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NATURAL PROGRESSION

Land at Hanlye Lane, Cuckfield, West Sussex

Biodiversity Net Gain Assessment

June 2024

Land at Hanlye Lane, Cuckfield, West Sussex

Biodiversity Net Gain Assessment

Client:	Sigma Homes Ltd	
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Contents

0	Executive Summary	i
1	Introduction	1
1.1	Purpose of the Report	1
1.2	Proposed Construction Activities	1
1.3	Biodiversity Net Gain and the Defra Metric	1
2	Policy Background	4
2.1	National Planning Policy	4
2.2	Local Planning Policy	5
3	Methodology	6
3.1	Overview	6
3.2	Project Planning (Step 1)	6
3.3	Data Collection (Step 2)	7
3.4	Calculation (Step 3)	7
3.5	Informing Design and Decisions (Step 4)	8
3.6	Assumptions and Limitations	8
4	Results	10
	References and Bibliography	12
	Appendix I: UKHab Pre-development Plan	A
	Appendix II: UKHab Post-development Plan	C
	Appendix III: Pre-development Habitat Condition Sheets (Area baseline)	E
	Appendix IV: A-1 Site Habitat Baseline	L
	Appendix V: Pre-development Habitat Condition Sheets (Linear baseline)	O
	Appendix VI: B-1 Site Hedge Baseline	Q
	Appendix VII: Post-development Habitat Condition Sheets (Area creation)	S
	Appendix VIII: A-2 Site Habitat Creation	Y
	Appendix IX: Post-development Habitat Condition Sheets (Hedgerow Creation)	AA
	Appendix X: B-2 Site Hedge Creation	EE
	Appendix XI: Legal and Technical Limitations	GG

List of Figures

<i>Figure 1.1: Site location plan</i>	2
<i>Figure 1.2: Detailed Site Plan</i>	3
<i>Figure 3.1: Key Steps to Apply the Defra Metric</i>	6

0 Executive Summary

- 0.1.1 Biodiversity Net Gain is an approach to development which leaves the natural environment in a better state than beforehand. Defra has published a metric by which the biodiversity losses and gains associated with a particular development can be calculated. Urban Edge Environmental Consulting was commissioned by Sigma Homes Ltd ('the Applicant') to undertake a Biodiversity Net Gain assessment using the Statutory Biodiversity Metric for the site of a proposed residential development on Land at Hanlye Lane, Cuckfield, West Sussex.
- 0.1.2 In England, Biodiversity Net Gain is mandatory under Schedule 7A of the Town and Country Planning Act 1990. The objective is for developers to deliver a 10% gain in biodiversity value. This means a development will result in more or better quality natural habitat than there was pre-development. However, this assessment relates to a planning application submitted prior to the inception of mandatory Biodiversity Net Gain.
- 0.1.3 Adopted Policy DP38 Biodiversity of the *Mid Sussex District Plan 2014-2031* states that: *"Biodiversity will be protected and enhanced by ensuring development: Contributes and takes opportunities to improve, enhance, manage and restore biodiversity..."*.
- 0.1.4 The Biodiversity Net Gain assessment has been carried out using the Statutory Biodiversity Metric which uses habitats as a proxy for wider biodiversity. Pre-intervention biodiversity units calculations were informed by walkover site visits on 27 January and 25 May 2023 to establish the habitat parcels present within the development site, their size and condition. Post-intervention biodiversity units were calculated based upon the Hard and Soft Landscape Proposals, Arboricultural impact assessment & Preliminary Method Statement and liaison with the client.
- 0.1.5 There is a calculated **net loss of -19.76 BU for habitats units, equivalent to -34.39%**, associated with the current development proposals.
- 0.1.6 There is a calculated **net gain of +1.37 BU for hedgerow units, equivalent to +52.86**, associated with the current development proposals.
- 0.1.7 The proposed interventions will not satisfy trading rules associated with Medium Distinctiveness habitats (Other neutral grassland, Blackthorn scrub, Bramble scrub, Mixed scrub, and Rural trees).

1 Introduction

1.1 Purpose of the Report

- 1.1.1 Urban Edge Environmental Consulting (UEEC) has been commissioned by Sigma Homes Ltd ('the Applicant') to undertake a Biodiversity Net Gain (BNG) assessment for the site of a proposed residential development on Land at Hanlye Lane, Cuckfield, West Sussex (Grid Reference: 531093, 125522).
- 1.1.2 The Application Site lies 2.5km north-west of Haywards Heath on the outskirts of Cuckfield in the Mid Sussex District of West Sussex. The Application Site comprises c.5.62ha of undeveloped land, currently dominated by neutral semi-improved grassland (horse grazed pasture) with scattered trees and scrub.

1.2 Proposed Construction Activities

- 1.2.1 Planning consent is being sought for a residential development of 50 dwellings with vehicular and pedestrian; car parking; open space, play space; landscaping and all other associated works. The Detailed Site Plan is shown in Figure 1.2.

1.3 Biodiversity Net Gain and the Defra Metric

- 1.3.1 Biodiversity is the variety of life on earth; it includes all living things and the places in which they live. It is essential to sustain our society, well-being and economy. Biodiversity in the UK and internationally is declining as it comes under increasing pressure from development and land management practices. Enhancing biodiversity is integral to sustainable development, and BNG is an approach to development which leaves the natural environment in a measurably better state than beforehand.
- 1.3.2 In 2023 Defra published the Statutory Biodiversity Metric ('the Metric') (Natural England, 2024a), which has subsequently been updated. The metric provides a means of evaluating biodiversity losses and gains through development in a robust and consistent manner. The metric enforces the mitigation hierarchy whereby impacts to biodiversity should first be avoided, then minimised and mitigated, before being compensated where losses cannot be avoided. The Metric calculates the biodiversity value of a site before and after development to establish the change in biodiversity attributable to a particular development project.

