LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN (LEMP)

for

University of Bath,
Claverton Down Campus,
Bath

FINAL DRAFT – V3
(FOR SUBMISSION TO BATH & NORTH EAST SOMERSET COUNCIL WITH CAMPUS MASTERPLAN)

May 2022

ENDERBY ASSOCIATES
Chartered Landscape Architects ♦ Environmental Planning Consultants

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APPENDICES

1.0 INTRODUCTION

1.1 Enderby Associates (Landscape Architects and Environmental Consultants) have been appointed by the University of Bath to advise on and prepare a Landscape and Ecological Management Plan (LEMP) for the Claverton Down Campus (which covers the main Claverton Down Campus and the University's site at the Sulis Club on Claverton Down Road), in conjunction with the preparation of the new Masterplan for the campus (The Claverton Masterplan) by Define. Contributions on ecology/biodiversity and arboricultural matters have been provided by Ecosulis and Tree Maintenance Ltd. respectively. Contact details for the consultants are provided in Appendix 9 at the rear of this document.

Purposes and structure of the LEMP

1.2 The principal purposes of the LEMP are to support the new Masterplan by:

- Recording and analysing the environmental context and assets of the campus.
- Establishing principles for, and details of, an appropriate and sustainable management regime for its component landscape and ecological resources; and
- To guide the realisation of new opportunities for maintaining and enhancing the landscape, biodiversity and arboricultural value of these resources.

1.3 The LEMP will be used to inform and influence future developments and other changes that may be brought about within the campus in future years in accordance with the Masterplan, and the overall management of the natural resources that are present within the campus, with particular regard for the context and sensitivities of the campus surroundings.

1.4 The LEMP is structured as follows:

- Section 2 describes the existing context of the campus, in terms of prevailing planning policy context and related information and advice. This section, together with section 3, are equivalent to section 1 ('Where are we now?') of the previous LEMP.
- Section 3 summarises the environmental characteristics and assets of the campus and its relationship to neighbours.
- Section 4 summarises the new Masterplan that has been developed for the campus and how these proposals take into account the particular planning and environmental constraints and opportunities. This section is equivalent to section 2 ('Where do we want to get to?') of the previous LEMP.
- Section 5 sets out the key aims and principles and objectives of the Management Plan for the different parts of the campus (identified as 'Principal Areas' - PAs), together with

the related management strategy and priorities for these areas, anticipated phasing for their implementation, and monitoring. This section is equivalent to section 3 ('How will we get there?') of the previous LEMP.

- Section 6 outlines monitoring procedures and responsibilities and is equivalent to section 4 of the previous LEMP ('How will we know when we have arrived?')

1.5 The LEMP is supported by related information provided in Appendices at the rear of this document.

LEMP Policy context

1.6 The LEMP supersedes the LEMP prepared previously as a requirement of the Section 106 Agreement for the Teaching/GTA Building on campus (i.e., the Chancellors' Building, the subject of planning application ref. 12/02626/FUL) within the context of the previous campus Masterplan for the period up to 2026.

1.7 This previous Masterplan was prepared in accordance with the provisions of the Bath & North East Somerset Local Plan (2007) Policy GDS.1/B11 that was extant at that time.

1.8 B&NES adopted a new Core Strategy (CS) in 2014 and Placemaking Plan (PP) in July 2017. Volume 2 of the PP contains Policy SB19 which is a specific policy that applies to the Claverton Down Campus, including the Sulis Club. The policy defined (with the aid of a plan) the various areas of the campus in terms of their existing use, areas to be retained undeveloped and areas where new development may be acceptable. The plan below shows these areas. It also set out general development principles that apply, which include particular environmental considerations that reflect the campus's environmentally sensitive location. A full copy of this policy is reproduced in Appendix 1.

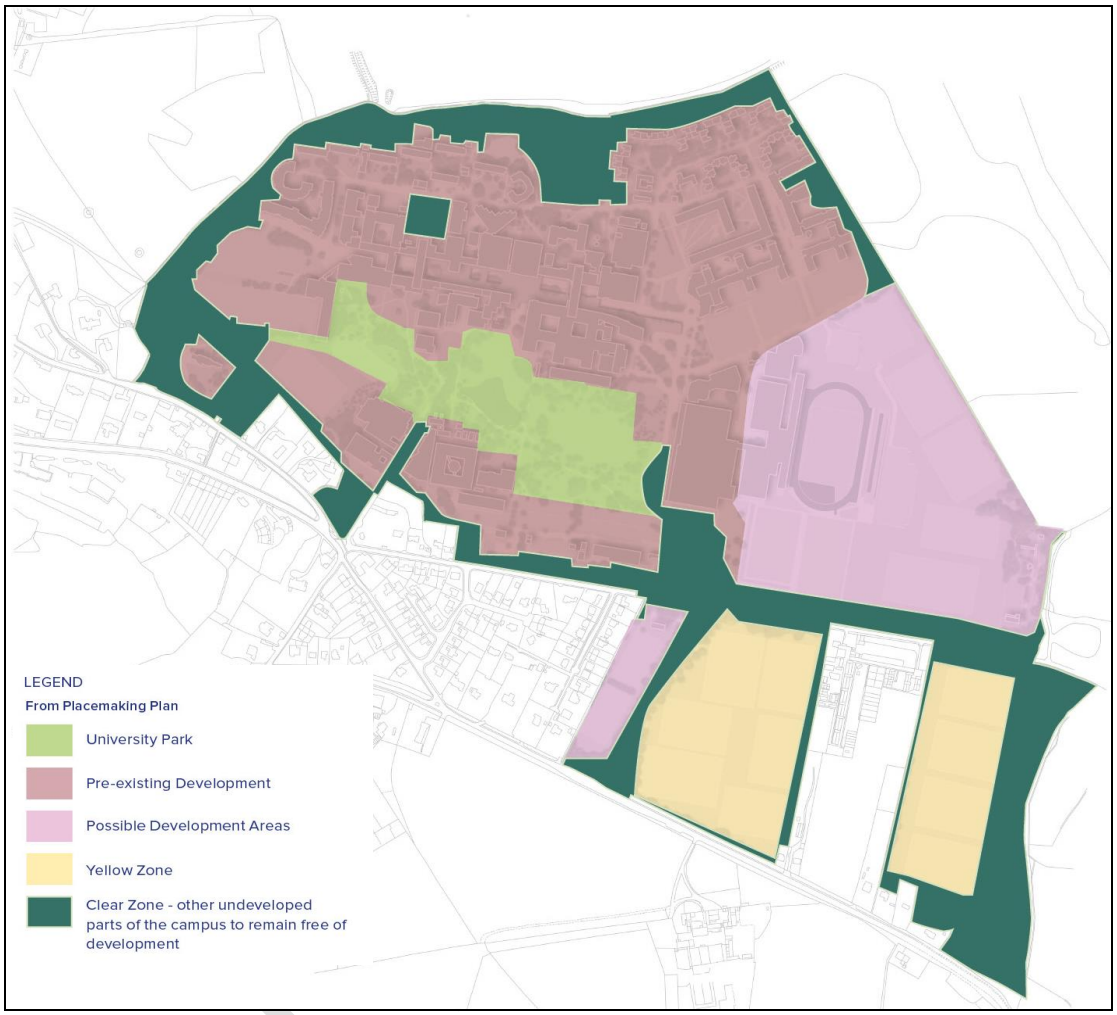


Figure 1 – Policy SB19 of Placemaking Plan (July 2017).

The development of the new Masterplan

1.9 The primary role of the review of the Masterplan is to provide a comprehensive vision for the future development and enhancement of the University's campus to facilitate the University's sustainable growth and ensure its continued success. Details of the development of the Masterplan, and is relationship to the LEMP, are provided in section 4.

LEMP Consultations

1.10 The scope of the LEMP has been informed by the previous LEMP (the scope of which was agreed with B&NES at the time), discussions and input to the preparation and evolution of the Masterplan, and consultation with B&NES Officers to identify any improvements that could be made or additional information that should be incorporated. A meeting was also held with the National Trust, particularly with regard to relationship between the main campus and adjoining land at Bushey Norwood.

1.11 A draft (v1) of the LEMP was submitted informally to B&NES in March 2021, as part of the supporting information to the new campus Masterplan. A revised draft (v2) was submitted in July 2021. This reflected the following modifications:

- proposed Purpose Built Student Accommodation (PBSA) extended southwards;
- reduction in 3G sports pitches (two reduced to one) and introduction of Training Pitches/Courts;
- change of one PBSA block to an Academic building in the eastern part of the eastern car park;
- a small extension on the south east corner of the STV building to accommodate a climbing centre.

It also included information on Biodiversity Net Gain (BNG) in response to a comment provided by the Council.

1.12 A further draft (v3 – this document) was submitted in May 2022. This version includes an updated extract from the Council's online rights of way map (Figure 5) and related text (para. 3.7), and the replacement of Figures 7-9 with updated plans.

2.0 THE UNIVERSITY CAMPUS

2.1 The Claverton campus comprises two parts – the main Claverton Down campus and the Sulis Club.

The Claverton Down campus

2.2 The campus comprises academic, research, administrative and student accommodation buildings, sports village and related facilities, and parkland/green spaces. It is located around 2.5km east of Bath city centre. The site was first developed in 1965 and now extends to around 60ha. The principal access into the campus is via Norwood Avenue from its junction with Claverton Down Road which forms the southern campus boundary. This becomes Convocation Avenue leading into the heart of the campus and Arrivals Square where the bus terminus is located. Quarry Road, located on the western boundary, provides a secondary access from North Road to the western part of the campus.

Figure 2 – The Claverton Down Campus

2.3 The main academic core of the University is focused around an area of parkland and small lake located within the central part of the campus.

2.4 The student accommodation buildings are located around the northern and north eastern sides, with the academic and administrative buildings located within the central part. The south eastern part of the campus is occupied by the Sports Training Village (STV) and associated sports pitches, all-weather athletics track and a bobsleigh and pentathlon training area. Further playing fields lie south of a minor road (The Avenue) and linear mature beech woodland, extending south to Claverton Down Road, where the pitches (St John's Field and Lime Kiln Fields) are separated into two parcels by the intervening Bath Cats and Dogs Home site. Hard tennis courts are located west of Norwood Avenue.

2.5 The main areas of car parking are located in three main areas – the western car park accessed via Quarry Road; the southern car park located west of Convocation Avenue; and the eastern car park located north of the STV with an associated overflow car park. A small car park is located south of the STV.

2.6 The campus is bordered by suburban residential development to the south and south west, the Bath Golf Club golf course to the north, and Bushey Norwood, an area of pasture and woodland owned by the National Trust, to the east.

2.7 All boundaries are defined by significant belts of trees, small areas of woodland or hedgerows. The Avenue forms a distinctive linear feature characterised by large mature/over mature beech trees extending roughly west-east across the southern part of the campus.

Sulis Club

2.8 The Sulis Club is located south of Claverton Down Road, just over 1km to the south of the main campus, and comprises sports pitches, unused tennis courts and bowls green, changing rooms and associated car parking extending to 19.6 ha.

2.9 The site is bounded to the west by Ralph Allen School. A small field to the east separates the site from the Wessex Water HQ. Countryside lies directly to the north with a cluster of suburban development to the north east. The countryside falls away to the south to Monkton Combe.

Figure 3 – Sulis Club

Relevant designations

2.10 The campus, or parts of it, are subject to the following designations:

- Bath World Heritage Site
- Cotswolds AONB
- Bath Conservation Area (including listed buildings)
- Green Belt
- North Road Quarry Site of Special Scientific Interest (SSSI) and Site of Nature Conservation Importance (SNCI)
- Forest of Avon
- Tree Preservation Order (TPO).

2.11 A recent review of the blanket Tree Preservation Order that covered the main campus has helped to define those trees and woodlands that merit specific protection. These are now defined in new Order No. 317 made on 23rd November 2018 (a copy is included as an Appendix to the Tree Policy provided in Appendix 4).

2.12 In addition, immediately adjoining the campus/parts of the campus are the following sensitive sites and areas:

- Bathampton Camp Scheduled Ancient Monument
- Claverton Down Conservation Area
- Claverton Manor Grade II Historic Park & Garden
- Sites of Nature Conservation Interest (SNCI).

2.13 The Combe Down and Bathampton Down Mines Special Area of Conservation a (SAC; also an SSSI) lies some 270m north east of the north eastern boundary of the main campus.

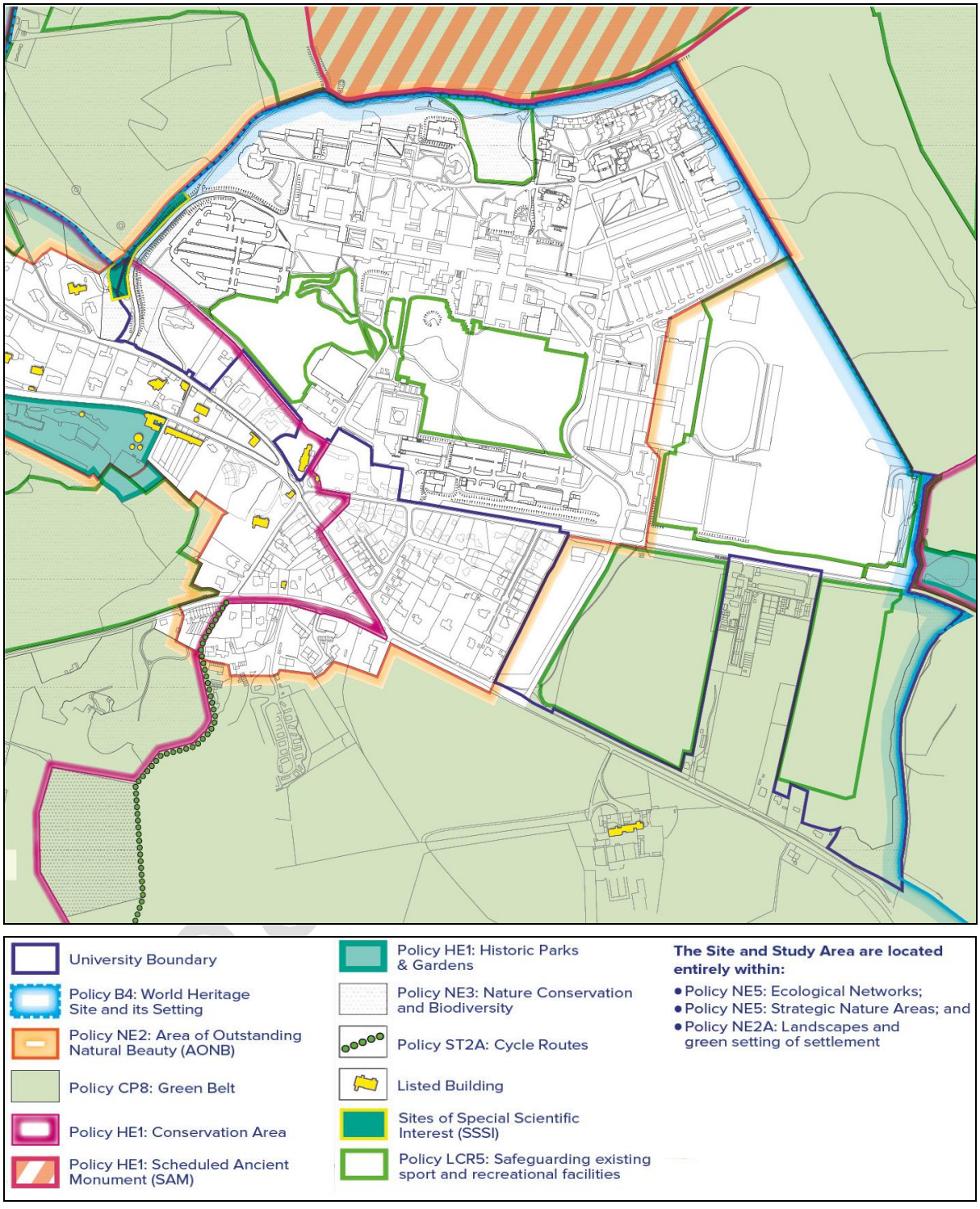


Figure 4 - Policy Designations (prepared by Define)

The Local Plan

2.14 The current Local Plan (covering the period 2011-2029) comprises the Core Strategy and Placemaking Plan.

2.15 Policy B1 (Bath Spatial Strategy) of the Bath & North East Somerset Core Strategy states:

'The strategy for Bath is to:
1. Natural and Built Environment
Sustain and enhance the significance of the city's heritage assets and green infrastructure, including:
a: The Outstanding Universal Value of the City of Bath World Heritage Site and its setting.
b: Listed buildings, the Bath conservation area and their settings.
c: Archaeology, scheduled ancient monuments, and historic parks and gardens.
d: Non-designated heritage assets of local interest and value.
e: Giving great weight to conserving landscape and scenic beauty in the Cotswolds Area of Outstanding Natural Beauty
f: The network of green spaces and wildlife corridors including the River Avon and Kennet and Avon Canal, Local Nature Reserves, formal and informal parks and recreational areas, trees and woodlands.
g: The biodiversity resource including species and habitats of European importance.

One of the stated objectives for higher education (objective 7) is the provision of new on-campus student accommodation.

2.16 Policy B5 (Strategic Policy for Bath's Universities) provides further support for a quantum of new academic space and student accommodation on the Claverton Campus.

2.17 Part 1 of the adopted Bath & North East Somerset Placemaking Plan (adopted July 2017) sets out general development management policies.

2.18 Policy CP6 (Environmental Quality) is an overarching policy that states:

'3. Landscape
The distinctive character and quality of Bath and North East Somerset's landscapes will be conserved or enhanced.
4. Nature Conservation
The quality, extent and robustness of protected sites and valued habitats will be enhanced, and networks of valued habitat will be restored or created, by measures which:

a: Improve the quality and/or increase the size of current sites and valued habitat.
b: Enhance connections between, or join up, sites and valued habitats.
c: Create new sites and valued habitats.
d: Reduce the pressures on wildlife by improving the wider environment.'

2.19 Delivery is to be controlled through the development management process, developing strategies with partnership bodies, and preparation of action plans, management plans and strategies.

2.20 Policy D2 requires that new development makes a positive contribution to and does not cause harm to local character and distinctiveness, and sets out 6 criteria that proposals should follow, including responding to natural features and views.

2.21 Building design is subject of Policy D5, and criterion iv requires new buildings and spaces to provide new or improved wildlife features and habitats.

2.22 Policy D8 requires sensitive consideration of lighting, noting that lighting should have '*no detrimental impact on visual and residential amenity, the historic environment or local ecology'* and that lighting should not increase existing light levels, and preferably reduce light levels, along natural corridors and ecological features with particular reference to the need to maintain dark corridors for bats.

2.23 Development and Green infrastructure are the subject of Policy NE1 which requires development to demonstrate that it does not adversely affect strategic GI corridors and maximises the opportunities for integrating GI within development. Major developments are required to submit plans of GI assets in and around the site and a plan showing how GI may be incorporated within the site.

2.24 Policies HE1, NE2, NE3-NE5 are specific development management policies regarding the protection of the historic environment, landscape and nature conservation respectively.

2.25 The campus lies within an area defined as being important for the landscape setting of settlements under Policy NE2A where development that would have an adverse impact on setting would not be permitted.

2.26 Policy NE6 provides protection to trees and woodlands. Policies CP7 and NE1 seek to ensure the protection, enhancement and management of Green infrastructure; the online map includes all of Bathampton and Claverton Downs within the GI Network area.

2.27 The Green Belt is subject of Policies CP8 and GB1 which protect the openness and visual amenities of the Green Belt respectively.

2.28 Part 2 of the Placemaking Plan includes the policies which are of particular relevance.

2.29 Policy B4 (World Heritage Site and its setting) states the strong presumption against development that would be harmful to *'the Outstanding Universal Value of the World Heritage Site, its authenticity or integrity'.* The City of Bath World Heritage Site Setting Supplementary Planning Document (2013) provides an understanding of the significance of the WHS.

2.30 Policy B5 (Strategic Policy for Bath's Universities) confirms the need for new development at Claverton Down as set out in Core Strategy Policy B5.

2.31 Policy SB19 (The University at Claverton Down including the Sulis Club) identifies those areas within which development may take place and those areas that are to remain undeveloped. Because of its specific relevance, the policy and supporting text is reproduced in full within Appendix 1). The policy sets out general principles for new development, including specific requirements for particular potential development locations, and the need to safeguard, manage and enhance existing environmental assets.

2.32 The supporting text of the policy provides a comprehensive summary of the environmental context of the campus which is reproduced below.

'***The Main Claverton Campus***

207. The main Claverton Down campus is within The City of Bath World Heritage Site. Its western fringes adjoin the Bath Conservation Area as it extends to the top of North Road and Bathwick Hill. The slightly detached University medical centre is within the Conservation Area itself. The very extreme eastern tip of the campus (the bobsleigh training facility) adjoins the Claverton Conservation Area, and the Claverton Manor (Grade II) historic gardens and pleasure grounds. Directly to the north is Bathampton Camp Scheduled Monument, an early Iron Age hill fort of which the University campus forms part of its setting. The extensive Bathampton Down SNCI flows into the north fringe of the campus and a small geological SSSI exists along Quarry Road (the western approach to the campus). Other notable ecological issues relate to the Universities location close to the Bath and Bradford on Avon Bat SAC. Bushey Norwood (to the east) provides very important foraging for bats of many species, including those protected by the SAC designation and bats use routes around the universities perimeter. To the south, the University neighbours residential areas at The Avenue, North Road, Woodland Grove, and

Beech Avenue.

208. Further, the campus is almost completely surrounded by the Cotswolds AONB, which in places flows into the campus itself. The Cotswolds AONB was extended in 1990 to include the valleys and plateaux around Bath. The wider topography and landscape of the Claverton Down/Avon Valley area is typical of the "Cotswolds plateaux and valleys" sub-type identified in the B&NES landscape character assessment SPD. The university campus was once an open plateau landscape firmly within this sub-type. However, with the progressive development of the university the character of this part of the plateau has been transformed. Moreover, since the extension of the AONB the character and appearance of the campus north of The Avenue has been subject to further heavy modification by construction of the buildings and enclosed pitches comprising the Institute for Sport as well as by the additional student accommodation just to the north of the AONB. This severely limits its present contribution to the qualities of the wider AONB.
209. The AONB within the campus contains the buildings of the Sports Institute, a running track, playing pitches (both to the north of The Avenue and to the south at St John's Field and Lime Kiln Field), a car park and tennis courts. In his report, The Inspector examining BANES Local Plan (2007) observed that "none of the areas exhibit the classic qualities of the AONB, although the playing pitches St John's Field and Lime Kiln Field make a greater contribution to the AONB since they have a more apparent undeveloped nature and greater affinity within the open plateau sub type of the AONB". Indeed, in respect of openness, St John's Field and Lime Kiln Field are that part of the main campus that remains within the Green Belt. Where the Green Belt was retracted in 2007 (to exclude the sports facilities and pitches to the north of the Avenue and the tennis courts to the west of Norwood Avenue) the examining Inspector also found exceptional circumstances for allowing University related development within the AONB within these locations. However, despite that in-principle backing, he advised that it was imperative that development within the campus be appropriately designed and landscaped in order to respond to the qualities of the wider of AONB. In particular, the design response would need to provide a sensitive edge to the campus in respect of Bushey Norwood and that a "landscape-led" approach should be a crucial guiding principle.

210. Within the core of the campus is a central landscaped area/parkland that is part of the original design concept and which is at the centre of a multi-functional green infrastructure network that flows through and around the campus. The whole campus is subject to a Tree Preservation Order, and some of the hedgerows on the site have been identified as important under the Hedgerow Regulations.

211. The main University campus is thus surrounded by a landscape of high environmental quality in terms of its natural beauty, historical context and setting, visual attraction and

nature conservation value. Although the campus cannot be seen from the centre of Bath, its hilltop setting means that it is visible from a number of vantage points in the World Heritage Site and Conservation Area (e.g. from Alexandra Park). Extensive tree cover surrounds the campus and therefore, much of it still appears in harmony with its landscape setting. Given its topographical setting and generally harmonious relationship with the landscape there is significant sensitivity to the visual impact of any new developments on both long distance views and also from the Bath Skyline Walk, which passes through AONB/National Trust land at Bushey Norwood on the eastern boundary of the campus. Residential areas of the city also adjoin the campus, particularly to the south and there are amenity issues to consider when making planning policy. This context and sensitivity presents an environmental capacity for the further development of the main campus.

212. Indeed, the University's 2014 Masterplan (see below) states that "The vision for Claverton Campus is to ensure that landscape and ecology issues are intrinsic to any development which will take place as part of the future expansion of the campus, and that, this will serve to further enhance the University's reputation as a sensitive and diligent custodian of its landscape environment."

The University has also prepared a Strategic Landscape and Ecological Management Plan categorising existing and proposed landscape assets, setting out a methodology for their establishment and maintenance, and proposing a long-term vision for their management. It is therefore important that the Development Plan for B&NES includes polices that secure this ambition.

The Sulis Club

213. The Sulis Club is a 'satellite' recreational ground on the edge of the Claverton plateau with pitches, tennis courts and a clubhouse. It is also wholly in the World Heritage Site, Cotswolds AONB and Green Belt. It is neighboured to the east and west by the institutional buildings of Ralph Allen Secondary School and the HQ of Wessex Water. It also adjoins the Brassknocker SNCI. It was purchased by the University after the adoption of the B&NES Local Plan (2007), thus increasing playing pitch capacity from the 2007 baseline, which was a threshold for retained supply under that Local Plan. The purchase of the Sulis Club enabled the University to reduce playing pitch provision elsewhere on the non-green belt part of main campus site if it chose to do so. To date this has not yet occurred to any significant degree.'

2.33 A full review of the Local Plan will take place once the West of England Combined Authorities (WECA) Spatial Development Strategy (SDS) has been adopted (currently expected in 2023). In the interim, B&NES are undertaking a Partial Update of the Local Plan (LPPU) to

address issues that cannot be delayed, in particular the need to respond to the Council's declaration of a climate and nature emergencies, and its commitment to achieving carbon neutrality within the district by 2030. A LPPU Consultation Document was published in January 2021; the final LPPU is timetabled for adoption in Spring 2022.

2.34 The LPPU proposes a number of new and updated policies, including the following relevant Development Management policies:

- An updated/replacement SB19 policy relating to the campus;
- Policy NE3 relating to ecological sites, species and habitats;
- Policy NE5 relating to ecological networks;
- Policies CP7 and NE1 regarding green infrastructure.

A new policy regarding the requirement for development to achieve Biodiversity Net Gain is also proposed; three different policy options are proposed in the consultation document.

Relevant policy documents/studies/appraisals

2.35 The following other policy documents and strategies are also relevant:

- World Heritage Site Setting Study (2009).
- City of Bath World Heritage Site Setting SPD (2013).
- World Heritage Site Management Plan (2013-2018).
- Core Strategy Topic Paper 6 World Heritage Site and its Setting.
- Bath Building Height Strategy (2010).
- Bath City Wide Character Appraisal SPD (2005).
- B&NES Claverton Conservation Appraisal (2007).
- Planning Obligations SPD (as updated 07/2020).
- Valuing people, place and nature – A Green infrastructure Strategy for Bath & North East Somerset (2013).
- WaterSpace Design Guidance "Protecting bats in waterside development" (B&NES, June 2018).
- National Character Areas: Character Area 17, Cotswolds.
- Cotswolds AONB Landscape Character Assessment (2004) and Landscape Strategy and Guidelines.
- Cotswolds AONB Management Plan 2018-2023.
- Rural Landscapes of Bath and North East Somerset – A Landscape Character Assessment SPD (2003).

Campus developments and related obligations within recent years

2.36 Various developments and other smaller works (such as those necessary to trees covered by TPO) have occurred within the main campus over recent years. With more significant new developments, such as the construction of The Quads, redevelopment of Polden student accommodation, and the construction the School of Management (completion due late 2021), there have been related planning conditions/obligations to compensate and/or mitigate for the loss of vegetation and previously undeveloped areas of land and related habitats, which have been secured through planning consent. A summary (in table form) of more recent planning applications and related obligations has been prepared, at the request of the Council for inclusion in the LEMP, to draw together the many related landscape, ecological, arboricultural and archaeological commitments that the University has needed to address. A copy is provided in Appendix 2.

2.37 The requirement to provide compensatory tree planting on a 'like for like' basis has led to 'tree cramming' resulting in adverse effects on the quality of the tree stock with trees not able to fulfil their full, natural potential as enduring landscape features. A campus Tree Policy, developed with the agreement of the Council's Tree Officer, has been prepared to overcome these issues in the future (a copy is provided in Appendix 4).

3.0 THE CHARACTER OF THE CAMPUS

Landscape context and character

3.1 The campus is located within an area of distinctive character – an area recognised specifically by a number of 'high-level' statutory designations, as noted previously.

