PROVIDING TRUSTED ECOLOGICAL ADVICE

ANGMERING SPORTS HUB SITE

BIODIVERSITY NET GAIN ASSESSMENT

Version 2.0

Project	Prepared & Checked by	Approved by	Client	Status	Date
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	[redacted]				

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1 Summary

Instruction

Richard Graves Associates Ltd was commissioned by MACE, on behalf Arun District Council, in 2024 to undertake a 'Biodiversity Net Gain (BNG) Assessment' of a parcel of land identified for a proposed community sports facility known as the 'Angmering Sports Hub' (and referred to henceforth as 'the Site') in Angmering, Littlehampton.

Existing Site

The majority of the Site comprised a recreational field with short sward amenity / modified grassland, of low ecological value. Bordering the Site was a woodland belt and strip of scrub which formed, in places, an ecotone as the habitat graded from woodland, scrub and finally to grassland. A basketball court (developed land / sealed surface) and cricket pitch (artificial unvegetated, unsealed surface) were present in the centre of the grassland and small children's play area (part wood chippings and part modified grassland) was located to the south. The 'Angmering Sports and Social Club' building and associated car parking was located at the main entrance to the Site, along the southern boundary. A small patch of tall ruderal habitat (tall forbs) was located adjacent to the carpark. A small number of individual trees were present on the grassland, towards the perimeter of the Site.

Development Proposal

The BNG Assessment was required to support MACE in their undertaking of Due Diligence surveys prior to submitting a planning application for the proposed re-development of the existing Palmer Road Recreation Ground for the provision of a new community sports hub which will include the demolition of existing structures, construction of a new sports hub facility building, artificial sports pitches, car parking, EV charging points, access road, landscaping and associated works and infrastructure. The development will result in the clearance of some habitats include the loss of a small area of woodland and associated scrub habitat.

Maximising On-site Biodiversity

The development design has ensured the retention (and enhancement) of the majority of the key habitat on-site; the 'other broadleaved woodland' (a Medium Distinctiveness Habitat) and the mixed scrub (also a Medium Distinctiveness Habitat) which sits alongside the woodland belt, forming an ecotone habitat. There are no irreplaceable habitats present on-site and there has been no degradation of habitats apparent since January 2020. The proposals do not result in significant harm to biodiversity and, in accordance with the Biodiversity Gain Hierarchy, the, very limited, adverse effect of the habitat loss associated with the proposed development, will be compensated by the creation of new, and enhancement of existing, on-site habitats.

Biodiversity Net Gain

Based on the current proposals[1] and the Statutory Biodiversity Metric Calculation Tool, the proposed development is expected to result in:

- A Total Net Percentage Gain of 11.55% of 1.43 habitat units.
- A Total Net Percentage Gain of 476.04% of 0.54 hedgerow units.
- All trading rules are satisfied.

[1] Ubu design Angmering Sports Hub Landscape Strategy Plan drawing number 5057-GA-1000

These gains exceed the Government's mandatory 10% net gain threshold for major sites.

2 Introduction

2.1 Instruction

Richard Graves Associates Ltd was commissioned by MACE, on behalf Arun District Council, in 2024 to undertake a 'Biodiversity Net Gain (BNG) Assessment' of a parcel of land identified for a proposed community sports facility known as the 'Angmering Sports Hub' (and referred to henceforth as 'the Site') in Angmering, Littlehampton.

2.2 Requirement for the BNG Assessment

The applicant is submitting a planning application to Arun District Council to obtain permission for the provision of a new community sports hub which will include the demolition of existing structures, construction of a new sports hub facility building, artificial sports pitches, car parking, EV charging points, access road, landscaping and associated works and infrastructure. To comply with the Environment Act 2021, major developments must demonstrate a 10% increase in biodiversity value, calculated using the Statutory Biodiversity Metric Calculation Tool.

2.3 Biodiversity Net Gain Overview

2.3.1 Defining BNG

Biodiversity Net Gain is "*an approach to development that leaves biodiversity in a better state than before*" and "*an approach where developers work with local governments, wildlife groups, land-owners and other stakeholders to support their priorities for nature conservation*"[2].

To illustrate that a BNG can be achieved on-site, whilst delivering a viable development, or by using biodiversity offsetting at a suitable local site, or as a last resort, purchasing 'Statutory Biodiversity Credits', a 'Biodiversity Net Gain Assessment' is required. Assessment should be conducted in accordance with the biodiversity metric rules and principles as set out in the 'The Statutory Biodiversity Metric User Guide'[3]. This report sets out the methods and results of the BNG Assessment for the proposed development of the Site.

For this assessment, Defra's Statutory Biodiversity Metric (updated 23rd July 2024) (the Statutory Metric) has been employed.

2.3.2 Hierarchies

The BNG proposals for this Site have considered the principles of the following hierarchies and applied them at every stage of the design, where possible:

1. Mitigation Hierarchy'[4] of avoidance, mitigation, compensation and enhancement.
2. Biodiversity Gain Hierarchy[5] - this hierarchy (which does not apply to irreplaceable habitats) sets out a list of priority actions:
    - For on-site habitats which have a medium, high and very high distinctiveness (a score of four or more according to the Statutory Biodiversity Metric), adverse effects from the development should be avoided, if they cannot be avoided, those effects must be mitigated; and
    - For on-site habitats which are adversely affected by the development, the adverse effect should be compensated by prioritising in order, where possible, the enhancement of

[2] CIEEM, CIRIA, IEMA (2016) Biodiversity Net Gain - Good Practice Principles for Development.

[3] DEFRA (2024) The Statutory Biodiversity Metric User Guide – First published February 2024, updated July 2024

[4] British Standard BS 42020:2013 Biodiversity. Code of practice for planning and development

[5] Biodiversity net gain GOV.UK. Available at: https://www.gov.uk/guidance/biodiversity-net-gain (Accessed: 19 March 2024).

existing on-site habitats, creation of new on-site habitats, allocation of registered offsite gains and finally the purchase of biodiversity credits.

2.3.3 Qualitative and Quantitative Assessment

Lastly, it's important to note that in addition to this *quantitative* BNG Assessment, a *qualitative* assessment of the Site's value pre and post development (to address factors such as the Site's ecological functionality etc) is vital to delivering a development that can host viable gains for biodiversity. Whilst this is detailed primarily in the Preliminary Ecological Appraisal[6] and Phase 2 Survey Report[7], a brief account of these measures is also presented here.

2.4 Biodiversity Assessment Aims

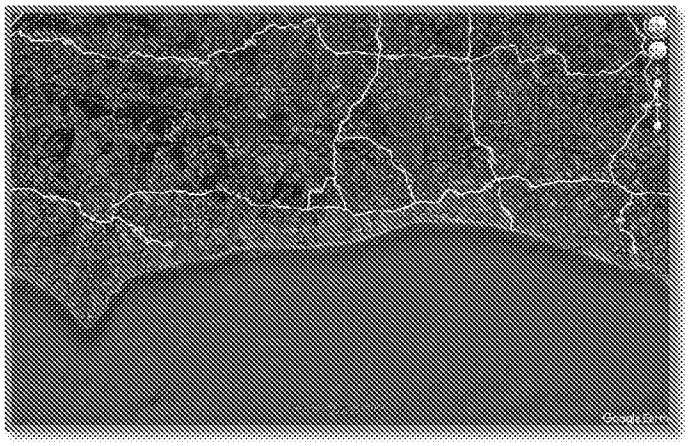
This BNG Assessment aims to:

- Outline the application of the 'Mitigation Hierarchy' and 'Biodiversity Gain Hierarchy' to minimise impacts, and maximise ecological benefits associated with the development;
- Summarise the qualitative measures that will be delivered as part of the development to benefit biodiversity;
- Set out the Pre-development Baseline Habitat Data, including categorisation of their 'distinctiveness', 'condition' and 'strategic significance';
- Set out the proposed 'Post-development Habitat Data' including categorisation of each habitat's 'distinctiveness', 'condition' and 'strategic significance' as well the 'difficulty 'in establishing the new habitats and the 'temporal risk', or time taken, to establish the new habitats;
- Compare the 'Biodiversity Units' generated by the' Pre-development' and 'Post-development' Habitats and the resultant 'Net Change in Biodiversity Unit Value'; and
- Achieve a measurable, overall gain for biodiversity and the ecosystems services it provides while directly contributing towards nature conservation priorities.

