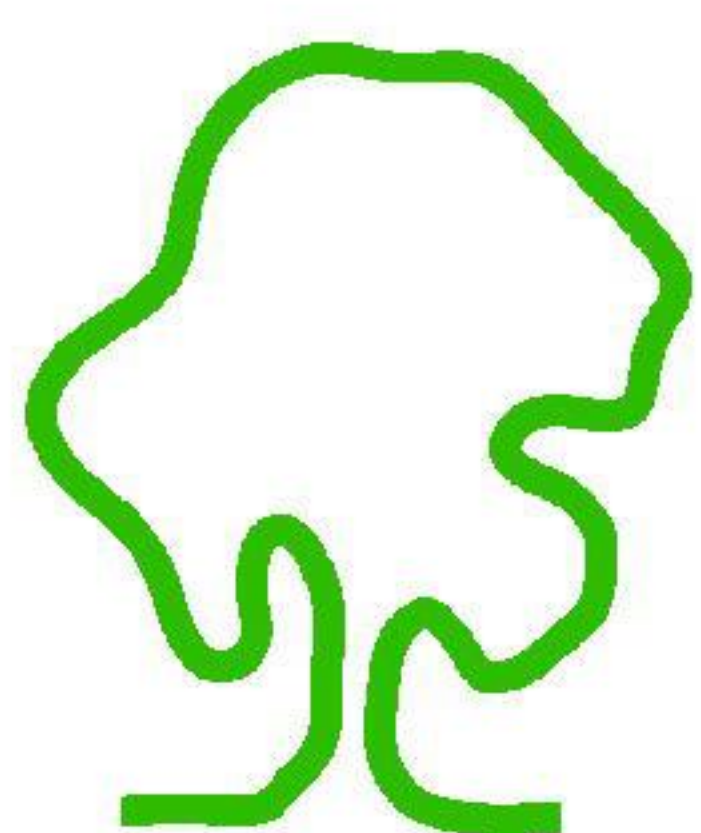


EMMETT EDWARDS

LOWER LAINES FARM, CUCKFIELD, RH17 5AA

Biodiversity Net Gain Assessment

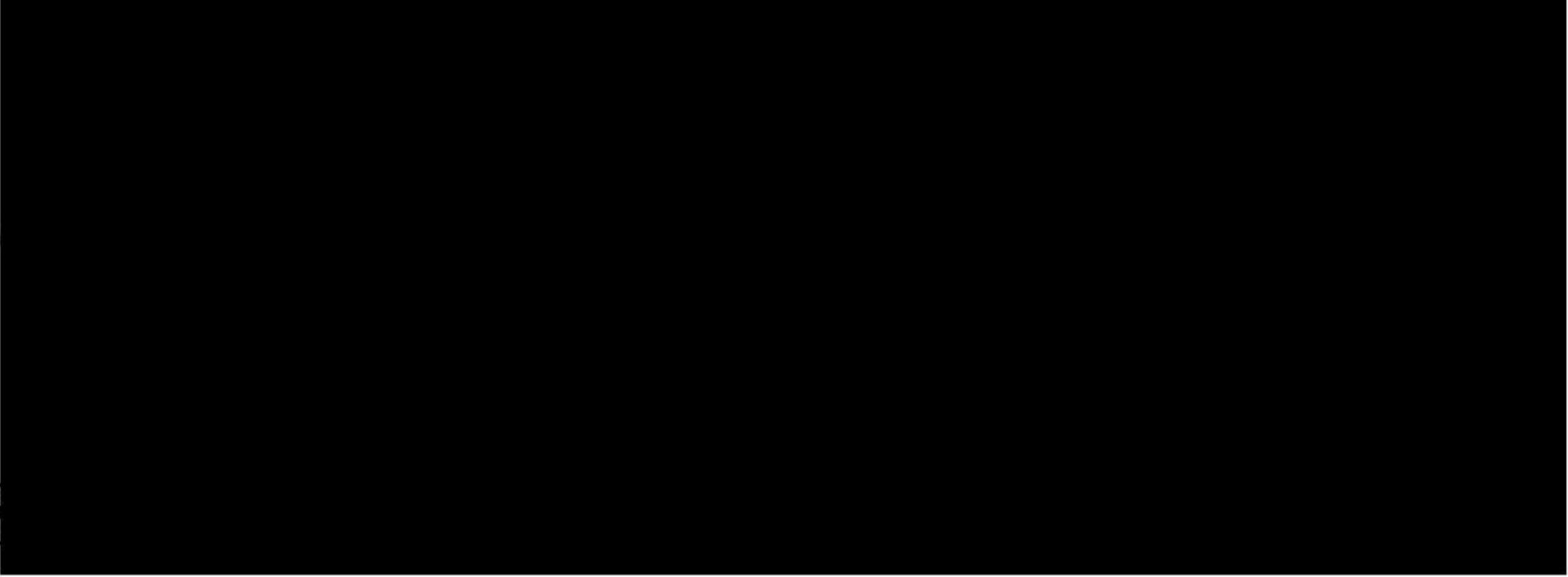
July 2025



eas ltd

Environmental Assessment Services Ltd

REPORT DATA SHEET

Requirement	Data
Report Reference	820/GB/EEwards/LowerLainesFarm/BNG
Date	July 2025
Client	Mr Emmett Edwards
Report type	Biodiversity Net Gain
Purpose	Supporting Information
Revisions	N/A
Prepared by	Lucy Monday BSc (Hons), ACIEEM 
Approved by	Eur Ing Malcolm McKemey BSc (Hons), CEng, CEnv, MICE, MIEAust, MCIWEM, MIEnvSc 

EMMETT EDWARDS

LOWER LAINES FARM, CUCKFIELD, WEST SUSSEX RH17 5AA

Biodiversity Net Gain

July 2025

- 1. BACKGROUND & METHOD
- 2. HABITAT ASSESSMENT
 - 2.1 Existing Habitats
 - 2.2 Existing Linear Features
 - 2.3 Proposed Habitats
 - 2.4 Proposed Linear Features
- 3. RESULTS
 - 3.1 Site as Existing
 - 3.2 Site as Proposed
 - 3.3 Biodiversity Unit Calculations
 - 3.4 Trading Summaries
 - 3.5 Ecological Functionality
 - 3.6 Achieving Biodiversity Net Gain
- 4. MANAGEMENT AND MONITORING
- 5. CONCLUSIONS

TABLES:

- Table 1: Habitats as Existing (Baseline)
- Table 2: Habitats as Proposed (Planned)
- Table 3: Habitat Unit Change Summary

APPENDIX A: Baseline Habitat Map
Proposed Habitat Map

APPENDIX B: Condition Sheets

EMMETT EDWARDS

LOWER LAINES FARM, CUCKFIELD, WEST SUSSEX RH17 5AA

Biodiversity Net Gain

July 2025

1. BACKGROUND & METHOD

