

Biodiversity Net Gain (BNG): Assessment

Site: 77 Marlborough Road, Lancing Business Park
Lancing, BN15 8UF

Ref: 451773 / SJ2

Client: Industrial IT Systems



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Revision	Description	Date
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EXECUTIVE SUMMARY

Gradwell Group was commissioned by Industrial IT Systems to undertake a Biodiversity Net Gain Assessment (BNG) of 77 Marlborough Road, Lancing Business Park, Lancing, BN15 8UF. Planning permission is to be sought from Adur District Council for the demolition of an existing warehouse building and the erection of a new multi-storey facility including office, meeting and warehouse space.

The survey area encompasses approximately 0.09 hectares and includes developed land; sealed surfaces, buildings, modified grassland, bare ground and urban trees. The site is located in Lancing Business Park, Lancing, a large coastal village and civil parish in the Adur district of West Sussex, England, on the western edge of the Adur Valley. The site sits surrounding commercial development and warehouses, the wider landscape comprises of Brooklands Park and Lake, recreations areas, residential development and arable and pasture fields. The site has ecological limited connectivity to the surrounding landscape.

The Biodiversity Net Gain (BNG) assessment was completed using the 'Statutory Biodiversity Metric' (Natural England, 2024). The recommendations are based on the site's current conditions as observed during the survey and based on the proposed site plan.

The baseline biodiversity value of the site is calculated at 0.08 habitat units and 0.00 hedgerow units. Post-development, the site is also expected to deliver 0.05 habitat units and 0.00 hedgerow units, resulting in a net loss of -39.15% for habitat units and n/a for hedgerow units (due to zero baseline). The current proposals fail the trading rules of the DEFRA metric (Natural England, 2024).

The full calculation summary can be found in Appendix 2, and the metric will be submitted with the planning application for full review by the Local Planning Authority. Amendments to the report and calculations must be made in the event of any design changes.

This report has been prepared by a suitably qualified and experienced ecologist. The results and recommendations presented reflect the professional opinion of the author, based on information supplied by the client, details of the proposed development, and the findings of the desk study and field survey work.

REPORT INFORMATION

Site Address	77 Marlborough Road, Lancing Business Park, Lancing, BN15 8UF
Central Grid Reference	TQ 17718 03620
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1) INTRODUCTION

Gradwell Group was commissioned by Industrial IT Systems to undertake a Biodiversity Net Gain Assessment (BNG) of 77 Marlborough Road, Lancing Business Park, Lancing, BN15 8UF. Planning permission is to be sought from Adur District Council for the demolition of an existing warehouse building and the erection of a new multi-storey facility including office, meeting and warehouse space.

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Figure 1: Proposed Site Plan

2) AIMS AND METHODOLOGY

The purpose and aims of the assessment were to:

- Establish the baseline biodiversity value of the habitats on site according to preliminary survey information to calculate a pre-development value.
- Establish the post-development value of the habitats on the site according to development plans to calculate a post-development value.
- Identify the requirement for further survey / assessment work, mitigation, compensation and / or assessment where necessary and propose solutions to meeting BNG targets.

Good Practice Principles

Biodiversity net gain has been defined as ‘development that leaves biodiversity in a better state than before, and an approach where developers work with local governments, wildlife grounds, landowners and other stakeholders in order to support their priorities for nature conservation (Baker, 2016). Good practice principles for developments should be applied to a development where possible including:

- Applying the mitigation hierarchy and being additional by achieving outcomes that exceed existing obligations.
- Avoiding biodiversity loss which cannot be offset elsewhere (e.g., irreplaceable habitats).
- Quantifying risk appropriately – e.g., is there a difficulty creating or enhancing specific habitats according to the site?
- Making a measurable net gain contribution that is calculated using appropriate metric and ensuring that the calculation are consistent and transparent with limitations and assumptions clearly identified.
- Ensure that the net gain design achieves the best outcome for biodiversity – this may require quantitative and qualitative assessment – and create a net gain legacy for long-term benefits.