2.5 Site Location

The proposed Site for the Angmering Sports Hub, Palmers Road is currently known as the 'Palmer Road Recreation Ground' which is centred at Ordnance Survey (OS) grid reference: TQ 06574 05141. Palmer Road Recreation Ground is a large public open space in north Angmering, that currently includes a sports pavilion, grass football pitches, a basketball court, a cricket pitch and a children's play area. The Site is bordered by housing to the south and east, arable to the west, and a development site to the north known as the 'Harvest Rise, Angmering' (Figure 1 & 2).

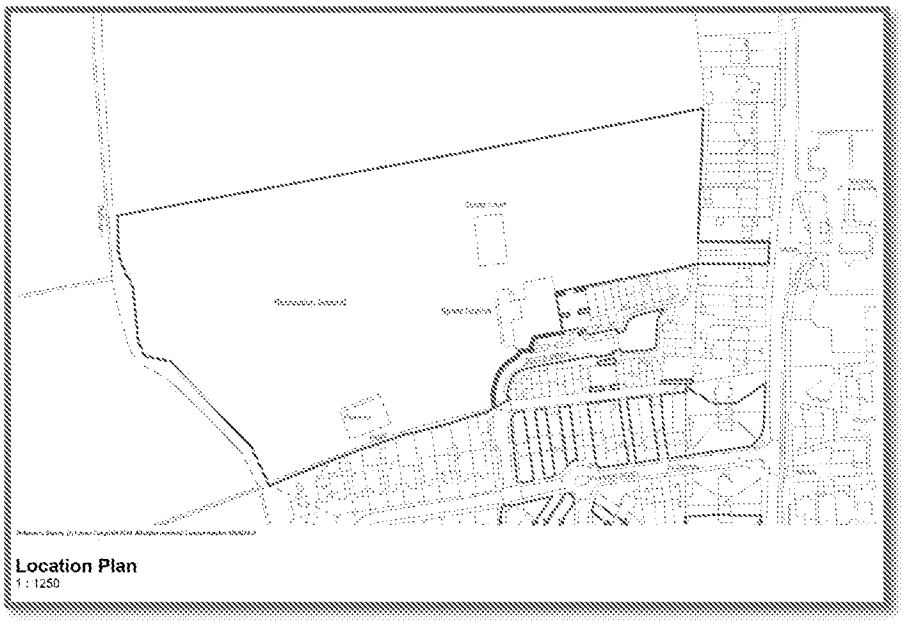
Figure 1: Site Location Indicated by Red Marker © Google Earth 2024



[6] Richard Graves Associates (2024) *Angmering Sports Hub Project, Preliminary Ecological Appraisal Report*

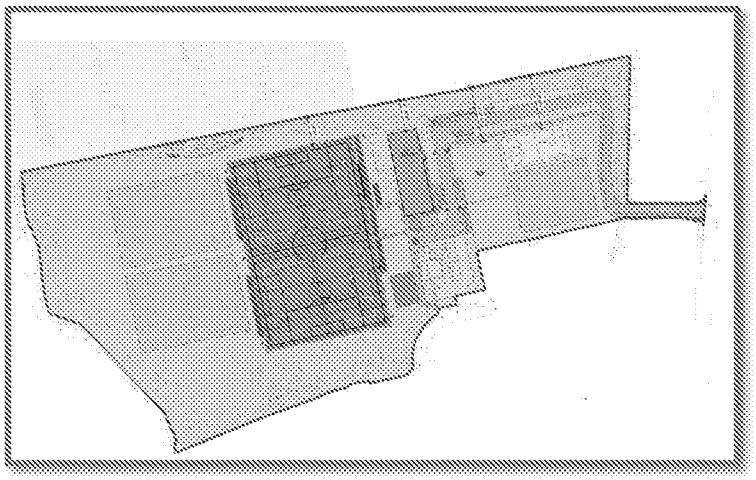
[7] Richard Graves Associates (2024) *Angmering Sports Hub Site – Phase 2 Survey Report*

Figure 2: Site Redline Boundary©[8]



Palmer Road Recreation Ground has been identified as a strategic priority within the Local Plan for the provision of a community sports hub. The proposal aims to help meet the shortfall in sport and leisure facilities in the district and enhance the quality of the current facilities at Palmer Road with the provision of a new community sports hub which will include the demolition of existing structures, construction of a new sports hub facility building, artificial sports pitches, car parking, EV charging points, access road, landscaping and associated works and infrastructure (Figure 3). The development will result in the clearance of some habitats including the loss of one relatively small area of woodland and associated scrub habitat to allow for a cricket pitch.

Figure 3: Proposed Site Layout ©[9]



[8] Saunders Boston Architects (2023) Palmer Road Sports Hun. Site Location. Drawing Number: 2072-SBA -XX -S1 -DR-A -5001. Rev P04

[9] Saunders Boston Architects (2023) Palmer Road Sports Hun. Site Plan Drawing Number: 2072-SBA -XX -S1 -DR-A -5002. Rev P19

2.6 Quality Assurance

The statutory metric and reporting have been completed by a suitably qualified and experienced chartered ecologist.

All surveys and assessments are led by Ecologists who are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) at the appropriate level. By joining the CIEEM staff sign up to a professional code of conduct.

3 Legislation

This section lists the key legislation and planning policy pertaining to BNG. From the 12th February 2024, BNG became mandatory for new planning applications for major developments in England. BNG for small sites had an extended transition period which applied until the 2nd April 2024. In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021), subject to confirmed exceptions.

Under the newly introduced legislation, every grant of planning permission is deemed to have been granted subject to the condition that the biodiversity gain objective is met ("the biodiversity gain condition"). This objective is for development to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of the on-site habitat. The Act sets out the following key components:

- Achieving a minimum 10% biodiversity net gain.
- Calculating the gain using the Defra Statutory Biodiversity Metric.
- Delivering the gain on-site, off-site, or through statutory biodiversity credits.
- Securing significant on-site and all off-site gains for at least 30 years.
- The Environment Act also empowered the Secretary of State to establish a statutory biodiversity credits scheme for cases where on-site or off-site gain isn't feasible.

Our current understanding is that once planning permission has been granted for a site, a final 'Biodiversity Gain Plan' and 'Habitat Management and Monitoring Plan' (HMMP) will also be required as a condition of the planning permission.

It's important to note that the HMMP will need to comprise a detailed plan that outlines how the land will be managed over at least 30 years to: 1) create and enhance habitats for biodiversity net gain (BNG); 2) and manage and monitor the BNG.

4 Biodiversity Net Gain: Rules & Good Practice Principles

4.1 Introduction

Biodiversity is essential to sustain our society and economy. Enhancing biodiversity is integral to sustainable development, and BNG is an approach to embed and demonstrate biodiversity enhancement within development. It involves first avoiding and then minimising biodiversity loss as far as possible and achieving measurable net gains that contribute towards local and strategic biodiversity priorities. BNG does not apply to statutory designated sites or irreplaceable habitats for which bespoke arrangements are required.

This Section describes the principles and rules underpinning BNG and the use of the Biodiversity Metric. The BNG calculation undertaken for this Site, conforms to these Rules and Principles.

Table 1: Biodiversity metric rules – as stated in 'The Statutory Biodiversity Metric User Guide'

Rule	Rule Detail
Rule 1	– The trading rules of this biodiversity metric must be followed.
Rule 2	– Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit (area, hedgerow and watercourse as applicable).
Rule 3	– To accurately apply the biodiversity metric formula, you must use the statutory biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites. – The tools remove the need for a user to manually calculate the change in biodiversity value. – The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.
Rule 4	– In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.

Table 2: Biodiversity Metric Principles – as stated in 'The Statutory Biodiversity Metric User Guide'

Principle	Principle Detail
Principle 1	– The metric assessment should be completed by a competent person.
Principle 2	– The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands.
Principle 3	– This biodiversity metric should be used in accordance with established good practice guidance and professional codes.