Hanlye Lane, Cuckfield, West Sussex

 Application site boundary

Figure 1.1: Site location plan



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Scale (at A4): 1:7,500 Created by: MT

Date: Sep 2023 Reviewed by: NP

Drawing number:

UE0566ECO-HanlyeLane_LocationMap_230911





2 Policy Background

2.1 National Planning Policy

2.1.1 The revised National Planning Policy Framework (NPPF; MHCLG, 2023) advocates biodiversity and environmental gains¹ in the following paragraphs:

- ▶ Paragraph 124: *“Planning policies and decisions should a) encourage multiple benefits from both urban and rural land...and taking opportunities to achieve net environmental gains - such as developments that would enable new habitat creation...”*
- ▶ Paragraph 180: *“Planning policies and decisions should contribute to and enhance the natural and local environment by d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.”*
- ▶ Paragraph 181: *“Plans should...plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries”*
- ▶ Paragraph 185: *“To protect and enhance biodiversity and geodiversity, plans should b)...pursue opportunities for securing measurable net gains for biodiversity.”*
- ▶ Paragraph 186: *“When determining planning applications, local planning authorities should apply the following principles d)...opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity.”*

2.1.2 The Government’s ‘25 Year Environment Plan’ (HMG, 2018) set out a policy ambition to consult on mandatory BNG for development and to embed environmental net gain principle into the planning system. A Defra consultation on mandatory BNG, advocating a minimum of 10% BNG for all development, took place in December 2018² with the responses published in July 2019³. The Environment Act 2021 mandates a minimum of 10% BNG for all development.

2.1.3 In England, Biodiversity Net Gain is mandatory under Schedule 7A of the Town and Country Planning Act 1990. The objective is for developers to deliver a 10% gain in biodiversity value. This means a development will result in more or better quality natural habitat than there was pre-development. However, this assessment relates to a planning application submitted prior to the inception of mandatory Biodiversity Net Gain.

¹ Environmental gains extend beyond biodiversity gains to also include social, economic, amenity and natural capital gains.

² Defra (2018): *Net Gain – Consultation proposals*. Available online: <https://consult.defra.gov.uk/land-use/net-gain/>.

³ Defra (2019): *Net Gain – Summary of responses and government response*. Available online:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf.

2.2 Local Planning Policy

2.2.1 Adopted Policy DP38 Biodiversity of the *Mid Sussex District Plan 2014-2031* (Mid Sussex District Council, 2018) states that:

“Biodiversity will be protected and enhanced by ensuring development:

- Contributes and takes opportunities to improve, enhance, manage and restore biodiversity and green infrastructure, so that there is a net gain in biodiversity, including through creating new designated sites and locally relevant habitats, and incorporating biodiversity features within developments; and*
- Protects existing biodiversity, so that there is no net loss of biodiversity. Appropriate measures should be taken to avoid and reduce disturbance to sensitive habitats and species. Unavoidable damage to biodiversity must be offset through ecological enhancements and mitigation measures (or compensation measures in exceptional circumstances); and*

...”

3 Methodology

3.1 Overview

3.1.1 The BNG assessment has been carried out using the Defra Statutory Biodiversity Metric and accompanying *The Statutory Biodiversity Metric User Guide* (Natural England, 2024b). The Metric uses habitats as a proxy for wider biodiversity with different habitat types scored according to their relative biodiversity value. This value is then adjusted depending on the condition and location of the habitat, to calculate 'Biodiversity Units' (BU) for the specific development site. Pre-intervention BU are subtracted from the post-intervention BU to determine the change in biodiversity value attributable to the development.

3.1.2 There are four key steps to using the Metric which are illustrated in Figure 3.1 and described further in the following sections.

