friendly lighting, while still maintaining safety standards.	UoE Estates and FXPlus	Built and Grounds	Medium
5	Campus GIS  Campus specific live GIS accessible by UoE Estates, UoE Grounds, FXPlus and Sustainability team for use in planning new building activities on campus.	UoE Estates and FXPlus	Built and Grounds	Medium
6	Permitted development biodiversity impact assessed  Biodiversity impact of permitted development assessed prior to implementation. Assessed using the UoE Biodiversity net gain metric and Ecological Impact Assessment principles where appropriate.	UoE Estates and FXPlus	Built and Grounds	Long
7	Sustainability Design Guide  Ensure that biodiversity is suitably reflected in the University's Sustainability Design Guide, including whether to adopt a third-party accreditation scheme (e.g. Building with Nature).	UoE Sustainability team	Built and Grounds	Medium
8	Biodiversity representative on decision making committees  Ensure that there is a biodiversity representative on decision making committees.	UoE Sustainability team	Built Estate	Short, then repeated
9	Biodiversity footprint impact assessment  Assessment of impact of UoE operations and supply chain on biodiversity completed by 2025, following methods of Bull et al., 2021. doi: https://doi.org/10.1038/d41586-022-01034-1	RENEW Project team	Operations	Medium
10	<b>Assess biodiversity impacts of capital and strategic projects</b> prior to project approval by Capital Management Group.	UoE Estates and Strategic Delivery Unit	Operations	Medium
11	<b>Biodiversity requirements are incorporated into third-party contracts</b> (e.g. sustainable management of green spaces)	UoE Procurement and FXPlus	Operations	Medium

	Action	Who is responsible?	Theme	Timeframe
18	Biodiversity impacts of research projects evaluated at conception  Positive as well as negative impacts evaluated at conception as part of ethics process or by expanding the carbon footprint research tool.	Academic staff	Teaching and Researching	Medium
19	Dedicated nature positive information to be displayed via Instagram accounts, digital display boards, physical displays on campus, and features in Sustainability and other newsletters.	UoE Sustainability team	Engagement	Long
20	Dedicated external facing website sections  Areas of the University website dedicated to information on nature positive actions.  Already exists for Exeter campuses. ESI webpages will host a site for Penryn. FXPlus biodiversity blog.	UoE Sustainability team and FXPlus	Engagement	Short
21	Central internal facing Information Hub  With information for monitoring student projects but also associated information such as previous student research.	UoE Sustainability team	Engagement	Short, then ongoing management
22	Empower staff, students and local communities to become more nature positive  Provide support for new ideas and projects if feasible.	UoE Sustainability team	Engagement	Short, then ongoing
23	Create opportunities for community monitoring  Staff, students and local communities to be involved in monitoring – some biodiversity monitoring offered as community activities; recorded in campus monitoring plan.	UoE Sustainability team and FXPlus	Engagement	Short, then repeated annually
24	Create opportunities for people to be involved in nature-based events on campus  Staff, students and local communities to be involved in on-campus events, such as bioblitzes, nature walks, practical management and potentially nature-based prescriptions.  Introduce campus biodiversity and heritage at open days, orientation sessions, international student recruitment and widening participation events.	UoE Grounds and FXPlus	Engagement	Short, then repeated annually
25	Nature positive work placement project list  Provide a list of potential work placement projects to internal and external work placement providers, including Green Consultants programme.	UoE Sustainability team	Engagement	Short, then repeated annually



	Action	Who is responsible?	Theme	Timeframe
26	Utilise internal University funding for nature positive projects  For nature positive work placements and training, e.g. employability budgets and widening participation schemes.	UoE Sustainability team	Engagement	Short, then repeated annually
27	Active support of volunteer greenspace management  By staff/students, e.g. 'friends of' groups, creation of gardens or food growing areas, by having a clear process to follow for independent groups.	UoE Sustainability team	Engagement	Short, then ongoing
28	Biodiversity monitoring  Annual biodiversity monitoring plan in place and reported on.	UoE Sustainability team and FXPlus	Monitoring	Short, then repeated annually
29	Ensure that question B.16 on environmental sustainability is asked in the National Student Survey for both Penryn and Exeter.  B.16 question statements are:  1. My institution encourages good environmental practice.  2. My course has encouraged me to think about environmental sustainability.  3. I have had opportunities to take part in activities supporting environmental sustainability.	Academics responsible for NSS	Monitoring	Short
30	Campus green space survey annually/biennially depending on resources  Campus green space survey to include feedback mechanism to Grounds team.	UoE Sustainability team	Monitoring	Medium
31	Conduct biennial accounting of biodiversity impacts  Of operations, supply chain, research and teaching.	UoE Sustainability team	Monitoring	Medium

# Governance and reporting

This Strategy will be implemented by embedding consideration of biodiversity and natural capital into all University policies and process.