Principle 4	– This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.
Principle 5	– Biodiversity units are a proxy for biodiversity and should be treated as relative values.
Principle 6	– This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.
Principle 7	– Habitat interventions need to be realistic and deliverable within a relevant project timeframe.
Principle 8	– Created and enhanced habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation.
Principle 9	– This biodiversity metric does not enforce a minimum habitat size ratio for compensation of losses. Proposals should aim to: • maintain habitat extent - supporting more, bigger, better and more joined up ecological networks • ensure that proposed or retained habitat

5 Methods

5.1 Ecologist Qualifications and Experience

The BNG Assessment was undertaken by Dr Suzy Cardy and reviewed and approved by Richard Graves:

Dr Suzy Cardy

Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM is a chartered ecologist and has over twenty years' experience in the management and execution of the ecological elements of large-scale development projects including major rail infrastructure developments and one of the UK's largest translocation of protected species. Suzy has a Natural England licence to survey for great crested newts and dormice and has a Level 2 Bat survey licence. Suzy has worked with a variety of clients across multiple sectors (transport, industrial, education, government, healthcare, commercial, leisure and power / energy). Suzy has competed a number of BNG Assessments for housing developments, agricultural developments, leisure facilities and school sites, and has undertaken the following BNG training courses:

- Calculating and Using Biodiversity Units with Metric CIEEM (Dr Julia Baker CEnv MCIEEM);
- Biodiversity Net Gain Through Development CIEEM (Dr Julia Baker CEnv MCIEEM and Tom Butterworth BSc MSc MCIEEM;
- Introduction to UK Habitat Classification CIEEM (Bob Edmonds & Peter Carey); and
- Biodiversity Net Gain Law Training for Ecological Consultants (Penny Simpson Freeths LLP).

Richard Graves

Richard Graves BSc (Hons) MSc PGDip CEcol CEnv FCIEEM has over thirty years' experience as a practising ecologist and has undertaken, commissioned and reviewed several hundred habitat surveys and protected species surveys all over the UK. Richard is a fellow of the Chartered Institute of Ecology and Environmental Management (CIEEM) a chartered ecologist and a chartered environmentalist. Richard is also class licenced for great crested newt surveys, a class licenced bat surveyor and a has previously been a contributor to current good practice guidelines for bat surveys. Richard has undertaken a number of BNG Assessments for school sites, healthcare facilities and housing developments. Richard has completed the CIEEM 'Introduction to UK Habitat Classification' training course and has completed over forty BNG assessments using Metric 2.0, Metric 3.0, Metric 3.1, Metric 4.0, the statutory metric and the BREEAM habitat calculator.

5.2 Stakeholder Engagement

Good practice for BNG is to engage stakeholders early on in the process; this can significantly improve the biodiversity outcomes. The level of stakeholder engagement should be commensurate with the project's size and complexity. This project fostered significant collaboration across various disciplines, with the following stakeholders actively participating throughout its lifecycle, including the:

- Client Team (Mace, working for Arun District Council);
- Project ecological consultants (Richard Graves Associates Ltd);
- Project architects (Saunders Boston Architects)
- Project planning consultants (Alder King);
- Project landscape architects (Ubu Design);
- Project arborculturalists (Arbtech); and
- Project lighting consultants (Gemma Lighting and SSL).

5.3 Pre-Development Baseline Data Collection

The Site was visited by Dr Suzy Cardy on the 4th June 2024 to undertake a UK Habitat (UKHab) Survey and Habitat Condition Assessment.

The UK Habitat Survey (UKHab) is a standardised methodology for classifying and assessing terrestrial, freshwater and coastal habitats across the UK. The UKHab Survey uses a detailed coding system to classify habitats. The codes are hierarchical, with a five-level 'Primary Habitat Hierarchy' and a list of secondary codes, the latter are sub-divided into 'Essential Codes' and 'Additional Codes'. Habitats were identified in accordance with the UK Habitat Classification Methodology[10] and were plotted on a UK Habitat Classification Map. The Site was revisited several times in 2024 for the purposes of Phase 2 Surveys and additional habitat data was gathered on those visits to supplement that recorded during the UKHab site visit.

5.4 Strategic Significance

A Desk Top Study was undertaken that included review of the following documents for biodiversity and nature conservation strategies that could affect the Site:

- Biodiversity Opportunity Areas (BOAs);
- Local Records Centre Data (received from the Sussex Biodiversity Record Centre (SBRC [11]);
- Ordnance Survey (OS) Online Mapping and Google Earth 2024;
- MAGIC (Multi-Agency Geographic Information for the Countryside) - this is a web-based interactive mapping service that provides information on key environmental schemes and designations.

5.5 Measurement of Habitat Areas

Pre-Development habitat areas and lengths were derived from:

- Habitat mapping on the UK Habitats Map; and
- Aerial mapping (Google Earth Pro).

Post Development

Habitat areas and lengths were derived from:

- Landscape Strategy Plan[1];
- Stakeholder Consultation & Liaison, including habitat area information from the Project Landscape Architect and Client Team;
- The 'Tree Helper', within the Statutory Metric.

5.6 Quantitative Assessment: Biodiversity Net Gain

Defra's Statutory Metric (revision published in July 2024) was used to undertake the Biodiversity Net Gain Calculation. The Metric was used to calculate the losses and gains in Biodiversity Unit value changes. The Metric used Pre-Development and Post Development habitats as a proxy to describe biodiversity, by converting them to Biodiversity Units.

The Statutory Metric was then used to predict a 'Net Change in Biodiversity Unit Value'. By deducting the 'Pre-Development Biodiversity Unit Score' from the Post-Development Biodiversity Unit Score'.

[10] UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab/org)

[11] Sussex Biodiversity Record Centre (2024) Ecological data search for land at Angmering Sports Hub. On behalf of Suzy Cardy (Richard Graves Associates). Report reference SxBRC/24/152. Prepared on 04/06/2024

5.7 Qualitative Assessment: Biodiversity Net Gain

In addition to the quantitative assessment outline above, it is important that consideration is given to the qualitative aspects of the pre and post development habitats which aren't captured by the Biodiversity Calculator. Such elements may play an important role in the functionality of a habitat, for example through fragmentation of a pond network or consideration of any social impacts, for example by the loss of a community woodland. It is also important to consider how the quantitative BNG proposals would integrate with other ecological priorities such as great crested newt mitigation and if ecological enhancements other than area-based habitats are to be provided.

A summary of the qualitative assessment of BNG for this Site, and how it relates to the guiding principles of the Mitigation Hierarchy, are provided in the Results Section.

5.8 Limitations

- The areas and lengths provided for the pre-development and post development habitats are approximate and indicative.
- These assumptions are based on the current landscape designs and may require reassessment in line with any changes to the plans.
- The target condition scores for the proposed landscaping are preliminary estimates based on feasibility assessments. These estimates may be revised as the landscape scheme progresses and additional factors are considered.

6 Results: Pre-Development Habitats

6.1 Pre-Development Habitat Overview

This section provides a description of the existing (Pre-development) habitats within the Site.

The majority of the Site comprised a recreational field with short sward amenity / modified grassland, of relatively low ecological value. The grassland has been regularly mowed (and the arisings removed) and appeared to receive much nutrient enrichment and trampling impacts from the frequent dog walkers and sports activities. Bordering the Site was a woodland belt and strip of scrub which formed, in places, an ecotone as the habitat graded from woodland, scrub and finally to grassland. To represent the extent of the scrub, which varied in width, an approx. 1m strip was added to the woodland belt area on the UKHab map (Appendix A).

A basketball court (developed land / sealed surface) and cricket pitch (artificial unvegetated, unsealed surface) were present in the centre of the grassland and small children's play area (part wood chippings and part modified grassland) was located to the south. The 'Angmering Sports and Social Club' building and associated car parking was located at the main entrance to the Site, along the southern boundary. A small patch of tall ruderal habitat (tall forbs) was located adjacent to the carpark. A small number of individual trees were present on the grassland, towards the perimeter of the Site.

6.2 Pre-Development Habitat Types

In summary, the following habitats were recorded on-site in 2024 and classified in line with the UKHab methodology[12]:

- Other broadleaved woodland (w1g)
- Modified grassland (g4)
- Individual urban trees (g4 1171)[13]
- Mixed scrub (h3dh
- Tall forbs (g4 16)
- Introduced shrub (g4 847)
- Developed land; sealed surface (u1b, u1b5)
- Artificial unvegetated, unsealed surface (u1c)
- Native hedgerow (h2a)

6.3 Irreplaceable Habitats

No irreplaceable habitats[14] were recorded on-site.

[12] UKHab Ltd (2023). UK Habitat Classification Version 2.0. Available at: at https://www.ukhab/org

[13] Trees outline the redline boundary were not considered in this assessment

[14] GOV.UK Guidance: Irreplaceable habitat Available at: https://www.gov.uk/guidance/irreplaceable-habitats

6.4 Pre-Development Habitat Areas & Lengths

The pre-development habitat areas and lengths (summed for each habitat type) used in the Metric are shown in Table 3 below and illustrated in Appendix A.