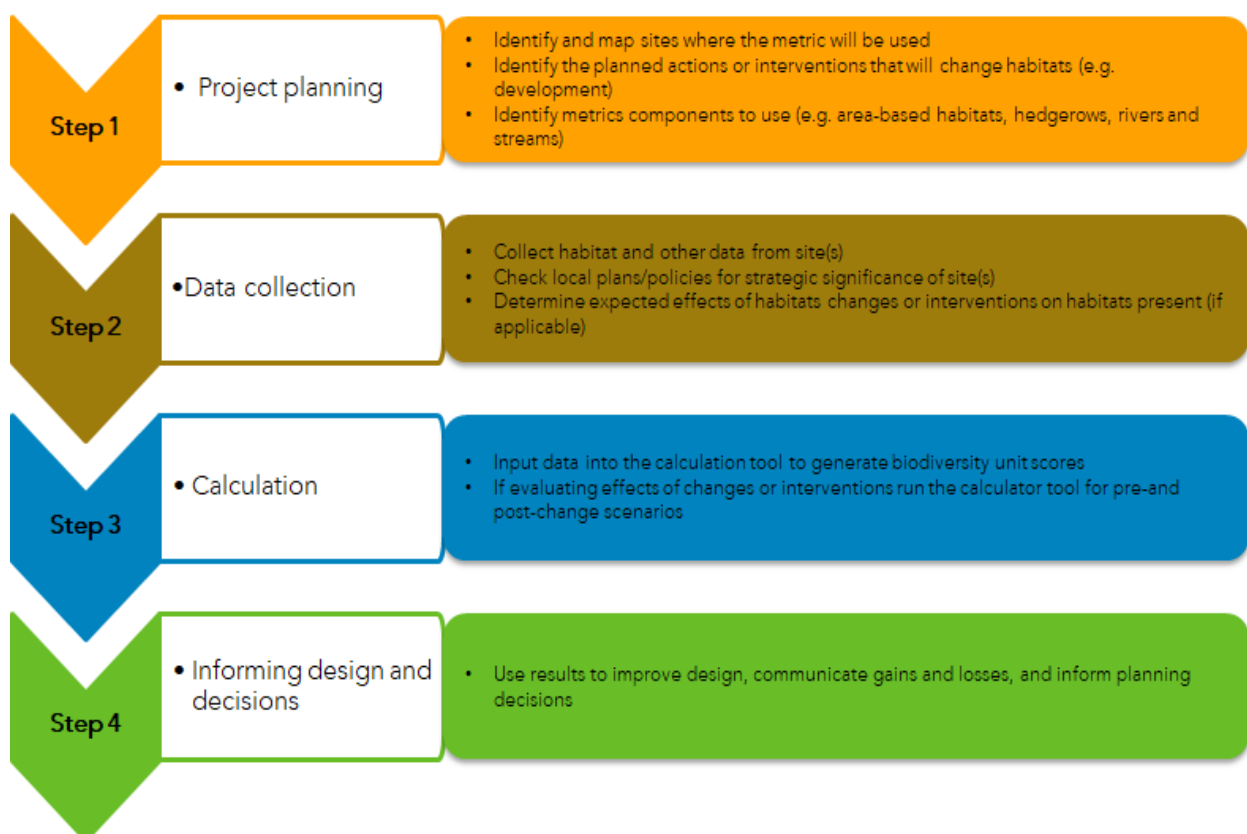


Figure 3.1: Key Steps to Apply the Defra Metric

3.2 Project Planning (Step 1)

3.2.1 The development site for which the BNG assessment has been undertaken includes the red line boundary shown on Figure 1.1. The Detailed Site Plan for the development is shown at Figure 1.2

and includes the proposed interventions for the site as described in Section 1. The existing habitats within the development site include both area and linear habitats, and therefore both components of the Metric have been applied, as discussed further in section 3.4.

3.3 Data Collection (Step 2)

Pre-development habitats

- 3.3.1 UEEC deployed an experienced ecologist on 27 January and 25 May 2023 to identify the habitats according to the UK Habitat Classification System (UKHab Ltd, 2023). The site was divided into land parcels, based on the different habitats present. For each habitat, lists of plant species (where applicable) were also recorded, as well as an indication of their relative frequency and abundance (using the DAFOR⁴ scale). The surveys established the extent and classification of habitats on site, in addition to collecting data relevant to each condition assessment sheet from within *The Statutory Biodiversity Metric - Technical Annex 1: Condition Assessment Sheets and Methodology* (Natural England, 2024c).
- 3.3.2 Annotated field maps were then digitised in ArcGIS 10.7 to produce the UKHab Pre-development plan shown at Appendix I. Each habitat polygon was clipped to the red line planning application boundary, and its area / length then calculated in GIS and exported to MS Excel for use in BNG baseline calculations. The size of each habitat parcel was recorded in hectares (ha) or kilometres (km). Each habitat parcel was assigned a condition score of Low, Medium or High, informed by the site survey and condition assessment sheets.

Post-development habitats

- 3.3.3 The expected effects of habitat changes and interventions on existing habitats were established based upon the Hard and Soft Landscape Proposals (LVIA, 2024), *Arboricultural impact assessment & Preliminary Method Statement Land at Hanlye Lane, Cuckfield* (MDJ Arboricultural Consultancy Limited, 2024) and liaison with the client team. The Hard and Soft Landscape Proposals was imported into ArcGIS, and each proposed habitat area / length was calculated and exported to MS Excel for use in BNG post-development calculations. Each habitat parcel/length was assigned a target condition score of Low, Medium or High, informed by conversations with the landscape architect and condition assessment sheets.

3.4 Calculation (Step 3)

Calculation Tool

- 3.4.1 The Metric is accompanied by a calculation tool which uses a number of input fields in order to calculate pre- and post-intervention biodiversity units, including:
- ▶ **Habitat types:** As described in the UK Habitat Classification System.
 - ▶ **Area of habitats and length of linear habitats:** In hectares and kilometres.

⁴ D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare.

- ▶ **Habitat condition:** Parcels of habitat will be in different ecological conditions. In addition, interventions to improve habitats will not always involve taking a habitat in poor condition and improving it to good condition. The metric therefore takes account of variants in habitat condition.
- ▶ **Strategic significance:** The idea of strategic significance works at a landscape scale. It gives additional unit value to habitats that are located in preferred locations for biodiversity and other environmental objectives as set out in published local plans.

3.4.2 Habitat type, area / length and condition were established via the site survey and condition assessment described in section 3.3.

3.4.3 The Calculation Tool also includes a number of pre-assigned fields which are automatically populated based on habitat type inputs:

- ▶ **Habitat distinctiveness:** Based on an assessment of the distinguishing features of a habitat or linear feature, including the consideration of species richness, rarity (at local, regional, national and international scales), and the degree to which a habitat supports species rarely found in other habitats.
- ▶ **Risk multipliers (Post-intervention only):** Two different risks are recognised in the Metric: difficulty of habitat creation and restoration; and temporal risk i.e. the time it takes for a newly created habitat to reach target condition.