3.2 The campus is situated on an elevated limestone plateau the surroundings of which are characterised by rolling topography, steep-sided valleys, with a high level of vegetation comprising a mosaic of tree belts and large areas of woodland. Land uses are varied, ranging from suburban residential, commercial, recreational (playing fields and golf course) and educational landscapes to open undeveloped countryside which is principally grazed pasture.

3.3 The wooded nature of the surrounding landscape, on and beyond the campus boundaries, means that the campus is surprisingly very well contained visually with most views being limited to the more immediate surroundings. Elevated land to the north also provides valuable containment. The site's location on the plateau south east of the city gives rise to particular constraints regarding its close relationship to the prominent skyline which defines the outer edge to the WHS, the outer boundary of which runs along the northern and eastern sides of the Claverton campus and includes the Sulis Club.

3.4 The campus is located in Character Area 19 (Bathampton Down and Claverton Down), identified in the Bath City-wide Character Appraisal (B&NES SPD; August 2005). This Area extends south to the Sulis Club, across Bathampton Down north of the campus, and across Bushey Norwood to the east. Noted characteristics include:

- Flat plateau with gentle slopes along the edges
- Mix of uses (as noted above)
- Low density of development with varied buildings forms, primarily two storeys except at the University.
- Generally open character with some enclosure provided by vegetation (as evident around the Claverton campus), with beech trees (a particular characteristic) and woodland forming distinctive features.
- Valued long-distance views, notably over adjoining valleys particularly from the edges of the area.
- Lively campus contrasting with more tranquil areas of countryside beyond.
- Lighting, particularly that associated with the campus sports pitches.

3.5 A limited part of the campus lies within the Cotswolds AONB (the STV, southern playing fields and Sulis Club), within the Bathampton and Claverton Down Landscape Character Area

(LCA 9B) which forms part of the High Wold Dip-Slope Landscape Character Type (defined in the Cotswolds Landscape Character Assessment (LDA; 2004). This character area is noted as a part of the dip-slope landscape which has become detached by the erosive action of watercourses such that it now forms a largely separate area. It notes that the proximity of Bath and adjoining University campus, schools and areas of housing exerts *'a strong suburbanising influence on the character of the local landscape'*.

3.6 The part of the campus that lies within the AONB is distinctly different in character from the wider AONB and does not retain its distinctive qualities. The area was removed from the Green Belt in the previous Local Plan to allow for long term development within the campus. The principal of development being acceptable within this area has therefore been established, although the AONB boundary has never been altered.

3.7 There are a number of public rights of way within the campus. These are shown on the plan below and comprise:

- A footpath along the south western campus boundary.
- A bridleway (and part of a footpath) on the campus boundary on the west side of the Quarry Road, with the bridleway extending eastwards to continue along the north side of the northern boundary of the campus (along the southern edge of Bath Golf Course).
- A footpath between the eastern end of The Avenue, running west and north of the STV, to the eastern campus boundary.
- A bridleway along the north side of Claverton Hill which then runs along the eastern campus boundary
- A footpath along the western boundary of Lime Kiln Fields between Claverton Down Road and The Avenue.

3.8 The route along the western side of Lime Kiln Fields forms part of the Bath Skyline Walk, which follows the path crossing Bushey Norwood to the east of the campus.

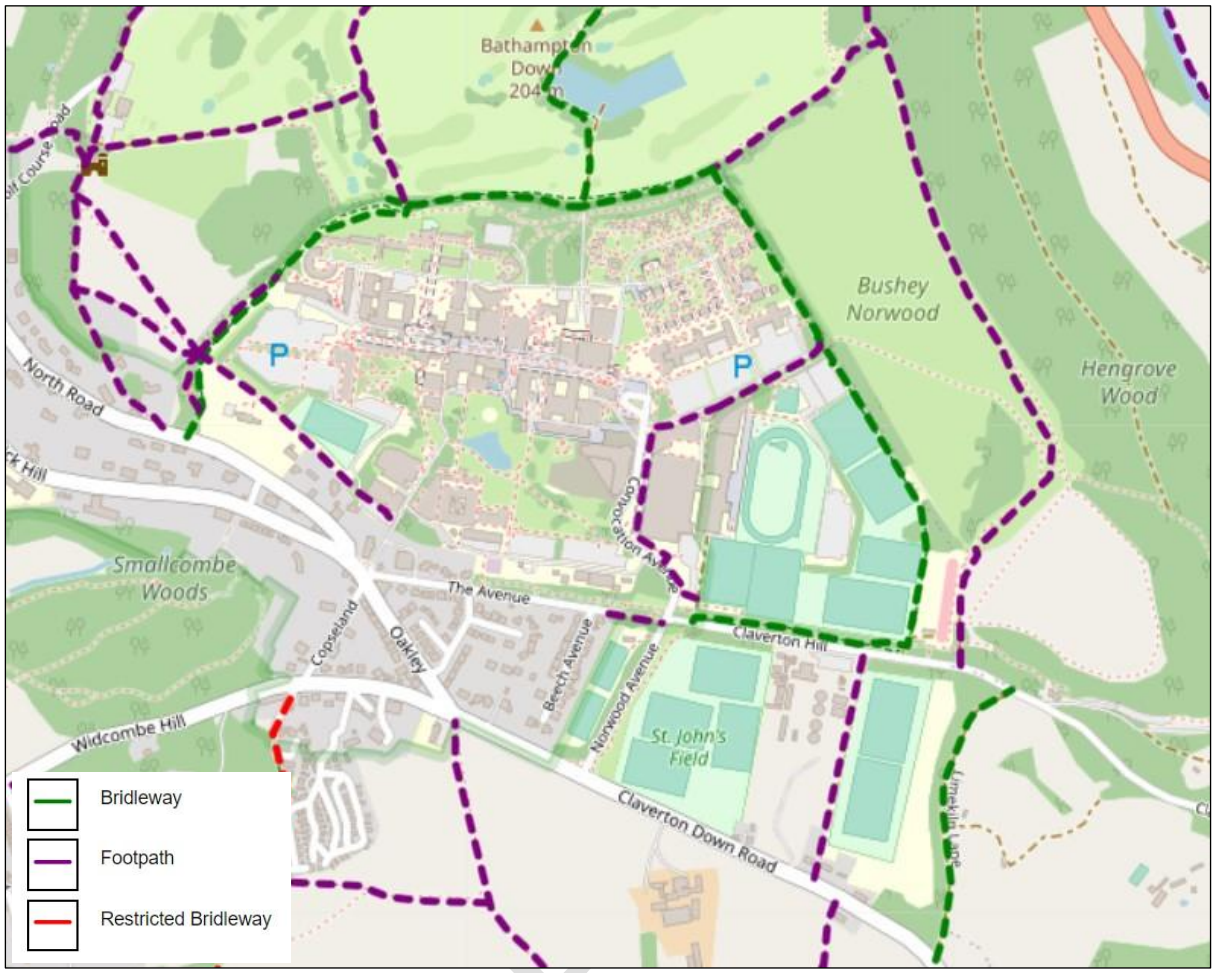


Figure 5 – Public Rights of way (data from B&NES online map- updated May 2022)

Landscape characteristics and components of the main campus

3.9 The character of the Claverton campus and Sulis Club is summarised below based upon the local landscape character areas refined further from those that were identified in the previous LEMP. More detailed descriptions of each area are provided in the Management Plan (section 5).

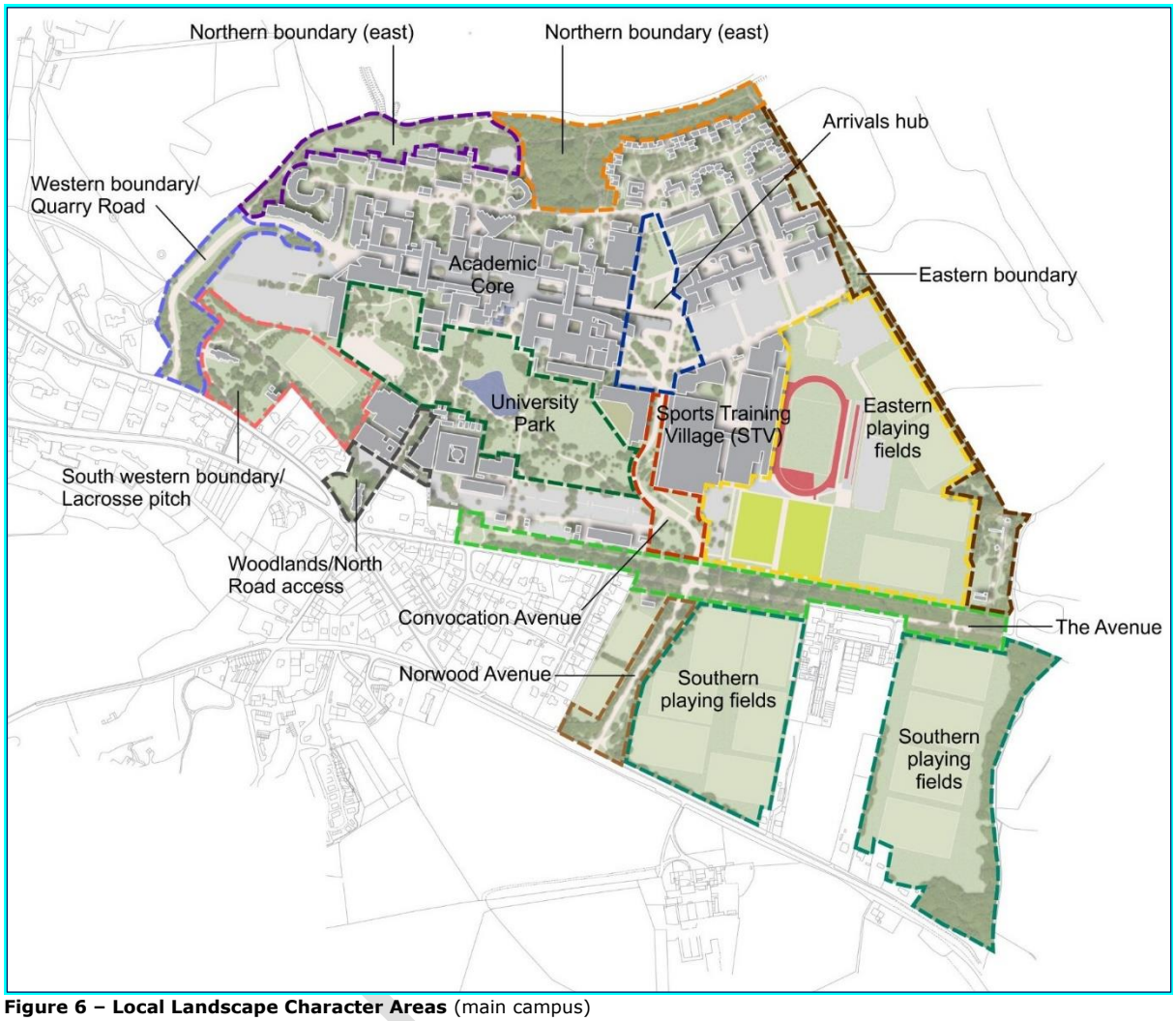


Figure 6 – Local Landscape Character Areas (main campus)

Norwood Avenue

3.10 The main vehicular approach into the campus flanked by existing trees which create a distinctive green approach and, on the western side, provide a screen to tennis courts and the residential area beyond.

Convocation Avenue

3.11 The northward continuation of Norwood Avenue, flanked generally by landscaped areas continuing the green character from Norwood Avenue, that provide softening/screening of adjacent parking areas and the STV. The New SoM building (under construction) will form a significant new gateway building with limited soft treatment to the road frontage creating a clear arrival point.

The Avenue

3.12 A belt of mainly mature/over-mature beech trees and ancillary planting (including some replacement tree planting) forming a distinctive landscape feature and important bat corridor, that continues west to form important screening between the southern car park and stores/services buildings and the residential area to the south.

University Park (west, central and eastern parts)

3.13 The Park forms a highly valued green core within the campus comprising three distinct areas:

- The central area focused upon an ornamental lake with fountain overlooked by a terraced grass area;
- The eastern area which is mainly close mown grassland, contained to the south by tree planting and mounding, and flanked to the north by 4ES and to the north east by the new SoM building which will form a prominent building framing and overlooking this space;
- The western area consisting of a well-treed but fragmented area defined on three sides by buildings with the southern part occupied by a temporary car park (to be reinstated to parkland).

It forms a green corridor that connects with The Avenue to the east and lacrosse pitch/south western boundary to the west.

South western boundary (including Medical Centre, The Lodge, lacrosse pitch)

3.14 This area comprises a belt of mature trees, the gardens of the houses and orchard at the Medical Centre, areas of recent tree planting and the open grass area of the lacrosse pitch to the north. The vegetation along the southern boundary is an important landscape feature and provides screening between the campus and adjoining residential area (a Conservation Area in part); it also forms an important part of connective green infrastructure linking with the University Park.

Woodlands/North Road access

3.15 This area forms a connection between North Road and the campus and includes the extensive grounds of Woodlands, a small area of woodland, and a linear area of green infrastructure running northwards between buildings 1S and 2S to the west and 3S to the east, connecting

to the southern edge of the University Park. It provides a green entrance into the campus as well as providing green infrastructure connectivity north/south, and east/west in conjunction with gardens of adjoining residential properties.

Western boundary/Quarry Road

3.16 The road forms the access into the western part of the campus, has a green character with distinctive rock cuttings (SSSI on western side) and this conceals the campus development until the northern end. The hedgerow alone western site boundary and between the road and western car park forms an important visual buffer between the campus and countryside to the west. Most of the area forms part of an SNCI. The area contributes to the connectivity between the campus and adjoining countryside and there is a public footpath along the western boundary which connects to other rights of way.

Northern boundary (west)

3.17 An area on the north western boundary of the campus that comprises areas of mown grass interspersed with scattered trees and tree/shrub groups; a gravel footpath (not a right of way), stone wall and hedgerow run along the campus boundary that forms the boundary with a number of important protected areas. The area forms an important part of the connected green infrastructure and bat corridor along the northern campus boundary, as well as an important landscape and visual buffer to the adjoining accommodation blocks along the southern side.

Northern boundary (east)

3.18 This part of the northern boundary comprises principally woodland and an important part of the buffer/green infrastructure and bat corridor along the northern campus boundary with the countryside beyond, providing visual containment of the adjoining residential blocks. It connects with the eastern boundary landscape buffer and the countryside beyond at Bushey Norwood.

Eastern boundary

3.19 The eastern campus boundary is variable and visually sensitive due to its immediate relationship with the National Trust land at Bushey Norwood (crossed by the Bath Skyline walk). This component of green infrastructure is of particular importance to Greater Horseshoe bats. The northern part is narrow with accommodation blocks separated from the boundary by a gravel path and some narrow areas of planting/hedgerow whilst the southern

part is flanked by the eastern car park and playing pitches and defined by a wider belt of vegetation. There are some areas of planting along the adjoining edge of Bushey Norwood that contribute to the screening of the campus. The pentathlon and bobsleigh training area lies at the southern end of the boundary.

Eastern playing fields

This largely open area, within the AONB, comprises sports pitches and athletics facilities, large parts of which are lit, with a small area of car parking. It has no particularly distinctive landscape features, although there is a belt of single aged plantation woodland on the bank to the east and south of the car park.

Southern playing fields

3.20 Area comprises of two areas of sports pitches separated by the Cats & Dogs Home. St Johns Field flanks Norwood Avenue and contributes to the green character of the entrance off Claverton Down Road, with vegetation along the southern boundary contributing to the green character of the road. Limekiln Fields to the east is a discreet area of open land flanked to the east by an area of woodland with a fringe of grassland, scrub and young mixed trees; this extends around the southern side where there are three residential properties. The northern boundary of both areas is defined by vegetation along The Avenue.

3.21 The principal green infrastructure components of the main campus are:

- The University Park.
- The Avenue and its western continuation south of the southern car park.
- Green spaces flanking Norwood Avenue.
- The woodlands and green spaces along the western, northern and eastern boundaries.
- The southern pitches and related boundary vegetation.
- The lacrosse pitch.
- The green corridor along the south western boundary.

These are identified diagrammatically on the plan below.

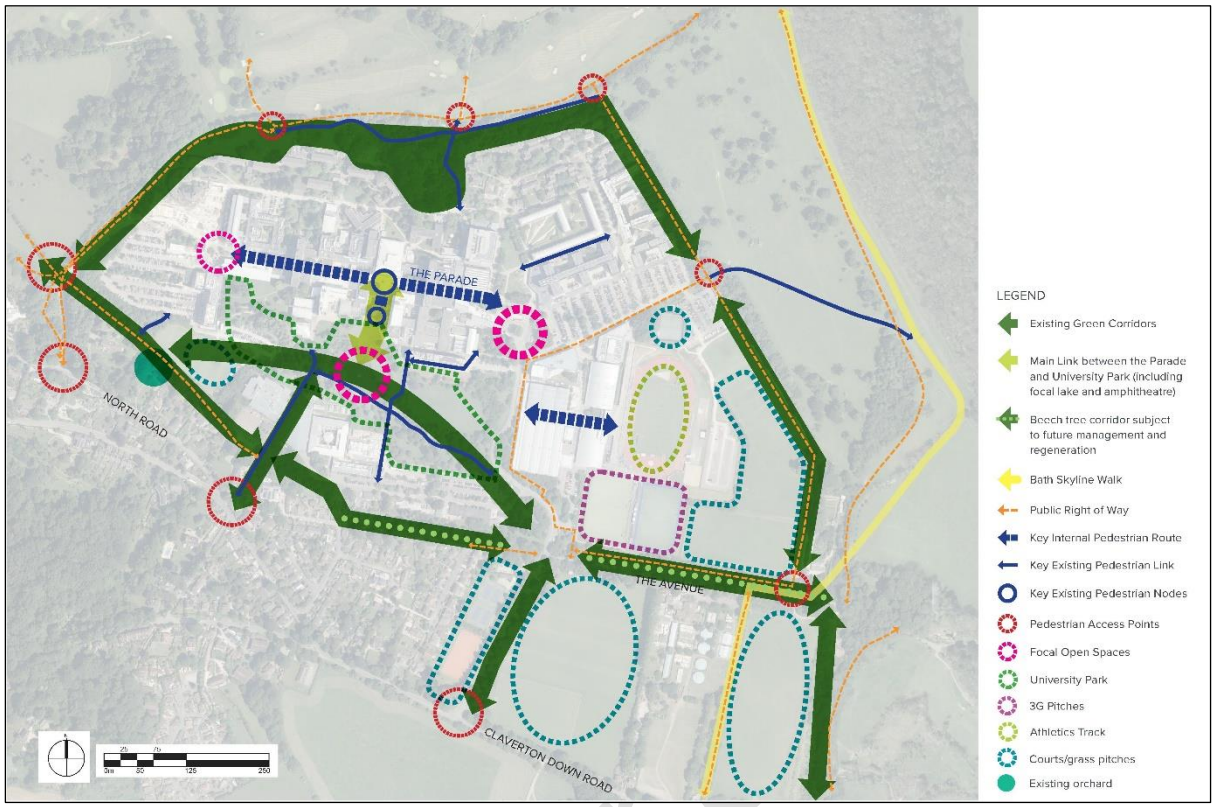


Figure 7 – Plan showing principal Green Infrastructure corridors (prepared by Define)

3.22 In addition to these areas, there are more developed parts of the campus which also require ongoing management, although their contribution to green infrastructure is more limited; these are referred to as Secondary Areas (SAs). These areas are:

- The Academic Core
  This comprises the oldest part of the campus and contains the main academic buildings north of the University Park. It consists primarily of buildings and hard-standings with an under-croft for servicing. Green spaces are limited to a number of courtyards, lightwells and spaces between buildings.
  The new Masterplan identifies new academic buildings at the location of the 5W car park (A on Masterplan) and within the courtyard space north of the library (B on Masterplan).

- Student Residences
  The residential areas are located in the north western and north eastern part of the campus and green spaces are generally characterised by mown lawns, trees, and areas of ornamental/semi ornamental shrub/groundcover planting. The character of the spaces reflects the periods over which development has occurred. The redevelopment of Polden Court has been completed recently. The corridor that passes through the more recent residential development at The Quads, Solsbury Court and Marlborough Court in

the north eastern part of the site has a more distinctive character with an avenue of underplanted young mature beech.

- The Arrivals Hub
  The main arrivals terminus for buses is being altered in association with the new SoM development. To the north of this, separated by an area of shrub and tree planting, is a triangular space comprising lawns and tree planting and forms a well-used gathering/circulation space within the heart of campus with a paved seating area outside the adjoining cafe.

- Western, eastern and southern car parks
  The southern car park contains a number of trees, most of which are struggling to grow in limited space. The west and east car parks contain tree planting within median strips. A wider median strip in the western car park contains mixed coniferous and deciduous trees (W23 in TPO and identified as part of wider SNCI) with some shrub underplanting which breaks up the area.
  The Masterplan includes proposals to replace the west and south car parks with multi-storey car parks, with the west car park also to accommodate a new academic building (F on Masterplan) and an open space between this building and 10W. The east car park is identified for the development of academic and residential buildings (H and I on Masterplan).

Landscape characteristics and components of the Sulis Club

3.23 The club grounds comprise two distinct character areas (evident on Figure 3):

- The playing fields, characterised by close mown sport pitches.
- The developed core that bisects the site comprising car parking, clubhouse, bowling green and disused tennis courts.

3.24 Vegetation is limited principally to conifer belts on the western and eastern boundaries and some semi mature trees (mainly beech) along the northern boundary with Claverton Down Road, flanked by a stone boundary wall. Some trees flank the developed core area and a line of conifers run close to the south western boundary. None of the trees are covered by TPO.

Ecological context

3.25 The Claverton Campus has been subject to numerous ecological surveys over a period of more than 10 years. The summary report reproduced at Appendix 3 summarises these surveys.

3.26 There are several designated sites that are present and close to the main campus, these include:

- North Road Quarry Site of Special Scientific Interest (SSSI) – geological designation.
- Combe Down and Bathampton Down Mines SAC/SSSI – located to the north east of the main campus; the mines support populations of greater and lesser horseshoe bats.
- Bath and Bradford on Avon bats Special Area of Conservation (SAC) – located 0.8km north of the campus. This site supports hibernation sites for greater and lesser horseshoe bats, and Bechstein's bat.
- Bath University Site of Nature Conservation Importance (SNCI - part of Bathampton Downs and Woodlands SNCI) – located in the north-west/west part of the campus and designated for floristically diverse amenity grassland. Species of note include harebell and autumn-ladies' tresses.

3.27 The statutory designated sites are shown on the plan in Appendix 3 of the ecological surveys' summary report provided in Appendix 3.

3.28 The campus has excellent connectivity to the Bath and Bradford on Avon SAC and Combe Down and Bathampton Down Mines SAC/SSSI, through hedgerows and woodland, particularly those present to the north, east and west. Dark corridors are present on the majority of the campus boundaries which provide good opportunities for greater and lesser horseshoe bats.

3.29 The most recent extended Phase 1 habitat survey of the main campus was undertaken by Ecosulis in April 2017, and further bat activity surveys were completed in 2019 (spring, summer and autumn), and 2020 (winter bat surveys). The campus supports predominately highly disturbed habitats, including buildings, hard-standings, amenity grassland and scattered trees. These provide limited opportunities for wildlife, including notable and protected species. Boundary habitats comprise standard trees, scrub, and woodland habitats, and provide high quality opportunities for a range of wildlife, including badgers and bats. Greater and lesser horseshoe bats (amongst other species) have been recorded foraging and commuting along all boundaries of the main campus, including The Avenue in the south. The central green infrastructure corridor also provides good opportunities for wildlife. This area currently comprises scattered trees, woodland, a lake and grassland habitats. It supports foraging and commuting bats, including pipistrelle bats, with limited light spill, and opportunities for nesting birds and small mammals.

3.30 A Preliminary Ecological Appraisal has also been undertaken of the Sulis Club in April 2017 by Ecosulis. This recorded seven habitats on site, including scattered trees, stone walls,

semi-improved grassland, amenity grassland, buildings and bare ground. The majority of the habitats at this site are highly managed and disturbed habitats, utilised for sports and leisure. As a result, they have been assessed as providing limited opportunities for wildlife. Semi-improved grassland and scattered scrub habitats on the boundaries of the site provide higher quality opportunities for wildlife, including badgers, bats and reptiles. Boundary habitats provide suitable opportunities for light sensitive bats, including horseshoe bats, and have good connectivity with the wider landscape.

3.31 Baseline habitat maps of both areas are provided in Appendices 1 and 2 of the ecological surveys' summary report provided in Appendix 3. These provide an overview of the habitats and ecological features within the two sites. The Masterplan has been developed, and future management prescriptions have been informed, by this information. The overall aim is to protect and enhance biodiversity across both the main campus and the Sulis Club.

3.32 The following summarises principal relevant wildlife legislation.

Summary of relevant legislation

Receptor	Detail
Amphibians	Great crested newts and their habitat are legally protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended).
Reptiles	All reptile species are protected against intentional killing and injuring under the Wildlife and Countryside Act 1981 (as amended).
Birds	All breeding birds, their eggs, nests and young are protected under the Wildlife and Countryside Act (1981) (as amended).
Bats	All bat species are legally protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended).
Badger	Badgers and their setts are legally protected under the Protection of Badgers Act 1992 (as amended).

Existing trees and woodlands

3.33 Overall, the character and setting of the site is defined by the trees and woodlands within and adjacent to the site that are of significant landscape importance both internally and externally to the site. Existing trees and woodlands provide a wide range of benefits including screening, internal space division, softening of built form, enclosure, privacy, contribution to the skyline of the Bath WHS, together with biodiversity, health and well-being benefits, and carbon sequestration.

3.34 Trees within the site can be defined in two categories; those which were present prior to development of the University during the 1960's (The Avenue and woodlands on the north east and south east boundaries together with scattered individual specimens) and those which have been planted as part of the University and various phases of the development over the past five decades.

3.35 A review of the previous Area TPO was carried out in 2018 resulting in the revoking of the previous site-wide area Order and the serving of a more appropriate Order covering the trees within the campus which have the most significant visual amenity and conservation value. The revised Order is the Bath and North East Somerset Council (University of Bath, Claverton Down, Bath. No.317) Tree Preservation Order 2018, a copy of which is included in an appendix of the Tree Policy (Appendix 4). Although there are some exceptions to obtaining consent to carry out works to protected trees, generally all works require written consent, and this can delay works by up to 8 weeks from when an application is submitted and registered.

3.36 Properties along the south western boundary including the Quarry Road entrance fall within the Bath Conservation Area. Works to trees in this area, even if not protected by a TPO, will require notification to Bath and North East Somerset Council. Works may be considered acceptable, or the Council will serve a TPO to prevent works being completed. Works within Conservation Areas can be delayed by as much as 6 weeks from the date that the notification is made.

3.37 A Felling Licence may be required where works are proposed that result in the felling of more than three cubic metres of timber in one calendar quarter. Again exceptions/exemptions apply for works necessary to carry out permitted development, tree thinning and making safe dangerous trees.

3.38 A full campus tree survey was carried out over the winter of 2018/2019 by Tree Maintenance Limited. The site was divided into twelve survey areas which were further broken down into individual trees and small tree groups. This recorded 1249 individual trees and 338 groups. Overall, tree condition was acceptable in terms of vitality and structural condition with the exception of The Avenue where the over-mature Beech are continuing to decline. Recently, another four trees have had to be removed due to decay.

3.39 Over the last two to three decades much of the tree planting has been carried out to meet requirements of various planning consents. This has resulted in high numbers of poor-quality trees being installed in inappropriate locations with little regard to their future mature size, form or function within the local landscape. Little maintenance has been carried out resulting in young trees developing into middle age with significant structural defects. High density groups are now becoming supressed drawn and misshapen. Many of the trees contain

significant structural defects or squirrel damage that will limit their capacity to reach their full potential. Maintenance costs for defective trees only increase in the future whilst budgets for ground maintenance are likely to decrease leading to a poor and declining tree stock with little or no recognisable defined design goals.

3.40 To address the above issues and provide a diverse, sustainable and effective tree population, a standalone, site wide Tree Policy will be implemented. The policy is included at Appendix 4. It sets out the aims and objectives for tree management, provides standards for designing, selecting, installing and maintaining trees whilst complementing and supporting the University's other objectives in terms of landscape and infrastructure management.