- 1.1 Environmental Assessment Services Ltd have been appointed to carry out a Biodiversity Net Gain (BNG) assessment for submission to Mid Sussex District Council in regard to the proposed installation of 40No. solar PV panels and associated cabling and batteries at Lower Laines Farm, in Cuckfield, West Sussex.
- 1.2 The site (as existing) comprises the northeast corner of a field historically used for mixed (non-cereal) crops and later for agricultural storage, together with the site access track and farm buildings, one of which is to be used to house the batteries.
- 1.3 This assessment has been prepared generally in accordance with the CIEEM EcIA guidelines, as applicable, as recognised by the British Standard on Biodiversity BS42020:2013, The Statutory Biodiversity Metric Users Guide (Defra Feb 2024) and The UK Habitat Classification (Version 2).
- 1.4 The BNG assessment was undertaken as follows:
 - a) Review of the existing and proposed mapping prepared for the site.
 - b) Condition assessment of habitat and linear features using the Biodiversity Metric Condition Sheets, where appropriate, during a site visit undertaken on 3 July 2025.
 - c) Calculation of Biodiversity Units for pre- and post-development scenarios, following Defra's Statutory Biodiversity Metric User Guide.
 - d) Determination of strategic significance of the site through review of the Local Plans (Local Nature Recovery Strategy, or other specified alternative documents) and statutory and non-statutory sites (EA Magic Map).