Calculation of Biodiversity Units

3.4.4 Using the factors described above, equivalent BU were calculated for the development site pre- and post-intervention. No offsite habitat creation or enhancement is currently proposed.

3.4.5 The following formula was used to calculate the change in BU as a consequence of the proposed development:

$$\text{POST-INTERVENTION BIODIVERSITY UNITS} - \text{PRE-INTERVENTION BIODIVERSITY UNITS} = \text{CHANGE IN BIODIVERSITY UNITS}$$

3.4.6 Where the resulting score is negative there is a net loss in biodiversity. If the score is zero, there is no net loss in biodiversity. Where the resulting score is positive, there is a net gain in biodiversity.

3.5 Informing Design and Decisions (Step 4)

3.5.1 In this case the scheme layout had already been fixed prior to undertaking the BNG assessment. The BNG calculations provide an overview of net gains or losses resulting from the scheme.

3.6 Assumptions and Limitations

3.6.1 The Hard and Soft Landscape Proposals only shows the habitats on site following the Proposed Development. The net gain assessment has been calculated based upon assumptions regarding

the condition of each habitat created to give an indication of the likely biodiversity gain / loss post-development. Finalised management proposals to achieve the proposed condition of habitats, will need to be prepared prior to development of the site.

- 3.6.2 Existing trees are grouped within the condition assessment by size (Small / Medium / Large / Very Large). This method has been used to simplify the calculation process and has not resulted in a change to the condition recorded for any individual tree.
- 3.6.3 The proposed attenuation basins are likely to remain dry outside of storm events and as such, can be sown with a seed mix and managed accordingly to create Other neutral grassland. In addition to the basin footprints, a buffer and indicative surrounding habitat (currently Other neutral grassland, Blackthorn scrub and Bramble scrub) have been assumed as lost and are therefore mapped as created Other neutral grassland.
- 3.6.4 With the exception of the proposed attenuation basins, it is anticipated that the remaining habitats within the southern section of the Application Site will remain largely unchanged, with only minor alterations e.g. informal play areas, mown paths etc.
- 3.6.5 Existing trees are mapped as Rural trees and these are retained post-development. Proposed trees have been classed as Urban trees due to their positioning in and around the built areas of the Proposed Development. Trees within the private gardens have been excluded, as their ongoing management cannot be confidently predicted.
- 3.6.6 All trees currently plotted on the Hard and Soft Landscape Proposals have been assumed as 'Small' within the Metric Calculator.
- 3.6.7 See Appendix XI for general Legal and Technical Limitations which apply to this document.

4 Results

- 4.1.1 The pre-development habitats were digitised in accordance with UKHab for use in the Defra Statutory Biodiversity Metric, as shown in Appendix I. Appendix II shows the post-development habitats using UKHab classifications, based on the Hard and Soft Landscape Proposals. The data used to inform the condition assessments for the habitats pre- and post-development are provided in Appendix III to Appendix X, together with calculations extracted from the Statutory Biodiversity Metric.
- 4.1.2 The extract overleaf from the Statutory Biodiversity Metric - Calculation Tool illustrates the headline results for the proposed development. This shows that with the implementation of the Proposed Site Layout and achievement of the condition of the proposed habitats, the development proposals will achieve:
- ▶ A **net loss of -19.76 BU for habitats units, equivalent to -34.39%**; and
 - ▶ A **net gain of +1.37 BU for hedgerow units, equivalent to +52.86%**.
- 4.1.3 The proposed interventions will not satisfy trading rules associated with Medium Distinctiveness habitats (Other neutral grassland, Blackthorn scrub, Bramble scrub, Mixed scrub and Rural trees).

On-site baseline	Habitat units	57.44
	Hedgerow units	2.59
	Watercourse units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	37.68
	Hedgerow units	3.95
	Watercourse units	0.00
On-site net change (units & percentage)	Habitat units	-19.76
	Hedgerow units	1.37
	Watercourse units	0.00
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00
Off-site net change (units & percentage)	Habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-19.76
	Hedgerow units	1.37
	Watercourse units	0.00
Spatial risk multiplier (SRM) deductions	Habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00
FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-19.76
	Hedgerow units	1.37
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-34.39%
	Hedgerow units	52.86%
	Watercourse units	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

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Appendix I: UKHab Pre-development Plan

**Hanlye Lane,
Cuckfield,
West Sussex**

-  Application site boundary
-  Other neutral grassland
-  Blackthorn scrub
-  Bramble scrub
-  Mixed scrub
-  Line of Trees
-  Line of Trees (Ecologically Valuable)
-  Rural tree: small
-  Rural tree: medium
-  Rural tree: large