3.41 The Policy includes:

- A SWOT analysis.
- A summary of the 2018-19 tree survey.
- Options for the future management of The Avenue, including the consultation with B&NES.
- Requirements for the inspection of the tree stock to manage risk at an acceptable level.
- Management of existing tree stock including pruning, felling and works within woodlands.
- Design guidance for new planting - this will identify the long-term purpose of the planting, genetic suitability, mature size and form, required site investigations, planting methods, support, aftercare and future maintenance.
- Plant selection - Quality Standards of supplied material, transport, storage and formative pruning.
- Planting methods including site preparation, installation methods, support, formative pruning, mulching and aftercare.
- Forward planning for emerging and developing pests and diseases, in particular Ash Die-back and Larch Phytophthora.

3.42 The emphasis of the Tree Policy is quality over quantity. It aims to provide an increase in good quality long term tree cover which has identifiable design goals and that will reach full maturity. The good quality, appropriately selected and installed, defect-free trees will provide long term benefits with a reduced maintenance cost. By having a reduced number of high-quality trees, the policy will ensure that maintenance and aftercare are undertaken in a pro-active way. The trees would then reach their full design and biological potential without compromising the future requirements of the University and its budgetary constraints.

Neighbours

3.43 Landowners/uses adjoining the main campus are:

- National Trust (land at Bushey Norwood abutting the eastern boundary of the main campus).
- Bath Cats and Dogs Home (between St. Johns Field and Lime Kiln Fields).
- Housing abutting the southern/south western campus boundary (partly within a Conservation Area).
- Private farmland at Sham Castle west of the campus (currently leased to Bath Golf Club).
- Bath Golf Club course north of the campus.

3.44 The Sulis Club is primarily defined by pasture farmland to the south and east (with Wessex Water's HQ a short distance beyond to the east), Ralph Allen School to the west and Claverton Down Road to the north beyond which lies pasture farmland (mostly owned by the National Trust) and an area of residential development at Flatwood Road.

Lighting

3.45 There is extensive lighting throughout the campus within and around buildings, along access roads and within car parks, around training pitches and the athletics track. A comprehensive lighting survey has been undertaken to inform the Masterplan (Atkins; June 2019) and includes consideration of potential related mitigation measures. The northern woodland areas (away from student houses), The Avenue, the central parkland and parts of the eastern boundary are identified as the darkest parts of the campus.

3.46 The report concludes:

'The studies to date show that development in all areas is potentially feasible although higher than typical care will be required in facade designs around key buildings, notably the two decked car parks and blocks I, J & K. Lighting to the sports pitches remains desired but is at risk of obtrusive light considerations.' It notes that *'Detailed proposals and mitigations measures will need to be explored in future design stages'.* Further consideration will be required as and when new developments/infrastructure changes are developed in more detail.

4.0 THE NEW MASTERPLAN

The Vision & Purpose

4.1 The primary role of the review of the Masterplan (a reduced copy of which is provided below, with a larger copy within Appendix 5) is to provide a comprehensive vision for the future development and enhancement of the campus to facilitate the University's sustainable growth and ensure its continued success.

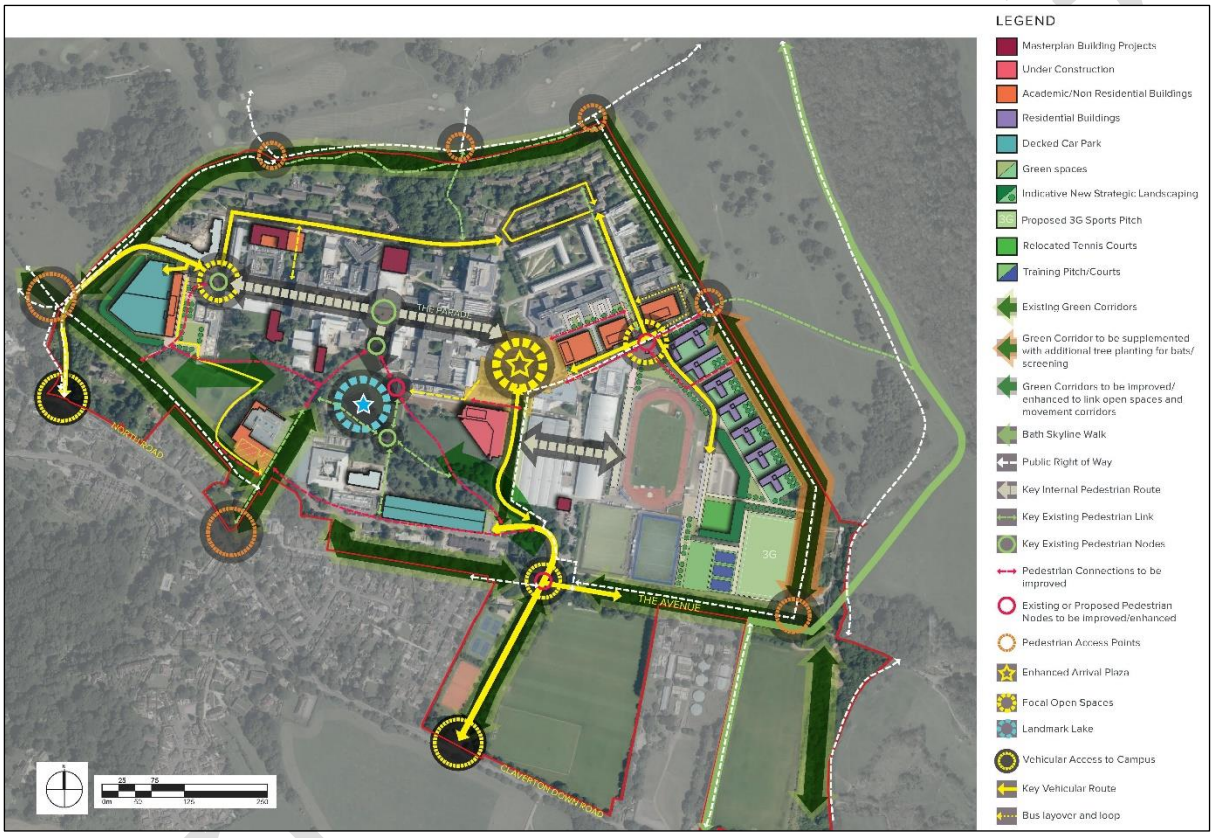


Figure 8 – The Masterplan (prepared by Define)

4.2 It achieves this by seeking to:

- Identify, assess and address the key environmental constraints and policy tests that apply to the campus and provide a clear understanding of the remaining capacity for development, including the land previously removed from the Green Belt.
- Develop a framework for the long-term development of the estate with deliverable proposals that address the University's estate strategy, priorities and operational requirements, and potential development needs (when required) with an appropriate

balance of academic, research and support facilities and Purpose-Built Student Accommodation (PBSA), without compromising the overall functionality of the campus.

- Establish key development parameters in terms of the location and scale of development elements and the nature of the supporting infrastructure required (notably in respect of sports, transport and parking).
- Define the complementary Green Infrastructure (GI) proposals that seek to protect and enhance the environmental quality of the campus.
- Present the proposals in a clear and understandable form that clearly communicates the University's aims and aspirations for the campus; and
- Inform future Local Plan policy development and support planning applications for specific projects on the campus.

4.3 It is, however, important to note that the Masterplan is a capacity-based plan to address potential long-term needs. It has not been developed in response to specific development needs that have been identified by the University at this stage. Consequently, there is not a defined phasing plan and programme at this time. Indeed, the delivery of the individual elements of development will very much depend on operational requirements and financial feasibility (particularly given the significant enabling development that is required in the form of multi-storey car parks (MSCPs) and artificial pitches).

Evolution of the new Masterplan

4.4 The development of the Masterplan reflects the engagement and consultation with key stakeholder that has taken place since early 2017, including:

- Continual consultation with B&NES Officers throughout.
- A public exhibition to review Masterplan options in early 2018, commencing with a staff/ student consultation at the University, a B&NES Councillors event and a general public consultation in the city centre. The comments received were taken into account in developing the Emerging Masterplan Option that focussed future development on the campus at this time rather than the Sulis Club.
- An Emerging Masterplan Option was considered by the wider Development Team at B&NES in May 2018. Key stakeholders (Natural England, Sport England, Historic England, the Cotswolds AONB Board, etc.) were also individually consulted. The Masterplan was subsequently revised, notably to address comments in terms of the then proposed extension to 1S and the quantum of PBSA.
- The revised Masterplan (October 2018) was submitted to B&NES at that time and included in the Local Plan Issue and Options Consultation that the Council undertook. The University also posted it on their website and invited comments.

4.5 There is now clear support for the concept and broad principles that underpin the new Masterplan, notably:

- The focus on the delivery of decked car parks on the West and South Car Parks and additional artificial pitches in order to release space on the East Car Park and grass pitches to the east of the STV for built development.
- The continued redevelopment and new development around the superstructure in the core of the campus.
- The creation of an enhanced GI framework to maintain and enhance the environmental quality of the campus.

4.6 Subsequently, the feasibility of the individual strategies and elements within the Masterplan have been robustly tested and that has resulted in it being refined as follows:

- The key parameters in terms of the extent and scale of the proposed built form, particularly relative to the landscaped boundaries of the campus have been clearly defined in light of the emerging detailed evidence base that was submitted to B&NES in May 2019, notably in relation to potential landscape & visual impacts, the protected bat corridors, lighting and transport matters.
- Further refinements were made in the period to February 2020 to respond to the assessment of verified key views and the on-going bat surveys.
- A GI Strategy, that reflects the opportunities for enhancing the environmental assets within the campus, has also developed alongside the emerging LEMP.

4.7 The final Masterplan (Appendix 5) will inform the partial and subsequent full review of the Local Plan to cover the period up to 2036.

Masterplan Concept & Strategies

4.8 The Masterplan is comprised of complementary building, movement and green infrastructure strategies.

4.9 The building strategy includes a number of re-developments, infill and extension opportunities around the campus core that were previously identified in the 2009 Campus Masterplan. They relate well functionally to the existing academic and support facilities and are required to facilitate the rolling programme of refurbishment of some of the older building stock, the requirements for decant space, and address qualitative issues in relation to some of the existing support facilities.

4.10 Beyond those opportunities, Policy SB19 indicates that the remaining development capacity on the campus is on the existing main car parks and/or sports pitches and courts (outside of the Green Belt). The development of any of these areas would first require the re-provision of these essential facilities elsewhere within the estate. That significantly limits the overall development capacity and the timing of the delivery of that development.

4.11 The Masterplan, therefore, proposes the provision of MSCPs on both the West and South Car Parks. These areas are well located close to the main vehicular entrances to the campus so the majority of traffic would not need to enter its core. The provision of these MSCPs would allow the release of the East Car Park and the overflow car park, and part of the West Car Park close to building 10W, for built development without necessarily requiring a reduction in overall parking numbers across the campus (which is consistently 100% utilised).

4.12 The Masterplan also highlights the opportunities to enhance the capacity and operation of the Bus Arrivals Plaza, and to also improve the pedestrian and cycle routes and facilities in and around the campus.

4.13 The Eastern Playing Fields and tennis courts area were removed from the Green Belt in the 2007 Local Plan in order to allow the development required to support the University's growth. They are, therefore, also included within the Policy SB19's Development Framework as a location for built development, along with the lacrosse pitch.

4.14 However, these facilities form an integral and critical part of the University's sports facilities and are extremely well used by students, staff and local communities alike. The Masterplan, therefore, proposes to leave the lacrosse pitch and the (recently improved) tennis courts in situ. The grass pitches on St. John's Field and Lime Kiln Field in the southern part of the campus would be also be retained.

4.15 The provision of an artificial pitch and training area as part of the development of the Eastern Playing Fields would, however, significantly increase the capacity of pitch provision across the campus (as they can be used more flexibly and intensively). The Masterplan incorporates provision of an artificial pitch and training pitches/courts adjacent to the existing all-weather facilities where they would be functionally well-related to the STV and the changing facilities, physio and support facilities therein.

4.16 The artificial pitch facilities allow the release of the remaining grass pitches in the Eastern Playing Fields for the development of PBSA extending south from the new academic buildings that are proposed on the existing East Car Park and overflow car park.

4.17 The feasibility testing and evolution of the Masterplan to establish firmer development parameters in three dimensions has provided a clearer view of the potential environmental capacity of the campus in a local planning context. That testing has indicated that the development opportunities identified around the University core, on the East and West Car Parks, and on the Eastern Playing Fields, could accommodate between circa 38,500m^2 and 42,500m^2 of academic, research and support space and circa 760 student bed-spaces. It maybe, however, that more detailed building design work in relation to specific scheme proposals realises a greater scale of development on a particular site.

4.18 This LEMP takes account of this new Masterplan, and particularly the Green Infrastructure Strategy.

Green Infrastructure Strategy

4.19 As part of the development of the Masterplan particular consideration has been given to the character of the campus and its sensitive context within the landscape and the WHS. The campus has a strong and distinctive character that has been developed over the years and its character as a 'campus within a parkland setting' is valued greatly by the University and its students.

4.20 It is therefore most important that these valued characteristics are safeguarded, enhanced and managed to ensure that they remain an integral part of the University's character. Whilst the new Masterplan has identified areas where new development may potentially be accommodated, the University recognises that the developments will need to be sensitively designed to take account of the landscape, visual and ecological (notably bats) considerations on the campus.

4.21 The cohesive Green Infrastructure Strategy plays a significant role in that respect, but also identifies opportunities to enhance the network within the campus, and its links to neighbouring areas, incorporating an integrated range of landscape, ecology, heritage, recreation and movement priorities, principles and proposals.

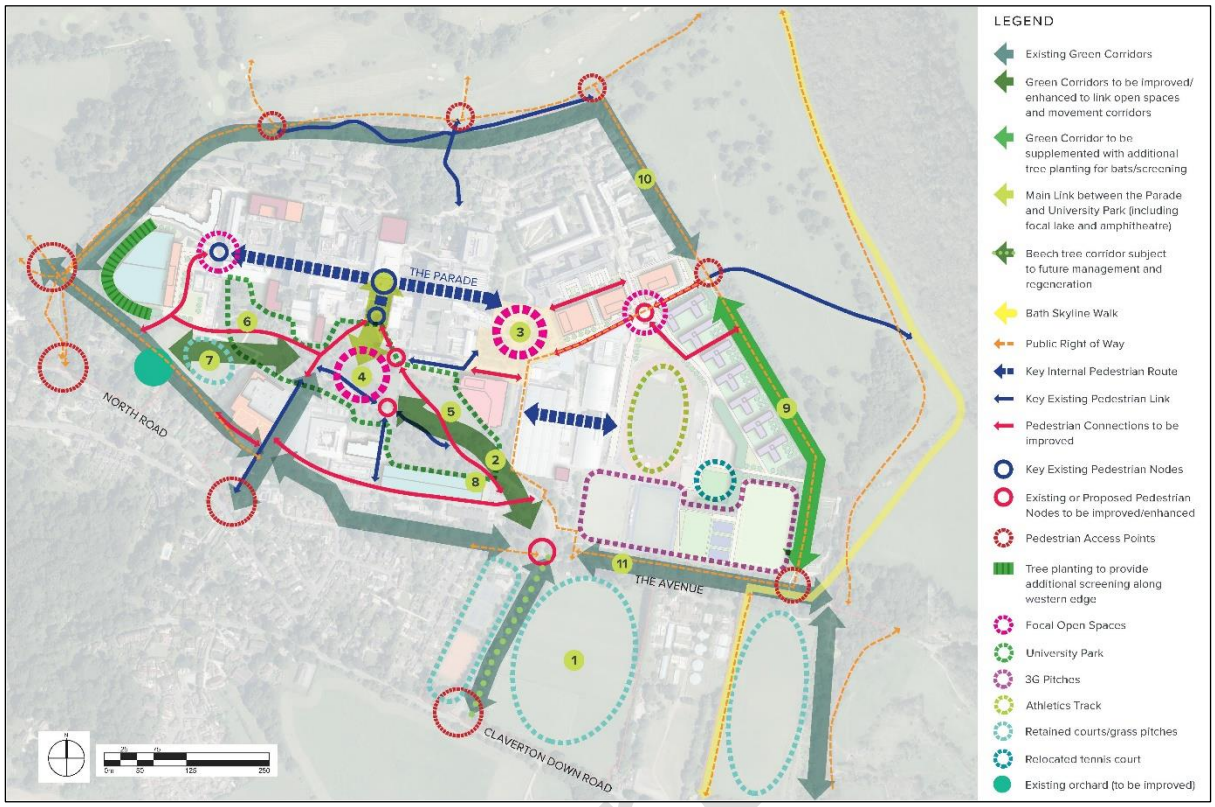


Figure 9 – Plan showing principal Green Infrastructure corridors to be improved (prepared by Define)

St John's Field and Campus Boundaries

4.22 The retention of St. John's Field as grass pitches at the main entrance and the landscaped setting around the campus boundaries is critical to protecting the environmental quality of the campus.

University Park

4.23 The University Park in the centre of the campus is also a key element. The Masterplan highlights the opportunity to enhance that to improve its functionality and the setting it provides to the buildings, but also to improve the connections to the wider GI network as shown on the plan above.

4.24 The retention of the Lacrosse pitch and removal the temporary car park close to 10W will significantly improve the GI connectivity through the centre of the campus. Furthermore, the building footprint for the redevelopment of building 2S does not encroach any further south than the existing building parameters to help protect the boundary in this area.

4.25 Similarly, the provision of the decked car park on the South Car Park will allow the improvement of GI connectivity through the centre of the campus at the eastern end of the Park by effectively widening a relatively narrow pinch point.

4.26 The lake and grassed amphitheatre are important and popular focal features at the centre of the park, set within an open space framed by mature trees and shrubs. However, the main entrance into The Parade from the park and wider connections to the rest of the campus are often indirect and pass-through service areas and should be enhanced.

Eastern Playing Fields

4.27 The eastern edge is a key corridor for horseshoe bats, linking to the Avenue, Lime Kiln Field and other commuting routes. The Masterplan includes additional planting along this boundary to bolster the existing vegetation, strengthen the resilience of the commuting routes for bats, help to deliver the required net gain, and also mitigate for some of the light spill from the existing pitches. The additional planting will also strengthen the vegetation screen along the boundary with Bushey Norwood.

4.28 The footprints and positions of the proposed PBSA development in this locality have been refined to reduce the impact of light spill along the eastern boundary and create space for additional tree planting along this edge, with a minimum width of 10m. The heights of the buildings have now been fixed at a maximum of 4 storeys - responding to a 3D massing exercise and detailed visual analysis of selected views within Bushey Norwood, east of the campus.

4.29 The proposed 3G pitch has also been positioned (and any associated lighting) further from the sensitive eastern corridor boundary creating more space to the east for additional planting.

Development on the East Car Park

4.30 The building height for academic/non-residential buildings I and J has been fixed at 5 storeys with the eastern building (block K) fixed at 4 storeys, following a 3D massing and visual analysis of the emerging Masterplan proposals, responding to selected views within Bushey Norwood to the east of the campus.

Development on the West Car Park

4.31 The proposed MSCP and adjacent academic building on the West Car Park have been positioned to create space for a minimum width of 10m additional tree planting (and possibly

earth mounding) around the western and southern edges that face the city and neighbouring residential areas. The proposals here have been informed by a 3D massing exercise and detailed visual analysis to limit the impact of the building structure on long distance views, particularly from within the city to the west and south west.

5.0 THE MANAGEMENT PLAN

The previous LEMP

5.1 The previous LEMP identified (at section 2.2.1) the main opportunities for various campus areas. These remain largely relevant and are listed below along with any significant progress or changes that have taken place since that time.

Opportunities (identified in previous LEMP)	**Relevant changes/progress**
Academic Core • *To retain and develop any future open spaces within this area as practical, formal high use areas with robust and manageable materials.*	The new Polden development includes some high quality external hard landscaped areas. A public realm area is being provided on the north side of the new School of Management which will provide an outdoor space for meeting/congregation, together with some reconfiguration of the Arrivals plaza. The Milner Building has some areas which are intended for staff use and an external balcony. Other new opportunities will occur as and when buildings/areas are redeveloped/refurbished.
University Park • *To remain and be developed as an ornamental feature amenity landscape with amphitheatre and artificial lake. Due to its central location the current layout could be altered to increase visual connectivity and improve wayfinding across the campus.*	A new path, fencing and duck feeding area has been provided at the lake. The construction of SoM has provided an opportunity for detailed consideration of how the eastern parkland may be integrated with the central park and reduce the pressure on the amphitheatre and lake. There are opportunities within the central park to improve the quality of surfacing, legibility and way-marking. These opportunities are to be the subject of further work as part of the development of a long-term integrated Management Plan, including detailed proposals for the Park
Convocation Avenue (actually refers to Norwood Avenue) • *Re-planting to the east of native trees as succession of specimens as they become*	The university is working to the recommendations of the tree condition survey and the approach defined in this LEMP and the Tree Policy.

Opportunities (identified in previous LEMP)	**Relevant changes/progress**
over mature and in decline. The conifers to the west are not in keeping with the local or surrounding character, however they provide screening of the tennis courts and lighting to the adjacent residential area and are therefore to remain.	
Ancient Beech Avenue • *Management strategy to remove non-native species (rhododendron, laurel) to be continued. Re-planting of young trees as succession of over mature and declined specimens to continue.*	Works on-going and will be guided by the LEMP and the specific management/replanting strategy for this area defined herein.
Woodland • *Lime Kiln Wood - continue woodland management and provide areas of new habitat creation.* • *Eastwood - provide further habitat creation opportunities and controlled pedestrian access. Ensure that a sensitive lighting scheme is adopted in woodland areas to maintain dark corridors for horseshoe bats.*	Some works have been undertaken. More detailed management strategy for these areas defined in this LEMP.
Residences • *Maintain and provide a mixture of robust ornamental and herbaceous planting in line with the University's current successful species (avoid species which have failed in the past.) Provide high quality robust areas for students to enjoy as part of the campus environment.*	Some works undertaken to re-design/modify areas to provide more attractive and usable spaces between buildings (provision of shelters, table tennis tables, etc.). Scope to alter some areas to reduce costly ongoing maintenance in line with reduced maintenance budgets (e.g., design out herbaceous planting; remove rockery features which encourage vermin).
West Entrance Parkland • *Develop and manage area of ancient orchard trees.*	Opportunities remain and are detailed in this LEMP.
Shooting range and bobsleigh • *This area is well screened and located close to the boundary. It is intended to be developed further following new UK sport*	Management operations have focused on maintaining screening/vegetation cover. 'Mock alpine landscape' appears to be inappropriate.

Opportunities (identified in previous LEMP)	**Relevant changes/progress**
funding and expansion of facility. Further landscape works could include building on the character as a mock alpine landscape along with new planting and enhanced biodiversity.	Area to be managed as part of key eastern bat corridor, as detailed in this LEMP.
Sports fields • *Continue current management regime for sports facilities and use any suitable leftover/surplus areas for habitat creation.*	Opportunities remain and are detailed in this LEMP.

5.2 Opportunities for the Sulis Club were not established previously.

The new Management Plan

5.3 The principal purpose of the Management Plan is to establish a clear strategy for the maintenance and management of the green infrastructure assets within the campus with the aim of maintaining and improving these assets in ways that are consistent with their function and value (existing and potential) as components of the green infrastructure network. The strategy also takes into account the potential development projects identified in the Masterplan, and the requirements and implications that these may have for green infrastructure (such as a need for enhanced screening, for example).

5.4 This section identifies the main areas of green infrastructure within both parts of the campus that should be the focus of specific management efforts due to their strategic importance as part of the character and green infrastructure of the campus and the relationship of the campus generally to its surroundings. These areas are referred to as 'Principal Areas' (PAs); these have been increased in extent and focused upon the main structural landscape and ecological components of the campus from the PAs identified in the previous LEMP. They are:

- Norwood Avenue
- Convocation Avenue
- The Avenue
- The University Park (west, central and eastern parts)
- South western boundary (including Medical Centre/The Lodge/the lacrosse pitch)
- Woodlands/North Road access
- Western boundary/Quarry Road
- Northern boundary (west)

- Northern boundary (east)
- Eastern boundary
- Eastern playing fields
- Southern playing fields

5.5 The Sulis Club forms a distinct and separate area.

5.6 These PAs are considered in detail in the tables on the following pages. Certain management operations will be common to all areas, such as the monitoring of the integrity and safety of trees as part of the Tree Conditions Survey and are therefore not identified specifically for each area; these are included under General Maintenance and Management operations set out later in this section.

5.7 A table defining the anticipated programme for the principal works/operations is provided. This will inform the targeting, planning and programming of resources for each Area, and provides a benchmark for the monitoring and periodic review of the LEMP against the strategy objectives.

Strategy and Management of Principal Areas

PRINCIPAL AREA: Norwood Avenue
Description Norwood Avenue forms one of two accesses into the campus. It is flanked by TPO trees on each side which are a distinctive component of the character of the approach. Whilst the many mature conifers along the western side, between the road and the tennis courts, are overbearing and out of character, they provide an important screen between the road and the rear of residential properties that lie beyond the campus boundary to the west and in views from the road in the other direction. The trees on the eastern side of the access are within mown grassland which allows a more pleasing open aspect from the road with views available between/below trees across the adjacent playing fields (St. John's Field). Relevant statutory constraints • Within WHS • Eastern verge within Green Belt (boundary is eastern edge of road) • Within AONB • TPO trees (refs. W1, W2, G1).
OPPORTUNITIES AND OVERALL STRATEGY • No changes proposed for area in new Masterplan. • Retain, maintain and strengthen the green character of the entrance and frontage with Claverton Down Road and its contribution to the principal green infrastructure network.
Landscape management strategy • Maintain screening and vegetated corridor along west side of access, providing succession planting where trees recommended for removal (removal to be staggered) to maintain screening. • Progressively remove drab/overbearing conifers over short/medium term replacing with native tree species to tie in with the tree character on the east side of the road. • Thin and replant shrubs to create more attractive, varied appearance to understorey. • Retain and maintain character of open parkland trees in mown grass along eastern side, with views between/below canopies. Establish succession planting using Silver Lime as replacements for Horse Chestnut trees over medium term.
Tree management strategy • 2018/2019 Survey area 3. • Potential for larch to decline. • Thin conifer groups to remove suppressed and declining trees along drive access to create space for replacement planting of large native species and diverse understorey. • Install Silver Lime along eastern boundary to diversify age structure. Consider diversification of species to improve disease resilience. • Remove 'topped' trees from within tennis courts and install suitable replacements. • Incorporate management of beech 4039-4042 into management regime for The Avenue to reduce risk of wind throw.
Ecology/biodiversity management strategy • Enhance access approach for biodiversity and aesthetics through plug planting of native wildflower meadow species for limestone grassland (such as lady's bedstraw, ox-eye daisy, knapweed, salad burnet) and bulbs. Wildflower areas should be left un-mown and be subject to one cut late Summer (September) to allow them to go to seed. • Mature trees should be left in situ unless they provide a health and safety concern to allow additional opportunities for biodiversity, including areas of deadwood. Where trees require felling or works to remove dead limbs, an ecological assessment for birds and bats will be required. Replacement planting will be implemented with suitable native species.

Anticipated phasing of main works	
Operation	*Anticipated timescale*
Remove/replace 50% of conifers	Years 1-10
Remove/replace remaining 50% of conifers	Years 10-20
Selectively thin/replant shrubs along tennis courts' boundary (to tie in with replacement of trees)	Year 1-20
Remove/replace topped trees in tennis courts	Years 1-5
Replace trees east of road	As required according to tree condition
Manage beech trees in accordance with proposals for the management of The Avenue	Years 1-20

PRINCIPAL AREA: Convocation Avenue

Description

Convocation Avenue forms a northward continuation of Norwood Avenue, commencing from The Avenue. It is generally flanked by landscaped areas comprising trees within areas of mounded mown grass with some areas of semi ornamental shrub planting adjoining the STV building; these areas provide significant visual containment of the car parking south of the STV building and the south car park to the west of the road. These landscaped areas continue the 'green' theme from Norwood Avenue into the campus, although the new SoM building will create a significant alteration in character in the area opposite the STV building, forming a built edge and prominent 'gateway' building. The SoM proposals include proposals for a limited soft landscape treatment to the road frontage with a visual connection being opened up into the parkland to the west from the road to the south of the new building.

As part of the SoM mitigation requirements, some parking is to be removed from the eastern end of the southern car park to create a compensatory area (970m2) of parkland/green infrastructure between the car park and Convocation Avenue (strengthening connectivity with the green infrastructure corridor of The Avenue).

Relevant statutory constraints

- Within WHS.
- TPO trees (ref. G25-26, eastern edge of W17).
- Public right of way runs from The Avenue, past western side of STV, to eastern campus boundary via southern side of East car park.

OPPORTUNITIES AND OVERALL STRATEGY

- No changes proposed for area in new Masterplan.
- Maintain the green character and screening effect of the existing roadside soft landscape areas (acknowledging that there may be a slight short/medium term reduction in screening due to tree thinning).
- Manage the new areas of planting associated with the SoM frontage and the additional parkland to ensure that they are maintained as high quality, resilient soft landscape areas.