2. HABITAT ASSESSMENT

The existing habitats are identified on the Baseline (As Existing) Habitat Map provided in Appendix A. A more detailed description of these habitats, as observed, is provided as follows.

2.1 Existing Habitats

2.1.1 Developed Land: Sealed Surface (u1b)

Developed land is defined as: *Soil surface sealed with impervious material as a result of urban development and infrastructure construction.*

The site, as existing, includes a yard area and buildings set to the north of the site access track. The buildings and sealed yard area have combined area of 835.64 m² (0.083564 ha). This excludes the track which extends east-west between the field and the buildings on site, which is unsealed surface. See section 2.1.2 below.

This habitat is not allocated a condition type and is recorded within the metric as Condition: N/A – Other.

2.1.2 Artificial Unvegetated – Unsealed Surface (u1c)

Artificial Unvegetated - Unsealed Surface is described as: *Land that has no or very low (<10%) cover of vegetation through direct or indirect human activities, and the soil surface is not sealed with impervious materials. Inclusions: Unsealed surfaces with vegetation cover <10% and tracks that are mappable as area features with vegetation cover <10%.*

The track which extends east-west between the field and the buildings has been reinforced but is not sealed surface. The track, which is free from vegetation, is the width of a vehicle and mappable as a habitat with an area of 240.57 m² (0.024057 ha).

This habitat is not allocated a condition type and is recorded within the metric as Condition: N/A – Other.

2.1.3 Modified Grassland

Modified grassland is defined as: *Species-poor vegetation (<9 species per m²) dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye grasses (*Lolium* spp.) and white clover (*Trifolium repens*). Most broadleaved species present will be associated with high fertility.*

The grassland within the site has established on fertile soils on land that has, in the past, been used for non-cereal crops and more recently for agricultural storage. Plant cover within the grassland is dominated by fast growing herbaceous species including white clover (dominant), creeping thistle, creeping buttercup, dock, also including those common on disturbed and damaged soils (silverweed, mayweed, scarlet pimpernel and redshank). For full species list refer to the PEA, July 2025.

The total area of grassland included within the redline boundary of the site is 531.90 m² (0.05319 ha).

The condition of the grassland is 'good' according to the Metric condition sheet completed during the field survey in July 2025 (optimum season). See Appendix B.

2.1.4 Vegetated Garden

Vegetated garden is defined as: *Garden that is principally vegetated, for example with large areas of grass and flower beds.*

There is a patch of transplanted garden planting located within the proposed PV panel installation area within the field. The total area of this vegetated garden planting is 10.57 m² (0.001057 ha). This planting is to be removed as part of the development / installation and replaced with grassland consistent with the side site.

This habitat is not allocated a condition type and is recorded within the metric as Condition: N/A – Other.

2.1.5 Individual Trees

On the northern boundary of the field within the redline boundary of the site are five small conifers and a wild plum. These trees have a stem diameter less than 75 mm at chest height and are therefore excluded from the tree count. There are no trees with a stem diameter greater than 75 mm.

2.2 **Existing Linear Features**

There are five conifers which have been planted in a line along the northern boundary of the site. Given that they are few in number, do not extend along a significant distance and are not linked to a further line of trees, it has been decided to record these as individual trees, rather than a linear feature. These trees are to be retained, as noted in section 2.1.5 above.

2.3 **Proposed Habitats**

This includes all retained and created habitats on site calculated based on the Site Plan - As Proposed (D.PL.003) prepared by Gould Baxter and dated 02/07/2025. The Proposed Habitat Map is provided in Appendix A.

