



LIZARD

Landscape Design and Ecology

BIODIVERSITY GAIN STATEMENT

Land Adjacent to Elm Cottages, Hook Lane

Client:	Bright Plan Ltd			
Project:	Land Adjacent to Elm Cottages, Hook Lane			
Reference:	LLD3332-ECO-REP-02-00-BNG			
Revision:	Date:	Author	Proof	Approved
00	23/10/2024	Fleur Booth MSc, BSc (Hons)	Catherine O'Reilly MCIEEM	Catherine O'Reilly MCIEEM

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Validity:

This report is valid for 18 months from the date of the final survey visit. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, to inform whether surveys should be updated.



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Landscape Design and Ecology

The Old Bank, 21 South Street, Tonbridge, West Sussex, BN11 7JH

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The Old Bank, 34 South Street, Tarring, Worthing, West Sussex, BN14 7LH

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned to undertake a Biodiversity Net Gain (BNG) Calculation and provide a supporting statement for proposals at Land Adjacent to Elm Cottages, Hook Lane.
- 1.2 The proposed development does not meet any exemption criteria and as such would be subject to the biodiversity gain condition, should planning permission be granted.

2.0 BASELINE ASSESSMENT

Date of Assessment

- 2.1 A baseline habitat assessment in accordance with the UK Habitats Classification Manual (Butcher *et al.*, 2024) was undertaken by this company on the 25th of September 2024. Baseline calculations were finalised on the 11th of October 2024.

Habitat Degradation

- 2.2 No activities have been carried out prior to the baseline survey that would result in loss of onsite biodiversity value. The site assessment and baseline BNG calculations are considered to be an accurate representation of the overall biodiversity value of the site.

3.0 BASELINE VALUE

Metric Version

- 3.1 The Biodiversity Net Gain calculations contained in this report were undertaken using the updated Defra Statutory Metric, published on the 24th February 2024.

Strategic Significance

- 3.2 Strategic significance of on-site habitats and hedgerows has been assessed based upon the Local Plan for Arun District Council.

Irreplaceable Habitats

- 3.3 There are no irreplaceable habitats on site.

Baseline Habitat Value

- 3.4 The Biodiversity Net Gain (BNG) assessment concluded that the existing baseline biodiversity value of the site is **0.42** Habitat Units, consisting of:
- Developed land; sealed surface totalling 0.0085ha which provides 0 units.
 - Vacant or derelict land totalling 0.0055ha which provide 0.1 units.
 - Bramble scrub totalling 0.0055ha which provides 0.8 units.
 - Modified grassland totalling 0.04ha which provides 0.8 units.
 - Individual trees totalling 0.0204 which provide 0.24 units.

Baseline Hedgerow Value

- 3.5 The Biodiversity Net Gain (BNG) assessment concluded that the existing baseline biodiversity value of the site is **0.14** Hedgerow Units, consisting of:
- Line of trees 0.035km long providing 0.14 units.

4.0 BIODIVERSITY NET GAIN POST-DEVELOPMENT*Achieving +10%*

- 4.1 The proposed development has not yet been finalised, but it is anticipated that it will include the creation of areas of developed land and private gardens to the front and rear of the properties. Given the small scale of the site, meaningful habitat creation in areas outside private ownership will not be possible. To ensure the proposals accord with local and national planning policy, any deficit in units shall be countered by the purchase of units from a private provider, such as the Environment Bank or similar. This shall ensure that the minimum levels of biodiversity net gain are met and that all trading rules are satisfied.'
- 4.2 Proposals will provide vegetated gardens and 2no. residential buildings with associated hardstanding.

5.0 CONCLUSION

- 5.1 Metric calculations have identified that the proposed scheme will not result in the +10% Biodiversity Net Gain, on-site and so will require off-site credits to comply with Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021).