Landscape management strategy

- Maintain and manage the soft landscape areas so that they are of a consistent high-quality appearance.
- Replace/rejuvenate any areas of shrub planting which become over-mature, where possible phasing such works to avoid loss of planting integrity.
- Manage the drainage swale to maintain aesthetic appearance and maintain functionality; control any invasive weeds.

Tree management strategy

- Forms part of Survey Area 6 of Tree Survey 2018/ 2019. High density groups of young trees lining route, car park and front façade of STV.
- Thin tree groups by 30-40 % to favour better specimens and formative prune remainder.
- Maintain clearance to roads and parking areas.

Ecology/biodiversity management strategy

- Longer grassland edges and wildflower meadows should be encouraged, where possible, on the more visually discreet bank south west of Convocation Avenue (north of The Avenue) to encourage opportunities for pollinators and other invertebrates.
- Bug hotels could also be installed near footpaths as an educational tool for users of the campus.

Anticipated phasing of main works	
Operation	*Anticipated timescale*
Develop longer grassland/wildflower area to SW of Convocation Avenue	Years 1-2
Selectively thin tree groups	Years 1-5
Formative prune remaining trees, as required	Years 1-5
Replace/rejuvenate areas of shrub planting, as required	Ongoing

PRINCIPAL AREA: The Avenue

Description

The Avenue comprises two parts – the eastern section runs west/east to the south of the STV sports fields providing a connection between the junction of Norwood Avenue/Convocation Avenue and Claverton Hill (and the Cats & Dogs Home). The road is flanked by an avenue of large mature beech trees, although many of these are over-mature and some have already had to be removed for safety reasons. Some re-planting has been carried out, primarily in the woodland strip along the northern side. It forms an important landscape feature and belt of green infrastructure (of value to Horseshoe bats) connecting across the southern part of the campus and linking to the central park (a connection that is being enhanced by reinstating some car parking in the southern car park to green infrastructure). The western part of The Avenue is a linear area of woodland extending between the residential area to the south and the southern car park and services buildings and stores to the north to the west of Norwood Avenue/Convocation Avenue.

Relevant statutory constraints

- Within WHS.
- Southern side, east of Norwood Avenue, within Green Belt (southern edge of road forms Green Belt boundary).
- Eastern part, east of Norwood Avenue, within AONB.
- TPO trees along flank both sides in area east of Norwood Avenue (ref. W13-15), and in area west of Norwood Avenue (ref. W3 and W4).
- Short section of public right of way west of Norwood Avenue.

OPPORTUNITIES AND OVERALL STRATEGY

- No changes proposed for area in new Masterplan.
- Develop The Avenue as a mixed linear woodland with the phased removal of over-mature mature beech trees, supported by the Tree Condition Survey and associated detailed investigations that are required (as detailed in TICS), with the overall objectives of ensuring the long-term landscape integrity of the tree line canopy, its function as an important component of green infrastructure, and its value as a continuously vegetated corridor for bats.

Landscape management strategy

- Strengthen planting where space exists alongside existing pitches and proposed 3G pitches (which would be lit when in use) on north side of The Avenue (east of Norwood Avenue).
- Maintain screening between residential properties and campus within area west of Norwood Avenue by phased management, avoiding the creation of gaps, and addition of appropriate supplementary planting if necessary.
- Progressively remove non-native species (laurel), replanting with native species where space permits.
- As beech trees are removed/replaced plant appropriate understorey shrubs in clearings to create more diverse habitat and maintain screening to properties along western part of The Avenue.

Tree management strategy

- Forms Zone 4 of Tree Survey 2018/ 2019.
- High number of declining over mature beech trees extensively decayed with history of large limb failure and collapse. Young trees extensively squirrel damaged and incapable of reaching full design potential.
- Regular inspection of trees required.
- Convert to linear woodland feature. Phased removal of over-mature beech trees over a 20-year period, removing some small groups where necessary to avoid wind throw, and reducing adjacent trees to reduce the risk of failure in the short term.
- Select the best of the existing established planting for retention and formative prune.
- Remove the poor-quality trees (the majority of which are young) to create space for new high-quality planting.

- Consider retention of monoliths where this would not compromise health and safety.

Ecology/biodiversity management strategy

- Maintain a continuous green linear corridor for horseshoe bats (and other wildlife).
- Allow successional undergrowth, where possible, or provide additional native planting to strengthen the corridor and provide a continuous canopy for when removal mature beech trees is required.
- Encourage a graded edge to the northern boundary of the woodland vegetation, to include additional shrubs and longer grassland edges, whilst ensuring that a maintenance strip is retained.
- Provide discreet dead-wood habitat features from some felled timber.

Anticipated phasing of main works

Operation	*Anticipated timescale*
Remove over-mature beech trees and squirrel damaged trees as necessary subject to condition	Years 1-20
Selectively thin close-growing trees in western part to favour better quality specimens	Years 1-10
Replant with new trees and associated understorey shrubs where space permits; encourage selective natural regeneration of understorey	Years 1-20
Progressively remove laurel and replant with native shrub species to ensure maintenance of screening (north side of area west of Norwood Avenue)	Years 1-10
Undertake shrub planting/develop longer grassland edge between sports pitches and The Avenue	Years 1-3

PRINCIPAL AREA: The University Park (west, central and eastern parts)

Description

The University Park forms a large area of amenity open space within the centre of the campus. It forms a green focus within the campus providing an important recreational asset, key component of green infrastructure, and setting for surrounding buildings. It contains a range of deciduous and coniferous tree species, areas of shrub planting, a formal lake with fountain flanked to the north by a terraced grass bank which is popular for sitting out. Currently the park comprises three distinct parts:

- The central area focused upon the lake;
- The eastern area which is mainly close mown grassland, contained to the south by tree planting and mounding, and flanked to the north by 4ES and to the north east by the new SoM building which will form a prominent building framing and overlooking this space;
- The western area which consists of a well-treed but fragmented area defined on three sides by academic buildings (10W, 8W, 6W and 6WS). The southern part is occupied by a temporary car park which is to be reinstated to parkland, incorporating tree planting, to off-set some of the trees removed to accommodate the SoM (requirement forms part of SoM S106).

Buildings within the main academic core are generally dominant along the northern side, whilst buildings and parking along the southern side are generally discreet being contained by a combination of close mown grass mounding and tree planting.

These areas are crossed by paths which provide connections between campus buildings and the southern car park. Lighting is generally by way of bollard lighting.

Relevant statutory constraints

- Within WHS.
- TPO trees (refs. G13-G19, G27, G29, G32, W4, W17, W21).
- Non-statutory - trees in survey group 5452/G3 south of 8W (not within TPO) support a colony of Hornet Clearwing moths (a nationally scarce species).

OPPORTUNITIES AND OVERALL STRATEGY

- Masterplan proposes new buildings south of Wessex House (C on Masterplan) and 4W (D on Masterplan), either side of 6W/6WS.
- Develop a detailed, integrated long-term management strategy for the Park which integrates the landscape, tree and biodiversity strategy requirements (as below).
- Maintain and improve the overall amenity and biodiversity value of the parkland, enhancing connectivity between the various parts (notably at the western and eastern ends), improving legibility and way-marking, and encouraging a more dispersed pattern of use.
- Improve biodiversity through the introduction of more varied grassland management regime, with areas of less frequently cut grass, introduction of wildflower species (by seeding/plug planting), installation of invertebrate refuges, nest boxes.
- Explore practicality/opportunities for introducing small wildlife ponds (bearing in mind the high level of use, potential safety issues, and maintenance requirements).
- Explore scope for enhancing tree and shrub cover in area directly north of the south car park, in advance of development of decked car park proposed in the new Masterplan.

Landscape management strategy

- Selective thinning to create visual connectivity between the three component parts of the park.
- Improve the overall long-term value of the existing trees by phased selective thinning and, where necessary, replacement/restocking with a limited number of selected native species/cultivars to create a cohesive framework and setting for more ornamental species.
- Maintain a strong canopy line along the southern fringes of the park that would be of value for bat commuting/foraging.
- New tree planting south of the southern elevation of 4ES provided as part of SoM proposals to help to reinforce this as an attractive east-west pedestrian route and help to assimilate the building.

Tree management strategy

- Forms area 7 of survey of Tree Survey 2018/ 2019.
- Retain poplars within tree group 5452/G3, with historic history of wind throw due to limited soil depth restricting rooting environment, which support a colony of Hornet Clearwing moths (nationally scarce). Reduce crown height to 7 metre pollards and maintain every 2-3 years.
- De-compact area near 5452/G3 and install succession planting of poplar.
- Larch and Ash likely to decline; develop proposals for their phased replacement.
- High density planting throughout area and around periphery requiring thinning/removal of unsuitable species and to provide space for high quality specimen succession planting (consider possible diversification through memorial dedication scheme).
- Formative prune remaining trees.

Ecology/biodiversity management strategy

- Define a more varied grass management strategy with areas of infrequently mown grass below trees and along more remote southern fringes.
- Minimise any additional lighting, using time-controlled, low level downward facing bollard lights.
- Retain and manage existing poplar trees (see above).
- Seek to plant more poplar trees where space (bearing in mind future size, high water demand and potential damage from roots) to provide potential increase in habitat for Hornet Clearwings.
- Retain and manage existing trees, as well as any successional planting to create a varied structure within areas with limited public access.
- Re-design parkland to improve flow through it and encourage students use, to improve connectivity with nature and student mental and physical health/wellbeing. This should include creating wildflower strips throughout the park to improve its flow, to be located close to footpaths.
- Brash and deadwood should be retained on site as deadwood piles, around long grassland habitats away from the footpaths to provide refuge opportunities for small mammals and reptiles. Grass cuttings should also be piled in compost areas to provide egg-laying habitat for reptiles.
- Aquatic vegetation within the lake should be retained and be subject to minimal management to provide opportunities for waterfowl.
- Consider introduction of interpretation boards providing information on habitat features and wider diversity of the campus.

Anticipated phasing of main works

Operation	*Anticipated timescale*
Develop a long-term integrated management plan, including detailed proposals and programme for the Park, taking account of future development in Masterplan	Years 1-2
Undertake works in accordance with the detailed Park management plan	Years 2-10

PRINCIPAL AREA: South Western Boundary (including the Medical Centre, The Lodge and the lacrosse pitch)

Description

The area forms the south western part of the campus and comprises a belt of mature trees (mainly beech) with some younger planted trees along the campus boundary with the detached houses within the adjacent Conservation Area, the boundary of which is defined by a high stone wall. This vegetation forms an important screen between the adjoining properties and the campus, with the mature trees being prominent landscape features on the edge of the plateau in views from the west as well as providing a tall green framework along the campus boundary. The open grass area of the lacrosse pitch lies to the north, with an area of younger developing planting to the west; in effect these areas provide an area of green infrastructure that provides a connection between the parkland and the landscape beyond the campus (although interrupted by the Quarry Road access). An area of semi mature planting lies to the east adjoining and screening buildings 1S and 2S.

The Medical Centre contains a remnant orchard in mown grass, surrounded by mature trees and shrubs, accessed from the campus by a footpath and by a drive from North Road to a small parking area.

The Lodge is a discreet detached 2 storey house set within a mature garden bounded by tall trees and shrubs, with an access drive from North Road, which now provides student accommodation.

Relevant statutory constraints

- Within WHS.
- Part adjoining Conservation Area; The Lodge and Medical Centre located within Area.
- Western part of Medical Centre and area to the north (part of a larger area designated for its diverse limestone grassland) designated a SNCI.
- TPO trees (refs. G29, W5-W6, part of W7, W22).
- Public right of way along gravel path south of 2S and lacrosse pitch, and north of Medical Centre.

OPPORTUNITIES AND OVERALL STRATEGY

- Extension of buildings 1S/2S form part of new Masterplan proposals in the south eastern part of this area.
- Retain green undeveloped character of area, managing the tree stock and planning for the changes likely to occur with extensions to 1S/2S.
- Enhance/reinforce the remnant orchard.

Landscape management strategy

- Maintain the continuity of tree cover along the southern boundary, planning for succession planting to replace mature trees, and enhance the woodland understorey to provide low level screening.
- Thin squirrel damaged and overcrowded trees and other trees to favour long term replacements, introducing shrub understorey planting where space permits and particularly where screening would be beneficial.
- Explore opportunities for increasing planting in areas west of 1S and 2S, in tandem with props to extend these buildings, to enhance visual containment of the area from residential properties beyond the campus boundary.

Tree management strategy

- Located within Survey area Zone 8 of Tree Survey 2018/ 2019.
- Seek formal consent to fell conifers adjoining Butley Ash (as agreed with adjoining house holder) – part of TPO W5. (3501G4).
- Implement orchard planting within grounds of Medical Centre to rejuvenate existing declining orchard.
- Thin high-density tree groups, formative prune remaining trees, remove poor quality and extensively damaged trees to create planting space.
- Install high quality succession planting.

- Divide poor quality understorey areas into compartments and instigate phased coppicing programme.

Ecology/biodiversity management strategy

- Grassland within the Medical Centre, and some larger grass areas adjoining the lacrosse pitch, to be subject of a reduced mowing frequency to encourage herb species associated with the SNCI (species rich limestone grassland). Longer grassland areas should be retained around the base of trees and to encourage wildflowers in more open areas. The grass should be cut late summer (Late August/September) to encourage herb species to seed. Arisings should be removed to compost areas to encourage herb diversity.
- Orchard planting and management should be implemented on the grounds of the Medical Centre. This will provide an edible landscape for staff and students, as well as provide foraging opportunities for wildlife. Orchards are a UK priority habitat.

Anticipated phasing of main works

Operation	*Anticipated timescale*
Thin overcrowded/squirrel damaged trees to favour better quality trees; replant if necessary	Years 1-5
Fell and replace over-mature beech when they become unsafe; replant if necessary	Years 1-20
Develop and implement replanting and management plan for orchard	Years 1-5
Carry out phased coppicing of poor-quality understorey (where appropriate, in tandem with tree felling/thinning)	Years 1-20
Establish varied grassland management, especially within SNCI area	Years 1-2
Develop planting strategy associated with the development proposals for 1S and 2S, once details are known	Dependent upon programme

PRINCIPAL AREA: Woodlands/North Road access

Description
The small area covers 'Woodlands' (Vice Chancellor's residence), a small belt of woodland to the east and a corridor of green infrastructure, including a row of beech trees, that runs northwards, between buildings 1S and 2S to the west and 3S to the east, connecting to the southern edge of the University Park. It forms a connective vegetated green corridor along the pedestrian/cycle access into the campus from North Road. It also forms part of the green infrastructure that, combined with gardens of adjoining residential properties, also provides a connection between the western end of The Avenue and the undeveloped landscape of the South western boundary Area.

Relevant statutory constraints
- Within WHS.
- 'Woodlands' within Conservation Area.
- TPO trees (refs. G27 and G28).

OPPORTUNITIES AND OVERALL STRATEGY
- Masterplan proposals identify 1S/2S for redevelopment/extension; although adjacent, this would not encroach into the northern part of this area.
- Retain green corridor and connectivity as an inherent characteristic of this attractive access into the campus.

Landscape management strategy
- Maintain the continuity and quality of existing tree and shrub cover.
- Replace/rejuvenate any areas of shrub planting which become over-mature, where possible phasing such works to avoid loss of planting integrity.

Tree management strategy
- Survey area 7 of Tree Survey 2018/ 2019.
- Reduction of beech to provide 2 metres clearance of building line 2S. Crown lift to improve light to lower windows. Maintain every three years.
- Remove and replace declining trees.
- Install succession planting along southern boundary within 2S car park.

Ecology/biodiversity management strategy
- Install bird and bat boxes in trees/along woodland edges.

Anticipated phasing of main works

Operation	*Anticipated timescale*
Reduce/crown lift beech	Approx. every 3 years
Fell and replace declining trees as required; replant if adequate space	Ongoing
Install succession planting in southern car park	Years 1-20
Replace/rejuvenate areas of shrub planting, as required	Ongoing

PRINCIPAL AREA: Western boundary/Quarry Road

Description

Quarry Road provides access from North Road into the western part of the campus. The entrance is defined by banks of close mown grass flanked by mature trees and woodland. The swept alignment of the road, which is lit, creates a discreet approach into the campus. Much of the road is cut in with exposed rock cuttings on both sides. The road is spanned by a footbridge which connects the public footpath running along the campus boundary south of the lacrosse pitch to a network of public footpaths extending towards Sham Castle to the north west, and a public footpath running north eastwards at the top of the western side of the cutting, immediately beyond which is a hedgerow with some mature trees on the western boundary of the campus. This hedgerow forms the boundary between the campus and the WHS and AONB. Above the eastern cutting is a linear mounded area which has been planted and supports a dense thicket of scrub and trees providing containment to the west car park beyond. At the northern end the road turns east to enter this car park past the recently completed Polden residential complex. The entire area forms part of a larger area designated as a SNCI for its diverse limestone grassland, although much of the area is no longer grassland.

Relevant statutory constraints

- Within WHS.
- Western boundary contiguous with boundaries of WHS, Green Belt and AONB.
- SSSI along much of western side of Quarry Road (North Road Quarry' designated for its varied geology).
- SNCI covers entire area (except Quarry Road).
- Southern part within Conservation Area.
- TPO trees (ref. part of W7, W8, G30).
- Public right of way along western boundary with connection via footbridge over road; connects to public rights of way to west of campus.

OPPORTUNITIES AND OVERALL STRATEGY

- No changes proposed for area in new Masterplan but proposal to provide a decked car park and academic building in adjacent west car park. This has potential visual implications which have been examined in the refinement of the new Masterplan.
- Maintain and improve the management of the SNCI grassland.
- Improve the quality of the SSSI.
- Strengthen the screening effect and green infrastructure function of the vegetation along this important campus, WHS and AONB boundary, particularly in anticipation of the plans to provide a decked car park and new academic building within the location of the existing west car park. This shall be achieved through the appropriate management and reinforcement of existing vegetation as well as increasing the width of the vegetation between the road and location of the new car park.

Landscape management strategy

- Enhance long term screening effect of vegetation between Quarry Road and west car park by thinning overcrowded vegetation, increasing diversity of shrub understorey and planting new native woodland trees to create a wider sustainable belt of mixed woodland. New planting to include an additional 15m wide belt of planting on the western/north western side of the new decked car park (potentially on some localised mounding between 1-2m high) to tie in with the existing mound.
- Thicken/supplement western boundary hedgerow with native hedgerow and tree species where space and public footpath permits.
- Reduce the area of mown grassland in favour of infrequently managed grassland.
- Remove self-seeded Cotoneaster, Ash and Sycamore from rock faces and verge.
- Prevent scrub encroachment into areas of grassland above the rock slopes.

Tree management strategy

- Survey Area 9 of Tree Survey 2018/ 2019.
- Thin dense groups by 30- 50%. Formative prune remaining trees.

• Install and maintain succession planting within suitable gaps using large native species to reinforce boundary and skyline trees. • Divide poor quality understorey areas into compartments and instigate phased coppicing programme; reinforce with under storey planting to improve low level screening. • Instigate cyclic management of ivy. • Remove trees and shrubs from SSSI geological site to prevent deterioration.
Ecology/biodiversity management strategy • Encourage species-rich grassland through a reduction in mowing, where constraints allow, to encourage a longer grassland sward and increased diversity. Grassland should be cut once at the end of summer to encourage seeding by herbs, and arisings remove to designated compost areas. • Install hibernacula, especially for reptiles. •

Anticipated phasing of main works

Operation	*Anticipated timescale*
Reinforce planting along western boundary	Years 1-2
Reduce mowing regime on grassland on west side of Quarry Road, and manage infrequently	Year 1 onwards
Clear invading scrub from rock faces/verges	Year 1 onwards
Manage ivy	Year 1 onwards
Undertake thinning and formative pruning of trees in conjunction with phased coppicing/replanting programme for woodland belt between road and west car park	Years 1-5
Provide additional belt of planting in association with development of decked car park	In accordance with construction programme

PRINCIPAL AREA: Northern boundary (west)

Description

This area covers the peripheral landscape of the campus extending from the northern end of Quarry Road to the edge of the woodland to the east of the Westwood accommodation buildings. The area comprises areas of close mown grassland interspersed with scattered trees and tree/shrub groups with a gravel surfaced path, stone wall and hedgerow along the campus boundary which forms the boundary with the Green Belt, WHS, AONB and (in part) the Bathampton Camp Scheduled Ancient Monument (SAM). There are informal connections between the path and a public bridleway which runs on the edge of the golf course on the north side of the campus boundary. In effect this path forms a connection between the public footpath on the west side of Quarry Road and this bridleway. The accommodation buildings are dominant features along the southern side which overlook this area.

Some tree planting will be provided within this area as part of the off-setting of some of the trees removed to accommodate the SoM (the requirement forms part of the SoM S106).

Relevant statutory constraints

- Within WHS.
- Campus boundary is contiguous with boundaries of Green Belt, WHS, AONB which lie beyond.
- Southern edge of SAM extends just inside campus boundary, on north eastern edge of this area.
- Entire area within SNCI.
- TPO trees (ref. G8, G31, northern end of W8, W10).

OPPORTUNITIES AND OVERALL STRATEGY

- No changes proposed for area in new Masterplan.
- Maintain the wooded corridor along the campus boundary.
- Encourage the creation of a more varied grassland habitat within the grass areas with areas of infrequently managed grassland below/around trees, whilst accommodating new tree planting agreed as part of SoM.

Landscape management strategy

- Retain and reinforce native vegetation as required (see below) to maintain a continuous canopy line along the northern boundary to maintain/improve separation between the campus buildings and the golf course/SAM to the north.
- Maintain the boundary stone wall.
- Undertake approved tree planting as part of SoM S106.

Tree management strategy

- Survey area 10 of Tree Survey 2018/ 2019.
- High percentage of ash within northern boundary showing evidence of die-back.
- Larch close to Polden in decline requiring removal and replacement with native succession planting.
- Install replacement and succession planting to reinforce boundary as ash decline.
- Divide understorey into compartments and instigate selective 10-15 year coppicing program into perpetuity

Ecology/biodiversity management strategy

- Reduce dead trees to monoliths 3-4 metres in height with coronet cuts to ends of main limbs and cut natural nest boxes into trunks (where health and safety allows).
- Areas of grassland to be subject to reduced mowing frequency to encourage herb species associated with the SNCI (species rich limestone grassland). Longer grassland areas to be retained around the base of trees and to encourage wildflowers in more open areas. The grass should be cut late summer (late August/September) to encourage herb species to seed. Arisings to be removed to compost areas to encourage herb diversity.

• Uncut longer grassland areas should be retained around existing more peripheral trees to create undisturbed areas for wildlife. • Areas of main recreational use, including informal paths, to be subject to regular mowing. • No further tree planting (other than that already agreed) should be accommodated into this area, to ensure that limestone rich grassland is retained and enhanced. • Trees along the northern boundary should be managed to retain and strengthen the corridor for foraging and commuting bats (as well as screening for the campus).

Anticipated phasing of main works

Operation	*Anticipated timescale*
Undertake tree planting agreed as part of SoM S106	Completed February 2021
Reduce mowing regime to areas of grassland and manage infrequently	Year 1 onwards
Replace declining trees	Year 1 onwards, as dictated by condition
Undertake phased coppicing/replanting programme for woodland belt on northern boundary	Years 1-5
Maintain stone boundary wall	Ongoing, as required

PRINCIPAL AREA: Northern boundary (east)

Description

The eastern part of the northern boundary primarily comprises woodland which extends from a block of woodland that separates the student buildings at Westwood from those at Eastwood and as a belt between the Eastwood residences and the northern campus boundary. This area represents the largest area of more natural landscape and habitat remaining within the campus. A footpath (not a public right of way) runs close to the northern boundary, which is defined by a remnant hedgerow and stone wall, providing a continuation of the footpath link from the area to the west. This path connects to the bridleway on the adjoining edge of the golf course at the north eastern corner of the area and extends southwards along the eastern edge of the campus.

Relevant statutory constraints

- Within WHS.
- Campus boundary is contiguous with boundaries of Green Belt, WHS, and AONB beyond.
- Southern edge of SAM extends just inside campus boundary, on north edge of this area.
- Most of area within SNCI (almost entirely wooded).
- TPO trees (refs. W9, W11).

OPPORTUNITIES AND OVERALL STRATEGY

- No changes proposed for area in new Masterplan.
- Maintain and manage the woodland as a natural landscape feature and varied woodland habitat which forms part of an important bat corridor, removing inappropriate species and replanting with native tree and shrub species.

Landscape management strategy

- Maintain the woodland as an important landscape feature and its integrity as a landscape and visual buffer to the adjoining residential buildings.
- Retain the western block of woodland as an undisturbed area with clearly defined paths (access elsewhere discouraged).

Tree management strategy

- Survey Area 12 of Tree Survey 2018/ 2019.
- Manage trees to avoid conflicts with adjacent buildings by creating graduated woodland edge and diverse understorey.
- High percentage of ash within northern boundary showing evidence of ash die-back.
- Install replacement and succession planting to reinforce boundary as ash decline.
- Divide understorey into compartments and instigate selective 10-15 year coppicing program into perpetuity.
- Natural regeneration of sycamore and planted oak, maple and beech extensively damaged by squirrels.
- Clear back and scallop woodland edge to rear of accommodation blocks to provide diverse and graduated woodland edge.
- Remove over-bearing conifers located close to north side of buildings in north eastern part and create more appropriate natural edge.

Ecology/biodiversity management strategy

- Selectively thin trees to encourage understorey growth and structure, to enhance opportunities for biodiversity in areas where trees are too densely planted.
- Reduce dead trees to monoliths 3-4 metres in height with coronet cuts to ends of main limbs and cut natural nest boxes into trunks.
- Create deadwood and bracken piles within woodland to provide refuge opportunities for wildlife, including small mammals.
- Maintain woodland area and boundary woodland to ensure that connectivity for wildlife, including bats, is retained. Consideration to the creation of a graded edge to some area of woodland where space allows.

• Bat and bird boxes to be installed on suitable mature trees to enhance opportunities for nesting birds and roosting bats.	
Anticipated phasing of main works	
Operation	*Anticipated timescale*
Remove conifers from adjacent to buildings	Years 1-3
Selectively thin declining trees (especially ash and damaged trees) and create varied edge adjacent to accommodation blocks	Year 1 onwards, as dictated by condition
Undertake replacement/succession planting where space allows	Year 2 onwards, as dictated by thinning/removal programme
Undertake phased coppicing/replanting programme for woodland belt on northern boundary	Years 1-20, ongoing
Create wildlife refuges	As thinning/coppicing progresses
Control access to undisturbed areas by defining paths with logs/deterring access with brash piles	Ongoing, as required
Maintain stone boundary wall	Ongoing, as required

PRINCIPAL AREA: Eastern boundary

Description

The eastern boundary is defined by a narrow strip of woodland, hedgerow and stone wall. The northern part of this boundary is a narrow strip defined to the west by student accommodation buildings broken by some adjoining courtyards and associated planting and the partially reinforced hedgerow along the campus boundary. A gravel footpath (not a right of way) runs along this strip. South of the residential complex the area widens as it passes the eastern end of the east car park before continuing southwards to run along the eastern edge of the open grass playing fields and across the Bobsleigh/Pentathlon facilities. The entire eastern boundary adjoins Bushey Norwood, an area of National Trust land comprising pasture with a parkland character. A public right of way (part of the Bath Skyline walk) passes through the eastern side of this field and there is widespread evidence of informal access by walkers within this area; there is an informal pedestrian access between the campus and Bushey Norwood via a gate approximately midway along the boundary. Some parts of the boundary between the campus and Trust land have been reinforced by areas of tree planting within Bushey Norwood. Intervisibility between Bushey Norwood and the campus is a particularly sensitive issue.
This boundary has been identified as being of particular importance to Greater Horseshoe bats.

Relevant statutory constraints

- Within WHS.
- Campus boundary is contiguous with boundaries of Green Belt and WHS. Northern part is contiguous with the AONB boundary; central and southern part is within the AONB which extends across the adjoining sports fields and athletics track.
- Campus boundary at southern end (adjoining Bobsleigh/Pentathlon area) contiguous with SNCI and the western edge of the Registered Grade II Claverton Manor Historic Park and Garden and associated Conservation Area.
- TPO trees (refs. W12, W18-W19).