2.3.1 Developed Land; sealed surface (u1b)

The existing area of sealed surface is to be retained in its entirety as existing.

The total post developed area of sealed surface will be 835.64 m² (0.083564 ha).

This habitat is not allocated a condition type and is recorded within the metric as Condition: N/A – Other.

2.3.2 Artificial Unvegetated – Unsealed Surface (u1c)

Artificial Unvegetated - Unsealed Surface is described as: *Land that has no or very low (<10%) cover of vegetation through direct or indirect human activities, and the soil surface is not sealed with impervious materials. Inclusions: Unsealed surfaces with vegetation cover <10% and tracks that are mappable as area features with vegetation cover <10%.*

The track which extends east-west between the field and the buildings has been reinforced but is not sealed surface. This track is the width of a vehicle and mappable as a habitat with an area of 240.57 m² (0.024057 ha).

This habitat is not allocated a condition type and is recorded within the metric as Condition: N/A – Other.

2.3.3 Modified Grassland

The existing grassland within the site is to be retained and expanded to cover the area currently occupied by garden planting.

The total area of grassland within the site post development will be 542.47 m² (0.054247 ha).

The target condition for the small area which is to replace the area of garden planting is ‘good’. The condition of the new grassland is likely to match that of the surrounding grassland quickly and easily.

2.3.4 Individual Trees

The small conifers and the wild plum are to be retained and protected. We understand the conifers were planted by the site owner in 2018. As these trees mature, they will provide additional habitat within the site. These trees have been entered as ‘created habitat’ within the metric with an advance of 7 years.

2.4 **Proposed Linear Features**

There are no proposed linear features within the site as proposed.

3. **RESULTS**

3.1 **Site as Existing**

- 3.1.1 As existing, the site comprises four habitat types together with five individual trees. The area of each habitat type has been calculated, its condition assessed (where indicated) and other factors applied. This information has been inputted into the metric calculator and the habitat units have been calculated. The results are given in Table 1 below.

Table 1: Habitats as Existing (Baseline)

Habitat Type	Size (hectares)	Condition	Units
Developed Land: Sealed Surface	0.083564	N/A	0.0
Artificial Unvegetated Unsealed Surface	0.024057	N/A	0.0
Modified Grassland	0.05319	Good	0.32
Vegetated Garden	0.001057	N/A	0.0
Total	0.161868	-	0.32

3.1.2 As existing, there are no linear features included within the site.

3.2 Site as Proposed

3.2.1 As proposed, the site will retain all but one habitat type, the garden planting deemed inappropriate within the site. This will be replaced with modified grassland with a target condition of ‘good’ to match the surrounding grassland. The area of each habitat type has been calculated, its condition assessed (where indicated) and other factors applied. This information has been inputted into the metric calculator and the habitat units have been calculated. The results are given in Table 2 below.

Table 2: Habitats as Proposed (Planned)

Habitat Type	Size (hectares)	Condition	Units
Developed Land: Sealed Surface (Retained)	0.083564	N/A	0.0
Artificial Unvegetated Unsealed Surface (Retained)	0.024057	N/A	0.0
Modified Grassland (Retained)	0.05319	Good	0.32
Modified Grassland (Created)	0.001057	Good	0.0
Individual trees (Created)	0.0204	Poor	0.07
Total		-	0.40

3.3 Biodiversity Unit Calculations

The change in biodiversity units from the baseline (pre-development) to the proposed is shown in Table 3 below.

Table 3: Habitat Unit Change Summary

Parameter	Habitat Units
Baseline Units	0.32
Onsite post intervention Units	0.40
Onsite net change unit	0.03
Total net change %	23.71%

3.4 Trading Summaries

- 3.4.1 The trading summary indicates the required compensation for the loss of habitats of differing distinctiveness. In this case, the trading summary indicates that the rule for all distinctiveness groups have all been met.

