

Biodiversity Net Gain Assessment

Survey site:

Hill View and Wayside, Eastergate Lane, West Sussex, PO20 3SJ

Client:

Eastmere Paddocks Limited

Survey date:

13th August 2024

Project:

This report is prepared to inform a planning application with Arun District Council. The proposal is described as:

The construction of ten detached homes and garages, with the demolition of the existing commercial barn structures.

BNG assessment methodology and legislation can be found in the Arbtech Supplement: **BNG Methodology and Legislation – 2025**.

The results and recommendations contained within this report are valid for 18 months. An updated site visit and BNG assessment may be required if the report is to be used any longer than 18 months after completion.

Version Control			
Status	Issue	Name	Date
Draft	0.1	Trystan Figuères, BSc (Hons), MSc, Graduate Ecologist	01/10/2025
Reviewed	0.2	Georgina Rennie BSc (Hons), MSc. Consultant Ecologist	07/10/2025
Final	1.0	Trystan Figuères, BSc (Hons), MSc, Graduate Ecologist	07/10/2025

Limitations and Copyright

Legal

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

Arbtech cannot be held responsible for any project management failures, delays or unforeseen costs arising from failure to read and ensure understanding of the content with in, nor is Arbtech responsible for any adverse outcomes arising from failure to account for ecological advice given at any stage throughout the project collaboration.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Site Location and Context

A baseline habitat map is provided in **Appendix 1**, a post development habitat map in **Appendix 2**, a proposed development plan in **Appendix 3**, headline BNG results in **Appendix 4**, and condition assessments in **Appendix 5**.

The site is located at grid reference SU94850605 and encompasses an area of 0.8ha. This includes residential house and gardens, commercial barn buildings and 'priority-listed' orchards. The priority-listed orchard according to MAGIC is listed to cover 0.4 ha of the overall site boundary. However, this is not the case when visiting the site; most of the orchard no longer exists. Many of the trees were cleared ~2022 due to poaching damage and disuse. The retained orchard only covers 0.1 ha of the site only in the northwestern half and none exists in neighbouring fields. There are also continued listed orchard areas and mature trees on the southwest boundary of the site. The distribution of the trees in these listed areas would suggest this is not full commercial fruit production and this has turned into scrub and woodland instead. This orchard/woodland and scrub area continues for 480 m south of the site and 660 m southeast. Numerous developments are happening close to the site. New housing development is occurring 190 m west and 520 m north and is currently ongoing. Eastergate Lane runs across the site's north boundary, but no other roads run within 100 m of the site in any other direction. The site sits on freely draining, slightly acid-loamy soils with freely draining soils.

This report should be read in conjunction with the following documents:

- Statutory BNG Metric - Hill View and Wayside, Eastergate Lane, West Sussex, PO20 3SJ (Arbtech Consulting Ltd., 2025)
- Preliminary Ecological Appraisal (PEA) (Arbtech Consulting Ltd., 2025)
- Proposed Site Plan (Symmetry Architecture, 2025)
- Ecological Impact Assessment (Lizard Landscape Design and Ecology, 2022).

Executive Summary

The current landscaping proposal generates a net loss of area-based habitat units (-17.29%). Trading rules have not been satisfied, and the net gain of area-based habitats falls short of the +10% threshold. As such, the proposal is not compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024).

In order to achieve a +10% biodiversity net gain for area-based habitats, the unit deficit must be compensated for. The current unit deficit is 2.47 units, including at least 2.36 traditional orchard units, to satisfy trading rules.