Table 3: Pre-Development Baseline Habitat Types and Sizes

Habitat type (UK Habitat Classification) for use within the Metric	Size of habitat type (Area ha / length km) (All conditions summed)
Area Based Habitats	
Artificial unvegetated, unsealed surface	0.017
Developed land; sealed surface	0.157
Introduced shrub	0.001
Mixed scrub	0.129
Modified grassland	3.204
Other woodland; broadleaved	0.578
Tall forbs	0.008
Total Site Area [Excluding Urban Trees]:	4.09
Individual trees Urban tree (12)	0.098
Linear Habitats	
Native Hedgerow	0.01629

6.5 Habitat Condition

Appendix C provides the Condition Assessment Sheets and the PEA Report[6] provides details of species recorded within each habitat type. A summary of the condition assessment is provided here.

The Metric automatically assigns a non-applicable ('N/A') condition for introduced shrub, developed land; sealed surface, and artificial unvegetated, unsealed surface.

- **Modified grassland:** This habitat comprised intensively managed short sward, mown amenity / modified grassland present across most of the Site. The condition of the modified grassland was assessed as '**Poor Condition**' due to its uniform sward height and low species richness.
- **Other broadleaved woodland:** The condition of the 'other broadleaved woodland' has been assessed by field survey and from the results of the most recent Tree Survey[15]. This woodland belt was dense and dark along much of the western boundary and has been assessed as in '**Poor Condition**' based on its limited vertical structure, absence of veteran trees, evidence of diseased trees and lack of open spaces.
- **Mixed Scrub:** The strip of mixed scrub which bordered the 'other broadleaved woodland' was assessed as in '**Moderate Condition**' as it was dominated by bramble and lacked glades or rides.
- **Individual Trees; Urban Trees:** The majority of trees on-site fell inside the woodland boundary. Those 12 trees considered as 'individual trees' were assessed according to the condition sheet criteria using the: 1) results of the 'Ground Level Tree Assessment' undertaken as part of the bat surveys undertaken for the Site[16]; 2) observations made during the UKHab field survey; and 3) from the results of the most recent Tree Survey[15]. Eight trees were assessed to possess '**Moderate Condition**' (T1, T2, T3, T5, T6, T26, T32 and T33), and four trees (T4, T7, T8 and T29) were assessed to possess '**Good Condition**'.

[15] Arbtech Palmer Road, Recreation Ground, Arboricultural Impact Assessment, Arbtech AIA 01

[16] John Wenman (2024) Angmering Sports Hub - Ground Level Tree Assessment

- **Native Hedge:** the short length of hedgerow located to the rear of a garden backing onto the Site, was assessed to be in '**Good Condition**'.

6.6 Strategic Significance

The strategic significance value for each 'Pre-Development Habitat' and 'Post-Development Habitat' was assessed. Whilst the Site is not within a 'Biodiversity Opportunity Area', approx. half of the Site has been categorised as a 'Network Expansion Zone 2', which is defined as:

"*Network Enhancement Zone 2: Land connecting existing patches of primary and associated habitats which is less likely to be suitable for creation of the primary habitat. Action in this zone that improves the biodiversity value through land management changes and/or green infrastructure provision can be targeted here.* [17]"

As such, it is considered that habitats on-site, pre- and post- development, would be of '**High Strategic Significance'.**

[17] Natural England (2020) Habitat Networks (England). Available at: https://data.gov.uk/dataset/0ef2ed26-2f04-4e0f-9493-ffbdbfaeb159/habitat-networks-england. [last accessed 44/11/24]

7 Results: Post-Development Habitats

7.1 Post-Development Habitat Overview

The proposed landscaping strategy has been designed to retain, protect and enhance as much of the existing Medium Distinctness Habitats as possible. The new planting will be kept as naturalistic, utilising native plants where possible to enhance biodiversity.

7.2 Post-Development Habitat Types

The scheme will see the creation of the following soft landscaping habitats:

- Modified grassland (including wildflower planting, amenity grassland, sports grass and grass within the grasscrete – which has been assumed to feature approx. 50% grass / 50 % hardstanding);
- Bioswale;
- Mixed scrub;
- Introduced shrub (ornamental planting);
- Native hedgerow; and
- 95 New urban trees.

7.3 Post-Development Habitat Areas & Lengths

The following table sets out the habitats (with the areas / lengths summed for each habitat type) that will feature in the proposed development (as illustrated in Appendix B). In addition to the newly created habitats listed above, the post-development habitats will also include retained habitats and enhancement habitats.

Table 4: Post-Development Habitat Types and Sizes

Habitat type (UK Habitat Classification) for use within the Metric	Size of habitat type (Area ha / length km) (All components summed)
Area Based Habitats [Retained]	
Individual trees Urban tree (10 retained)	0.0776
Area Based Habitats [Enhanced]	
Mixed scrub	0.107
Other woodland; broadleaved	0.515
Total Area Enhanced	**0.622**
Area Based Habitats [Created]	
Grassland - Modified grassland	1.74655
Heathland and shrub - Mixed scrub	0.1162
Urban - Artificial unvegetated, unsealed surface	0.8234
Urban - Bioswale	0.0774
Urban - Developed land; sealed surface	0.64165
Urban - Introduced shrub	0.0654
Total Area Created [Excluding Urban Trees]:	3.4706
Total Site Area (Retained + Enhanced + Created) [Excluding Urban Trees]	4.09
Individual trees Urban tree (95 small trees planted)	0.3868
Linear Habitats [Created]	
Native Hedgerow	0.139

7.4 Habitat Condition

The Metric automatically assigns a non-applicable ('N/A') condition for proposed introduced shrub, developed land; sealed surface and artificial unvegetated, unsealed surface.

All newly areas of amenity grassland, sports grass and grass within the grasscrete (modified grassland) will be short sward, modified grassland used for amenity that has assumed to establish only as '**Poor Condition**' habitat.

The newly planted modified grassland, to be planted as wildflower planting, will be seeded using he Emorsgate Seed mix 'EW1 Woodland Mixture' and 'EH1 Hedgerow Mixture'. This habitat will feature along the perimeter of the Site and will not be subject to trampling impacts, and will be 'species rich', with planting including common bent *Agrostis capillaris*, sweet vernal-grass *Anthoxanthum odoratum*, tufted hair-grass *Deschampsia cespitosa*, wood avens *Geum urbanum* and hedge bedstraw *Galium album*. The wildflower habitat will be managed to establish a varied sward height, with minimal scrub / bracken encroachment and as such has been assumed to reach '**Good Condition**'.

The newly created 'Mixed Scrub' habitat will be of mixed native species of varying maturity, with no non-native invasive species and has therefore been assumed to reach a '**Good Condition**'.

The newly created 'Bioswale' habitat will possess a varied structure and will include a diverse range of native wildflower plant species beneficial to wildlife, with no non-native invasive species. The Emorsgate Seed mix 'EM8F Wild Flowers for Wetlands' will be used which includes species which are tolerant of seasonally wet soils and is based on the vegetation of traditional floodplain and water meadows. This habitat has therefore been assumed to reach at '**Good Condition'**.

The new trees and hedgerows to be planted have been assumed to reach at least '**Moderate Condition**' or higher.

8 Results: Hierarchy Application

8.1 The Mitigation Hierarchy

The landscaping and site layout design has evolved to minimise effects on the more sensitive habitats.

8.1.1 Avoidance

The site layout will see the retention of the majority of the Site's green linear features, mature trees, woodland and mixed scrub.

The Project Ecologists have worked collaboratively with the Project Team to further avoid ecological impacts this included the: 1) relocations / removal of access points which would have resulted in the loss of additional areas of woodland and scrub; and 2) the relocation of a large storage container which would have lead to fragmentation impacts.

8.1.2 Mitigation & Compensation

The scheme will see the provision of new soft landscaping including the creation of the following habitats:

- Modified grassland (including wildflower planting, amenity grassland, sports grass and grass within the grasscrete – which has been assumed to feature approx. 50% grass / 50 % hardstanding);
- Bioswale;
- Mixed scrub;
- Introduced shrub (ornamental planting);
- Native hedgerow; and
- 95 New urban trees.

The Scheme will also result in the:

- Implementation of a sensitive artificial lighting strategy;
- Enhancement and management of the retained 'other broadleaved woodland' and mixed scrub habitat.

8.1.3 Enhancement

The scheme will include the following enhancements:

- Integral bat & bird boxes on new buildings;
- Dormouse nest boxes; and
- Creation of log piles and hibernacula, built from the wood of broadleaved trees felled on-site to provide habitat for wildlife to shelter and hibernate in.