3.5 Ecological Functionality

- 3.5.1 The site, as proposed, should be assessed, alongside the biodiversity net gain assessment, for ecological functionality to ensure the scheme incorporates the most appropriate measures to enhance and preserve biodiversity on site and benefits for the wider area.
- 3.5.2 The proposed development will retain the majority of existing habitats within their current condition, however, a small area of transplanted garden planting will be removed and replaced with modified grassland to match that of the adjacent grassland within the site and wider field in which the site lies. Garden planting within the field is deemed inappropriate to the habitat setting, and likely to offer no significant ecological value.
- 3.5.3 Five conifers were planted along the field boundary by the site owner in 2018. Although it is considered that trees with a greater ecological value within the habitat could have been planted, these trees do add some ecological net gain.

3.6 Achieving Biodiversity Net Gain

- 3.6.1 The site, as proposed, will achieve biodiversity net gain for habitats. No additional habitat or linear feature creation will be required beyond that contained within the plans assessed.

4. MANAGEMENT AND MONITORING

- 4.1 Confirmation should be provided to Mid Sussex District Council to confirm the development/installation has been developed/installed in accordance with the proposed plans used for this assessment. If the proposed plans have been altered, the BNG assessment should be updated and any alteration in BNG delivered, addressed as appropriate.
- 4.2 The new area of grassland planting to replace the area of garden planting should be seeded with a grass/wildflower mix suited to site conditions post installation. This may require a more shade tolerant mix for clay soils. The grassland should continue to be managed as existing to maintain and create the new area of grassland in a 'good' condition.
- 4.3 The conifers planted along the northern boundary of the grassland appear to be established, however, should any fail, it is recommended that they be replaced with native tree planting with known benefits for wildlife.
- 4.4 The targets given are considered achievable with appropriate planting and management. Management of the habitats proposed is not considered onerous and is

unlikely to be failed. No further monitoring of the site is therefore recommended in this case, beyond that of the first installation and establishment of the new grassland. If any planting does fail, the failure should be assessed and new planting and management implemented to ensure success.

5. CONCLUSIONS

- 5.1 The biodiversity net gain assessment has been conducted using the Statutory Biodiversity Metric and associated technical documents and guidance and has utilised *UKHab* definitions. The site was visited on 3 July 2025, during the optimum season for grassland assessment, and all habitats were recorded and an assessment of condition was made where appropriate.
- 5.2 The proposed installation will retain the majority of habitats as existing, with the exception of the removal and replacement of a small area of transplanted garden planting with modified grassland to be delivered in a similar condition to that of the surrounding grassland. The garden planting is deemed inappropriate within the habitat setting. Five conifers were planted along the northern boundary of the field in 2023. These trees are yet to reach maturity, with a stem diameter of less than 75 mm (7.5 cm) and hence have been excluded from the baseline calculation. However, as these trees mature they will offer some ecological net gain which has been included within the metric calculation.
- 5.3 The proposal, as calculated, will result in a gain of 0.08 habitat units (23.71 % net gain). In this case, biodiversity net gain including 10% above baseline has been achieved under the proposed development plans. No additional habitat or linear feature creation or enhancement is required.
- 5.4 The ecological functionality of the site, as proposed, has been assessed alongside a review of the site's strategic importance. While not considered to be strategically important, it is considered that the removal of garden planting and the maturing of tree planting will benefit local wildlife resulting in an improvement in the ecological functionality of the site.
- 5.5 The trading rules have been met for all distinctiveness groups. No further habitat or linear creation will be required.