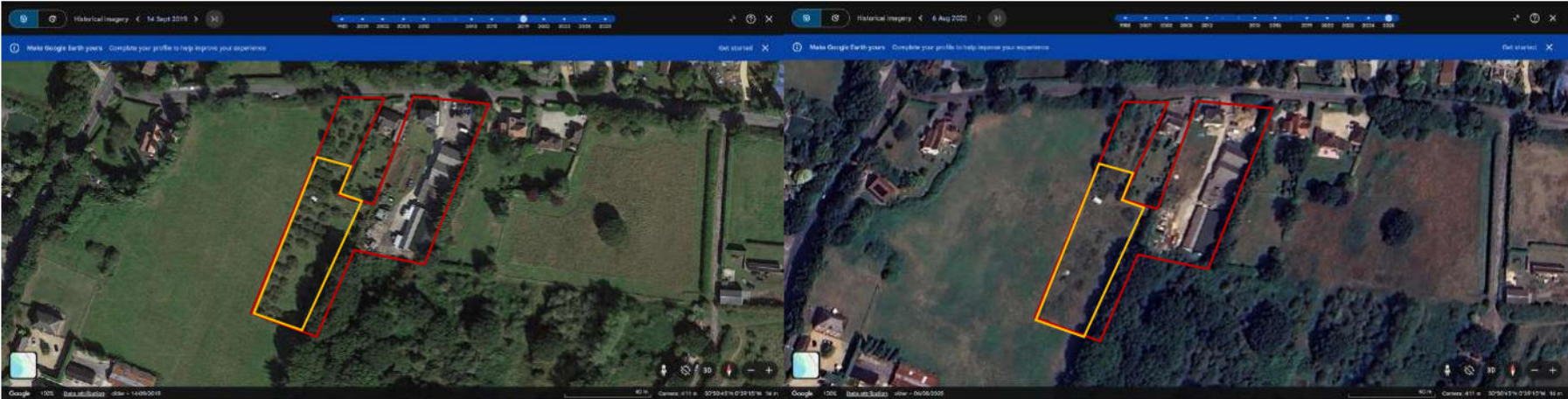
The current landscaping proposal generates a net gain of linear-based habitat units (+11.24). Trading rules have been satisfied.

In order to achieve the required net gain in biodiversity as a result of the proposed development, the provision of additional or alternative landscaping should be explored and the proposed plans amended accordingly to achieve a net gain on site. The provisioning of additional landscaping should first be considered within the site boundary.

However, given that the baseline traditional orchard has been cleared, compensating with landscape changes will not generate sufficient units to compensate the unit deficit. Therefore, off-site offsetting will be required. Specifically, 2.47 area-based units (with the specific trading requirements as listed above), will need to be purchased from a suitable habitat bank.

A Biodiversity Gain Plan (BGP) and Habitat Management and Monitoring Plan (HMMP) are required for most sites. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years to ensure that biodiversity net gain is delivered.

These additional requirements can only be actioned following the finalisation of the BNG assessment.

BNG Informative		
Habitat Degradation Statement	Date reflected by BNG calculations	13 th August 2025 (and September 2019 from Aerial imagery given significant degradation)
	Aerial imagery shows that the western orchard at the site has been cleared of orchard trees as recently as September 2024. Clearance appears to be limited to the removal of orchard trees – highlighted in orange. This clearance will have decreased the ecological baseline value of the site.	
	 There are special provisions for the calculation of the pre-development biodiversity value of onsite habitat when loss or impact to habitats (or 'degradation') has occurred prior to the submission of a planning application and Biodiversity Gain Plan in order to discourage the deliberate degradation of existing onsite habitats to reduce the pre-development biodiversity value. For the Biodiversity Plan, Paragraph 6 of Schedule 7A of the Town and Country Planning Act 1990 makes provision relating to unauthorised degradation takes place:	

	<i>"Where unauthorised degradation of the onsite habitat has taken place on the land between 30 January 2020 and the date of relevant date, the biodiversity pre-development value of the onsite habitat should be calculated as the biodiversity value of the habitat on the date immediately before the carrying out of these degradation activities. The relevant date should therefore be set as a date immediately before these activities. Unauthorised degradation of onsite habitat is any degradation which is not in accordance with a previous planning permission."</i> Given this, the baseline habitats are assumed from the aerial imagery. The condition of the traditional orchard has been inferred using a previous and recent ecology survey. A previous Ecological Impact Assessment by Lizard Landscape Design and Ecology (2022), included a site visit from 2021 which provided some insights into the historic condition, as well as information from the section of retained orchard from Arbtech (2024) PEA site visit.
Irreplaceable Habitat Statement	No irreplaceable habitats as listed under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2024) are currently present nor were present before 30 th January 2020.
Metric Version and Publication Date	Statutory Biodiversity Metric Calculation Tool first published 29 th November 2023 with last updates to metric tools and user guides on 3 rd July 2025.
BNG Target Uplift	+10%
National Character Area (NCA)	126 - South Coast Plain

Strategic Significance	Traditional orchards are listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). This is therefore considered of high strategic significance. The Arun District Council Nature Recovery and the Enhanced Biodiversity Duty: - https://www.arun.gov.uk/landscape-planning-policy/
Limitations	
None.	