Methodology

The BNG calculation tool used for this assessment is the ‘Statutory Biodiversity Metric’ (SBC) published in July 2024 by Natural England (Natural England, 2024). This tool objec-

tively calculates the biodiversity losses and gains for habitats in relation to the proposed development. The SBC requires all habitat data to be categorised according to the UK Habitat Classification (Butcher et al., 2020) and this was most recently completed in August 2024.

All condition assessments were carried out at suitable times of the year. The habitats were then mapped into a digital map using QGIS coordinate reference systems OSGB 1936/National Grid and a baseline habitat map can be viewed in Appendix 1. Habitats recorded on site were measured using the derived areas (Ellipsoidal – EPSG 7001) with habitat areas provided in hectares and hedgerow areas provided in kilometres.

The type and condition of the habitats were assessed during the site survey. The distinctiveness of the habitats is pre-defined by the SBC. The following plans, policies and/or strategies were also viewed to determine whether the habitat has formally been identified in a strategy, and UK Biodiversity Action Plans and Green Infrastructure Strategies. All calculations were inserted into the BNG calculator using the technical data.

Trading Summaries

The term trading up is a concept which requires conserving through offset components of biodiversity that are of a higher conservation priority (for example, they tend to be more irreplaceable and vulnerable and are harder to recreate) than those affected by the development project for which the offset is envisaged. For example, should non-irreplaceable habitats be lost or impacted as a result of the proposed development, it will be necessary to create or enhance habitats that are of the same or higher distinctiveness.

Assessment Limitations and Assumptions

A small number of limitations were noted but it is considered that an accurate assessment of the site's ecological value has been obtained:

- BNG assessments and calculations can only provide a proxy measure for the real long-term biodiversity changes that occur on any given site.
- The assessment does not give credit, in terms of a score / biodiversity units, to any actions that are taken as part of the development that add features to the site such as bird and bat boxes which support certain species groups. Such measures are beyond the scope of this report.

Report Lifespan

Given the transient nature of the subject, the survey results are considered valid for up to 18 months.

3) SURVEY RESULTS AND EVALUATION

Site Habitat Baseline

The survey area encompasses approximately 0.09 hectares and includes developed land; sealed surfaces, buildings, modified grassland, bare ground and urban trees. A plan of the existing habitats can be viewed in Appendix 1 and the condition assessments for these habitats are provided in Appendix 4, where applicable.

The baseline value of the site is 0.08 habitat units and 0.00 hedgerow units.

Table 1. Baseline Habitats and Corresponding Information. *Numbers are based on rounded figures, check the associated metric calculator for more information.

AREA BASED HABITATS			
HABITAT	AREA (HA)	DESCRIPTION (DISTINCTIVENESS, CONDITION, CONNECTIVITY, AND STRATEGIC SIGNIFICANCE)	VALUE (UNITS)
Developed land; sealed surface	0.0823	Very Low distinctiveness, condition assessment not required. Low Strategic Significance. Area/compensation not in local strategy/ no local strategy.	0.00
Modified grassland	0.0119	Low distinctiveness, habitat was assessed as achieving a poor condition. Low Strategic Significance. Area/compensation not in local strategy/ no local strategy.	0.02
Urban tree	0.0122	Medium distinctiveness, habitat was assessed as achieving a poor condition. Low Strategic Significance. Area/compensation not in local strategy/ no local strategy.	0.05
TOTAL AREA (HA)	0.10 (ex trees)	TOTAL BASELINE VALUE (HABITAT UNITS)	0.08

Site Proposed

The post-development habitats and corresponding future values are set out in the proposed habitat map (see Appendix 2). The condition assessments for the future habitats are provided in Appendix 3, where applicable.

The Biodiversity Net Gain (BNG) assessment was completed using the 'Statutory Biodiversity Metric' (Natural England, 2024). The recommendations are based on the site's current conditions as observed during the survey and based on the proposed site plan.

Table 2. Future Baseline and Corresponding Habitats.