★ ★ ★ ★ ★ ★ ★

APPENDIX A:
Baseline Habitat Map
Proposed Habitat Map

EMMETT EDWARDS

LOWER LAINES FARM, CUCKFIELD, RH17 5AA

Biodiversity Net Gain

Baseline Habitat Map - July 2025



EMMETT EDWARDS

LOWER LAINES FARM, CUCKFIELD, RH17 5AA

Biodiversity Net Gain

Proposed Habitat Map - July 2025



APPENDIX B:
Condition Sheets

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)

UK Habitat Classification (UKHab) Habitat Type

Grassland - Modified grassland

On-site or off-site, site name and location	Lower Laines farm.	Survey date and Surveyor name	3/7/25 Lucy Monahan.
Limitations (if applicable)	None.	Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	

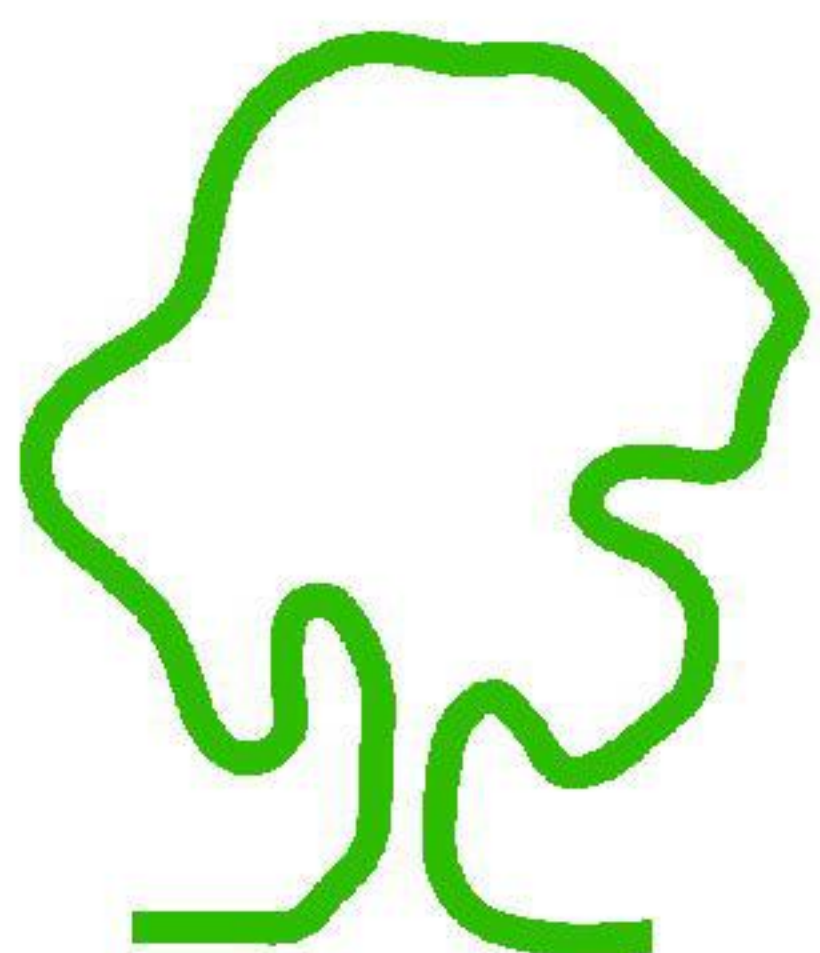
Habitat Description

Disturbed grassland or former non-cereal crop land. Very clover heavy + compaction evidence in herb. plants.

ukhab - UK Habitat Classification

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition.	✓	- Yorkshire fog - Annual mead. gr. - White clover - Silverweed. - Creeping thistle - Creeping buttercup - Dock - Pinfield. + + +
	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.		
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.	✓	Boundary strip of longer grass.
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.	✓	Small area of encroaching bramble Scrub <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.	X	Soil structure damaged.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	✓	
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	✓	None.

G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).		✓	
			Essential criterion achieved (Yes or No)	
			Number of criteria passed	
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/v		
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)			
Suggested enhancement interventions to improve condition score				
Footnotes				
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).				



eas ltd

Environmental Assessment Services Ltd

Unit 4B, The Courtyard, Holmsted Farm, Staplefield Road, Cuckfield,
West Sussex, RH17 5JT

Phone : +44 (0) 1444 882552

email : info@easltd.co.uk

web site : www.easltd.co.uk