Capital Management Group (CMG) are responsible for ensuring that nature positive actions and the impact of University activities on biodiversity are assessed in business plans prior to approval of any major University projects or master planning, and that appropriate action is taken following the Conservation Mitigation Hierarchy (Action 10).

The UoE Sustainability team will be responsible for:

- The Strategy and its implementation, including facilitating activity by other teams.
- Preparing a monitoring plan and overseeing progress.
- Collating information and reporting against the KPIs.
- Developing a biodiversity footprint for all University activities (Objective 5)

UoE Estates and Grounds teams (for Exeter campuses) and FXPlus (for Penryn) will be responsible for:

- Preparing and updating the Biodiversity Action Plans for their respective campuses. These will include: internal procedures for invasive species management; replacement planting; chemical use policy; ecological impact assessments for permitted development activities; and best practice tree/ hedgerow maintenance/damage control works.
- Actions 1-6, 10 and 22, incorporating natural capital and biodiversity into the Master Plan, infrastructure development and capital projects.



Providing information to support development of annual progress reports.

The Biodiversity Task and Finish Group will become a thematic forum that will meet 3-4 times in 2024 to support the development of nature positive reporting for all University activities beyond the campuses. The status of the forum will be reviewed at the end of 2024.

#### Reporting and engagement

The Sustainability team, with Grounds team as appropriate, will provide an annual report on the Nature Positive Strategy to:

- Advocate Climate Taskforce (ACT)
- FXPlus Board
- The Climate and Environmental Crisis Board (CEC)
- A public facing report will be made available online to meet the commitments of the Nature Positive Pledge

To ensure wide engagement with and understanding of the University's nature positive activities, the Sustainability team will also report to individual faculties via delivery slots at faculty meetings. This is important for multiple reasons: visibility of nature positive actions within the University; engagement with academic staff with opportunities for student projects; and bringing in additional ideas from faculty members.

# Glossary

#### **Biodiversity net gain**

The concept of biodiversity net gain is defined by UK Government in the planning process as:

"Biodiversity net gain (BNG) is a strategy to develop land and contribute to the recovery of nature. It is a way of making sure the habitat for wildlife is in a better state than it was before development."17

Biodiversity net gain in this context is an understanding that many activities (development, resource extraction, waste production) damage biodiversity. We will follow the mitigation conservation hierarchy where damage to biodiversity is avoided in the first instance, but where this is not possible, use a framework of compensating for biodiversity loss, resulting in overall biodiversity net gain for University activities.

#### **Environmental net gain**

We use a definition of environmental net gain, based on the current Defra definition in relation to development (see below), but expanded:

Environmental net gain is an approach where, if possible, we assess the impacts of University activities on natural capital as well as biodiversity, and to ensure that activities have an overall positive affect on environmental quality. We aim to not only provide biodiversity net gain but to achieve increases in the capacity of affected natural capital to deliver ecosystem services and make any activity's wider impacts on natural capital positive.





Definitions of environmental net gain as put forward in Defra's 2018 Net Gain Consultation document, in relation to developments:

"In short, this means improving all aspects of environmental quality through a scheme or project. Achieving environmental net gain means achieving biodiversity net gain first, and going further to achieve increases in the capacity of affected natural capital to deliver ecosystem services and make a scheme's wider impacts on natural capital positive."

"Net gain is an approach to development that aims to leave the natural environment in a measurably better state than beforehand. This means protecting existing habitats and ensuring that lost or degraded environmental features are compensated for by restoring or creating environmental features that are of greater value to wildlife and people."

#### **Environmental justice**

Environmental justice can have many definitions but can be considered as the equitable distribution of environmental risks and benefits<sup>19</sup>. It can incorporate fair and meaningful inclusion in decision-making around environmental activities and often requires acknowledgement of inequal power dynamics within different cultural groups.