AREA BASED HABITATS (RETAINED)			
HABITAT	AREA (HA)	DESCRIPTION (DISTINCTIVENESS, CONDITION, CONNECTIVITY, AND STRATEGIC SIGNIFICANCE)	VALUE (UNITS)
Urban tree	0.0122	Medium distinctiveness, habitat was assessed as achieving a poor condition. Low Strategic Significance. Area/compensation not in local strategy/ no local strategy.	0.05
TOTAL AREA (HA)	0.01	TOTAL BASELINE VALUE (HABITAT UNITS)	0.05

AREA BASED HABITATS (PROPOSED)			
HABITAT	AREA (HA)	DESCRIPTION (DISTINCTIVENESS, CONDITION, CONNECTIVITY, AND STRATEGIC SIGNIFICANCE)	VALUE (UNITS)
Developed land; sealed surface	0.0980	Very Low distinctiveness, condition assessment not required. Low Strategic Significance. Area/compensation not in local strategy/ no local strategy.	0.00
TOTAL AREA (HA)	0.10	TOTAL PROPOSEDVALUE (HABITAT UNITS)	0.00

Habitat Trading Requirements

The site fails the habitat trading requirements to provide the “same broad habitat or higher distinctiveness habitat” required by the trading standards of the SBC (Natural England, 2023) due to the loss of Grassland - Modified grassland and Bare Ground.

Assessment Results

	HABITAT VALUE	HEDGEROW VALUE
BASELINE VALUE	0.08	0.00
FUTURE VALUE	0.05	0.00
TOTAL NET % CHANGE	-39.15%	n/a
TRADING RULES	NOT PASSED	

4) RECOMMENDATIONS AND CONCLUSIONS

Gradwell Group was commissioned by Industrial IT Systems to undertake a Biodiversity Net Gain Assessment (BNG) of 77 Marlborough Road, Lancing Business Park, Lancing, BN15 8UF. Planning permission is to be sought from Adur District Council for the demolition of an existing warehouse building and the erection of a new multi-storey facility including office, meeting and warehouse space.

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Due to the nature of the development, it is unlikely that proposed habitats can be achieved secured as part of the scheme; therefore, alternative options such as the purchase of biodiversity units or engagement with a suitable offsetting provider should be explored to achieve compliance with the 10% BNG requirement.

The full calculation summary can be found in Appendix 2, and the metric will be submitted with the planning application for full review by the Local Planning Authority. Amendments to the report and calculations must be made in the event of any design changes.

This report has been prepared by a suitably qualified and experienced ecologist. The results and recommendations presented reflect the professional opinion of the author, based on information supplied by the client, details of the proposed development, and the findings of the desk study and field survey work.