Baseline Biodiversity Value: On-Site

Area-Based Habitats (A-1)

Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Developed land; sealed surface	0.1802	There are 6 structures on the site. This comprises a detached residential house and 5 workshops/barns/outbuildings of various materials and conditions. The residential house will not be modified or changed as part of the development proposals but the 5 workshop buildings will be demolished. The access track onto the eastern half of the site is a concrete driveway.	Habitat condition pre-determined as ' <i>N/A</i> ' as detailed within the Statutory Biodiversity	Low Strategic Significance
Artificial unvegetated, unsealed surface	0.1246	The majority of the eastern half of the site has an unsealed surface of gravel. These areas have not been managed for several years and there is a slow encroachment and succession of pioneering plants and ruderal species.	Habitat condition pre-determined as ' <i>N/A</i> ' as detailed within the Statutory Biodiversity	Low Strategic Significance
Vegetated garden	0.0399	There is a garden as part of the residential property on the eastern half of the site. No fence or walls separate this boundary from the previous adjacent commercial businesses. Part of this garden has been regularly mown this year to keep a short lawn closer to the house with a sward height of 10 cm while the lower	Habitat condition pre-determined as ' <i>N/A</i> ' as detailed within the Statutory Biodiversity	Low Strategic Significance

		half has not been mown in the last few months, with a continuous sward height of 70 cm. The lower half used to be regularly ploughed as part of a small allotment, which current aerial photographs from online sources would show. There is also some re-growth of rhubarb within this long-grass area.		
Modified grassland	0.0613	The grassland has been mown in the last few months, much of the grass had not been collected and is left in situ which creates a smothering layer that would suppress many herb species and assist in creating a very rank grassland.	Poor: fails essential criteria. Assessed using the 'Grassland; low distinctiveness' habitat type condition assessment sheet	Low Strategic Significance
Traditional orchards	0.4446	As information on the orchard could not be confirmed, assumptions are made using the Lizard Landscape Design and Ecology (2022) report. An overview of the historic tree condition, and beneath grassland condition is included below from the 2022 Ecological Impact Assessment, with a condition assessment in Appendix 5a.	Poor: passes 3 or fewer criteria. Assessed using the 'Orchard' habitat type condition assessment sheet	High Strategic Significance

		The central portion of the site is formed of semi-improved grassland which appeared regularly maintained. The sward height was c. 10 cm at the time of survey and consisted of coarse grasses such as cocksfoot (<i>Dactylis glomerata</i>) with mostly common forbs such as ground ivy (<i>Glechoma hederacea</i>) and selfheal (<i>Prunella vulgaris</i>). Frequency of white clover and coarse grasses suggest this habitat is of poor quality, but just sufficiently diverse and likely lacking in nutrient inputs to be considered more than improved grassland. Very narrow margins with a longer sward are present to the edges of the site. The habitat continues underneath the orchard trees. The trees within the orchard are believed to be relatively old; almost all contain cavities and other features, and a large number have been severely damaged by rabbits. The deadwood features may provide habitat for UK BAP priority deadwood-dependant invertebrate species such as the noble chaffer (<i>Gnorimus nobilis</i>). The grassland beneath is of low ecological value, lacking in structure and dominated by coarse grasses.		
Individual tree	0.4370	There are 21 small trees, 3 medium trees, 2 large trees, and 3 very large trees across the site.	Good: passes 6 of 6 criteria. Assessed using the 'Individual Trees'	Medium Strategic Significance

			habitat type condition assessment sheet	
Linear-Based Habitats (B-1)				
Habitat	Length (km)	Description	Condition Assessment	Strategic Significance
Native hedgerow	0.066	There is a native hedgerow which divides the west and eastern half of the site. See detailed description within the PEA.	Moderate: Scores 2. Assessed using the 'Hedgerow' habitat type condition assessment sheet	Low Strategic Significance
Non-native and ornamental hedgerow	0.058	Other hedgerows around the site are dominantly non-native species. This includes hedgerows that form part of an adjacent garden situated in the middle of the site, as well as hedgerows on the northeastern boundary that is adjacent to another garden. See detailed description within the PEA.	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity	Low Strategic Significance