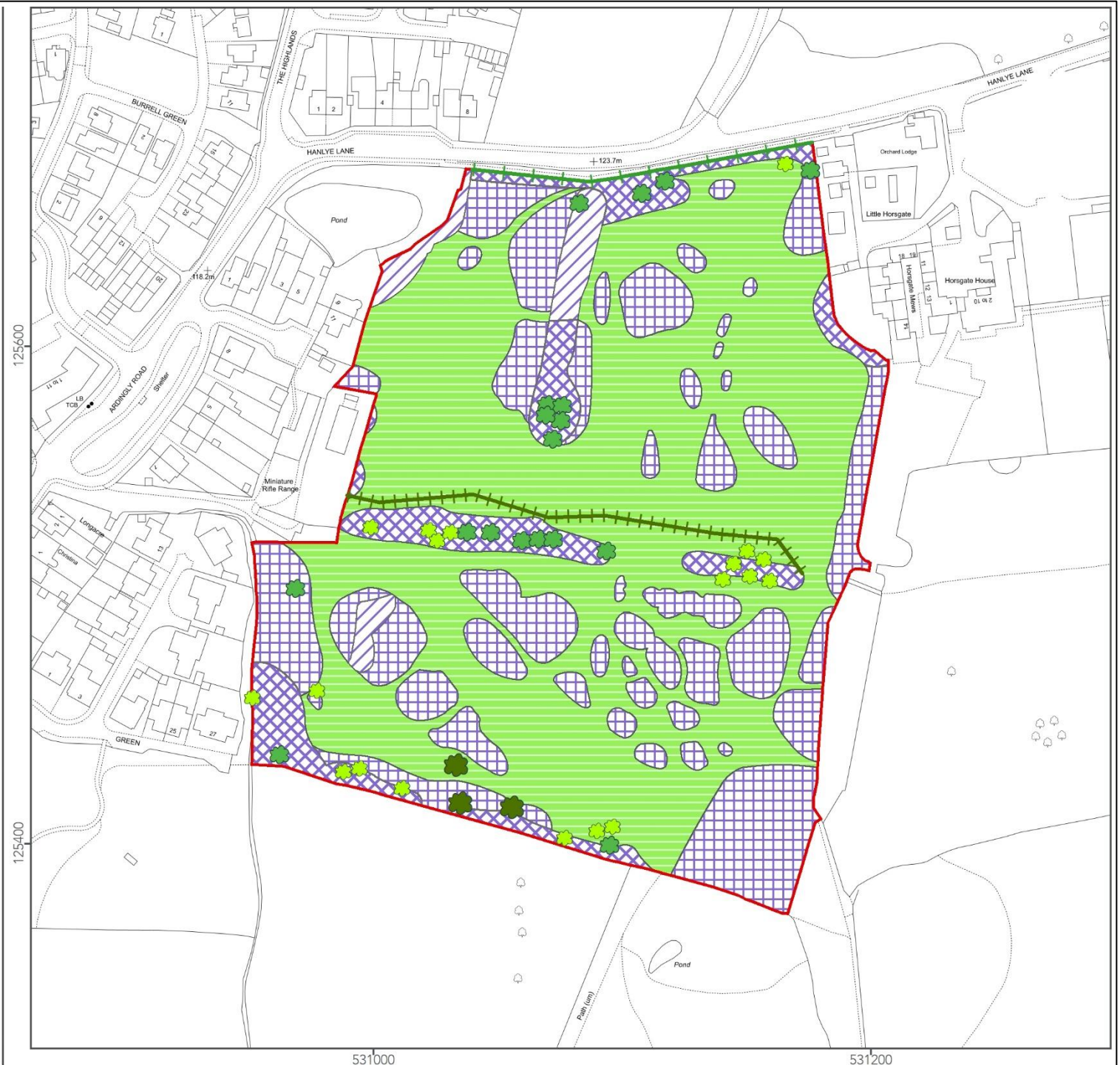
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Date: Sep 2023 **Reviewed by:** NP

Drawing number:

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Appendix II: UKHab Post-development Plan

Hanlye Road, Cuckfield, West Sussex

-  Site boundary
-  Other neutral grassland, Good
-  Other neutral grassland, Moderate
-  Modified grassland
-  Blackthorn scrub
-  Bramble scrub
-  Mixed scrub
-  Developed land, sealed surface
-  Artificial unvegetated, unsealed surface
-  Other green roof (low distinctiveness)
-  Vegetated garden
-  Native Species Rich Hedgerow
-  Line of Trees
-  Line of Trees (Ecologically Valuable)
-  Urban tree: small
-  Rural tree: small
-  Rural tree: medium
-  Rural tree: large
-  Rural tree: very large



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Appendix III: Pre-development Habitat Condition Sheets (Area baseline)

Condition Sheet: GRASSLAND Habitat Type (medium, high & very high distinctiveness)		
UK Habitat Classification (UKHab) Habitat Type		
Grassland - Other neutral grassland		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description).¹ Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Y
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 insects, birds and small mammals to live and breed.	N
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	Y
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Y
E	Combined cover of species indicative of sub-optimal condition³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species⁴ (as listed on Schedule 9 of WCA⁵) are present, this criterion is automatically failed.	Y
Additional Criterion - must be assessed for all non-acid grassland types		
F	There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	Y
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		Y
Number of criteria passed		5
Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓

Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)	✓
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)	
Notes		
Footnote 1 - Professional judgement should be used alongside the UKHab description. Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover. Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>. There may be additional relevant species local to the region and or site. Footnote 4 – 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, by applying professional judgement. Footnote 5 – Wildlife and Countryside Act 1981 (as amended).		