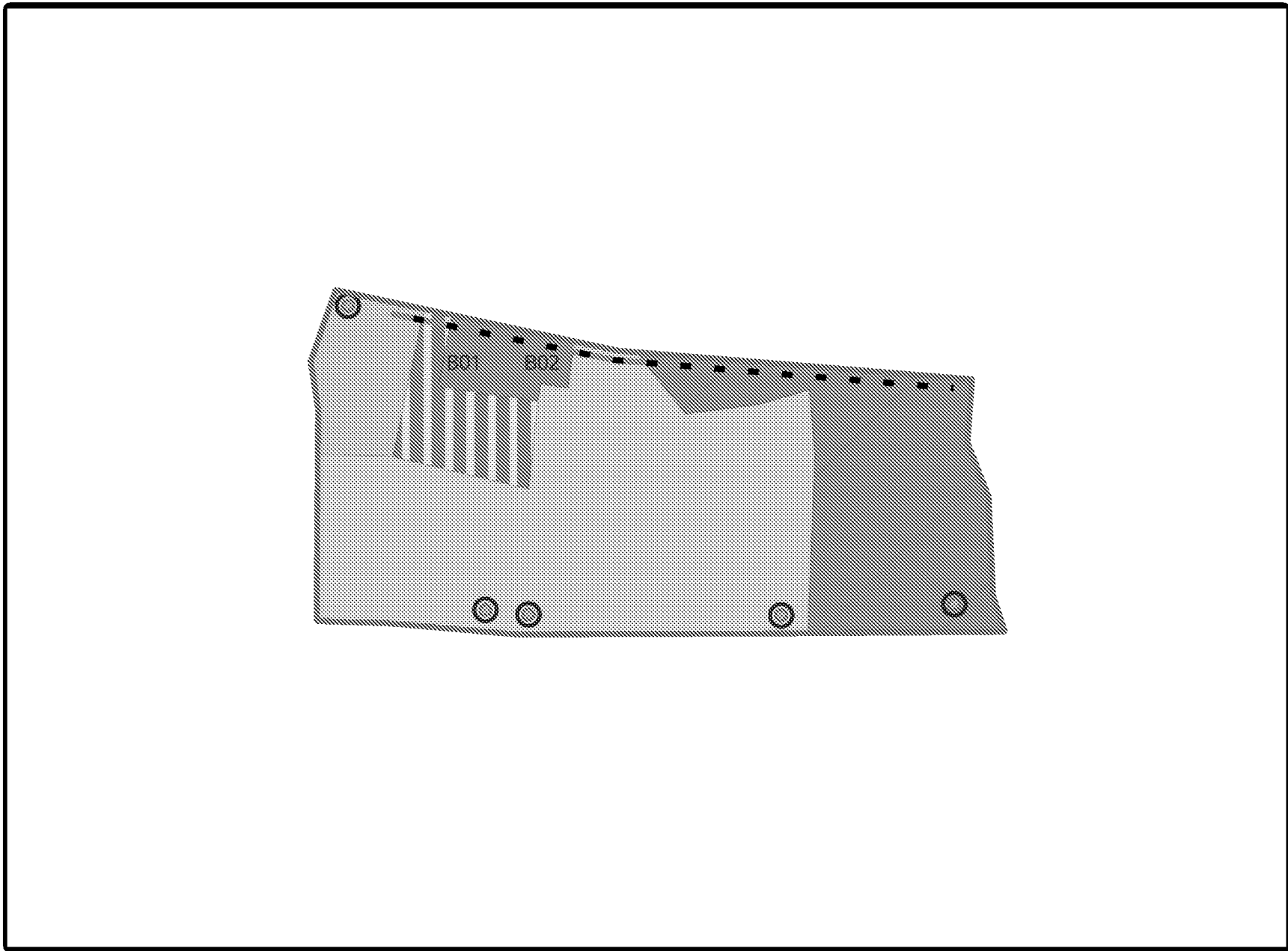
6.0 REFERENCES

Butcher. B., Carey. P., Edmonds. R., Norton. L. & Treweek., J. (2024) UK Habitat Classification – Habitat Definitions V2.1 at <http://ukhab.org>