5) BIBLIOGRAPHY

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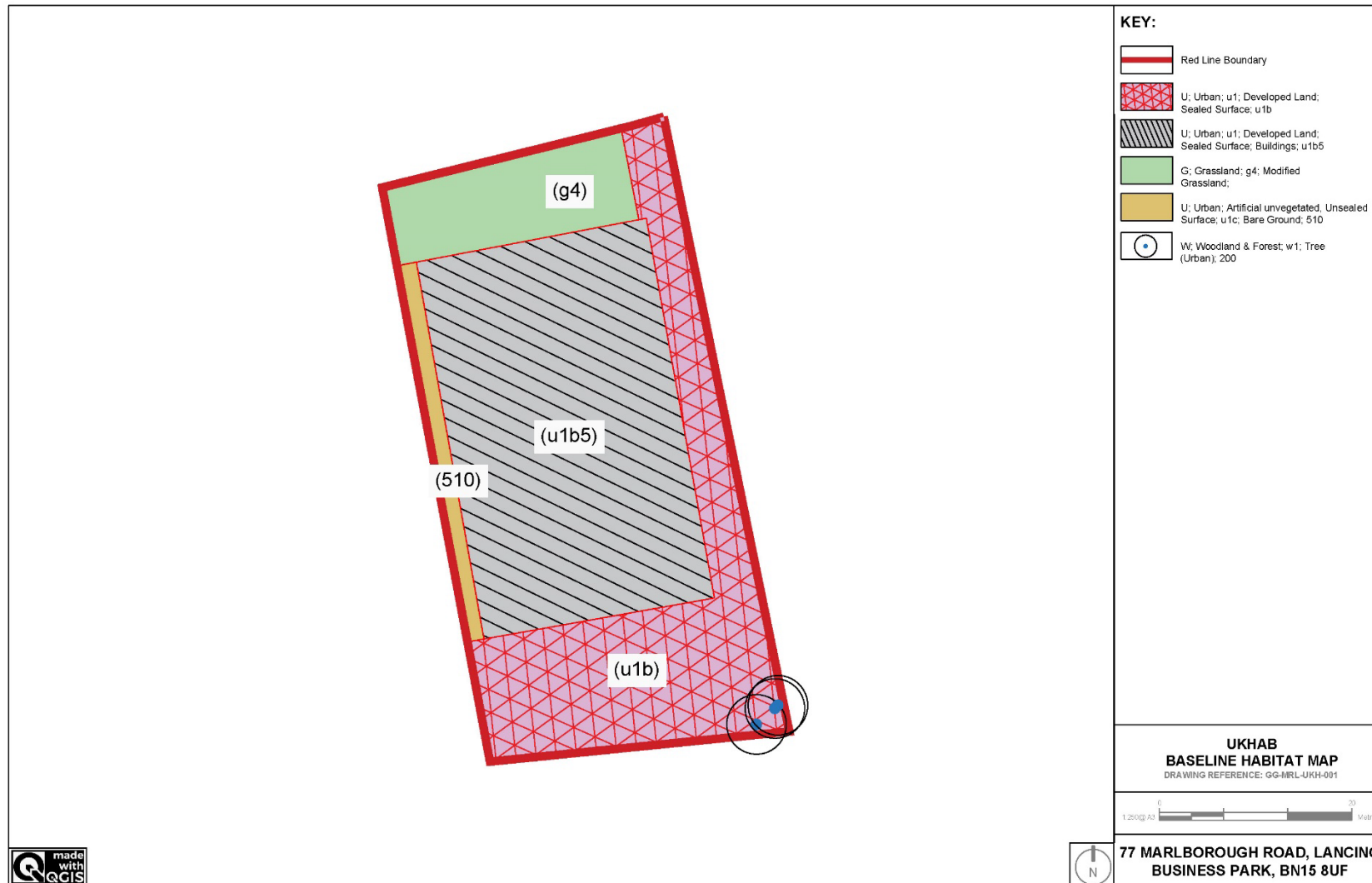
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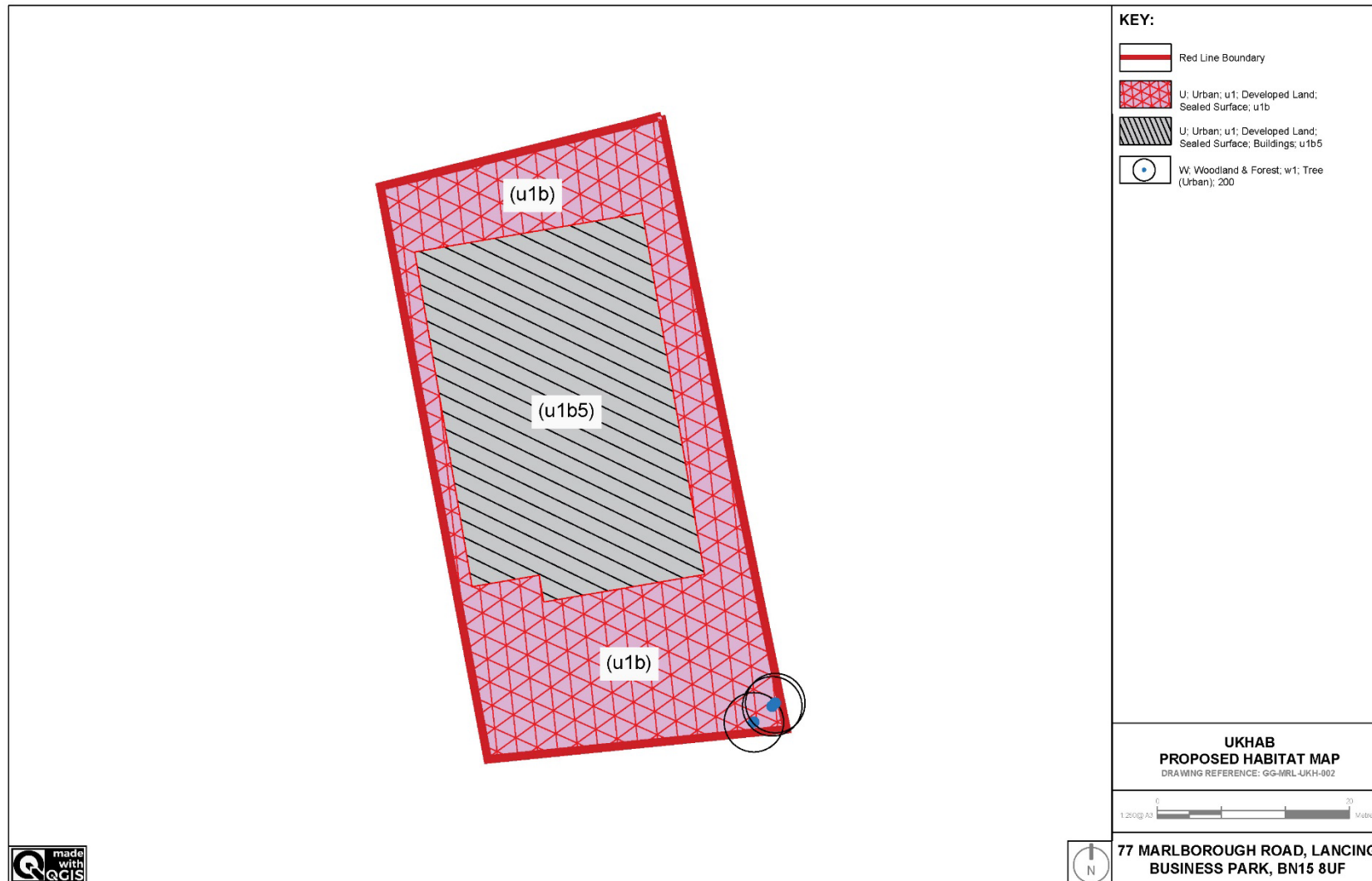
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APPENDIX 1 – BASELINE HABITAT MAP