8.2 The Biodiversity Gain Hierarchy:

Point 1: *'in relation to onsite habitats which have a medium, high and very high distinctiveness (a score of four or more according to the statutory biodiversity metric), the avoidance of adverse effects from the development and, if they cannot be avoided, the mitigation of those effects.'*

There are three habitats on-site which Score 4 or more in terms of distinctiveness:

- Mixes scrub: Medium distinctiveness;
- Other woodland; broadleaved: Medium distinctiveness; and
- Individual trees; Urban tree: Medium distinctiveness.

As set out above, biodiversity has been a central factor underpinning and guiding site detailed design for the community sports hub. As a result, the design, has evolved to avoid / minimise impacts on sensitive ecological features wherever possible, whilst delivering a viable, much-needed, community sports facility.

Consequently, the scheme bought forward will include the retention of the majority of the most sensitive / Medium Distinctiveness habitat on-site.

Despite this and to accommodate a full-sized cricket pitch and access to the Site, the overall small reduction in the extent of some habitats, which includes those of Medium Distinctiveness (mixed scrub, other broadleaved woodland and individual trees), has been unavoidable.

Point 2: '*then, in relation to all onsite habitats which are adversely affected by the development, the adverse effect should be compensated by prioritising in order, where possible, the enhancement of existing onsite habitats, creation of new onsite habitats, allocation of registered offsite gains and finally the purchase of biodiversity credits.*'

The adverse effects of the development on the existing habitats will be compensated for by the retention and enhancement of existing habitats and, where this has not been possible, the creation of **on-site** habitats.

9 Biodiversity Metric Results

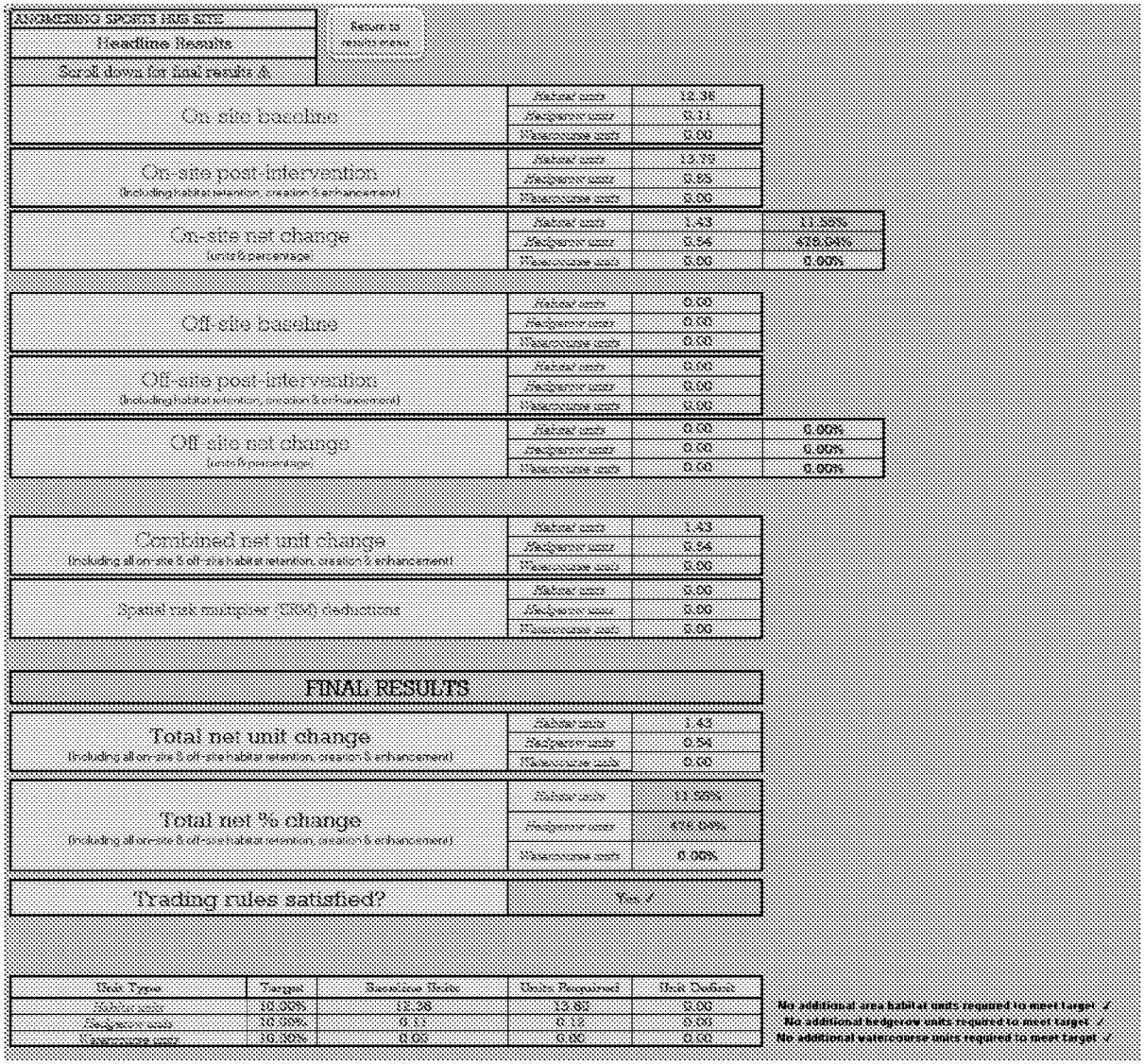
9.1 Introduction

Detailed results of the assessment are provided in the 'Statutory Biodiversity Metric' and are provided as a separate document.

9.2 Headline Results

The following Headlines Results are taken from the Statutory Metric Calculation Tool:

Table 5: Summary of Biodiversity Metric Headline Results

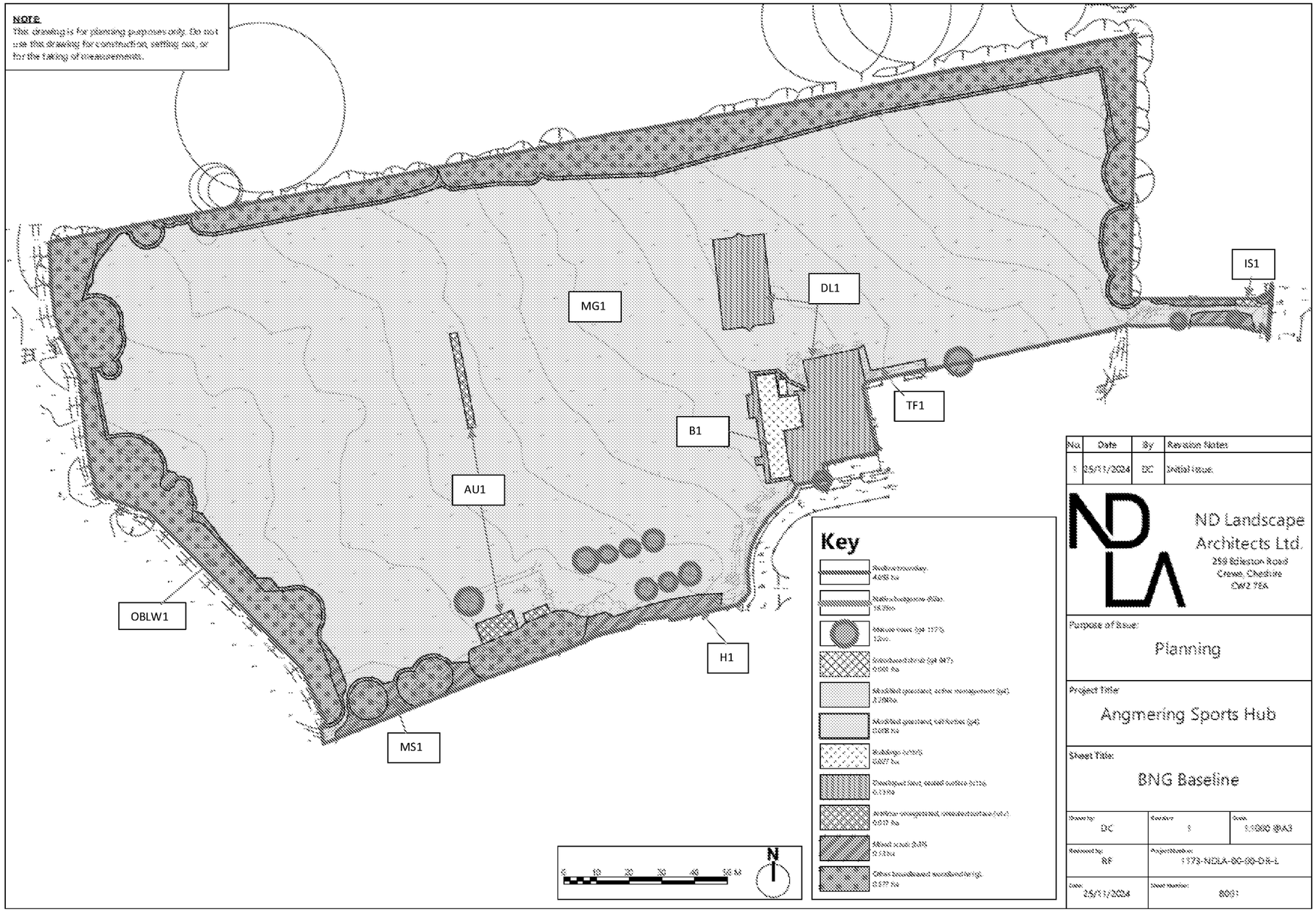


Based on the current landscape proposals[1] and the Statutory Metric calculation, the proposed Development is expected to result in:

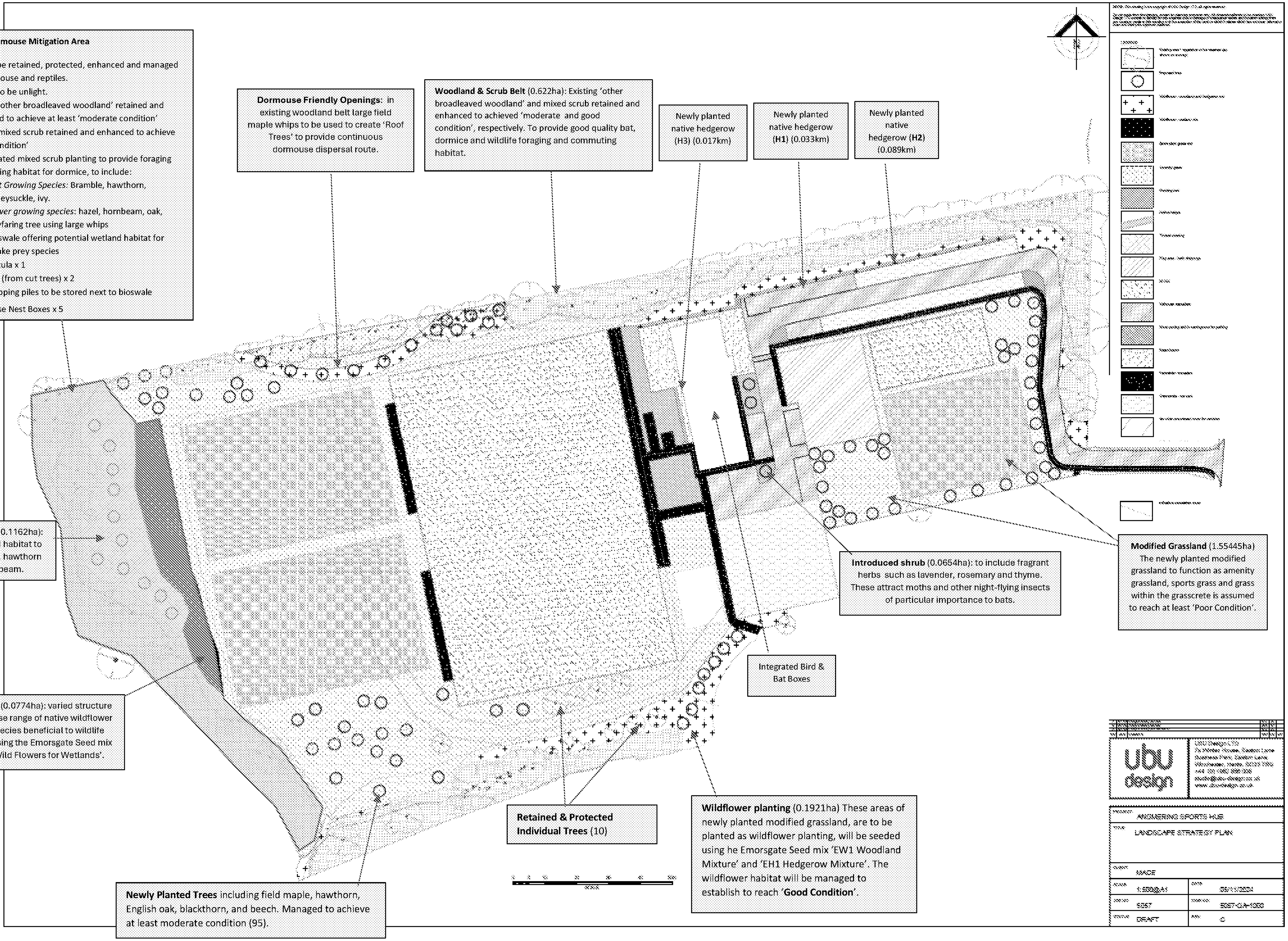
- A Total Net Percentage Gain of 11.55% for habitat units and a unit gain of 1.43 habitat units was identified following the calculation. This has been achieved by retaining and enhancing the majority of the existing 'other broad-leaved woodland' and mixed scrub, and the creation of new ecologically value habitats such as mixed scrub and a biodiverse swale.

- A Total Net Percentage Net Gain of 476.04% for hedgerow units and a unit gain of 0.54 hedgerow units has been achieved. This has been achieved by retaining the existing hedgerows and planting new native hedgerows across the Site.
- Fulfilment of the Metric Trading Rules.

Appendix A: Pre-Development Habitat Plan



Appendix B: Post-Development Habitats Plan


Reptile & Dormouse Mitigation Area
– Area to be retained, protected, enhanced and managed for dormouse and reptiles.
– Habitat to be unlight.
– Existing 'other broadleaved woodland' retained and enhanced to achieve at least 'moderate condition'
– Existing mixed scrub retained and enhanced to achieve 'good condition'
– New created mixed scrub planting to provide foraging and nesting habitat for dormice, to include:
o Fast Growing Species: Bramble, hawthorn, honeysuckle, ivy.
o Slower growing species: hazel, hornbeam, oak, wayfaring tree using large whips
– New Bioswale offering potential wetland habitat for grass snake prey species
– Hibernacula x 1
– Log piles (from cut trees) x 2
– Grass clipping piles to be stored next to bioswale
– Dormouse Nest Boxes x 5
Dormouse Friendly Openings: in existing woodland belt large field maple whips to be used to create 'Roof Trees' to provide continuous dormouse dispersal route.
Woodland & Scrub Belt (0.622ha): Existing 'other broadleaved woodland' and mixed scrub retained and enhanced to achieved 'moderate and good condition', respectively. To provide good quality bat, dormice and wildlife foraging and commuting habitat.
Newly planted native hedgerow (H3) (0.017km)
Newly planted native hedgerow (H1) (0.033km)
Newly planted native hedgerow (H2) (0.089km)
Mixed Scrub (0.1162ha): newly planted habitat to include hazel, hawthorn and hornbeam.
Introduced shrub (0.0654ha): to include fragrant herbs such as lavender, rosemary and thyme. These attract moths and other night-flying insects of particular importance to bats.
Modified Grassland (1.55445ha) The newly planted modified grassland to function as amenity grassland, sports grass and grass within the grasscrete is assumed to reach at least 'Poor Condition'.
Integrated Bird & Bat Boxes
Bioswale (0.0774ha): varied structure with diverse range of native wildflower plant species beneficial to wildlife seeded using the Emorsgate Seed mix 'EM8F Wild Flowers for Wetlands'.
Retained & Protected Individual Trees (10)
Wildflower planting (0.1921ha) These areas of newly planted modified grassland, are to be planted as wildflower planting, will be seeded using he Emorsgate Seed mix 'EW1 Woodland Mixture' and 'EH1 Hedgerow Mixture'. The wildflower habitat will be managed to establish to reach 'Good Condition'.
Newly Planted Trees including field maple, hawthorn, English oak, blackthorn, and beech. Managed to achieve at least moderate condition (95).
ubu design
ANGMERING SPORTS HUB
LANDSCAPE STRATEGY PLAN
MACE
1:500@A1
05/11/2024
5057
5057-GA-1050
DRAFT
C