Condition Sheet: SCRUB Habitat Type		
UKHab Habitat Type		
Heathland and shrub - Mixed scrub		
Condition Assessment Criteria		Criterion passed (Yes or No)
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 <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i> , which can be up to 100% cover)."	Y
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	Y
C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of sub-optimal condition ⁶ make up less than 5% of ground cover.	Y
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Y
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	N

Number of criteria passed		4
Condition Assessment Result (out of 5 criteria)	Condition Score	Assessment Score Achieved x/✓
Passes 5 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	✓
Passes 2 or fewer criteria	Poor (1)	
Notes		
Footnote 1 – Professional judgement should be used alongside the UKHab description. Footnote 2 – Native woody species as defined and listed in the Hedgerow Survey Handbook: DEFRA (2007) Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd ed. [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk). Footnote 3 – See gov.uk standing advice on ancient and veteran species. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk) Footnote 4 – 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 5 – Wildlife and Countryside Act 1981 (as amended). Footnote 6 – Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, tree-of-heaven <i>Alianthus altissima</i>, holm oak <i>Quercus ilex</i>, European turkey oak <i>Quercus cerris</i>, cherry laurel <i>Prunus laurocerasus</i>, snowberry <i>Symphoricarpos</i> spp., shallon <i>Gaultheria shallon</i>, American skunk cabbage <i>Lysichiton americanus</i>, buddleia <i>Buddleja</i> spp., cotoneaster <i>Cotoneaster</i> spp., Spanish bluebell <i>Hyacinthoides hispanica</i> and hybrid bluebells <i>Hyacinthoides x massartiana</i>. There may be additional relevant species local to the region and or site.		

Condition Sheet: SCRUB Habitat Type		
UKHab Habitat Type		
Heathland and shrub - Blackthorn scrub		
Condition Assessment Criteria		Criterion passed (Yes or No)
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 <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i> , which can be up to 100% cover)."	Y
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	Y

C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of sub-optimal condition ⁶ make up less than 5% of ground cover.	Y
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Y
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	N
Number of criteria passed		4
Condition Assessment Result (out of 5 criteria)		Score Achieved x/✓
Passes 5 criteria		Good (3)
Passes 3 or 4 criteria		Moderate (2) ✓
Passes 2 or fewer criteria		Poor (1)
Notes		
Footnote 1 – Professional judgement should be used alongside the UKHab description. Footnote 2 – Native woody species as defined and listed in the Hedgerow Survey Handbook: DEFRA (2007) Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd ed. [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk). Footnote 3 – See gov.uk standing advice on ancient and veteran species. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk) Footnote 4 – 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 5 – Wildlife and Countryside Act 1981 (as amended). Footnote 6 – Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, tree-of-heaven <i>Alianthus altissima</i>, holm oak <i>Quercus ilex</i>, European turkey oak <i>Quercus cerris</i>, cherry laurel <i>Prunus laurocerasus</i>, snowberry <i>Symphoricarpos</i> spp., shallon <i>Gaultheria shallon</i>, American skunk cabbage <i>Lysichiton americanus</i>, buddleia <i>Buddleja</i> spp., cotoneaster <i>Cotoneaster</i> spp., Spanish bluebell <i>Hyacinthoides hispanica</i> and hybrid bluebells <i>Hyacinthoides x massartiana</i>. There may be additional relevant species local to the region and or site.		

Condition Sheet: INDIVIDUAL TREES Habitat Type		
Habitat Type		
Individual trees - Rural tree (Medium & Small)		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The tree is a native species (or at least 70% within the block are native species).	N
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).	Y
C	The tree is mature (or more than 50% within the block are mature) ¹ .	N

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.	Y
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y
Number of criteria passed		3
Condition Assessment Result (out of 6 criteria)		Score achieved x/✓
Passes 5 or 6 criteria		Good (3)
Passes 3 or 4 criteria		Moderate (2) ✓
Passes 2 or fewer criteria		Poor (1)
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		
Notes		
Footnote 1 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk) Footnote 2 – Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.		

Condition Sheet: INDIVIDUAL TREES Habitat Type		
Habitat Type		
Individual trees - Rural tree (Large)		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The tree is a native species (or at least 70% within the block are native species).	N
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).	Y
C	The tree is mature (or more than 50% within the block are mature) ¹ .	Y
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.	Y
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Y
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y
Number of criteria passed		5

Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score achieved x/✓
Passes 5 or 6 criteria	Good (3)	✓
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		
Notes		
Footnote 1 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk) Footnote 2 – Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.		

Condition Sheet: INDIVIDUAL TREES Habitat Type		
Habitat Type		
Individual trees - Rural tree (Very Large)		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The tree is a native species (or at least 70% within the block are native species).	Y
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).	Y
C	The tree is mature (or more than 50% within the block are mature) ¹ .	Y
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.	Y
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Y
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y
Number of criteria passed		6
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score achieved x/✓
Passes 5 or 6 criteria	Good (3)	✓
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		
Notes		
Footnote 1 – See gov.uk standing advice on ancient and veteran trees. Available from:		

[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/115444/Keepers_of_time_-_ancient_and_native_woodland_and_trees_policy_in_England.pdf)
and

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115444/Ancient_woodland,_ancient_trees_and_veteran_trees_advice_for_making_planning_decisions.pdf)

Footnote 2 – Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.