	Habitat Type	Biodiversity Units Generated
Area-Based	Developed land; sealed surface	0.00
	Artificial unvegetated, unsealed surface	0.00
	Vegetated garden	0.08
	Modified grassland	0.12
	Traditional orchards	3.07
	Urban tree	5.77
Total		9.04
Linear-Based	Native hedgerow	0.26
	Non-native and ornamental hedgerow	0.06
Total		0.32

Post-Development Biodiversity Value: On-Site

Area-Based Habitats

	Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Retained (A-1)	Vegetated garden	0.0399	Private garden of dwelling to the northeast fully retained.	Habitat condition pre-determined as ' <i>N/A</i> ' as detailed within the Statutory Biodiversity Condition Assessment Supplement	Low Strategic Significance
	Individual trees	0.4329	All individual trees will be retained except from 1 small orchard tree which was mapped in the baseline given it's individual value.	Good: passes 6 of 6 criteria. Assessed using the 'Individual Trees'	Medium Strategic Significance
Created (A-2)	Developed land; sealed surface	0.3197	Areas of development including 10 dwellings, garages, and associated hardstanding.	Habitat condition pre-determined as ' <i>N/A</i> ' as detailed within the Statutory Biodiversity Condition Assessment Supplement	Low Strategic Significance

	Vegetated garden	0.3648	Areas of newly proposed vegetated garden.	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement	Low Strategic Significance
	Modified grassland	0.0626	Areas along access roads will be maintained as modified grassland used for tree planting.	Poor: fails essential criteria. Assessed using the 'Grassland; low distinctiveness' habitat type condition assessment sheet	Low Strategic Significance
	Individual trees	0.0407	10 scattered trees proposed around the areas of modified grassland.	Moderate: passes 3 of 6 criteria. Assessed using the 'Individual Trees'	Medium Strategic Significance
Enhanced (A-3)	Traditional orchards	0.0732	Section of retained traditional orchard will be enhanced to moderate condition by improving the grassland at the base to an other neutral grassland, and also introducing restorative pruning regime.	Moderate: passes 4 criteria.	High Strategic Significance

				Assessed using the 'Orchard' habitat type condition assessment sheet	
--	--	--	--	---	--

Linear-Based Habitats

	Habitat	Length (km)	Description	Condition Assessment	Strategic Significance
Retained (B-1)	Native hedgerow	0.056	Mostly retained with a small section being lost to the access road.	Moderate: Scores 2. Assessed using the 'Hedgerow' habitat type condition assessment sheet	Low Strategic Significance
	Non-native and ornamental hedgerow	0.057	Fully retained.	Habitat condition pre- determined as ' N/A ' as detailed within the Statutory Biodiversity	Low Strategic Significance
Created (B-2)	Native hedgerow	0.04	Section of native hedgerow will be planted along the site boundary to compensate the small loss.	Moderate: Scores 2. Assessed using the 'Hedgerow' habitat type	Low Strategic Significance

				condition assessment sheet	
--	--	--	--	-------------------------------	--

		Biodiversity Units		
		Area-Based	Linear-Based	Watercourse-Based
On-Site	Baseline	9.04 units	0.32 units	N/A
	Post-Development	7.48 units	0.36 units	
Overall Net Change		-1.56 units (-17.29%)	+0.04 units (+11.24%)	