#### Mitigation conservation hierarchy

Framework proposed by Milner-Gulland et al., 2021<sup>20</sup> to incorporate not only the mitigation hierarchy (avoid, minimise, remediate, offset), but also to add

enhancements so this incorporates the four 'R's: refrain (prevent impacts), reduce impacts, restore (after any impacts), and renew (enhance biodiversity).

#### Natural capital

Natural capital is the stock of renewable and non-renewable natural resources (geology, soil, air, water and living organisms) that combine to yield a flow of benefits to people<sup>21</sup>. For example, soils are a natural capital that provide us with benefits, such as food and fibres, through the plants that grow in them, construction materials, mediation of water cycles and flood events, and the inspiration and materials for creative arts.

#### Nature-based solutions

Nature-based solutions (NbS) involve working with nature to address societal challenges, providing benefits for both human wellbeing and biodiversity. Specifically, they are actions that involve the protection, restoration or management of natural and semi-natural ecosystems; the sustainable management of aquatic systems and working lands, such as croplands or timberlands; or the creation of novel ecosystems in and around cities. They are actions that are underpinned by biodiversity and are designed and implemented with the full engagement and consent of local communities and Indigenous Peoples. A high quality nature-based solution is likely to be nature positive; however, not all nature-based solutions are nature positive (for example, planting a monoculture of trees on a high biodiversity grassland to store carbon is not nature positive).

<sup>18</sup> Defra (2018). Net Gain Consultation Proposals. [online] Available at: <a href="https://consult.defra.gov.uk/land-use/netgain/supporting\_documents/netgainconsultationdocument.pdf">https://consult.defra.gov.uk/land-use/netgain/supporting\_documents/netgainconsultationdocument.pdf</a> p.13

<sup>19</sup> Schlosberg, David (2002). Light, Andrew; De-Shalit, Avner (eds.). Moral and Political Reasoning in Environmental Practice. Cambridge, Massachusetts: The MIT Press. p. 79. ISBN 0262621649.

<sup>20</sup> https://doi.org/10.1016/j.oneear.2020.12.011

<sup>21</sup> The Natural Capital Coalition <a href="https://capitalscoalition.org/capitals-approach/">https://capitalscoalition.org/capitals-approach/</a> Accessed 14/7/2023

<sup>22</sup> https://www.naturebasedsolutionsinitiative.org/what-are-nature-based-solutions/ Accessed 14/7/2023

#### Nature-based events

We are using this in the broadest sense to include habitat management, monitoring of biodiversity, training in biodiversity or nature-based solutions, but also activities such as wildlife-friendly gardening and nature-friendly food production or processing.

#### **Nature positive**

Following the Nature Positive Alliance's definition, being nature positive involves: "...halting and reversing biodiversity loss, through measurable gains in the health, abundance, diversity and resilience of species, ecosystems and processes". 23

#### **Partnerships**

Partnerships in this context include third parties who develop buildings on, or maintain soft landscaping around, University owned land. It includes people that we work with in all aspects; however, the due diligence around University partnerships is incorporated under the Compliance Governance and Risk directorate.

#### **Authorship**

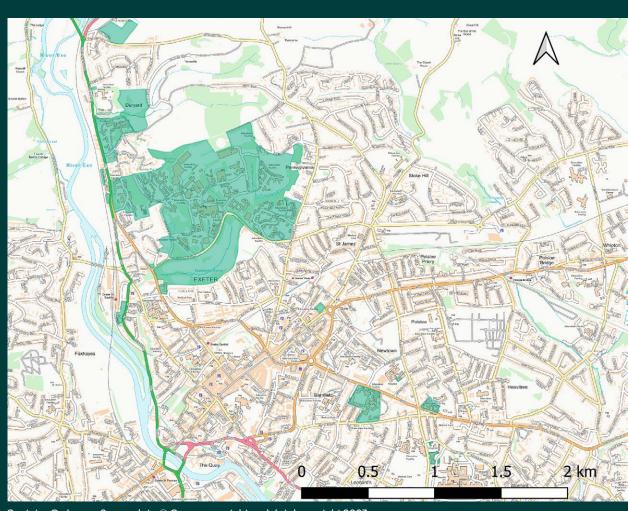
The UoE Nature Positive Strategy was developed by the Biodiversity Task and Finish Group chaired by Juliet Osborne. Membership consisted of Kelly Moyes (Senior Lecturer), Ben Balmford (Postdoctoral Research Fellow), Abhishek Dixit (Biodiversity Project Officer), Ben Phillips (Postdoctoral Research Fellow), Clive Betts (Head of People Development), Peter Lefort (Impact and Partnership Development Officer), Camille Bonneaud (Professor in Evolutionary Biology),

Alasdair Garnett (Gardener), Bill Barnes (Professor of Photonics), Dave Evans (Head of Grounds Operations), Joanna Chamberlain (Director of Sustainability), Fraser Browning (Technical Evaluator, Sustainability team), Chris Guggiari-Peel (Data Analyst, Sustainability team), Diana Tingley (Business Fellow), Jo Garrett (Research Fellow), Rosalind Shaw (Impact Fellow).