CIEEM. (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM. (2019). Biodiversity Net Gain: Good Practice Principles for Development. Winchester

Panks, S., White. N., Newsome. A., Potter. J., Heydon. M., Mayhew. E., Alvarez. M., Russell. T., Scott. J. S., Heaver. M., Scott. H. S., Treweek. J., Butcher. B. and Stone. D. (2024). Biodiversity metric: Auditing and accounting for biodiversity – Technical Supplement. Natural England. ISBN 978-1-78354-779-1



Legend

-  Red Line Boundary
-  Line of trees
-  Bramble scrub
-  Developed land; sealed surface
-  Modified grassland
-  Vacant or derelict land
-  Building
-  Existing tree

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Project Title & Location
Land Adjacent to Elm Cottages, Hook Lane, Chichester

Drawn by	Approved by	Rev	Date
FB	COR	00	23/10/2024



N
1:350

Figure No. 01 - Pre-Development Site Habitat Plan

Appendix A – Habitat Condition Assessments for Existing Habitats

Condition Sheet: URBAN Habitat Type			
Sparsely vegetated land - Ruderal/Ephemeral Sparsely vegetated land - Tall forbs Urban - Allotments Urban - Biodiverse green roof Urban - Bioswale Urban - Cemeteries and churchyards Urban - Facade-bound green wall Urban - Ground based green wall Urban - Intensive green roof Urban - Open mosaic habitats on previously developed land Urban - Rain garden Urban - Sustainable drainage system (SuDS) Urban - Vacant or derelict land Urban - Bare ground			
Existing, vacant or derelict land			
See the Steadfast Biodiversity Matrix User Guide for green roofs and UK Habitat Classification (UKHab) for other habitats:			250910; Fleur Booth
On-site, or off-site, site name and location	On-site, Leno adjacent to Elm Collages, Hook Lane	Survey date and Surveyor name	25/09/10; Fleur Booth
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU 93120 04808	Habitat parcel reference	N/A
2005 Criteria - must be assessed for all urban habitat types:			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No	100% of area is derelict land
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Yes	Minimal, colonising plants within habitat
C	Invasive non-native plant species (listed on Schedule 9 of WCA ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area. Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	No	Bioweed present across area
Additional Criteria - must be assessed for Open mosaic habitat on previously developed land only:			
D	The parcel shows spatial variation and forms a mosaic of bare substrate PLUS: - At least four early successional communities (a) to (f); Communities: (a) annuals; (b) mosses/lichenworks; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools.		
Additional Criteria - must be assessed for Bioswale and SuDS habitat types only:			
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife.		
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.		
Additional Criteria - must be assessed for intensive green roofs only:			
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).		
Additional Criteria - must be assessed for Biodiverse green roofs only:			
G	The roof has a varied depth of 80 - 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. Note - to achieve Good condition some additional habitat, such as sand piles, stones, logs etc. are present.		
		No	
		1	
Results for habitats (including assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):			
	<ul style="list-style-type: none"> Passes all 3 core criteria; AND Meets the requirements for Good condition within criterion C. 	Good (3)	
	<ul style="list-style-type: none"> Passes 2 of 3 core criteria; OR Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C. 	Moderate (2)	
	<ul style="list-style-type: none"> Passes 0 or 1 of 3 core criteria. 	Poor (1)	X
Results for Green roofs and Open mosaic habitat on previously developed land (requiring assessment of 4 criteria only - core criteria plus additional criteria specified for habitat type):			
	<ul style="list-style-type: none"> Passes all 3 core criteria; AND Meets the requirements for Good condition within criterion C; AND Passes additional criterion relevant to specific habitat type (D, F or G). 	Good (3)	
	<ul style="list-style-type: none"> Passes 2 or 3 of 4 criteria; OR Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C. 	Moderate (2)	
	<ul style="list-style-type: none"> Passes 0 or 1 of 4 criteria. 	Poor (1)	
Results for Bioswale or SuDS (requiring assessment of 5 criteria - core criteria plus additional criteria specified for habitat type):			
	<ul style="list-style-type: none"> Passes all 3 core criteria; AND Meets the requirements for Good condition within criterion C; AND Passes all additional criteria relevant to specific habitat type (Group E) 	Good (3)	
	<ul style="list-style-type: none"> Passes 3 or 4 of 5 criteria; OR Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C. 	Moderate (2)	
	<ul style="list-style-type: none"> Passes 2 or fewer of 5 criteria. 	Poor (1)	