Appendix IV: A-1 Site Habitat Baseline

	Existing area habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline
Ref	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic Significance multiplier		Total habitat units
1	Grassland	Other neutral grassland	No	3.3037	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	39.64
2	Heathland and shrub	Bramble scrub	No	1.6021	Medium	4	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	6.41
3	Heathland and shrub	Mixed scrub	No	0.55	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	4.40
4	Heathland and shrub	Blackthorn scrub	No	0.1412	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	1.13
5	Urban	Developed land; sealed surface	No	0.0206	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
6	Individual trees	Rural tree (Small / Medium)	No	0.3379	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	2.70
7	Individual trees	Rural tree (Very large)	No	0.1529	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	1.83
8	Individual trees	Rural tree (Large)	No	0.1099	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	1.32
		Total habitat area		6.22									57.44
		Site Area (Excluding area of Individual trees)		5.62									

Retention category biodiversity value						
Ref	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost
1	1.4534	0.00	17.44	0.00	1.85	22.20
2	0.7849	0.00	3.14	0.00	0.82	3.27

3	0.3286	0.00	2.63	0.00	0.22	1.77
4	0.0068	0.00	0.05	0.00	0.13	1.08
5	0.00	0.00	0.00	0.00	0.02	0.00
6	0.2199	0.00	1.76	0.00	0.12	0.94
7	0.1529	0.00	1.83	0.00	0.00	0.00
8	0.0733	0.00	0.88	0.00	0.04	0.44
	3.02	0.00	27.74	0.00	3.20	29.70
Total area lost (excluding area of individual trees)					3.04	

Appendix V: Pre-development Habitat Condition Sheets (Linear baseline)

Condition Sheet: LINE OF TREES Habitat Type		
UKHab Habitat Type		
Ecologically valuable line of trees		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	At least 70% of trees are native species.	Y
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Y
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Y
D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice ² .	Y
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). 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.	Y
Number of criteria passed		5
Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓
Passes 5 of 5 criteria	Good (3)	✓
Passes 3 or 4 of 5 criteria	Moderate (2)	
Passes 0, 1 or 2 of 5 criteria	Poor (1)	
Notes		
Footnote 1 – DEFRA (2007) Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd ed [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk). Footnote 2 – Where ancient and veteran trees are present, see gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)		

Condition Sheet: LINE OF TREES Habitat Type		
UKHab Habitat Type		

Line of trees		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	At least 70% of trees are native species.	N
B	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	N
C	One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	N
D	There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice ² .	N
E	At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). 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.	N
Number of criteria passed		0
Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓
Passes 5 of 5 criteria	Good (3)	
Passes 3 or 4 of 5 criteria	Moderate (2)	
Passes 0, 1 or 2 of 5 criteria	Poor (1)	✓
Notes		
Footnote 1 – DEFRA (2007) Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd ed [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk). Footnote 2 – Where ancient and veteran trees are present, see gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)		

Appendix VI: B-1 Site Hedge Baseline

Existing hedgerow habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline
Ref	Hedge number	Hedgerow type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier		Total hedgerow units
1	-	Ecologically valuable line of trees	0.1925	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	2.31
2	-	Line of trees	0.1385	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.28
			0.33									2.59

Retention category biodiversity value						
Ref	Length retained	Length enhanced	Baseline units retained	Baseline units enhanced	Length lost	Units lost
1	0.1925	0.00	2.31	0.00	0.00	0.00
2	0.1247	0.00	0.25	0.00	0.01	0.03
0.32		0.00	2.56	0.00	0.01	0.03

Appendix VII: Post-development Habitat Condition Sheets (Area creation)

Condition Sheet: GRASSLAND Habitat Type (medium, high & very high distinctiveness)		
UK Habitat Classification (UKHab) Habitat Type		
Grassland - Other neutral grassland (Moderate condition)		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). ¹ Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Y
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 insects, birds and small mammals to live and breed.	N
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	Y
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Y
E	Combined cover of species indicative of sub-optimal condition ³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.	N
Additional Criterion - must be assessed for all non-acid grassland types		
F	There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	Y
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		Y
Number of criteria passed		4
Condition Assessment Result	Condition Assessment Score	Score Achieved x/✓

Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)	
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	✓
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)	
Notes		
Footnote 1 - Professional judgement should be used alongside the UKHab description. Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover. Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>. There may be additional relevant species local to the region and or site. Footnote 4 – 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, by applying professional judgement. Footnote 5 – Wildlife and Countryside Act 1981 (as amended).		

Condition Sheet: GRASSLAND Habitat Type (medium, high & very high distinctiveness)		
UK Habitat Classification (UKHab) Habitat Type		
Grassland - Other neutral grassland (Good condition)		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). ¹ Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Y
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 insects, birds and small mammals to live and breed.	Y
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	Y
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Y

E	Combined cover of species indicative of sub-optimal condition³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species⁴ (as listed on Schedule 9 of WCA⁵) are present, this criterion is automatically failed.	Y
Additional Criterion - must be assessed for all non-acid grassland types		
F	There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	Y
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		Y
Number of criteria passed		6
Condition Assessment Result		Condition Assessment Score
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.		Good (3)
Passes 3 - 5 criteria, including essential criterion A.		Moderate (2)
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.		Poor (1)
Notes		
Footnote 1 - Professional judgement should be used alongside the UKHab description. Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover. Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>. There may be additional relevant species local to the region and or site. Footnote 4 – 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, by applying professional judgement. Footnote 5 – Wildlife and Countryside Act 1981 (as amended).		

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)

UK Habitat Classification (UKHab) Habitat Type

Grassland - Modified grassland		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (this 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.	N
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.	N
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y
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.	N
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	N
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Y
Essential criterion achieved (Yes or No)		N
Number of criteria passed		3
Condition Assessment Result		Score Achieved x/✓
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) ✓
Notes		
Footnote 1 – Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i> .		
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: INDIVIDUAL TREES Habitat Type		
Habitat Type		
Individual trees - Urban tree		
Condition Assessment Criteria		Criterion passed (Yes or No)
A	The tree is a native species (or at least 70% within the block are native species).	Y
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).	Y
C	The tree is mature (or more than 50% within the block are mature) ¹ .	N
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.	Y
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y
Number of criteria passed		4
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score achieved x/✓
Passes 5 or 6 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	✓
Passes 2 or fewer criteria	Poor (1)	
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.		
Notes		
Footnote 1 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk) Footnote 2 – Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.		