BNG Informative	
Results	The current landscaping proposal generates a net loss of area-based habitat units (-17.29%). Trading rules have not been satisfied, and the net gain of area-based habitats falls short of the +10% threshold. As such, the proposal is not compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024). In order to achieve a +10% biodiversity net gain for area-based habitats, the unit deficit must be compensated for. The current unit deficit is 2.47 units, including at least 2.36 traditional orchard units, to satisfy trading rules. The current landscaping proposal generates a net gain of linear-based habitat units (+11.24). Trading rules have been satisfied.
Recommendations and Next Steps	In order to achieve the required net gain in biodiversity as a result of the proposed development, the provision of additional or alternative landscaping should be explored and the proposed plans amended accordingly to achieve a net gain on site. The provisioning of additional landscaping should first be considered within the site boundary. If landscaping is to be changed, it should be noted that no habitats can be created in BNG within any areas proposed to be private residential gardens. This includes any trees, green roofs, or wildflower meadows which may be proposed within such residential curtilages. Semi-natural habitats such as traditional orchards should therefore be provisioned within communal areas under central management. Trading rules are a constraint; the removal of traditional orchard must be made up for on a like-for-like basis. In other words, unless sufficient amounts of traditional orchard are proposed, the site will generate a trading error for the loss of this habitat type.

	Given that significant areas of traditional orchard has been cleared already, compensating with landscape changes alone will not generate sufficient units to compensate the unit deficit. Therefore, off-site offsetting will be required. Specifically, 2.47 area-based units (with the specific trading requirements as listed above), will need to be purchased from a suitable habitat bank.
Policy Requirements	A Biodiversity Gain Plan (BGP) and Habitat Management and Monitoring Plan (HMMP) are required for most sites. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years to ensure that biodiversity net gain is delivered. These additional requirements can only be actioned following the finalisation of the BNG assessment.
BNG Mitigation Hierarchy	
Avoidance	Only land needed for the development is being used, with woodland in the wider landscape being left alone.
Minimisation	No unnecessary hardstanding is being included, to minimise the footprint without compromising intended use.
Mitigation	Unit deficit will be purchased from an offsite unit provider.
Offset	Unit deficit will be purchased from an offsite unit provider.







FINAL RESULTS

Total net unit change

(Including all on-site & off-site habitat retention, creation & enhancement)

Habitat units

-1.56

Hedgerow units

0.04

Watercourse units

0.00

Total net % change

(Including all on-site & off-site habitat retention, creation & enhancement)

Habitat units

-17.29%

Hedgerow units

11.24%

Watercourse units

0.00%

Trading rules satisfied?

No - Check Trading Summaries ▲

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	9.04	9.94	2.47
<i>Hedgerow units</i>	10.00%	0.32	0.35	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00

Appendix 5a: Baseline Habitat Condition Assessment Sheets

Modified grassland

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m² 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 m² (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.	Y	
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.	Y	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	Y	
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			6
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	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)	√	

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	Presence of ancient¹ and or veteran¹ trees. Note - this criterion is essential for achieving Good condition.	N	Mature trees noted in the retained orchard and previous PEA report, but no presence of veteran or ancient trees noted - which realistically would have been acknowledged if present.
B	Presence of deadwood in or on trees, or on the ground: at least 20% of mature trees have deadwood associated with them. Some examples of deadwood are: standing, attached and fallen trees or limbs; dead stems; branches and branch stubs greater than 10 cm diameter; and internal cavities. The types and distribution of deadwood provide a range of habitats suitable to support a wide assemblage of saproxylic invertebrates. Note - this criterion is essential for achieving Good condition.	Y	Significant deadwood noted in previous report.

C	Less than 5% of fruit trees are smothered by scrub. Small patches of dense scrub and or scattered scrub growing between trees can be beneficial to biodiversity, however these occupy less than 10% of ground cover.	Y	No scrub encroachment noted from previous reports or aerial imagery.
D	There is evidence of formative and or restorative pruning to maintain longevity of trees.	N	Orchard trees were historically unmanaged with no restorative efforts in decades.
E	At least 95% of the trees are free from damage caused by humans or animals, for example browsing, bark stripping or rubbing on non-adjusted ties.	N	Trees were felled due to irreversible deer damage. Significant
F	Grassland is not overgrazed, poaching is not evident around the trees, with no more than 10% of trees poached under the canopy.	N	Significant poaching under trees was recorded in both old and new report.
G	Species richness of the grassland is equivalent to a medium, high, or very high distinctiveness grassland.	N	Grassland has been species-poor semi improved / modified grassland historically.
H	There is an absence of invasive non-native plant species ² (as listed on Schedule 9 of WCA ³) and species indicative of suboptimal condition ⁴ make up less than 10% of ground cover.	Y	No invasive species recorded.
Essential criteria achieved (required for good condition - Yes or No)		N	