Consultation with Estates and Procurement colleagues was carried out before completion of draft, followed by consultation with the wider University staff and students on a draft version of this document between February and April 2024.

# Annex 1 – Maps of University of Exeter landholdings

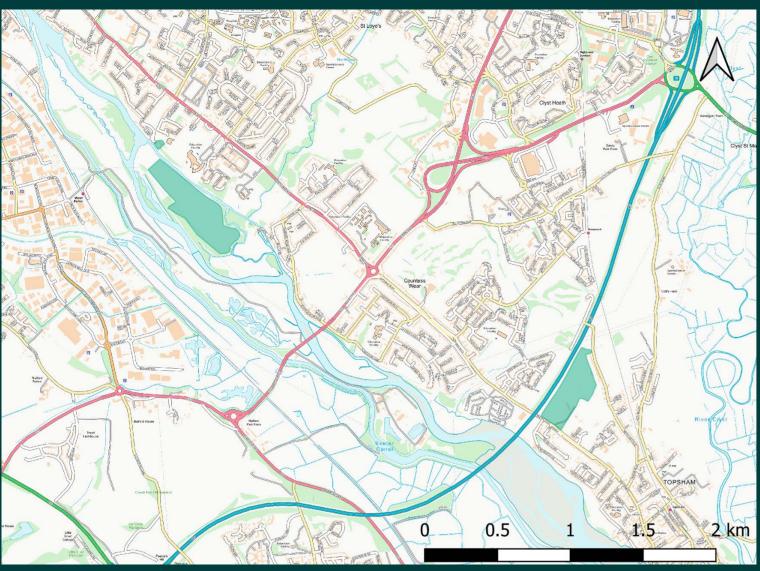
Map 1: University of Exeter landholdings in Exeter, including Streatham Campus, Duryard, St Luke's Campus





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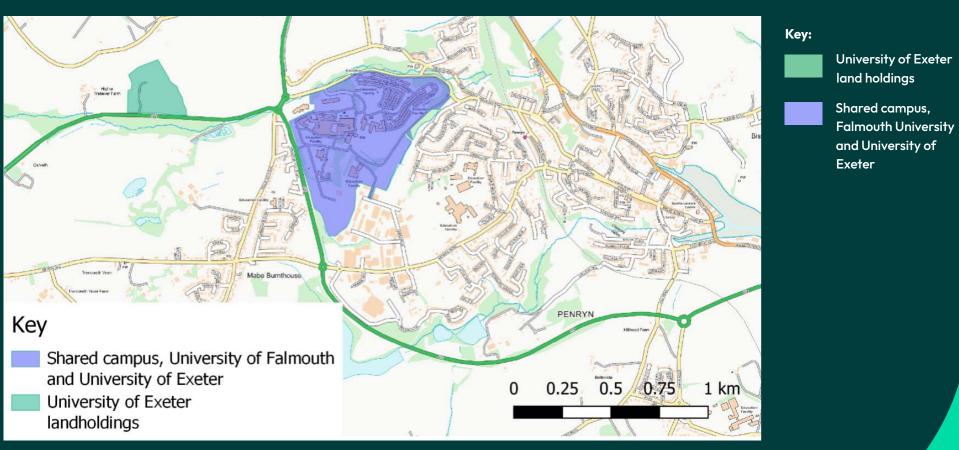
Map 2: University of Exeter landholdings, Topsham and Duckes Meadow



Wey:
University of Exeter land holdings

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Map 3: Penryn Campus, including campus shared with the University of Falmouth



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### Sustainability

#### Contact us

Please get in touch with the Sustainability team to find out more about our plans to lead meaningful action on the ecological crisis and climate emergency, and how you can get involved at <a href="mailto:sustainability@exeter.ac.uk">sustainability@exeter.ac.uk</a>

exeter.ac.uk/sustainability