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Appendix VIII: A-2 Site Habitat Creation

Post development / post intervention habitats																			
Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness		Condition		Strategic significance			Temporal multiplier				Difficulty multipliers				Habitat units delivered	
			Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/ years	Standard or adjusted time to target condition	Final time to target condition/ years	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied		
Urban	Developed land; sealed surface	1.202	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Low	1	0.00	
Urban	Vegetated garden	0.7073	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	1.37	
Grassland	Other neutral grassland	0.5202	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	3.48	
Grassland	Other neutral grassland	0.4691	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	Standard time to target condition applied	10	0.700	Low	Standard difficulty applied	Low	1	3.94	
Urban	Artificial unvegetated, unsealed surface	0.0936	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Low	1	0.00	
Urban	Other green roof	0.0373	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	0.07	
Grassland	Modified grassland	0.014	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	0.03	
Individual trees	Urban tree	0.3461	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	27	Standard time to target condition applied	27	0.382	Low	Standard difficulty applied	Low	1	1.06	
	Total habitat area	3.39		Site Area (Excluding Individual trees)		3.04												Total Units	9.95

Appendix IX: Post-development Habitat Condition Sheets (Hedgerow Creation)

Condition sheet: HEDGEROW Habitat Types				
Habitat Type				
Species-rich native hedgerow				
Condition Assessment Criteria				
A series of ten attributes, representing key physical characteristics are used for this assessment. This assessment is based on the Hedgerow Survey Handbook¹ and Favourable Conservation Status document². For further clarification please refer to the Hedgerow Survey Handbook. 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.				
Hedgerow favourable condition attributes				
Attributes and functional groupings (A, B, C, D & E)		Criteria (the minimum requirements for ‘favourable condition’	Description	Criterion passed (Yes or No)
Core groups - applicable to all hedgerow types				
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).	Y
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 <i>Prunus spinosa</i> suckers) are only included in	Y

			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).	
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).	Y
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).	Y
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 hedge (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.	N

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 <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	N
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 .	N
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 (e.g., excessive hedgerow cutting).	N
Additional group - applicable to hedgerows with trees only				
E1.	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.	N/A
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	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	N/A

		from livestock or wild animals, pests or diseases, or human activity.		
The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the metric. The scores for each are set out in the tables below.				
Condition categories for hedgerows without trees				
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 <u>Does not fail both attributes</u> 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 <u>Fails both attributes</u> in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).		1	
Score achieved:			2	
Notes				
Footnote 1 – DEFRA (2007) Hedgerow Survey Handbook. A standard procedure for local surveys in the UK. [online] Available on: layout (hedgelink.org.uk) Footnote 2 – STALEY, J.T. ET AL. (2020) Definition of Favourable Conservation Status for Hedgerows. [online] Available on: Definition of Favourable Conservation Status for Hedgerows - RP2943 (naturalengland.org.uk) Footnote 3 – Wildlife and Countryside Act 1981 (as amended). Footnote 4 – CHEFFINGS, C. M. et al. (2005) The Vascular Plant Red Data List for Great Britain. Species Status 7: 1-116. [online] Available on: The Vascular Plant Red Data List for Great Britain (Species Status No. 7) JNCC Resource Hub Footnote 5 – BOTANICAL SOCIETY OF BRITAIN AND IRELAND (BSBI). Definitions: wild, native or alien? [online] Available on: Definitions: wild, native or alien? – Botanical Society of Britain & Ireland (bsbi.org) Footnote 6 – BSBI and Biological Records Centre (BRC) (2022) Online Atlas of the British and Irish Flora. [online] Available on: Acknowledgements Online Atlas of the British and Irish Flora (brc.ac.uk) Footnote 7 – GB NON-NATIVE SPECIES SECRETARIAT (GBNNS) (2022) Available on: Home » NNSS (nonnativespecies.org) Footnote 8 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)				

Appendix X: B-2 Site Hedge Creation

Proposed habitats			Distinctiveness		Condition		Strategic significance			Temporal multiplier				Difficulty risk multipliers				Hedge units delivered
New hedge number	Habitat type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	
-	Species-rich native hedgerow	0.2084	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	1.40

Appendix XI: Legal and Technical Limitations

- This report has been prepared by Urban Edge Environmental Consulting Ltd (UEEC Ltd) with all reasonable skill, care and diligence within the terms of the contract made with the Client to undertake this work, and taking into account the information made available by the Client. No other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us.
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- This report has been prepared using factual information contained in maps and documents prepared by others. No responsibility can be accepted by UEEC Ltd for the accuracy of such information;
- Every effort has been made to accurately represent the location of mapped features, however, the precise locations of features should not be relied upon;
- Populations of animals and plants are often transient in nature and a single survey visit can only provide a general indication of species present on site. Time of year when the survey was carried out, weather conditions and other variables will influence the results of an ecological survey (e.g. it is possible that some flowering plant species which flower at other times of the year were not observed). Every effort has been made to accurately note indicators of presence of protected, rare and notable species within and adjacent to the site but the possibility nonetheless exists for other species to be present which were not recorded or otherwise indicated by the survey;
- Any works undertaken as a consequence of the recommendations provided within this report should be subjected to the necessary health & safety checks and full risk assessments.

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