OPPORTUNITIES AND OVERALL STRATEGY

- New Masterplan includes proposals for student residential buildings extending southwards from the central part of this boundary, and a 3G pitch adjoining the southern part.
- Strengthen the existing vegetation along the campus boundary with appropriate planting where opportunities exist.
- Encourage the development of a 'layered' vegetation structure, with selective thinning of overplanted areas to favour long term trees.
- Provide minimum offset of 25m between eastern campus boundary and new residential buildings to accommodate additional planting on western side of boundary footpath (to accommodate min. 10m wide belt of planting) to reinforce this edge as a landscape and visual buffer to Bushey Norwood. Consider possibility of advance planting.
- Maximise opportunities to strengthen eastern boundary green infrastructure in conjunction with creation of new 3G pitch, extending the 10m belt of planting southwards from the proposed student residences, taking account of the need to avoid light spill to eastern boundary corridor.
- Maintain stone boundary wall.

Landscape management strategy

- Maintain and enhance the level of screening and high-level tree cover along this corridor.
- In areas adjacent to proposed new development/pitch incorporate significant native planting to reinforce screening and minimise any residual effects of associated lighting, whilst avoiding isolating the footpath within an enclosed 'tunnel' of vegetation.
- Continue the green corridor southwards with new planting between the 3G pitch and existing footpath (linking with the small copse between the southern residential building and the pitch) to create a continuous vegetated corridor (perhaps with a combination of hedge planting and regularly spaced trees within infrequently managed grassland); planting to be designed to minimise light spill from pitch.
- Co-operate with NT to support any tree planting initiative within Bushey Norwood.

Tree management strategy

- Survey areas 5, 6 and 12 of Tree Survey 2018/ 2019.
- High density hedge planting along boundary becoming overgrown; lay hedge in sections to form secure barrier and improve wildlife corridor.
- Thin high density group planting along rear of existing accommodation blocks and bunds adjacent to car park by 40-60%; formative prune remaining trees.
- High percentage of ash within northern part showing evidence of ash die-back. Install replacement and succession planting to reinforce boundary as ash decline develops.
- Remove underground guying systems from around base of retained trees to prevent further constriction.
- Divide understorey into compartments and instigate 10-15 year coppicing program. Maintain into perpetuity.
- New planting extensively damaged by squirrels requiring pruning / removal and replacement.

Ecology/biodiversity management strategy

- Reduce dead trees to monoliths 3-4 metres in height; coronet cuts to ends of main limbs and cut natural nest boxes into trunks.
- Trees along the boundary should be managed to retain and strengthen the corridor for foraging and commuting bats, as well as screening for the campus.
- Ensure that lighting of new 3G pitch and adjoining training pitches is designed to avoid adverse effects on value and use of this corridor by bats (particularly Horseshoe bats). Design and manage planting to maintain a dark corridor.
- Regularly monitor light levels and bat activity, especially in areas that may be subject to disturbance, to identify any potential impacts.

Anticipated phasing of main works

Operation	*Anticipated timescale*
Lay boundary hedge in sections	Years 1-10
Selectively thin declining trees (especially ash and damaged trees) to favour better quality specimens	Years 1-5
Carry out selective coppicing (taking account of need for screening new development/minimising light spill)	Year 1, ongoing
Undertake replacement/succession planting where space allows	Year 2 onwards, as dictated by thinning/removal programme
Undertake advance planting to east of proposed residential buildings and pitches (if sufficient space to allow for subsequent construction)	According to development programme and pitch rationalisation
Remove underground guys	Year 1
Maintain stone boundary wall	Ongoing, as required

PRINCIPAL AREA: Eastern playing fields

Description
Open area of sports pitches and athletics facilities (all but eastern part lit), overflow car park in northern part, with a small area of car parking east of the athletics track, accessed from the north, contained on west and south sides by belt of single aged plantation woodland on a grass bank.

Relevant statutory constraints
- Within WHS.
- Within AONB.
- TPO trees (W20) on northern edge.

OPPORTUNITIES AND OVERALL STRATEGY
- New Masterplan proposals involve conversion of 2 grass pitches to lit 3G pitch and training pitches/courts, tennis courts (partly on southern end of existing car park), residential buildings on northerly grass pitches and existing overflow car park.
- Realise opportunity to increase green infrastructure connectivity north/south through central part of area by extending tree belt around the existing car park (east of athletics track) southwards to The Avenue and to the north along the car park access road. This would also contribute to containment of lighting.

Landscape management strategy
- Manage existing car park tree belt to maintain long term screening; thinning of over-crowded trees would allow introduction of understorey of native shrub planting.
- Develop north/south green corridor with tree planting to create connection to The Avenue.

Tree management strategy
- Survey areas 5 of Tree Survey 2018/ 2019.
- Sections of high-density hedge planting along boundary with significant gaps; lay existing hedge to form secure barrier and improve wildlife corridor plant gaps to improve site enclosure.
- High density plantation woodland adjacent to car park. Selectively thin by 40-60%; formative prune remaining trees.
- Over mature beech in decline, install specimen trees to reinforce skyline boundary.
- New planting extensively damaged by squirrels requiring pruning / removal and replacement.

Ecology/biodiversity management strategy
- There will be no light spill onto boundary vegetation to ensure that opportunities are maintained for wildlife, including horseshoe bats. Any lighting associated with the proposed pitch/training areas must be directional to ensure no light spill onto these boundaries, or will need to include operational timing restrictions with consideration to bats.
- Banks/parts of banks located adjacent to the proposed pitch/training areas to be left as longer grassland edges, or created into wildflower meadows, to enhance opportunities for wildlife.

Anticipated phasing of main works

Operation	*Anticipated timescale*
Selectively thin plantation woodland to favour better quality specimens and formative prune remaining trees	Years 1-3
Incorporate shrub understorey in plantation woodland following thinning	Year 2 onwards, as dictated by thinning/removal programme

Define areas suitable for longer grass/wildflowers and manage accordingly	Year 1 for areas that will remain unchanged by Masterplan proposals; following completion of pitch construction and new planting
Undertake new planting following reconfiguration of area/construction of 3G pitches	In association with/following construction

PRINCIPAL AREA: Southern playing fields

Description

Area comprises two areas of pitches, St. John's playing fields (west of Cats & Dogs Home) and Limekiln Fields to east.

St John's Field is openly apparent in views from site entrance and below parkland trees along the eastern side of Norwood Road. The southern boundary is defined by a hedgerow and trees along Claverton Down Road (covered by TPO) which provides screening of views into the campus as well as contributing to the green character of the road. The eastern boundary supports a belt of trees (notably poplar) and a partial hedgerow with some other shrub planting which provides screening to the adjoining Cats/Dogs home and a residential property. The northern boundary is defined by vegetation along The Avenue.

Limekiln Fields is a discreet rectangular area of pitches formed by cut and fill creating steep banks along parts of their western and eastern sides. To the east of the pitches is an area of woodland with a fringe of grassland, scrub and young mixed trees; this extends around the southern side where there are three residential properties. The western side is defined by a partial hedgerow and belt of semi mature and mature trees providing some screening to the Cats/Dogs Home. The northern boundary (located on the southern side of The Avenue) is formed by an area of young mixed planting with some mature/over mature beech trees forming part of The Avenue.

Relevant statutory constraints

- Within WHS.
- Within Green Belt.
- Within AONB.
- SNCI along eastern boundary of Limekiln Fields.
- Public right of way on west boundary of Limekiln Fields (linking Claverton Down Road and The Avenue) which forms part of Bath Skyline walk.
- TPO trees (refs. W1, W16, and W14-W15 on southern side of The Avenue).

OPPORTUNITIES AND OVERALL STRATEGY

- No changes proposed for area in new Masterplan.
- Overall strategy is to manage existing vegetation to maintain visual containment, restocking where trees need to be felled for safety/disease/management reasons, enhancing screening adjoining the Cats/Dogs Home and maximising opportunities for enhancing habitat diversity.
- Improve surface footpath of public footpath.

Landscape management strategy

- Maintain and enhance visual containment of the playing fields from external viewpoints (except St John's Field in views from campus entrance/Norwood Avenue).
- Maintain and enhance screening along boundary with Claverton Down Road, particularly with the use of native shrub and understorey planting where space exists between pitch surrounds and existing boundary vegetation.
- Define areas for infrequent mowing of grass along northern fringe of vegetation on boundary with Claverton Down Road (consistent with sports pitch run-off/spectator requirements) and along steep banks in Limekiln Fields and manage accordingly.
- Maintain a diverse vegetation structure within the area between the pitches at Limekiln Fields and the eastern boundary woodland, favouring better quality trees, shrub edges, interspersed with areas of unmanaged grassland.
- Maintain screening to adjoining residential properties.
- Maintain and improve screening of and Cats/Dogs Home by reinforcing boundaries as necessary with native hedgerow species (consider laying and reinforcing hedge on east side of Cats/Dogs Home) to create more robust boundary and screen.

Tree management strategy

- Survey Areas 1, 2and 3 of Tree Survey 2018/ 2019.
- Mixed aged woodland.

- Young developing tree groups of high density requires thinning. Formative prune remaining young trees.
- Define compartments in larger mature woodland areas and instigate phased coppicing programme of understorey on a 10 -15 year rotation.
- Create glades within mature woodland to allow installation of succession planting and accommodate areas of unmanaged grassland.
- Over mature beech along eastern boundary are in decline; remove selectively and install specimen trees to reinforce boundary.
- Scallop and coppice woodland edge trees to form graduated woodland edge descending into grassland habitat.
- High percentage of ash along eastern boundary, both within and adjacent to site, prone to ash die-back. Remove as necessary to maintain safety and install replacement and succession planting to reinforce boundary as ash decline develops.
- Install boundary planting along east side of sports field with dogs' home to mitigate future loss of group 4001/3 Poplar.

Ecology/biodiversity management strategy

- Trees along the boundaries should be managed to retain and strengthen the corridor for foraging and commuting bats (as well as screening).
- Reduce dead trees to monoliths 3-4 metres in height; coronet cuts to ends of main limbs and cut natural nest boxes into trunks.
- There shall be no light spill onto boundary vegetation to ensure that opportunities are maintained for wildlife, including horseshoe bats. If lighting is required in future, it must be directional to ensure no light spill onto these boundaries, or will need to include operational timing restrictions with consideration to bats.
- Additional native planting should be proposed along the existing footpath on the western boundary of Limekiln Field to provide additional commuting opportunities for bats.
- Banks located adjacent to the proposed pitches should be left as longer grassland edges, or created into wildflower areas, to enhance opportunities for wildlife.

Anticipated phasing of main works

Operation	*Anticipated timescale*
Develop and implement proposals for reinforcement of vegetation/creation of grassland edges along southern side of St John's Fields	Years 3-5
Reinforce boundaries to Cats & Dogs Home	Years 3-5
Define additional areas at Limekiln Fields suitable for longer grass/wildflowers and manage accordingly	Year 1
Thin young tree groups to favour better quality trees and create graduated woodland edges	Years 3-5
Selectively remove declining ash (where no health & safety risk/reduction of important screening some may be left to provide deadwood/reduced to monoliths)	As required
Improve footpath surfacing	Years 1-2
Provide additional planting along footpath route	Years 3-5

PRINCIPAL AREA: Sulis Club

Description
The Sulis Club is separate from the main campus and comprises a large level rectangular area of playing fields with a building containing changing rooms, a bowling green, disused hard tennis courts, and associated car parking. Mature conifer belts define the western boundary with Ralph Allen School and the eastern boundary with an adjacent field (and SNCI). Fencing and some trees define the southern boundary with an area of grassland falling towards a block of woodland. The northern boundary is defined by a stone wall along the southern side if Claverton Down Road with some semi mature trees along the north western part.

Relevant statutory constraints
- Within WHS.
- Within Green Belt.
- Within AONB.
- Public right of way at north east corner, crossing field east of site (a SNCI).

OPPORTUNITIES AND OVERALL STRATEGY
- No proposals for area within new Masterplan.
- Improve landscape structure and biodiversity where opportunities exist around fringes of area.
- Obligation to undertake planting as part of offsite mitigation proposals for SoM included in S106 (as shown on Enderby Associates approved dwg no. 418/01 Rev. B).

Landscape management strategy
- In accordance with the S106 obligations:
  - Replace the inappropriate and overbearing conifer belts with belts of native tree and shrub planting, define by native hedges.
  - Undertake new tree planting along Claverton Road boundary
  - Plant new hedgerow with trees along southern boundary.
- Establish areas of infrequently mown grass along edges of new planting and elsewhere around site margins where sports uses allow.

Tree management strategy
- Surveyed in November 2017.
- Crown raise beech to maintain highway clearance along north boundary every 2-3 years and maintain clearance for mowing.
- Tree felling and planting as per section 106 obligations above.

Ecology/biodiversity management strategy
- Prior to works commencing, the site should undergo bat and nesting bird tree/building inspections and a badger walkover.
- Green corridors should be enhanced (this will be achieved by the new boundary planting to be undertaken in 2021/22 season) and maintained on site where possible, and any future development should consider a sensitive lighting scheme which does not allow additional light spill on the dark corridors present, using directional lighting and natural screens where possible.
- There are currently limited opportunities for wildlife. Installation of bat and bird boxes, as well as bug hotels will provide additional refuge for various species. These could be located in the areas of new planting.
- Strengthening of northern boundary, which contains a number of native tree species; this would be achieved by the new boundary planting to be undertaken in 2021/22 season.
- Potential to develop areas of infrequently cut grassland adjoining new areas of planting where this would not interfere with sports activities.

Anticipated phasing of main works	
Operation	*Anticipated timescale*
Implement removal of conifers and new planting	Programmed for 2021/22
Crown lift beech	Every 2-3 years as required
Define areas suitable for longer grass and manage accordingly	Following implementation

Secondary Areas

5.8 Maintenance and management of these areas will largely comprise general operations set out below. These will also include:

- Adapting/redesigning spaces where these are changed, or their context has altered as a result of the proposed new developments. This will form part of the planning applications for these developments.
- Tree surgery to avoid conflicts between trees and buildings.
- Thinning of overcrowded trees to favour better-quality long-term specimens (subject to any relevant TPO constraints).
- Improvements to the quality of spaces, including replacement of over mature/poor quality planting where necessary, reflecting the need for resilience in high-use areas.
- Designing out areas that are awkward/costly to maintain.
- Adapting spaces associated with the student residences to improve their amenity value and enjoyment and reduce their attractiveness to vermin.

General Maintenance and Management operations

5.9 The Estates Landscape Team (currently comprising 10 personnel) are primarily responsible for day-to-day grounds maintenance operations including maintenance of the sports pitches, weeding/weed control, pruning, grass cutting, new tree and shrub planting, litter and leaf collection. Specialist works, such as arboricultural work to trees, and management of sports pitches, are carried out by external contractors.

5.10 The University has recently adopted a set of Landscape Policies relating to estate management operations; a copy is provided at Appendix 6.

5.11 Landscape maintenance/management costs are increasing within the context of budgetary constraints. The University has therefore to be conscious of increasing costs and has to seek ways in which to maintain control of this expenditure. Fortunately, the creation of a more varied and diverse green infrastructure is often not inconsistent with a reduction in regular maintenance operations, where site specifics allow.

Soft landscape

5.12 The following habitats and landscape features form components of the green infrastructure network of the campus:

- Grasslands (amenity grassland and other areas)
- Grass sports fields

- Ornamental and semi ornamental shrub planting including hedges
- Herbaceous plants and annuals
- Parkland and free-standing trees
- Established trees, woodlands and scrub
- Native hedges/hedgerows
- Orchard
- Lake
- Drainage swales
- Exposed rock slopes.

Hard landscape

5.13 Hard landscape areas include:

- Paved surfaces
- Site furniture (signs, bins, tree grilles/guards, seating, planters, lighting, recreational equipment)
- Fences and enclosures
- Gravel footpaths
- Tennis and other hard courts
- Athletics track
- 3G pitches.

General soft landscape maintenance operations

General

i. Any works to trees on site are to be subject to a bat and bird assessment by a suitably qualified ecologist and should avoid the nesting bird season. Deadwood trees should be retained in situ as standing deadwood but only where health and safety allows.

Grasslands

i. Mow areas of amenity grass regularly to maintain an even and low growing sward. Wherever possible use mulching mowers, although the removal of clippings in areas close to buildings and thoroughfares may be desirable. At the time of each cut, trim all grass edges round the base of trees, manholes, etc. taking precautions not to damage tree trunks. Remove litter prior to mowing. Adjoining hard areas will be swept clear of cuttings and swept material removed.

ii. Any damage to the sward caused by pests (e.g., moles or rabbits), by vehicles or general wear and tear, would be reinstated by top dressing, re-cultivation, re-seeding/re-turfing and watering, at the correct season, as necessary. Any reinstated areas would be protected and subject to establishment maintenance. If grass growth is poor and/or to alleviate signs of wear and tear, it will be necessary in spring and / or autumn to apply fertiliser to the sward, at the manufacturer's recommended rates, to encourage vigour. Similarly, turf aeration and scarification may also be necessary, to alleviate compaction and control the development of moss and thatch.

iii. In more 'remote' areas that may be cut less frequently (once or twice per year) may be identified to create a more diverse range of species and habitat. Such areas may be alongside native hedges, areas of woodland and scrub, below tree groups, and within areas of amenity grassland that are more remote from the main areas of activity. In such areas, cuts are to be scheduled to allow natural seeding to take place prior to cutting to a height of no less than 150mm. Leave arisings for 3 days to allow seed and invertebrates to fall out, the collect and remove arisings. In remoter areas it may be preferable to kill the existing sward, and cultivate, prepare and re-seed with an appropriate wildflower seed mix appropriate to site conditions/soil type (such as those available from https://wildseed.co.uk/).

iv. Pernicious weeds (such as docks and creeping thistle) are to be spot treated/weed wiped with herbicide; any ragwort would be pulled out prior to flowering in accordance with current guidance, such as Code of Practice on how to prevent the spread of ragwort (https://www.gov.uk/government/publications/code-of-practice-on-how-to-prevent-the-spread-of-ragwort), including handling protection.

<u>Grass sports fields</u>

i. Sports fields are cut regularly to maintain the sward at an even height appropriate for the use.
ii. To maintain a healthy sward re-seeding/over-seeding, de-compaction, hollow-tining, de-thatching, and top-dressing is undertaken; fertiliser applications and herbicide treatments are undertaken as required with care taken not to extend beyond the immediate treatment area.

<u>Ornamental and semi ornamental shrub planting, including hedges</u>

i. Planting to be maintained in weed-free condition preferably by manual methods; use spot treatment of pernicious weeds.

ii. Composted bark mulch to be spread and maintained 75mm deep layer within all areas of planting until canopies close up; topped-up as necessary. Mulch to be applied/maintained along hedge lines until hedges are established (min. first 3 years).
iii. Pruning to take place as necessary (timing and method according to species) to maintain planting within bounds, avoiding obstruction of footpaths, signs, windows, etc.).
iv. Hedges to be clipped to maintain even shape and at desired height with clippings removed. Beech/hornbeam hedges cut in late summer; evergreen hedges in early spring. If cutting during bird nesting season a check for nesting birds is undertaken prior to commencement; if nests are in use clipping to be delayed within the vicinity until birds have fledged.
v. Where shrubs are reaching end of their normal life span, they will be either rejuvenated by hard pruned (where species will recover) or grubbed out and replaced. Pruning to be staggered over 2-3 seasons to maintain some structure/screening if necessary (such as to bin enclosures or other unsightly features).
vi. New/replacement planting to be undertaken ideally within the planting season for containerised plants (late September to April) to reduce the need for watering. species/varieties should be beneficial to wildlife (such as those that produce berries or flowers that are attractive to wildlife).

Herbaceous plants and annuals

i. Use of herbaceous plants and annuals to be minimised to reduce watering and maintenance/replacement costs, with use focused on areas of high activity, such as arrivals area and planters. Plants that have low water demand/tolerant of drier conditions (according to location) and which are beneficial to bees to be selected.

Parkland and free-standing trees

i. Trees to be maintained to promote healthy growth and development of balanced form.
ii. Where trees are in grass a mulched area of 1.5m diameter, free of grass, is to be provided and maintained until the tree has fully established (min. of 5 years) before the area is returned to grass.
iii. Where trees become diseased or require removal for other sound reasons, they should be replaced with an appropriate replacement (in accordance with Requirements set out in the Tree Policy). Trees should normally be replaced at Extra Heavy Standard size as a minimum.
iv. Tree species/cultivars are to be selected (as per Tree Policy) so that they are appropriate for the space available and their likely size at maturity. They should be planted sufficiently far from services and paved areas to avoid/minimise the risk of damage by

roots and sufficiently far away from buildings so that the trees may be allowed to develop their natural form without risk of unacceptable shading or the need for pruning.

v. All trees to be planted are to be of acknowledged value to wildlife.
vi. Trees are to be inspected as part of the periodic campus-wide Tree Conditions Survey (copy included in Appendix 4).

Established trees, woodlands and scrub

i. Natural areas of woodland, trees and scrub shall be allowed to develop naturally as an integral part of the primary green infrastructure framework of the campus, subject to the findings of periodic conditions survey. Works to be limited to those required for health and safety reasons, good woodland management to encourage a diverse, self-sustaining woodland, or to ensure the fulfilment of a particular landscape function (such as visual screening). Within areas of value for bats, the encouragement of a continuous tree canopy is of particular importance.
ii. In areas of more recent mass tree planting targeted thinning shall be undertaken to remove those trees that are diseased or severely damaged by disease or squirrels to allow the remaining trees to develop with natural form to maturity. Where sufficient space is created, or where screening needs to be reinstated, replacement tree planting shall be carried out to maintain the integrity and original objective (if any) of the planting, including the obligations of any planning condition(s).
iii. Where possible, natural areas are to be managed to create a layered structure with trees rising above an understorey of native shrubs; where such shrubs include hazel, these shall be coppiced on a 7-year rotation, where possible staggering the coppicing in each area over 2-3 years to create age and habitat diversity.
iv. Management of the edges of woodland shall encourage the maintenance/development of graduated and layered shrub edges.
v. The effects of ash die-back disease will be monitored through the Tree Conditions Survey. Where trees require felling, or where ash is the dominant species, alternative native trees species shall be planted as part of a specific phased management plan for the area to create greater diversity and resilience.
vi. Where it is safe to do so (and disease is not a risk), fallen or felled timber may be left/relocated and placed for habitat purposes (such as hibernacula).
vii. Ivy is to be removed from trees where recommended for the health/structural integrity of the trees in the Tree Condition Survey, subject to advice from ecologists with regard to the potential for roosting bats to be present.
viii. Unless there is a disease or health and safety risk tree stumps are to be left in place for biodiversity/habitat. Where vegetation is to be cut down it should be no lower than 20cm above ground level to avoid harm to hibernating wildlife, etc.

Orchard

i. Prune existing trees to prevent collapse/failure and rejuvenate condition.
ii. Provide new/replacement trees in accordance with an agreed replanting plan, incorporating older/rarer varieties.

Trees-general requirements

i. Tree Inventory surveys will be completed when the previous survey is deemed to be no longer fit for purpose (normally every 10-15 years).
ii. Walkover/negative tree surveys will be completed on an average 30-month cycle, unless more regular inspection is identified at the time of survey.
iii. All ash will be inspected annually when in full leaf to assess the development of ash die-back allowing timely action to be taken to minimise costs and the resources required.
iv. The presence of dead wood and fungal growth will be viewed as a positive attribute and retained where safety allows.
v. If works are required to trees covered by TPO no works shall be undertaken until the Council's formal consent to the works has been received; the same applies to works to any trees within Woodlands, The Lodge, Medical Centre, and woodland areas either side of the Quarry Road entrance that lie within the Conservation Area. In such instances the council may require replacements to be planted. If in doubt, advice should be sought from the University's consultant arboriculturalist and Council's Tree Officer.
vi. Works to all woody vegetation should avoid the bird breeding season (between February and October inclusive). If it is essential to undertake works during the bird nesting season, an ecologist should inspect the vegetation and surroundings (e.g., for ground nesting birds) prior to any works taking place; if nesting birds are found to be present works should be delayed until the ecologist has confirmed that nests have been vacated.
vii. Where replacement trees are/have been planted these shall be replaced like for like if they fail within 5 years (or as otherwise required as part of any relevant condition/consent).

Lake

i. Monitor water quality.
ii. Undertake annual checks (or more frequently if required) of the fountain.
iii. Monitor the lake annually for the presence invasive plant species and take appropriate action if such species are found in consultation with the University's consultant ecologist.
iv. Maintain the structural integrity of the pond margins for safety purposes; ensure warning signs are in place and visible.

v. Manage the vegetated margins to maintain a transition between marginal and immersive vegetation, retaining dense areas as quieter areas for resting/nesting birds.
vi. Discourage feeding of fish and wildfowl.
vii. De-silting. Unlikely to be required as the lake is fed by clean water. If de-silting is required an ecologist will be consulted for advice prior to any works taking place to ensure legal compliance, and a detailed Method Statement will be prepared.

Drainage swales

i. Maintain drainage swales allowing vegetation to develop naturally throughout the growing season (controlling pernicious weeds manually or treat with herbicide with a weed-wiper).
ii. Remove litter and cut down and remove vegetation in late autumn.

Exposed rock slopes

i. Maintain bare rock habitat on rock cuttings flanking parts of Quarry Road, removing self-seeded woody species such as Cotoneaster, ash and sycamore seedlings.

Miscellaneous

In addition to these specific requirements the following would be undertaken:

i. An annual inspection of bird boxes between October and February and replacement if in disrepair. If there is prolonged evidence of no use, consider relocating.
ii. Any mature trees identified for post-construction management actions will be inspected by a Natural England-licensed bat ecologist prior to the works. Trees that are considered to be of bat roost potential ('high' or 'moderate' potential under BCT Guidelines (2016)) will be subject to detailed survey as specified by the bat ecologist. If bats are recorded, an application for a Natural England Development Licence to undertake the management works will be made. Bat boxes on retained trees would be inspected annually, between September and October, and replaced as required.
iii. Inspection of hibernacula to be undertaken and observations recorded formally by an ecologist annually.
iv. Vermin control. The University has re-instigated a programme to control grey squirrels within the campus. This has been very successful in the 2018 and 2019 seasons. It will be continued on an annual basis, subject to review of the success of the programme in the previous season.
v. Green waste disposal – refer to University's Landscape Policies (Appendix 6).

vi. Use of peat - refer to University's Landscape Policies (Appendix 6).

5.14 Tree species for new planting

i. New trees to be selected in accordance with the requirements set out in section 8 of the Tree Policy.

General hard landscape maintenance operations

i. Site furniture, such as seating, litter bins, cycle stands, low level lighting is to be inspected every month with repairs/replacements and cleaning being undertaken as required.
ii. Hard surfaces are to be maintained free of weeds and debris. Where paving becomes uneven such as to cause a hazard it will be repaired as necessary.
iii. The condition of gravel paths is to be inspected annually with any rutted or deteriorating surfaces repaired accordingly.
iv. All paths, including public rights of way, are to be maintained free of obstructions at all times.
v. Regular checks will be undertaken, and litter will be removed on a weekly basis.
vi. The condition of signs is to be inspected on a bi-annual basis. Signage will be updated, or new signage provided as required to assist legibility within the campus, particularly as new facilities are constructed.
vii. Fencing and gates will be inspected every 3 months and repaired/replaced as necessary.
viii. During freezing conditions during the winter months, the University will ensure that paths and roadways are treated accordingly to maintain safe use.

Health and Safety

5.15 The Estates management team will comply with all relevant health and safety legislation (as required by the Health & Safety at Work Act 1974) and Codes of Practice, and University Health & Safety policy.

5.16 Grounds maintenance staff are to be kept up to date with relevant current practice and subject to appropriate training. If staff are not suitably trained for particular operations consideration shall be given to outsourcing such work to competent contractors.

5.17 Operatives shall be appropriately trained for the machinery they are required to operate; this includes the handling and application of herbicides/pesticides. The University recognises that it is important that users (or those who cause or permit others to use pesticides or herbicides) not only comply with the authorised conditions of use but also use products in a

responsible and sustainable fashion. The University will comply with the Guidance for those affected by the Plant Protection Products (Sustainable Use) Regulations 2012, Code of Practice for Using Plant Protection Products, and all other relevant legislation and Codes of Practice that may be published from time to time.

Biodiversity Net Gain overview

5.18 Based upon the Masterplan, Ecosulis have undertaken a strategic assessment of the potential for Biodiversity Net Gain that may be achieved with the implementation of the Masterplan proposals and strategies set out in this LEMP. Details are provided in Appendix 7.