APPENDIX 2 – PROPOSED HABITAT MAP



APPENDIX 3 – BIODIVERSITY NET GAIN CALCULATION SUMMARY

77 Marlborough Road

Headline Results

Scroll down for final results ▲

Return to results menu

On-site baseline	Area habitat units	0.08	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.05	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site net change (units & percentage)	Area habitat units	-0.03	-39.15%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Off-site baseline	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Area habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-0.03	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Area 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)	Area habitat units	-0.03	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-39.15%	Total net gain achieved is less than target set ▲
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Area habitat units	10.00%	0.08	0.09	0.04	
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

APPENDIX 4 – CONDITION ASSESSMENTS FOR BASELINE/PROPOSED HABITATS

Baseline Habitats

Habitats that do not have a condition Assessment:

- U; Urban; u1; Developed Land; Sealed Surface; u1b
- U; Urban; u1; Developed Land; Sealed Surface; Buildings; u1b5

Individual Trees (Urban)

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).	N
C	The tree is mature (or more than 50% within the block are mature).	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.	N
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.	N
Final Condition Score: Passes 2 or fewer criteria = Poor Passes 3 or 4 criteria = Moderate Passes 5 or 6 criteria = Good		Poor

Modified Grassland

Condition Assessment Criteria	Criterion passed (Yes or No)
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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. <i>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.</i>	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). <i>Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.</i>	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).	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 (as listed on Schedule 9 of WCA4).	Y
Final Condition Score: Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A) = Poor Passes 4 or 5 criteria including passing essential criterion A = Moderate Passes 6 or 7 criteria including passing essential criterion A = Good		Poor

Proposed Habitats

Habitats that do not have a condition Assessment:

- U; Urban; u1; Developed Land; Sealed Surface; u1b
- U; Urban; u1; Developed Land; Sealed Surface; Buildings; u1b5

END OF REPORT

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