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
Grassland - Modified grassland			
On-site or off-site, site name and location	One-site; Land adjacent to Elm Cottages, Hook Lane	Survey date and Surveyor name	25/09/2024; Fleur Booth
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU 93126 04808	Habitat parcel reference	N/A
Baseline area of grassland			
UK Habitat Classification			
Condition Assessment Criteria		Criteria - Passed / Failed	Criteria - Passes / Fails / Observed
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	N	Average of 4 species present across three quadrants
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	Sward height is continuous
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	Scrub is less than 20%
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	Areas of erosion, from machinery
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	Y	Areas of bare ground are c. 1%
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y	None present
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Y	None observed
Essential Criteria		N	
Number of Criteria passed		4	
Condition Assessment Result (total 7 criteria)	Condition Assessment Score	Score Achieved / 7	
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)	X	
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 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 rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.</i>			
Habitat Description			
5no. Existing Trees			
Individual trees (description applied to the urban or rural environment): Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.			
Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only): Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.			
On-site or off-site, site name and location	On-site; Land adjacent to Elm Cottages, Hook Lane	Survey date and Surveyor name	25/10/2024; Fleur Booth
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU 93126 04808	Habitat parcel reference	N/A
Condition Assessment Criteria		Criteria 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).	Yes	All are native
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).	Yes	Automatic pass
C	The tree is mature (or more than 50% within the block are mature) ¹ .	Yes	3no. Trees are mature
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.	No	Trees are managed, and pruned
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Yes	Trees are covered in bindweed and ivy
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	Planted in vegetated areas
Number of criteria passed		5	
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved (/ /)	
Passes 5 or 6 criteria	Good (3)	X	
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.			
Suggested enhancement interventions to improve condition score			

Condition Sheet: LINE OF TREES Habitat Type			
Habitat Types			
Line of trees Line of trees – associated with bank or ditch Ecologically valuable line of trees Ecologically valuable line of trees – associated with bank or ditch			
<i>Please see the separate Individual trees condition sheet for linear blocks and groups of trees in an <u>urban</u> setting. You should only use this Line of trees condition assessment and record this habitat type in <u>rural</u> locations.</i>			
Habitat Description			
Existing line of trees			
See the Statutory Biodiversity Metric User Guide. This assessment is based on the Hedgerow Survey Handbook ¹ . For further clarifications please refer to the Handbook. Where ancient and veteran trees are present within the line of trees, see Footnote 2 for standing advice.			
On-site or off-site, site name and location	On-site; land adjacent to Elm Cottages, Hook Lane	Survey date and Surveyor name	25/09/2024; Fleur Booth
Limitations (if applicable)	N/A	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU 93126 04808	Habitat parcel reference	N/A
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	At least 70% of trees are native species.	Yes	Majority are native
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.	Yes	Minimal gaps observed
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.	Yes	Majority of trees within this line are covered in ivy
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 .	No	Less than 6m
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.	Yes	No adverse impact observed
Number of criteria passed			4
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ✓/✗	
Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)	X	
Passes 2 or fewer criteria	Poor (1)		
Suggested enhancement interventions to improve condition score			
Footnotes			