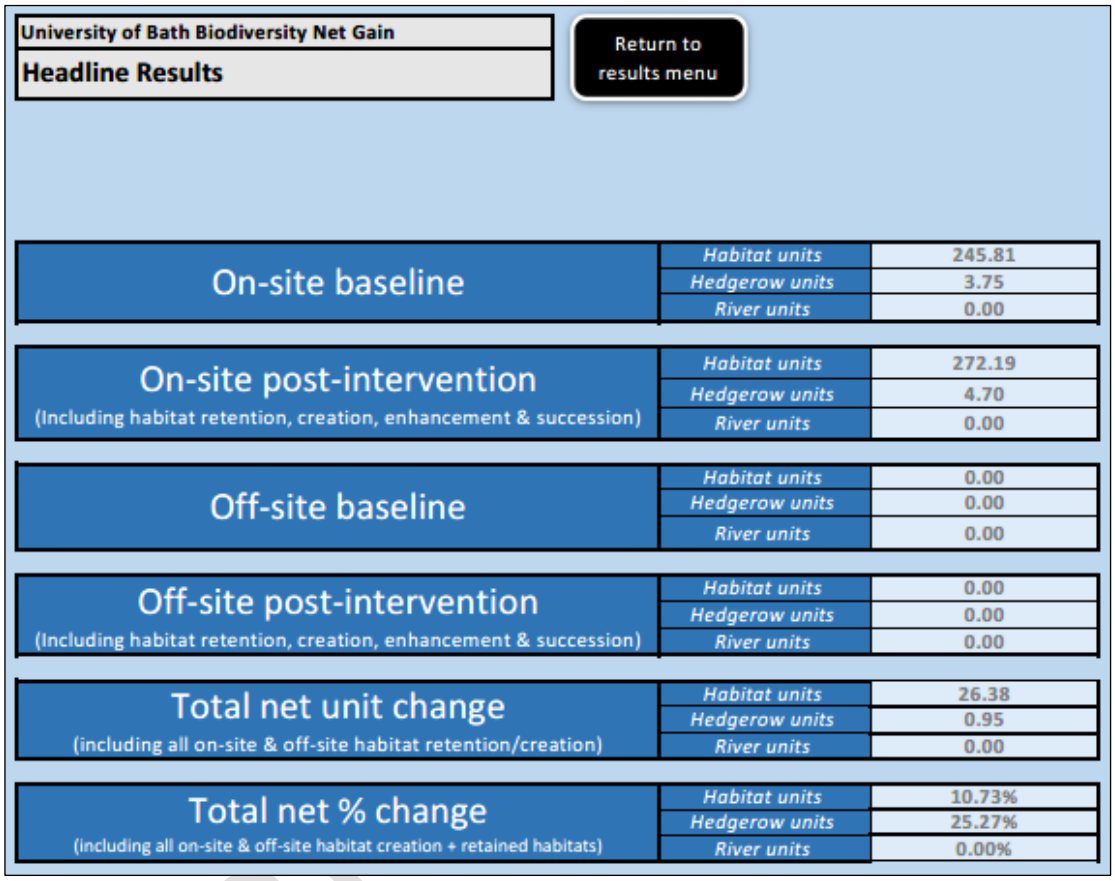
5.19 For the purposes of the calculations, the site was broken down into the 13 areas (as defined in figure contained in the above Appendix). This makes it easier to calculate the baseline units and assess the potential post-development units, which have been based on the strategies for each of the Principal Areas. This assessment is summarised in the table below.

Areas	Site area	Existing biodiversity units	Potential additional biodiversity units
Southern playing fields	8.3ha	47.96	26.32
Norwood Avenue	1.05ha	7.33	0.68
The Avenue	2.27ha	15.91	3.83
Convocation Avenue	1.04ha	8.79	0.39
Eastern playing fields	10.51ha	16.57	3.26
Eastern Boundary	2.16ha	6.78	9.87
University Park	4.6ha	28.12	26.51
Northern boundary (west)	1.83ha	8.97	11.53
Northern boundary (east)	2.2ha	19.36	22.62
South western boundary	2.72ha	23.87	26.37
Arrivals hub*	1.14ha	1.68	-
Woodlands/North Road access*	0.76ha	5.49	-
Remaining Areas (Academic Core)*	25.43ha	44.31	-

Note: There are no specific management proposals defined for the Arrivals Hub, the Central Core, and Woodlands/North Road access; any potential additional biodiversity units have not been included in the calculations.

5.20 All of the habitats currently on site have been assessed to provide a total net unit change of 26.38 if the appropriate habitat conditions are met following the implementation of the management strategies defined for the Principal Areas and their constituent features. This equates to an overall potential net change of 10.73%, as shown in the summary table output

from the Biodiversity Metric below. This exceeds the 10% required by the Government's Environment Bill, which aims to deliver at least a 10% improvement in biodiversity value. It is envisaged that there will be opportunities to increase these gains, particularly as the Masterplan proposals are developed and designed in detail.



University of Bath Biodiversity Net Gain

Headline Results

Return to results menu

On-site baseline	*Habitat units*	245.81
	Hedgerow units	3.75
	River units	0.00
On-site post-intervention (Including habitat retention, creation, enhancement & succession)	*Habitat units*	272.19
	Hedgerow units	4.70
	River units	0.00
Off-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation, enhancement & succession)	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention/creation)	*Habitat units*	26.38
	Hedgerow units	0.95
	River units	0.00
Total net % change (including all on-site & off-site habitat creation + retained habitats)	*Habitat units*	10.73%
	Hedgerow units	25.27%
	River units	0.00%

6.0 MONITORING AND RESPONSIBILITIES

6.1 The LEMP is to be reviewed periodically (at least every 5 years) and updated if significant material changes are required, such as to reflect significant changes brought about by new developments within the campus, and the programming and progress of management activities. It shall also be reviewed as subsequent reviews of the Local Plan come forward, and particularly in relation to the campus specific SB19 policy (or successor policy).

6.2 As such it is to be regarded as a flexible document that will respond as necessary to any significant changes that may be required as a result of planning policy, the advancement of significant developments within the campus (based on the Masterplan), and any changes that may be necessary to respond to site circumstances (such as changes in management required within any of the Principal Areas as a result of climate changes/tree disease, etc.).

6.3 Any changes are to be agreed formally with B&NES.

6.4 An annual/biannual monitoring survey would be undertaken by an ecologist and findings regarding habitat condition and species diversity would be recorded. These would inform any necessary adjustments to the LEMP and estate management activities.

6.5 The Estates landscape team, under the overall direction of the Director of Estates (DoE), will be responsible for ensuring that the landscapes, habitats and features within the campus are managed and maintained in accordance with the requirements of the LEMP. If any particular area or feature requires a significant alteration in approach this will be reported to the DoE and the LEMP adjusted accordingly.

6.6 The University are to maintain an electronic record of all principal works that are carried out in each of the PAs. In particular, it shall record works undertaken against the principal tasks and related time scales identified for each of the PAs, in a form based upon the pro-forma provided in Appendix 8.

6.7 The Director of Estates Operations is responsible for coordinating and overseeing all landscape, ecological and arboricultural management operations and shall be the main point of contact as follows:

Director of Estates Operations
Department of Estates
University of Bath
Bath BA2 7AY
Telephone: +44 (0)1225 384538

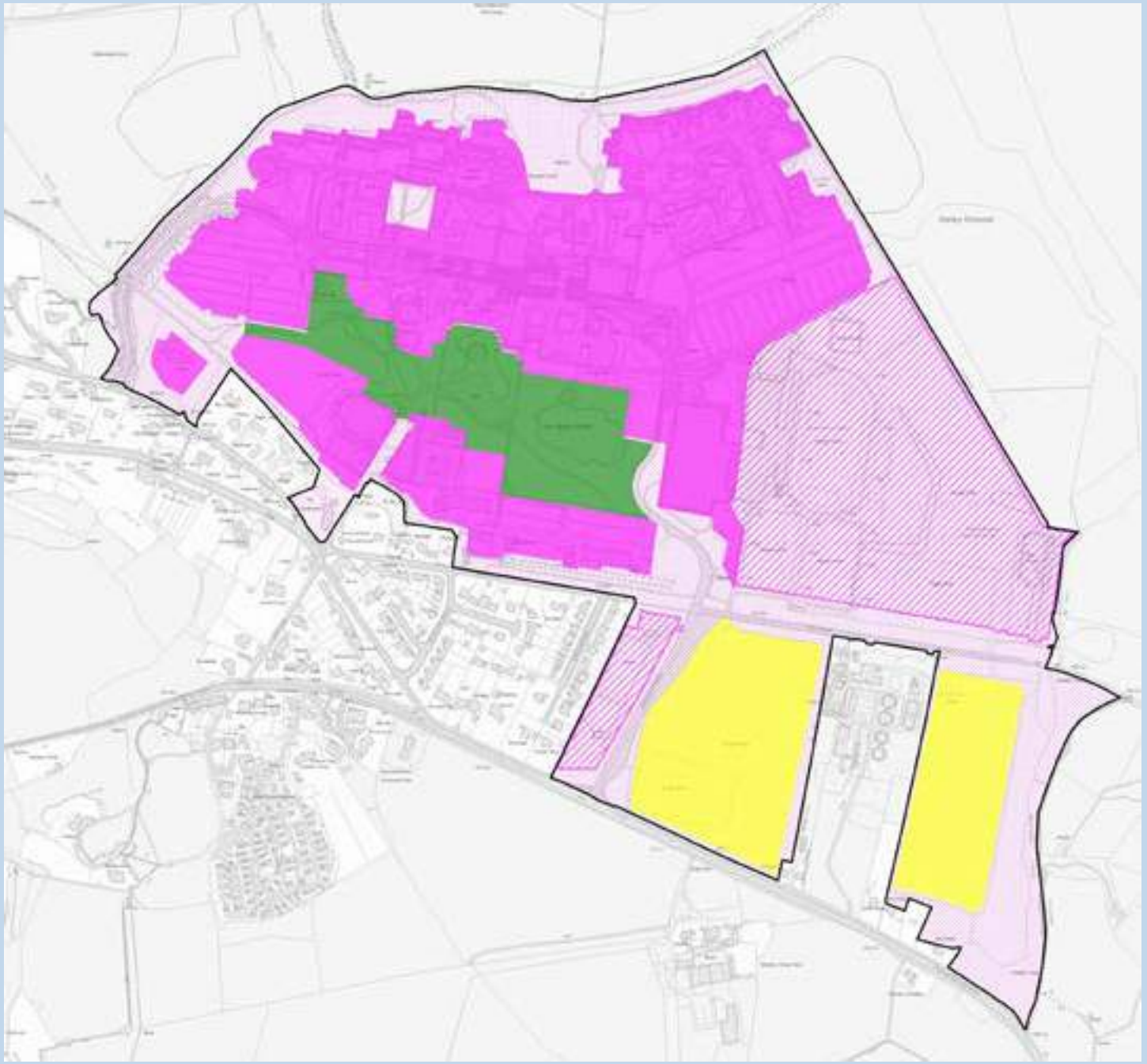
APPENDIX 1

Copy of Placemaking Plan Policy SB19

POLICY SB19 University of Bath at Claverton Down

Development Framework Plan

Claverton campus.



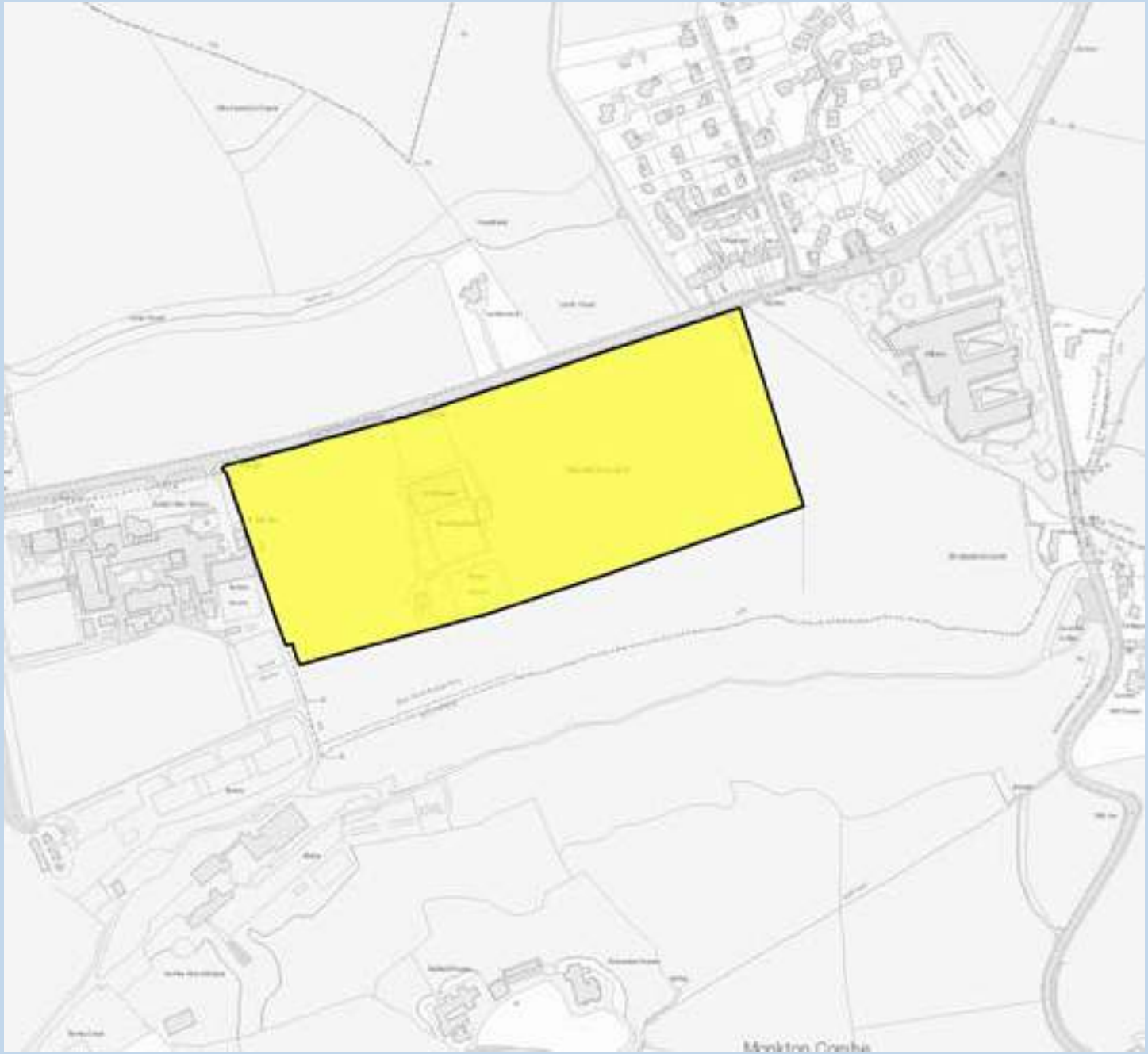
Placemaking Plan Policy

(See Key on page 118)

POLICY SB19 University of Bath at Claverton Down

Development Framework Plan

Sulis Club



Placemaking Plan Policy

Policy SB19

The campus, policy area and policy zones boundaries are identified on the Policies Map. The policy approach that applies within each policy zone as defined on the Policies Map is as follows:

1 Purple Zones (with no hatching) – areas of pre-existing development, including car parking, or fringe areas of the current central landscaped area, where redevelopment or new development for university-related uses is supported in principle. University related uses include space for learning, research and allied business incubation and knowledge transfer, conferences, university administration and IT and sports, health, creative arts, social, recreational and catering purposes, academic related retailing (e.g. a bookstore) and additional student residential accommodation. On-site convenience retailing of a proportionate scale to serve the needs of the academic and student community will also be considered as a university related use.

2 Purple Zones (hatched) – largely sport related development, pitches, tennis courts and a car park within the Cotswolds AONB where university related development is also acceptable in principle. In order to effectively manage development within the AONB and to ensure impact on the wider AONB is comprehensively considered, it will be necessary for the University to undertake a full and detailed assessment preceding planning applications that:

- establish the acceptable form and quantity of development; and
- sets out the effect on the AONB and SAC and how any negative impacts will be moderated; and
- describes how development will be integrated into the core of the campus, and its green infrastructure network.

The study is required to cover the whole of the Purple Zone (hatched), and its production should be guided by the latest version of the Cotswold AONB Management Plan. The study will need to demonstrably inform subsequent planning applications for development within this area.

3 Green Zone – the long term future extent of a precisely defined central landscaped area (the University Park), which has an important green infrastructure function and provides the setting to many developed parts of the campus, shall itself remain as an undeveloped yet enhanced open space as the remainder of the campus intensifies.

4 Yellow Zones – areas within which proposals for development will be judged against national planning policy within the NPPF on AONB and Green Belt, as relevant. For the Sulis Club this enables the redevelopment of previously developed land, within the parameters set by the NPPF.

5 Clear Zones – other undeveloped areas within the Claverton campus but outwith the University Park that shall remain free of development because of their multi-functional contribution to green infrastructure. This includes a 'hole' in the purple zone to the north of Wessex House. It will be necessary for clear zones to be established in respect of development affecting the purple hatched areas, guided by the general and area specific development principles, most notably in respect of the perimeter of the campus and the role this plays for protected species of bats. Linked to new development the clear zones should be invested in to maintain habitats and enhance their function.

General Development Principles

a Development on campus should contribute to the full spectrum of the University's needs, including academic space, all the accommodation space that is needed for the growth in the intake of first years from 2011 and a major share of the accommodation space that is needed for their subsequent years of study.

b In all circumstances, development should optimise the efficient use of developable land within the campus to maximise its floorspace within the constraints that are present, and whilst achieving good design. The siting, orientation, height, scale and massing of buildings, the landscaping response and the design of the spaces between buildings shall be determined having regard to the criteria in this policy and of other relevant policies in the Development Plan. The flexibility and adaptability of buildings will also be assessed in determining the overall quality of design.

c In all circumstances development will be assessed to determine the degree to which it affects the significance of the Bath World Heritage Site (by reference to the Bath World Heritage Setting SPD), the Bath Conservation Area, the Claverton Conservation Area, the Claverton Manor Historic Garden and the Bathampton Down Scheduled Ancient Monument (including by affecting their settings) and great weight will be given to their conservation and enhancement.

d In all circumstances where development would be visible to views from within the Cotswolds AONB (at Bushey Norwood, Bathampton Down, and Claverton Down, or from within the Limpley Stoke Valley at places such as Warleigh and Conkwell), it should respond to this context and its visual impact must be moderated with a suitable design response including suitable (immediate and longer term) mitigation measures, including any opportunities to enhance the AONB. Impacts on the AONB will need to be evidenced in an LVIA, the scope of which should be set out in consultation with the LPA, Natural England and the Cotswold Conservation Board.

e If under the terms of the NPPF in respect of Green Belt and AONB, development were to be evidenced as being acceptable in principle within the Green Belt or AONB through the demonstration of very special circumstances at St Johns Field, Lime Kiln Field or at the Sulis Club (the yellow zone), all general design principles will continue to apply in order to achieve good design and mitigate harm. Zonal approach 2 would also become highly applicable.

f In all circumstances the design response should be evidenced as contributing positively to a campus wide strategy for green infrastructure, landscape and ecology (particularly in respect of protected species of Bats). These matters should be intrinsic to development, which should enable the creation protection, enhancement and management of networks affecting the campus. If it is necessary to cause harm to a network, this should be minimised and suitable compensatory measures must be made within the campus.

g As part of a campus wide strategy and to implement its Travel Plan all development proposals should enable sustainable transport choices to be made travelling to and from and within the campus. This includes retaining but not increasing an operational level of car parking of not more than 2,200 spaces so as not to harm the patronage of sustainable transport modes, their viability, or cause additional car trips to and from the campus.

h Decked parking as part of any reorganisation of parking supply and/or optimising development capacity should meet the design related criteria of this and other policies.

i The loss of publically accessible playing pitch capacity to other types of development will only be permitted if that capacity is replaced elsewhere within the city or its immediate environs. Any reduction in non-publically accessible capacity is a matter for the University as it weighs this resource against its overall institutional and campus priorities.

j In all circumstances lighting shall be designed to minimise the amount of dusk to dawn illumination on the campus and light spill from the campus to moderate the impact of development on the AONB, the significance of the World Heritage Site and protected species (bats).

Placemaking Plan Policy

Area Specific Development Principles

k Buildings sited between the Chemistry Building, Quarry Road and the West Car Park, or on it, shall be sited and designed to address this area's elevated location on the edge of the escarpment. Further, the design response should not adversely affect the residential amenity of properties to the south on North Road and should positively address the proximity of the Bath skyline walk, by retaining an attractive visual edge to the campus. This is currently an extensive, tranquil, green and pleasant corner of the campus and thus special regard should be had to general principle (f) and the maintenance of GI links between it, the central landscaped area and Sham Castle Field.

l Whilst the green bank opposite the Sports Institute is not unattractive, it contributes to a weak and confined sense of arrival. The Development Framework shows that the northern part of this bank, leading into the eastern end of the core structure of the bus terminus and the east car park has development potential. The potential of this whole area should be optimised and an improved image and sense of arrival/departure created around the optimum location of the bus terminus. In association, to the south of this area (beyond the purple zone) the southern part of the green bank opposite the Sports Institute should be opened up to create views to the University buildings across the central landscaped area to the main structure beyond.

m Between the Chancellor's Building and the areas of student accommodation is an undeveloped area that provides visual relief. This is not a hole in the purple zone but the placement of any structures within it will need to have special regard to general development principle (f) and the need for the campus to provide areas for informal recreation and visual relief from high density development.

n Development on the southern car park should not adversely affect the residential amenity of properties to the south and special design regard should be had to the changing appearance that development in this area could cause to views from The Parade and from outside the campus.

o The Tennis Courts on Norwood Avenue, if redeveloped, are only suitable for development of a height and use that respects and is compatible with the amenity of residential properties on Beech Avenue. That amenity does not include the maintenance of residents' views from Beech Avenue over the AONB as this is not a material planning consideration. The Norwood Avenue approach should remained tree lined.

p Further to the provisions for policy area (2) the design of development on the eastern playing fields should be landscape–led given its largely undeveloped nature and location within and potential to affect the qualities of wider AONB. Special attention should be paid to addressing general criteria (d) (f), and (j) and boundary treatments, paying particular regard to the impact of development on SAC bats and views from the wider Cotswold AONB.

Other Matters to be Addressed

q Proposals for further first year student accommodation should set out how the University expects the consequent follow-on accommodation needs so generated will be met and how this is compatible with the overall sustainable development of the city.

APPENDIX 2

Schedule of more recent planning applications and related obligations

	A	F	G	H	I	J
1	**LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN - SCHEDULE OF MORE RECENT PLANNING APPLICATIONS**					
2						
3	**Planning Application**	**Planning Obligation / Condition**				
4	**Name**	**Details**	**Location / Build Name**	**Permitted/Discharged**	**Date**	**Notes/comments**
5	West Car Park, University. Of Bath Campus, Claverton Down, Bath. Erection of a new 6 storey university academic building at the western end of the Claverton Down Campus. Accommodation comprises of Teaching, Research and Office space.	Application approved with 15 conditions. Condition 14 requires implementation of landscape proposals prior to occupation	10 West	Yes	02/09/2014	See 16/01311/COND
6	West Car Park, University Of Bath Campus, Claverton Down, Bath. Discharge of conditions 3,6, 7 ,8, 11 and 15 of application 14/00953/FUL (Erection of a new 6 storey university academic building at the western end of the Claverton Down Campus. Accommodation comprises of Teaching, Research and Office space)	Discharge of various conditions re site investigation, contamination, remediation, drainage archaeology, materials and tree protection.	10 West	Yes	13/04/2015	
7	West Car Park, University Of Bath Campus, Claverton Down, Bath. Discharge of conditions 12, 13 and 16 of application 14/00953/FUL. (Erection of a new 6 storey university academic building at the western end of the Claverton Down Campus. Accommodation comprises of Teaching, Research and Office space)	Discharge of conditions re lighting, materials, Sulis club temporary parking	10 West	Yes	11/02/2015	
8	West Car Park, University Of Bath Campus, Claverton Down, Bath. Discharge of condition 9 of application 14/00953/FUL (Erection of a new 6 storey university academic building at the western end of the Claverton Down Campus. Accommodation comprises of Teaching, Research and Office space)	Archeaology condition	10 West	Yes	10/11/2014	
9	University Of Bath, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7PB. Discharge of condition 10 of application 14/00953/FUL (Erection of a new 6 storey university academic building at the western end of the Claverton Down Campus. Accommodation comprises of Teaching, Research and Office space)	Archaeology, including disharge of post excavation analysis	10 West	Yes	10/11/2014	
10	West Car Park, University: Of Bath Campus, Claverton Down, Bath. Discharge of conditions 4,5 and 14 of application 14/00953/FUL (Erection of a new 6 storey university academic building at the western end of the Claverton Down Campus. Accommodation comprises of Teaching, Research and Office space.)	Condition 14 - New planting and landscape works shall be carried out in accordance with details as shown on dwg reference 10WEST-AWW-A-DWG drawing 0165 as submitted.	10 West	Yes	20/06/2016	Discharge of various conditions including remediation, and landscape as dwg 10WEST-AWW-A-DWG drawing 0165. Email confirms planting season to be Oct 16-April 17. Works complete

	A	F	G	H	I	J
4	**Name**	**Details**	**Location / Build Name**	**Permitted/Discharged**	**Date**	**Notes/comments**
11	Block 4E, University. Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. Construction of a new academic facility on the south side of the Campus to provide additional accommodation and associated external works	Development approved, with 15 conditions	4 East South	Yes	08/09/2014	
12	Block 4E, University: Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. Discharge of conditions 3,6,7, 10 and 15 of application 14/01 036/FUL (Construction of a new academic facility on the south side of the Campus to provide additional accommodation and associated external works)	Conditions 3,6,7,10,15 relating to the development (not landscape; condition 15 re lighting related to ecology)	4 East South	Yes	16/01/2015	
13	Block 4E, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. Discharge of conditions 8 and 14 of application 14/01 036/FUL [Construction of a new academic facility on the south side of the Campus to provide additional accommodation and associated external works]	Conditions 8 (archaeology) and 14 (tree protection)	4 East South	Yes	25/06/2015	
14	Block 4E, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. Discharge of conditions 11, 12 and 13 of application 14/01 036/FUL (Construction of a new academic facility on the south side of the Campus to provide additional accommodation and associated external works.)	Discharge of Conditions 11 - Hard and Soft Landscaping; 12 -Replacement planting; 13 - Hard Landscaping re. 14/01036/FUL	4 East South	Yes	28/04/2016	Hard and soft landscape schemes approved. Strategic planting as dwg 002- UA004586-02 as submitted, approved. Works commenced and fully implemented by planting season after occupation.
15	Bobsleigh Track Sports Training Village. University. Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset. Provision of new training facilities for Bobsleigh, Skeleton & Modern Pentathlon elite athletes, including alterations to the existing start track and shooting range. Provision of a new Modern Pentathlon shooting range next to the athletics track.	Provision of new facilities. Condition 2 relates to implementation of tree protection. Condition 3 requires submission of landscape scheme, and implementation in accordance with condition 4. Condition 5 requires approval of Wildlife protection and enhancement scheme. Also imposes lighting conditions (6 & 7).	Bobsleigh, Sports Training Village	Yes	09/06/2014	Completed

	A	F	G	H	I	J
4	**Name**	**Details**	**Location / Build Name**	**Permitted/Discharged**	**Date**	**Notes/comments**
16	Bobsleigh Track Sports Training Village§, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset. Discharge of condition 5 of application 14/00315/FUL (Provision of new training facilities for Bobsleigh, Skeleton & Modern Pentathlon elite athletes, including alterations to the existing start track and shooting range. Provision of a new Modern Pentathlon shooting range next to the athletics track.)	Condition re 14/00315/FUL. Condition 5 re wildlife protection/enhnacement scheme (Ecosulis) condition discharged.	Bobsleigh, Sports Training Village	Yes	28/10/2014	Completed
17	Bobsleigh Track Sports Training Village. University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset. Discharge of conditions 3,4, 7a and 7b of application 14/00315/FUL (Provision of new training facilities for Bobsleigh, Skeleton & Modern Pentathlon elite athletes, including alterations to the existing start track and shooting range. Provision of a new Modern Pentathlon shooting range next to the athletics track)	Conditions re. 14/00315/FUL. Condition 3 - soft landscaping; 4 -soft landscaping ; 7a - lighting ; 7b - lighting. Conditions 7c, d, e outstanding	Bobsleigh, Sports Training Village	Yes	02/12/2015	Completed
18	Rooms 27-39 3 Derhill Terrace, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7JY. Fell 2x Norway Maples to improve ground conditions and light into building. Replace with 2x ornamental trees.	Fell and replace with 2 trees	Derhill Terrace	Yes	19/03/2018	
19	Sports Training Village. University Of Bath Campus, Claverton Down, Bath, BA2 7BT. TPO 51 - Norway Maple -fell to provide vehicle access for fire engines and refuse lorries, TPO 718 - Group of Hornbeam and Magnolia -fell because with in footprint of proposed extension, TPO 719- Norway Maple- fell to provide vehicle access for fire engines and refuse lorries, TPO 720 - Saucer Magnolia - fell to allow access to existing plant room for replacement of equipment. Replacements for all to be planted in Lime Kiln Woodland Boundary.	Approvd subject to the Conditions: The tree(s) to be felled shall be replaced by another tree(s) in a position and of a size and species to be first agreed in writing by the Local Planning Authority before the end of the next planting season. A replacement planting of tree species to be agreed at size 10-12 cm girth is to be planted in Lime Kiln Woodland within 1 year of the date of felling	Gym Extension, Sports Training Village -	Yes	24/05/2017	Felling of trees approved with replacements in Lime Kiln Wood (no plan provided). Discharged
20	University. Of Bath, University. Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7PB. Erection of two storey research building (Use Class D1) and associated infrastructure and landscaping	Approved subject to 11 conditions. Condition 5 - compensatory tree planting to be carried out as per details in Apx 7 of DAS. Condition 6 requires submission of detailed AMS. Condition 7 requires AMS compliance certificate to be submitted to LPA.	Milner Building	Yes	11/03/2016	