Number of criteria passed		3	
Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved x/√	
Passes 6- 8 criteria, including essential criteria A and B.	Good (3)		
Passes 4 or 5 criteria; OR Passes 6 or 7 criteria but fails an essential criterion.	Moderate (2)		
Passes 3 or fewer criteria.	Poor (1)	✓	

Urban trees**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.

Condition Assessment Criteria	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).	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		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)		

Condition sheet: HEDGEROW Habitat Types					
Habitat Type					
Native hedgerow					
Hedgerow favourable condition attributes					
Attributes and functional groupings (A, B, C, D and E)		Criteria - the minimum requirements for 'favourable condition'	Criteria description	Criterion passed (Yes or No)	Notes (such as justification)
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 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).	Y	
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 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.	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 .	Y	
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).	N	

Additional group - applicable to hedgerows with trees only

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.	Y	
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.	Y	

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.

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

Appendix 5b: Post-Development Habitat Condition Assessment Sheets

Modified grassland

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m² 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 m² (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.	Y	
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.	Y	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	Y	
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			6
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	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)	√	

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	Presence of ancient¹ and or veteran¹ trees. Note - this criterion is essential for achieving Good condition.	N	
B	Presence of deadwood in or on trees, or on the ground: at least 20% of mature trees have deadwood associated with them. Some examples of deadwood are: standing, attached and fallen trees or limbs; dead stems; branches and branch stubs greater than 10 cm diameter; and internal cavities. The types and distribution of deadwood provide a range of habitats suitable to support a wide assemblage of saproxylic invertebrates. Note - this criterion is essential for achieving Good condition.	Y	

C	Less than 5% of fruit trees are smothered by scrub. Small patches of dense scrub and or scattered scrub growing between trees can be beneficial to biodiversity, however these occupy less than 10% of ground cover.	Y	
D	There is evidence of formative and or restorative pruning to maintain longevity of trees.	Y	
E	At least 95% of the trees are free from damage caused by humans or animals, for example browsing, bark stripping or rubbing on non-adjusted ties.	Y	
F	Grassland is not overgrazed, poaching is not evident around the trees, with no more than 10% of trees poached under the canopy.	Y	
G	Species richness of the grassland is equivalent to a medium, high, or very high distinctiveness grassland.	Y	
H	There is an absence of invasive non-native plant species ² (as listed on Schedule 9 of WCA ³) and species indicative of suboptimal condition ⁴ make up less than 10% of ground cover.	Y	
Essential criteria achieved (required for good condition - Yes or No)		N	
Number of criteria passed		3	

Condition Assessment Result (out of 8 criteria)	Condition Assessment Score	Score Achieved x/✓	
Passes 6- 8 criteria, including essential criteria A and B.	Good (3)		
Passes 4 or 5 criteria; OR Passes 6 or 7 criteria but fails an essential criterion.	Moderate (2)	✓	
Passes 3 or fewer criteria.	Poor (1)		

Urban trees

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. <i>Please see the separate Line of trees condition sheet for a line of <u>rural</u> trees. You should only use the Line of trees condition assessment and record that habitat type in <u>rural</u> locations.</i>		
Condition Assessment Criteria	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).	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)		

Condition sheet: HEDGEROW Habitat Types					
Habitat Type					
Native hedgerow					
Hedgerow favourable condition attributes					
Attributes and functional groupings (A, B, C, D and E)		Criteria - the minimum requirements for 'favourable condition'	Criteria description	Criterion passed (Yes or No)	Notes (such as justification)
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 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).	Y	
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).	N	

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).	N	
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.	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 .	Y	
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).	N	

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.

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 in more than one functional group</u> (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 in more than one functional group</u> (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
Score achieved:		1