Appendix C: Pre-Development Habitat Condition Assessments

Survey Cover Sheet			
Survey date/s	4th June 2024 and during subsquent Phase 2 Surveys	**Site name or location**	ANGMERING SPORTS HUB SITE
Weather conditions	Bright, clear and dry	**Project or development name**	ANGMERING SPORTS HUB SITE
Surveyor name	Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM	**On-site or off-site**	On-site
Survey reference		**Reason for assessment (if not baseline condition survey)**	
Notes			

Site or location	Condition sheets	Total number of condition sheets used, or habitat parcels	Number of parcels of each condition achieved					Notes
			Good	Fairly Good	Moderate	Fairly Poor	Poor	
	Coastal							
	Coastal lagoons							
	Coastal saltmarsh							
	Ditches							
Angmering Sports Hub Site	Grassland low distinctiveness	1 Parcel					1	MG1
	Grassland medium, high, very high distinctiveness							
	Heathland							
Angmering Sports Hub Site	Hedgerow	1 Parcel		1				H1
Angmering Sports Hub Site	Individual trees	Total Trees: 12 Trees on Sheet 1: 10 Trees on Sheet 2: 2		4		8		
	Intertidal biogenic reefs							
	Intertidal hard structures							
	Intertidal seagrass							
	Intertidal sediment							
	Lakes							
	Limestone pavement							
	Line of trees							
	Orchard							
	Ponds							
	Rocky shore							
Angmering Sports Hub Site	Scrub	1			1			MS1
	Sparsely vegetated land							
Angmering Sports Hub Site	Urban	1	1					TF1
	Wetland							
Angmering Sports Hub Site	Woodland	1					1	OELW1
	Wood-pasture and parkland							

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)

UK Habitat Classification (UKHab) Habitat Type

Grassland - Modified grassland

Habitat Description

The majority of the Site comprised intensively managed short sward, mown amenity / modified grassland, with very few species present.

ukhab - UK Habitat Classification

On-site or off-site, site name and location	Angmering Sports Hub Site On-site	**Survey date and Surveyor name**	Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM 4th June 2024
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)		**Habitat parcel reference**	MG1
		Grid reference	see BNG UKhab Map

	Condition Assessment Criteria	Criterion passed (Yes or No)										Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	0										
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	0										
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	1										
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	1										
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	1										
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	1										
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	1										
	Essential criterion achieved (Yes or No)	No										
	Number of criteria passed	5										

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved									
Passes 6 or 7 criteria including passing essential criterion A	Good (3)										
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)										
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	Poor									

Suggested enhancement interventions to improve condition score

Footnotes

Footnote 1 – Creeping thistle *Cirsium arvense* , spear thistle *Cirsium vulgare* , curled dock *Rumex crispus* , broad-leaved dock *Rumex obtusifolius* , common nettle *Urtica dioica* , creeping buttercup *Ranunculus repens* , greater plantain *Plantago major* , white clover *Trifolium repens* and cow parsley *Anthriscus sylvestris* .

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – Wildlife and Countryside Act 1981 (as amended).

Condition sheet: HEDGEROW Habitat Types

Native hedgerow
Native hedgerow - associated with bank or ditch
Native hedgerow with trees
Native hedgerow with trees - associated with bank or ditch
Species-rich native hedgerow
Species-rich native hedgerow - associated with bank or ditch
Species-rich native hedgerow with trees
Species-rich native hedgerow with trees - associated with bank or ditch

Small length of hedgerow to the rear of a garden backing onto the Site. Species recorded included hawthorn Crataegus monogyna, honeysuckle Lonicera periclymenum and bramble

UKHab – UK Habitat Classification

On-site or off-site, site name and location	Angmering Sports Hub Site	Survey date and Surveyor name	Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM 4th June 2024
Limitations (if applicable)		Survey reference (if relating to a wider survey)	

A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.

This assessment is based on the Hedgerow Survey Handbook[1] and Favourable Conservation Status document[2]. For further clarification please refer to the Hedgerow Survey Handbook.

Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.

Attributes and functional groupings (A, B, C, D and E)		Criteria – the minimum requirements for 'favourable condition'	Criteria description	Habitat parcel reference: H1 / Grid reference: see BNG UKhab Map										
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	1										
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn Prunus spinosa suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	1										
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	1										
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	1										
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	1										
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles Urtica spp., cleavers Galium aparine and docks Rumex spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	1										
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].	1										
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	0										
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient[8]), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.											
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.											

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Category	Category Requirements	Metric Score
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group.	3
Moderate	No more than 4 failures in total; AND Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; OR Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	

Category	Category Requirements	Metric score
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; AND Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; OR Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	3

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.

Habitat Description

A small number of individual trees were recorded near the perimeter of the Site species included: holly Ilex aquifolium, horse chestnut Aesculus hippocastanum, common oak Quercus robur and holm oak Quercus ilex.
As there were more than 10 trees, a second Condition Sheet has been provided for the two extra trees.

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

On-site or off-site, site name and location	Angmering Sports Hub Site	**Survey date and Surveyor name**	Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM 4th June 2024. Information with the Arboricultural Method Statement
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)			

		T 1	T2	T3	T4	T5	T6	T7	T8	T26	T29	
		Habitat parcel reference										
		T 1	T2	T3	T4	T5	T6	T7	T8	T26	T29	
		Grid reference										
Condition Assessment Criteria		see BNG UKhab Map	see BNG UKha	see BNG UKha	see BNG UKhab	see BNG UKha	see BNG UKha	see BNG UKha	see BNG UKha	see BNG UKha	see BNG UKhab	
		Criterion passed (Yes or No)										**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).	0	0	0	1	0	0	1	1	1	1	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	1	1	1	1	1	1	1	1	1	1	
C	The tree is mature (or more than 50% within the block are mature)[1].	0	1	1	1	1	1	1	1	1	1	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	1	1	1	1	1	1	1	1	0	1	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	0	0	0	0	0	0	0	0	0	0	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	1	1	1	1	1	1	1	1	1	1	
	Number of criteria passed	3	4	4	5	4	4	5	5	4	5	
Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved**										
Passes 5 or 6 criteria	Good (3)				Good			Good	Good		Good	
Passes 3 or 4 criteria	Moderate (2)	Mod	Mod	Mod		Mod	Mod			Mod		
Passes 2 or fewer criteria	Poor (1)											

Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.

Suggested enhancement interventions to improve condition score

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.

Habitat Description

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

On-site or off-site, site name and location	Angmering Sports Hub Site	**Survey date and Surveyor name**	Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM 4th June 2024. Information with the Arboricultural Method Statement
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)			

		Habitat parcel reference										
		T32	T33									
		Grid reference										
Condition Assessment Criteria		see BNG UKha	see BNG UKha									
		Criterion passed (Yes or No)										**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).	0	1									
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	1	1									
C	The tree is mature (or more than 50% within the block are mature)[1].	1	1									
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	0	0									
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	0	0									
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	1	1									
	Number of criteria passed	3	4									

Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved ✓/✗									
Passes 5 or 6 criteria	Good (3)										
Passes 3 or 4 criteria	Moderate (2)	Mod	Mod								
Passes 2 or fewer criteria	Poor (1)										

Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.

Suggested enhancement interventions to improve condition score[2]

Condition Sheet: SCRUB Habitat Type

Habitat Type

Heathland and shrub - Blackthorn scrub
Heathland and shrub - Gorse scrub
Heathland and shrub - Hawthorn scrub
Heathland and shrub - Hazel scrub
Heathland and shrub - Mixed scrub
Heathland and shrub - Dunes with sea buckthorn (H2160)
Heathland and shrub - Willow scrub

Habitat Description

Mixed Scrub: a scrub strip (mixed scrub), dominated by bramble Rubus fruticosus agg. and nettles Urtica dioica, bordered the majority of the woodland perimeter and was more pronounced along the northern and eastern boundary. Other, less abundant, species recorded included: false oat grass Arrhenatherum elatius, cleavers Galium aparine, dock, herb Robert Geranium robertianum, cock's foot, rough meadow grass and ground ivy Glechoma headracea.