	A	F	G	H	I	J
4	**Name**	**Details**	**Location / Build Name**	**Permitted/Discharged**	**Date**	**Notes/comments**
21	University. Of Bath, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7PB. Discharge of conditions 2, 3, 4, 6 and 10 of application 16/00269/FUL (Erection of two storey research building (Use Class D1) and associated infrastructure and landscaping)	Discharge of conditions 2,3,4,6,10 of 16/00269/FUL (2 - Construction Management Plan (CMP); 3 - Soakaway Design; 4 - Soakaway Maintenance; **6 -** Detailed AMS with Tree Protection Plan; 10- Targeted Recruitment and Training Scheme	Milner Building	Yes	20/12/2016	
22	University Of Bath, University Of Bath Campus, Claverton Down, Bath, BA2 7AY. Discharge of condition 7 of application 16/00269/FUL (Erection of two storey research building (Use Class D1) and associated infrastructure and landscaping)	Condition 7 of 16/00269/FUL re Arboricultural Method Statement refused as remediation not completed	Milner Building	No	31/10/2018	Completed
23	University. Of Bath, University. Of Bath Campus, Claverton Down, Bath, BA2 7AY. Discharge of condition 5 of application 16/00269/FUL (Erection of two storey research building (Use Class D1) and associated infrastructure and landscaping)	Condition 5 of 16/00269/FUL re compensatory tree planting to be carried out in accordance with the details within Appendix 7 of the Design and Access Statement.	Milner Building	Yes	15/07/2019	Discharged.
24	University. Of Bath, University. Of Bath Campus, Claverton Down, Bath, BA2 7AY. Discharge of condition 7 of application 16/00269/FUL (Erection of two storey research building (Use Class D1) and associated infrastructure and landscaping)	Condition 7 re Arboricultural Method Statement re 16/00269/FUL	Milner Building	Yes	14/08/2019	TM report submitted confirms tree protection works etc. complete and condition discharged
25	University Of Bath Campus, Claverton Down, Bath, BA2 7JY. Discharge of condition 11 of application 16/02345/FUL (Erection of 2no. student accommodation blocks providing 293 student bedrooms, amenity space, car parking, cycling provision, landscaping and associated external works)	Condition 11 re External Materials and Finishes	Polden (Polden Corner	Yes	29/05/2018	

	A	F	G	H	I	J
4	**Name**	**Details**	**Location / Build Name**	**Permitted/Discharged**	**Date**	**Notes/comments**
26	Site Of Two Proposed Residential Blocks, University Of Bath Campus, Claverton Down, Bath. Erection of 2no. student accommodation blocks providing 293 student bedrooms, amenity space, car parking, cycling provision, landscaping and associated external works.	Approval of Polden development with 12 conditions. Landscape subject of condition 8 and refers to approved drawings. Wildlife protection/enhancement plan subject to condition 6	Polden (Polden Court)	Yes	29/09/2016	
27	Two Proposed Residential Blocks, University Of Bath Campus, Claverton Down, Bath, Discharge of condition 6 of application 16/02345/FUL (Erection of 2no. student accommodation blocks providing 293 student bedrooms, amenity space, car parking, cycling provision, landscaping and associated external works)	Condition 6 - Wildlife Protection and Enhancement Scheme	Polden (Polden Court)	Yes	03/03/2017	Condition 6 discharged. Ecological mitigation measures installed (bat boxes etc). All completed
28	Sports Training Village, University Of Bath Campus, Claverton Down, Bath, BA2 7BT. Proposed new School of Management Building including new arrivals square, public realm enhancement, landscaping, cycle and motorcycling parking, disabled parking and other associated infrastructure works.	Permitted with 15 conditions including 'off-site' mitigation strategy which forms part of S106.	School of Management	Yes	25/07/2018	
29		Minor amendments to details of 18/01267/FUL	School of Management	Yes	01/08/2019	
30	Sports Training Village, University Of Bath Campus, Claverton Down, Bath, BA2 7BT. Discharge of condition 12 of application 18/01267/FUL (Proposed new School of Management Building including new arrivals square, public realm enhancement, landscaping, cycle and motorcycling parking, disabled parking and other associated infrastructure works.)	Monitoring and Supervision (Compliance) - tree protection. Requirement to provide site visit reports by arboriculturlist after each visit	School of Management	Yes	05/09/2018	On going project
31	.Sports Training Village~. University Of Bath Campus, Claverton Down, Bath, BA2 7BT. Discharge of conditions 3 and 4 of application 18/01267/FUL (Proposed new School of Management Building including new arrivals square, public realm enhancement, landscaping, cycle and motorcycling parking, disabled parking and other associated infrastructure works)	Conditions re 18/01267/FUL. Condition 3 - Archaeological Results (Pre-Commencement); Condition 4 - Post-excavation Analysis (Pre-occupation)	School of Management	Yes	10/12/2018	
32	University- Of Bath, University- Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7PB. Discharge of condition 2 of application 15/01534/FUL (Construction of a single storey building at the southern side of the University of Bath Campus to house communications equipment)	Condition 2 Tree protection re 15/01534/FUL	Southern Comms Room (nr 3 South part of 10 West works)	Yes	05/08/2015	

	A	F	G	H	I	J
4	**Name**	**Details**	**Location / Build Name**	**Permitted/Discharged**	**Date**	**Notes/comments**
33	University Of Bath, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7PB. Construction of a single storey building at the southern side of the University of Bath Campus to house communications equipment.	Permitted with 4 conditions. Condition 2 - AMS/TPP to be approved; condition 3 -works to accord with AMS	Southern Comms Rooms (3 South) part of 10 West Works	Yes	15/05/2015	
34	University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. Discharge of condition 4 of application 12/03069/FUL (Construction of a new Centre for the Arts connecting to the Arts Theatre following demolition of the Arts Barn)	Condition 4 of 12/03069/FUL re revised arboricultural method statement	The Edge (Centre for the Arts)	Yes	20/02/2015	
35	East Car Park, University Of Bath Campus, Claverton Down, Bath. Discharge of condition 8 of application 12/03055/FUL. (Construction of 708 student bedspaces and a refectory in two buildings and replacement car parking).	Condition 8 re soft and hard landscape details of 12/03055/FUL	The Quads	Yes	28/05/2014	
36	University Of Bath, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7PB. Works to various TPO trees	Various TPO tree works. Trees to be planted within 2 years of planning decision. One Copper beech to be planted as a replacement for tree 1472.	Various	Yes	22/05/2015	Completed
37	Sports Training Village, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. Provision of a new multi-purpose studio facility within the Sports Training Village at the University of Bath	Studio facility within STV	STV	Yes	13/06/2014	Did not go ahead
38	Sports Training Village, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. Hard and soft landscape, School of Management	Re-discharge of condition 13 re hard and soft landscaping of 18/01267/FUL following amendments to proposals	School of Management	Pending	Pending	
39	Sports Training Village, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. School of Management	Tree Planting Obligation under S106 Schedule 1 - Part 2 - Clause 7 of application 18/01267/FUL. Clauses 7 (a), (c) and (d) discharged.	School of Management	Yes	19/01/2021	
40	Sports Training Village, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. School of Management	Condition 13 of application 18/01267/FUL re hard and soft landscape scheme	School of Management	Yes	17/06/2020	
41	Sports Training Village, University Of Bath Campus, Claverton Down, Bath, Bath And North East Somerset, BA2 7BT. School of Management	Minor amendments to 18/01267/FUL	School of Management	Yes	01/08/2019	A36A35:J41A34:J41A33:J41A13:J41

APPENDIX 3

Summary of ecological surveys

ecosulis
People | Planet | Progress

M Whalley
The University of Bath
Claverton Down Campus
Bath
Somerset
BA2 7AY

Job reference: J006686

Dear Martyn

UNIVERSITY OF BATH, CLAVERTON DOWN CAMPUS

Ecosulis has undertaken a suite of ecology surveys at the University of Bath, as well as providing advice and consultation. This letter report outlines all works completed to date, any key findings, and recommendations. The majority of work completed by Ecosulis included advice given in relation to bats on site, specifically the greater and lesser horseshoe bats which are associated with the nearby Bath and Bradford-on-Avon SAC. Ecosulis has also been involved in the production of the Landscape Ecology Management Plan (LEMP), providing advice in relation to ecology and biodiversity on campus. Below is a list of all relevant works completed to date that will be discussed within this report:

- J006306 Claverton Down Campus Masterplan, PEA and Bat Surveys (2017)
- J006566 University of Bath Horseshoe Bat Activity Surveys (2019)
- J006567 University of Bath Winter Bat Survey (2019 - 2020)
- J006586 University of Bath Input into LEMP (2019 – present)

J006306: Claverton Down Campus Masterplan, PEA and Bat Surveys (2017)

In 2017 Ecosulis carried out an update ecology survey of both the main campus and Sulis club, as well as bat activity surveys. The purpose of this was to inform the proposed master planning of the south-eastern area of the campus.

Main campus PEA

The preliminary ecological appraisal of the main campus (Figure 1) found that the main habitat types on site were: buildings, hardstanding, semi-improved grassland, amenity grassland, standing water, scattered trees, woodland, bare ground, hedgerows, and stone walls. All habitats on site were managed as such provide limited opportunities for wildlife.

It was found that the woodland, scattered trees, standing water and hedgerows on site provided good foraging and/or commuting opportunities for bats. Bat activity surveys were commissioned alongside the PEA to determine the activity of bats onsite. In addition to bat activity, it was found that some of the trees and buildings provided roosting opportunities, though further surveys were required in order to assess this.

There were opportunities for nesting birds within trees and hedgerows, however no further surveys were recommended. It was therefore recommended that vegetation clearance would avoid nesting bird season or require a pre-check by an Ecologist. Nest boxes and retention of trees were to be considered.

No evidence of other protected species was recorded during the survey visit. There were limited opportunities for foraging badger, small mammals, and reptiles, and therefore no further surveys were recommended. It was recommended as an enhancement that areas could be left unmanaged with additional planting of nut and berry plant species to improve the green corridors across the site.

Sulis club PEA

The preliminary ecological appraisal of the Sulis club (Figure 2) found the main habitat types on site were: broadleaved scattered trees, coniferous scattered trees, stone walls, semi-improved grassland, amenity grassland, buildings, and bare ground. There were limited opportunities for wildlife at the Sulis club.

It was found that semi-improved grassland and scattered scrub habitats in the surrounding area provided opportunities for commuting and foraging badgers. The south facing bank provided sett building opportunities, though no setts were recorded, only mammal paths. A precautionary method of working was advised within these suitable habitats.

It was found that the boundary habitats provided opportunities for commuting and foraging bats. Therefore, recommendations in relation to developments included a sensitive lighting plan and retention of the boundary habitats and their associated connectivity where possible. Due to the suitability for bats and the proximity to the nearby Bath and Bradford-on-Avon SAC, a suite of horseshoe bat activity surveys were recommended for the site, which would inform on any additional required recommendations.

The trees and hedgerows were found to provide opportunities for nesting birds and it was therefore recommended that de-vegetation works would be undertaken outside of nesting bird season, or they would require a pre-check by an Ecologist.

Claverton Down Campus Horseshoe Bat Activity Surveys

In 2017 Ecosulis carried out a number of bat activity surveys for horseshoe bats, to inform the masterplan for the south-eastern area of the campus.

Low levels of bat activity were recorded across the site. The highest levels of bat activity were along the southern and eastern boundaries, within the central green belt and along The Avenue through the site.

A total of eight species were recorded, including common pipistrelle, soprano pipistrelle, noctule, *Nyctalus/Eptesicus* species, *Plecotus* species, *Myotis* species, and two Annex II species: lesser horseshoe and greater horseshoe.

Recommendations were as follows:

- Boundary habitats are to be retained with an appropriate buffer (10m for woodlands, 5m for hedgerows).
- Mature trees around the lake and green finger should be retained as dark corridors.
- Lighting levels should not exceed the current levels, a lighting scheme will be required.
- The LEMP should incorporate retention of habitat and additional planting of native species.

J006656: University of Bath Horseshoe Bat Activity Surveys 2019

In 2019, Ecosulis carried out an update horseshoe bat activity survey. This was to further support the masterplan which is being revised. During both the activity surveys and static detector recordings, horseshoe bats were recorded foraging and commuting most frequently along the eastern boundary of the site. The western edge of the transect also had similar numbers of horseshoe bats. The results of the 2019 survey were similar to those of the 2017 survey. More records of horseshoe bats were captured along the southern boundary in 2019 than in 2017.

Overall, surveys recorded moderate levels of common bat species along the boundaries of the site and the central parkland area. The rest of the site is subject to low activity levels. The two most commonly recorded species across the site were *Pipistrelle* and *Nyctalus/Eptesicus* species.

The enhancement and recommendations for ecology on site are the same as they were in 2017.

J006567: Winter Bat Surveys 2019 – 2020

Winter Bat Surveys were carried out to provide additional supporting information regarding horseshoe bat activity on the site. Similarly, to the previous surveys, activity of greater and lesser horseshoe records was predominantly within the southern and eastern boundaries. The recommendations for enhancement and ecology are the same as summarised above.

These results highlight that bats are highly likely to be roosting within or close to the site, making use of the dark boundary areas all year round for foraging and commuting. Emphasising the importance of these habitats for bat species.

J006586: University of Bath Input into LEMP

In 2019, Ecosulis was commissioned to provide ecological input into the landscape ecology management plan (LEMP) being produced for the site. The following recommendations have been made by Ecosulis. Please refer to Figure 4 for principal area locations and recommendations, and Figure 5 for designations.

Principal Area	**Recommendations made by Ecosulis**
Northern boundary (west)	• SINC – meadow habitat. Need to enhance this area for meadows, with occasional trees • Reduction in mowing regimes • Grassland left to grow around trees • Wildflower encouragement • Recreational areas subject to regular mowing • Minimal additional tree planting • Trees along northern boundary should be retained for bats and screening
Northern boundary (east)	• Woodland management • Tree thinning for understorey growth • Bat and bird assessment prior to works • Deadwood and bracken piles within woodland • Bat and bird nesting boxes
Eastern boundary	• Enhance buffer habitat – graded edge, no lighting onto buffers • Bat and bird assessment prior to works • Deadwood retained in situ if safe • Tree management along boundary
Eastern playing fields	• Bat and bird assessment prior to works • Deadwood retention where possible • Tree management to retain and strengthen corridors • Sensitive lighting scheme • Banks located next to pitche should be left to grow longer, with wildflower meadows
Convocation avenue	• Leave longer grassland edges and wildflower meadows are encouraged on banks for pollinators • Installation of bug hotels around footpaths • Grassland around trees left to grow to help green corridor, also encourages native seedbank re-establishment

Southern playing field east	• Buffer habitat already good, consider management to further enhance this. Wildflower strips around pitches. • Bat and bird assessment prior to works • Retention of deadwood where possible • Tree retention along boundarys • Sensitive lighting schem e • Additional native planting • Banks left unmanaged for wildflowers and longer grassland edges
Norwood avenue	• Planting native wildflowers for limestone grassland • Leaving wildflower areas unmown • Leave mature trees in situ where possible, including deadwood • Pre checks for bats and birds where trees require removal / felling • Replacement planting implementation with native species
The avenue	• Maintain continuous green corridor for horseshoe bats (and other wildlife) • Allow successional undergrowth where possible, or additional planting to strengthen corridor • Encourage graded edge to the northern boundary of the woodland vegetation, including additional shrubs and longer grassland edges
South west boundary	• Enhance vegetation for biodiversity – trees, bolster buffer • Grassland within the medical centre and surrounding the lacrosse pitch subject to reduce mowing to encourage herb species • Longer grassland around trees to encourage wildflowers • Arisings removed to compost areas to encourage herb diversity • Orhcard planting and management in medical centre grounds, provides foraging for people and wildlife • Bat and bird assessments for trees • Deadwood retention
University park	• Designed for biodiversity and people • Install bug hotels • Nest boxes in trees • Interpretation boards • Outdoor study areas • Allotments for students • Maintain habitat for nationally scarce Hornet Clearwing in poplars • Varied grass management strategy • Light sensitive scheme • Retain and manage existing trees and successional planting • Re-design parkland to improve flow and encourage student use • Wildflower strip creation • Brash and deadwood piles should be retained for small mammals/insects • Grass cutting piles for reptiles • Aquatic vegetation in lake should be retained and subject to minimal management

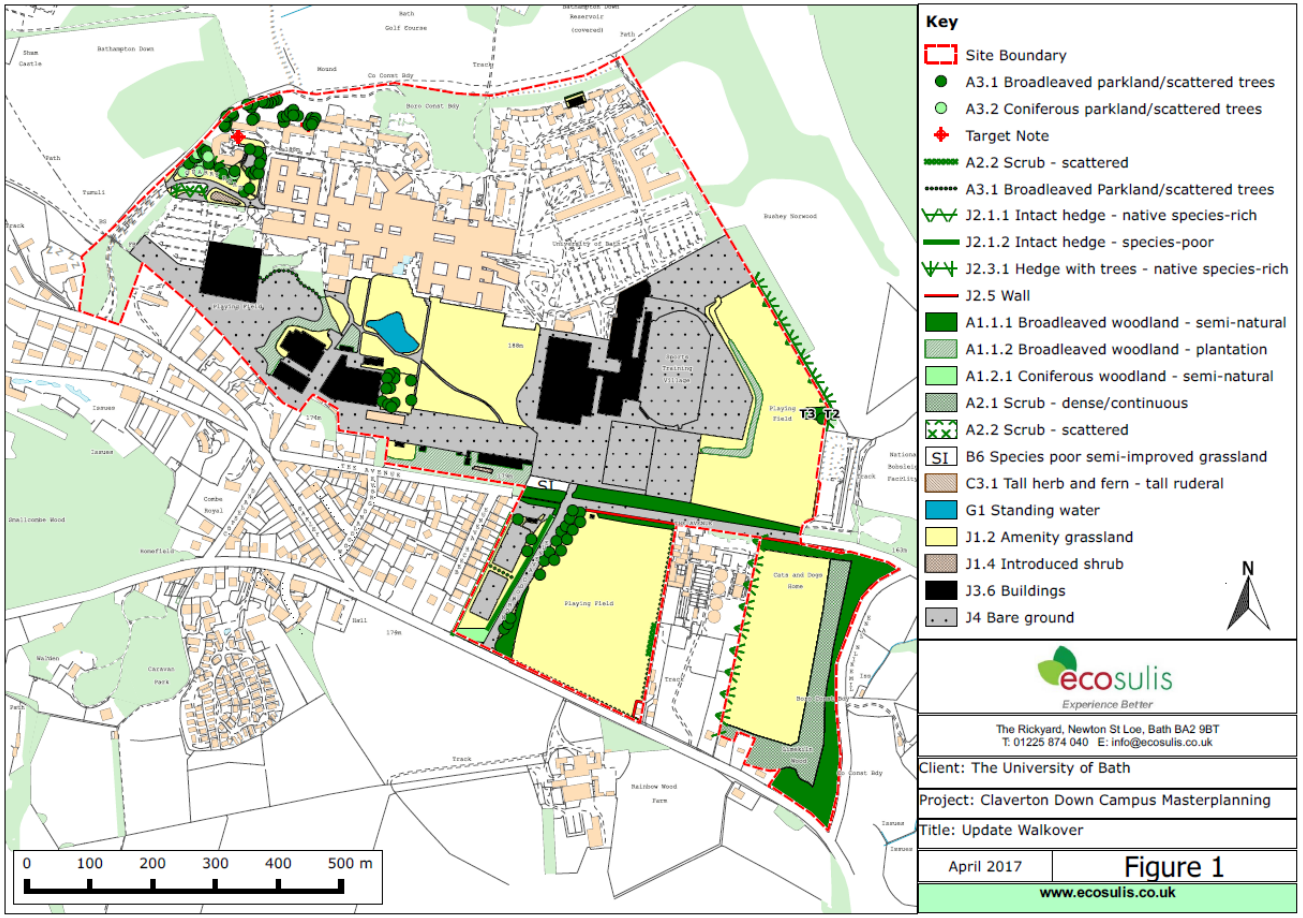
Western boundary quarry road	• Very constrained – need to protect existing vegetation • Bat and bird assessment prior to any works • Deadwood retention where possible • Reduced mowing regimes • Arisings moved to compost areas
Woodlands / North Road	• Bat and bird assessment prior to any works • Deadwood retention where possible
Sulis Club	• Bat and bird assessment prior to any works • Green corridor enhancement and maintenance • Sensitive lighting scheme • Bat and bird boxes and bug hotels • Strengthening northern border with additional native planting • Leave semi-improved grassland as unmanaged or wildflower bed

The above table highlights the recommendations made by Ecosulis for the principal areas of the site.

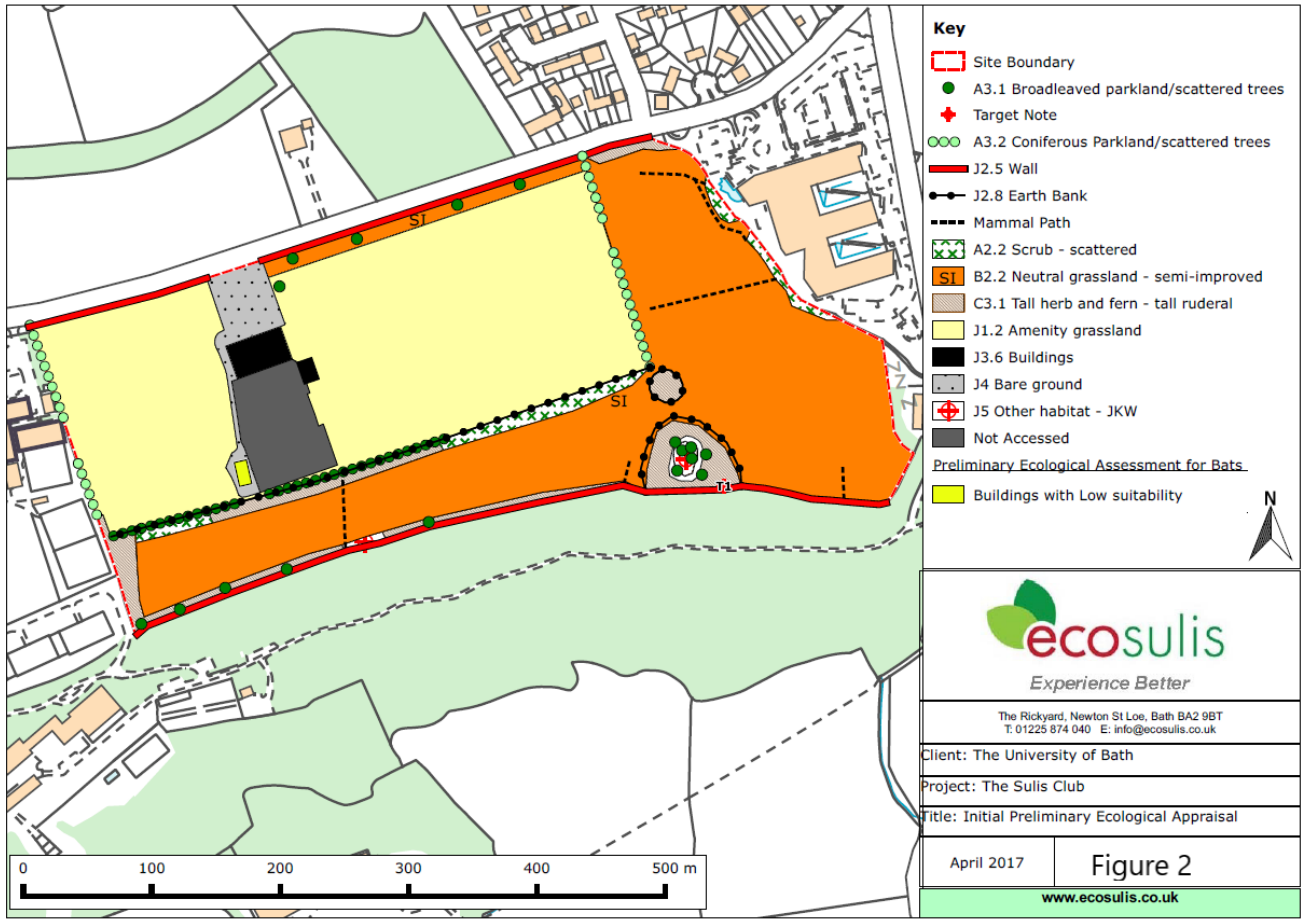
Kind regards

Chloe Tustain
Assistant Ecological Consultant

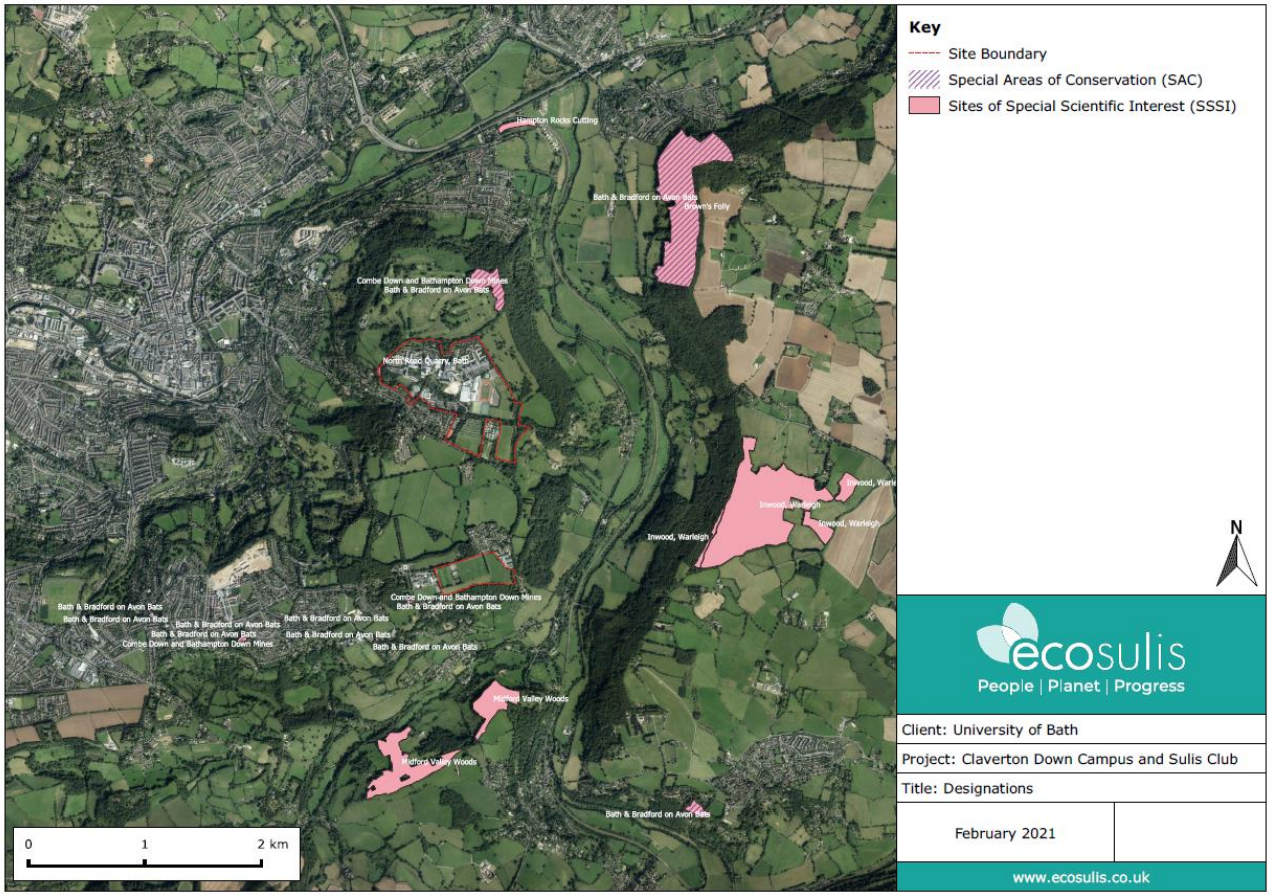
Appendix 1 – Phase 1 Habitat Survey Main Campus