For Dunes with sea buckthorn see:	Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (jncc.gov.uk)
For other scrub types see:	ukhab – UK Habitat Classification

On-site or off-site, site name and location	Angmering Sports Hub Site On-site	**Survey date and Surveyor name**	Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM 4th June 2024
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)		**Habitat parcel reference**	MS1
		Grid reference	see BNG UKHAB Map

	Condition Assessment Criteria	Condition passed (Yes or No)										Notes (e.g. justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range).[1] - At least 80% of scrub is native, - There are at least three native woody species[2], - No single species comprises more than 75% of the cover (except hazel *Corylus avellana*, common juniper *Juniperus communis*, sea buckthorn *Hippophae rhamnoides* (only in its restricted native range), or box *Buxus sempervirens*, which can be up to 100% cover).	0										Bramble covers more than 75% of the scrub
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran[3]) shrubs are all present.	1										
C	There is an absence of invasive non-native plant species[4] (as listed on Schedule 9 of WCA[5]) and species indicative of suboptimal condition[6] make up less than 5% of ground cover.	1										
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	1										
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	0										
	Number of criteria passed:	3										

Condition Assessment Result (no. of Criteria)	Condition Assessment Score	Score Achieved (√)									
Passes 5 criteria	Good (3)										
Passes 3 or 4 criteria	Moderate (2)	MOD									
Passes 2 or fewer criteria	Poor (1)										

Suggested enhancement interventions to improve condition score

Condition Sheet: URBAN Habitat Type

Sparsely vegetated land - Ruderal/Ephemeral
Sparsely vegetated land - Tall forbs
Urban - Allotments
Urban - Biodiverse green roof
Urban - Bioswale
Urban - Cemeteries and churchyards
Urban - Facade-bound green wall
Urban - Ground based green wall
Urban - Intensive green roof
Urban - Open mosaic habitats on previously developed land
Urban - Rain garden
Urban - Sustainable drainage system (SuDS)
Urban - Vacant or derelict land
Urban - Bare ground

Tall Forbes: A small patch of tall forbs was present along the southern boundary of the Site.

See the Statutory Biodiversity Metric User Guide for green roofs, and UK Habitat Classification (UKHab) for other habitats:

On-site or off-site, site name and location	Angmering Sports Hub Site On-site	**Survey date and Surveyor name**	Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM 4th June 2024
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)		**Habitat parcel reference**	TF1
		Grid reference	see BNG UKHAB Map

Core Criteria - must be assessed for all **urban habitat types**:													
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	1											
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	1											
C	Invasive non-native plant species (listed on Schedule 9 of WCA[1]) and others which are to the detriment of native wildlife (using professional judgement)[2] cover less than 5% of the total vegetated area[3]. **Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).**	1											
Additional Criterion - must be assessed for **Open mosaic habitat on previously developed land** only:													
D	The parcel shows spatial variation and forms a mosaic of bare substrate PLUS: - At least four early successional communities (a) to (i); Communities: (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools.												
Additional Criteria - must be assessed for **Bioswale and SuDS** habitat types only:													
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife[4].												
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.												
Additional Criterion - must be assessed for **intensive green roofs** only:													
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).												
Additional Criterion - must be assessed for **Biodiverse green roofs** only:													
G	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. **Note – to achieve Good condition, some additional habitat, such as sand piles, stones, logs etc. are present.**												
		Yes											
		3											

Results for habitats requiring assessment of **3 core criteria** only **(all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs)**:												
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C.	Good (3)	Good										
• Passes 2 of 3 core criteria; OR • Passes 3 of 3 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)											
• Passes 0 or 1 of 3 core criteria.	Poor (1)											
Results for **Green roofs** and **Open mosaic habitat on previously developed land** requiring assessment of **4 criteria** only – core criteria plus additional criterion specified for habitat type):												
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes additional criterion relevant to specific habitat type (D, F or G).	Good (3)											
• Passes 2 or 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)											
• Passes 0 or 1 of 4 criteria.	Poor (1)											
Results for **Bioswale or SuDS** requiring assessment of **5 criteria** - core criteria plus additional criteria specified for habitat type):												
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes all additional criteria relevant to specific habitat type (Group E)	Good (3)											
• Passes 3 or 4 of 5 criteria; OR • Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)											
• Passes 2 or fewer of 5 criteria.	Poor (1)											

Condition Sheet: WOODLAND Habitat Type

Woodland and forest - Lowland beech and yew woodland
Woodland and forest - Lowland mixed deciduous woodland
Woodland and forest - Native pine woodlands
Woodland and forest - Other coniferous woodland
Woodland and forest - Other Scot's pine woodland
Woodland and forest - Other woodland; broadleaved
Woodland and forest - Other woodland; mixed
Woodland and forest - Upland birchwoods
Woodland and forest - Upland mixed ashwoods
Woodland and forest - Upland oakwood
Woodland and forest - Wet woodland

The perimeter of the recreational field was bordered by a belt of broadleaved woodland (other woodland, broadleaved). The strip varied in width with the densest stands (approx. 15m wide) located to the south west and the central section of the northern boundary. The habitats met the UKHabs criteria for woodland i.e. 'land with ≥ 25% cover of trees that are ≥ 5m in height'. Species included: wild cherry: Prunus avium, field maple Acer campestre, sycamore Acer pseudoplatanus, ash Fraxinus excelsior, oak Quercus spp., lime Tilia spp., horse chestnut, hazel Corylus avellana, blackthorn Prunus spinosa, common alder Alnus glutinosa and white poplar Populus alba.

ukhab - UK Habitat Classification

This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:

Woodland Wildlife Toolkit (sylva.org.uk)

IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.

On-site or off-site, site name and location	Angmering Sports Hub Site On-site	**Survey date and Surveyor name**	Dr Suzy Cardy BSc (Hons) MSc CEcol MCIEEM	**Habitat parcel reference** OBLW 1
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**		**Grid reference** see BNG UKHA B Map

	Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes (such as justification)
A	**Age distribution of trees**	Three age-classes[1] present.	Two age-classes[1] present.	One age-class[1] present.	2	Young and mature trees present
B	**Wild, domestic and feral herbivore damage**	No significant browsing damage evident in woodland[2].	Evidence of significant browsing pressure is present in less than 40% of whole woodland[2].	Evidence of significant browsing pressure is present in 40% or more of whole woodland[2].	3	
C	**Invasive plant species**	No invasive species[3] present in woodland.	Rhododendron *Rhododendron ponticum* or cherry laurel *Prunus laurocerasus* not present, and other invasive species[3] <10% cover.	Rhododendron or cherry laurel present, or other invasive species[3] ≥10% cover.	3	
D	**Number of native tree species**	Five or more native tree or shrub species[4] found across woodland parcel.	Three to four native tree or shrub species[4] found across woodland parcel.	Two or less native tree or shrub species[4] across woodland parcel.	3	Silver birch, hawthorn, blackthorn, elm, common oak, wild cherry, ash and alder
E	**Cover of native tree and shrub species**	>80% of canopy trees and >80% of understory shrubs are native[5].	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native[5].	<50% of canopy trees and <50% of understory shrubs are native[5].	3	
F	**Open space within woodland**	10 - 20% of woodland has areas of temporary open space[6]. Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted[7].	21 - 40% of woodland has areas of temporary open space[6].	<10% or >40% of woodland has areas of temporary open space[6]. But if woodland <10ha has <10% temporary open space, please see Good category[7].	1	
G	**Woodland regeneration**	All three classes present in woodland[8]; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland[8].	No classes or coppice regrowth present in woodland[8].	2	
H	**Tree health**	Tree mortality 10% or less, no pests or diseases and no crown dieback[9].	11% to 25% tree mortality and or crown dieback or low-risk pest or disease present[9].	Greater than 25% tree mortality and or any high-risk pest or disease present[9].	2	Diseased ash and elm.
I	**Vegetation and ground flora**	Recognisable NVC plant community[10] at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community[10] at ground layer present.	No recognisable woodland NVC plant community[10] at ground layer present.	1	
J	**Woodland vertical structure**	Three or more storeys across all survey plots, or a complex woodland[11].	Two storeys across all survey plots[11].	One or less storey across all survey plots[11].	2	
K	**Veteran trees**	Two or more veteran trees[12] per hectare.	One veteran tree[12] per hectare.	No veteran trees[12] present in woodland.	1	
L	**Amount of deadwood**	50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities[13].	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities[13].	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities[13].	1	
M	**Woodland disturbance**	No nutrient enrichment or damaged ground evident[14].	Less than 1 hectare in total of nutrient enrichment across woodland area, and or less than 20% of woodland area has damaged ground[14].	1 hectare or more of nutrient enrichment, and or 20% or more of woodland area has damaged ground[14].	1	
				Total Score (out of a possible 39)	25	

Total score >32 (33 to 39)	Good (3)	
Total score 26 to 32	Moderate (2)	
Total score <26 (13 to 25)	Poor (1)	POOR