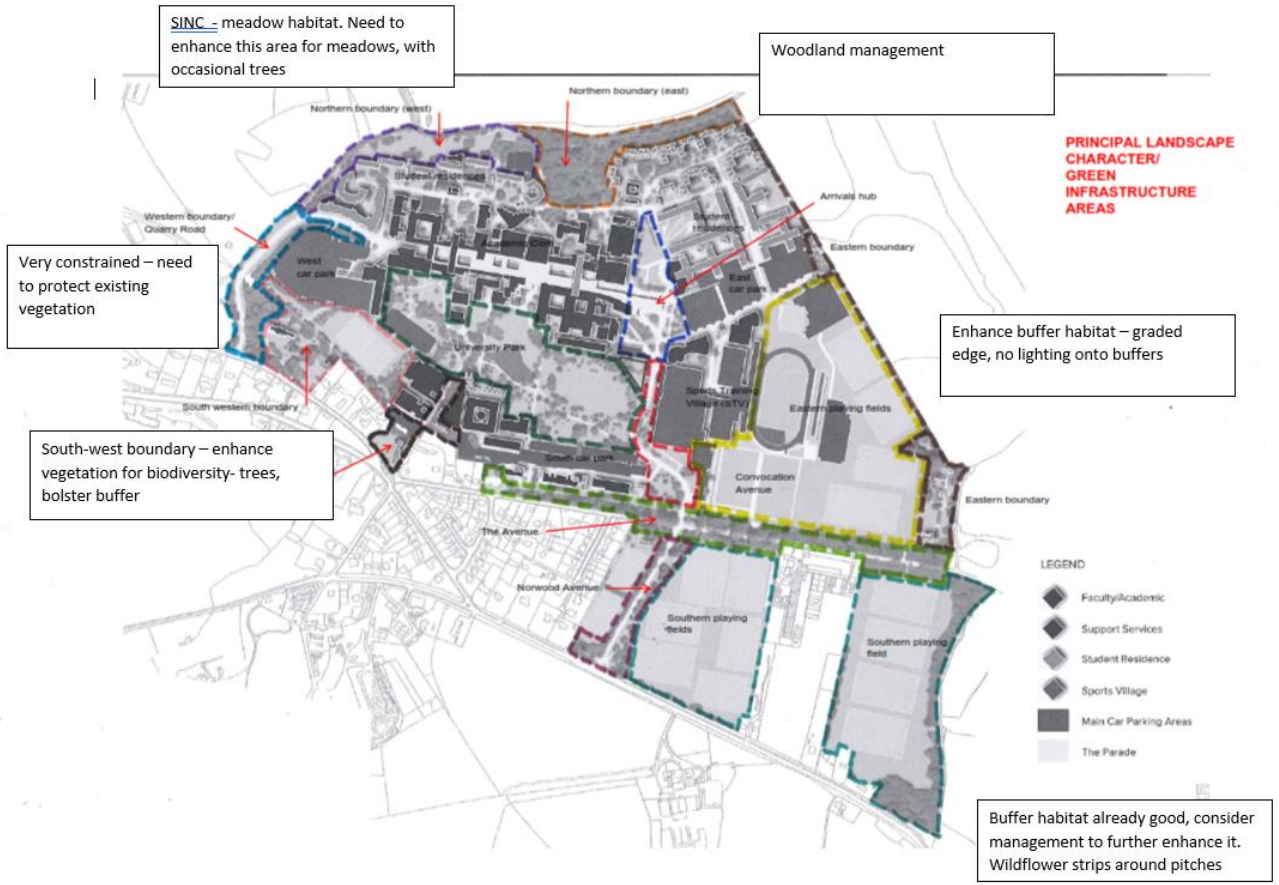
Appendix 2 – Phase 1 Habitat Survey Sulis Club



APPENDIX 3 – DESIGNATIONS SURROUNDING THE SITE



APPENDIX 4 – SITE PRINCIPAL AREAS AND RECOMMENDATIONS



APPENDIX 4

Draft University Tree Management Policy

[provided as separate document in this draft issue due to file size]

APPENDIX 5

The Masterplan

FIGURE 12/ COMPOSITE MASTERPLAN

LEGEND

- Masterplan Building Projects
- Under Construction
- Academic/Non Residential Buildings
- Residential Buildings
- Decked Car Park
- Green spaces
- Indicative New Strategic Landscaping
- 3G Proposed 3G Sports Pitch
- Relocated Tennis Courts
- Training Pitch/Courts
- Existing Green Corridors
- Green Corridor to be supplemented with additional tree planting for bats/ screening
- Green Corridors to be improved/ enhanced to link open spaces and movement corridors
- Bath Skyline Walk
- Public Right of Way
- Key Internal Pedestrian Route
- Key Existing Pedestrian Link
- Key Existing Pedestrian Nodes
- Pedestrian Connections to be improved
- Existing or Proposed Pedestrian Nodes to be improved/enhanced
- Pedestrian Access Points
- Enhanced Arrival Plaza
- Focal Open Spaces
- Landmark Lake
- Vehicular Access to Campus
- Key Vehicular Route
- Bus layover and loop

APPENDIX 6

Copy of University Landscape Policies

University of Bath - Landscape Policies

1. Introduction

1.1. As part of the commitment of the University of Bath to good landscape practice, there are several areas which require policies to set out how the University grounds will be managed.

1.2. There will be some areas, such as "trees" which require a policy of their own. This policy document is designed to cover the more minor, but equally important areas, that require a particular approach and standard.

1.3. By default, this document will be part of the Landscape and Ecological Management Plan (LEMP)

2. Biodiversity

2.1. The University of Bath takes its responsibility for the local environment extremely seriously and will, as far as is reasonably practicable, take steps to protect and enhance the flora and fauna which can be found on its estate.

2.2. Not all areas of grass will be mown on a regular basis and some areas will be allowed and encouraged to be developed into infrequently cut woodland grasslands.

2.3. Providing it does not create a health and safety risk to our students, not all "debris" from fallen trees etc. will be removed; some will be allowed to remain in situ or placed locally to provide habitat for insects and other invertebrates.

3. Use of peat

3.1. Peat is important for many reasons. It acts as a carbon store, it is a great habitat for wildlife, it has a role in water management and preserves things well for archaeology.

3.2. Over the years much peatland has been damaged by drainage, over grazing, burning and extraction. The UK Government is committed to phase out the use of peat in garden products by 2020 and in commercial use by 2030. Regrettably much of the peat now on sale within the UK comes from elsewhere in Europe where the same restrictions are not in place.

3.3. The University of Bath is committed to using peat-free compost across all of its properties, except for instances where there are rare and exotic plants required for research or other plants which require specific nutrients where there is, as yet, no proven suitable alternative.

4. Green Waste

4.1. Green waste at the University of Bath is defined as being organic waste resulting from the normal estate maintenance activities, including grass cuttings, leaves, weeds and other plants, prunings, and wood from the management of trees and shrubs.

4.2. Green waste will be separated into three types:

4.2.1. The landscape team will compost all vegetative arisings (except pernicious weeds which will be burnt) from shrub beds and grass areas for subsequent use as compost / soil improvement.

4.2.2. The prunings and tree branches will be "chipped" and used where appropriate on campus mainly the woodland perimeter paths.

4.2.3. The wood from larger branches and trees (where not used for biodiversity features such as log piles) will either be chipped as above, or cut into smaller pieces and sold to staff and students for use in wood burners, etc.

5. The purchase of plants

5.1. Imported plants are controlled, with all growers supplying to EU countries needing to have a "plant passport" which allows the tracing of any problems with plant health. Whilst standards of inspection within the UK are very high, other countries are not so stringent and as it is not possible to check every plant, pests and diseases can be inadvertently imported.

5.2. Therefore, as a general rule, all plants bought for planting within the University of Bath's estate (either by the University or its contractors) will be purchased locally and should have been propagated and grown within the UK. If it is necessary to use imported plant stock to fulfil specific requirements, those plants that are known to present a risk of pests / disease shall have been held within a UK nursery for 12 months prior to delivery to site and certified as being fee of pests and disease. As far as possible, only native plant species will be used.

5.3. Grass seed used within the estate should be of UK provenance. Wildflower seed should also be of local provenance and contain only those species that occur within the local area.

6. Sympathetic tree and hedgerow management

6.1. Non-essential tree works and hedgerow maintenance works will be avoided during the bird nesting season (approximately March to September.)

6.2. Where works to trees or hedgerows have to be undertaken (e.g., for health and safety reasons, access, etc) trees and hedges will be carefully checked for bird nesting activity prior to implementation and nests left undisturbed.

7. Use of chemicals

7.1. Non-chemical means of control will always be the first option but when chemical applications are required for the control of pests, weeds or diseases, etc. they are kept to a minimum to encourage and maintain a greener campus.

7.2. The University has moved away from high volume spaying for weed control, and uses low volume "Controlled Droplet Application" to reduce the amount of chemical used whilst increasing effect and efficiency.

7.3. Weed control is only done where visual presentation is a priority, such as pathways, formal garden areas, around signage etc.

7.4. Woodland paths and their surrounding areas have never had any chemical treatment in line with the University's desire to encourage wildlife and insect habitats.

7.5. All chemical use on the grounds is recorded, and those that are used are from industry recommended sources, and are applied in line with the manufacturers recommendations.

8. Equipment

8.1. Mechanical tools are essential for the work done by the landscape team. However, it is important that they accord with the University's environmental agenda.

8.2. Therefore, as and when powered equipment is replaced, the first option will be to look for quieter, more environmentally friendly "electric" tools rather than the traditional petrol driven devices, providing these are suitable for the task for which they are required.

APPENDIX 7

Biodiversity Net Gain Assessment

Biodiversity Net Gain Assessment Overview – University of Bath, Claverton Down Campus

The site has been split into 13 different areas (as shown on plan at rear). As it is a very large site, this makes it easier to calculate the baseline units and assess the potential post-development units, which have been based on the strategies defined for the Principal Areas set out in section 5 of the LEMP. A 10% net gain is achievable on the site if appropriate habitat conditions are met following suitable management techniques on the areas or lengths outlined below.

The Southern Playing Fields

This area is approximately 8.3 ha, consisting of modified grassland, woodland, and scrub. It has been assessed to provide 47.96 biodiversity units as it is. Following the management/recommendations set out within the LEMP this area of the site could provide an additional 26.32 units. The management is outlined below:

Landscape Management Strategy

- *Maintain and enhance screening along boundary with Claverton Down Road, particularly with the use of native shrub and understorey planting where spaces exist between pitch surrounds and existing boundary vegetation*
- *Define areas for infrequent mowing of grass along northern fringe of vegetation on boundary with Claverton Down Road and along steep banks in Limekiln Fields, manage accordingly*
- *Maintain diverse vegetation structure within area between pitches at Limekiln Fields and the eastern boundary woodland, favouring better quality trees, shrub edges, interspersed with unmanaged grassland areas.*
- *Maintain and improve screening of Cats/Dogs Home by reinforcing boundaries as necessary with native hedgerow species to create more robust boundary and screen.*

Tree Management Strategy

- *Young developing tree groups of high density undergo thinning. Formative prune remaining young trees*
- *Create glades within mature woodland to allow installation of succession planting an accommodate areas of unmanaged grassland*
- *Remove over mature beech selectively, install specimen tree to reinforce boundary*
- *Scallop and coppice woodland edges to form graduated woodland edge descending into grassland habitat*
- *Install boundary planting along east side of sports field to mitigate further loss of poplars.*

Ecology / biodiversity Management Strategy

Ecosulis Ltd
Harwell Innovation Centre, Building 173, Curie Avenue,
Harwell Campus, Oxford OX11 0QG
T: 01235 612 216
E: info@ecosulis.co.uk
W: www.ecosulis.co.uk

London
3rd Floor
86-90 Paul Street
London
EC2A 4NE
T: 0203 9742548

Birmingham
Faraday Wharf
Innovation Birmingham
Campus Holt Street
Birmingham B7 4BB
T: 0121 250 5746

Cardiff
Britannia House
Caerphilly
Business Park
Cardiff CF83 3GG
T: 02921 679 141

- *Trees along boundary managed to retain and strengthen the corridor for foraging and commuting bats*
- *Reduce dead trees to monoliths*
- *Additional native planting should be proposed along the existing footpath on the western boundary of Limekiln field for commuting bats.*
- *Banks adjacent to the proposed pitches should be left as longer grassland edges, or created into wildflower areas*

Norwood Avenue

This area is approximately 1.05 ha, consisting of woodland, hardstanding, and grassland. It has been assessed to provide 7.33 biodiversity units as it is. Following the management/recommendations set out within the LEMP this area of the site could provide an additional 0.68 units.

Landscape Management Plan

- *Providing succession planting where trees are recommended for removal to maintain screening.*
- *Replacing conifers with native species and diverse understorey.*
- *Thin and replant shrub to create more attractive, varied appearance to understorey*
- *Establish succession planting*
- *Tree Management Strategy*
- *Diversification of species to improve disease resilience.*

Ecology/biodiversity Management Strategy

- *Plug planting native wildflower meadow species for limestone grassland and bulbs. Wildflower areas should be left unmown and be subject to one cut late summer to allow them to go to seed, all arisings removed.*
- *Mature trees left in situ to provide areas of deadwood, replacement planting with suitable native trees.*

The Avenue

This area is approximately 2.27 ha, consisting of woodland, grassland, and hardstanding. It has been assessed to provide 15.91 biodiversity units as it is. Following the management/recommendations set out within the 'LEMP – Principal Areas – V3' document, the site could provide an additional 3.83 units.

Landscape Management Plan

- *Strengthen planting along the existing pitches and proposed 3G pitches*
- *Progressively remove non-native species, replant with native species where space permits*
- *Plant appropriate understorey shrubs in clearings to create more diverse habitat and maintain screening*

Tree Management Strategy

- *Instigate long term renovation and replacement programme including felling, thinning, pruning, and planting.*

Ecology/biodiversity management strategy

- *Maintain continuous green corridor, successional undergrowth, additional native planting to strengthen corridor and provide a continuous canopy.*
- *Encourage a grade edge to the northern boundary of the woodland vegetation, to include additional shrubs and longer grassland edges, whilst ensuring that a maintenance strip is retained.*
- *Provide deadwood habitat from felled timber*

Convocation Avenue

This area is approximately 1.04 ha, comprising woodland, grassland and hardstanding. It has been assessed to provide 8.79 biodiversity units at it is. Following the management/recommendations set out within the LEMP the site could provide an additional 0.39 units.

Tree Management Strategy

- *Thin groups of trees by 30-40% to favour better specimens and formative prune remainder*

Ecology/Biodiversity Management Plan

- *Longer grassland edges and wildflower meadows should be encouraged where possible.*

Eastern Playing Fields

This area is approximately 10.51 ha, comprising of grassland and woodland. It has been assessed to provide 16.57 biodiversity units as it is. Following the management/recommendations set out within the LEMP the site could provide an additional 3.26 biodiversity units.

Landscape Management Strategy

- *Thinning of overcrowded trees, introduction of understorey of native shrub planting*
- *Develop north/south green corridor with tree planting to create a connection to The Avenue*

Ecology/Biodiversity Management Strategy

- *Banks/parts of banks located adjacent to the proposed pitches to be left as longer grassland edges or created into wildflower meadows, to enhance opportunities for wildlife.*

Eastern Boundary

This area is approximately 2.16 ha, consisting of woodland and grassland. It has been assessed to provide 6.78 biodiversity units as it is. Following the management/recommendations set out within the LEMP the site could provide an additional 9.87 biodiversity units.

Landscape Management Strategy

- *Maintain and enhance the level of screening and high-level tree cover along the corridor.*
- *Significant native planting to reinforce screening and minimise residual effects*
- *Continue green corridors southwards – combination of hedge planting and regularly spaced trees within infrequently managed grassland*

Tree Management Strategy

- *Lay hedge in sections to inform secure barrier and improve wildlife corridor.*

- *Thin high density group planting along rear of accommodation blocks and bunds adjacent to car park.*
- *Install replacement and succession planting to reinforce boundary as ash decline develops.*
- *Coppicing programme of understorey*
- *Replacing damaged trees*

Ecology/biodiversity management strategy

- *Reduce dead trees to monoliths, coronet cuts to ends of main limbs.*
- *Trees along the boundary managed and retained to strengthen the corridor for foraging and commuting bats, as well as screening the campus.*

Arrivals Hub

The area is approximately 1.14 ha. The majority of the area is hardstanding, with small sections of grassland and woodland/parkland. It has been assessed to h provide 1.68 biodiversity units at it is. This area of the site does not have any specific management/recommendations for enhancement, therefore is not likely to provide additional biodiversity units post-development.

University Park

The area is approximately 4.6 ha, consisting of hardstanding, woodland, grassland and standing water. It has been assessed to provide 28.12 biodiversity units at it is. Following the management/recommendations set out within the LEMP the site could provide an additional 26.51 biodiversity units.

Landscape Management Strategy

- *Selective thinning to create visual connectivity*
- *Phased selective thinning, replacement with native species*
- *Maintain a strong canopy line along the southern fringes of park*
- *New tree planting*

Tree Management Strategy

- *High density planting throughout and around periphery requiring thinning/removal of unsuitable species to provide space for high quality specimen succession planting*

Ecology/biodiversity management strategy

- *Define a more varied grass management strategy with areas of infrequently mown grass below trees and along more remote southern fringes*
- *Retain and manage existing trees*
- *Seek to plant more poplar trees*
- *Creation of wildflower strips throughout the park to improve its slow, close to footpaths.*
- *Brash and deadwood retention around long grassland habitats, grass cutting piled into compost*
- *Aquatic vegetation retained and subject to minimal management*

Northern Boundary West

This area of the site is approximately 1.83 ha, consisting of hardstanding, woodland, and grassland. It has been assessed to provide 8.97 biodiversity units as it is. Following the management/recommendations set out within the LEMP the site could provide an additional 11.53 biodiversity units.

Landscape Management Strategy

- *Retain and reinforce native vegetation to maintain a continuous canopy line along the northern boundary*

Tree Management Strategy

- *Native succession planting*
- *Divide understorey into compartments and instigate coppicing programme*
- *Ecology/biodiversity management strategy*
- *Reduce dead trees to monoliths and cut ends of main limbs with coronet cuts*
- *Areas of grassland to be subject to reduced mowing frequency to encourage herb species associated with the SNCI. Longer grassland areas to be retained around tree bases and encouragement of wildflowers in more open areas. The grass should be cut late summer to encourage herb species to seed, arisings removed to compost areas to encourage herb diversity.*
- *Uncut longer grassland areas should be retained around existing more peripheral trees*
- *Trees along northern boundary should be managed to retain and strengthen the corridor for foraging and commuting bats*

Northern Boundary East

This area of the site is approximately 2.2 ha, consisting of woodland. It has been assessed to provide 19.36 biodiversity units as it is. Following the management/recommendations set out within the LEMP the site could provide an additional 22.62 biodiversity units.

Tree Management Strategy

- *Install replacement and succession planting to reinforce boundary as ash decline.*
- *Divide understorey into compartments and instigate 10-year coppicing programme.*
- *Clear back and scallop woodland edge to provide diverse and graduated woodland edge.*
- *Remove overbearing conifers close to north side of buildings*

Ecology/biodiversity Management Strategy

- *Selectively thin trees to encourage understorey growth and structure to enhance opportunities for biodiversity*
- *Reduce dead trees to monoliths and put coronet cuts on main limbs*
- *Create deadwood and bracken piles*
- *Maintain woodland area and boundary woodland*
- *Consideration to the creation of a graded edge to some area of woodland where space allows.*

Western Boundary/Quarry Road

This area of the site is approximately 1.56 ha, consisting of hardstanding, woodland, and grassland. It has been assessed to provide 10.68 biodiversity units as it is. Following the management/recommendations set out within the LEMP the site could provide an additional 11.62 biodiversity units.

Landscape Management Strategy

- *Enhance long term screening effect of vegetation between Quarry Road and west car park by thinning overcrowded vegetation, increasing diversity of shrub understorey, and planting new native woodland trees to create a wider sustainable belt of mixed woodland. New planting to include an additional 15m wide belt of planting on the western/north western side of the new decked car park (potentially on some localised mounding between 1-2m high) to tie in with the existing mound.*
- *Thicken/supplement western boundary hedgerow with native hedgerow and tree species where space and public footpath permits.*
- *Reduce the area of mown grassland in favour of infrequently managed grassland.*
- *Remove self-seeded Cotoneaster, Ash and Sycamore from rock faces and verge.*
- *Prevent scrub encroachment into areas of grassland above the rock slopes.*

Tree Management Strategy

- *Install and maintain succession planting within suitable gaps using large native species to reinforce boundary and skyline trees.*
- *Divide poor quality understorey areas into compartments and instigate phased coppicing programme; reinforce with under storey planting to improve low level screening.*
- *Ecology/Biodiversity Management Strategy*
- *Encourage species-rich grassland through a reduction in mowing, where constraints allow, to encourage a longer grassland sward and increased diversity. Grassland should be cut once at the end of summer to encourage seeding by herbs, and arisings remove to designated compost areas.*

Southwestern Boundary

This area of the site is approximately 2.72 ha, consisting of hardstanding, woodland, and grassland. It has been assessed to provide 23.87 biodiversity units as it is. Following the management/recommendations set out within the LEMPthe site could provide an additional 26.37 biodiversity units.

Landscape Management Strategy

- *Succession planting, replacing mature trees, enhance woodland understorey*
- *Thin squirrel damaged and overcrowded trees, introducing shrub understorey planting where space permits*
- *Increasing planting*

Tree Management Strategy

- *Implement orchard planting within medical grounds*
- *Thin high-density groups, formative prune remaining trees, remove poor quality and extensively damaged trees to create planting space*
- *High quality succession planting*
- *Phased coppicing programme in understorey areas*

Ecology/biodiversity Management Strategy

- *Grassland within the medical centre and near lacrosse pitch to be subject to reduced mowing to encourage herb species associated within the SNCI. Longer grassland retained around the base of trees and to encourage wildflowers in more open areas. The grass should be cut late summer to encourage herb species to seed. Arisings removed to compost areas.*
- *Orchard planting and management.*

Woodlands North Road Access

The area is approximately 0.76 ha. It has been assessed to provide 5.49 biodiversity units at it is. This area of the site does not have any specific management/recommendations for enhancement, therefore is not likely to provide additional biodiversity units post-development.

Remaining Areas (Central Hardstanding)

The area is approximately 25.43 ha. It has been assessed to provide 44.31 biodiversity units as it is. This area of the site does not have any specific management/recommendations for enhancement, therefore is not likely to provide additional biodiversity units post-development.

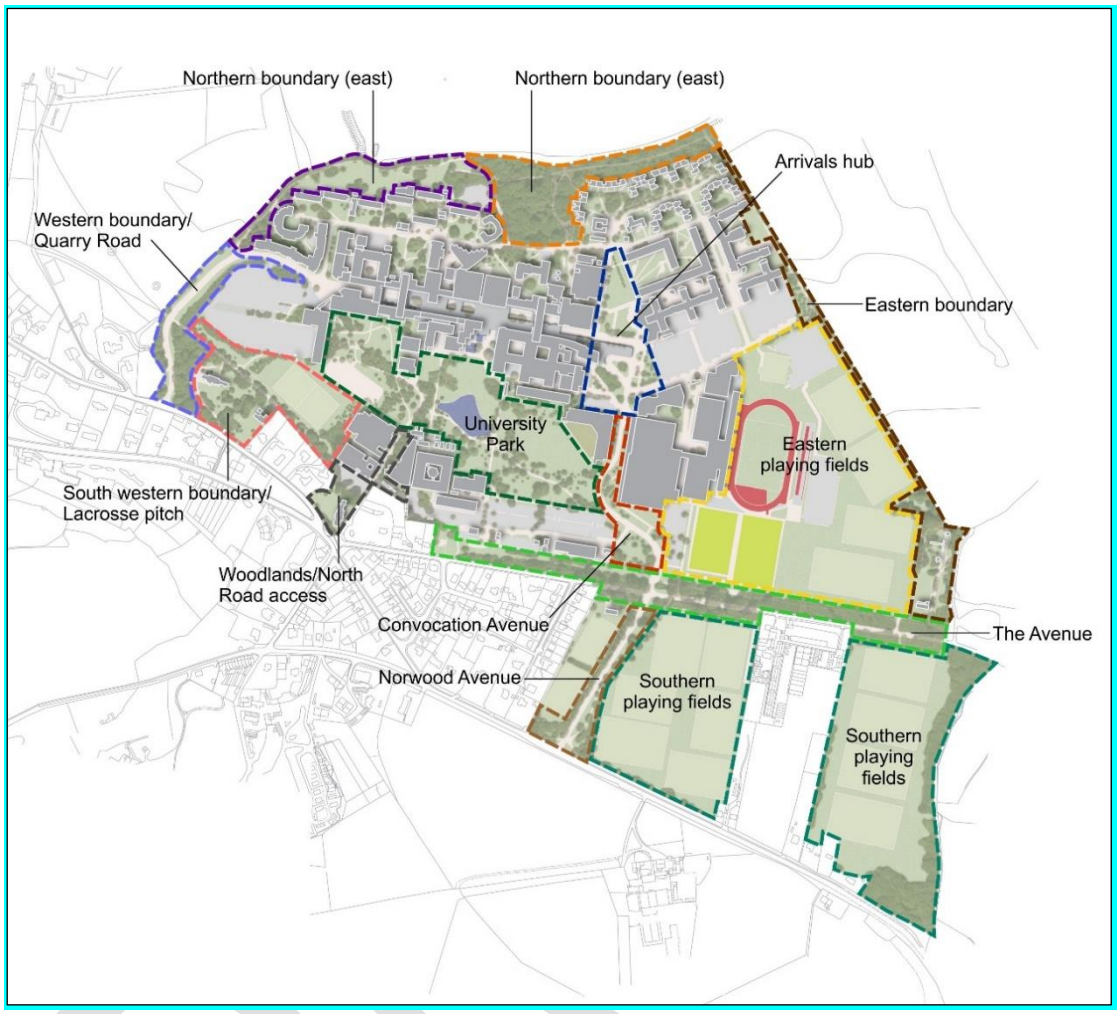
Site Habitat Baseline Overview

All of the habitats currently on site have been assessed to provide a total net unit change of 26.38 following the strategies set out within the LEMP. This equates to an overall net change of 10.73%. This exceeds the 10% required by the Governments Environment Bill, which aims to deliver at least a 10% improvement in biodiversity value. However, this only just exceeds 10%, it would therefore be beneficial to create more enhancements across site, including a detailed 5-year management plan highlighting exactly how they will be carried out and when.

Hedge Baseline Overview

There are three linear features across the site, two native hedgerows with trees, and one line of trees. These have been assessed to provide a total net unit change of 0.95 following strategies set out within the LEMP. This equates to an overall net change of 25.27% which exceeds the 10% required by the Governments Environment Bill, which aims to deliver at least a 10% improvement in biodiversity value.

APPENDIX


Northern boundary (east)
Northern boundary (east)
Arrivals hub
Western boundary/
Quarry Road
Eastern boundary
University
Park
Eastern
playing fields
South western boundary/
Lacrosse pitch
Woodlands/North
Road access
Convocation Avenue
The Avenue
Norwood Avenue
Southern
playing fields
Southern
playing
fields

APPENDIX 8

Landscape Management Monitoring Form (pro-forma)

PRINCIPAL AREA: [insert name of PA]			
Record of Principal Management Operations			
Operations to be undertaken *[insert from LEMP]*	***Anticipated timescale (yrs)*** *[insert from LEMP]*	***Date operations undertaken***	***Comments/Notes*** *[e.g., follow-up works required]*

APPENDIX 9

Consultants' contact details

The LEMP has been prepared by:

Enderby Associates Ltd.
Landscape Architects and Environmental Planning Consultants
The Smithy,
West Kington,
Chippenham,
Wilts. SN14 7JE
Tel. 01249 782666

With specialist contributions from:

Tree Maintenance Ltd.
Unit 60,
Aston Down,
Stroud,
Glos. GL6 8GA
Tel. 01285 760466

And

Ecosulis.
Harwell Innovation Centre,
Building 173, Curie Avenue,
Harwell Campus,
Oxford. OX11 0QG
Tel. 01235 612216